



LOS ANGELES COUNTY EMS SYSTEM REPORT

DECEMBER 1, 2023

ISSUE 12

Message from the Director and Medical Director

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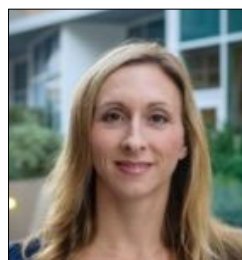
We are dedicating this 12th year issue of the EMS System Report to Dr. Marianne Gausche-Hill. Dr. Gausche-Hill served as the EMS Agency Medical Director from 2015-2023 and through her inspirational leadership has left a lasting positive impact on the Los Angeles County EMS System. She is recognized nationwide as an industry leader in the advancement of emergency and pediatric medicine and disaster preparedness. Dr. Gausche-Hill has over 40 years of dedicated service to the LA County EMS System as the Base Medical Director at Harbor -UCLA Medical Center, the Medical Director for the Paramedic Training Institute, and for the past 8 years, the Medical Director of the EMS Agency. During her tenure at the EMS Agency, Dr. Gausche-Hill was instrumental in leading the efforts for the County to participate in the Cardiac Arrest Registry to Enhance Survival (CARES), which has allowed comprehensive evaluation of the prehospital treatment of patients experiencing cardiac arrest. Data from CARES is a new addition to this year's report.



Richard Tadeo
Director

Dr. Gausche-Hill spearheaded the efforts for all Emergency Departments Approved for Pediatrics and Pediatric Medical Centers to participate in the National Pediatric Readiness Program. This demon-

strated that our pediatric emergency departments and medical centers are well prepared to evaluate and treat our pediatric patients, and provides essential tools for their continued growth. She also led efforts to establish our Data Collaboratives for the Specialty Systems of Care, including STEMI and Cardiac Arrest, Stroke, Trauma, and Pediatrics, which paved the way for multiple research and publications regarding system performance. She also served as the President for the American Board of Emergency Medicine. Prior to her retirement, Dr. Gausche-Hill launched the Pediatric Dose Optimization for Seizures in EMS (PediDOSE) trial to evaluate the optimal dosing of medication to treat pediatric patients with active seizures and laid the groundwork for the Pediatric Pre-hospital Airway Resuscitation Trial (Pedi-PART), which



Dr. Nichole Bosson
Medical Director

will determine the best approach to prehospital pediatric airway management. Despite her retirement from County service, Dr. Gausche-Hill continues to participate in these research efforts to improve emergency and pediatric care. Her unwavering dedication to the medical care and health of the citizens of Los Angeles County continues in her new roles as the Interim CEO for The Lundquist Institute and serving on the Board of Directors for CARES. We extend our best wishes and a prosperous retirement.

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2023 System Demographics

69 9-1-1 Receiving Hospitals

- 37 EDAP (Emergency Department Approved for Pediatrics)
- 8 Pediatric Medical Centers
- 7 Pediatric Trauma Centers
- 15 Trauma Centers
- 21 Paramedic Base Hospitals
- 34 STEMI Receiving Centers
- 24 Comprehensive Stroke Centers
- 28 Primary Stroke Centers
- 43 Perinatal Centers
- 40 Hospitals with Neonatal ICU
- 13 SART (Sexual Assault Response Team)
- 13 Disaster Resource Centers

EMS Provider Agencies

- 31 Public Safety EMS Provider Agencies
- 34 Licensed Basic Life Support Ambulance Operators
- 17 Licensed Advanced Life Support Ambulance Operators
- 18 Licensed Critical Care Transport Ambulance Operators
- 5 Licensed Ambulette Operators

EMS Practitioners

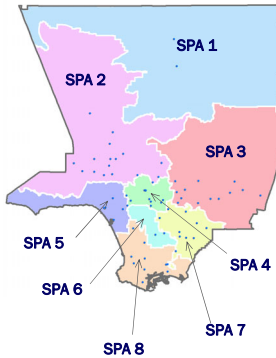
- 4,503 Accredited Paramedics
- 8,457 Certified EMTs by LA Co EMS Agency
- 763 Certified Mobile Intensive Care Nurses

SPECIAL POINTS OF INTEREST:

- Emergency Severity Index (page 11)
- Trauma Mechanism of Injury (page 13)
- OHCA Overall Survival (pages 18-22)
- Paramedic Base Hospital Contact Volume (page 24)



ADULT EMS PROVIDER IMPRESSION by Service Planning Area (SPA)



Year	Total Population	SPA1	SPA2	SPA3	SPA4	SPA5	SPA6	SPA7	SPA8
2014	10,069,036	392,730	2,190,391	1,783,041	1,149,691	652,160	1,033,672	1,312,015	1,555,336
2023	9,792,167	413,966	2,154,399	1,720,799	1,090,182	648,902	991,811	1,258,726	1,513,402
%Change	-3%	5%	-2%	-3%	-5%	-0.5%	-4%	-4%	-3%

COUNTYWIDE TOP 10 ADULT EMS PROVIDER IMPRESSIONS	2018		2019		2020		2021		2022	
	No.	%	No.	%	No.	%	No.	%	No.	%
Traumatic Injury	118,549	15%	120,909	15%	102,560	13%	121,487	15%	122,029	16%
Behavioral/Psychiatric	57,027	7%	59,891	7%	58,136	8%	60,619	8%	54,836	7%
Weakness - General	54,752	7%	54,632	7%	53,409	7%	55,368	7%	50,983	7%
No Medical Complaint	47,525	6%	47,142	6%	41,110	5%	35,163	4%	45,399	6%
Body Pain-Non Traumatic	39,563	5%	40,428	5%	36,832	5%	38,506	5%	40,401	5%
Abdominal Pain	38,725	5%	40,365	5%	35,688	5%	41,024	5%	33,466	4%
Respiratory Distress	32,120	4%	32,702	4%	34,205	5%	34,679	4%	31,682	4%
Altered Level of Consciousness	35,373	4%	29,465	4%	24,820	3%	24,544	3%	26,177	3%
Chest Pain - Suspected Cardiac	21,125	3%	21,812	3%	19,320	3%	21,880	3%	22,690	3%
Syncope/Near Syncope	25,396	3%	24,447	3%	18,333	2%	21,125	3%	20,331	3%
Total Adult EMS Responses	791,900		801,661		759,972		787,420		775,516	

Top 10 Adult EMS Provider Impressions		2018		2019		2020		2021		2022	
		No.	%	No.	%	No.	%	No.	%	No.	%
SPA 1	Traumatic Injury	7,151	14%	9,788	17%	5,932	11%	6,995	13%	4,943	10%
	Body Pain-Non Traumatic	4,085	8%	4,464	8%	3,492	6%	3,462	6%	3,174	6%
	Abdominal Pain	3,235	6%	3,201	6%	2,952	5%	3,169	6%	2,958	6%
	Weakness - General	2,784	5%	2,475	4%	2,952	5%	3,151	6%	2,792	6%
	Behavioral/Psychiatric	4,062	8%	4,007	7%	3,443	6%	3,858	7%	2,727	5%
	Respiratory Distress	1,860	4%	2,179	4%	2,019	4%	2,401	4%	2,041	4%
	Chest Pain - Suspected Cardiac	1,554	3%	1,767	3%	1,428	3%	1,682	3%	1,581	3%
	Cold/Flu	1,175	2%	1,138	2%	1,533	3%	1,357	2%	1,383	3%
	Altered Level of Consciousness	1,857	4%	1,669	3%	1,395	3%	1,518	3%	1,376	3%
	Nausea/Vomiting	1,281	2%	1,586	3%	1,087	2%	1,390	3%	1,200	2%
Total SPA 1 Adult EMS Responses		51,368		56,824		54,767		55,367		50,680	

EMS Provider Impressions		No.		No.		No.		No.		No.	
		No.	%	No.	%	No.	%	No.	%	No.	%
SPA 2	Traumatic Injury	18,981	14%	18,247	13%	18,243	14%	21,791	15%	25,593	18%
	Weakness - General	11,077	8%	11,030	8%	11,012	8%	11,707	8%	10,843	8%
	Behavioral/Psychiatric	9,163	7%	9,707	7%	10,249	8%	10,265	7%	9,215	6%
	No Medical Complaint	9,131	7%	9,087	7%	8,109	6%	7,865	6%	8,789	6%
	Abdominal Pain	5,584	4%	5,685	4%	6,350	5%	7,613	5%	7,844	5%
	Respiratory Distress	6,389	5%	6,620	5%	7,040	5%	6,990	5%	6,377	4%
	Body Pain - Non-Traumatic	5,429	4%	5,395	4%	5,154	4%	5,945	4%	6,153	4%
	Syncope/Near Syncope	4,786	4%	5,054	4%	3,867	3%	4,738	3%	4,892	3%
	Chest Pain - Suspected Cardiac	3,939	3%	4,043	3%	3,911	3%	4,482	3%	4,368	3%
	Altered Level of Consciousness	6,493	3%	6,683	5%	4,921	4%	4,710	3%	3,974	3%
Total SPA 2 Adult EMS Responses		135,030		136,833		132,977		141,562		142,691	

EMS Provider Impressions		No.		No.		No.		No.		No.	
		No.	%	No.	%	No.	%	No.	%	No.	%
SPA 3	Traumatic Injury	22,151	17%	24,900	19%	18,207	15%	21,730	18%	20,445	17%
	Weakness - General	8,328	6%	7,594	6%	7,531	6%	7,952	6%	7,753	7%
	Behavioral/Psychiatric	9,108	7%	8,975	7%	8,412	7%	8,876	7%	7,116	6%
	Body Pain - Non-Traumatic	7,932	6%	8,008	6%	6,139	5%	5,929	5%	6,237	5%
	Abdominal Pain	6,411	5%	6,124	5%	5,382	4%	5,899	5%	5,891	5%
	Respiratory Distress	5,110	4%	5,461	4%	5,508	4%	5,471	4%	4,514	4%
	No Medical Complaint	7,398	6%	6,999	5%	5,601	5%	5,683	5%	4,466	4%
	Syncope/Near Syncope	4,348	3%	4,465	3%	3,322	3%	3,664	3%	3,749	3%
	Chest Pain - Suspected Cardiac	3,102	2%	3,614	3%	3,198	3%	3,445	3%	3,369	3%
	Altered Level of Consciousness	5,515	4%	4,571	3%	3,960	3%	3,821	3%	2,866	2%
Total SPA 3 Adult EMS Responses		129,597		131,879		123,464		123,688		117,854	

Top 10 Adult EMS Provider Impressions		2018	2019	2020	2021	2022
		No. %	No. %	No. %	No. %	No. %
SPA 4	Traumatic Injury	11,649 12%	10,331 11%	10,951 12%	13,366 14%	15,184 15%
	Behavioral/Psychiatric	7,098 7%	7,767 8%	7,800 9%	8,346 9%	7,469 8%
	Weakness - General	7,059 7%	7,373 8%	7,239 8%	7,710 8%	7,270 7%
	No Medical Complaint	6,343 7%	6,604 7%	6,169 7%	5,752 6%	6,048 6%
	Abdominal Pain	3,895 4%	4,515 5%	3,915 4%	4,919 5%	4,780 5%
	Overdose/Poisoning	2,308 2%	2,920 3%	3,315 4%	4,578 5%	4,694 5%
	Body Pain - Non-Traumatic	3,444 4%	4,073 4%	3,954 4%	4,524 5%	5,026 5%
	Respiratory Distress	3,401 4%	3,423 4%	4,399 5%	4,118 4%	4,081 4%
	Altered Level of Consciousness	4,653 5%	3,688 4%	3,275 4%	3,230 3%	2,794 3%
	Seizure	2,835 3%	2,989 3%	2,478 3%	2,473 3%	2,665 3%
Total SPA 4 Adult EMS Responses		95,524	95,477	91,353	97,424	98,954

EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 5	Traumatic Injury	10,797 18%	9,190 16%	8,179 17%	9,931 19%	10,497 19%
	Behavioral/Psychiatric	3,933 7%	3,981 7%	4,014 8%	4,367 8%	4,114 8%
	No Medical Complaint	4,977 8%	4,074 7%	3,352 7%	3,710 7%	3,876 7%
	Weakness - General	4,185 7%	3,995 7%	3,352 7%	3,710 7%	3,813 7%
	Abdominal Pain	2,011 3%	2,252 4%	1,858 4%	2,280 4%	2,395 4%
	Body Pain - Non-Traumatic	1,698 3%	2,119 4%	1,771 4%	2,104 4%	2,285 4%
	Syncope/Near Syncope	2,582 4%	2,498 4%	1,537 3%	1,860 4%	2,154 4%
	Respiratory Distress	1,945 3%	1,944 3%	1,858 4%	1,961 4%	1,973 4%
	Altered Level of Consciousness	2,493 4%	1,949 3%	1,769 4%	1,683 3%	1,593 3%
	Nausea/Vomiting	1,666 3%	1,684 3%	1,230 3%	1,327 3%	1,416 3%
Total SPA 5 Adult EMS Responses		59,682	56,379	48,224	52,677	54,183

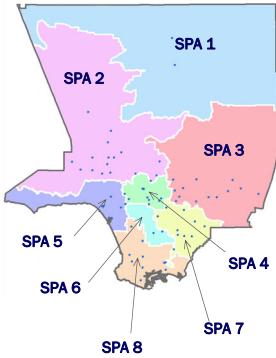
EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 6	Traumatic Injury	14,742 13%	13,758 12%	13,788 12%	15,121 14%	14,501 14%
	Behavioral/Psychiatric	8,089 7%	8,892 8%	9,225 8%	8,737 8%	7,632 7%
	Weakness - General	7,638 7%	8,160 7%	9,046 8%	8,115 7%	7,436 7%
	Abdominal Pain	6,591 6%	7,143 6%	6,378 6%	7,037 6%	6,605 6%
	Body Pain - Non-Traumatic	6,585 6%	6,967 6%	6,462 6%	6,378 6%	6,274 6%
	No Medical Complaint	6,929 6%	6,954 6%	6,803 6%	6,210 6%	5,183 5%
	Respiratory Distress	5,016 4%	5,158 5%	5,550 5%	5,239 5%	4,941 5%
	Seizure	3,695 3%	3,950 4%	3,529 3%	3,437 3%	3,490 3%
	Cold/Flu	3,609 3%	3,707 3%	4,339 4%	3,239 3%	3,481 3%
	Altered Level of Consciousness	4,395 4%	3,346 3%	2,955 3%	2,746 2%	2,518 2%
Total SPA 6 Adult EMS Responses		111,500	111,695	112,044	110,085	105,165

EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 7	Traumatic Injury	13,581 15%	14,608 16%	10,740 13%	12,645 16%	11,043 14%
	Behavioral/Psychiatric	6,458 7%	7,193 8%	6,397 8%	6,412 8%	5,312 7%
	Weakness - General	5,853 7%	5,386 6%	3,340 4%	5,155 6%	5,183 7%
	Body Pain - Non-Traumatic	5,773 7%	6,136 7%	4,519 6%	4,124 5%	4,278 5%
	Abdominal Pain	4,387 5%	4,194 5%	3,566 4%	3,982 5%	4,248 5%
	Respiratory Distress	3,276 4%	3,067 3%	3,071 4%	3,388 4%	2,916 4%
	Chest Pain - Suspected Cardiac	2,463 3%	2,526 3%	2,083 3%	2,313 3%	2,407 3%
	Altered Level of Consciousness	3,654 4%	2,712 3%	2,343 3%	2,411 3%	2,328 3%
	Syncope/Near Syncope	2,664 3%	2,554 3%	2,060 3%	2,111 3%	2,071 3%
	Seizure	2,262 3%	2,382 3%	1,857 2%	1,945 2%	2,071 3%
Total SPA 7 Adult EMS Responses		88,437	89,297	80,058	79,913	77,964

EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 8	Traumatic Injury	19,497 16%	20,087 16%	16,919 14%	19,908 16%	19,823 15%
	Behavioral/Psychiatric	8,841 7%	8,898 7%	8,839 7%	9,758 8%	8,539 7%
	Weakness - General	8,040 7%	8,086 7%	7,696 6%	7,868 6%	7,929 6%
	Body Pain - Non-Traumatic	5,699 5%	6,609 5%	5,532 5%	6,040 5%	6,837 5%
	Abdominal Pain	6,092 5%	6,142 5%	5,433 5%	6,125 5%	6,242 5%
	No Medical Complaint	7,156 6%	6,997 6%	5,871 5%	6,360 5%	5,456 4%
	Respiratory Distress	5,123 4%	4,850 4%	4,903 4%	5,111 4%	4,954 4%
	Altered Level of Consciousness	6,313 5%	4,847 4%	4,275 4%	4,425 3%	4,281 3%
	Syncope/Near Syncope	4,070 3%	3,821 3%	3,010 3%	3,348 3%	3,638 3%
	Chest Pain - Suspected Cardiac	3,385 3%	3,289 3%	2,930 2%	3,369 3%	3,621 3%
Total SPA 8 Adult EMS Responses		120,762	123,277	120,090	126,704	128,025



PEDIATRIC EMS PROVIDER IMPRESSION by Service Planning Area (SPA)



COUNTYWIDE TOP 10 PEDIATRIC EMS PROVIDER IMPRESSIONS	2018		2019		2020		2021		2022	
	No.	%	No.	%	No.	%	No.	%	No.	%
Traumatic Injury	8,440	23%	8,641	23%	5,736	22%	6,655	25%	6,719	23%
No Medical Complaint	5,150	14%	4,746	13%	3,155	12%	2,846	11%	5,203	18%
Seizure	4,904	14%	5,609	15%	3,502	14%	3,218	12%	2,408	8%
Behavioral/Psychiatric	1,894	5%	1,709	5%	1,351	5%	1,448	5%	1,816	6%
Respiratory Distress	1,987	6%	2,140	6%	1,015	4%	1,379	5%	1,637	6%
Cold/Flu	1,390	4%	1,453	4%	1,000	4%	1,004	4%	1,368	5%
Fever	1,695	5%	1,751	5%	1,083	4%	861	3%	1,267	4%
Nausea/Vomiting	865	2%	917	2%	570	2%	847	3%	949	3%
Syncopal/Near Syncopal	956	3%	1,025	3%	564	2%	784	3%	847	3%
Weakness - General	675	2%	886	2%	614	2%	607	2%	746	3%
Total Pediatric Responses	36,117		36,945		25,675		26,984		29,457	

Top 10 Pediatric EMS Provider Impressions	2018		2019		2020		2021		2022	
	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 1 Traumatic Injury	699	21%	830	24%	534	22%	555	22%	394	19%
Seizure	420	13%	475	14%	270	11%	257	10%	466	22%
Respiratory Distress	197	6%	229	7%	106	4%	155	6%	217	10%
Cold/Flu	169	5%	141	4%	119	5%	109	4%	115	5%
Behavioral/Psychiatric	286	9%	245	7%	155	6%	154	6%	103	5%
Fever	109	3%	119	3%	84	3%	63	3%	73	3%
Syncopal/Near Syncopal	64	2%	83	2%	97	4%	57	2%	73	3%
Choking	42	1%	78	2%	97	4%	87	4%	42	2%
Nausea/Vomiting	74	2%	72	2%	32	1%	73	3%	41	2%
No Medical Complaint	531	6%	504	6%	284	4%	243	3%	64	1%
Total SPA 1 Pediatric EMS Responses	3,298		3,457		2,425		2,470		2,118	

EMS Provider Impressions	No.		No.		No.		No.		No.	
	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 2 Traumatic Injury	926	23%	1,019	19%	844	21%	1,059	23%	1,261	24%
Seizure	566	14%	898	17%	620	15%	565	12%	868	17%
No Medical Complaint	469	12%	688	13%	496	12%	475	10%	381	7%
Cold/Flu	158	4%	307	6%	170	4%	192	4%	304	6%
Respiratory Distress	210	5%	348	6%	201	5%	235	5%	300	6%
Fever	167	4%	282	5%	245	6%	242	5%	300	6%
Behavioral/Psychiatric	252	6%	241	4%	210	5%	242	5%	266	5%
Syncopal/Near Syncopal	150	4%	183	3%	100	2%	178	4%	186	4%
Allergic Reaction	110	3%	183	3%	139	3%	158	3%	170	3%
Nausea/Vomiting	84	2%	170	3%	101	2%	163	4%	123	2%
Total SPA 2 Pediatric EMS Responses	3,967		5,385		4,069		4,655		5,221	

EMS Provider Impressions	No.		No.		No.		No.		No.	
	No.	%	No.	%	No.	%	No.	%	No.	%
SPA 3 Traumatic Injury	1,611	25%	1,792	28%	961	24%	1,184	28%	1,221	26%
Seizure	865	13%	911	14%	593	15%	513	12%	788	17%
No Medical Complaint	936	14%	737	12%	428	10%	353	8%	309	7%
Respiratory Distress	322	5%	343	5%	122	3%	176	4%	246	5%
Behavioral/Psychiatric	341	5%	179	3%	206	5%	232	5%	226	5%
Syncopal/Near Syncopal	201	3%	203	3%	108	3%	162	4%	163	4%
Fever	209	3%	225	4%	180	4%	121	3%	149	3%
Allergic Reaction	161	2%	150	2%	104	3%	110	3%	129	3%
Choking	130	2%	171	3%	159	4%	175	4%	124	3%
Nausea/Vomiting	134	2%	133	2%	159	4%	124	3%	124	3%
Total SPA 3 Pediatric EMS Responses	6,516		6,333		4,077		4,253		4,652	

Top 10 Pediatric EMS Provider Impressions		2018	2019	2020	2021	2022
		No. %	No. %	No. %	No. %	No. %
SPA 4	Traumatic Injury	503 19%	476 18%	361 19%	459 22%	479 19%
	Seizure	392 15%	471 17%	284 15%	256 12%	406 16%
	No Medical Complaint	399 15%	360 13%	238 13%	285 13%	212 9%
	Cold/Flu	162 6%	148 5%	81 4%	95 4%	158 6%
	Respiratory Distress	147 5%	142 5%	57 3%	111 5%	156 6%
	Fever	152 6%	102 4%	87 5%	67 3%	122 5%
	Behavioral/Psychiatric	111 4%	141 5%	100 5%	106 5%	115 5%
	Allergic Reaction	60 2%	78 3%	66 4%	65 3%	87 4%
	Weakness - General	71 3%	70 3%	43 2%	82 4%	70 3%
	Nausea/Vomiting	70 3%	70 3%	43 2%	74 3%	69 3%
Total SPA 4 Pediatric EMS Responses		2,701	2,705	1,860	2,124	2,472

EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 5	Traumatic Injury	643 30%	473 24%	356 27%	381 28%	368 25%
	No Medical Complaint	258 12%	209 11%	137 10%	137 10%	131 9%
	Seizure	213 10%	192 10%	134 10%	113 8%	209 14%
	Respiratory Distress	139 6%	93 5%	45 3%	67 5%	93 6%
	Allergic Reaction	102 5%	76 4%	31 2%	68 5%	85 6%
	Cold/Flu	84 4%	79 4%	31 2%	45 3%	83 6%
	Fever	78 4%	47 2%	44 3%	35 3%	81 5%
	Nausea/Vomiting	75 3%	84 4%	32 2%	55 4%	68 5%
	Syncope/Near Syncope	66 3%	74 4%	27 2%	57 4%	66 4%
	Behavioral/Psychiatric	72 3%	61 3%	67 5%	61 4%	49 3%
Total SPA 5 Pediatric EMS Responses		2,175	1,941	1,338	1,360	1,491

EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 6	Traumatic Injury	1,350 20%	1,308 20%	1,014 21%	1,115 23%	1,153 21%
	Seizure	884 13%	1,032 16%	622 13%	582 12%	922 17%
	Cold/Flu	497 7%	510 8%	260 5%	249 5%	524 10%
	No Medical Complaint	1,001 15%	970 15%	734 15%	662 13%	460 8%
	Respiratory Distress	422 6%	400 6%	225 5%	282 6%	361 7%
	Fever	330 5%	328 5%	210 4%	166 3%	274 5%
	Behavior/Psychiatric	296 4%	310 5%	248 5%	287 6%	247 4%
	Nausea/Vomiting	198 3%	172 3%	122 3%	163 3%	168 3%
	Weakness -General	151 2%	192 3%	172 4%	136 3%	156 3%
	Abdominal Pain	119 2%	124 2%	100 2%	95 2%	111 2%
Total SPA 6 Pediatric EMS Responses		6,647	6,649	4,865	4,952	5,491

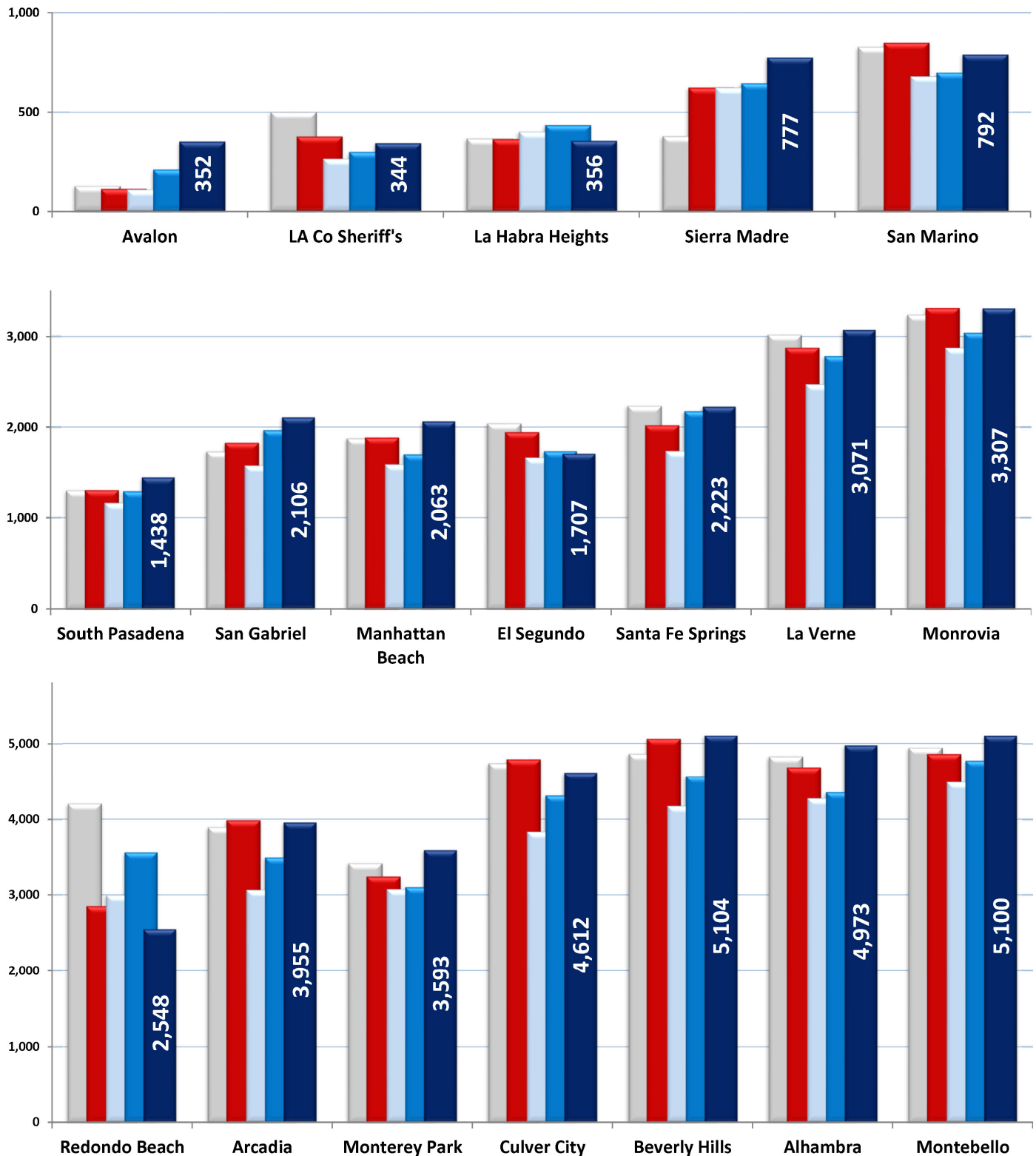
EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 7	Seizure	767 15%	801 16%	512 15%	447 14%	761 22%
	Traumatic Injury	1,153 22%	1,256 24%	722 22%	790 25%	720 21%
	Respiratory Distress	226 4%	291 6%	105 3%	152 5%	229 7%
	Cold/Flu	174 3%	195 4%	105 3%	77 2%	160 5%
	Behavioral/Psychiatric	256 5%	284 6%	186 6%	148 5%	156 5%
	Fever	171 3%	185 4%	112 3%	64 2%	138 4%
	No Medical Complaint	817 16%	670 13%	369 11%	277 9%	132 4%
	Syncope/Near Syncope	178 3%	160 3%	88 3%	80 3%	125 4%
	Overdose/Poisoning	73 1%	90 2%	89 2%	72 2%	89 3%
	Choking	91 2%	143 3%	136 4%	139 4%	87 3%
Total SPA 7 Pediatric EMS Responses		5,150	5,152	3,339	3,126	3,424

EMS Provider Impressions		No. %	No. %	No. %	No. %	No. %
SPA 8	Traumatic Injury	1,555 27%	1,487 28%	976 25%	1,112 27%	1,082 24%
	Seizure	797 14%	829 16%	501 13%	485 12%	902 20%
	Respiratory Distress	324 6%	294 6%	166 4%	201 5%	327 7%
	No Medical Complaint	739 13%	608 11%	488 13%	414 10%	280 6%
	Cold/Flu	197 3%	230 4%	131 3%	148 4%	250 5%
	Behavioral/Psychiatric	280 5%	248 5%	190 5%	218 5%	215 5%
	Fever	183 3%	168 3%	128 3%	103 3%	204 4%
	Syncope/Near Syncope	152 3%	138 3%	96 2%	117 3%	144 3%
	Choking	134 2%	124 2%	161 4%	160 4%	131 3%
	Allergic Reaction	122 2%	134 3%	86 2%	119 3%	119 3%
Total SPA 8 Pediatric EMS Responses		5,663	5,323	3,883	4,044	4,588



