



LOS ANGELES COUNTY EMS SYSTEM REPORT

DECEMBER 1, 2022

ISSUE 11

Message from the Director and Medical Director

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As we close 2022, we reflect on the resilience of the EMS community to respond to the pandemic, strategize to address workforce challenges, and have the capacity to continue to innovate in prehospital care. As a system we continue to review our data to address trends as well as to improve our service to the public through incorporation of the latest evidence into our treatment protocols and medical control guidelines. This year we have modified our treatment protocols for the care of patients with behavioral or psychiatric crises and have introduced new medical control guideline for the care of the patient with agitation. We also introduced the supraglottic airway, the i-gel, for both adults and children which will expand the options for airway management for all patients with critical illness or injury. We applaud our EMS provider agencies' innovation for participation in a number of pilot projects such as the use of telemedicine in dispatch to direct care with advance practice providers, use of telemedi-



Richard Tadeo
Director

cine in the evaluation of patients with behavioral health complaints and transport to the most appropriate healthcare center including psychiatric urgent care centers, and the use of extracorporeal membrane oxygenation (ECMO) for care of select patients with persistent shockable cardiac arrest. Finally, as a system we are participating in a large National Institutes of Health (NIH) study to evaluate "usual care" versus age-based dosing of midazolam for children with seizures. Participation in this trial allows for the system to receive additional education in care of children with seizures and provides the opportunity for us to expand our knowledge on safe and quality care of children with seizures and provides the opportunity for us to expand our knowledge on safe and quality care of these pediatric patients. Overall we continue to address daily EMS system service needs as we explore with our EMS stakeholder partners new discoveries and improvements in prehospital care that can be integrated into our EMS system to optimize care for the citizens of Los Angeles County.



Dr. Marianne Gausche-Hill
Medical Director

ments in prehospital care that can be integrated into our EMS system to optimize care for the citizens of Los Angeles County.

2022 System Demographics

69 9-1-1 Receiving Hospitals

- 38 EDAP (Emergency Department Approved for Pediatrics)
- 9 Pediatric Medical Centers
- 7 Pediatric Trauma Centers
- 15 Trauma Centers
- 21 Paramedic Base Hospitals
- 35 STEMI Receiving Centers
- 24 Comprehensive Stroke Centers
- 30 Primary Stroke Centers
- 46 Perinatal Centers
- 42 Hospitals with Neonatal ICU
- 13 SART (Sexual Assault Response Team)
- 13 Disaster Resource Centers

EMS Provider Agencies

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

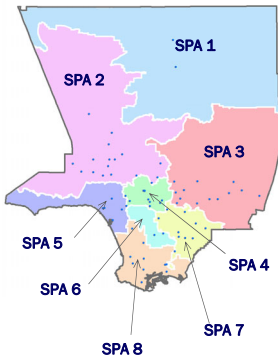
EMS Practitioners

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

SPECIAL POINTS OF INTEREST:

- ED Disposition and Patient Type (page 11)
- Trauma Mechanism of Injury (page 13)
- Injury Severity Scores (pages 14-15)
- Paramedic Base Hospital Contact Volume (page 20)

ADULT EMS PROVIDER IMPRESSION by Service Planning Area (SPA)



COUNTYWIDE TOP 10 ADULT EMS PROVIDER IMPRESSIONS	2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%
Traumatic Injury	118,549	15%	120,909	15%	102,560	13%	121,487	15%
Behavioral/Psychiatric	56,775	7%	59,877	7%	58,136	8%	60,619	8%
Weakness - General	54,040	7%	53,803	7%	53,409	7%	55,368	7%
No Medical Complaint	49,413	6%	48,151	6%	41,110	5%	35,163	4%
Body Pain-Non Traumatic	39,979	5%	42,973	5%	36,832	5%	38,506	5%
Abdominal Pain	38,587	5%	39,115	5%	35,688	5%	41,024	5%
Respiratory Distress	32,120	4%	32,702	4%	34,205	5%	34,679	4%
Altered Level of Consciousness	35,373	4%	29,465	4%	24,820	3%	24,544	3%
Chest Pain - Suspected Cardiac	21,125	3%	21,812	3%	19,320	3%	21,880	3%
Syncope/Near Syncope	25,396	3%	24,447	3%	18,333	2%	21,125	3%
Total Adult EMS Responses	791,900		801,661		759,972		787,420	

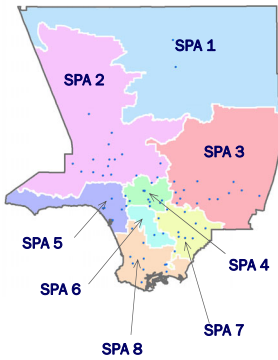
Top 10 Adult EMS Provider Impressions	2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%
SPA 1 Traumatic Injury	7,151	14%	9,788	17%	5,932	11%	6,995	13%
Behavioral/Psychiatric	4,062	8%	4,007	7%	3,443	6%	3,858	7%
Body Pain-Non Traumatic	4,085	8%	4,464	8%	3,492	6%	3,462	6%
Abdominal Pain	3,235	6%	3,201	6%	2,952	5%	3,169	6%
Weakness - General	2,784	5%	2,475	4%	2,952	5%	3,151	6%
Respiratory Distress	1,860	4%	2,179	4%	2,019	4%	2,401	4%
No Medical Complaint	2,788	5%	2,730	5%	1,940	4%	2,220	4%
Chest Pain - Suspected Cardiac	1,554	3%	1,767	3%	1,428	3%	1,682	3%
Altered Level of Consciousness	1,857	4%	1,669	3%	1,395	3%	1,518	3%
Seizure	1,485	3%	1,586	3%	1,287	2%	1,353	2%
Total SPA 1 Adult EMS Responses	51,368		56,824		54,767		55,367	

