LOUISIANA EMERGENCY RESPONSE NETWORK

State Trauma Registry Report

2023 Data compiled from current patient records reported from thirteen 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. The total number of patients decreased by 394 from 2022 to 2023.
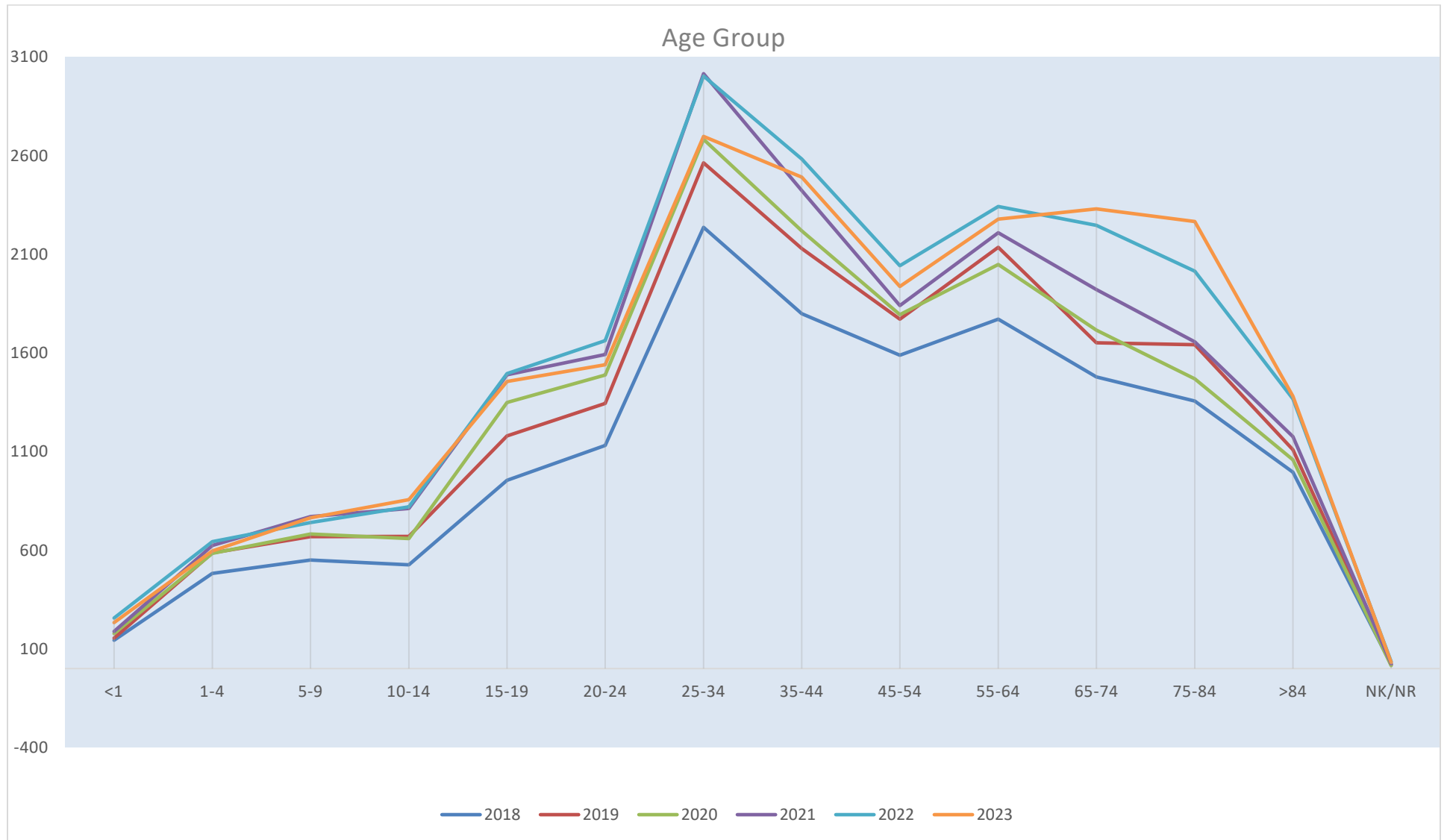
Figure 2: Cause of Injury

Cause of Injury	Total
Fall	7889
Motor Vehicle Accident	4189
Firearm Discharge	1612
Assault	1602
Pedestrian	840
Motorcycle Accident	816
ATV Accident	703
Struck by or Against Object	435
Pedal Cycle Accident	398
Machinery/Equipment Accident	344
Transport Accident	321
Animal Bite/Contact/Rider	321
Contact by Sharp Object	285
Suicide or Self-inflicted Injury	216
Caught, Crushed, Pinched	189
Abuse or Neglect	145
Acc Struck by Person	135
Other	113
Unknown	71
Burns, Fire, Flame, Explosion, Smoke	65
Overexertion	37
Watercraft Accident	34
Slipping, Tripping, and Stumbling without Falling	18
Diving, Drowning, or Submersion	17
Foreign Body	17
Legal Intervention	15
Sport/Activity Accident	11
Contact Hot Food or Object	11
Electrical Accident	9
Aircraft Accident	1
Weather Accident	1
Grand Total	20860

Fall by Age	Total	Percentage
Geriatric (>64)	4690	59.45%
Adult (15-64)	2277	28.86%
Pediatric (0-14)	904	11.46%
Unknown	18	0.23%
Grand Total	7889	100.00%

Assaults

- Sharp Object — 31%
- Brawl or Fight — 28%
- Firearm — 27%
- Blunt Object — 10%
- Other — 4%