EMS Responses by 9-1-1 Jurisdictional Provider Agency

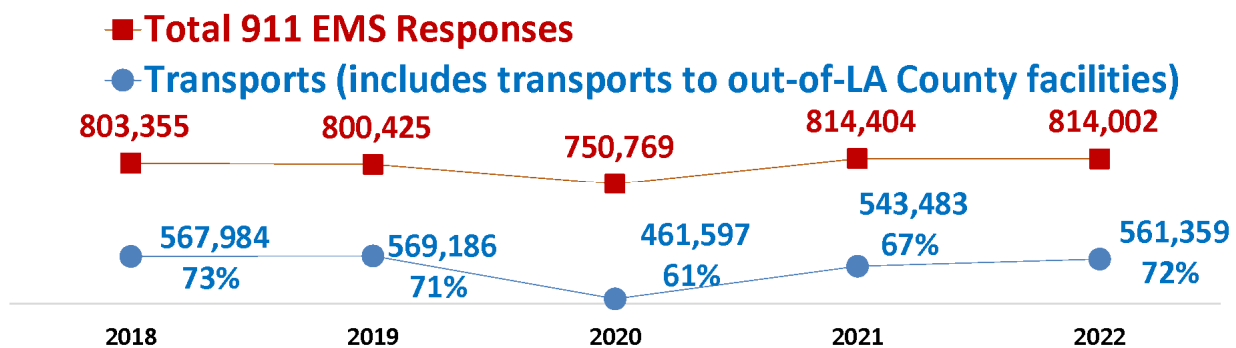
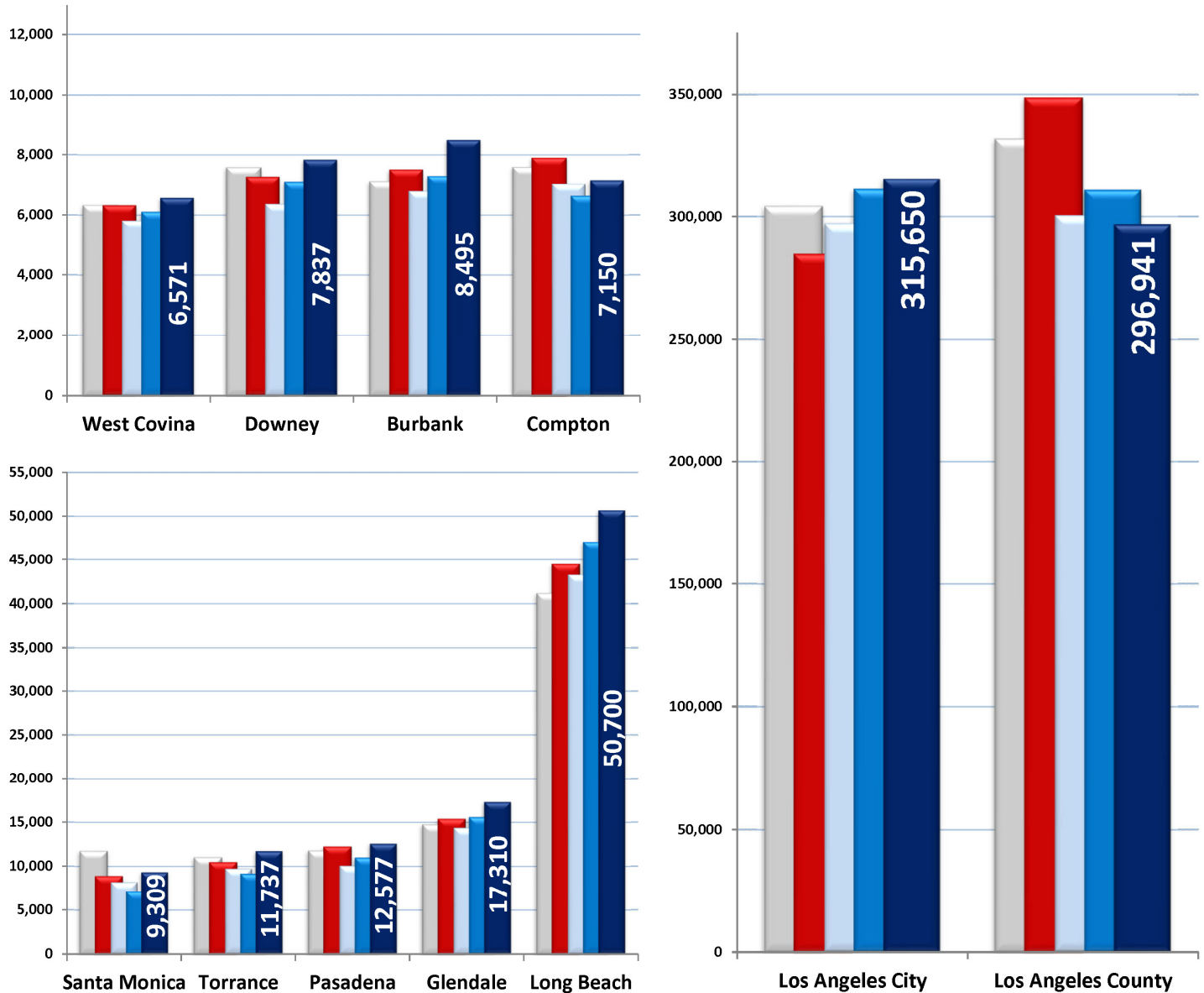
■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022





EMS Responses by 9-1-1 Jurisdictional Provider Agency

■ 2018 ■ 2019 ■ 2020 ■ 2021 ■ 2022





2022 EMS Times: Adult (Median)

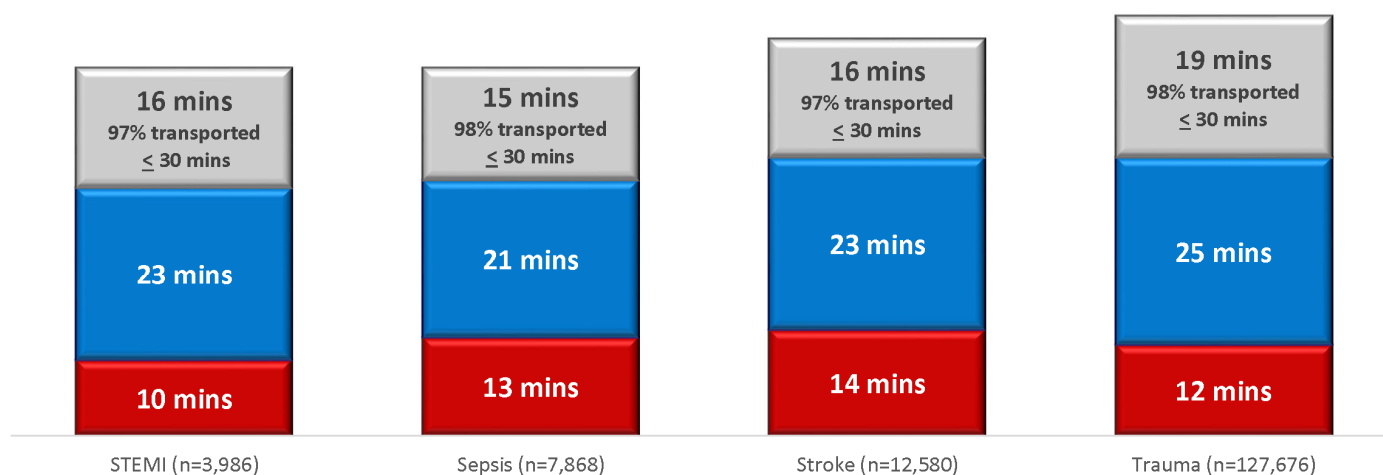
LA County EMS Transport Time of ADULT Patients with Provider Impressions STEMI, Stroke, Sepsis and Traumatic Injuries

- Transport Time (Time Left Scene to Time Arrived at Hospital)
- Scene Time (Time Arrived at Scene to Time Left Scene)
- Response Time (Time of Dispatch to Time Arrived at Scene)



2022 EMS Times (90th Percentile)

- Transport Time (Time Left Scene to Time Arrived at Hospital)
- Scene Time (Time Arrived at Scene to Time Left Scene)
- Response Time (Time of Dispatch to Time Arrived at Scene)

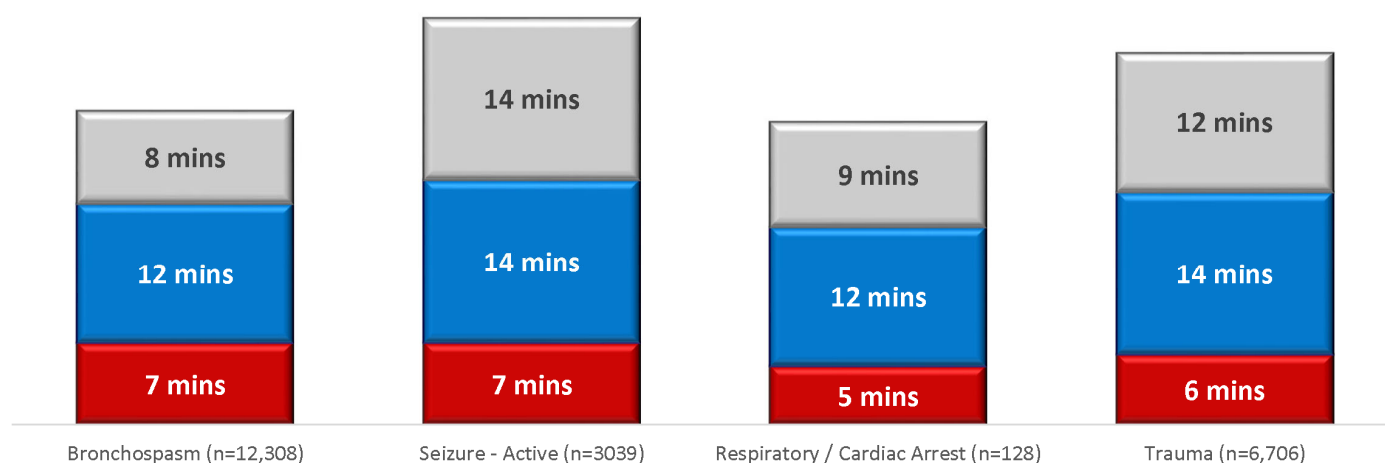




2022 EMS Times: Pediatric (Median)

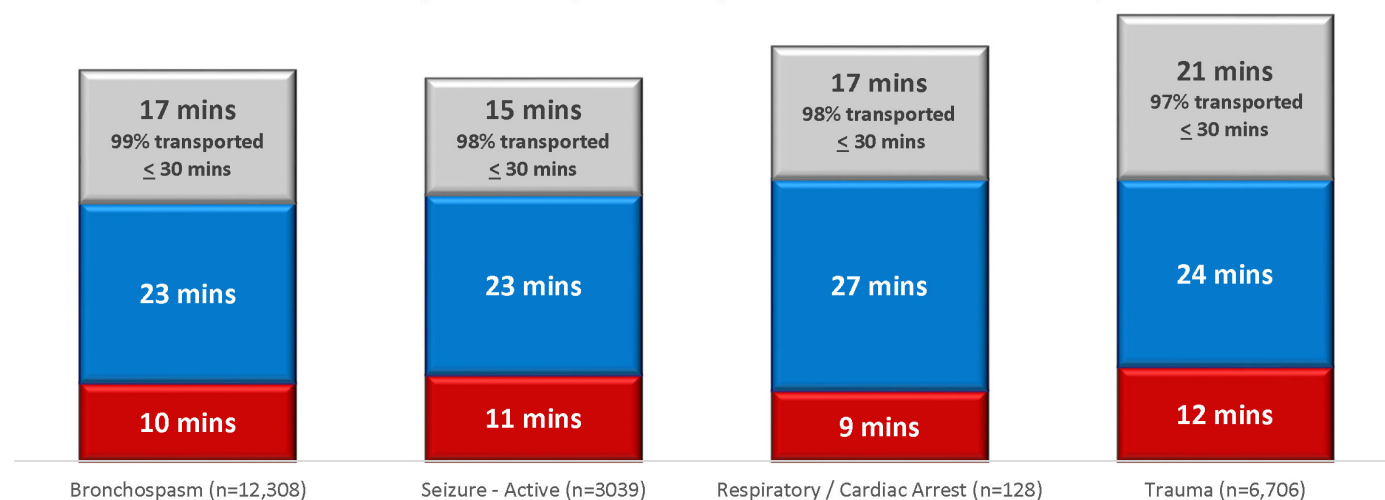
LA County EMS Transport Time PEDIATRIC Patients with Provider Impressions
Bronchospasm, Seizure, Respiratory/Cardiac Arrest and Traumatic Injuries

- Transport Time (Time Left Scene to Time Arrived at Hospital)
- Scene Time (Time Arrived at Scene to Time Left Scene)
- Response Time (Time of Dispatch to Time Arrived at Scene)



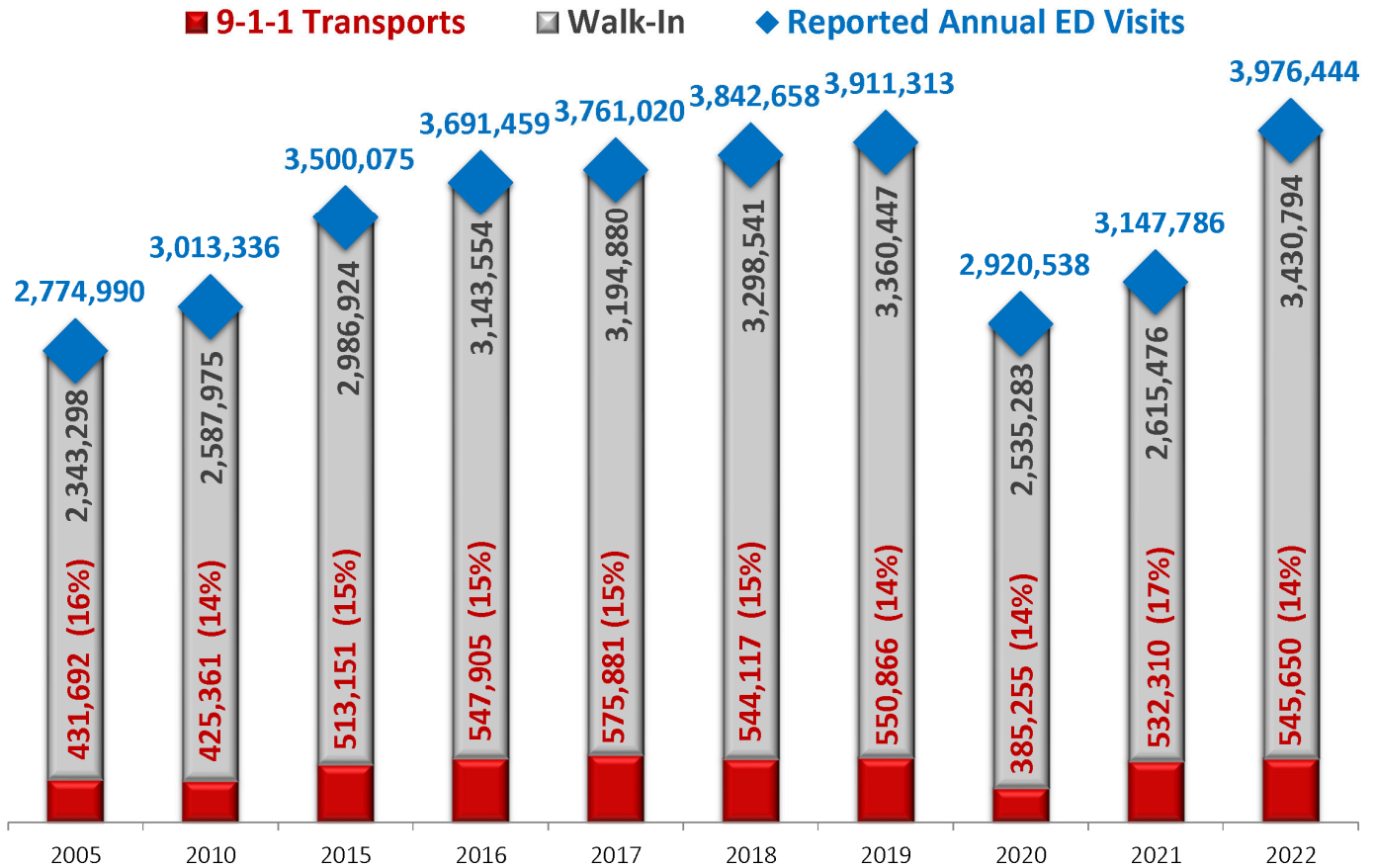
2022 EMS Times: Pediatric (90th Percentile)

