

MARIN COUNTY
EMERGENCY MEDICAL SERVICES AGENCY
ANNUAL STATISTICS
2008



TABLE OF CONTENTS

REPORTS BASED ON COMMUNICAITONS CENTERCAD DATA

Type of Incident Report.....	1
Service Area A Code Compliance Report	2
Service Area B Code Compliance Report	3
Service Area C Code Compliance Report	4
Service Area D Code Compliance Report	5
Service Area E Code Compliance Report (Rural)	6
Service Area E Code Compliance Report (Urban)	7
Hourly Call Volume Report	8
Incidents by Day of Week Report	9
Incident Dispatches by Service Area by Month Report.....	10
Missing Patient Care Report.....	11

REPORTS BASED ON PATIENT CARE INFORMATION ENTERED IN EPCIS

Average Time at Scene Report.....	12
BLS Procedures Report	13
ALS Procedures Report.....	14
Successful Procedures Report	15
Transport (ALS/BLS/Dry Run) Report	16
Receiving Hospital Report	17
Receiving Hospital by Transport Provider	18
Medical Patients – Grouped by Receiving Hospital	19
Medical Patients – Grouped by Protocol	20
Medical Patients – Grouped by Provider Agency.....	23
Medical Patients – Grouped by Age.....	24
Medical, Injury and Trauma Transported – Grouped by Age.....	25
Traumatic Protocols Report.....	26
Transported Medical vs Trauma & Injury by Age Group	27
Injury and Trauma – Grouped by Age.....	28
Injury and Trauma – Grouped by Mechanism of Injury – Age > 65	29
Mechanism of Injury Report.....	30
Injury and Trauma – Grouped by Protocol Followed.....	31
Injury and Trauma – Grouped by Provider Agency	32
Injury and Trauma – Grouped by Receiving Hospital.....	33
Medical vs Trauma (Including Trauma Triage)	34
Protocol Followed by Age Report	35
Mechanism of Injury and Trauma Report	40

Marin County EMS Type of Incident Report

From January 1, 2008 to December 31, 2008

Paramedic Svc Area	AO with One or More Patients to Hospital		No Patient Transport		All Units Cancelled		Total
	Count	Percent	Count	Percent	Count	Percent	
A	2,365	72%	797	24%	127	4%	3,289
B	3,017	62%	1,106	23%	772	16%	4,895
C	2,227	68%	861	26%	189	6%	3,277
D	2,043	62%	1,004	31%	223	7%	3,270
E	507	53%	349	36%	103	11%	959
Other	26	27%	26	27%	43	45%	95
Total	10,185	65%	4,143	26%	1,457	9%	15,785

Prior Year Comparisons	Svc Area	2002	2003	2004	2005	2006	2007
	A	3,144	3,109	3102	3308	3,279	3,314
	B	4,324	4,556	4294	4686	4,864	4,747
	C	3,152	3,026	3105	3222	3,424	3,407
	D	3,018	2,897	2876	3024	3,160	3,103
	E	1,018	961	952	983	944	946
	Other	71	88	60	76	84	126
	Total	14,727	14,637	14,389	15,299	15,755	15,643

Definitions:

Patient Transport	The number of times that an incident resulted in one or more patients going to a hospital. This is NOT a count of patients going to the hospital.
No Patient Transport	The number of times that at least one of the units was not cancelled and there was no unit transporting a patient to the hospital.
All units Cancelled	The number of times that all units dispatched to the scene were cancelled.

Paramedic Service Area A Code 3 Compliance Report

From January 1, 2008 to December 31, 2008

Total ALS Code 3 Incidents within Service Area: 2696

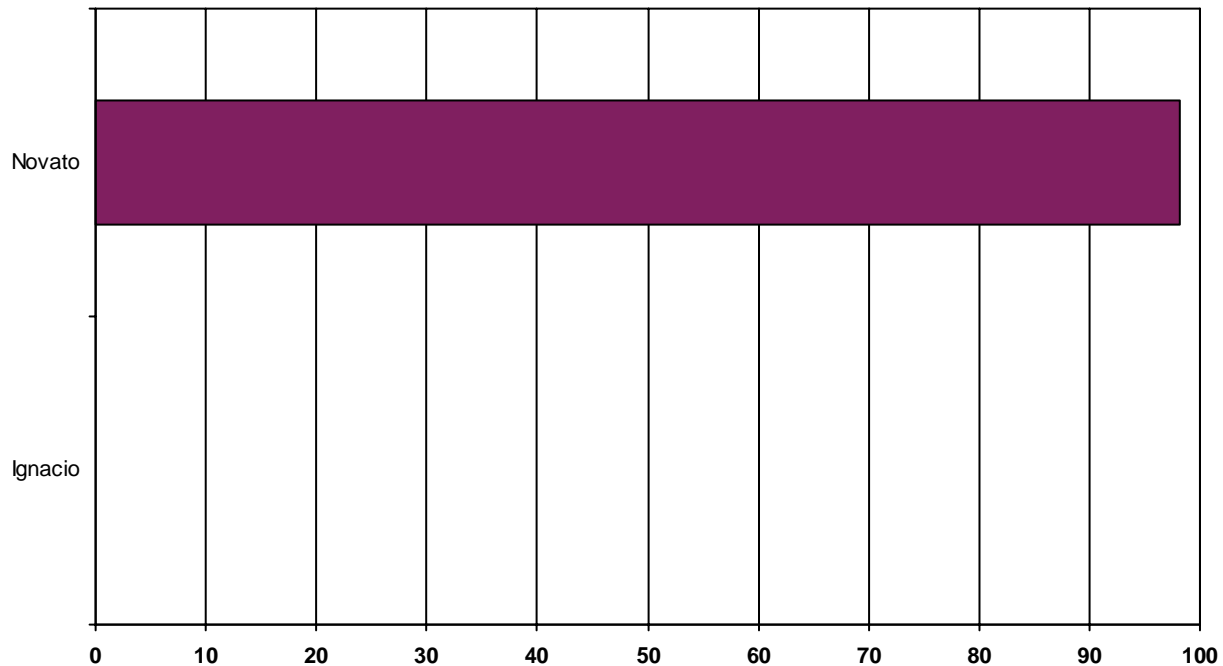
Elapsed Time from Dispatch to Arrive at Scene

Minutes:	0-1	2	3	4	5	6	7	8	9	10	11-20	21-30	> 30
Count:	92	186	425	780	560	289	148	73	58	33	47	3	1
Percent:	3.4%	6.9%	15.8%	28.9%	20.8%	10.7%	5.5%	2.7%	2.2%	1.2%	1.7%	.1%	.0%
Overall %:	3.4%	10.3%	26.1%	55.0%	75.8%	86.5%	92.0%	94.7%	96.8%	98.1%	99.8%	99.9%	100.0%

Service Area A Code 3 Incidents	Total ALS Code 3 Incidents	Exceeded Expected Times	Within Expected Times	Percent Within Expected Times
To Scene Times	2696	51	2645	98.1%

Report by City

Expected time to scene is within 10 minute



City/Area	Number of Code 3 Calls to Scene within Compliance	Number of Code 3 Calls	Percentage of Code 3 Calls to Scene in Compliance
Ignacio	0	1	0%
Novato	2645	2695	98.14%

Note: The report includes dispatches of all provider agencies responding to incidents within Paramedic Service Area A, not just Novato Fire Protection District.

Paramedic Service Area B Code 3 Compliance Report

From January 1, 2008 to December 31, 2008

Total ALS Code 3 Incidents within Service Area: 2988

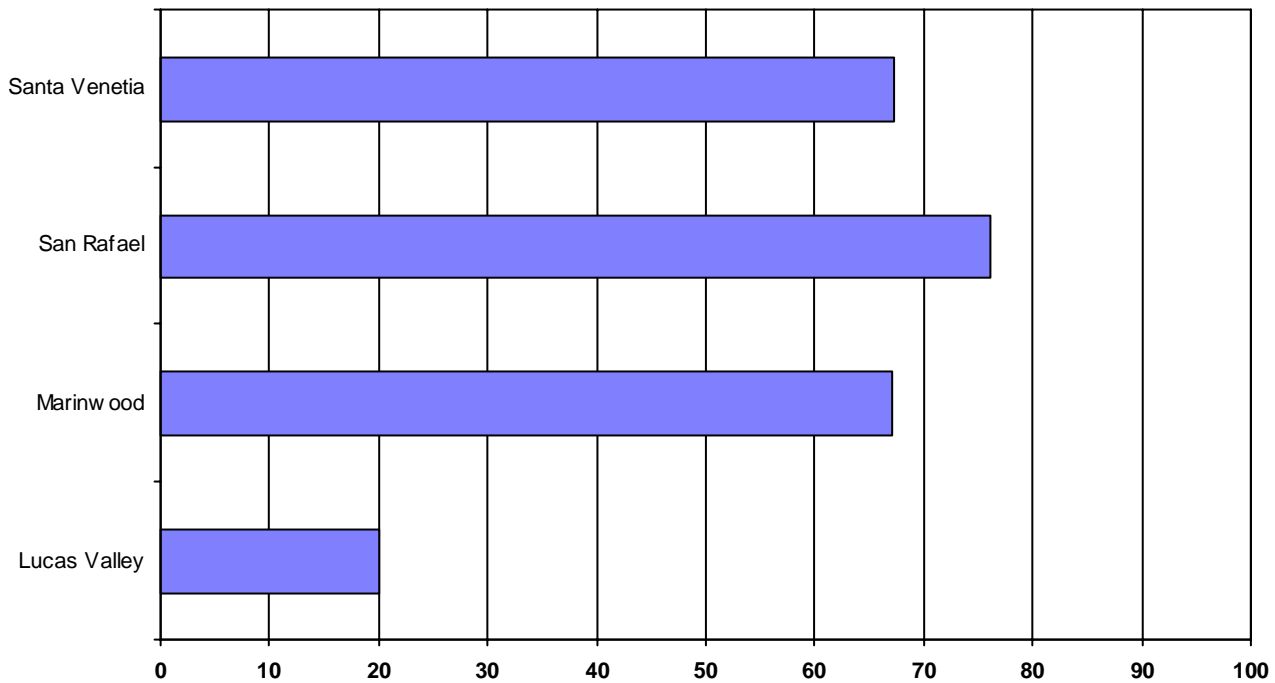
Elapsed Time from Dispatch to Arrive at Scene

Minutes:	0-1	2	3	4	5	6	7	8	9	10	11-20	21-30	> 30
Count:	253	150	202	261	299	286	273	215	182	124	575	122	46
Percent:	8.5%	5.0%	6.8%	8.7%	10.0%	9.6%	9.1%	7.2%	6.1%	4.1%	19.2%	4.1%	1.5%
Overall %:	8.5%	13.5%	20.2%	29.0%	39.0%	48.6%	57.7%	64.9%	71.0%	75.1%	94.4%	98.5%	100.0%

Service Area B Code 3 Incidents	Total ALS Code 3 Incidents	Exceeded Expected Times	Within Expected Times	Percent Within Expected Times
To Scene Times	2988	743	2245	75.13%

Report by City

Expected time to scene is within 10 minute



City/Area	Number of Code 3 Calls to Scene within Compliance	Number of Code 3 Calls	Percentage of Code 3 Calls to Scene in Compliance
Lucas Valley	1	5	19.99%
Marinwood	104	155	67.09%
San Rafael	2029	2663	76.19%
Santa Venetia	111	165	67.27%

Note: Report is based on data from Communications Center, not the primary San Rafael FD dispatch center. The report includes dispatches of all provider agencies responding to incidents within Paramedic Service Area B, not just San Rafael Fire Department.