Top 3 COI by Year

Fall, MVA, Firearm Discharge (2019–2023)
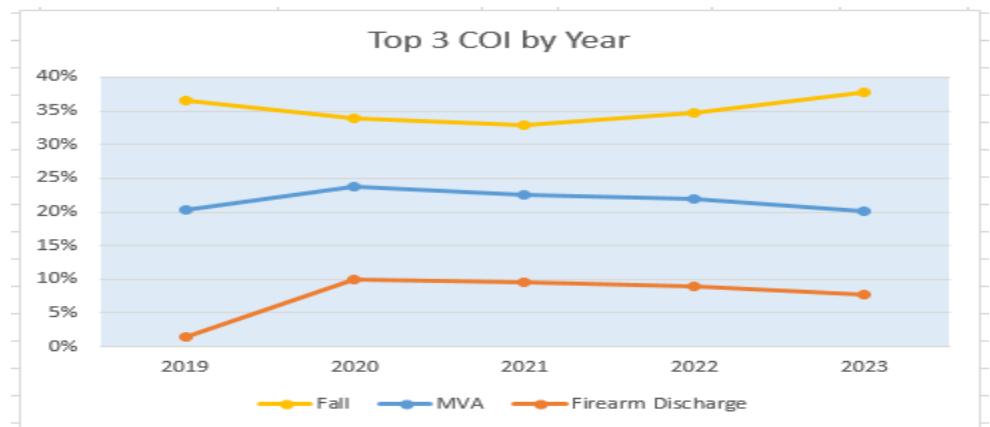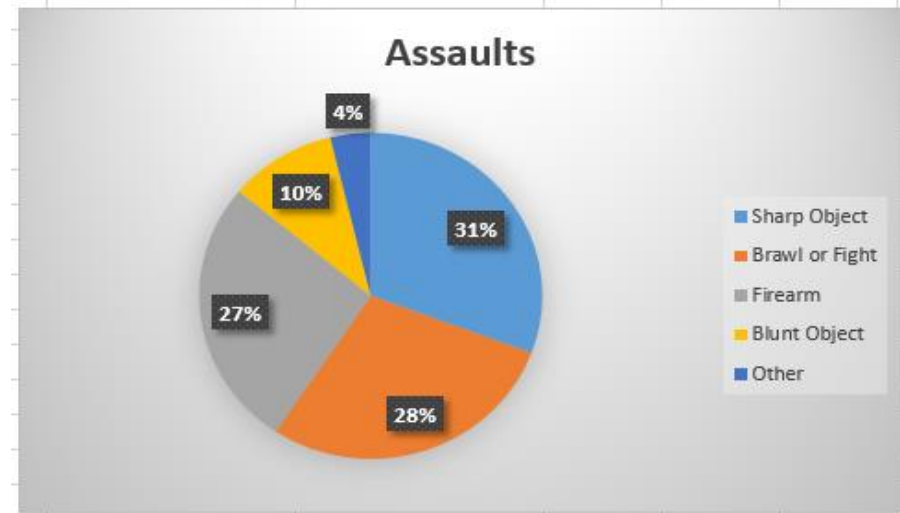
Figure 3: Cause of Injury by Mortality

Cause of Injury	2019	2020	2021	2022	2023
Firearm Discharge	14	14	216	176	215
Fall	190	196	222	211	205
Motor Vehicle Accident	164	166	170	163	159
Pedestrian	51	60	65	68	63
Assault	151	225	79	68	59
Suicide or Self-inflicted Injury	58	67	66	58	58
Motorcycle Accident	39	35	36	33	34
ATV Accident	11	18	12	10	16
Transport Accident	2	6	15	24	14
Pedal Cycle Accident	8	12	19	13	11
Other	13	11	3	5	10
Struck by or Against Object	6	6	9	9	8
Abuse or Neglect	4	3	6	9	4
Animal Bite/Contact/Rider	2	5	4	3	4
Machinery/Equipment Accident	3	1	3	1	4
Burns, Fire, Flame, Explosion, Smoke	8	3	2	5	3
Diving, Drowning, or Submersion	6	4	1	3	3
Caught, Crushed, Pinched	0	2	2	0	3
Watercraft Accident	0	1	2	1	2
Contact by Sharp Object	0	2	0	1	1
Electrical Accident	0	2	1	1	0
Weather Accident	0	1	0	1	0
Aircraft Accident	1	0	1	0	0
Legal Intervention	4	4	0	0	0
Overexertion	1	0	0	0	0
Total	736	844	934	863	876

| Fall by Age | ISS Score Range | | | | | |
	0	1-8	9-15	16-24	>24	Total
Geriatric (>64)	2	23	60	14	63	162
Adult (15-64)	2	9	0	3	28	42
Pediatric (0-14)	0	0	0	0	1	1
Total	4	32	60	17	92	205