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

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

	Top 10 Adult EMS Provider Impressions	2018 No. %	2019 No. %	2020 No. %	2021 No. %
SPA 4	Traumatic Injury	11,649 12%	10,331 11%	10,951 12%	13,366 14%
	Behavioral/Psychiatric	7,098 7%	7,767 8%	7,800 9%	8,346 9%
	Weakness - General	7,059 7%	7,373 8%	7,239 8%	7,710 8%
	No Medical Complaint	6,343 7%	6,604 7%	6,169 7%	5,752 6%
	Abdominal Pain	3,895 4%	4,515 5%	3,915 4%	4,919 5%
	Overdose/Poisoning	2,308 2%	2,920 3%	3,315 4%	4,578 5%
	Body Pain - Non-Traumatic	3,444 4%	4,073 4%	3,954 4%	4,524 5%
	Respiratory Distress	3,401 4%	3,423 4%	4,399 5%	4,118 4%
	Altered Level of Consciousness	4,653 5%	3,688 4%	3,275 4%	3,230 3%
	Seizure	2,835 3%	2,989 3%	2,478 3%	2,473 3%
Total SPA 4 Adult EMS Responses		95,524	95,477	91,353	97,424
	EMS Provider Impressions	No. %	No. %	No. %	No. %
SPA 5	Traumatic Injury	10,797 18%	9,190 16%	8,179 17%	9,931 19%
	Behavioral/Psychiatric	3,933 7%	3,981 7%	4,014 8%	4,367 8%
	No Medical Complaint	4,977 8%	4,074 7%	3,352 7%	3,710 7%
	Weakness - General	4,185 7%	3,995 7%	3,352 7%	3,710 7%
	Abdominal Pain	2,011 3%	2,252 4%	1,858 4%	2,280 4%
	Body Pain - Non-Traumatic	1,698 3%	2,119 4%	1,771 4%	2,104 4%
	Respiratory Distress	1,945 3%	1,944 3%	1,858 4%	1,961 4%
	Syncope/Near Syncope	2,582 4%	2,498 4%	1,537 3%	1,860 4%
	Altered Level of Consciousness	2,493 4%	1,949 3%	1,769 4%	1,683 3%
	Chest Pain - Suspected Cardiac	1,508 3%	1,443 3%	1,251 3%	1,458 3%
Total SPA 5 Adult EMS Responses		59,682	56,379	48,224	52,677
	EMS Provider Impressions	No. %	No. %	No. %	No. %
SPA 6	Traumatic Injury	14,742 13%	13,758 12%	13,788 12%	15,121 14%
	Behavioral/Psychiatric	8,089 7%	8,892 8%	9,225 8%	8,737 8%
	Weakness - General	7,638 7%	8,160 7%	9,046 8%	8,115 7%
	Abdominal Pain	6,591 6%	7,143 6%	6,378 6%	7,037 6%
	Body Pain - Non-Traumatic	6,585 6%	6,967 6%	6,462 6%	6,378 6%
	No Medical Complaint	6,929 6%	6,954 6%	6,803 6%	6,210 6%
	Respiratory Distress	5,016 4%	5,158 5%	5,550 5%	5,239 5%
	Seizure	3,695 3%	3,950 4%	3,529 3%	3,437 3%
	Cold/Flu	3,609 3%	3,707 3%	4,339 4%	3,239 3%
	Altered Level of Consciousness	4,395 4%	3,346 3%	2,955 3%	2,746 2%
Total SPA 6 Adult EMS Responses		111,500	111,695	112,044	110,085
	EMS Provider Impressions	No. %	No. %	No. %	No. %
SPA 7	Traumatic Injury	13,581 15%	14,608 16%	10,740 13%	12,645 16%
	Behavioral/Psychiatric	6,458 7%	7,193 8%	6,397 8%	6,412 8%
	Weakness - General	5,853 7%	5,386 6%	3,340 4%	5,155 6%
	Body Pain - Non-Traumatic	5,773 7%	6,136 7%	4,519 6%	4,124 5%
	Abdominal Pain	4,387 5%	4,194 5%	3,566 4%	3,982 5%
	No Medical Complaint	5,231 6%	5,110 6%	3,340 4%	3,543 4%
	Respiratory Distress	3,276 4%	3,067 3%	3,071 4%	3,388 4%
	Altered Level of Consciousness	3,654 4%	2,712 3%	2,343 3%	2,411 3%
	Chest Pain - Suspected Cardiac	2,463 3%	2,526 3%	2,083 3%	2,313 3%
	Syncope/Near Syncope	2,664 3%	2,554 3%	2,060 3%	2,111 3%
Total SPA 7 Adult EMS Responses		88,437	89,297	80,058	79,913
	EMS Provider Impressions	No. %	No. %	No. %	No. %
SPA 8	Traumatic Injury	19,497 16%	20,087 16%	16,919 14%	19,908 16%
	Behavioral/Psychiatric	8,841 7%	8,898 7%	8,839 7%	9,758 8%
	Weakness - General	8,040 7%	8,086 7%	7,696 6%	7,868 6%
	No Medical Complaint	7,156 6%	6,997 6%	5,871 5%	6,360 5%
	Abdominal Pain	6,092 5%	6,142 5%	5,433 5%	6,125 5%
	Body Pain - Non-Traumatic	5,699 5%	6,609 5%	5,532 5%	6,040 5%
	Respiratory Distress	5,123 4%	4,850 4%	4,903 4%	5,111 4%
	Altered Level of Consciousness	6,313 5%	4,847 4%	4,275 4%	4,425 3%
	Chest Pain - Suspected Cardiac	3,385 3%	3,289 3%	2,930 2%	3,369 3%
	Syncope/Near Syncope	4,070 3%	3,821 3%	3,010 3%	3,348 3%
Total SPA 8 Adult EMS Responses		120,762	123,277	120,090	126,704

PEDIATRIC EMS PROVIDER IMPRESSION by Service Planning Area (SPA)



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

Top 10 Pediatric EMS Provider Impressions	2018 No. %	2019 No. %	2020 No. %	2021 No. %
SPA 1 Traumatic Injury	699 21%	830 24%	534 22%	555 22%
No Medical Complaint	531 16%	504 15%	284 12%	243 10%
Seizure	420 13%	475 14%	270 11%	257 10%
Behavioral/Psychiatric	286 9%	245 7%	155 6%	154 6%
Respiratory Distress	197 6%	229 7%	106 4%	155 6%
Cold/Flu	169 5%	141 4%	119 5%	109 4%
Choking	42 1%	78 2%	97 4%	87 4%
Nausea/Vomiting	74 2%	72 2%	32 1%	73 3%
Fever	109 3%	119 3%	84 3%	63 3%
Syncope/Near Syncope	64 2%	83 2%	97 4%	57 2%
Total SPA 1 Pediatric EMS Responses	3,298	3,457	2,425	2,470