Paramedic Service Area C Code 3 Compliance Report

From January 1, 2008 to December 31, 2008

Total ALS Code 3 Incidents within Service Area: 2561

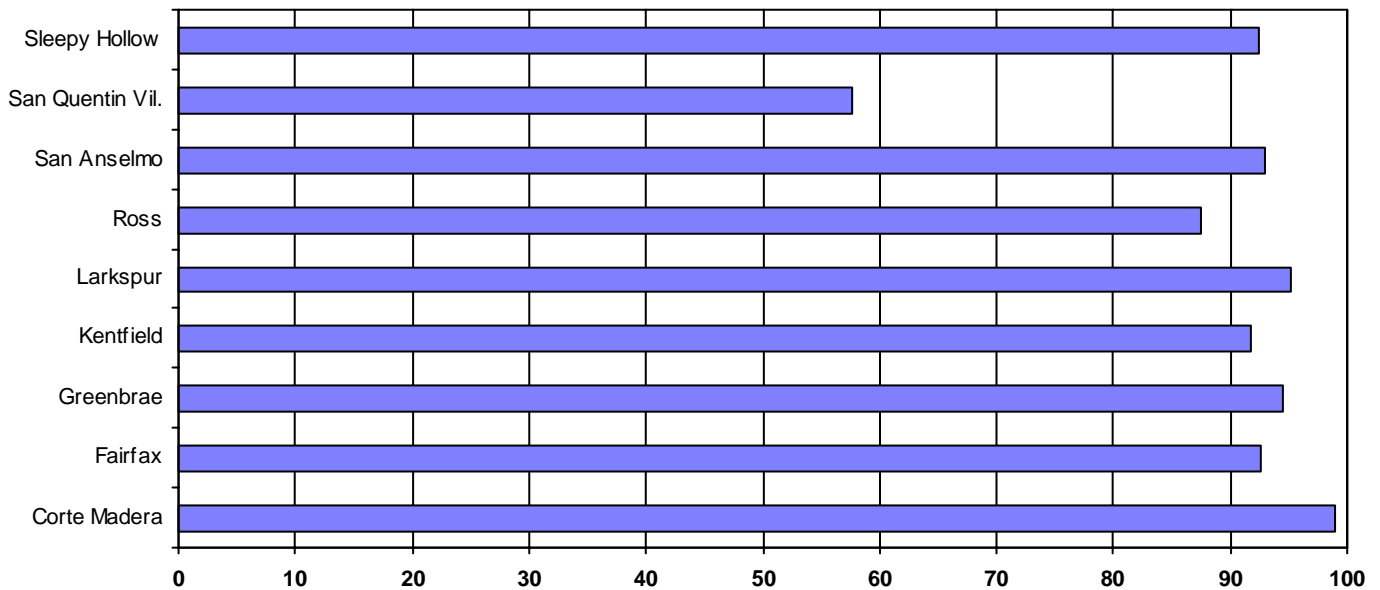
Elapsed Time from Dispatch to Arrive at Scene

Minutes:	0-1	2	3	4	5	6	7	8	9	10	11-20	21-30	> 30
Count:	105	207	415	480	441	295	199	121	77	61	141	12	7
Percent:	4.1%	8.1%	16.2%	18.7%	17.2%	11.5%	7.8%	4.7%	3.0%	2.4%	5.5%	.5%	.3%
Overall %:	4.1%	12.2%	28.4%	47.1%	64.3%	75.9%	83.6%	88.4%	91.4%	93.8%	99.3%	99.7%	100.0%

Service Area C Code 3 Incidents	Total ALS Code 3 Incidents	Exceeded Expected Times	Within Expected Times	Percent Within Expected Times
To Scene Times	2561	160	2401	93.75%

Report by City

Expected time to scene is within 10 minute:



City/Area	Number of Code 3 Calls to Scene within Compliance	Number of Code 3 Calls	Percentage of Code 3 Calls to Scene in Compliance
Corte Madera	509	514	99.02%
Fairfax	341	368	92.66%
Greenbrae	86	91	94.5%
Kentfield	256	279	91.75%
Larkspur	612	643	95.17%
Ross	63	72	87.5%
San Anselmo	442	475	93.05%
San Quentin Vil.	30	52	57.69%
Sleepy Hollow	62	67	92.53%

Note: The report includes dispatches of all provider agencies responding to incidents within Paramedic Service Area C, not just the Ross Valley Paramedic Authority,

Paramedic Service Area D Code 3 Compliance Report

From January 1, 2008 to December 31, 2008

Total ALS Code 3 Incidents within Service Area: 2514

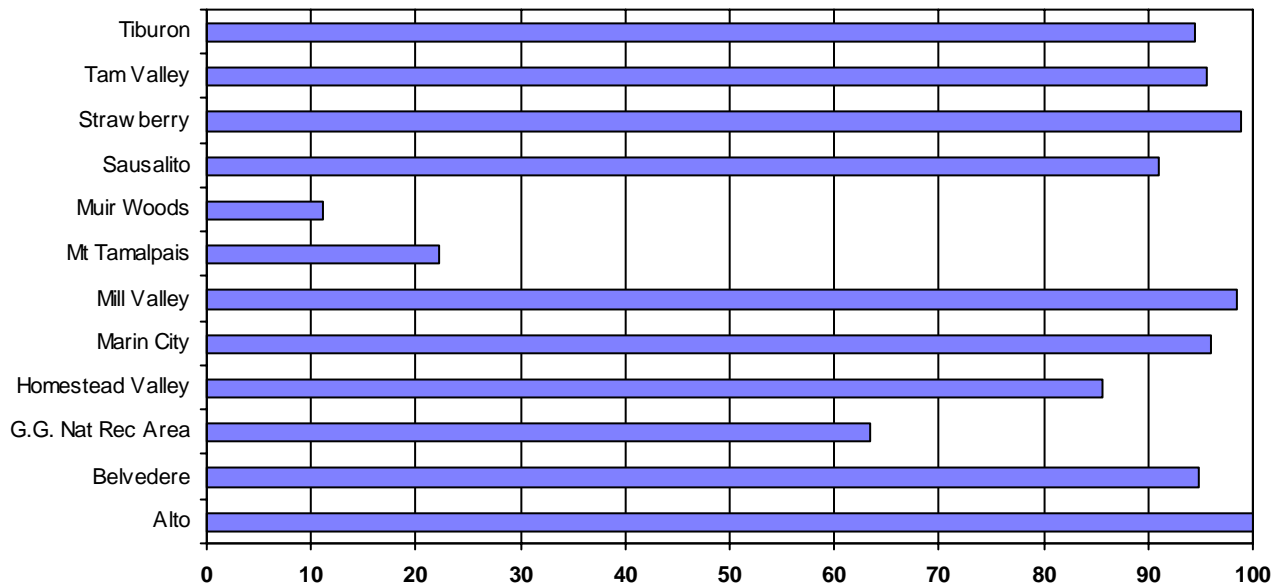
Elapsed Time from Dispatch to Arrive at Scene

Minutes:	0-1	2	3	4	5	6	7	8	9	10	11-20	21-30	> 30
Count:	77	131	282	419	503	387	272	157	75	50	139	16	6
Percent:	3.1%	5.2%	11.2%	16.7%	20.0%	15.4%	10.8%	6.2%	3.0%	2.0%	5.5%	.6%	.2%
Overall %:	3.1%	8.3%	19.5%	36.2%	56.2%	71.6%	82.4%	88.6%	91.6%	93.6%	99.1%	99.8%	100.0%

Service Area D Code 3 Incidents	Total ALS Code 3 Incidents	Exceeded Expected Times	Within Expected Times	Percent Within Expected Times
To Scene Times	2514	161	2353	93.59%

Report by City

Expected time to scene is within 10 minute:



City/Area	Number of Code 3 Calls to Scene within Compliance	Number of Code 3 Calls	Percentage of Code 3 Calls to Scene in Compliance
Alto	30	30	100%
Belvedere	73	77	94.8%
G.G. Nat Rec Area	26	41	63.41%
Homestead Valley	42	49	85.71%
Marin City	244	254	96.06%
Mill Valley	768	780	98.46%
Mt Tamalpais	10	45	22.22%
Muir Woods	1	9	11.11%
Sausalito	351	386	90.93%
Strawberry	185	187	98.93%
Tam Valley	243	254	95.66%
Tiburon	380	402	94.52%

Note: The report includes dispatches of all provider agencies responding to incidents within Paramedic Service Area D, not just the Southern Marin Emergency Medical Paramedic Services (SMEMPS).

Paramedic Service Area E Code 3 Compliance Report

Rural Areas - Compliance is 30 Minutes to the Scene

From January 1, 2008 to December 31, 2008

Total ALS Code 3 Incidents within Service Area: 280

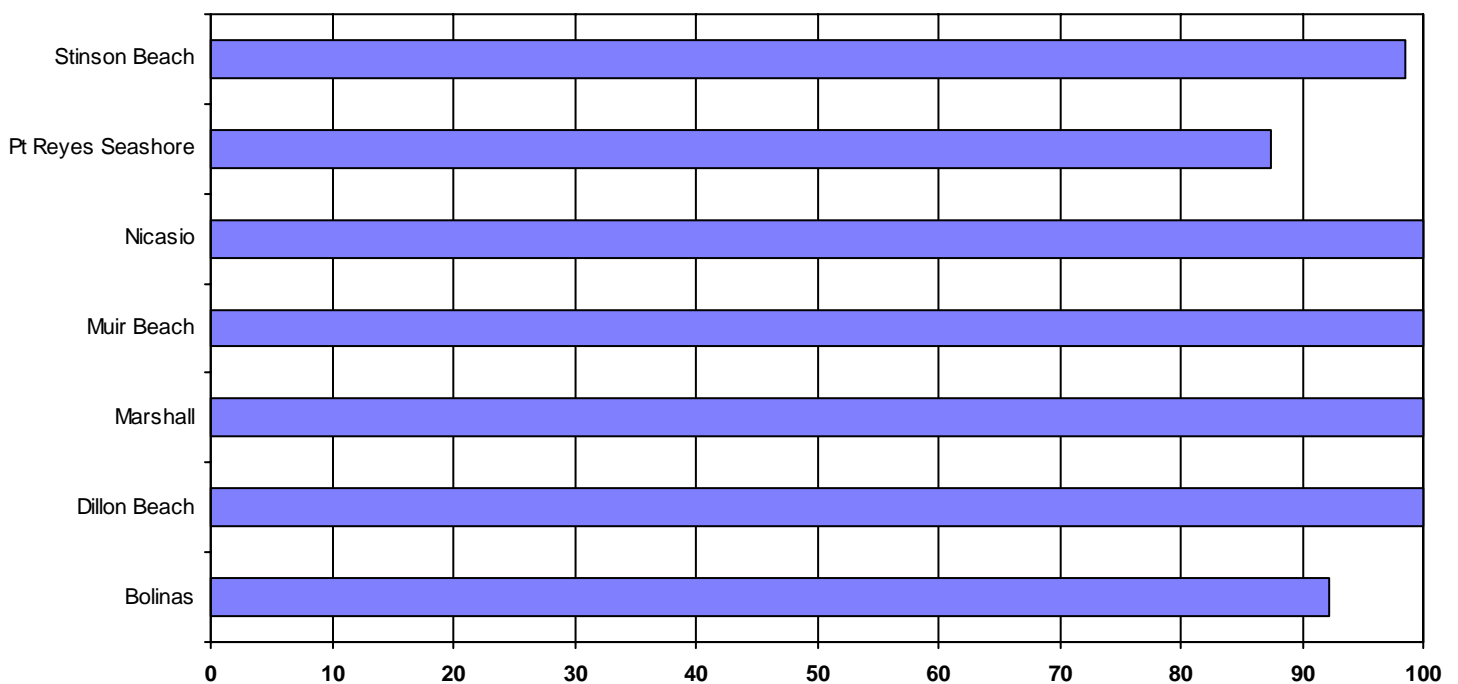
Elapsed Time from Dispatch to Arrive at Scene

Minutes:	0-1	2	3	4	5	6	7	8	9	10	11-20	21-30	> 30
Count:	7	3	8	7	1	12	11	8	18	12	132	52	9
Percent:	2.5%	1.1%	2.9%	2.5%	.4%	4.3%	3.9%	2.9%	6.4%	4.3%	47.1%	18.6%	3.2%
Overall %:	2.5%	3.6%	6.4%	8.9%	9.3%	13.6%	17.5%	20.4%	26.8%	31.1%	78.2%	96.8%	100.0%

Service Area E Code 3 Incidents	Total ALS Code 3 Incidents	Exceeded Expected Times	Within Expected Times	Percent Within Expected Times
To Scene Times	280	9	271	96.78%

Report by City

Expected time to scene is within 30 minute



City/Area	Number of Code 3 Calls to Scene within Compliance	Number of Code 3 Calls	Percentage of Code 3 Calls to Scene in Compliance
Bolinas	71	77	92.2%
Dillon Beach	32	32	100%
Marshall	30	30	100%
Muir Beach	13	13	100%
Nicasio	42	42	100%
Pt Reyes Seashore	14	16	87.5%
Stinson Beach	69	70	98.57%

Note: The report includes dispatches of all provider agencies responding to incidents within Paramedic Service Area E, not just Marin County Fire Department.

