

2016 State Trauma Registry Report

Chris Hector

2016 Data compiled from patient records reported from nine facilities to the LERN State Trauma Registry. Date includes standard dataset established by the National Trauma Data Bank (NTDB).



Figure 1: Age Groups

Trauma patients grouped by age ranges. The highest population is 25-34 age range.

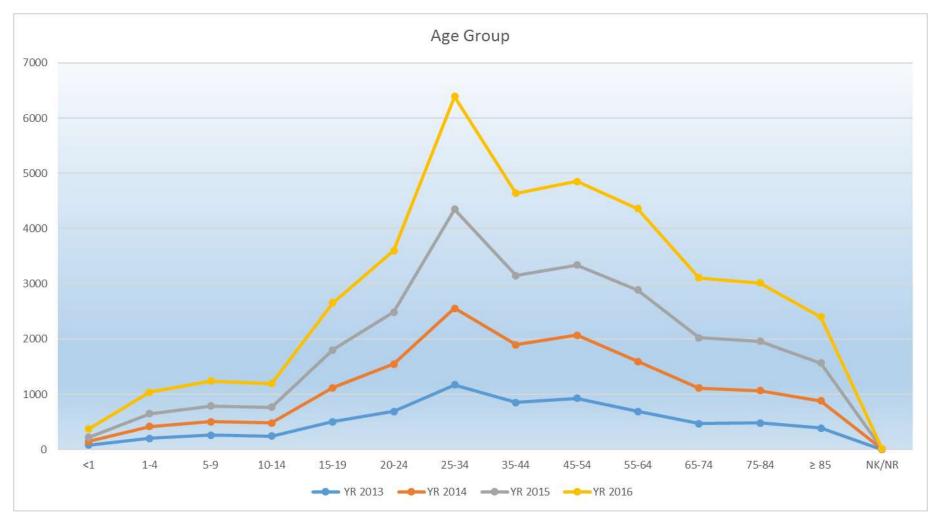
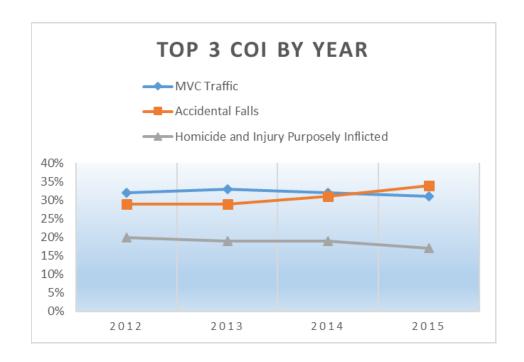




Figure 2: Cause of Injury

Cause of Injury	Total	Percent
Fall	4389	34.07%
Motor Vehicle Accident	2850	22.12%
Assault	2149	16.60%
Motorcycle Accident	517	3.99%
Pedestrian Injured	480	3.72%
Struck by Object	304	2.36%
Off Road Vehicle Acc	296	2.30%
Pedal Cycle Accident	254	1.97%
Activity Accident	221	1.72%
Machinery Accident	205	1.59%
Firearm Discharge	201	1.56%
Suicide or Self Inflicted Injury	182	1.40%
Other Accident	170	1.33%
Contact by Sharp Object	146	1.14%
Animal Bite	94	0.73%
Caught, Crushed, Pinched Between	81	0.63%
Fire or Flames or Explosion	65	0.50%
Foreign Body	45	0.35%
Acc Struck by Person	44	0.34%
Three Wheeled Vehicle Accident	39	0.30%
Abuse or Neglect	29	0.23%
Legal Intervention	28	0.22%
Contact with Hot Food or Object	25	0.19%
Struck by Animal	25	0.19%
Watercraft Accident	17	0.13%
Weather Related	13	0.10%
Drowning or Submersion	12	0.09%
Animal Rider	11	0.09%
Aircraft Accident	1	0.01%
Railway Accident	1	0.01%
Total	12894	100.00%



In 2016, and for the second year in a row, falls are the leading cause of injury.