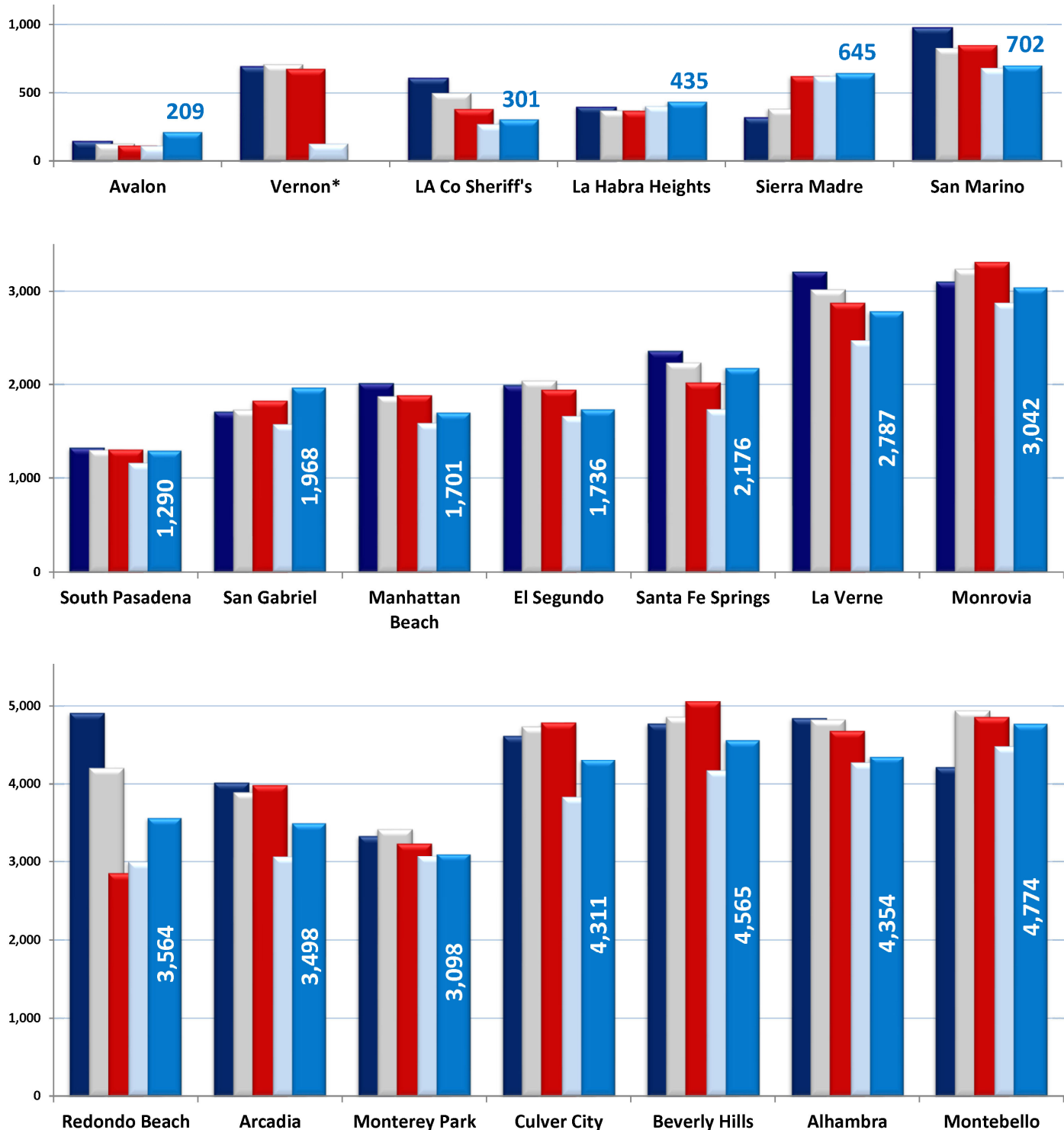
EMS Provider Impressions	No. %	No. %	No. %	No. %
SPA 2 Traumatic Injury	926 23%	1,019 19%	844 21%	1,059 23%
Seizure	566 14%	898 17%	620 15%	565 12%
No Medical Complaint	469 12%	688 13%	496 12%	475 10%
Respiratory Distress	210 5%	348 6%	201 5%	235 5%
Behavioral/Psychiatric	252 6%	241 4%	210 5%	242 5%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