Paramedic Service Area E Code 3 Compliance Report

Urban Areas - Compliance is 10 Minutes to the Scene

From January 1, 2008 to December 31, 2008

Total ALS Code 3 Incidents within Service Area: 415

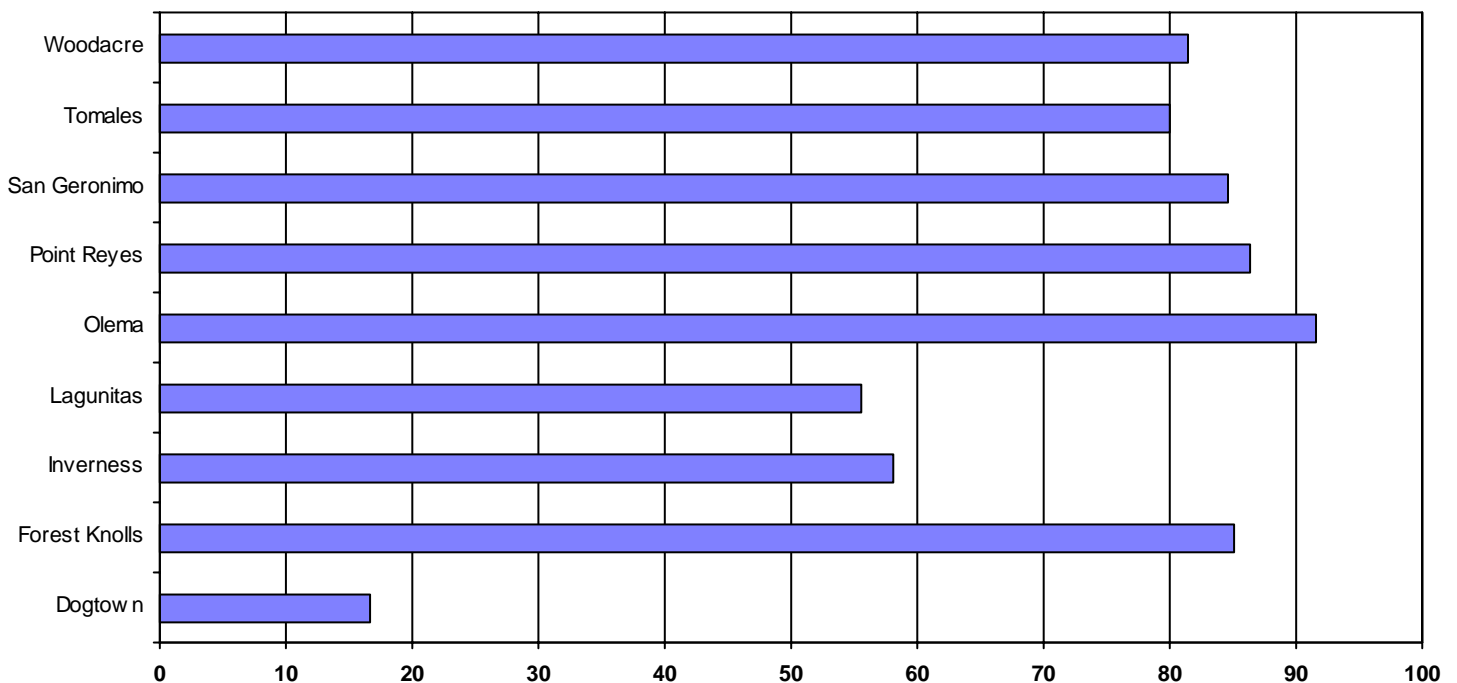
Elapsed Time from Dispatch to Arrive at Scene

Minutes:	0-1	2	3	4	5	6	7	8	9	10	11-20	21-30	> 30
Count:	67	30	22	33	31	39	28	28	18	22	72	21	4
Percent:	16.1%	7.2%	5.3%	8.0%	7.5%	9.4%	6.7%	6.7%	4.3%	5.3%	17.3%	5.1%	1.0%
Overall %:	16.1%	23.4%	28.7%	36.6%	44.1%	53.5%	60.2%	67.0%	71.3%	76.6%	94.0%	99.0%	100.0%

Service Area E Code 3 Incidents	Total ALS Code 3 Incidents	Exceeded Expected Times	Within Expected Times	Percent Within Expected Times
To Scene Times	415	97	318	76.62%

Report by City

Expected time to scene is within 10 minute



City/Area	Number of Code 3 Calls to Scene within Compliance	Number of Code 3 Calls	Percentage of Code 3 Calls to Scene in Compliance
Dogtown	2	12	16.66%
Forest Knolls	17	20	85%
Inverness	36	62	58.06%
Lagunitas	15	27	55.55%
Olema	22	24	91.66%
Point Reyes	114	132	86.36%
San Geronimo	11	13	84.61%
Tomales	44	55	80%
Woodacre	57	70	81.42%

Note: The report includes dispatches of all provider agencies responding to incidents within Paramedic Service Area E, not just Marin County Fire Department.

Hourly Call Volume Report

From January 1, 2008 to December 31, 2008

Month	Hour																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
01	30	21	30	32	21	20	22	51	67	92	78	91	78	75	72	78	64	84	64	65	58	55	50	37
02	28	28	20	24	21	21	33	43	69	63	82	82	77	78	74	66	73	86	54	69	49	37	35	28
03	33	27	26	28	10	24	29	47	72	72	63	88	85	77	69	99	83	69	73	54	57	57	51	23
04	31	20	27	20	19	23	21	40	42	62	58	76	89	81	83	74	60	63	69	70	44	44	40	36
05	30	22	30	22	31	27	21	45	65	71	93	91	83	88	80	91	87	79	83	69	85	69	46	43
06	31	34	25	23	17	19	20	41	57	72	68	90	91	100	107	79	90	83	75	66	63	69	41	44
07	37	20	29	30	10	29	33	35	62	77	88	76	86	90	93	79	82	76	71	75	56	53	48	38
08	23	26	30	21	16	16	34	47	56	52	74	78	78	90	95	96	85	78	88	53	57	48	40	45
09	28	28	26	11	23	13	26	32	64	59	51	74	63	66	82	64	80	82	75	44	57	58	54	36
10	35	26	29	19	18	21	33	36	77	69	74	79	78	88	93	81	75	80	68	57	53	41	52	33
11	31	31	29	30	18	14	26	44	47	68	82	65	78	64	97	86	91	64	66	64	63	47	33	39
12	31	40	34	30	26	24	23	47	75	82	65	86	84	71	76	86	83	73	66	68	60	59	60	36
Grand Total:	368	323	335	290	230	251	321	508	753	839	876	976	970	968	1021	979	953	917	852	754	702	637	550	438

Note: Report is based on the time Communications Center dispatches the first unit. It includes calls where all vehicles were cancelled before arrival at the scene.

Incidents by Day of Week Report

From January 1, 2008 to December 31, 2008

Months	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
January	172	187	192	193	209	195	187	1335
February	162	184	181	188	175	220	130	1240
March	180	221	145	164	191	158	257	1316
April	151	144	188	208	156	176	169	1192
May	199	151	214	182	230	217	258	1451
June	230	219	190	197	195	181	193	1405
July	202	184	233	208	211	166	169	1373
August	224	182	158	151	163	241	207	1326
September	160	215	163	147	150	182	179	1196
October	172	176	175	212	185	234	161	1315
November	183	179	175	157	165	186	232	1277
December	166	247	207	238	179	194	154	1385
Grand Total:	2201	2289	2221	2245	2209	2350	2296	

Note: Report is based on the date Communications Center dispatches the first unit. It includes calls where all vehicles were cancelled before arrival at the scene.

Incident Dispatches by Service Area by Month

From January 1, 2008 to December 31, 2008

Month	PSA A	PSA B	PSA C	PSA D	PSA E	Other	Total
Jan	273	418	289	276	67	12	1335
Feb	279	346	283	264	62	6	1240
Mar	245	412	289	297	68	5	1316
Apr	225	362	247	266	86	6	1192
May	291	435	310	312	96	7	1451
Jun	292	393	275	310	120	15	1405
Jul	296	390	298	266	109	14	1373
Aug	273	377	259	318	92	7	1326
Sep	253	364	243	254	69	13	1196
Oct	274	391	291	267	81	11	1315
Nov	296	420	243	249	61	8	1277
Dec	303	458	278	266	72	8	1385
Total	3,300	4,766	3,305	3,345	983	112	15,811

Note: Report is based on the month and which Paramedic Service Area Communications Center requests emergency medical service. It includes calls where all vehicles were cancelled before arrival at the scene.

Marin County EMS

Missing Patient Care Records

Dispatch with a vehicle to the hospital but no PCR

From January 1, 2008 to December 31, 2008

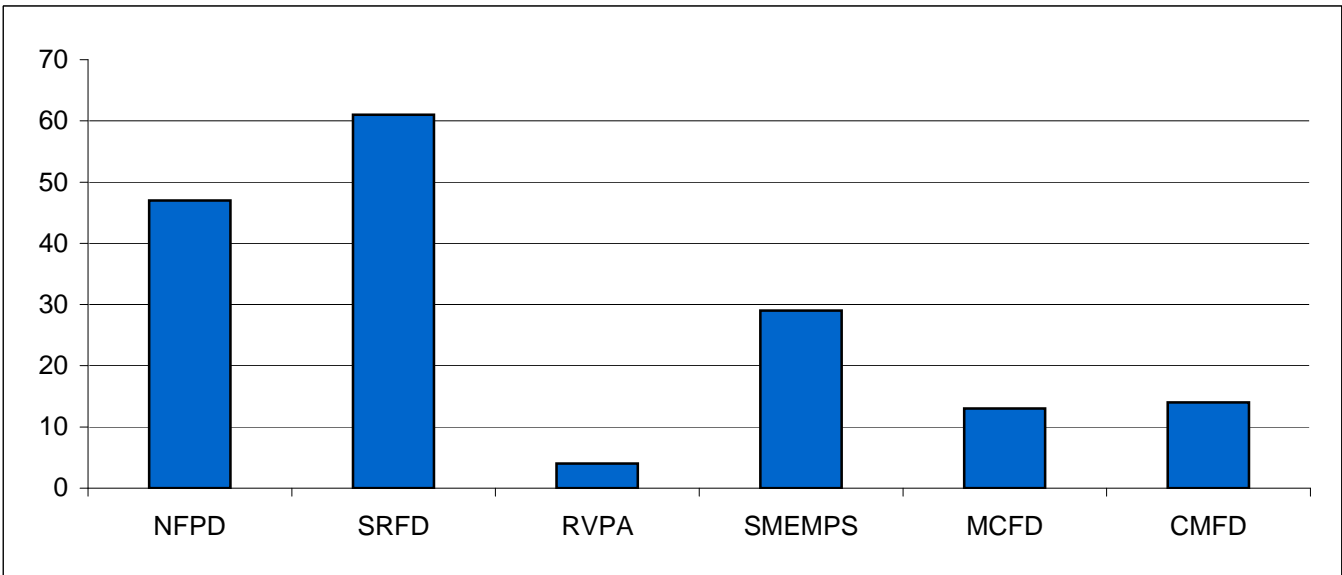
Provider	2002	2003	2004	2005	2006*	2007	2008		
							Nbr Missing	Total PCRs	Percent Missing**
NFPD	95	108	198	292	1,447	101	47	2,959	1.60%
SRFD	88	121	127	178	200	91	61	3,355	1.80%
RVPA	24	19	52	29	31	23	4	2,500	0.20%
SMEMPS	49	52	78	79	93	55	29	2,731	1.10%
MCFD	37	27	37	54	31	36	13	968	1.30%
CMFD	11	9	23	22	13	12	14	926	1.50%
Total	304	336	515	654	1,815	318	168	13,439	1.20%

Note: * NFPD did not use EPCIS between 05/12/06 and 08/30/06

** Percent Missing = Nbr Missing / (Nbr Missing + Total PCRs)

Report is based upon the Communications Center CAD data indicating a vehicle went to a hospital and there is no prehospital care record with the same Authorization Number (AO). Possible reasons are:

