



State Trauma Registry Report

2021 Data compiled from current patient records reported from twelve facilities to LERN State Trauma Registry. Includes standard dataset established by National Trauma Data Bank (NTDB).

Figure 1: Age Distribution

Patients reported by age group. Highest patient population lies in the age range 25-34 years old. This is also the highest patient population on a national level.

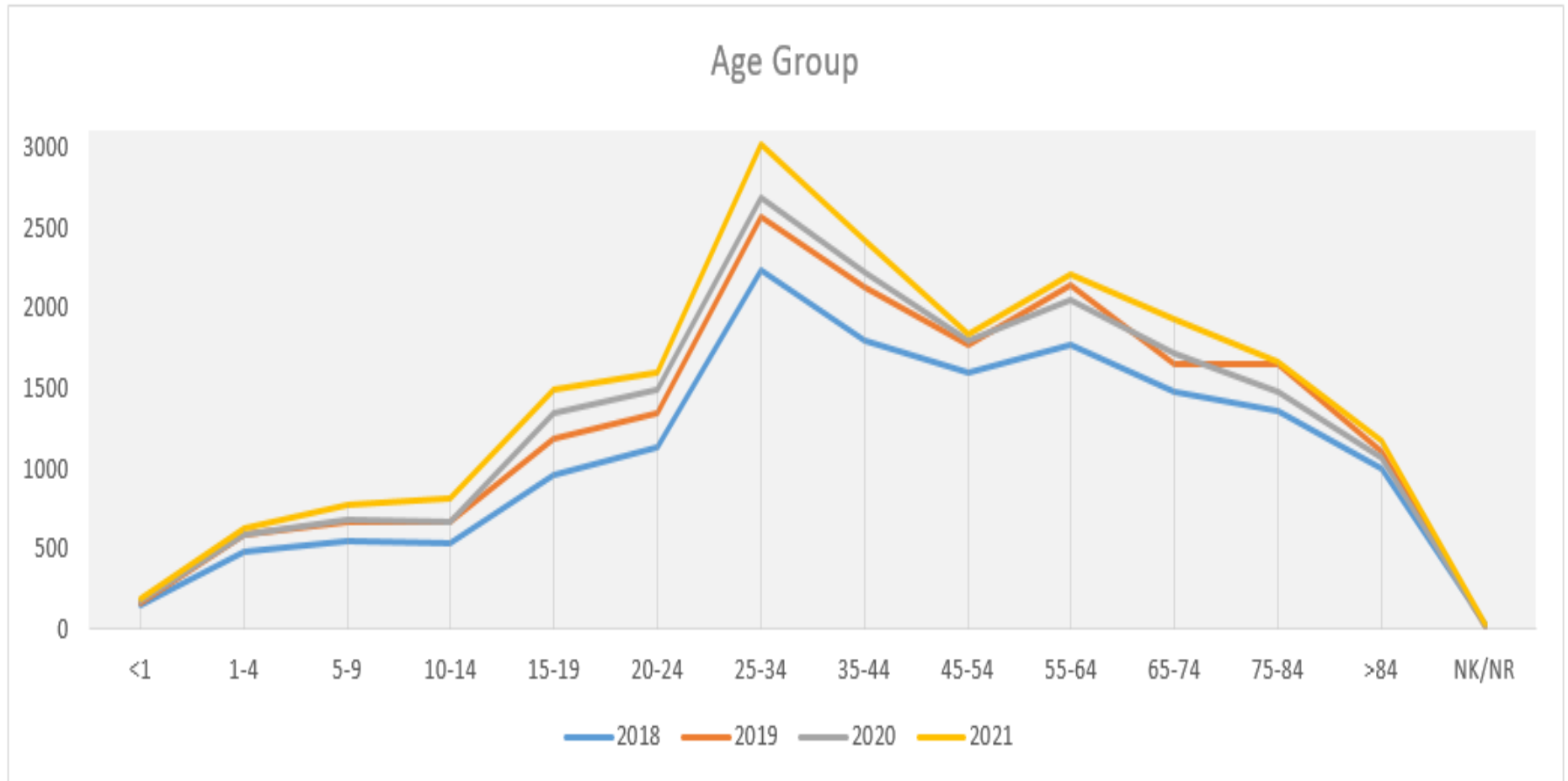


Figure 2: Cause of Injury

Cause of Injury	Total
Fall	6508
Motor Vehicle Accident	5166
Firearm Discharge	1869
Assault	1780
Pedestrian	711
ATV Accident	629
Struck by or Against Object	404
Machinery/Equipment Accident	381
Pedal Cycle Accident	340
Transport Accident	328
Animal Bite/Contact/Rider	292
Contact by Sharp Object	272
Suicide or Self-inflicted Injury	269
Caught, Crushed, Pinched	202
Acc Struck by Person	112
Other	96
Abuse or Neglect	95
Burns, Fire, Flame, Explosion, Smoke	67
Overexertion	36
Watercraft Accident	36
Slipping, Tripping, and Stumbling without Falling	31
Contact Hot Food or Object	28
Foreign Body	22
Diving, Drowning, or Submersion	17
Electrical Accident	13
Legal Intervention	13
Sport/Activity Accident	11
Unknown	8
Weather Accident	6
Aircraft Accident	2
Total	19744