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

Top 10 Pediatric EMS Provider Impressions		2018		2019		2020		2021	
		No.	%	No.	%	No.	%	No.	%
SPA 4	Traumatic Injury	503	19%	476	18%	361	19%	459	22%
	Seizure	392	15%	471	17%	284	15%	256	12%
	No Medical Complaint	399	15%	360	13%	238	13%	285	13%
	Respiratory Distress	147	5%	142	5%	57	3%	111	5%
	Behavioral/Psychiatric	111	4%	141	5%	100	5%	106	5%
	Cold/Flu	162	6%	148	5%	81	4%	95	4%
	Weakness - General	71	3%	70	3%	43	2%	82	4%
	Nausea/Vomiting	70	3%	70	3%	43	2%	74	3%
	Fever	152	6%	102	4%	87	5%	67	3%
	Allergic Reaction	60	2%	78	3%	66	4%	65	3%
Total SPA 4 Pediatric EMS Responses		2,701		2,705		1,860		2,124	
EMS Provider Impressions		No.	%	No.	%	No.	%	No.	%
SPA 5	Traumatic Injury	643	30%	473	24%	356	27%	381	28%
	No Medical Complaint	258	12%	209	11%	137	10%	137	10%
	Seizure	213	10%	192	10%	134	10%	113	8%
	Sting/Venomous Bites	55	3%	173	9%	168	13%	70	5%
	Allergic Reaction	102	5%	76	4%	31	2%	68	5%
	Respiratory Distress	139	6%	93	5%	45	3%	67	5%
	Behavioral/Psychiatric	72	3%	61	3%	67	5%	61	4%
	Syncopal/Near Syncopal	66	3%	74	4%	27	2%	57	4%
	Nausea/Vomiting	75	3%	84	4%	32	2%	55	4%
	Cold/Flu	84	4%	79	4%	31	2%	45	3%
Total SPA 5 Pediatric EMS Responses		2,175		1,941		1,338		1,360	
EMS Provider Impressions		No.	%	No.	%	No.	%	No.	%
SPA 6	Traumatic Injury	1,350	20%	1,308	20%	1,014	21%	1,115	23%
	Seizure	884	13%	1,032	16%	622	13%	582	12%
	No Medical Complaint	1,001	15%	970	15%	734	15%	662	13%
	Behavioral/Psychiatric	296	4%	310	5%	248	5%	287	6%
	Respiratory Distress	422	6%	400	6%	225	5%	282	6%
	Cold/Flu	497	7%	510	8%	260	5%	249	5%
	Fever	330	5%	328	5%	210	4%	166	3%
	Nausea/Vomiting	198	3%	172	3%	122	3%	163	3%
	Weakness -General	151	2%	192	3%	172	4%	136	3%
	Abdominal Pain	119	2%	124	2%	100	2%	95	2%
Total SPA 6 Pediatric EMS Responses		6,647		6,649		4,865		4,952	
EMS Provider Impressions		No.	%	No.	%	No.	%	No.	%
SPA 7	Traumatic Injury	1,153	22%	1,256	24%	722	22%	790	25%
	Seizure	767	15%	801	16%	512	15%	447	14%
	No Medical Complaint	817	16%	670	13%	369	11%	277	9%
	Respiratory Distress	226	4%	291	6%	105	3%	152	5%
	Behavioral/Psychiatric	256	5%	284	6%	186	6%	148	5%
	Choking	91	2%	143	3%	136	4%	139	4%
	Syncopal/Near Syncopal	178	3%	160	3%	88	3%	80	3%
	Cold/Flu	174	3%	195	4%	105	3%	77	2%
	Nausea/Vomiting	105	2%	99	2%	76	2%	74	2%
	Fever	171	3%	185	4%	112	3%	64	2%
Total SPA 7 Pediatric EMS Responses		5,150		5,152		3,339		3,126	
EMS Provider Impressions		No.	%	No.	%	No.	%	No.	%
SPA 8	Traumatic Injury	1,555	27%	1,487	28%	976	25%	1,112	27%
	Seizure	797	14%	829	16%	501	13%	485	12%
	No Medical Complaint	739	13%	608	11%	488	13%	414	10%
	Behavioral/Psychiatric	280	5%	248	5%	190	5%	218	5%
	Respiratory Distress	324	6%	294	6%	166	4%	201	5%
	Choking	134	2%	124	2%	161	4%	160	4%
	Cold/Flu	197	3%	230	4%	131	3%	148	4%
	Nausea/Vomiting	125	2%	117	2%	78	2%	121	3%
	Allergic Reaction	122	2%	134	3%	86	2%	119	3%
	Syncopal/Near Syncopal	152	3%	138	3%	96	2%	117	3%
Total SPA 8 Pediatric EMS Responses		5,663		5,323		3,883		4,044	