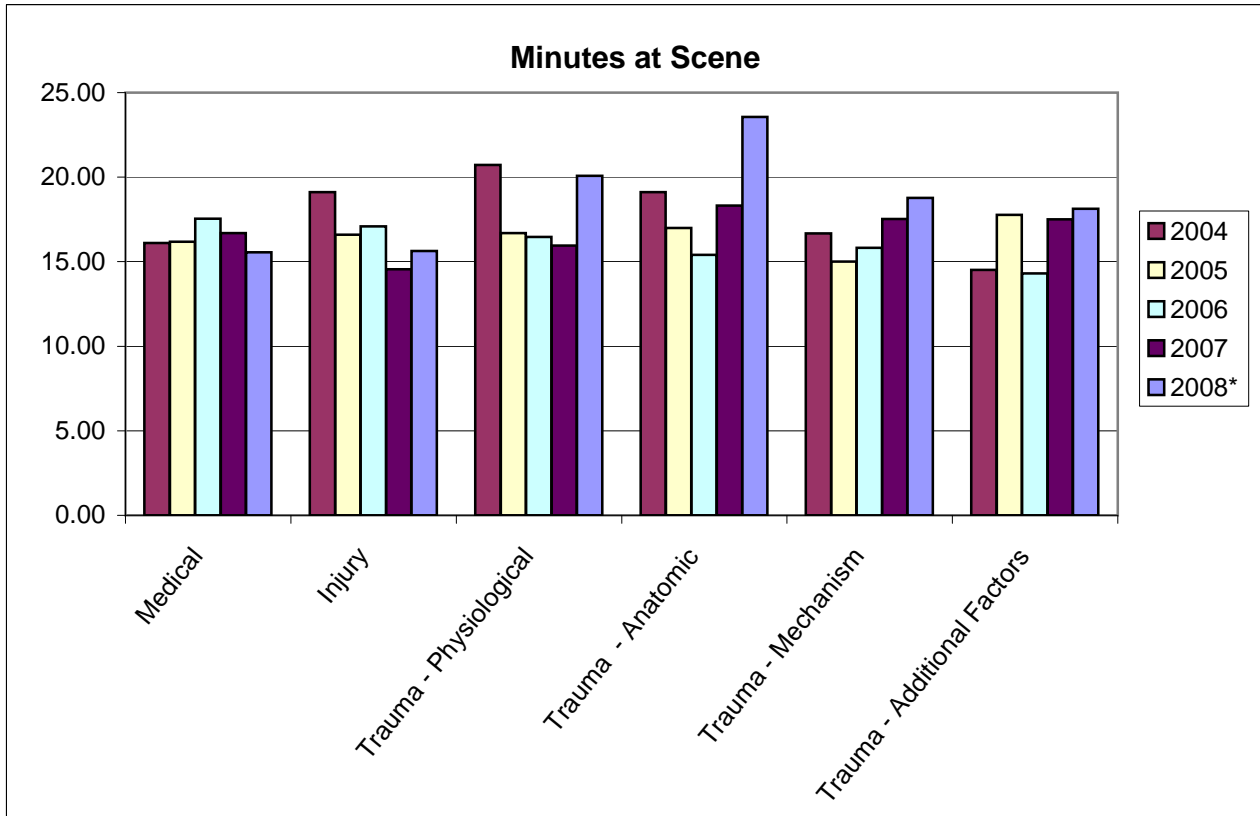
- 1) The Comm Center AO was entered wrong on the PCR (transported numbers, etc)
- 2) The Comm Center gave the wrong AO
- 3) The PCR was not entered into the Electronic Prehospital Care System
- 4) The Comm Center CAD data was incorrect - there was no transport to the hospital



Marin County EMS Average Time at Scene

From January 1, 2008 to December 31, 2008

	2004	2005	2006	2007	2008*
Medical	16.10	16.18	17.55	16.69	15.55
Injury	19.12	16.59	17.08	14.55	15.64
Trauma - Physiological	20.73	16.70	16.46	15.96	20.08
Trauma - Anatomic	19.12	17.00	15.41	18.31	23.57
Trauma - Mechanism	16.68	15.00	15.83	17.52	18.78
Trauma - Additional Factors	14.51	17.77	14.31	17.50	18.13



Report Criteria:

Response code to scene and to hospital is not filtered - can be Code 2 or 3.

Unit arrived and departed the scene.

Any calls with time at scene > 2 hours is excluded.

Medical

Type of patient is "Medical Only", "Medical & Injury" or "Medical & Trauma".

Injury

Type of patient is "Injury Only" or "Medical and Injury"

Trauma - Physiological

Type of patient is "Trauma Only" or "Medical and Trauma"

Triage Criteria = "Physiological"

Trauma - Anatomic

Type of Patient is "Trauma Only" or "Medical and Trauma"

Triage Criteria = "Anatomic"

Trauma - Mechanism

Type of patient is "Trauma Only" or "Medical and Trauma"

Triage Criteria = "Mechanism"

Trauma - Additional Factors

Type of patient is "Trauma Only" or "Medical and Trauma"

Triage Criteria = "Additional Factors"

Marin County EMS BLS Procedures

From January 1, 2008 to December 31, 2008

Procedures	1999 Count	2000 Count	2001 Count	2002 Count	2003 Count	2004 Count	2005 Count	2006 Count	2007 Count	2008 Count
Airway oral care	33	18	10	20	24	9	11	13	9	10
Airway adjuncts, OPA/nasal	136	142	168	164	199	150	188	157	212	195
CPR	164	139	164	103	151	109	116	112	150	167
Defibrillation, AED	38	43	55	18	51	25	46	33	41	55
Dress wounds/bandaging	595	608	687	675	584	553	621	577	763	820
ETDLA									3	1
Hemorrhage control	126	110	101	122	121	107	128	127	163	153
Obstetric assistance	3	6	9	4	5	8	6	5	9	3
Other BLS treatment	269	301	583	459	318	293	336	337	692	195
Oxygen Mask/Cannula	6,053	6,688	7,371	7,749	7,594	7,637	7,825	7,237	8049	8169
PPV, BVM	199	192	199	175	199	183	193	162	223	218
PPV, demand ventilator	50	32	33	26	28	18	20	11	16	5
PPV, mouth to mask	3	4	4	3	2	2	2	1	1	4
PPV, mouth to mouth/nose	2	1	3	2	6	2	3		2	2
Psychiatric assistance	66	36	18	24	21	8	49	130	40	36
Restraints	25	25	25	42	19	27	39	32	59	29
Spinal Immobilization	1,049	1,139	1,247	1,441	1,438	1,332	1,387	1,277	1510	1582
Splint	390	379	391	367	305	251	250	300	366	410
Suction	137	106	101	96	106	61	80	78	106	98
Traction splint	11	8	8	7	7	12	10	11	14	9
Total	9,349	9,977	11,177	11,497	11,178	10,787	11,310	10,600	12,428	12,161

Report Definition: Count is based on the number of times the procedure was done, not the number of patients.
Report also includes those procedures that attempted and not successful.

Marin County EMS ALS Procedures

From January 1, 2008 to December 31, 2008

Procedures	1999 Count	2000 Count	2001 Count	2002 Count	2003 Count	2004 Count	2005 Count	2006 Count	2007 Count	2008 Count
12-Lead EKG				343	265	301	486	1,130	1,821	2,157
Cardiovert	3	12	6	7	9	1	9	8	5	7
CPAP								49	71	94
Cricothyrotomy, needle								1		1
Defibrillation	143	150	218	118	118	99	92	79	87	97
ETC02								31	56	73
ECG monitor	6,318	6,447	6,925	7,178	7,159	7,249	7,554	7,260	8,456	8,855
Endotracheal Intubation, nasal	38	26	27	31	32	20	18	3	5	2
Endotracheal Intubation, oral	156	151	169	134	167	107	116	100	133	129
EOA/combitube	1		1				6	6	8	5
Esophageal Detector Device										32
ETTI								1	2	4
External Pacing			18	17	12	8	11	9	9	9
Fluid challenge	452	568	502	497	469	467	505	511	582	625
Glucose determination	2,776	2,717	2,978	3,056	3,232	3,517	3,989	4,044	5,046	5,375
Intraosseous infusion	6	1	1	14	20	12	15	27	52	75
Needle thoracostomy		2			1			1		1
Peripheral IV	4,907	5,179	5,629	5,929	5,895	5,718	5,821	5,435	6,218	6,310
Pulse oximetry	4,581	4,657	4,712	4,658	4,235	3,931	3,650	3,919	4,094	4,899
Removal of foreign object	9	10	1	1	1	3	8	7	3	2
Rescue Airway										13
Saline lock	324	325	349	355	266	222	196	149	270	404
Stoma Care										10
Vagal maneuver	19	25	38	25	20	22	28	22	35	35
Total	19,733	20,270	21,574	22,363	21,901	21,677	22,504	22,792	26,953	29,214

Report Definitions:

Counts are based on the number of times the procedure was used (except for ECG monitor)

ECG monitor counts are based on the number of patients with one or more vital sign assessments with a rhythm entered in ECG monitor.

The count includes those procedures that were unsuccessful.

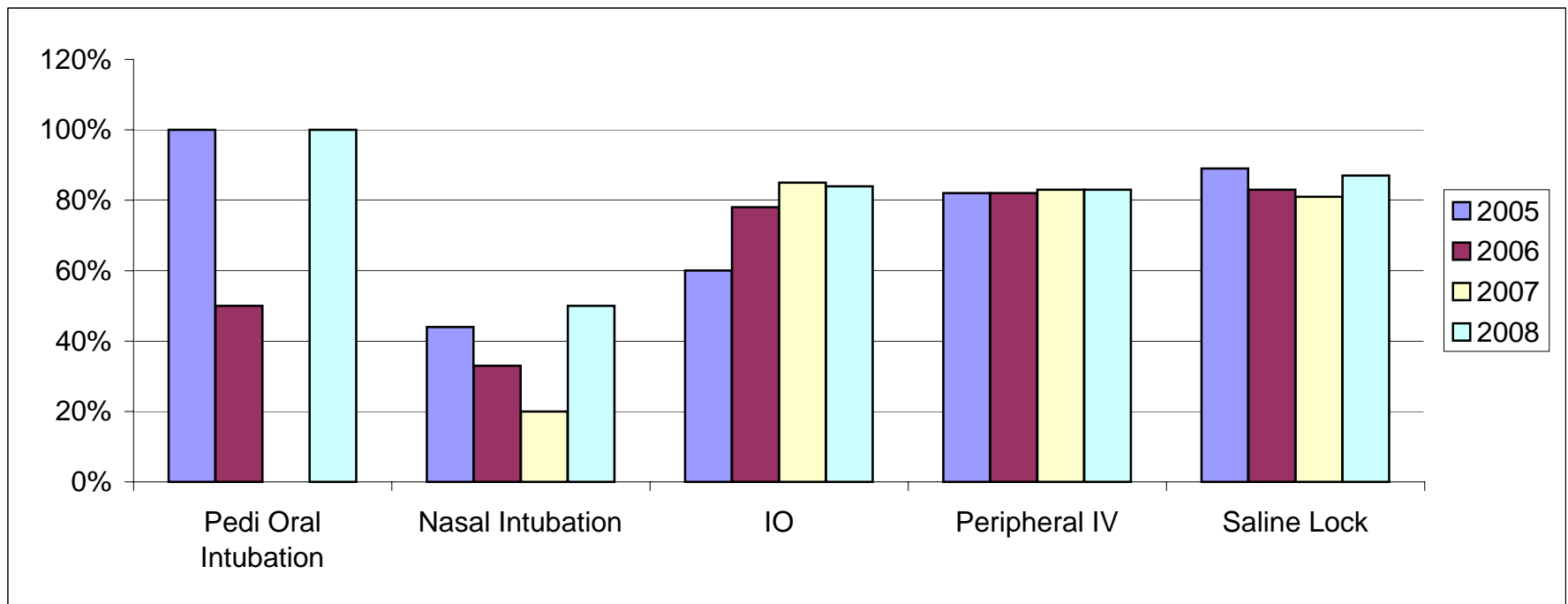
Marin County EMS Successful Procedures

From January 1, 2008 to December 31, 2008

	2005			2006			2007			2008			Standard*
	Att	Suc	Rate	Att	Suc	Rate	Att	Suc	Rate	Att	Suc	Rate	
Adult Oral Intubation	115	67	58%	98	58	59%	132	87	66%	127	68	54%	86.00%
Pedi Oral Intubation	1	1	100%	2	1	50%	1	0	0%	2	2	100%	91.60%
Nasal Intubation	18	8	44%	3	1	33%	5	1	20%	2	1	50%	
IO	15	9	60%	27	21	78%	52	44	85%	75	63	84%	
Peripheral IV	5821	4771	82%	5435	4469	82%	6218	5151	83%	6310	5214	83%	81.00%
Saline Lock	196	174	89%	149	124	83%	270	219	81%	404	352	87%	

*Standard researched by Mountain Valley EMS Region, 2000. Details available at EMS Office.