Fall by Age	Total	Percentage
Geriatric (>64)	3707	56.96%
Adult (15-64)	2058	31.62%
Pediatric (0-14)	729	11.20%
Unknown	14	0.22%
Grand Total	6508	100%

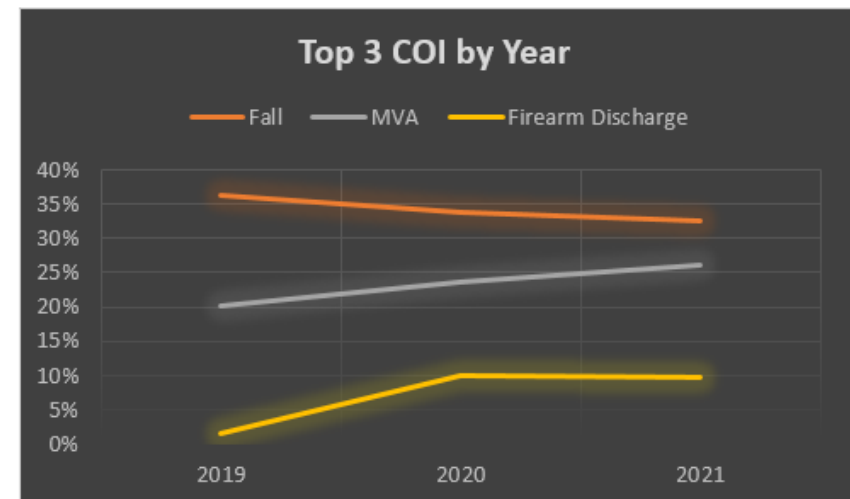
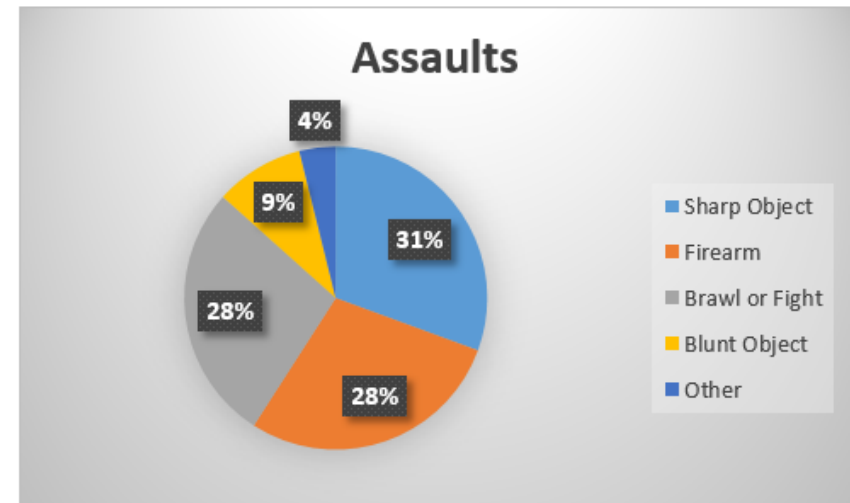
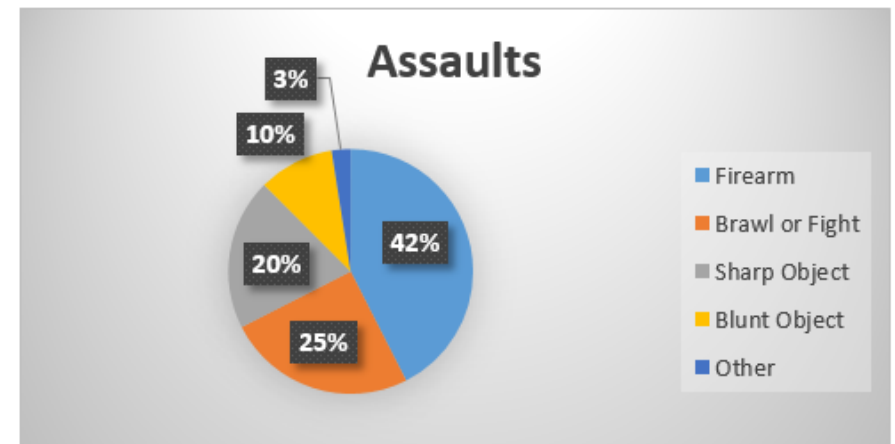


Figure 3: Cause of Injury by Mortality

Cause of Injury	2019	2020	2021
Fall	190	196	★ 206
Motor Vehicle Accident	★ 203	201	★ 139
Firearm Discharge	14	14	83
Pedestrian	51	60	43
Suicide or Self-inflicted Injury	58	67	41
Assault	151	★ 225	40
Transport Accident	2	6	13
Pedal Cycle Accident	8	12	10
Struck by or Against Object	6	6	8
ATV Accident	11	18	7
Abuse or Neglect	4	3	5
Animal Bite/Contact/Rider	2	5	3
Other	13	11	3
Watercraft Accident	0	1	2
Caught, Crushed, Pinched	0	2	2
Machinery/Equipment Accident	3	1	2
Aircraft Accident	1	0	1
Burns, Fire, Flame, Explosion, Smoke	8	3	1
Legal Intervention	4	4	0
Diving, Drowning, or Submersion	6	4	0
Electrical Accident	0	2	0
Overexertion	1	0	0
Total	736	841	609