EMS Responses by 9-1-1 Jurisdictional Provider Agency

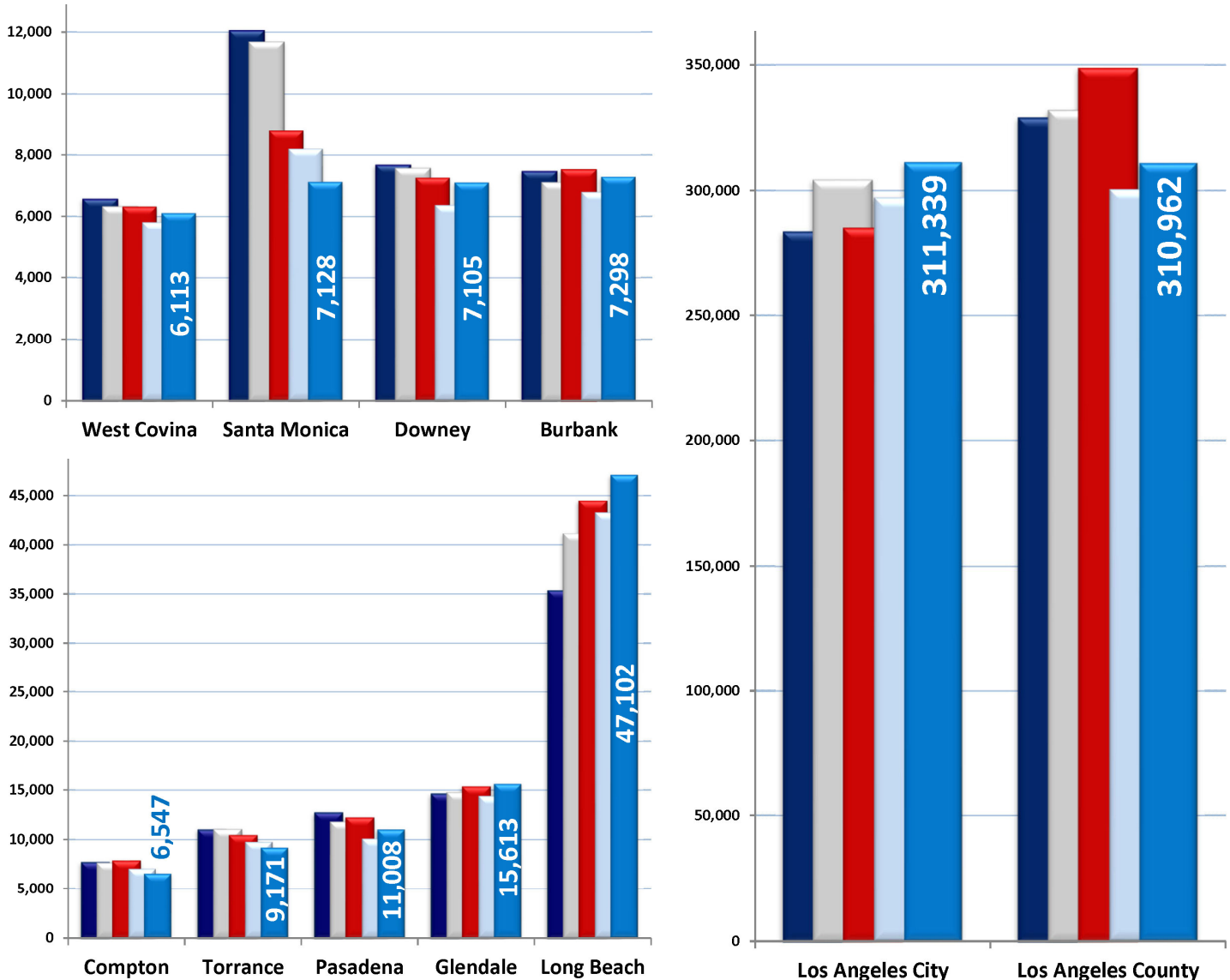
■ 2017 ■ 2018 ■ 2019 ■ 2020 ■ 2021



*In 2021: Vernon contracted with LA County Fire for EMS Services

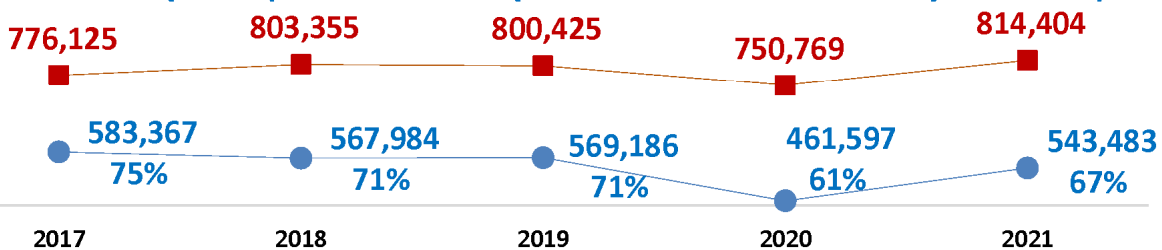
EMS Responses by 9-1-1 Jurisdictional Provider Agency

■ 2017 ■ 2018 ■ 2019 ■ 2020 ■ 2021



■ Total 911 EMS Responses

● Transports (includes transports to out-of-LA County facilities)



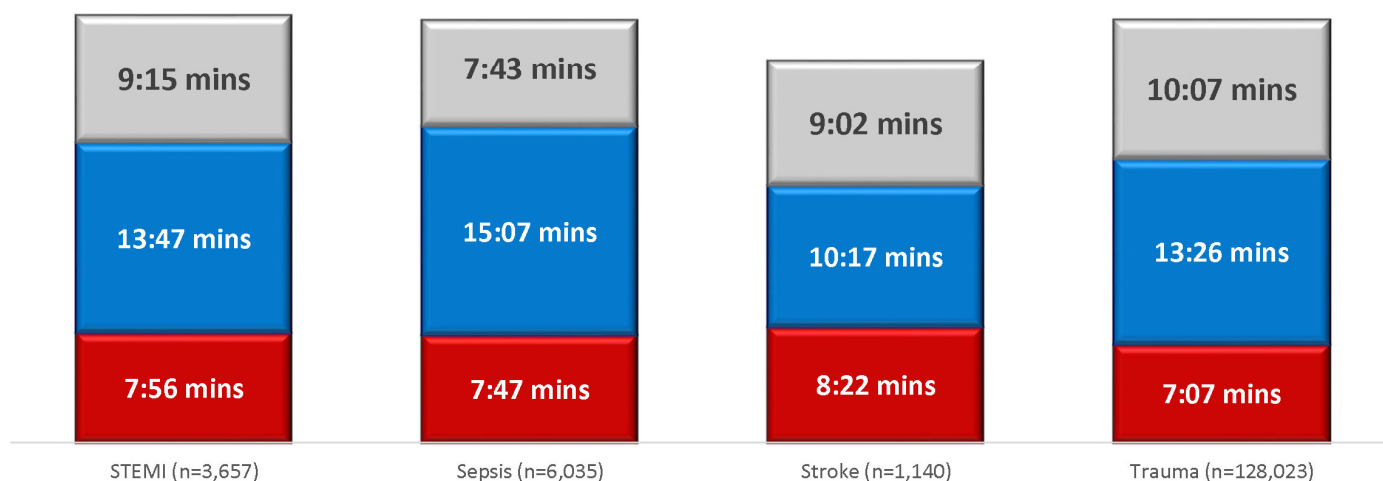
2021 EMS Times: Adult (Median)

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)