Assaults

- Firearm 68%
- Sharp Object 15%
- Brawl or Fight 8%
- Other 7%
- Blunt Object 2%
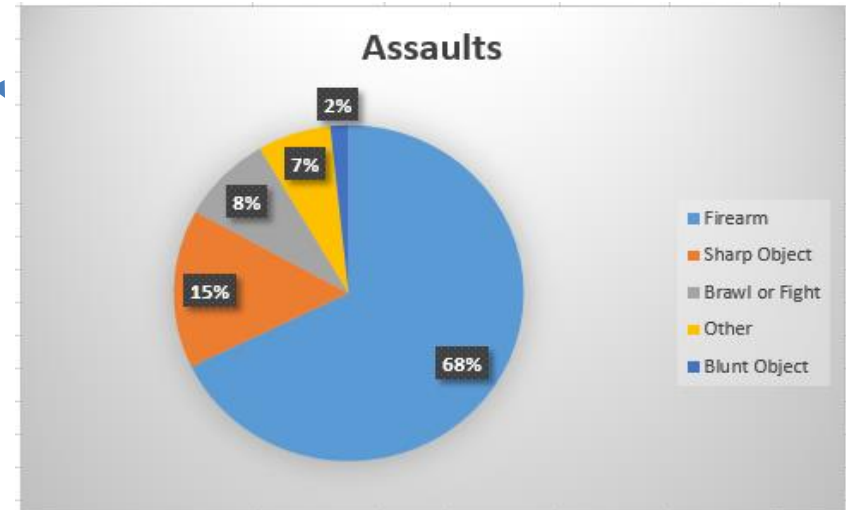
*Reporting of firearm discharges changed after CY 2020 and the increase from 2021-2023 is due to how Gun Shot Wounds are now reported in the trauma registry.

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.

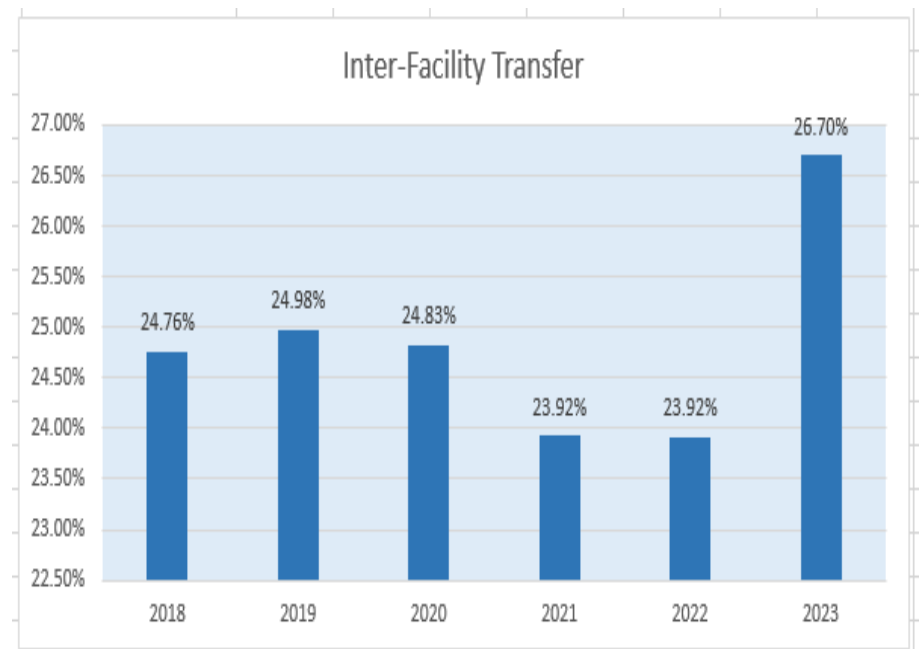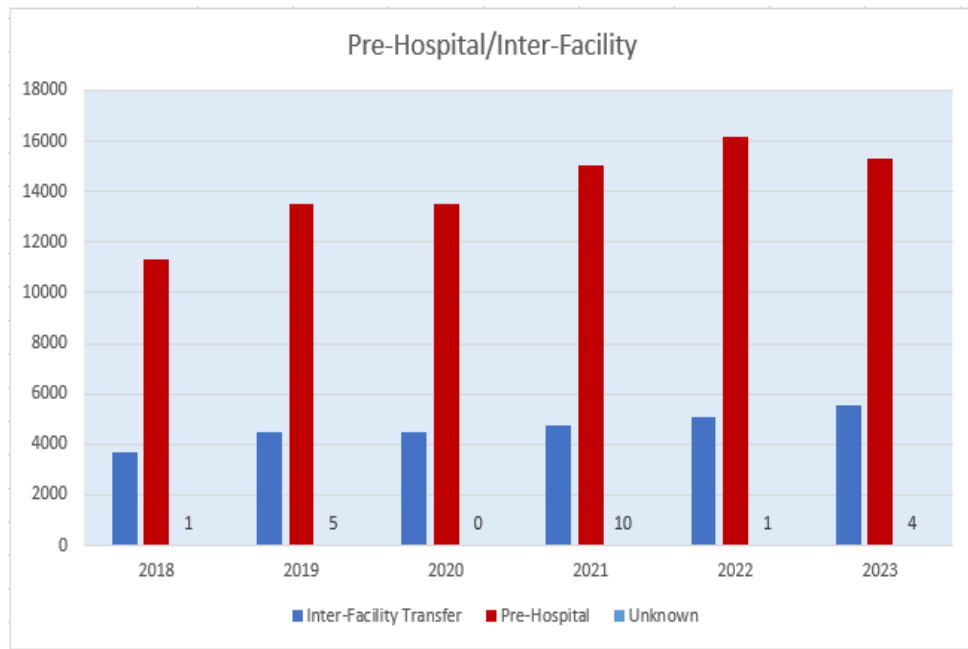| Received by	2018	2019	2020	2021	2022	2023
Inter-Facility Transfer	3722	4499	4455	4723	5084	5569
Pre-Hospital	11312	13505	13488	15011	16169	15287
Unknown	1	5	0	10	1	4
Total	15035	18009	17943	19744	21254	20860

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	2022	2023
Not Paid	2797	2996	2628	2917	3025	3280
Paid	12238	15013	15315	16827	18229	17580
Total	15035	18009	17943	19744	21254	20860