- Transport Time (Time Left Scene to Time Arrived at Hospital)
- Scene Time (Time Arrived at Scene to Time Left Scene)
- Response Time (Time of Dispatch to Time Arrived at Scene)



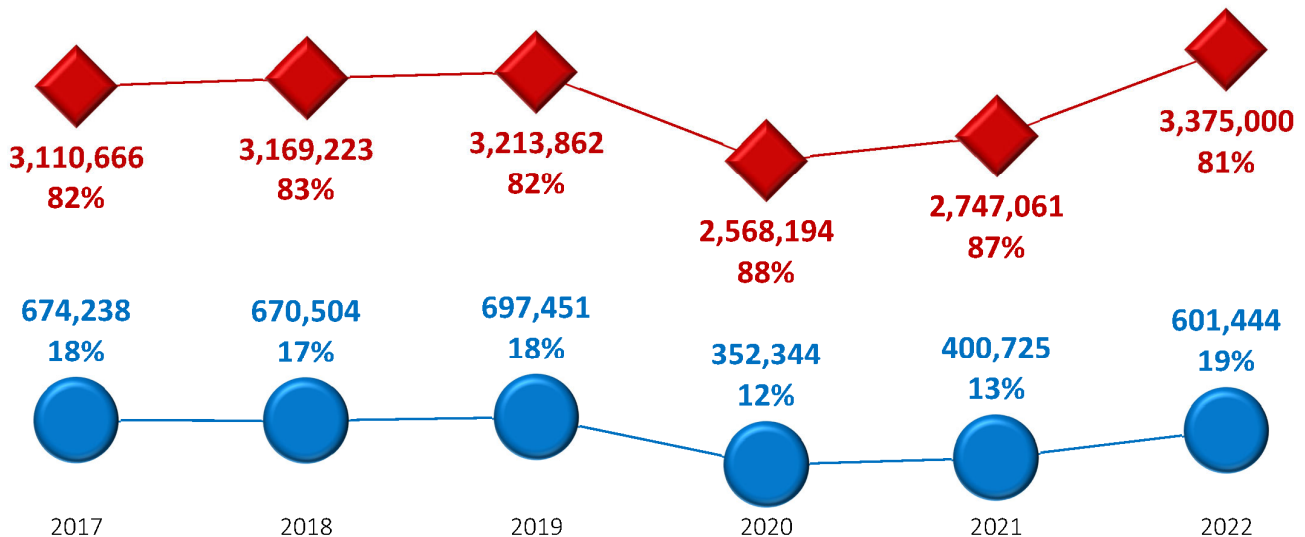


Emergency Department Volume



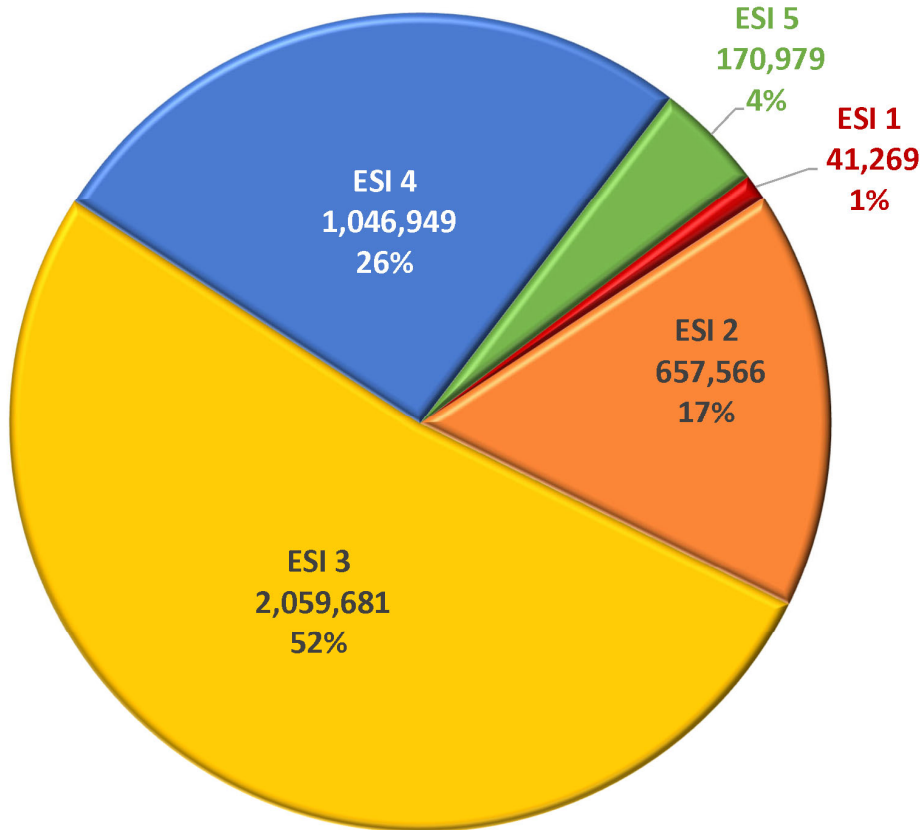
Adult: 15 years and older

Pediatric: 14 years and younger





Emergency Severity Index (ESI)



ESI 1—Patient requiring immediate life-saving interventions: airway, emergency medications, or other hemodynamic; and/or any of the following conditions: intubated, apneic, pulseless, severe respiratory distress, SPO2 <90, acute mental status changes, or unresponsive (defined as nonverbal and not following commands (acutely)); or requires noxious stimulus

ESI 2—Patient with a high risk of deterioration or signs of a time critical problem; confused/lethargic/disoriented; or severe pain/distress. Pediatric fever is age 1 to 28 days; temperature >38.0 C.

ESI 3—Patient is currently stable but requires multiple different types of resources* to diagnose or treat condition (e.g., diagnostic tests and procedures).

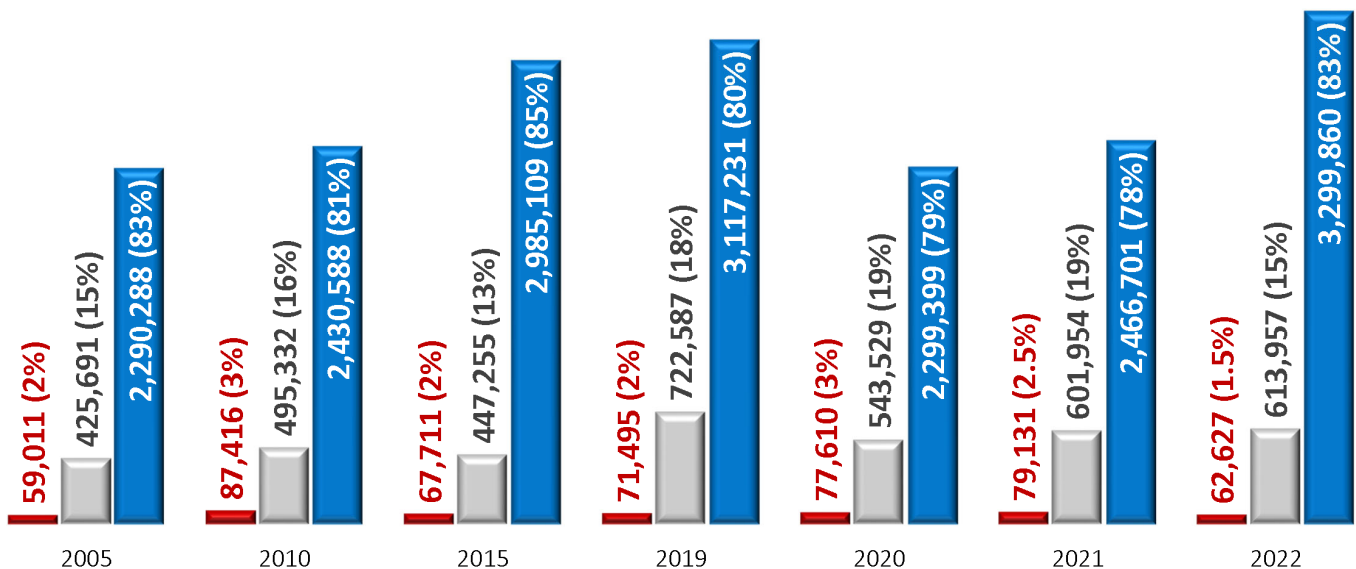
ESI 4—A patient requiring a single resource* such as only an x-ray or sutures.

ESI 5—A patient not needing any resources*.

*The following are not considered resources: simple wound care-dressing/recheck; sling, PO medications, saline lock, history and physical-including a pelvic exam; point of care testing; tetanus immunization; prescription refills, crutches; splint

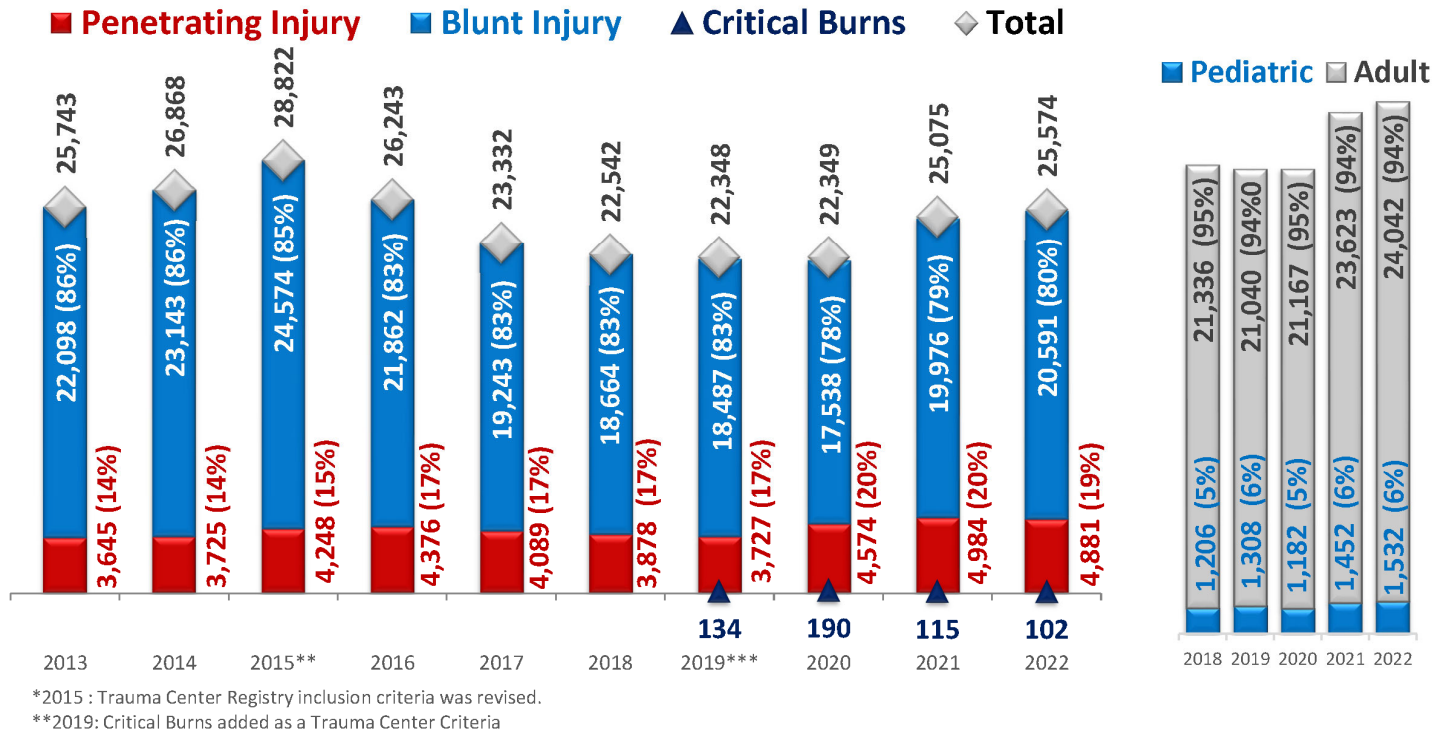
ED Patient Disposition (walk-in and 9-1-1)

- Admitted to Intensive Care Unit
- Admitted to Non-Intensive Care Unit Area
- Discharged from ED/24 hr Observation

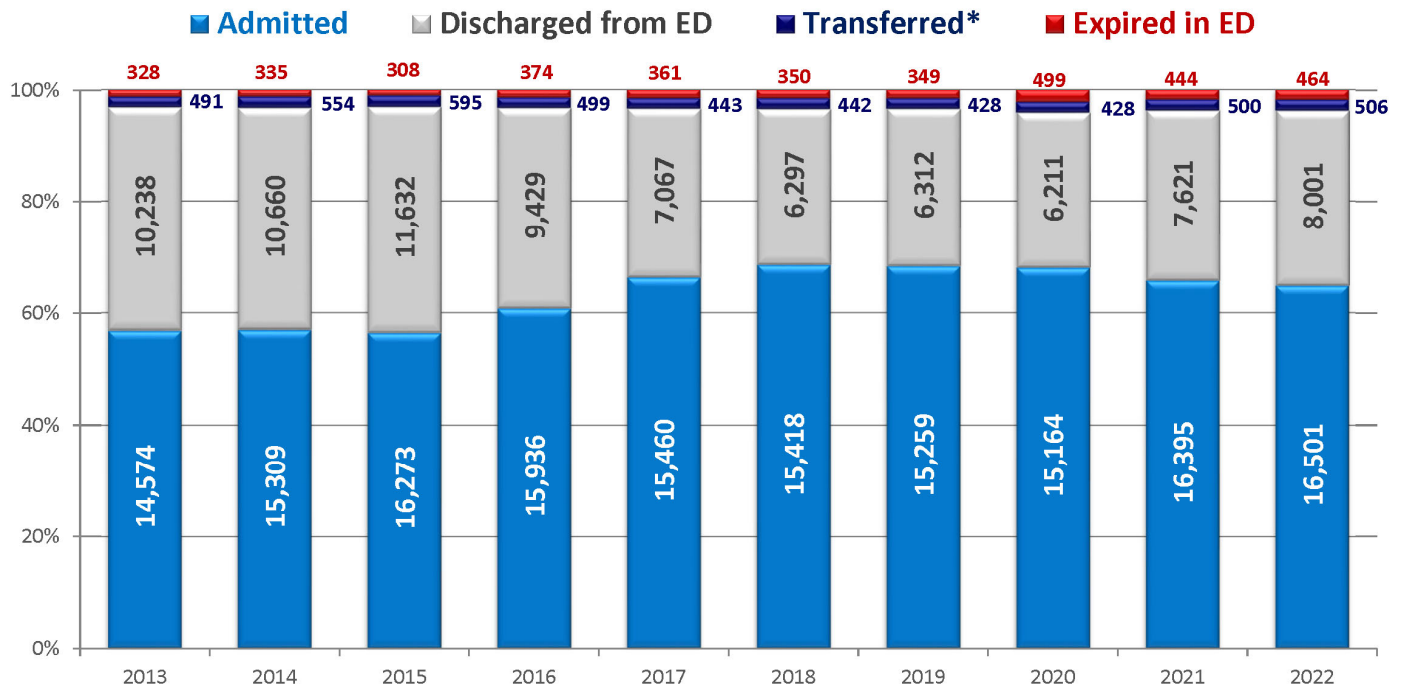




Trauma Center Volume (includes EMS transports and Walk-In patients who met trauma center criteria/guidelines)