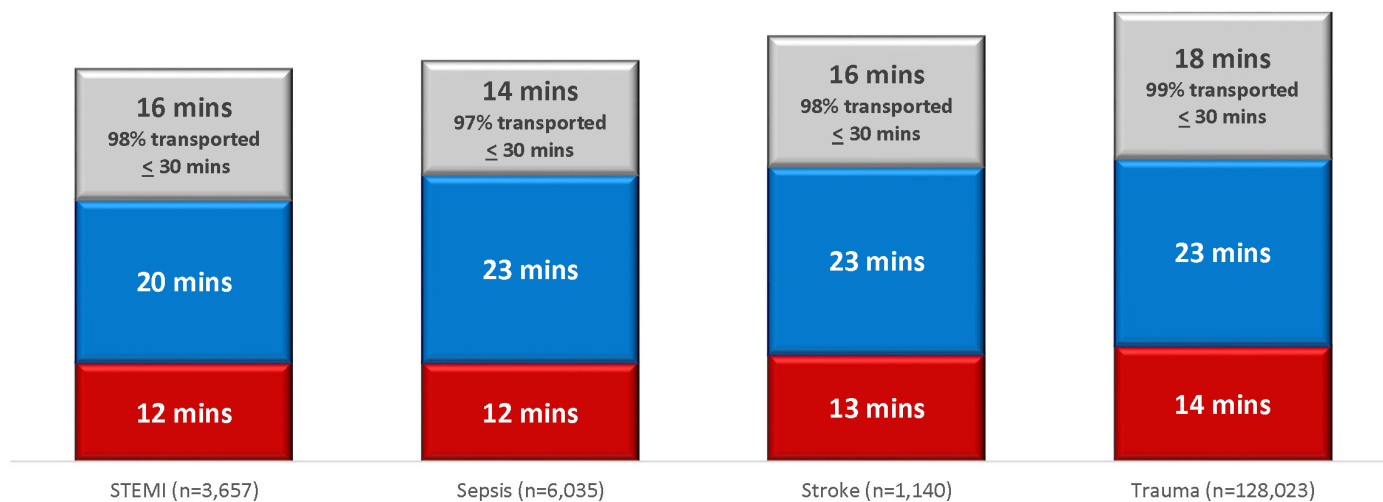


2021 EMS Times (90th Percentile)

■ Transport Time (Time Left Scene to Time Arrived at Hospital)

■ Scene Time (Time Arrived at Scene to Time Left Scene)

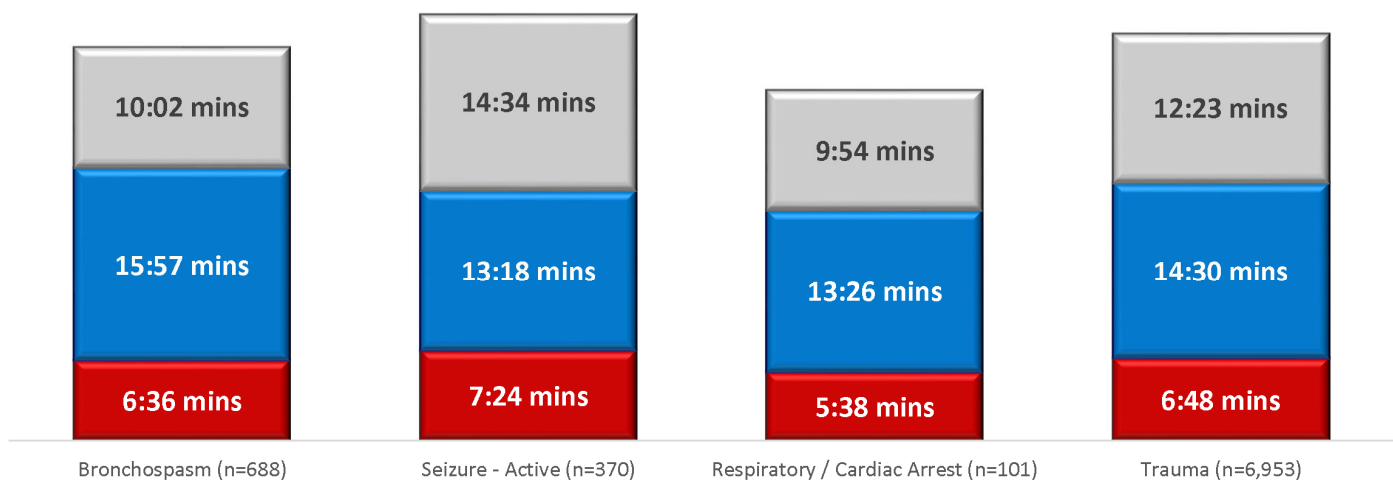
■ Response Time (Time of Dispatch to Time Arrived at Scene)



2021 EMS Times: Pediatric (Median)

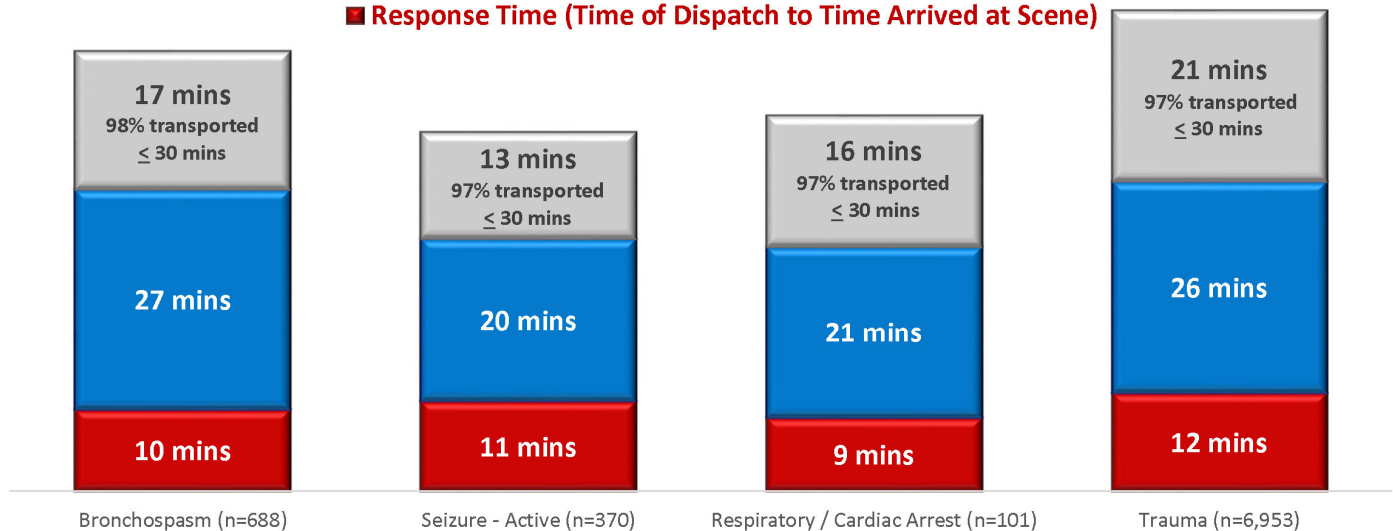
LA County EMS Transport Time PEDIATRIC Patients with Provider Impressions
Bronchospasm, Seizure, Respiratory/Cardiac Arrest and Traumatic Injuries

- 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)