Payor Mix
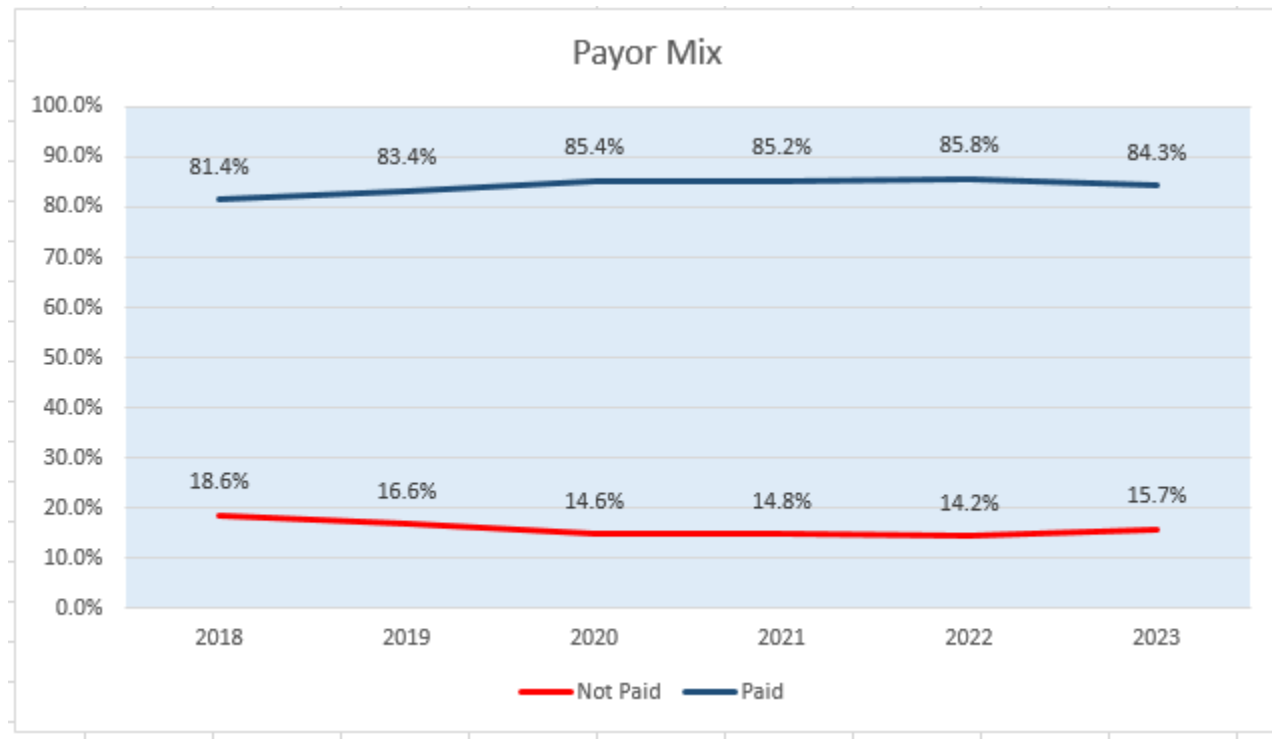
Figure 6: Payor Type

Payor type for paid patients.

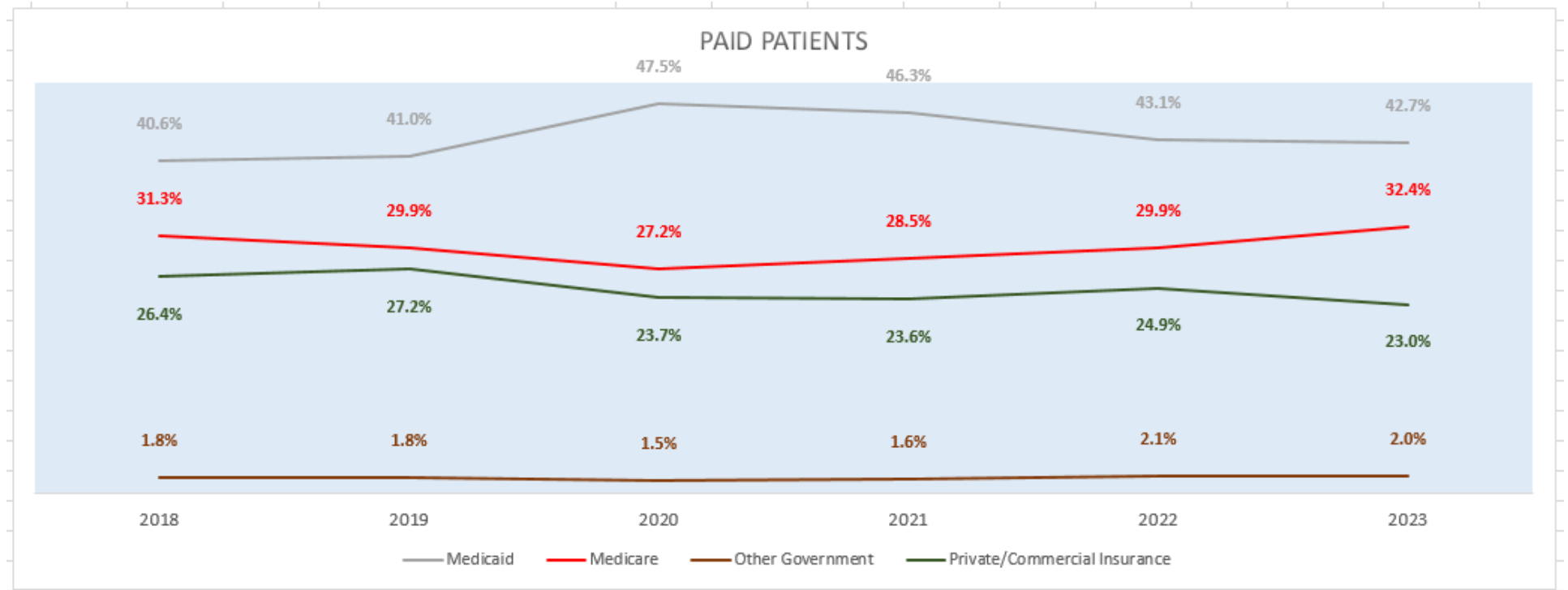| Paid Method	2018	2019	2020	2021	2022	2023
Medicaid	4964	6158	7269	7787	7855	7505
Medicare	3830	4494	4173	4798	5456	5690
Other Government	219	272	236	273	376	345
Private/Commercial Insurance	3225	4089	3637	3969	4542	4040
Total	12238	15013	15315	16827	18229	17580