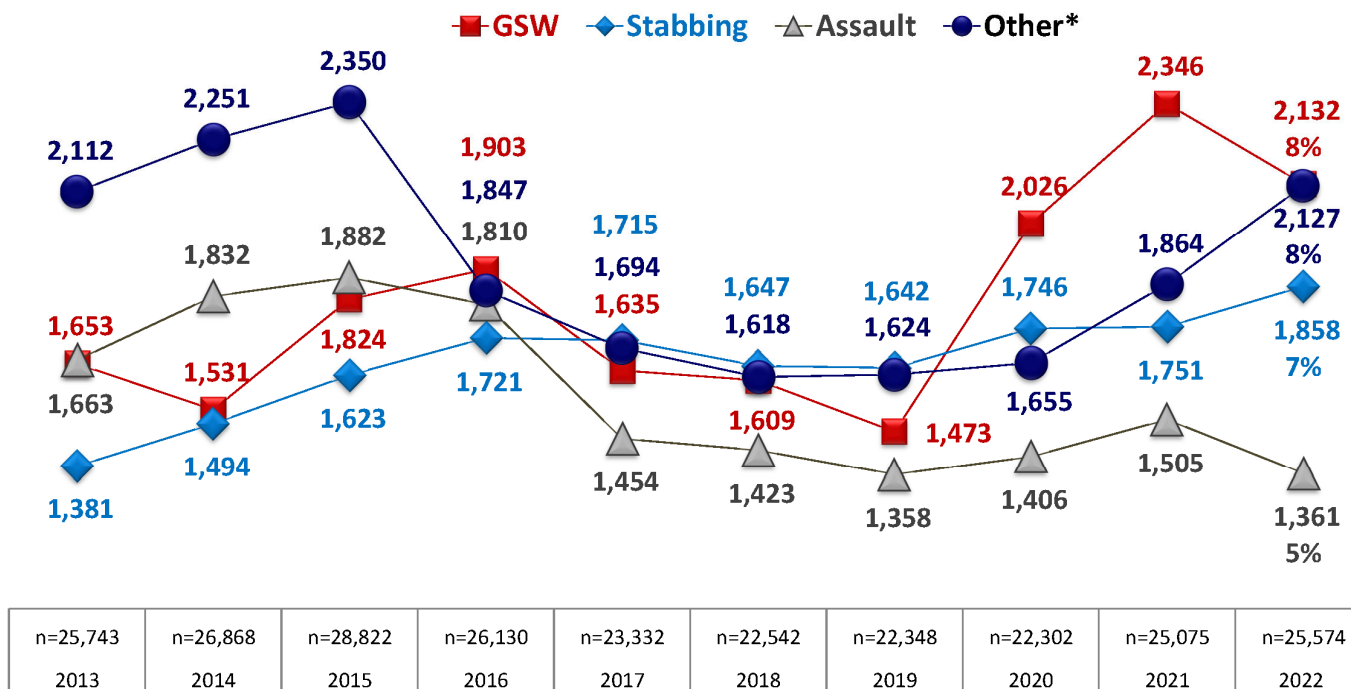
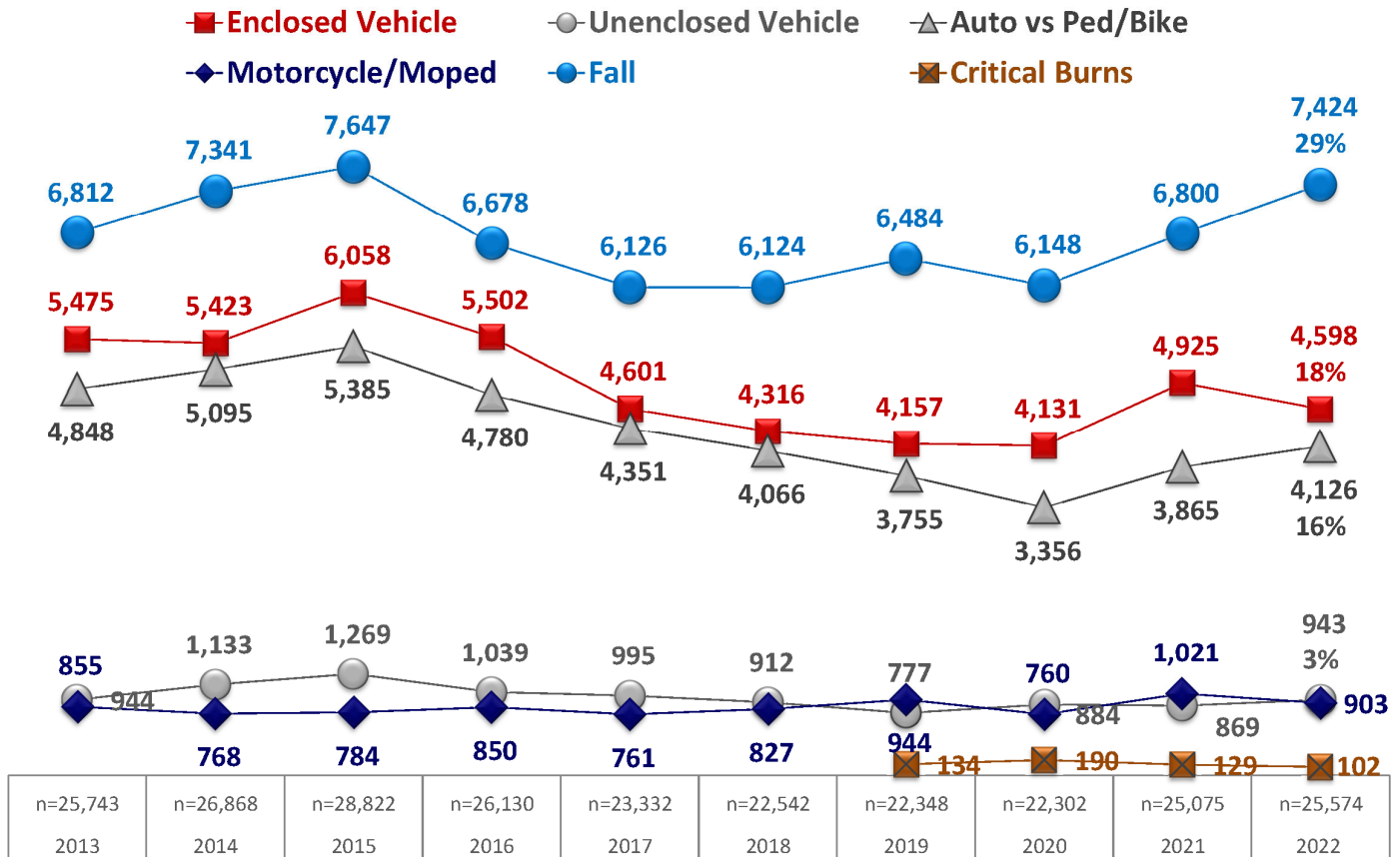
Patient Disposition of Trauma Center Patients



* Transferred to another health facility



Mechanism of Injury: Patients Transported to Trauma Centers



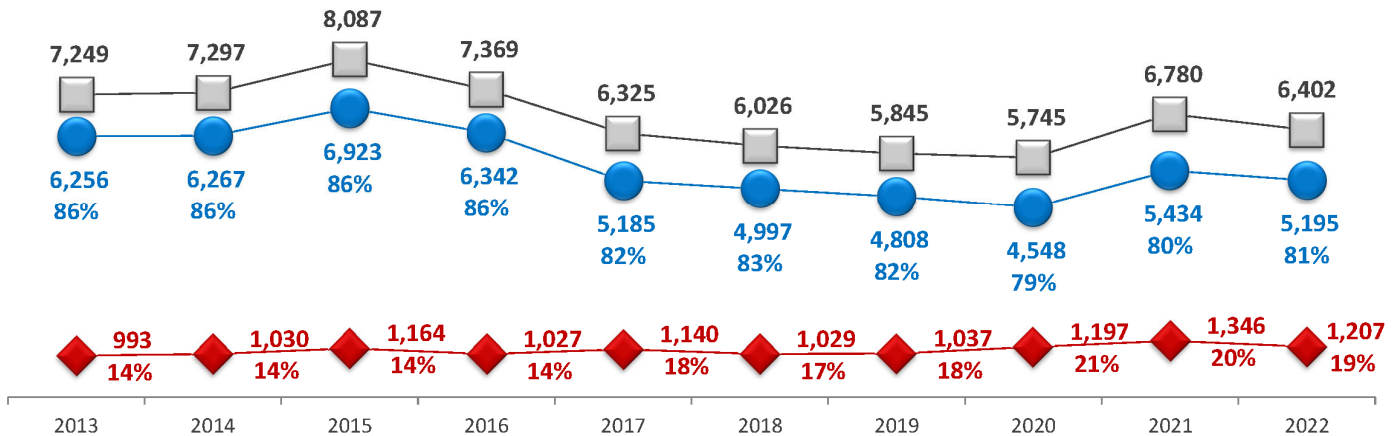
* Other: includes Sports, Work Related, Self-Inflicted, Unknown



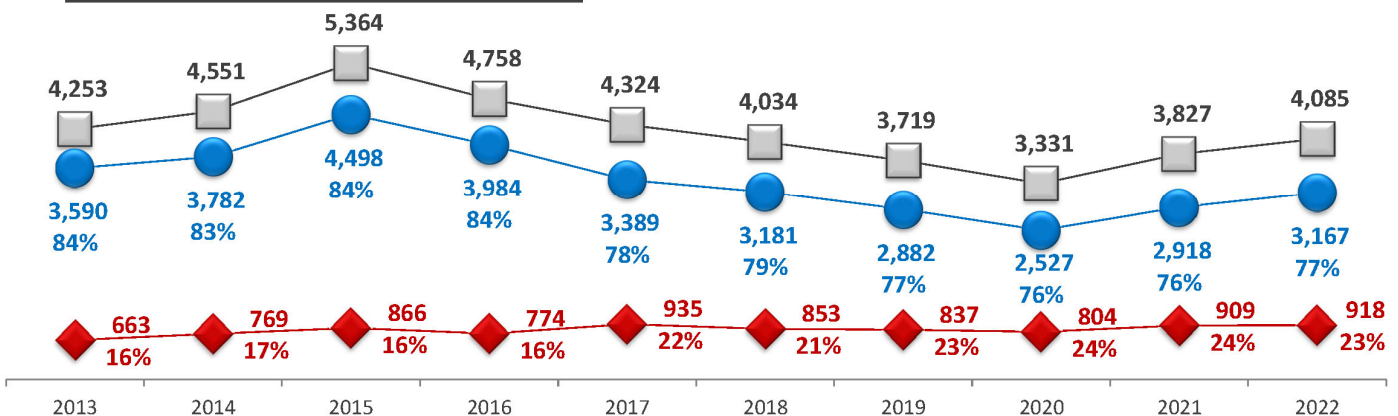
Injury Severity Score by Mechanism of Injury

Injury Severity Score (ISS): Is an established medical score to assess trauma severity. It correlates with mortality, morbidity and hospitalization time after trauma. It is used to define the term major trauma. A major trauma (or polytrauma) is defined as the ISS being greater than 15.