Attempts are counted per patient



	2005	2006	2007	2008
Adult Oral Intubation	58%	59%	66%	54%
Pedi Oral Intubation	100%	50%	0%	100%
Nasal Intubation	44%	33%	20%	50%
IO	60%	78%	85%	84%
Peripheral IV	82%	82%	83%	83%
Saline Lock	89%	83%	81%	87%

Marin County EMS Transports

From January 1, 2008 to December 31, 2008

Transport Provider	2000	2001	2002	2003	2004	2005			2006			2007			2008		
	Transport	Transport	Transport	Transport	Transport	Level of Care		Transport	Level of Care		Transport	Level of Care		Transport	Level of Care		Transport
						ALS	BLS		ALS	BLS		ALS	BLS		ALS	BLS	
NFPD	2038	2230	2111	980	2201	1728	554	2282	769	211	980	1958	445	2403	1854	443	2297
Percent	23.7%	21.0%	23.3%	10.6%	24.8%	24.1%	27.7%	24.9%	11.5%	9.1%	10.9%	24.4%	16.6%	22.4%	22.9%	16.7%	21.4%
SFRD	2697	2595	2241	2729	2418	2159	540	2699	2186	543	2729	2256	444	2700	2415	550	2965
Percent	31.4%	24.4%	24.7%	29.6%	27.3%	30.1%	27.0%	29.4%	32.6%	23.3%	30.2%	28.1%	16.6%	25.2%	29.8%	20.8%	27.6%
RVPA	983	984	1070	1283	1175	1018	147	1165	1121	162	1283	1131	230	1361	987	192	1179
Percent	11.5%	9.3%	11.8%	13.9%	13.3%	14.2%	7.4%	12.7%	16.7%	7.0%	14.2%	14.1%	8.6%	12.7%	12.2%	7.3%	11.0%
SMEMPS	1979	2350	1932	2123	1916	1508	525	2033	1519	604	2123	1410	564	1974	1470	543	2013
Percent	23.1%	22%	21.3%	21.6%	21.6%	21.0%	26.3%	22.1%	22.7%	25.9%	23.5%	17.6%	21.1%	18.4%	18.2%	20.5%	18.7%
MCFD	451	504	521	586	535	449	97	546	486	100	586	541	100	641	554	101	655
Percent	5.3%	4.7%	5.8%	6.4%	6.0%	6.3%	4.9%	5.9%	7.3%	4.3%	6.5%	6.7%	3.7%	6.0%	6.8%	3.8%	6.1%
CMFD	435	489	514	508	448	317	127	444	373	135	508	525	207	732	542	198	740
Percent	5.1%	4.6%	5.7%	5.5%	6.2%	4.4%	6.4%	4.8%	5.6%	5.8%	5.6%	6.5%	7.7%	6.8%	6.7%	7.5%	6.9%
Stinson FD			6	13	16	0	10	10	0	3	3	0	7	7	1	1	2
Percent			0.1%	0.1%	0.2%	0.0%	0.5%	0.1%	0.0%	0.1%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%
St Joseph			662	994	158	0	0	0	245	570	815	208	678	886	271	618	889
Percent			7.3%	10.8%	1.8%	0.0%	0.0%	0.0%	3.7%	24.5%	9.0%	2.6%	25.3%	8.3%	3.3%	23.4%	8.3%
Total	8583	10631	9057	9216	8867	7179	2000	9179	6699	2328	9027	8029	2675	10704	8094	2646	10740
Percent						78.2%	21.8%		74.2%	25.8%		75.0%	25.0%		75.4%	24.6%	

Notes: The Transport column is a combination of the ALS and BLS patients that were transported to a receiving Hospital.
 NFPD did not enter PCRs during the period 05/12/2006 thru 08/30/2006.
 There were no electronic PCRs entered for Saint Joseph Ambulance during the year 2005

Marin County EMS
Receiving Hospital Report
Date: 01/01/2008 to 12/31/2008

County	2002	2003	2004	2005	2006	2007	2008
Hospital							
<u>Marin County</u>							
Novato Community Hospital	1,354	1,397	1,344	1,337	683	1,578	1,666
Kaiser Hospital, Terra Linda	2,481	2,468	2,324	2,385	2,201	2,772	2,859
Marin General Hospital	5,588	5,395	4,803	4,843	5,143	5,780	6,101
<u>Alameda County</u>							
Children's Hospital Oakland	5	7	5	6		1	2
Highland Hospital			1	1		1	1
Eden Valley Hospital	2	1					
<u>Contra Costa County</u>							
Doctors Hospital Pinole	4	3	3	3	8	5	2
John Muir Medical Center	8	11	12	10	7	5	9
<u>Napa County</u>							
Queen of the Valley Hospital			2	1	1		1
<u>San Francisco County</u>							
St. Francis Memorial Hospital	3		1			2	
Davies Medical Center				1		1	1
Kaiser Hospital, San Francisco	5	3	2	7	3	6	8
San Francisco General Hospital		3		4	1		1
St. Mary's Medical Center	2	2		3	3		2
U.C.S.F. Medical Center	13	10	4	8	10	28	21
Veterans Admin Medical Ctn	2		4	1	6	4	4
California Pacific Medical Center	15	12	20	9	18	20	54
<u>Sonoma County</u>							
Petaluma Valley Hospital	27	27	21	30	26	35	48
Kaiser Hospital, Santa Rosa	2	2	2	2	4	12	5
Santa Rosa Memorial Hospital	8	2	31	18	11	17	21
Sutter Med Center of Santa Rosa		1		1			1
Palm Drive Hospital		2	1			1	1

Note: Report includes those patients transported by aircraft

Marin County EMS

Receiving Hospital by Transport Provider

From January 1, 2008 to December 31, 2008

Receiving Hospital	Transport Provider										Total
	NFPD	SRFD	RVPA	SMEMPS	MCFD	CMFD	St Joseph	Stinson Beach	Petaluma FD	Other	
California Pacific Medical Center	4		2	66	1	3	4				80
Children's Hospital Oakland	1				2			1			4
Davies Medical Center				2							2
Doctors Hospital Pinole			1		5		3				9
Eden Valley Hospital		1									1
Highland Hospital				1							1
John Muir Medical Center	5	3		4	7		1	2			22
Kaiser Hospital, San Francisco		1		17							18
Kaiser Hospital, Santa Rosa	7				12						19
Kaiser Hospital, Terra Linda	1,607	2,242	569	899	392	367	460	3	1		6,540
Marin General Hospital	538	3,898	2,417	3,437	849	1,276	1,191	7		5	13,618
Novato Community Hospital	3,157	417	15	14	30	6	133			1	3,773
Other	4		2	4	1	1					12
Palm Drive Hospital				1	1						2
Petaluma Valley Hospital	21				73						94
Queen of the Valley Hospital					1						1
San Francisco General Hospital				1							1
Santa Rosa Memorial Hospital	10	2	1		28						41
St. Francis Memorial Hospital				2							2
St. Mary's Medical Center				2							2
Sutter Medical Center of Santa Rosa					1						1
U.C.S.F. Medical Center	2		3	37	2	1	9			1	55
Veterans Administration Medical Ctn				4			4			1	9
Total	5,356	6,564	3,010	4,491	1,405	1,654	1,805	13	1	8	24,307

Marin County EMS

Type of Patient by Receiving Hospital Report

Date: 1/1/2008 to 12/31/2008

Receiving Hospital	Type of Patient (See Footnote for Code Description)																								Total	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	118	119	120	121	122	199	200	300		400
California Pacific Medical Center	4		1	1				2					1		4		6	2		4	2	5	1			33
Children's Hospital Oakland																		1								1
Davies Medical Center																						1				1
Doctors Hospital Pinole						1								1												2
Eden Valley Hospital																				1						1
John Muir Medical Center																										0
Kaiser Hospital, San Francisco	1						1										1	1		1						5
Kaiser Hospital, Santa Rosa																	1									1
Kaiser Hospital, Terra Linda	160	1	22	200	4	244	58	81	19	45	29	10	3	4	102	23	207	86	5	233	33	547	4	16	2136	
Marin General Hospital	305	12	41	513	53	380	101	134	44	136	39	21	2	6	170	57	424	203	11	434	67	1010	28	60	21	4272
Novato Community Hospital	106	6	10	162	23	60	30	30	20	22	13	3		4	70	22	109	79	2	108	13	384	1	11	1	1289
Other						1														1		1				3
Petaluma Valley Hospital	2		1	1	1	1									3		1	3		5		6	2			26
San Francisco General Hospital																										0
Santa Rosa Memorial Hospital						2											1					1				4
St. Mary's Medical Center																				1						1
U.C.S.F. Medical Center				2											3		2	3				3	2	1		16
Veterans Administration Medical Ctn																						2				2
Total:	578	19	75	879	81	689	190	247	83	203	81	34	6	15	352	102	752	378	18	788	115	1960	38	88	22	7793

Footnote - Description of Patient Type Codes

101 Abdominal Pain	108 CVA/Stroke/TIA	115 Pain, Non-Specific	199 Other Illness
102 Airway Obstruction	109 Diabetes Complication	116 Poisoning/OD	200 Obstetric
103 Allergic Reaction	110 Drug/Alcohol Intoxication	118 Respiratory Distress	300 Psychiatric
104 Altered Level of Consciousness	111 Hypotension	119 Seizure	400 Trauma/Traumatic Shock
105 Cardiac Arrest	112 Hypertension	120 Unconscious, Cause Unknown	
106 Chest Discomfort, Cardiac	113 Hypothermia/Frostbite	121 Syncope	
107 Chest Discomfort, Non-Cardiac	114 Heat Illness	122 Cardiac Dysrhythmia	

Marin County EMS

Medical Patients - Grouped by Protocol

Date: 1/1/2008 to 12/31/2008

Treatment Guideline	Type of Patient (See Footnote for Code Description)																								Total	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	118	119	120	121	122	199	200	300		400
Abdominal Pain	146										2				2							3	3			156
Acute Pulmonary Edema				1		1											104					2				108
Acute Respiratory Distress		5		3		1	5								2	344				1		5				366
Adult Pain Management	61			1			7							1	81		1					20			1	173
Adult Sedation				1															1			2				4
Airway Obstruction		3																								3
Allergic Reaction - Mild			16														1			1		2				20
Allergic Reactions - Mod/Severe, Anaphyla	1		3																							4
Allergic Reactions & Anaphylaxis			52																			2				54
ALS Assessment	16		3	84	3	19	42	15	19	14	13	13			40	10	63	15		60	22	536	5	9	2	1003
Asthma - Mild/Moderate																	39									39
Asthma - Severe																	6									6
Asystole					89															2		1	4			96
Bradycardias	1			3	1	3	1				2		1				1			10	28	1				52
Bronchospasm/Asthma/COPD		1					1										102					3				107
Chest Pain				1		137	10					1								2		2				153
Chest Pain, Unlikely to be Cardiac	1					4	27										1					1				34
Chest Pain/Acute Coronary Syndrome				2		574	29										8			5	2	8				628
Chronic Obstructive Pulmonary Disease																	29									29
Cold Induced Injury				1	1				1					5									1			9
Coma/ALOC			5	682				17	85	39	2			2	10	1	18	15	12		9			2	2	901

Footnote - Description of Patient Type Codes

- | | | | |
|------------------------------------|-------------------------------|--------------------------------|----------------------------|
| 101 Abdominal Pain | 108 CVA/Stroke/TIA | 115 Pain, Non-Specific | 199 Other Illness |
| 102 Airway Obstruction | 109 Diabetes Complication | 116 Poisoning/OD | 200 Obstetric |
| 103 Allergic Reaction | 110 Drug/Alcohol Intoxication | 118 Respiratory Distress | 300 Psychiatric |
| 104 Altered Level of Consciousness | 111 Hypotension | 119 Seizure | 400 Trauma/Traumatic Shock |
| 105 Cardiac Arrest | 112 Hypertension | 120 Unconscious, Cause Unknown | |
| 106 Chest Discomfort, Cardiac | 113 Hypothermia/Frostbite | 121 Syncope | |
| 107 Chest Discomfort, Non-Cardiac | 114 Heat Illness | 122 Cardiac Dysrhythmia | |

Medical Patients - Grouped by Protocol

Date: 1/1/2008 to 12/31/2008

Treatment Guideline	Type of Patient (See Footnote for Code Description)																								Total	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	118	119	120	121	122	199	200	300		400
Croup/Epiglottitis																	1									1
CVA (Stroke)				25	1		1	241														4				272
Drowning/Near Drowning																	1		1			1				3
Envenomation											1															1
Gastrointestinal Bleeding	31			3			1			10					1		1			6		40				93
Head Trauma								3										1		3		1			2	10
Heat Illness				1										11						1						13
Heat Illness/Hyperthermia																				2						2
Imminent Delivery (normal)	1																					1	13			15
Major Burns																										0
N/A															1											1
Narrow Complex Tachycardia						12	3			1	1	1					1	1		1	48	5				74
Non-Traumatic Shock	9			3							32									4	1	8				57
PEA					46																					46
Pediatric Allergic Reaction			5																							5
Pediatric Altered Level of Consciousness				6													1	1				1				9
Pediatric Apparent Life-Threatening Event (1					1				2
Pediatric Pain Management	1														1											2
Pediatric Pulseless Arrest					1																					1
Pediatric Respiratory Distress				1													14									15
Pediatric Seizure				1															31							32
Pediatric Tachycardia - Adequate Perfusion																					1					1