PAID PATIENTS

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.

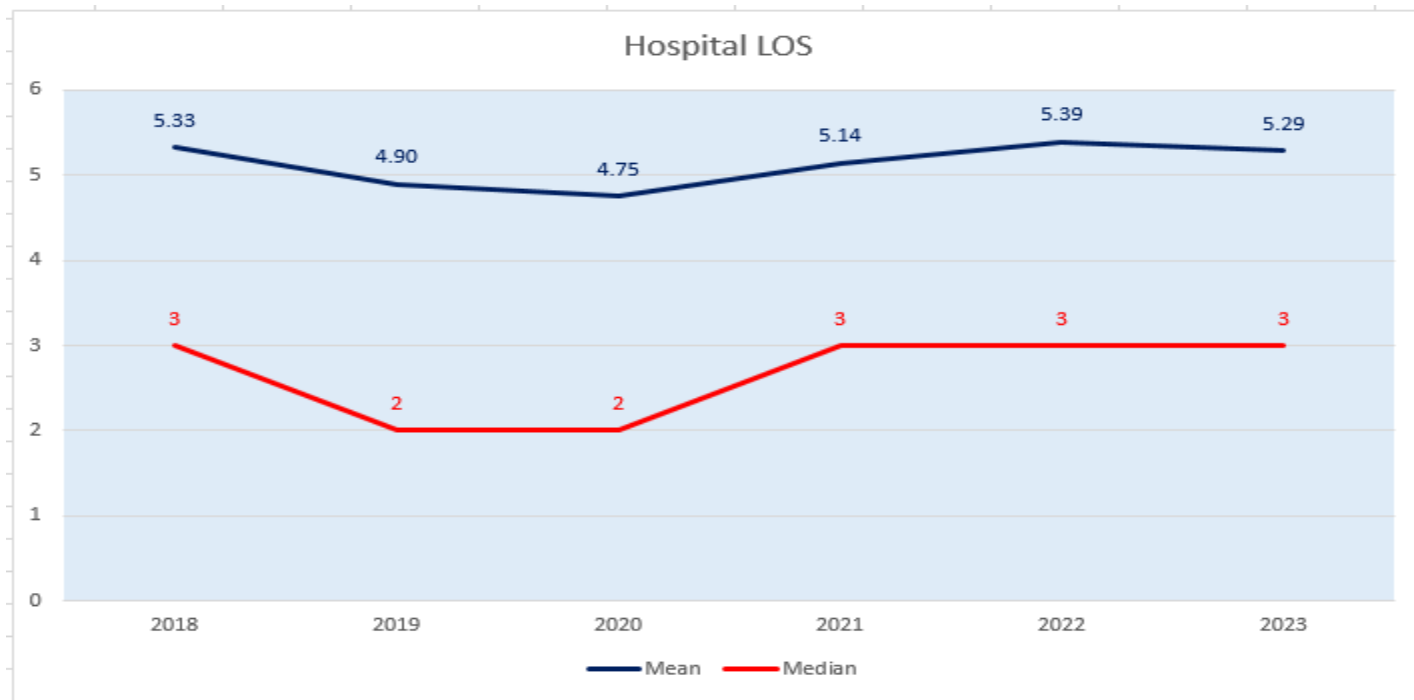| Year	Mean	Median
2018	5.33	3
2019	4.90	2
2020	4.75	2
2021	5.14	3
2022	5.39	3
2023	5.29	3

Hospital LOS

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.