Figure 3: Deaths by Cause of Injury

Cause of injury for reported deaths. The top 3 causes for 2016 were Falls, Assaults, and MVC's,

Cause of Injury	Total	Total
Fall	175	27.52%
Assault	140	22.01%
Motor Vehicle Accident	132	20.75%
Pedestrian Injured	46	7.23%
Suicide or Self Inflicted Injury	43	6.76%
Motorcycle Accident	30	4.72%
Firearm Discharge	18	2.83%
Pedal Cycle Accident	12	1.89%
Other Accident	9	1.42%
Off Road Vehicle Acc	8	1.26%
Machinery Accident	3	0.47%
Drowning or Submersion	3	0.47%
Caught, Crushed, Pinched Between	3	0.47%
Legal Intervention	3	0.47%
Activity Accident	2	0.31%
Struck by Object	2	0.31%
Abuse or Neglect	2	0.31%
Struck by Animal	2	0.31%
Railway Accident	1	0.16%
Watercraft Accident	1	0.16%
Fire or Flames or Explosion	1	0.16%
Total	636	100.00%



2015 Cause of Injury	Total Deaths	Percent of Total Deaths
Fall	147	26%
Motor Vehicle Accident	187	33%
Assault	136	24%



Figure 4: Payor Mix

Not Paid is inclusive of Primary Payment listed as Other, Not Known, Self-Pay, or Not Billed.

Payor Mix	CY2013	Percent	CY2014	Percent	CY2015	Percent	CY2016	Percent
Paid	4489	64%	5402	64%	7381	70%	9876	77%
Not Paid	2479	36%	3026	36%	3215	30%	3018	23%
Total	6968	100%	8428	100%	10596	100%	12894	100%

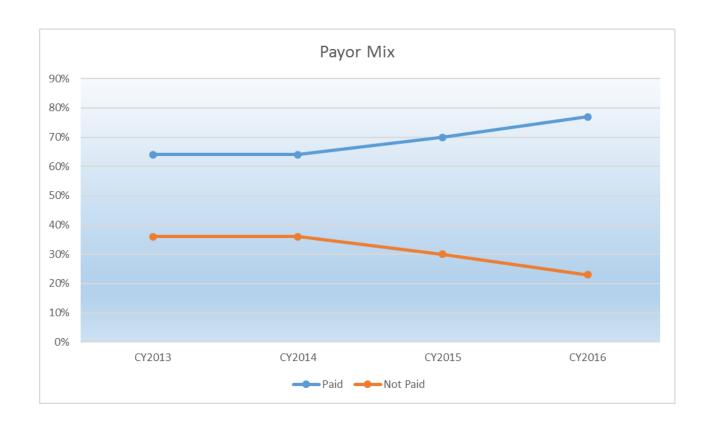


Figure 5: Payor Type

Paid patients by payment method and year.

2016 data includes Children's Hospital New Orleans which was not included in previous years.

Paid Method	CY2013	Percent	CY2014	Percent	CY2015	Percent	CY2016	Percent
Medicare	1448	32%	1782	33%	2468	33%	2904	29%
Medicaid	1159	26%	1287	24%	1880	26%	3568	36%
Private/Commercial	1814	40%	2207	41%	2740	37%	3234	33%
Other Gov	68	2%	126	2%	293	4%	170	2%
Total	4489	100%	5402	100%	7381	100%	9876	100%

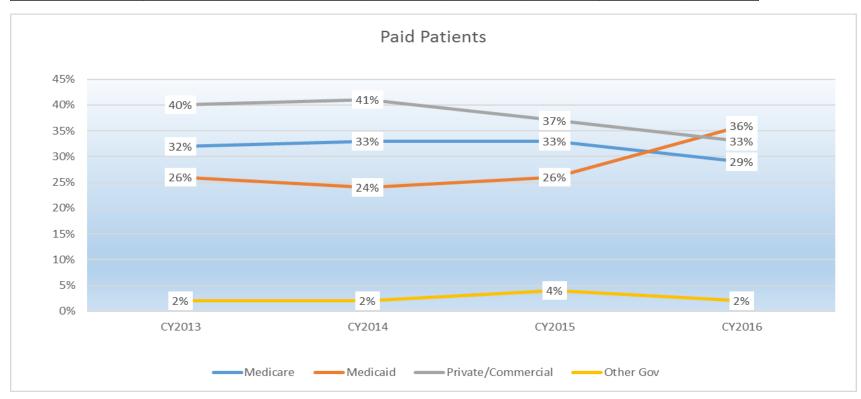




Figure 6: Blood Alcohol Testing

Patients by blood alcohol testing

Blood Alcohol Content	Total	Percent
Yes	2207	17%
No	3776	29%
NK/Not Tested	6911	54%
Total	12894	100%