Footnote - Description of Patient Type Codes

101 Abdominal Pain	108 CVA/Stroke/TIA	115 Pain, Non-Specific	199 Other Illness
102 Airway Obstruction	109 Diabetes Complication	116 Poisoning/OD	200 Obstetric
103 Allergic Reaction	110 Drug/Alcohol Intoxication	118 Respiratory Distress	300 Psychiatric
104 Altered Level of Consciousness	111 Hypotension	119 Seizure	400 Trauma/Traumatic Shock
105 Cardiac Arrest	112 Hypertension	120 Unconscious, Cause Unknown	
106 Chest Discomfort, Cardiac	113 Hypothermia/Frostbite	121 Syncope	
107 Chest Discomfort, Non-Cardiac	114 Heat Illness	122 Cardiac Dysrhythmia	

Medical Patients - Grouped by Protocol

Date: 1/1/2008 to 12/31/2008

Treatment Guideline	Type of Patient (See Footnote for Code Description)																								Total	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	118	119	120	121	122	199	200	300		400
Pediatric Toxic Exposures															1											1
Pediatric Trauma																										0
Poisons/Drugs				14			1			57					81							3		1		157
Respiratory Arrest		1													1	4			1							7
Routine Medical Care (RMC) ALS	269	1	5	159	5	43	114	20	36	50	18	16		4	84	10	97	30	3	118	29	958	10	17	7	2103
Seizures				14													2	292		2						310
ST Elevation Myocardial Infarction (STEMI)						2														1		1				4
STEMI					1	2															1					4
Syncope	2			15	1	1			2	1	8	1		1					3	769	1	9				814
Traumatic Injury				6		1			1	2					2			1		2		3			10	28
Vaginal Hemorrhage	2																					5	9			16
Ventricular Ectopy					1	1						1									6	2				11
Ventricular Fib/pulseless VT					32																1					33
Wide Complex Tachycardia						3															2					5
Total:	541	11	89	1027	182	804	242	296	144	164	89	33	6	19	212	115	823	391	25	1000	143	1644	40	29	24	8093

Footnote - Description of Patient Type Codes

101 Abdominal Pain	108 CVA/Stroke/TIA	115 Pain, Non-Specific	199 Other Illness
102 Airway Obstruction	109 Diabetes Complication	116 Poisoning/OD	200 Obstetric
103 Allergic Reaction	110 Drug/Alcohol Intoxication	118 Respiratory Distress	300 Psychiatric
104 Altered Level of Consciousness	111 Hypotension	119 Seizure	400 Trauma/Traumatic Shock
105 Cardiac Arrest	112 Hypertension	120 Unconscious, Cause Unknown	
106 Chest Discomfort, Cardiac	113 Hypothermia/Frostbite	121 Syncope	
107 Chest Discomfort, Non-Cardiac	114 Heat Illness	122 Cardiac Dysrhythmia	

Marin County EMS

Type of Patient by Provider Agency Report

Date: 1/1/2008 to 12/31/2008

Provider Agency	Type of Patient (See Footnote for Code Description)																								Total	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	118	119	120	121	122	199	200	300		400
CMFD	46	4	3	50	18	51	15	22	16	18	10	2		4	9	12	66	32		89	16	151	4	21	3	662
MCFD	54	1	20	48	18	44	14	19	8	25	4	2	3	6	18	10	34	14	1	59	10	138	2	8	3	563
NFPD	145	5	15	258	25	143	52	57	31	36	19	4	1	5	119	26	146	109	2	169	23	726	10	26	2	2154
RVPA	93	12	16	222	46	160	56	60	31	47	16	10	3	7	49	28	160	74	6	251	30	414	6	25	9	1831
SMEMPS	144	13	33	181	49	148	51	75	25	42	12	14	4		131	19	161	68	6	173	36	494	5	21	10	1915
SRFD	153	5	22	292	49	254	68	64	40	78	26	5			43	36	335	154	12	301	28	744	19	14	13	2755
St Joseph	48	2	1	29	3	16	4	2	1	25	5	5		1	88	1	15	7		13	3	230		19		518
Stinson Beach	2		1	1	2	2									1			1		2		2		1		15
Total:	685	42	111	1081	210	818	260	299	152	271	92	42	11	23	458	132	917	459	27	1057	146	2899	46	135	40	10413

Footnote - Description of Patient Type Codes

- | | | | |
|------------------------------------|-------------------------------|--------------------------------|----------------------------|
| 101 Abdominal Pain | 108 CVA/Stroke/TIA | 115 Pain, Non-Specific | 199 Other Illness |
| 102 Airway Obstruction | 109 Diabetes Complication | 116 Poisoning/OD | 200 Obstetric |
| 103 Allergic Reaction | 110 Drug/Alcohol Intoxication | 118 Respiratory Distress | 300 Psychiatric |
| 104 Altered Level of Consciousness | 111 Hypotension | 119 Seizure | 400 Trauma/Traumatic Shock |
| 105 Cardiac Arrest | 112 Hypertension | 120 Unconscious, Cause Unknown | |
| 106 Chest Discomfort, Cardiac | 113 Hypothermia/Frostbite | 121 Syncope | |
| 107 Chest Discomfort, Non-Cardiac | 114 Heat Illness | 122 Cardiac Dysrhythmia | |

Marin County EMS

Medical Patients - Grouped by Age

Date: 1/1/2008 to 12/31/2008

Age Group	Type of Patient (See Footnote for Code Description)																								Total
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	118	119	120	121	122	199	200	300	
Less than 1 year		3	2	7												20	13				38	1			84
Between 1 and 4 years	2	9	7	12			3				1				2	5	26	80				43			190
Between 5 and 12 years	5	3	8	2	1				1						3		19	8		21		38		1	110
Between 13 and 15 years	5		3	11	1		2			13				3	2	6	8	6		13		24	1		98
Between 16 and 20 years	18		5	24			6		3	25				1	6	11	9	23	1	37	2	74	5	11	261
Between 21 and 40 years	156	3	21	110	9	32	39	8	18	82	4		5	3	48	33	44	118	5	105	8	318	29	37	1235
Between 41 and 55 years	142	5	33	197	19	144	60	20	29	103	18	7	2	3	107	41	77	122	5	125	14	455	7	43	1778
Between 56 and 65 years	109	3	17	171	36	149	44	30	22	33	11	7		4	81	13	104	43	4	123	21	377		28	1430
Over 65 years	248	15	15	547	142	491	105	241	78	14	58	28	4	9	210	23	609	46	12	632	101	1519	3	15	5165
Unknown		1			2	2	1		1	1							1			1		14			24
Total:	685	42	111	1081	210	818	260	299	152	271	92	42	11	23	459	132	917	459	27	1057	146	2900	46	135	10375

Footnote - Description of Patient Type Codes

- | | | | |
|------------------------------------|-------------------------------|--------------------------------|----------------------------|
| 101 Abdominal Pain | 108 CVA/Stroke/TIA | 115 Pain, Non-Specific | 199 Other Illness |
| 102 Airway Obstruction | 109 Diabetes Complication | 116 Poisoning/OD | 200 Obstetric |
| 103 Allergic Reaction | 110 Drug/Alcohol Intoxication | 118 Respiratory Distress | 300 Psychiatric |
| 104 Altered Level of Consciousness | 111 Hypotension | 119 Seizure | 400 Trauma/Traumatic Shock |
| 105 Cardiac Arrest | 112 Hypertension | 120 Unconscious, Cause Unknown | |
| 106 Chest Discomfort, Cardiac | 113 Hypothermia/Frostbite | 121 Syncope | |
| 107 Chest Discomfort, Non-Cardiac | 114 Heat Illness | 122 Cardiac Dysrhythmia | |

Marin County EMS

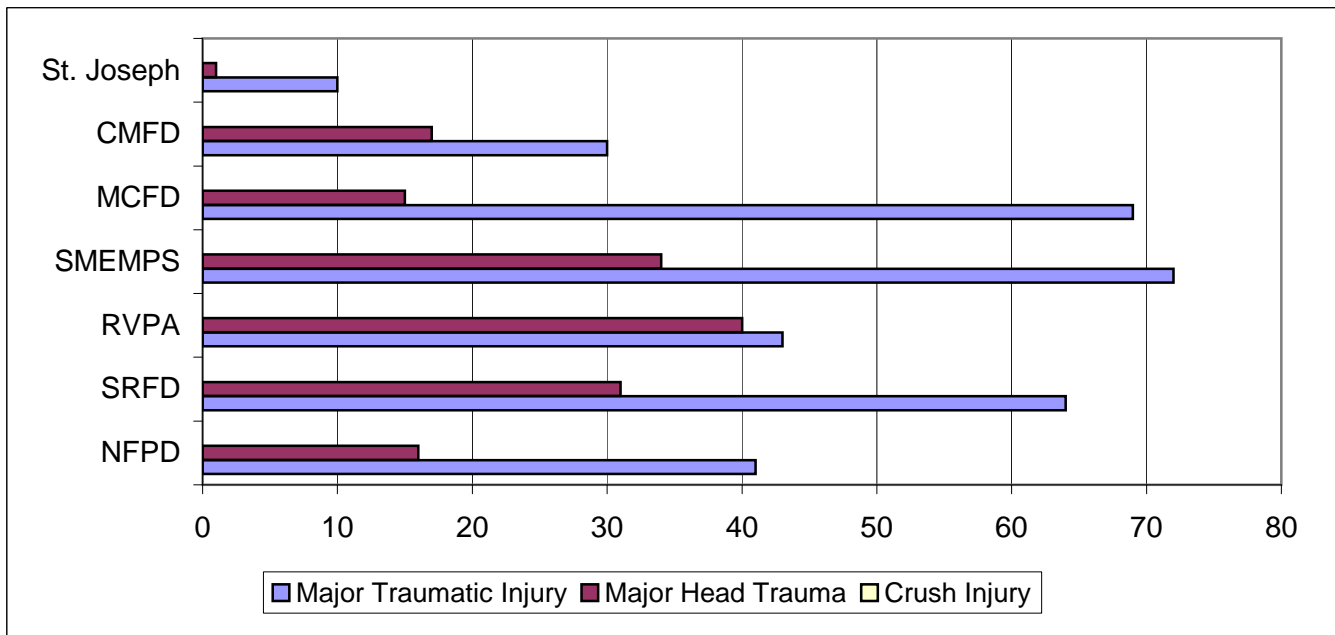
Medical, Injury and Trauma Transported - Grouped by Age

Date: 1/1/2008 to 12/31/2008

Age Group	Medical	Injury/Trauma
Less than 1 year	60	12
Between 1 and 4 years	134	45
Between 5 and 12 years	63	81
Between 13 and 15 years	65	73
Between 16 and 20 years	197	144
Between 21 and 40 years	911	564
Between 41 and 55 years	1,386	565
Between 56 and 65 years	1,142	364
Over 65 years	4,310	1,229

**Marin County EMS
Traumatic Protocols Report**
From January 1, 2008 to December 31, 2008

Provider	Major Traumatic Injury	Major Head Trauma	Crush Injury
NFPD	41	16	0
SRFD	64	31	0
RVPA	43	40	0
SMEMPS	72	34	0
MCFD	69	15	0
CMFD	30	17	0
St. Joseph	10	1	0