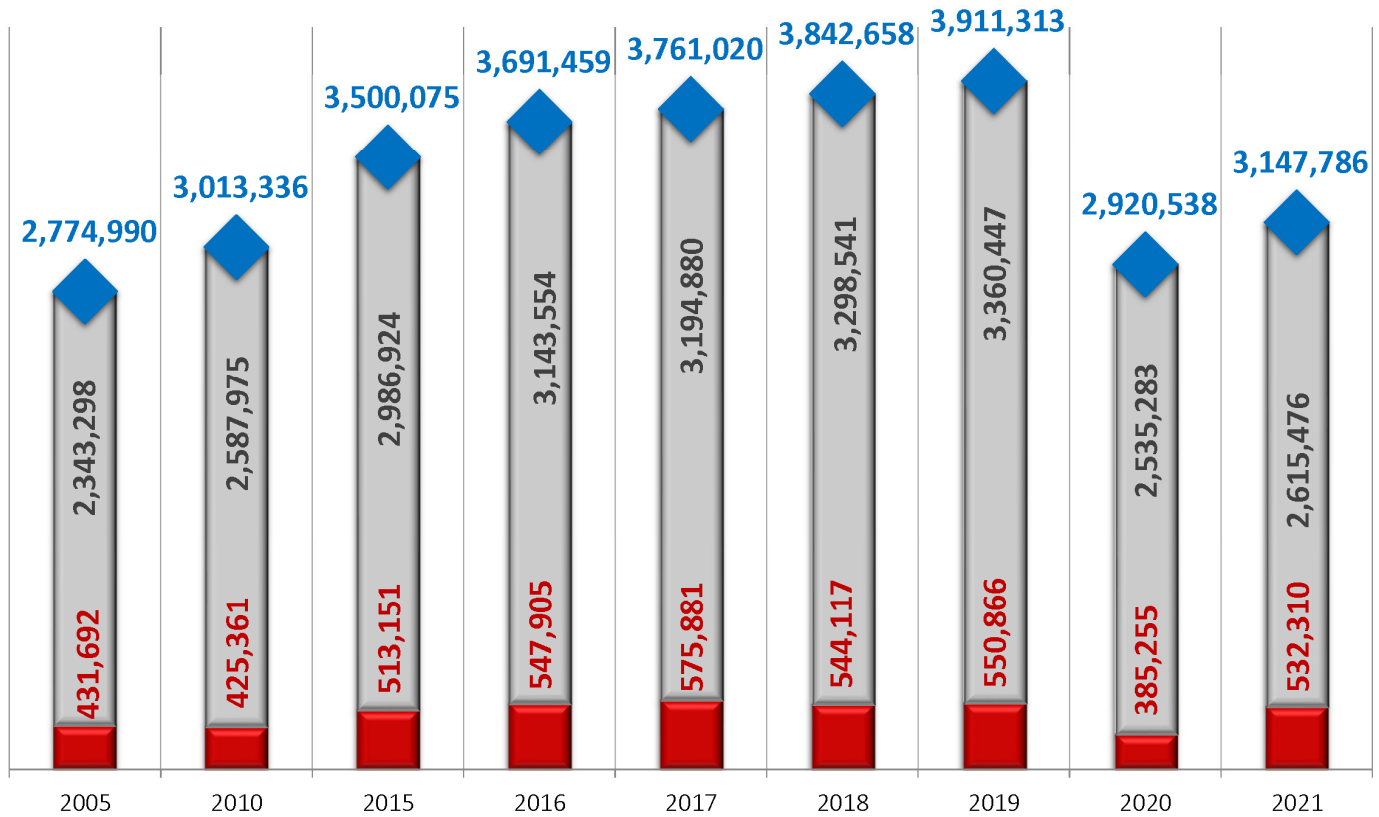
2021 EMS Times: Pediatric (90th Percentile)

- 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)