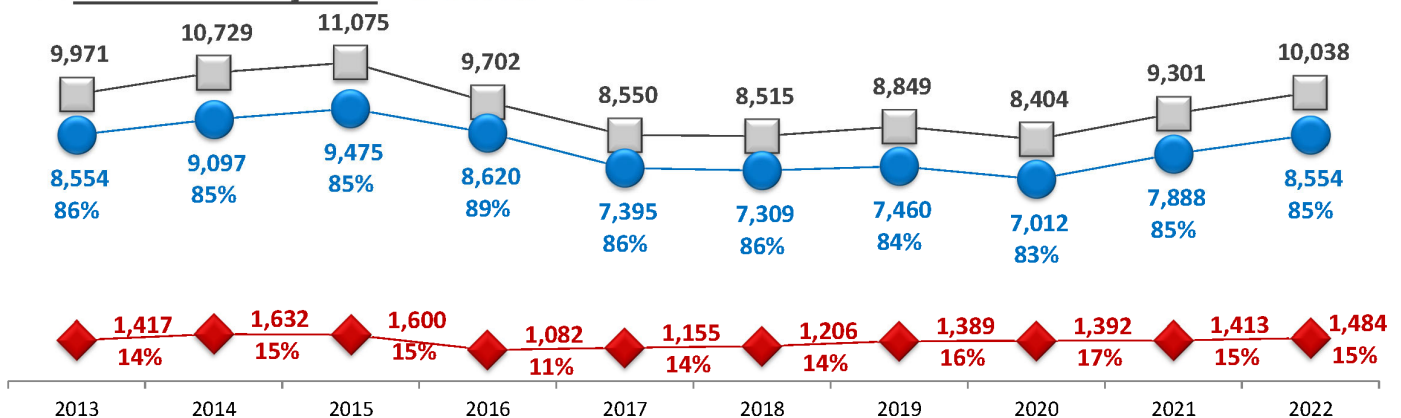
Motor Vehicle Accident ● 1 to 15 ◆ > 15



Automobile vs Pedestrian/Bicycle ● 1 to 15 ◆ > 15



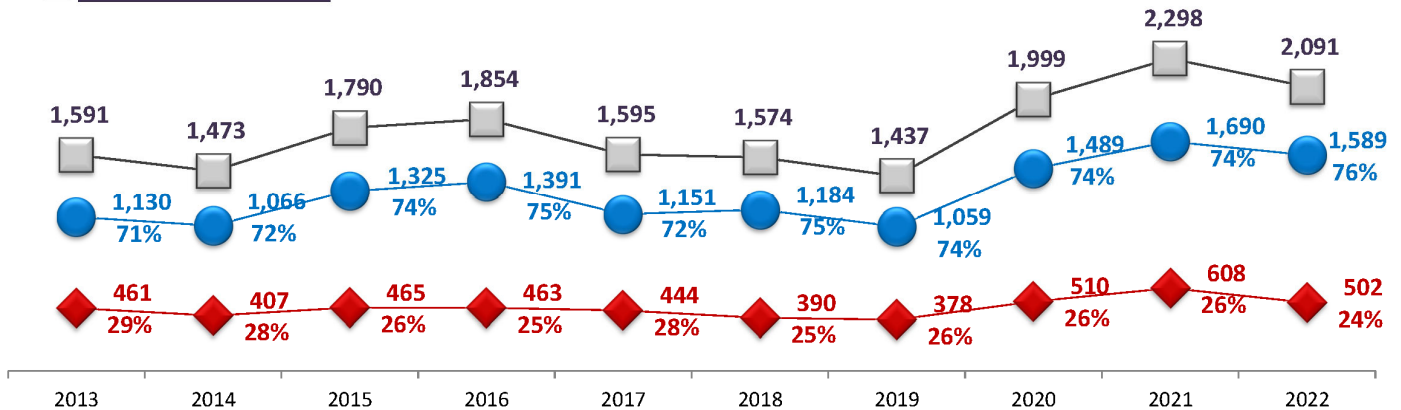
Other Blunt Injuries ● 1 to 15 ◆ > 15



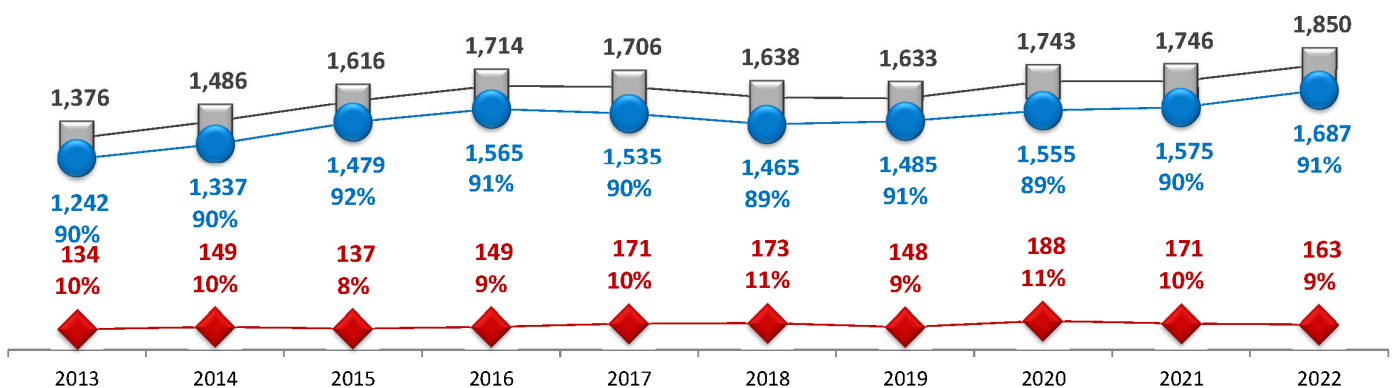


Injury Severity Score by Mechanism of Injury

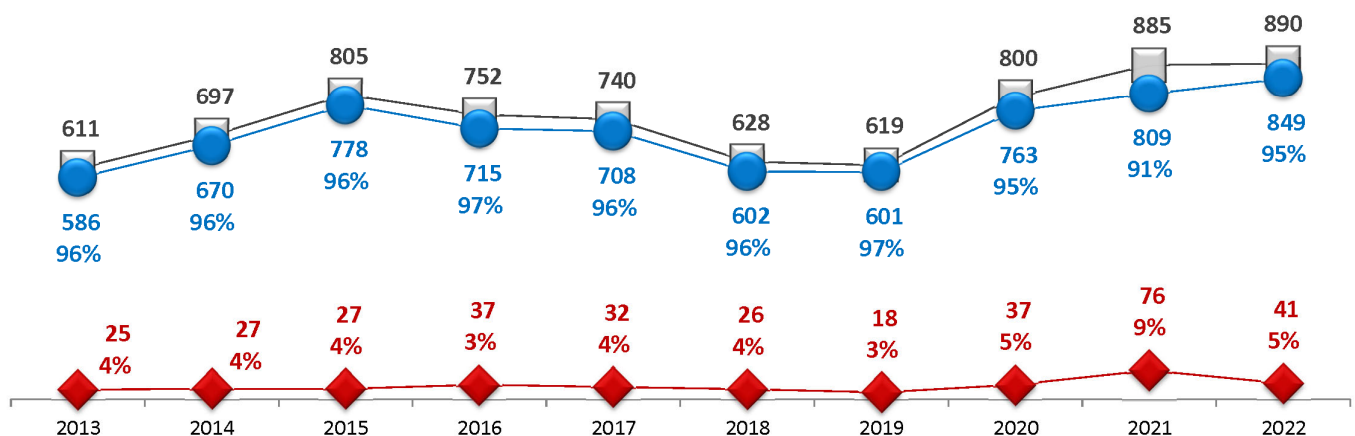
■ Gunshot Wound ● 1 to 15 ◆ > 15



■ Stab Wound ● 1 to 15 ◆ > 15



■ Other Penetrating Injury ● 1 to 15 ◆ > 15





ST-Elevation Myocardial Infarction (STEMI)

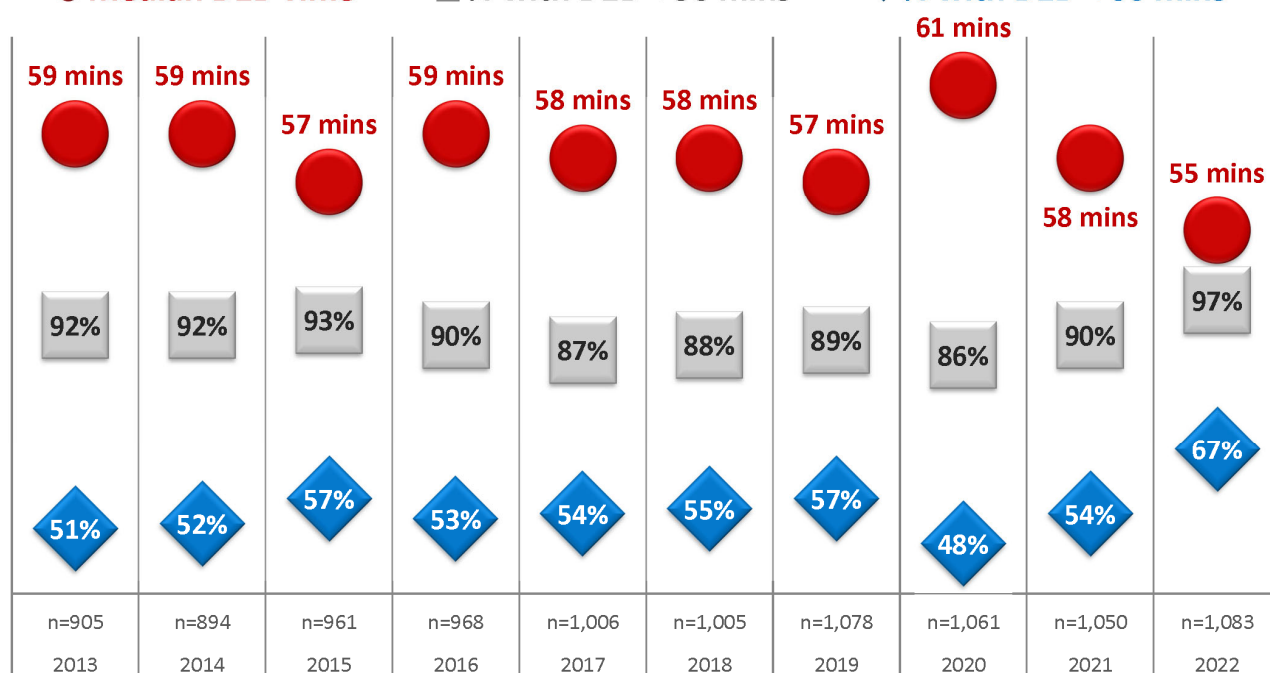
STEMI Receiving Center: Door-to-Device (D2B) Time

LA County Target: within 90 minutes 90% of the time

● Median D2B Time

■ % with D2B < 90 mins

◆ % with D2B < 60 mins



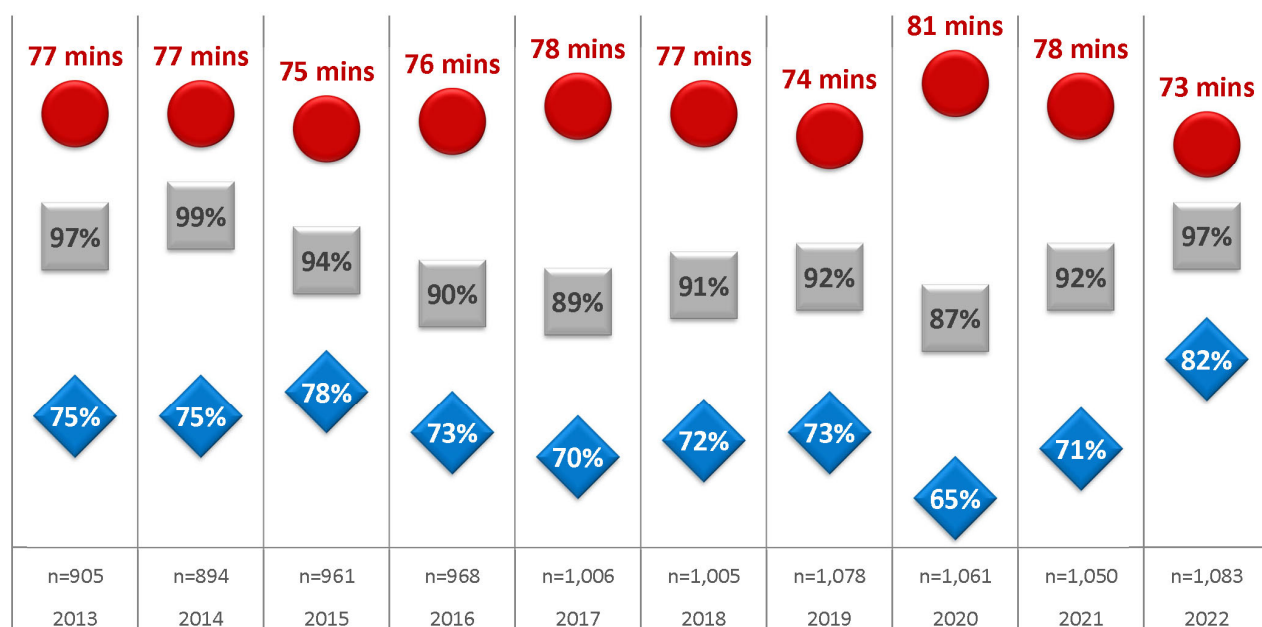
STEMI Receiving Center: EMS Medical Contact-to-Device (E2B) Time

LA County Target: within 120 minutes 90% of the time

● Median E2B Time

■ % with E2B < 120 mins

◆ % with E2B < 90 mins

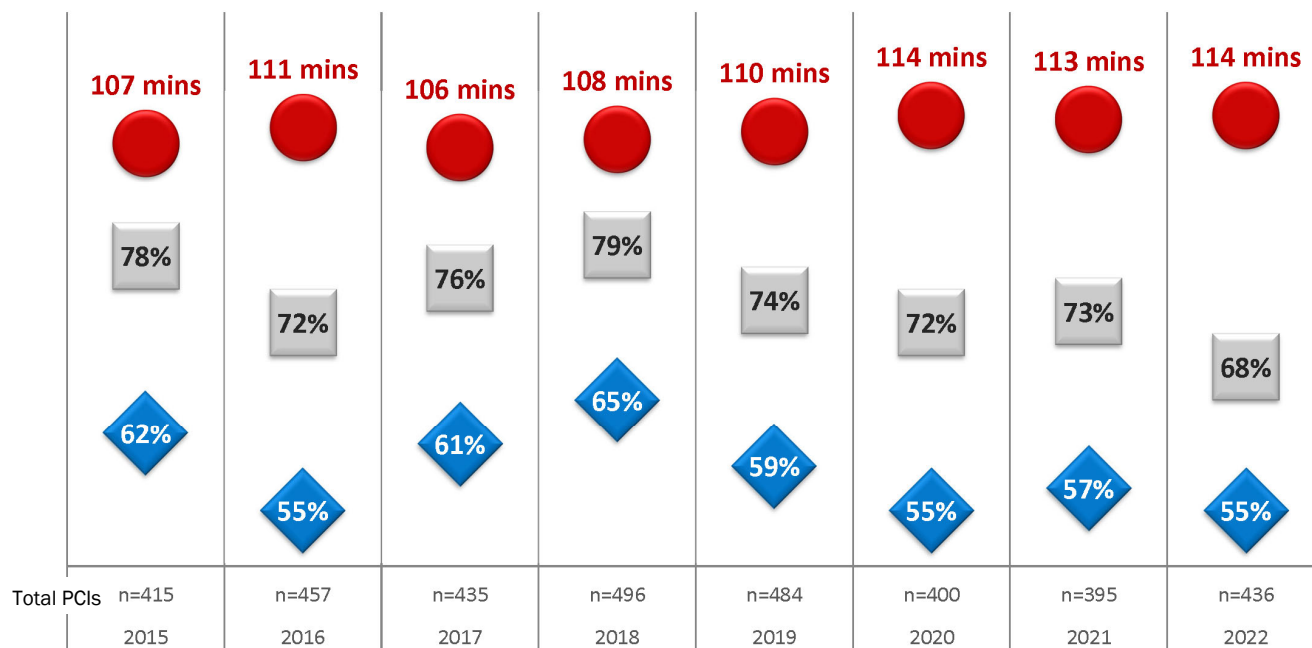




STEMI Referral Facility: Door-to-Device (D2B) Time

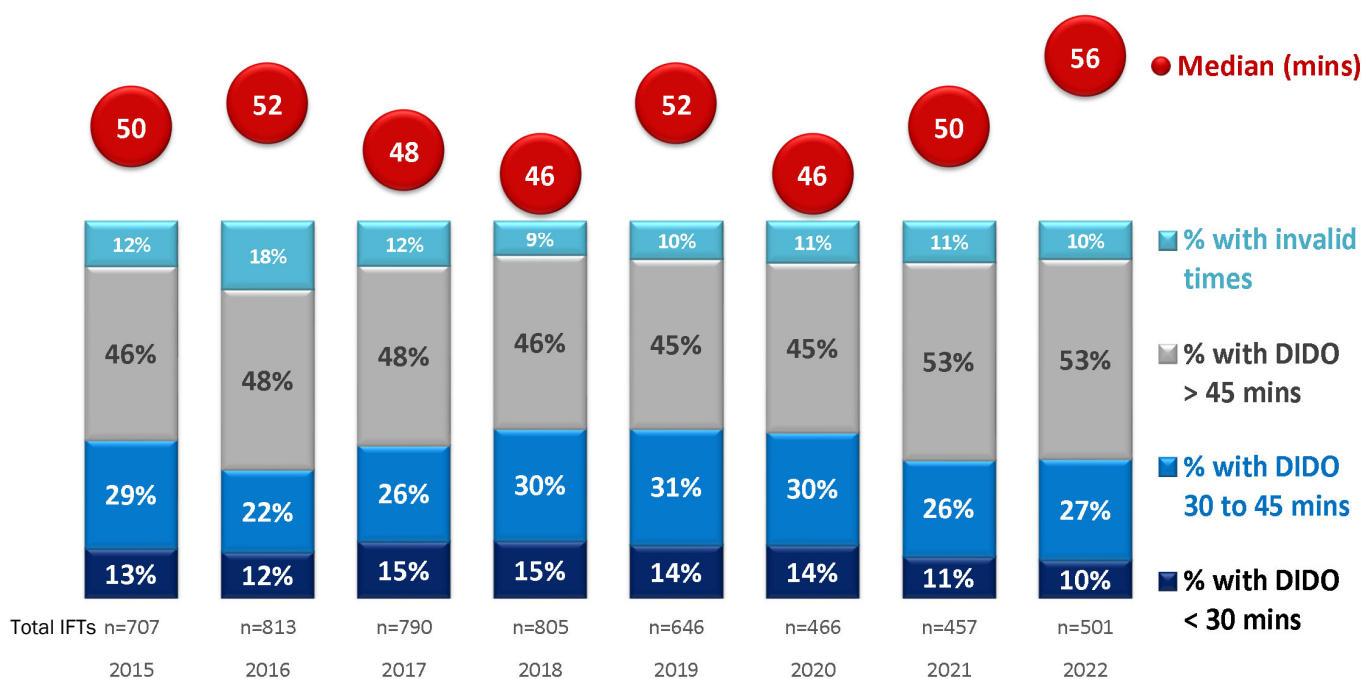
LA County Target: within 150 minutes 90% of the time