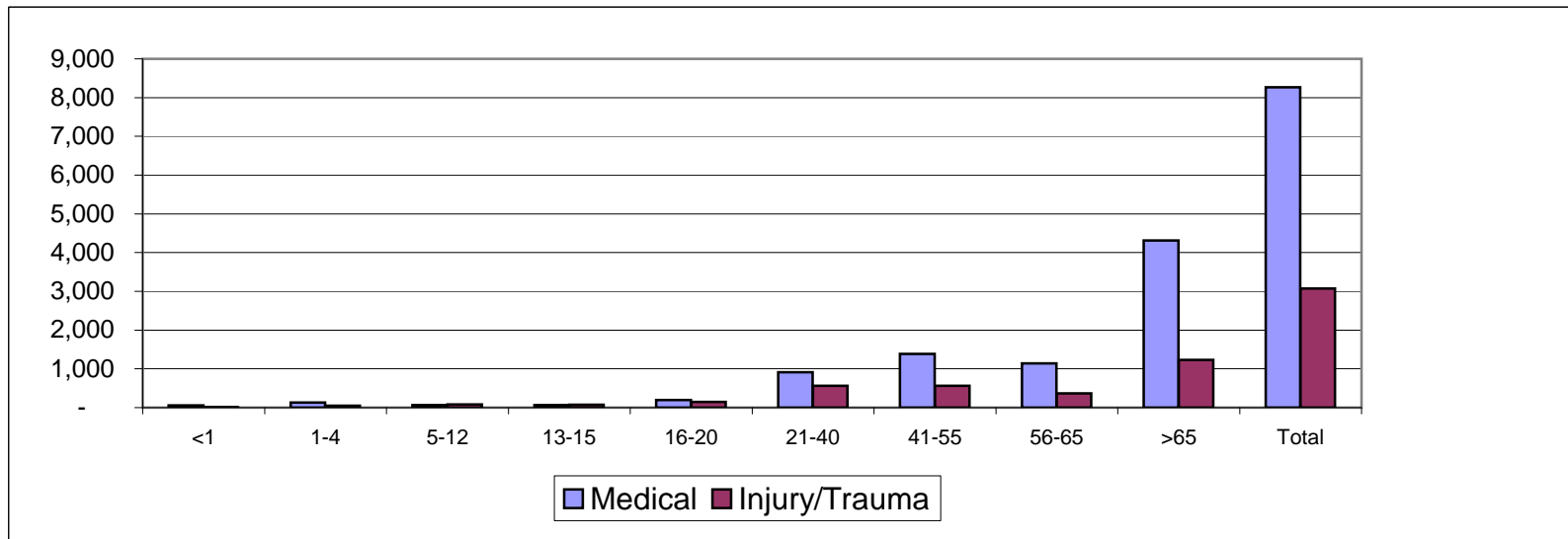


Marin County EMS Transported Medical vs Trauma & Injury by Age Group

From January 1, 2008 to December 31, 2008

Age Group	Medical *	%	Injury and Trauma *	%	Total
<1	60	83.3%	12	16.7%	72
1-4	134	74.9%	45	25.1%	179
5-12	63	43.8%	81	56.3%	144
13-15	65	47.1%	73	52.9%	138
16-20	197	57.8%	144	42.2%	341
21-40	911	61.8%	564	38.2%	1,475
41-55	1,386	71.0%	565	29.0%	1,951
56-65	1,142	75.8%	364	24.2%	1,506
>65	4,310	77.8%	1,229	22.2%	5,539
Total	8,268	72.9%	3,077	27.1%	11,345

Notes *: The Medical and Injury/Trauma columns include 292 patients that were treated for both medical and injury/trauma and transported. The Injury/Trauma column includes those patients that had injuries that did not meet triage criteria and those that did meet triage criteria. These numbers only include those patients that were transported to a receiving hospital.



Marin County EMS
Injury and Trauma - Grouped by Age
Date: 1/1/2008 to 12/31/2008

Age Group	Injury Not Meeting Triage Criteria	Met Trauma Triage Criteria			
		Physio-logical	Anatomic	Mechanism	Additional Factors
Unknown	17	0	1	0	0
Less than 1 year	18	0	0	0	0
Between 1 and 4 years	90	4	0	0	4
Between 5 and 12 years	133	0	0	3	13
Between 13 and 15 years	86	1	0	5	10
Between 16 and 20 years	197	5	3	26	20
Between 21 and 40 years	637	22	10	66	89
Between 41 and 55 years	669	21	11	50	62
Between 56 and 65 years	422	10	8	15	50
Over 65 years	1365	22	10	19	149
Total	3634	85	43	184	397

Marin County EMS

Injury and Trauma - Grouped by Mechanism of Injury - Age > 65

Date: 1/1/2008 to 12/31/2008

Mechanism of Injury	Both* Medical and Injury/Trauma	Injury Not Meeting Triage Criteria	Met Trauma Triage Criteria			
			Physio- logical	Anatomic	Mechanism	Additional Factors
Animal		2				
Bicycle crash		8				2
Explosion	2	9				
Fall	134	1122	18	9	8	122
Fire		1				
Gunshot	1					1
Machinery		1				
Motor Vehicle crash	9	69	2		5	13
Motorcycle crash		6				1
Near drowning/drowning			1			
Other Assault		6				2
Other mechanism, blunt	3	22			1	
Other mechanism, not specified	9	110				5
Other mechanism, penetrating		6				
Pedestrian vs vehicle		3	1	1	4	3
Recreation/Sport					1	
Smoke/fumes						
Stabbing						
	158	1365	22	10	19	149

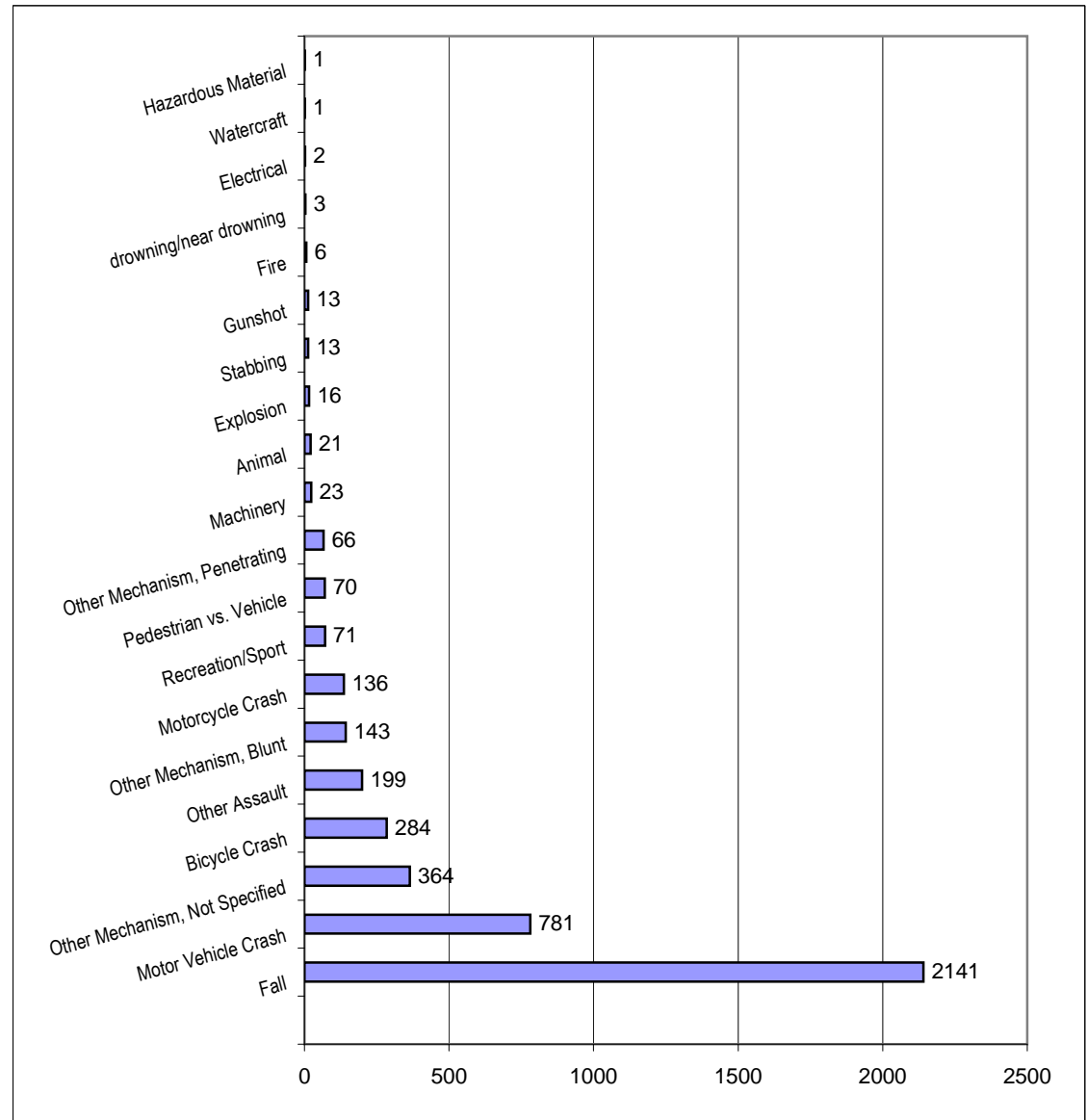
Note* The numbers in this column are also included in the other columns. The report does not include those patients that were treated for medical reasons only.

Marin County EMS Mechanism of Injury Report

From January 1, 2008 to December 31, 2008

<u>Mechanism of Injury</u>	<u>Count</u>
Fall	2141
Motor Vehicle Crash	781
Other Mechanism, Not Specified	364
Bicycle Crash	284
Other Assault	199
Other Mechanism, Blunt	143
Motorcycle Crash	136
Recreation/Sport	71
Pedestrian vs. Vehicle	70
Other Mechanism, Penetrating	66
Machinery	23
Animal	21
Explosion	16
Stabbing	13
Gunshot	13
Fire	6
drowning/near drowning	3
Electrical	2
Watercraft	1
Hazardous Material	1

Report includes: Both Injury and Trauma patients.
Those patients that were and
were not transported.



Marin County EMS

Injury and Trauma - Grouped by Protocol Followed

From 1/1/2008 to 12/31/2008

Protocol	Injury Not Meeting Triage Criteria	Met Trauma Triage Criteria			
		Physiological	Anatomic	Mechanism	Additional Factors
Abdominal Pain	4			2	1
Adult Pain Management	340		4	10	21
Adult Sedation	2				
Allergic Reaction - Mild	1				
Allergic Reactions - Mod/Severe, Anaphylaxis	1				
Allergic Reactions & Anaphylaxis	2				
ALS Assessment	169	4	1	17	34
Asystole	3	1			1
Bradycardias	1	1			
Bronchospasm/Asthma/COPD	1				
Chest Pain, Unlikely to be Cardiac	1				
Chest Pain/Acute Coronary Syndrome	2				
Cold Induced Injury	2				
Coma/ALOC	71	7		1	12
CVA (Stroke)	5				
Drowning/Near Drowning	1	1			
Envenomation	1				
Head Trauma	23	32	8	19	72
Major Burns	2				1
Non-Traumatic Shock	1				
PEA		1			
Pediatric Pain Management	9				
Pediatric Trauma	2	1		2	5
Poisons/Drugs	2				
Routine Medical Care (RMC) ALS	417	4		21	64
Seizures	15	3			2
Syncope	65				2
Traumatic Injury	65	26	26	94	115
Ventricular Ectopy	1				1
Ventricular Fib/pulseless VT	2				
Total:	1211	81	39	166	331

Marin County EMS
Injury and Trauma - Grouped by Provider Agency
 From 1/1/2008 to 12/31/2008

Provider Agency Name	Injury Not Meeting Triage Criteria	Met Trauma Triage Criteria				Additional Factors
		Physio-logical	Anatomic	Mechanism		
NFPD	768	13	8	20	65	
SRFD	570	19	9	42	44	
RVPA	601	16	9	21	83	
SMEMPS	726	12	7	49	92	
MCFD	308	12	5	37	62	
CMFD	235	8	3	11	36	
St. Joseph	419	4	1	2	11	
Stinson Beach	6	1	1	2	4	
Total:	3208	80	41	180	382	

Marin County EMS

Injury and Trauma - Grouped by Receiving Hospital

From 1/1/2008 to 12/31/2008

Provider Agency Name	Injury Not Meeting Triage Criteria*	Met Trauma Triage Criteria			
		Physiological	Anatomic	Mechanism	Additional Factors
California Pacific Medical Center	19				
Children's Hospital Oakland					1
Eden Valley Hospital	1				
John Muir Medical Center		2	4	1	1
Kaiser Hospital, San Francisco	2				
Kaiser Hospital, Santa Rosa	2				
Kaiser Hospital, Terra Linda	691			1	16
Marin General Hospital	1290	65	25	160	298
Novato Community Hospital	374		1		5
Other	2				
Petaluma Valley Hospital	14				4
Queen of the Valley Hospital	1				
San Francisco General Hospital					1
Santa Rosa Memorial Hospital	2	3	2	2	4
St. Mary's Medical Center	1				
Sutter Medical Center of Santa Rosa				1	
U.C.S.F. Medical Center	5				
Veterans Administration Medical Ctn	2				
Total	2406	70	32	165	330

Note: The totals only include those that were transported to a receiving hospital
Also includes 287 patients treated for medical reasons

Marin County EMS Medical vs Trauma (Including Trauma Triage)

From January 1, 2008 to December 31, 2008

Transports	Met Trauma Triage Criteria					Injuries Not Meeting Trauma Triage Criteria
	Medical	Physiologic	Anatomic	Mechanism	Additional Factors	
Marin General Hospital	4,256	65	25	160	298	13
Kaiser San Rafael	2,148			1	17	
Novato Community	1,285		1		5	1
John Muir Medical Center	1	2	4	1	1	
Santa Rosa Memorial	8	3	2	2	4	
CA Pacific Medical Center	34					
Children's Hospital Oakland	1				1	
Doctors Hospital Pinole	2					
Kaiser Hospital, San Francisco	6					
Kaiser Hospital, Santa Rosa	3					
Petaluma Valley Hospital	30				4	
U.C.S.F. Memorial Hospital	16					
Other or Unknown	9			1	1	
Total Transported	7,799	70	32	165	331	14
Non-Transports						
Refused Treatment	578			3	23	3
Released on Scene	468	1	1		2	3
Dead on Scene	118	8	1	4		1
Other or No Patient Contact	57	1				
Total Non-Transport	1,221	10	2	7	25	7
Total Transports + Non-Transports	9,020	80	34	172	356	21
Total Met Trauma Triage Criteria	642	97%				
Total All Other Injured Patients	21	3%				

Note: Because there are 337 transported patients that are both medical and injury/trauma, the totals do not reflect the actual count of patients.