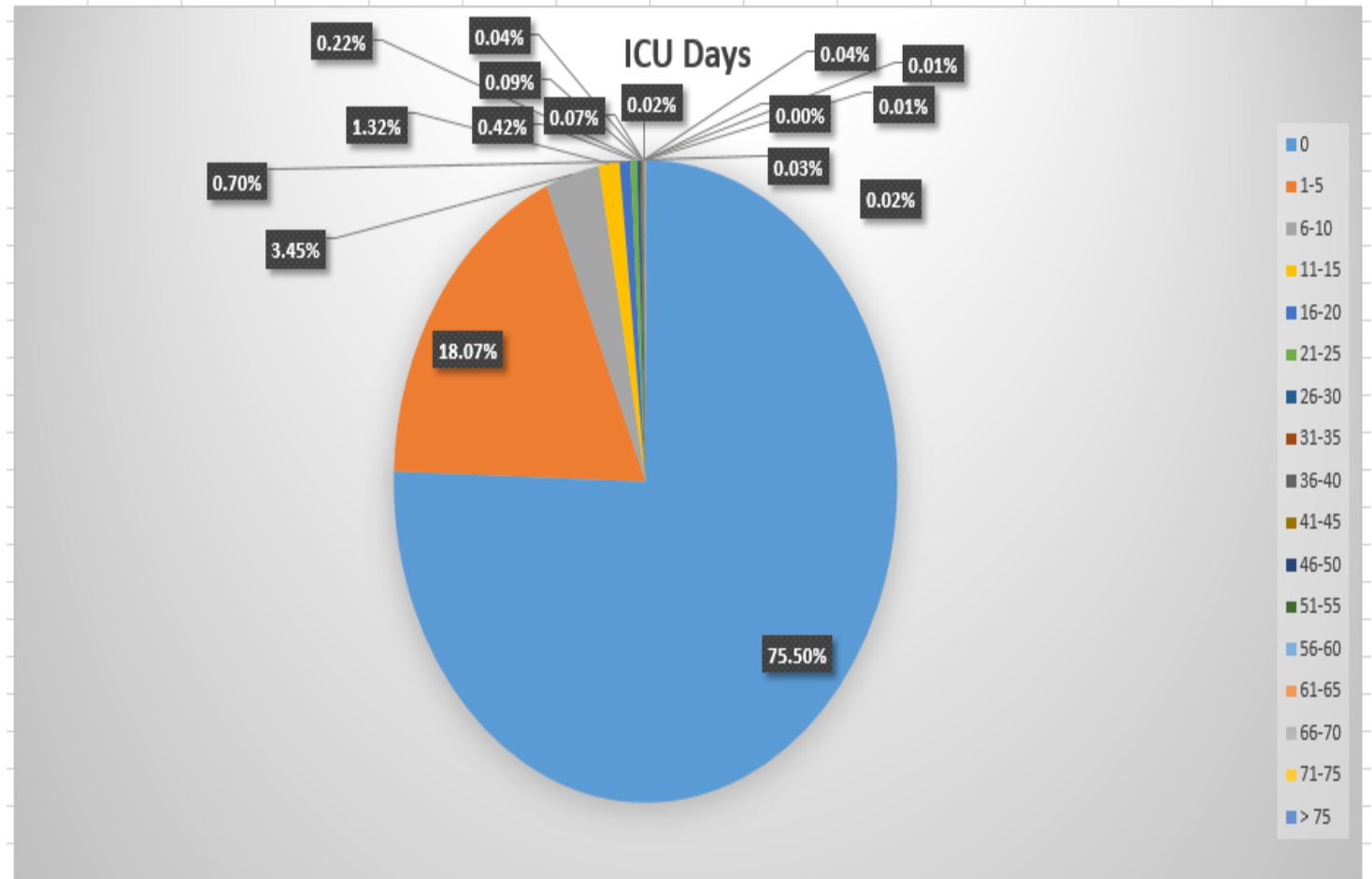| ICU DAYS	TOTAL	PERCENT
0	15750	75.50%
1-5	3769	18.07%
6-10	720	3.45%
11-15	275	1.32%
16-20	145	0.70%
21-25	87	0.42%
26-30	46	0.22%
31-35	18	0.09%
36-40	14	0.07%
41-45	8	0.04%
46-50	4	0.02%
51-55	8	0.04%
56-60	3	0.01%
61-65	6	0.03%
66-70	1	0.00%
71-75	2	0.01%
> 75	4	0.02%
TOTAL	20860	100%

Figure 9: Blood Alcohol Testing

Of the 20,860 patients in the 2023 data, 52.7% were not tested, 47.3% were tested. Of the patients tested, 2,081 had a BAC ≥ 0.08% (above legal limit). For patients involved in a MVC, 651 MVC had a BAC ≥ 0.08%.

Tested	Total	Percent
Yes	10992	52.7%
No	9864	47.3%
Unknown	4	0.0%
Total	20860	100%