	ISS Score Range					
Fall by Age	0	1-8	9-15	16-24	>24	Total
Geriatric (>64)	2	24	51	23	55	155
Adult (15-64)	0	5	11	8	26	50
Pediatric (0-14)	0	0	0	0	1	1
Total	2	29	62	31	82	206



★ Top cause of mortality

Figure 4: Received Pre-Hospital or by Transfer

Patients reported as received pre-hospital or transferred from another acute care facility. Patients transferred from a private physician office, stand-alone ambulatory surgery center, or delivered to hospital by a non-EMS transport are not considered an inter-facility transfer. Outlying facilities that provide emergency services or that are utilized to stabilize a patient are considered acute care facilities.

Received by	2018	2019	2020	2021
Inter-Facility Transfer	3688	4499	4455	4723
Pre-Hospital	11082	13505	13488	15011
Unknown	1	5	0	10
Total	14771	18009	17943	19744

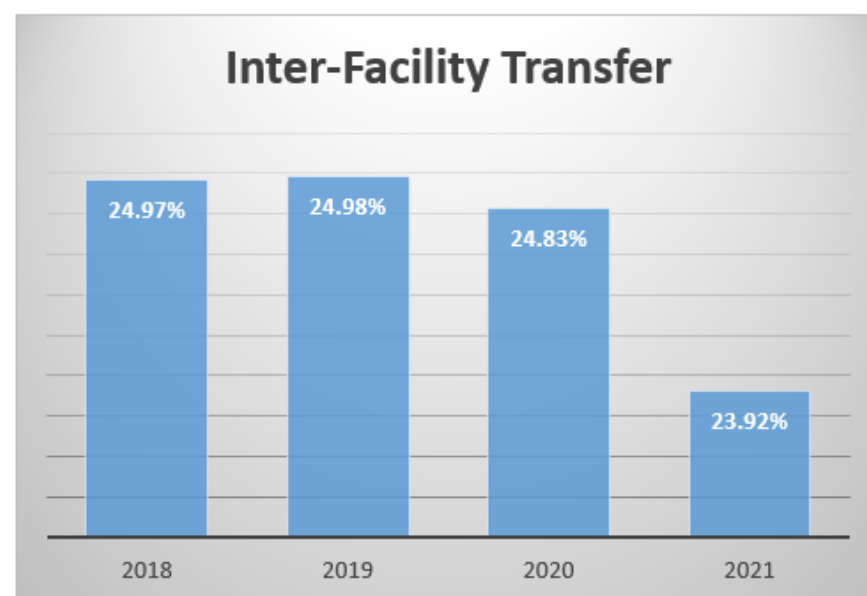
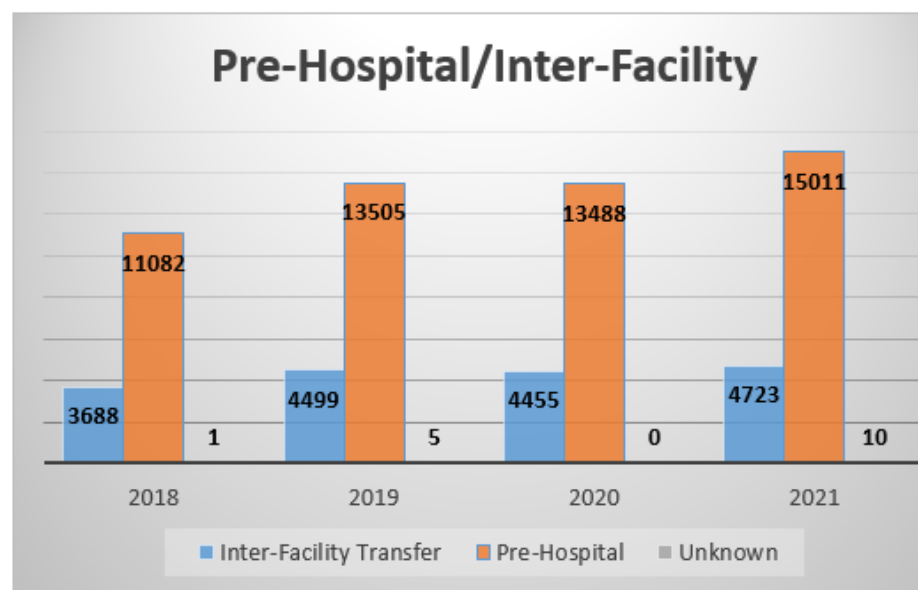


Figure 5: Payor Mix

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

Status	2018	2019	2020	2021
Not Paid	2797	2996	2628	2917
Paid	12135	15013	15315	16827
Total	14932	18009	17943	19744