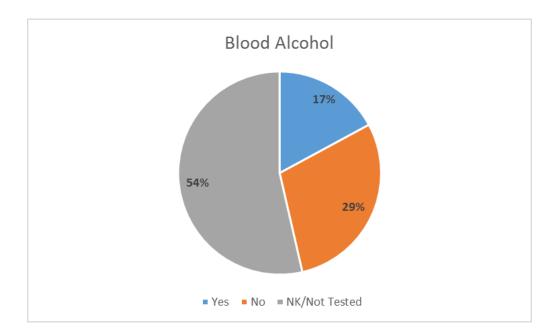




Figure 7: Drug Screening

Patients reported by drug screening.

Drug Screen	Total	Percent
Yes	2658	21%
No	1663	13%
NK/Not Tested	8573	66%
Total	12894	100%

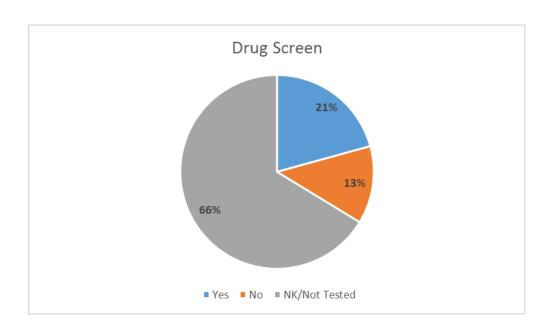




Figure 8: ICU Days

The intensive care unit (ICU) length of stay is the cumulative amount of time spent in ICU. Each partial or full day is measured as one calendar day.

ICU Days	Total	Percent
1-5	3397	77.47%
6-10	486	11.08%
11-20	340	7.75%
21-30	107	2.44%
31-40	31	0.71%
>40	24	0.55%
Total	4385	100.00%

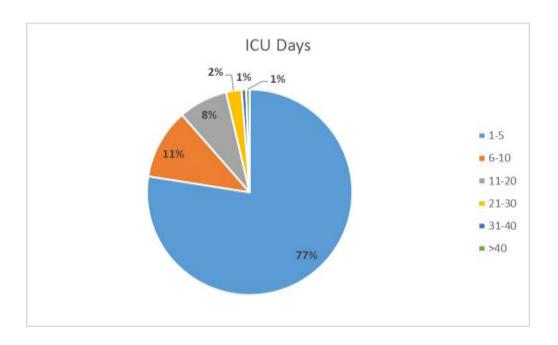




Figure 9: Emergency Department Dispositions

The ED/Acute Care Disposition is the location of the patient after treatment in the emergency department. Over 41% of the trauma patients for 2016 were admitted to the floor. Over 9% were discharged or left AMA.

ED Disposition	Total	Percent
Floor bed (general admission, non specialty unit bed)	5364	41.60%
Intensive Care Unit	3071	23.82%
Operating room	1761	13.66%
Observation unit (unit that provides < 24 hour stays)	761	5.90%
Home with services	708	5.49%
Home without services	435	3.37%
Transferred to another hospital	249	1.93%
Deceased/Expired	206	1.60%
Telemetry/step-down unit (less acuity than ICU)	138	1.07%
Other (jail, institution, etc)	87	0.67%
Not Applicable	86	0.67%
AMA	28	0.22%
Total	12894	100.00%



Figure 10: Hospital Dispositions

Patients reported by disposition upon discharge from hospital. *Data of patient dispositions upon discharge from hospital. *Data of patients who expired in ED, discharged from the ED, discharged to jail/institution, or transferred to other hospital

Hospital Disposition	Total	Percent
Discharged to home or self-care (routine discharge)	7250	56.23%
Not Applicable	1715	13.30%
inpatient rehab or designated unit	1234	9.57%
Skilled Nursing Facility	967	7.50%
Home with Home Health Services	569	4.41%
Deceased/Expired	432	3.35%
Long Term Care Hospital (LTCH)	146	1.13%
Correctional Facility or in Law Enforcement Custody	146	1.13%
AMA	99	0.77%
Intermediate Care Facility	96	0.74%
Hospice care	90	0.70%
Acute care hospital	67	0.52%
Psych Visit	59	0.46%
Another type of institution not defined elsewhere	24	0.19%
Total	12894	100.00%