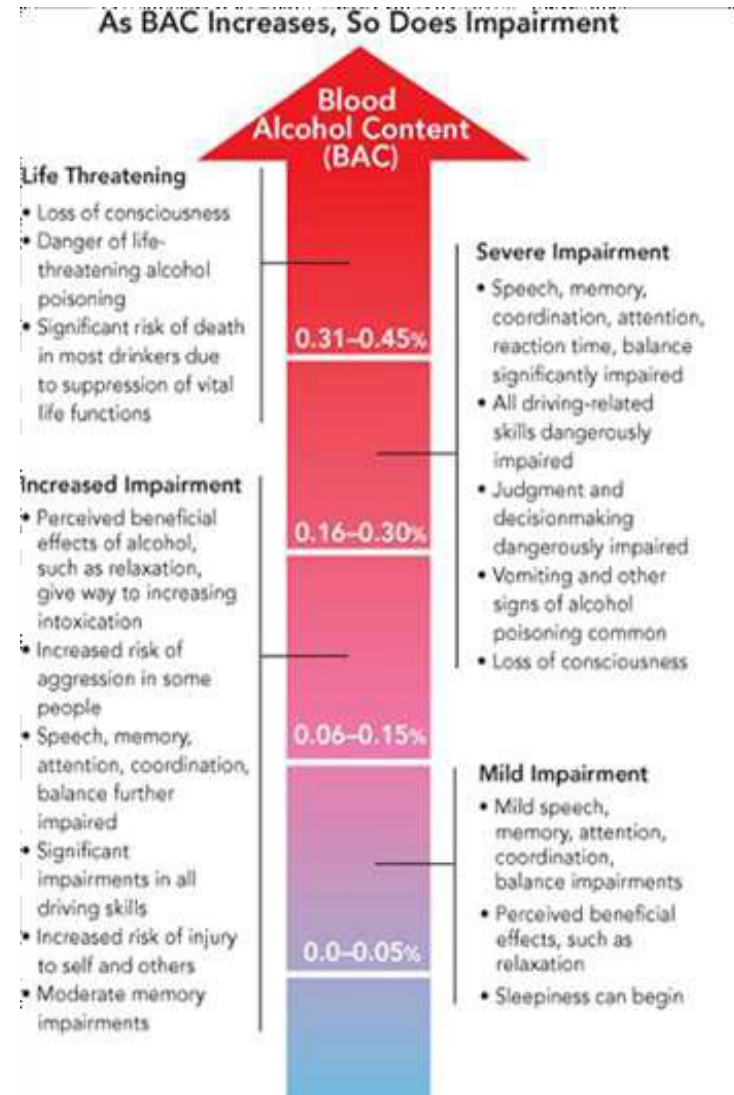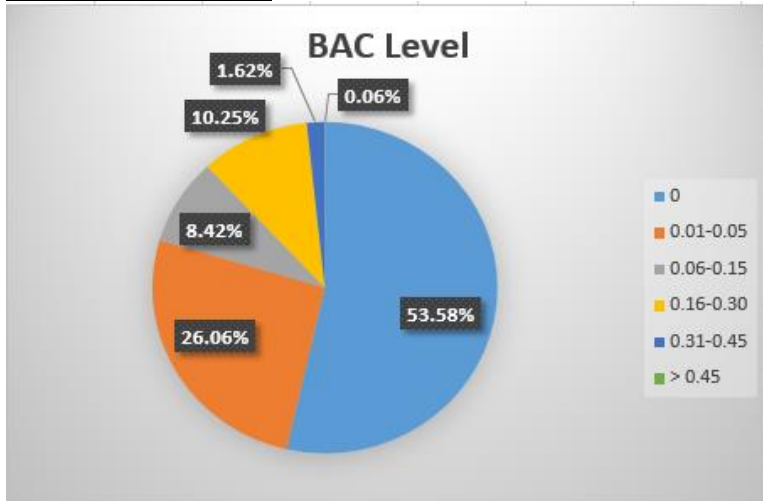| Tested Patients	
BAC Level	Total
0	5890
0.01-0.05	2864
0.06-0.15	926
0.16-0.30	1127
0.31-0.45	178
> 0.45	7
Total	10992

Figure 10: Drug Screening

Patients reported by based on drug screening. Of the 20,860 patients in the 2023 data, 59.53% were not tested, 15.37% tested negative, and the remaining 25.10% tested positive for drugs. For patients involved in an MVC, 849 tested positive for one drug and 558 tested positive for multiple drugs.

Drug Screening	Total	Percent
Not Tested	12419	59.53%
None	3206	15.37%
Positive for Single Drug	2942	14.10%
Positive for Multiple Drugs	2144	10.28%
Unknown	149	0.71%
Total	20860	100%

Drug	Total	Percent
THC (Cannabinoid)	2605	32.18%
OPI (Opioid)	2241	27.68%
AMP (Amphetamine)	1142	14.11%
BZO (Benzodiazepines)	1065	13.15%
COC (Cocaine)	664	8.20%
mAMP (Methamphetamine)	112	1.38%
BAR (Barbiturate)	81	1.00%
OXY (Oxycodone)	50	0.62%
MTD (Methadone)	42	0.52%
PCP (Phencyclidine)	37	0.46%
Other Evidence of Drugs	27	0.33%
MDMA (Ectasy)	16	0.20%
TCA (Tricyclic Antidepressant)	10	0.12%
Unknown	4	0.05%
Total	8096	100%