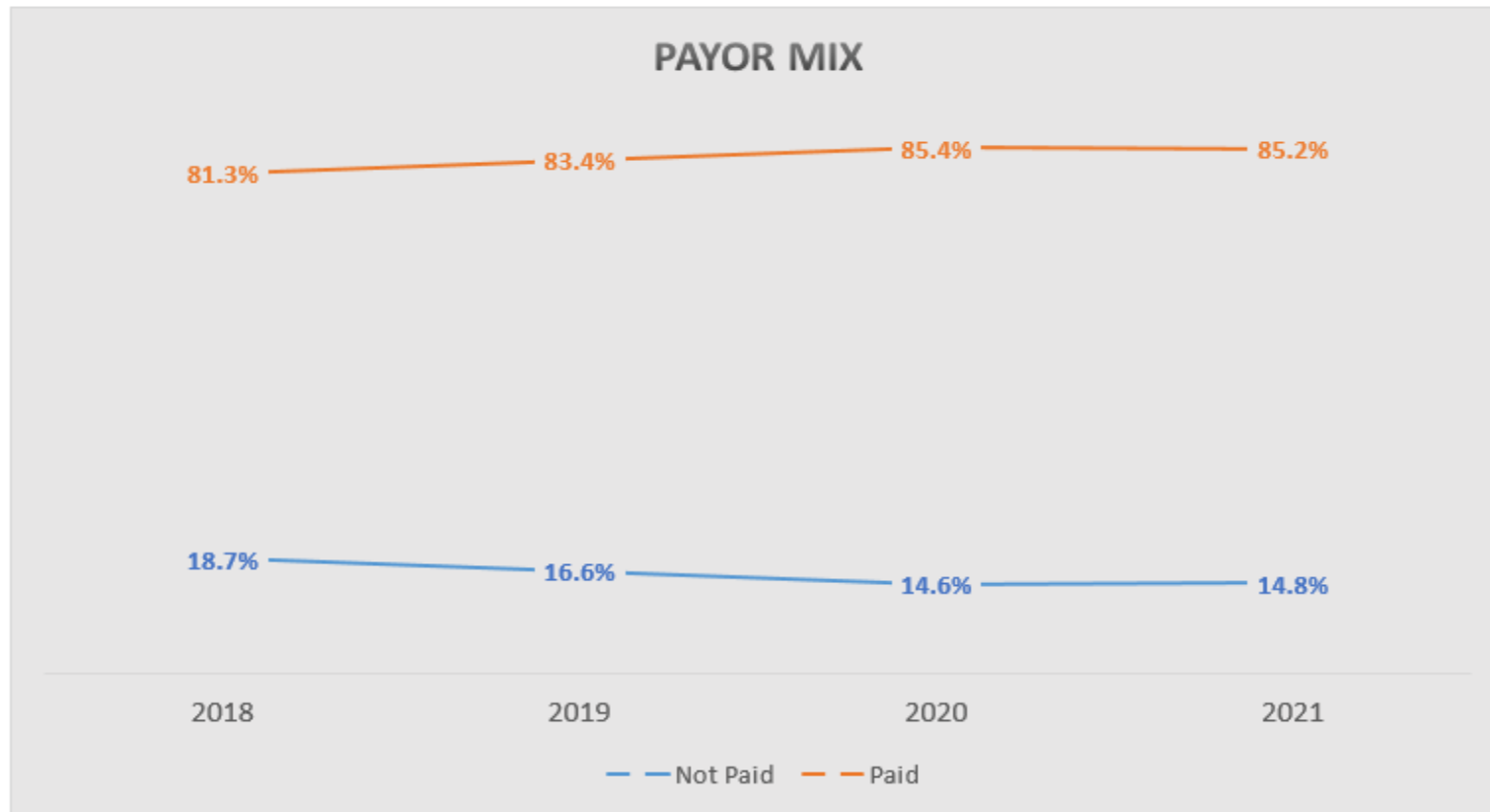


Figure 6: Payor Type

Paid Method	2018	2019	2020	2021
Medicaid	4928	6158	7269	7787
Medicare	3806	4494	4173	4798
Other Government	219	272	236	273
Private/Commercial Insurance	3182	4089	3637	3969
Total	12135	15013	15315	16827