Figure 11: ISS Scores by Age Groups

Patients reported by ISS and age group. The Injury Severity Score (ISS) is a system for numerically stratifying injury severity. The ISS system has a range of 1-75 and risk of death increases with a higher score. NTDB categorizes ISS 1-8 as Minor; 9-15 as Moderate; 16-24 as Severe; and greater than 24 as Very Severe.

Age Group 🔽	1-8	9-15	16-24	>24	NK/NR	Total
<1	62	44	6	3	4	119
1-4	199	98	9	10	1	317
5-9	263	74	10	3	1	351
10-14	215	90	15	14	4	338
15-19	381	192	69	55	5	702
20-24	492	247	105	80	10	934
25-34	874	447	207	133	5	1666
35-44	651	349	130	90	9	1229
45-54	637	332	154	90	13	1226
55-64	558	426	137	79	13	1213
65-74	341	401	97	56	4	899
75-84	269	536	62	54	5	926
≥85	227	435	58	34	2	756
NK/NR	3	1			1	5
Total	5172	3672	1059	701	77	10681

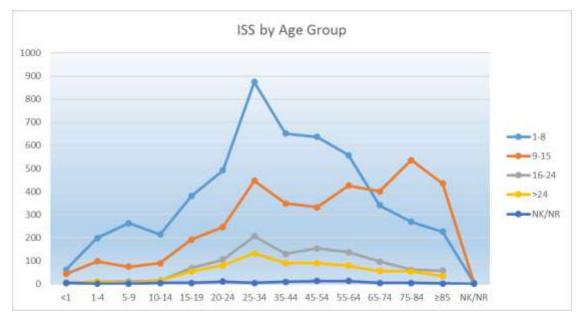
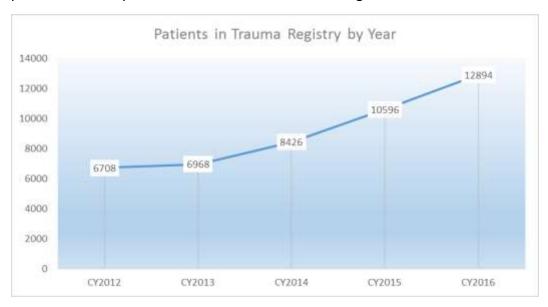




Figure 12: Patients in Trauma Registry by Year/ Deaths Percent by Year

Trauma registry patient totals by year. In 2012 there were 4 facilities reporting. In 2016 the number of facilities reporting increased to 9. Death percent includes patient that arrived to ED without signs of life.



Year	Mean ISS
2012	10.79
2013	10.95
2014	10.80
2015	10.32
2016	9.27

		Death	Percent by Ye	ar	
5.00%					
5.80%	Edward Mark	5.81%			
5,60%	5,69%		5.66%		
5.40%				5.33%	
5.20%					
5,00%					4.93%
4.80%					- Independent
4.60%					
4.40%					
	CY2012	CY2013	CY2014	CY2015	CY2016

	Mean ISS for Level I and II	
Year	Only	Mean ISS for Level III Only
2012	10.79	
2013	10.95	
2014	10.81	8.17
2015	10.42	7.60
2016	9.29 (9.46 without Children's)	8.52



Figure 13: Helicopter Use CY 2012-2016

Total Patients Arriving at Facility by Helicopter by Year.

Year	Arrived by Helicopter	Total in Registry	Percent ot Total
2012	649	6688	9.70%
2013	802	6968	11.50%
2014	874	8426	10.40%
2015	791	10597	7.50%
2016	1267	12894	9.80%
Total	4383	45573	

Patients Arrived by Helicopter and Not Admitted by ED Discharge Disposition and Year

Row Labels	AMA	Home with services	Home without services	Other (jail, institution, etc)	Total
2012			11		11
2013	1		13		14
2014			14		14
2015	1		16		17
2016		31	18	4	53
Total	2	31	72	4	109