● Median SRF D2B Time ■ % with SRF D2B < 150 mins ◆ % with SRF D2B < 120 mins



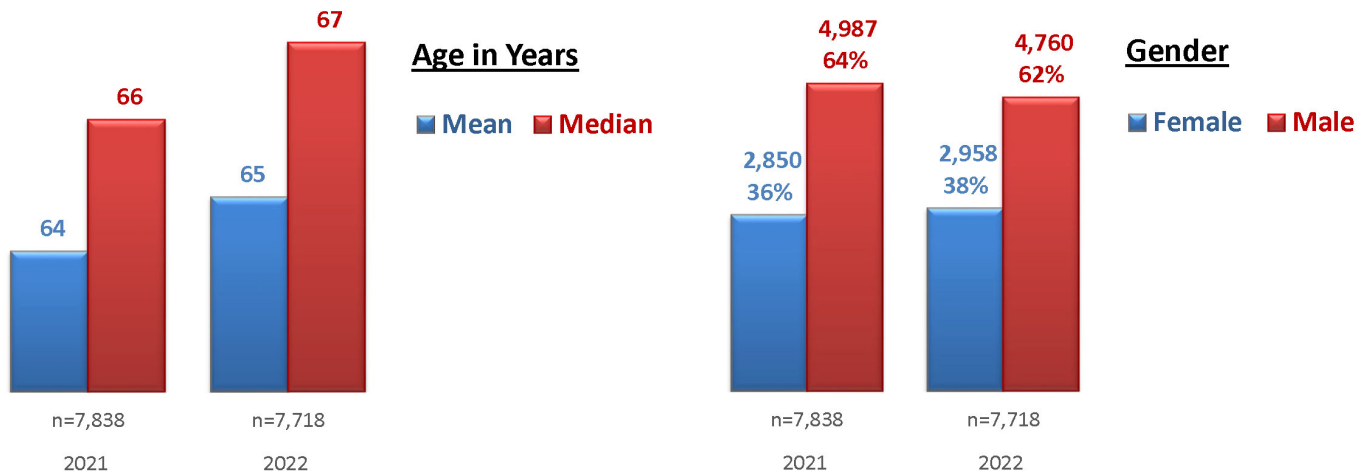
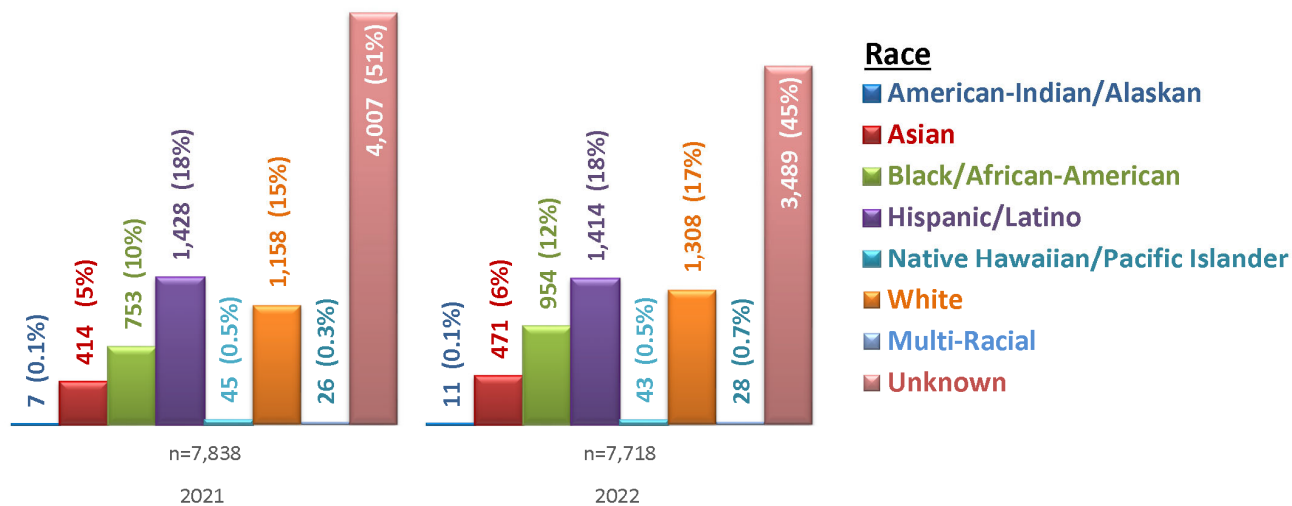
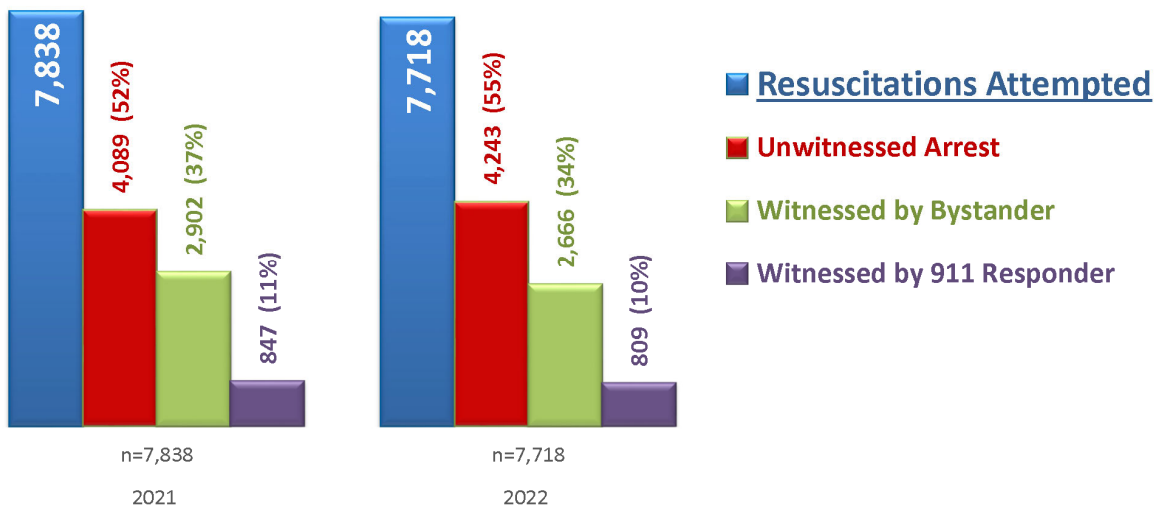
STEMI Referral Facility: Door-in Door-out (DIDO) Time

LA County Target: < 30 minutes



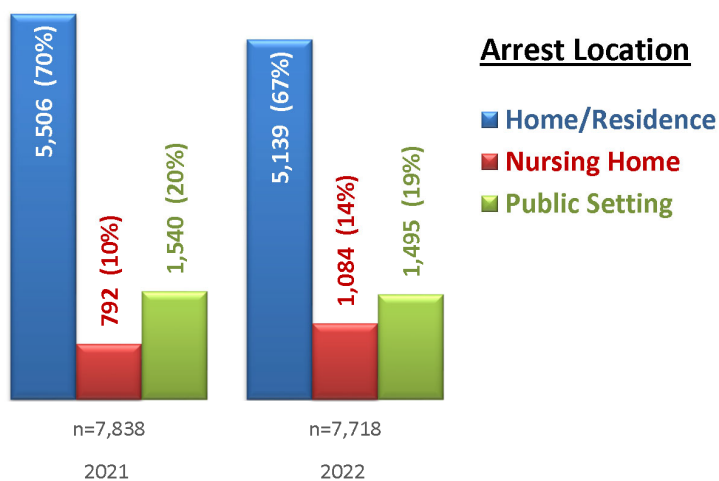


Out of Hospital Cardiac Arrest (OHCA) Non-Traumatic Etiology

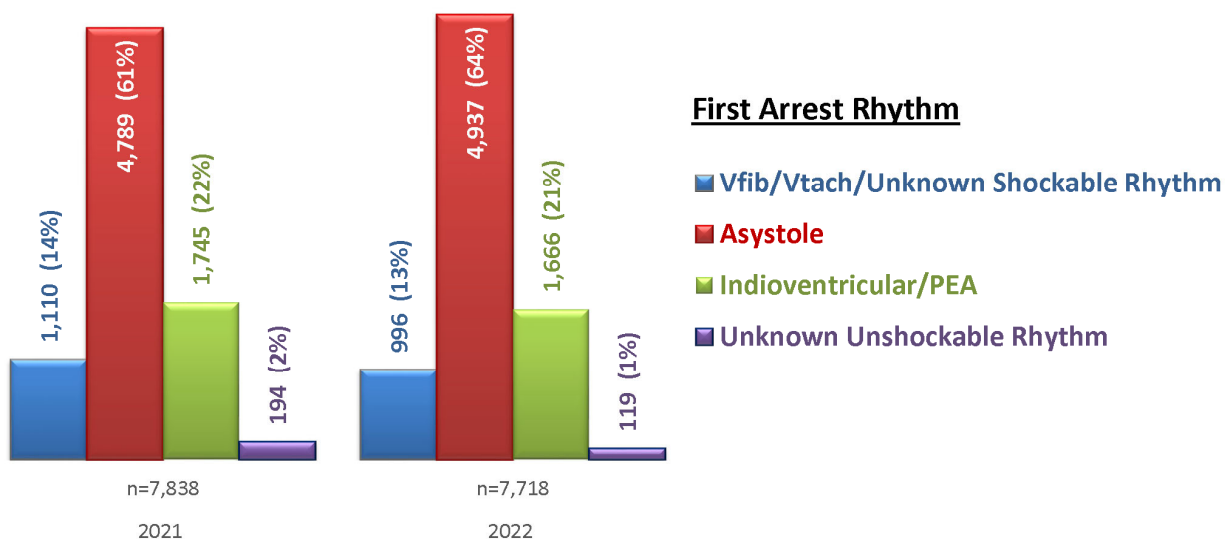




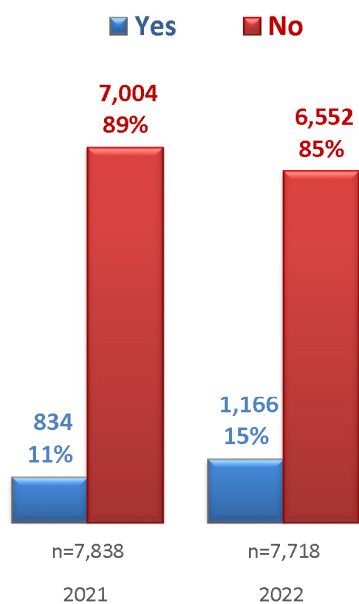
Arrest Location



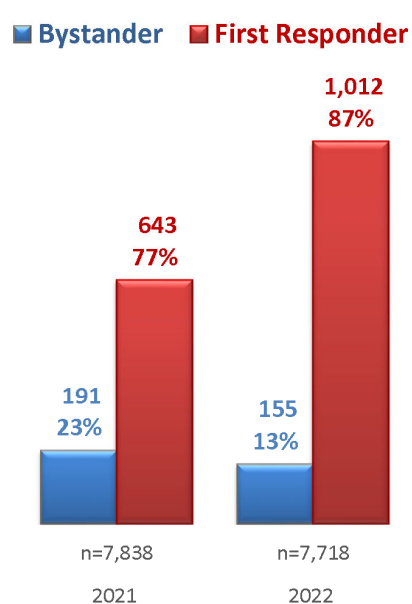
First Arrest Rhythm



Was an AED Applied prior to EMS Arrival?



Who First Applied AED?





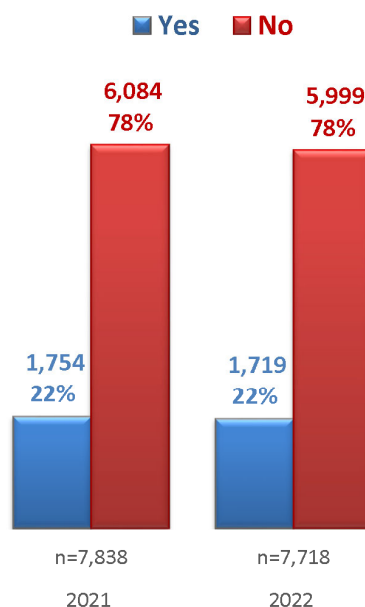
Out of Hospital Cardiac Arrest (OHCA) Return of Spontaneous Circulation (ROSC)

Who Initiated CPR?