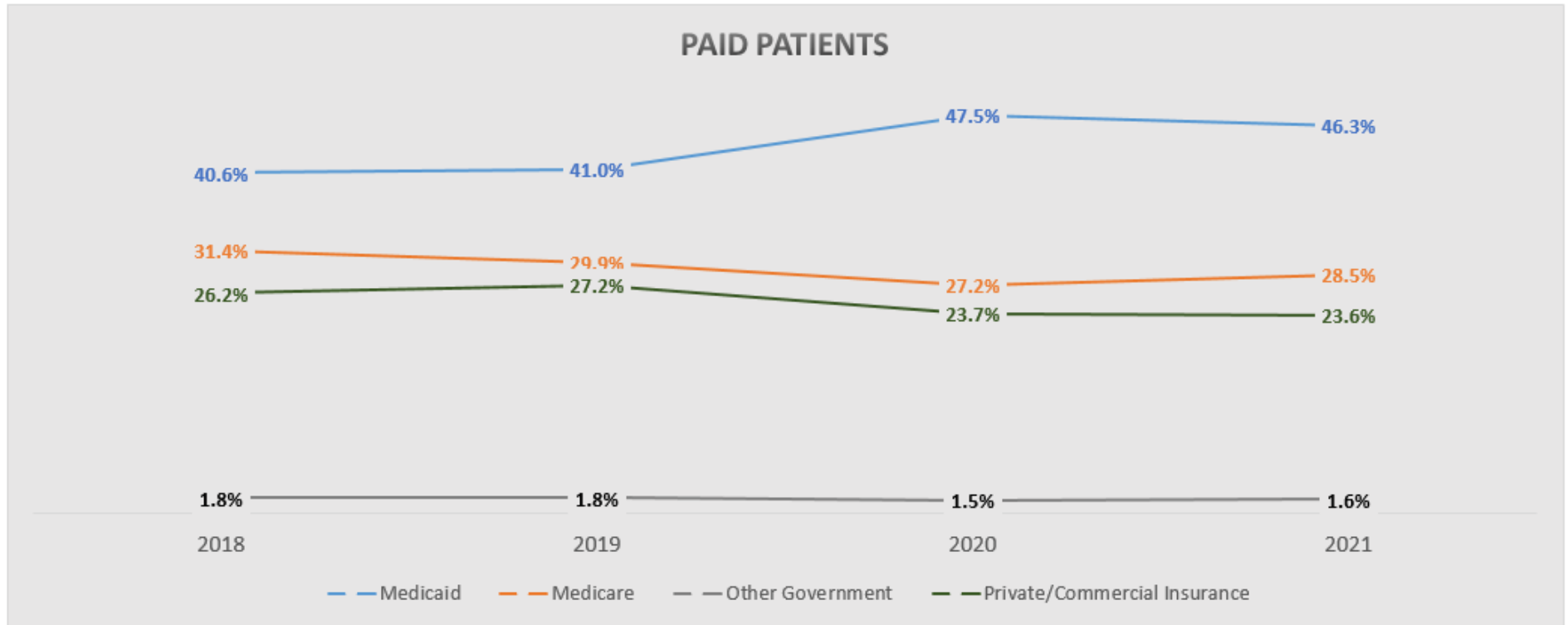


Figure 7: Hospital Average/Median Length of Stay

The hospital length of stay (LOS) is calculated by the using the admit time/date and the discharged time/date. For the purpose of this report days were adjusted based on each partial or full day is measured as one calendar day. Patients admitted and discharged on same day count as 0.