Definitions

Medical: No Injury and no Triage Criteria
 Physiologic: Triage Criteria = "Physiological"
 Anatomic: Triage Criteria = "Anatomic"
 Mechanism: Triage Criteria = "Mechanism"
 Additional Factors: Triage Criteria = "Additional Factors"
 Other Injuries: Patient Type = "Trauma" and no Triage Criteria

Marin County EMS

Protocol Followed by Age Report

Date: 1/1/2008 to 12/31/2008

Note: Read Percentages Down

Protocol	Patient Age										Total
	Unknown	< 1	1-4	5-12	13-15	16-20	21-40	41-55	56-65	> 65	
Abdominal Pain	0	0	0	0	0	11	30	30	28	63	162
						4.35%	2.63%	1.88%	2.19%	1.25%	1.68%
Acute Pulmonary Edema	0	0	0	0	0	0	0	5	10	93	108
								0.31%	0.78%	1.85%	1.12%
Acute Respiratory Distress	0	3	4	1	2	3	19	25	41	270	368
		6.52%	3.88%	1.37%	2.13%	1.19%	1.67%	1.57%	3.20%	5.36%	3.82%
Adult Pain Management	0	0	0	1	9	15	101	108	67	239	540
				1.37%	9.57%	5.93%	8.85%	6.76%	5.23%	4.75%	5.61%
Adult Sedation	0	0	0	0	0	0	1	1	2	1	5
							0.09%	0.06%	0.16%	0.02%	0.05%
Airway Obstruction	0	0	1	0	0	0	0	0	0	2	3
			0.97%							0.04%	0.03%
Allergic Reaction - Mild	0	1	2	1	1	2	4	2	6	2	21
		2.17%	1.94%	1.37%	1.06%	0.79%	0.35%	0.13%	0.47%	0.04%	0.22%
Allergic Reactions - Mod/Severe, Anaphylaxis	0	0	0	0	0	0	3	1	1	0	5
							0.26%	0.06%	0.08%		0.05%
Allergic Reactions & Anaphylaxis	0	0	1	1	1	4	14	19	6	9	55
			0.97%	1.37%	1.06%	1.58%	1.23%	1.19%	0.47%	0.18%	0.57%
ALS Assessment	0	5	11	6	7	28	139	207	136	663	1202
		10.87%	10.68%	8.22%	7.45%	11.07%	12.18%	12.96%	10.62%	13.17%	12.49%
Asthma - Mild/Moderate	0	1	1	3	1	0	3	7	7	16	39
		2.17%	0.97%	4.11%	1.06%		0.26%	0.44%	0.55%	0.32%	0.41%
Asthma - Severe	0	0	0	0	0	0	0	2	1	3	6
								0.13%	0.08%	0.06%	0.06%
Asystole	0	0	0	0	2	0	6	7	12	70	97
					2.13%		0.53%	0.44%	0.94%	1.39%	1.01%

Protocol Followed by Age Report

Date: 1/1/2008 to 12/31/2008

Note: Read Percentages Down

Protocol	Patient Age										Total
	Unknown	< 1	1-4	5-12	13-15	16-20	21-40	41-55	56-65	> 65	
Bradydysrhythmias	0	0	0	0	0	0	2	2	4	45	53
							0.18%	0.13%	0.31%	0.89%	0.55%
Bronchospasm/Asthma/ COPD	0	1	0	1	0	2	7	15	16	66	108
		2.17%		1.37%		0.79%	0.61%	0.94%	1.25%	1.31%	1.12%
Chest Pain	0	0	0	0	0	1	7	26	23	96	153
						0.40%	0.61%	1.63%	1.80%	1.91%	1.59%
Chest Pain, Unlikely to be Cardiac	0	0	0	0	0	1	4	9	3	18	35
						0.40%	0.35%	0.56%	0.23%	0.36%	0.36%
Chest Pain/Acute Coronary Syndrome	0	0	0	0	0	0	22	120	127	364	633
							1.93%	7.51%	9.91%	7.23%	6.58%
Chronic Obstructive Pulmonary Disease	0	0	0	0	0	0	0	1	3	25	29
								0.06%	0.23%	0.50%	0.30%
Cold Induced Injury	0	0	0	0	0	0	4	0	0	5	9
							0.35%			0.10%	0.09%
Coma/ALOC	0	1	4	1	12	22	98	193	147	452	930
		2.17%	3.88%	1.37%	12.77%	8.70%	8.59%	12.09%	11.48%	8.98%	9.67%
Croup/Epiglottitis	0	0	1	0	0	0	0	0	0	0	1
			0.97%								0.01%
CVA (Stroke)	0	0	0	0	0	0	6	18	29	219	272
							0.53%	1.13%	2.26%	4.35%	2.83%
Drowning/Near Drowning	0	2	0	1	0	0	0	0	0	2	5
		4.35%		1.37%						0.04%	0.05%
Envenomation	0	0	0	0	0	0	1	1	0	0	2
							0.09%	0.06%			0.02%
Gastrointestinal Bleeding	0	0	0	0	0	1	5	17	11	59	93
						0.40%	0.44%	1.06%	0.86%	1.17%	0.97%
Head Trauma	0	0	2	1	1	8	33	22	19	68	154
			1.94%	1.37%	1.06%	3.16%	2.89%	1.38%	1.48%	1.35%	1.60%

Protocol Followed by Age Report

Date: 1/1/2008 to 12/31/2008

Note: Read Percentages Down

Protocol	Patient Age										Total
	Unknown	< 1	1-4	5-12	13-15	16-20	21-40	41-55	56-65	> 65	
Heat Illness	0	0	0	0	1 1.06%	0	4 0.35%	3 0.19%	2 0.16%	3 0.06%	13 0.14%
Heat Illness/Hyperthermia	0	0	0	0	0	0	1 0.09%	0	0	1 0.02%	2 0.02%
Imminent Delivery (normal)	0	1 2.17%	0	0	2 2.13%	2 0.79%	10 0.88%	0	0	0	15 0.16%
Major Burns	0	0	1 0.97%	0	1 1.06%	0	0	1 0.06%	0	0	3 0.03%
N/A	0	0	0	0	0	0	0	1 0.06%	0	0	1 0.01%
Narrow Complex Tachycardia	0	0	1 0.97%	0	0	2 0.79%	4 0.35%	11 0.69%	15 1.17%	41 0.81%	74 0.77%
Non-Traumatic Shock	0	0	0	0	0	0	8 0.70%	11 0.69%	5 0.39%	35 0.70%	59 0.61%
PEA	0	0	0	0	0	0	1 0.09%	3 0.19%	9 0.70%	34 0.68%	47 0.49%
Pediatric Allergic Reaction	0	1 2.17%	1 0.97%	3 4.11%	0	0	0	0	0	0	5 0.05%
Pediatric Altered Level of Consciousness	0	6 13.04%	3 2.91%	0	0	0	0	0	0	0	9 0.09%
Pediatric Apparent Life-Threatening Event (ALTE)	0	2 4.35%	0	0	0	0	0	0	0	0	2 0.02%
Pediatric Pain Management	0	0	0	8 10.96%	3 3.19%	0	0	0	0	0	11 0.11%
Pediatric Pulseless Arrest	0	0	0	1 1.37%	0	0	0	0	0	0	1 0.01%
Pediatric Respiratory Distress	0	5 10.87%	6 5.83%	4 5.48%	0	0	0	0	0	0	15 0.16%

Protocol Followed by Age Report

Date: 1/1/2008 to 12/31/2008

Note: Read Percentages Down

Protocol	Patient Age										Total
	Unknown	< 1	1-4	5-12	13-15	16-20	21-40	41-55	56-65	> 65	
Pediatric Seizure	0	7 15.22%	21 20.39%	3 4.11%	0	0	0	0	0	1 0.02%	32 0.33%
Pediatric Tachycardia - Adequate Perfusion	0	0	0	0	0	1 0.40%	0	0	0	0	1 0.01%
Pediatric Toxic Exposures	0	0	1 0.97%	0	0	0	0	0	0	0	1 0.01%
Pediatric Trauma	0	0	2 1.94%	7 9.59%	1 1.06%	0	0	0	0	0	10 0.10%
Poisons/Drugs	0	0	0	0	3 3.19%	16 6.32%	55 4.82%	51 3.19%	14 1.09%	18 0.36%	157 1.63%
Respiratory Arrest	0	0	0	0	0	0	1 0.09%	2 0.13%	3 0.23%	1 0.02%	7 0.07%
Routine Medical Care (RMC) ALS	0	4 8.70%	9 8.74%	13 17.81%	22 23.40%	53 20.95%	292 25.59%	405 25.36%	341 26.62%	1390 27.62%	2529 26.29%
Seizures	0	6 13.04%	30 29.13%	2 2.74%	5 5.32%	23 9.09%	76 6.66%	94 5.89%	38 2.97%	39 0.77%	313 3.25%
ST Elevation Myocardial Infarction (STEMI)	0	0	0	0	0	0	0	1 0.06%	0	3 0.06%	4 0.04%
STEMI	0	0	0	0	0	0	0	0	1 0.08%	3 0.06%	4 0.04%
Syncope	0	0	0	11 15.07%	11 11.70%	29 11.46%	72 6.31%	93 5.82%	93 7.26%	515 10.23%	824 8.56%
Traumatic Injury	0	0	1 0.97%	4 5.48%	9 9.57%	28 11.07%	93 8.15%	74 4.63%	46 3.59%	74 1.47%	329 3.42%
Vaginal Hemorrhage	0	0	0	0	0	1 0.40%	13 1.14%	1 0.06%	1 0.08%	0	16 0.17%
Ventricular Ectopy	0	0	0	0	0	0	0	1 0.06%	3 0.23%	7 0.14%	11 0.11%

Protocol Followed by Age Report

Date: 1/1/2008 to 12/31/2008

Note: Read Percentages Down

Protocol	Patient Age										Total
	Unknown	< 1	1-4	5-12	13-15	16-20	21-40	41-55	56-65	> 65	
Ventricular Fib/pulseless VT	0	0	0	0	0	0	1	7	10	15	33
							0.09%	0.44%	0.78%	0.30%	0.34%
Wide Complex Tachycardia	0	0	0	0	0	0	1	0	1	3	5
							0.09%		0.08%	0.06%	0.05%
<u>Grand Total:</u>	0	46	103	73	94	253	1141	1597	1281	5033	9621
Read Grand Total Percentages Across:	0.00%	0.48%	1.07%	0.76%	0.98%	2.63%	11.86%	16.60%	13.31%	52.31%	

**Marin County EMS
Mechanism of Injury and Trauma Report**

From 1/1/2008 to 12/31/2008

Mechanism of Injury	Both * Medical and Injury/Trauma	Injury Not Meeting Triage Criteria*	Met Trauma Triage Criteria			
			Physio- logical	Anatomic	Mechanism	Additional Factors
Animal	1	18		1		1
Bicycle crash	4	191	6	2	33	52
Electrical		1				
Explosion	2	14				2
Fall	250	1873	38	14	16	196
Fire		5				1
Gunshot	1	3	3	6		1
Hazardous Material		1				
Machinery	1	21		1		1
Motor Vehicle crash	26	625	10	6		78
Motorcycle crash	2	66	8	2	48	12
Near drowning/drowning		2	1			
Other Assault	5	178	3	1		17
Other mechanism, blunt	7	120	4	1	3	15
Other mechanism, not specified	33	341	7		1	11
Other mechanism, penetrating	3	62		3		1
Pedestrian vs vehicle	1	41	4	1	19	5
Recreation/Sport	1	66			3	2
Stabbing		5	1	5		2
Watercraft		1				
Total:	337	3634	85	43	123	397

Note*: The numbers in the "Both Medical and Injury/Trauma" column are included in the other columns