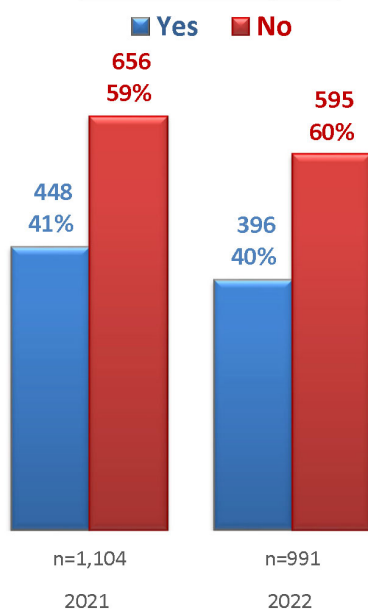


Sustained ROSC

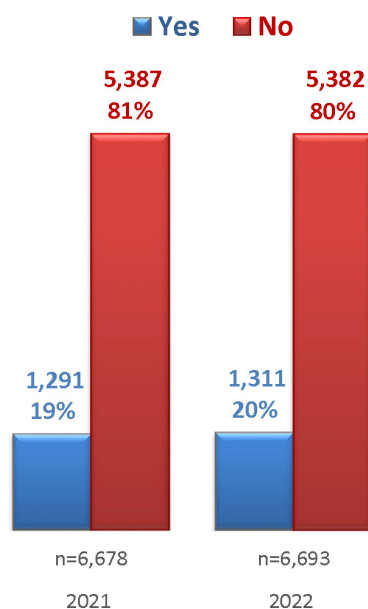
All Patients

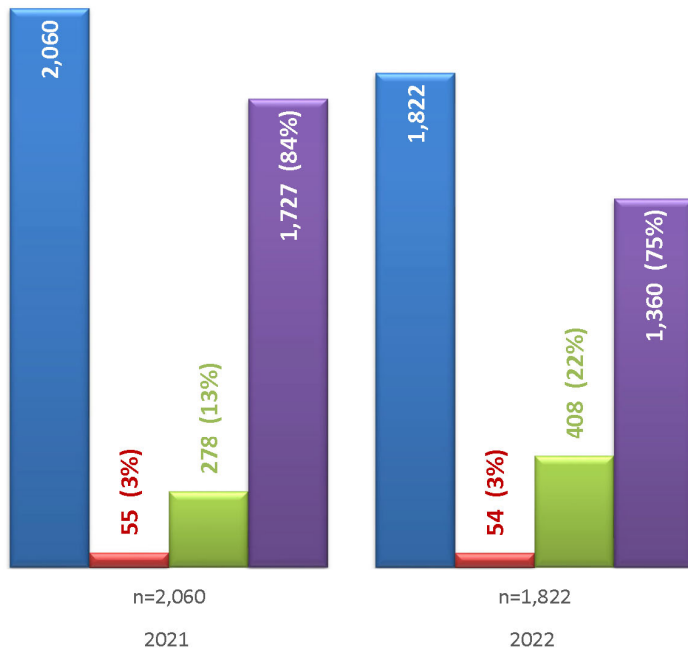


Sustained ROSC Shockable Rhythm



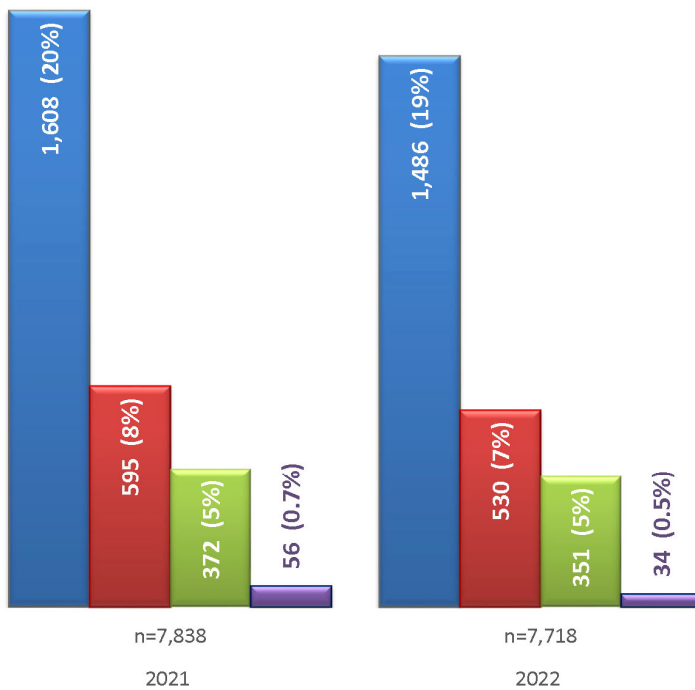
Sustained ROSC Non-Shockable Rhythm





Who First Defibrillated the Patient?

- Patients Defibrillated
- Bystander
- First Responder
- Responding EMS Personnel

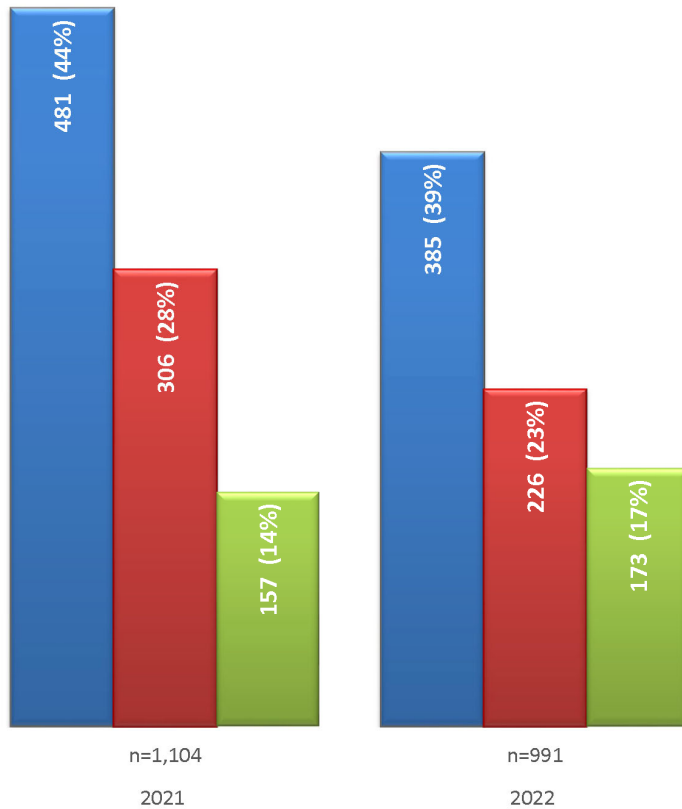


Cardiac Arrest Outcome

- Overall Survival to Hospital Admission
- Overall Survival to Hospital Discharge
- With Good or Moderate Cerebral Performance (CPC 1 or 2)
- Missing Hospital Outcome



Out of Hospital Cardiac Arrest (OHCA)

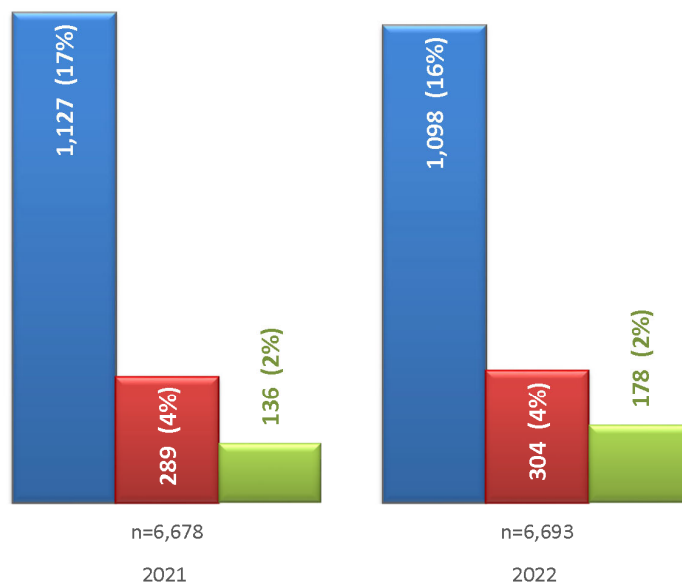


Cardiac Arrest Outcome: Shockable Rhythm

■ Overall Survival to Hospital Admission

■ Overall Survival to Hospital Discharge

■ With Good or Moderate Cerebral Performance (CPC 1 or 2)



Cardiac Arrest Outcome: Non-Shockable Rhythm

■ Overall Survival to Hospital Admission

■ Overall Survival to Hospital Discharge

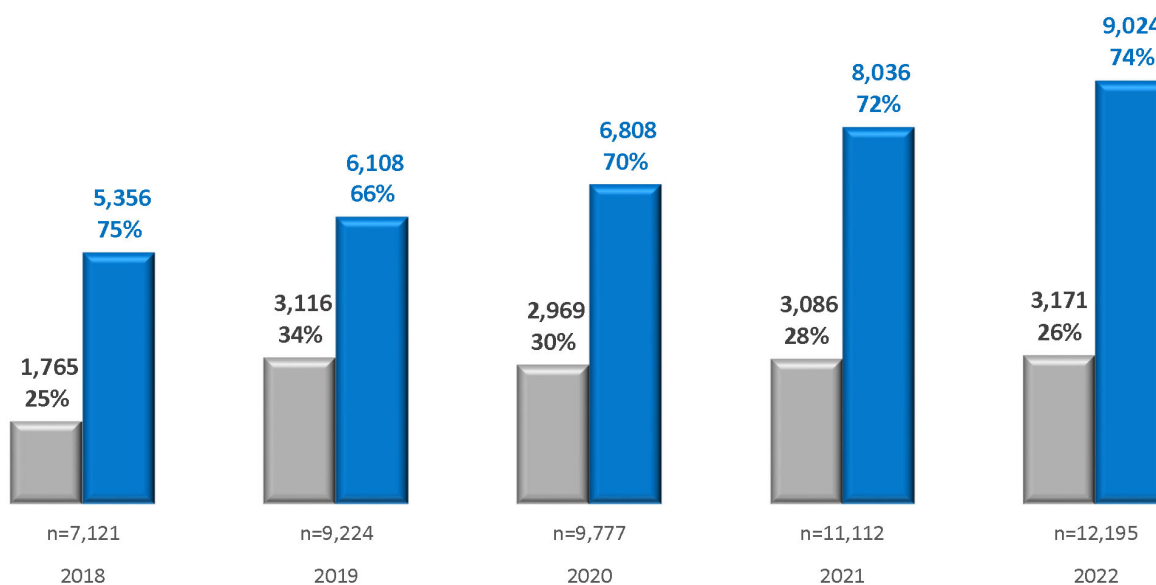
■ With Good or Moderate Cerebral Performance (CPC 1 or 2)



Suspected Stroke Patient Destination

The routing of suspected stroke patients with large vessel occlusions based on a Los Angeles Motor Scale (LAMS) score of 4 or 5 to designated Comprehensive Stroke Centers began on January 8, 2018.

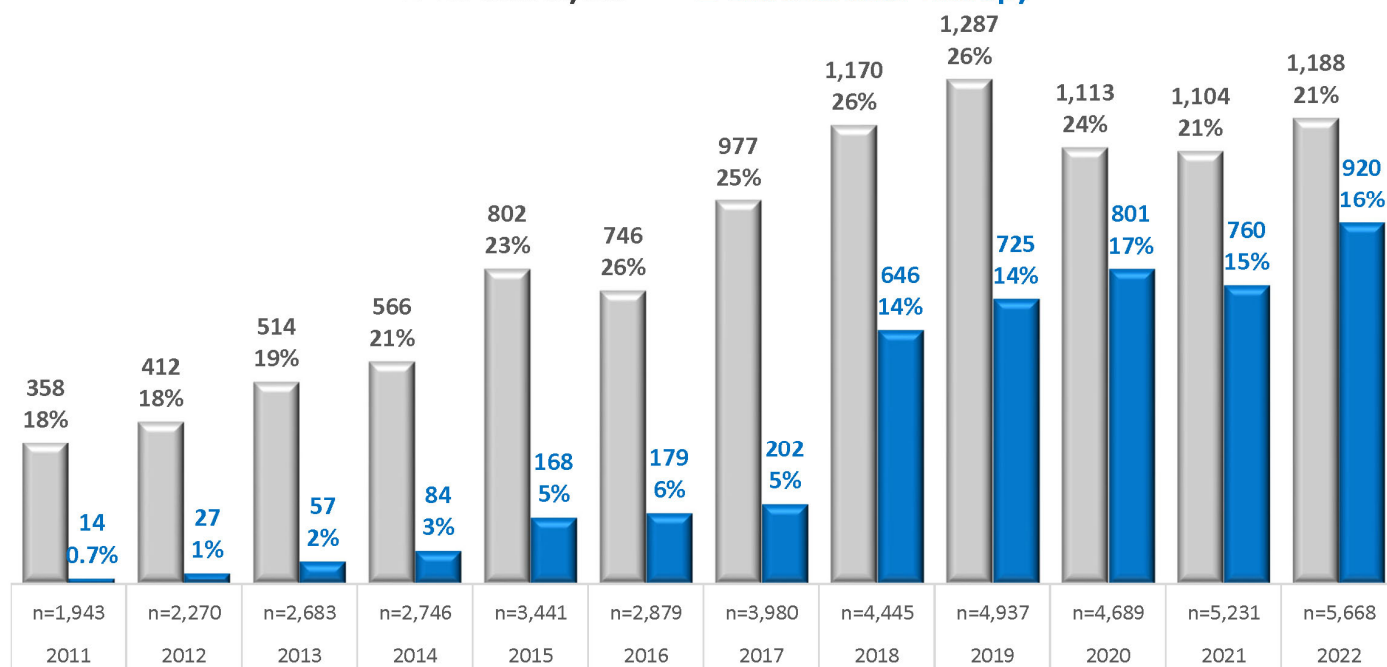
■ Transported to a Primary Stroke Center ■ Transported to a Comprehensive Stroke Center



This chart is based on the Stroke Center Designation of the receiving facility, regardless of routing criteria.

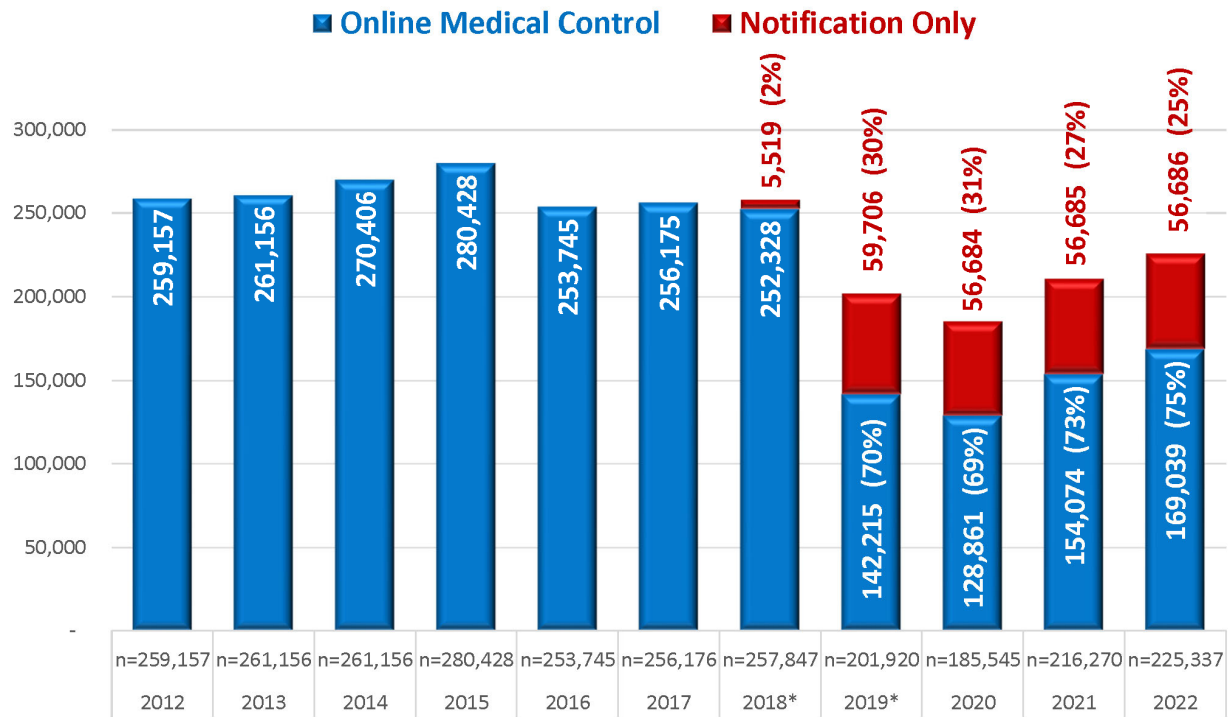
Treatment—All Ischemic Stroke

■ Thrombolytics ■ Endovascular Therapy





Paramedic Base Hospital Contact



* Phased-in implementation of New Treatment Protocols started in July 1, 2018 and was fully implemented in April 1, 2019.
The New Treatment Protocols reduced the number of EMS responses requiring online medical control.

EMERGENCY MEDICAL SERVICES WHERE EMERGENCY CARE BEGINS



EMS AGENCY



To ensure timely, compassionate, and quality emergency and disaster medical services.

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