Year	Mean	Median
2018	5.33	3
2019	4.90	2
2020	4.75	2
2021	5.14	3

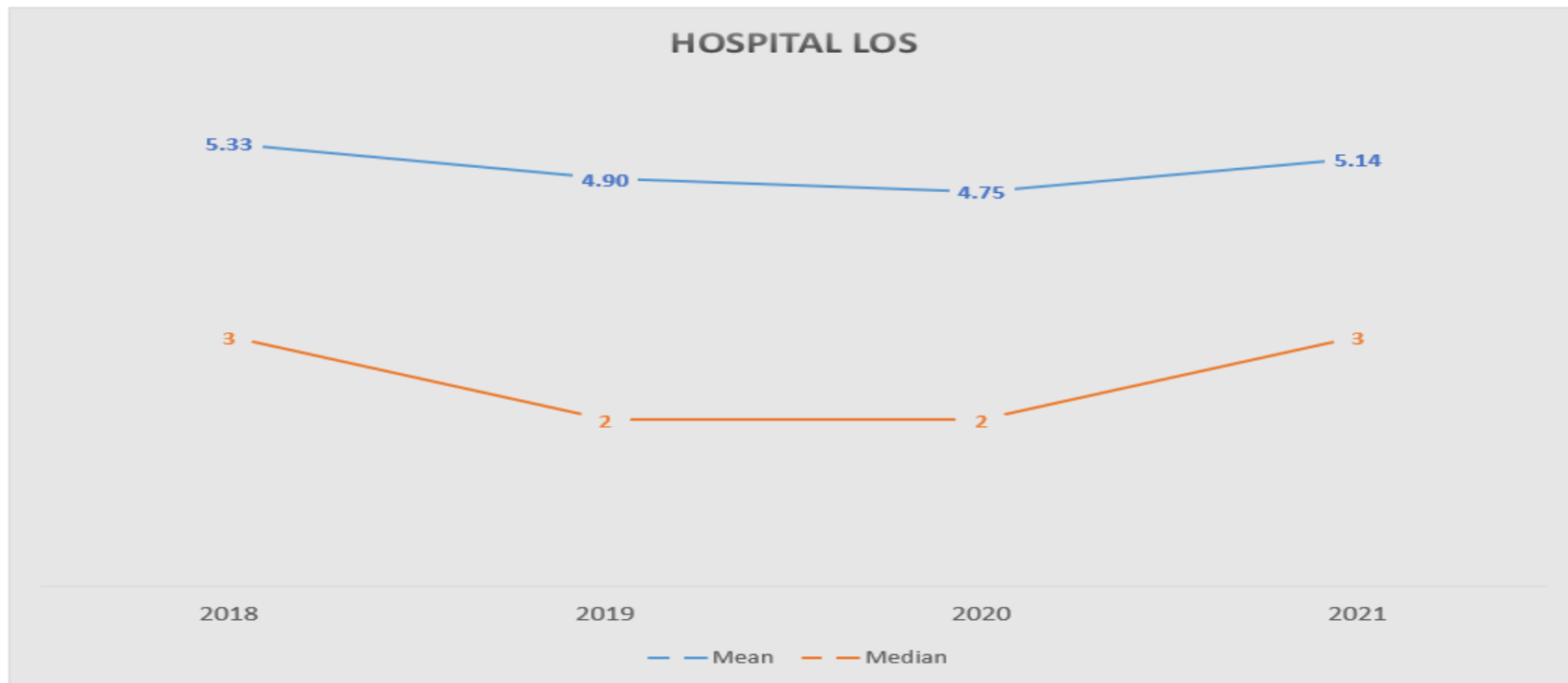


Figure 8: ICU Days

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
0	14921	75.57%
1-5	3581	18.14%
6-10	644	3.26%
11-15	261	1.32%
16-20	141	0.71%
21-25	83	0.42%
26-30	47	0.24%
31-35	22	0.11%
36-40	13	0.07%
41-45	8	0.04%
46-50	6	0.03%
51-55	1	0.01%
56-60	5	0.03%
61-65	3	0.02%
66-70	4	0.02%
71-75	1	0.01%
> 75	3	0.02%
TOTAL	19744	100%

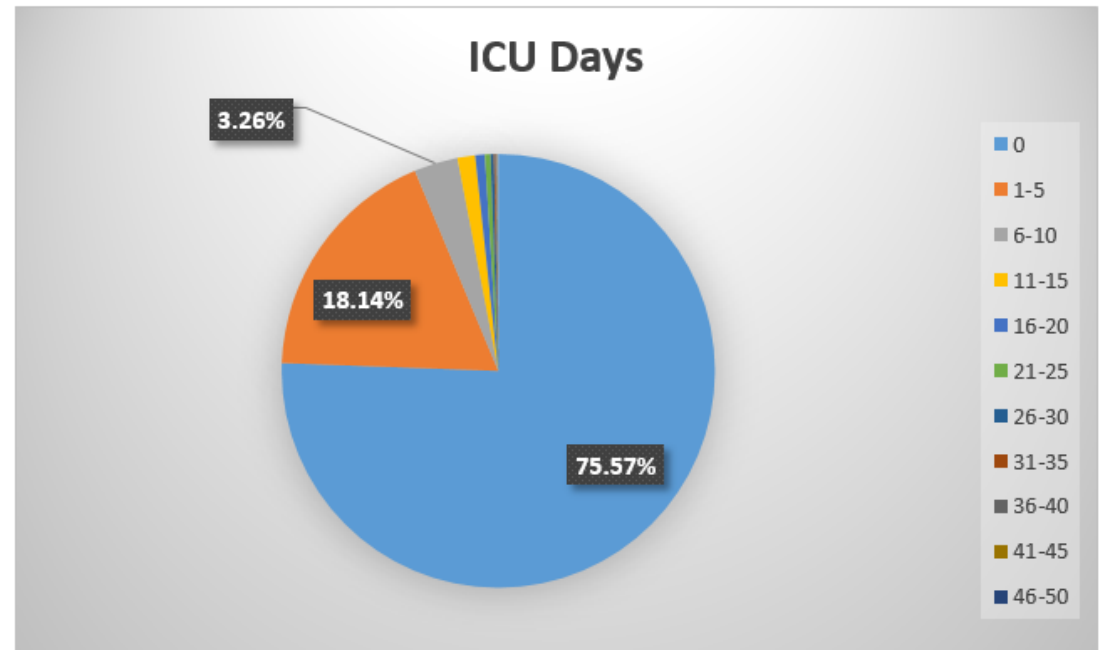


Figure 9: Blood Alcohol Testing

Of the 19,744 patients in the 2021 data, 58% were not tested, 42% were tested.

Tested	Total	Percent
Yes	8269	42%
No	11408	58%
Unknown	67	0%
Total	19744	100%

Tested Patients	
BAC Level	Total
0	4379
0.01-0.05	2396
0.06-0.15	634
0.16-0.30	740
0.31-0.45	115
> 0.45	5
Total	8269