DRUG DETECTED

Legend: THC (Cannabinoid), OPI (Opioid), AMP (Amphetamine), BZO (Benzodiazepines), COC (Cocaine), mAMP (Methamphetamine), BAR (Barbiturate), OXY (Oxycodone), MTD (Methadone), PCP (Phencyclidine), Other Evidence of Drugs, MDMA (Ectasy), TCA (Tricyclic Antidepressant), Unknown
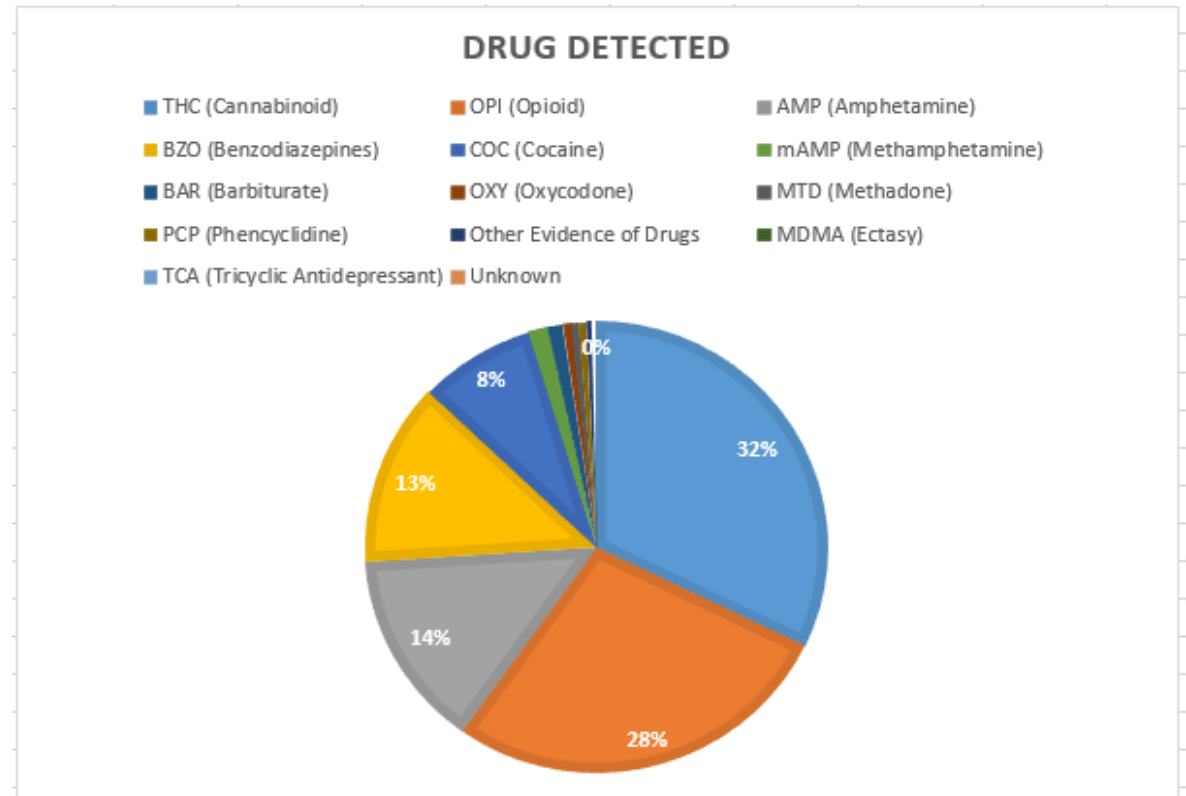
Drug	Avg. ISS
THC (Cannabinoid)	10
OPI (Opioid)	10
AMP (Amphetamine)	12
BZO (Benzodiazepines)	13
COC (Cocaine)	10

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.

ISS by Age
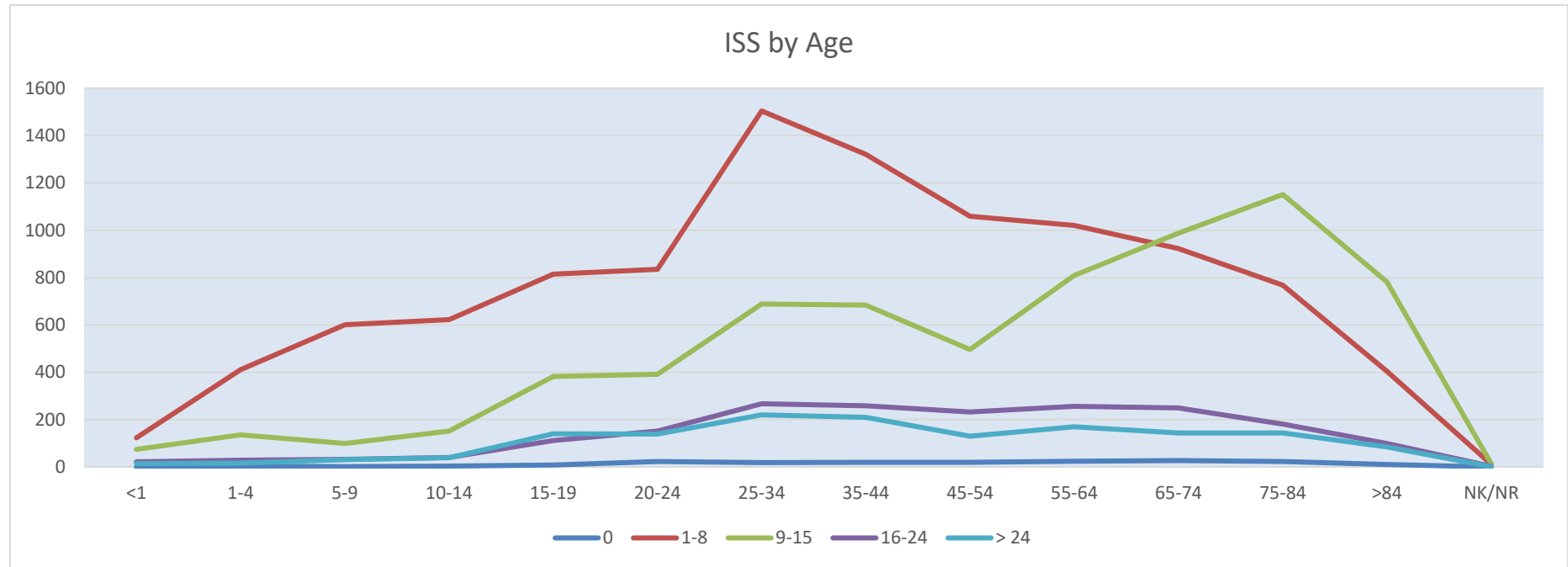
	Mean ISS Score		
Year	All Facilities	I & II	III
2018	8.75	8.82	8.11
2019	8.43	8.71	6.75
2020	8.89	9.21	7.29
2021	8.88	9.02	7.87
2022	8.58	8.75	7.71
2023	8.93	9	8.56

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

In 2016, there were 9 facilities reporting. In 2017, the number of facilities reporting increased to 10. In 2020, the number of facilities reporting increased to 11. In 2022, 13 facilities were reporting. Death percentage includes patient that arrived to ED without signs of life.