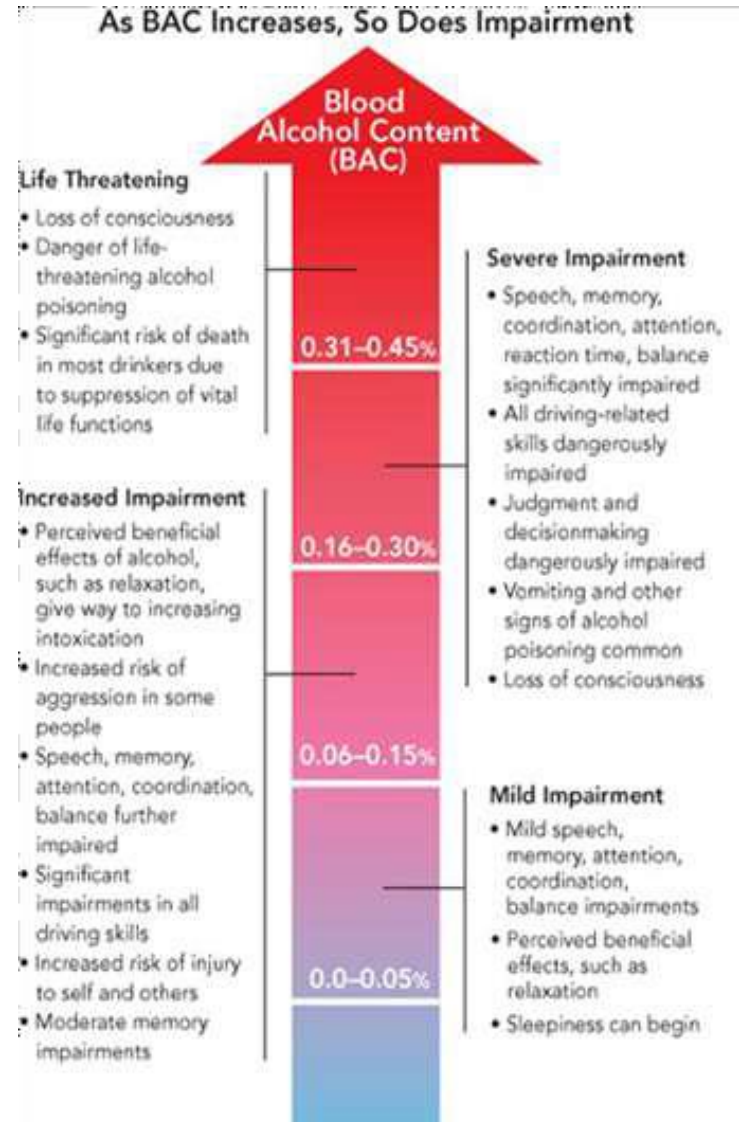
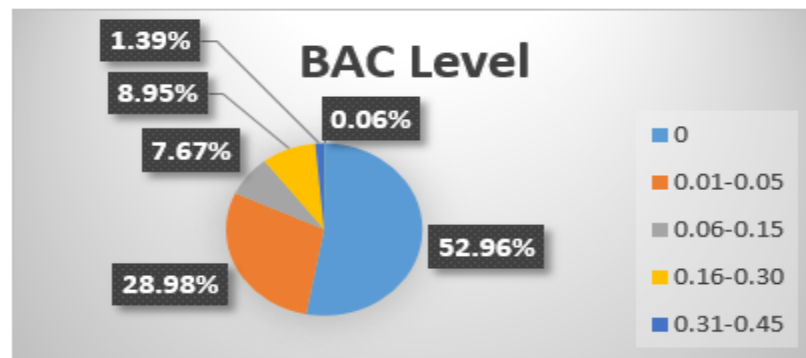


Figure 10: Drug Screening

Of the 19,744 patients in the 2021 data, 59.4% were not tested, 15.2% tested negative, and the remaining 25.4% tested positive for drugs.

Drug Screening	Total	Percent
Not Tested	11733	59.43%
None	3001	15.20%
Positive for Single Drug	2762	13.99%
Positive for Multiple Drugs	2239	11.34%
Unknown	9	0.05%
Total	19744	100%

Drug	Total	Percent
THC (Cannabinoid)	2710	33.00%
OPI (Opioid)	2072	25.23%
BZO (Benzodiazepines)	1251	15.24%
AMP (Amphetamine)	1150	14.01%
COC (Cocaine)	719	8.76%
mAMP (Methamphetamine)	107	1.30%
BAR (Barbiturate)	80	0.97%
PCP (Phencyclidine)	34	0.41%
OXY (Oxycodone)	30	0.37%
MTD (Methadone)	26	0.32%
Other Evidence of Drugs	17	0.21%
TCA (Tricyclic Antidepressant)	8	0.10%
MDMA (Ecstasy)	7	0.09%
Total	8211	100%

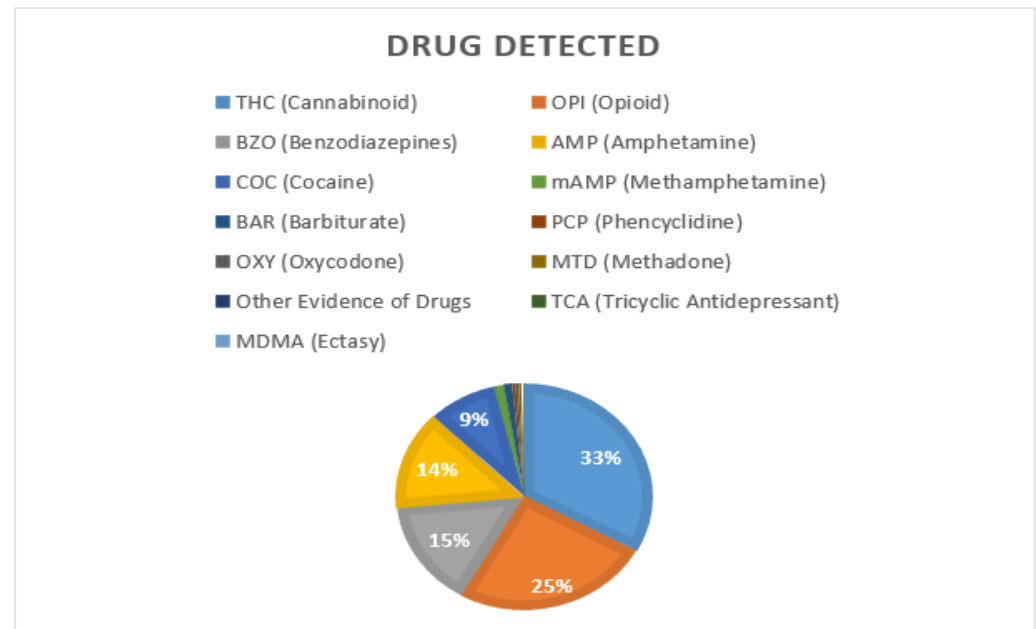
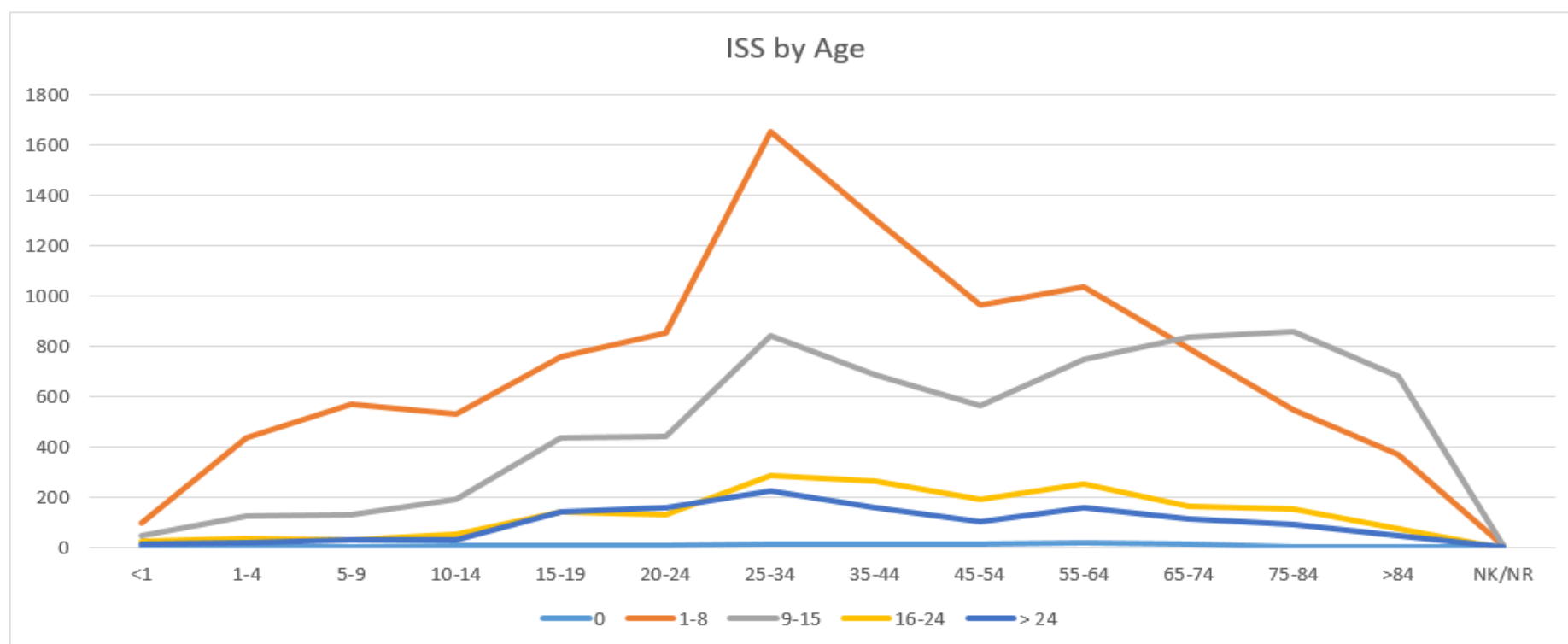


Figure 11: ISS by Age

Patients reported by age group and ISS score. 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.



Year	Mean ISS Score		
	All Facilities	L1 and L2	L3
2018	8.75	8.82	8.11
2019	8.43	8.71	6.75
2020	8.89	9.21	7.29
2021	8.88	9.02	7.87

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

In 2017 the number of facilities reporting was 10. In 2021 the number of facilities reporting increased to 12. Death percent includes patient that arrived to ED without signs of life.