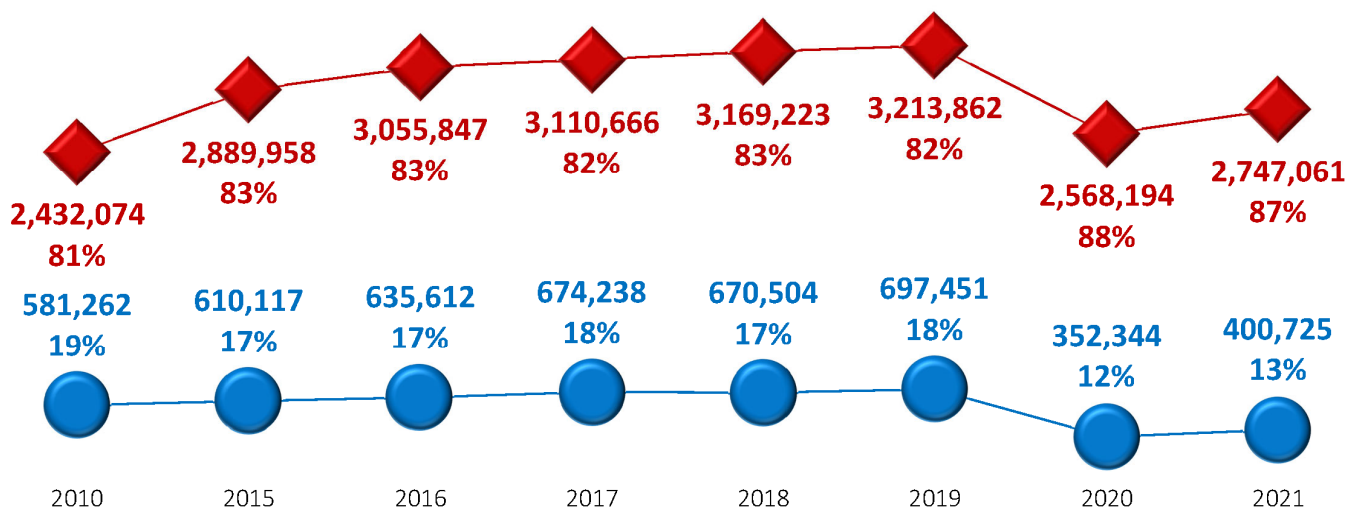
Emergency Department Volume

■ 9-1-1 Transports
 ■ Walk-In
 ◆ Reported Annual ED Visits



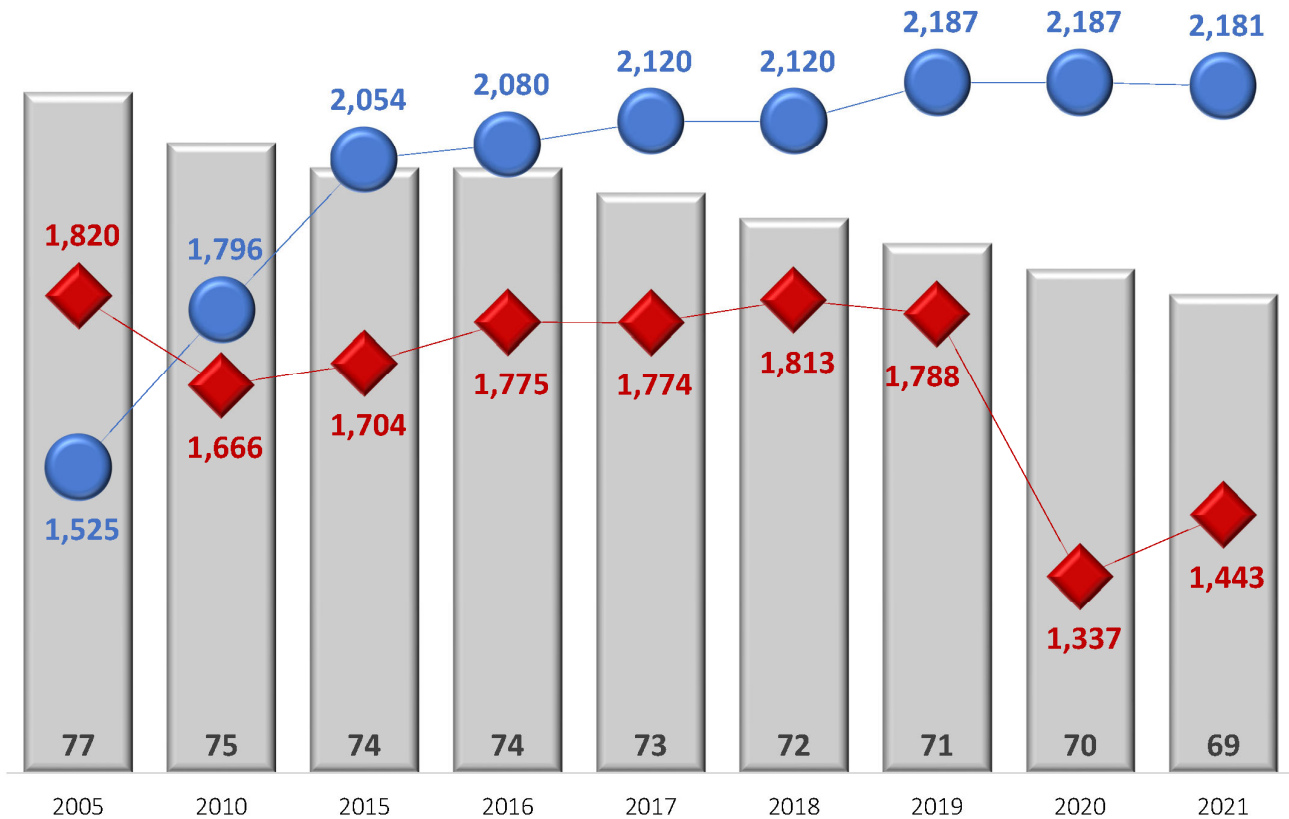
Adult:
15 years and older

Pediatric:
14 years and younger



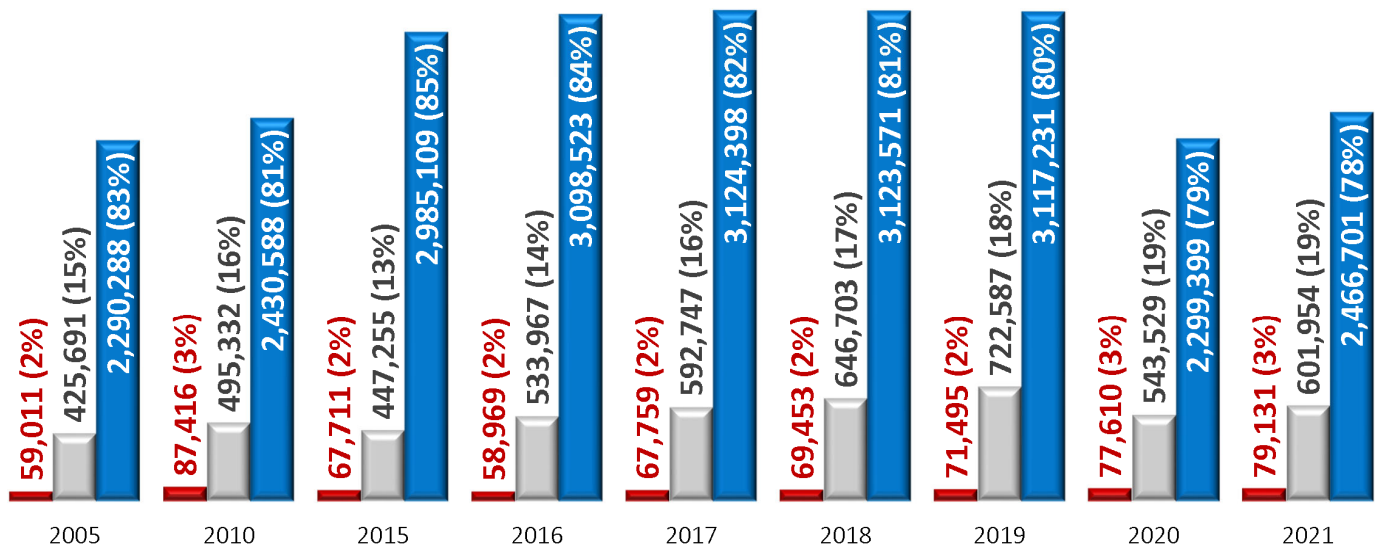
Emergency Department Volume

■ No. of EDs
 ● ED Treatment Stations
 ◆ Patients Per ED Treatment Station



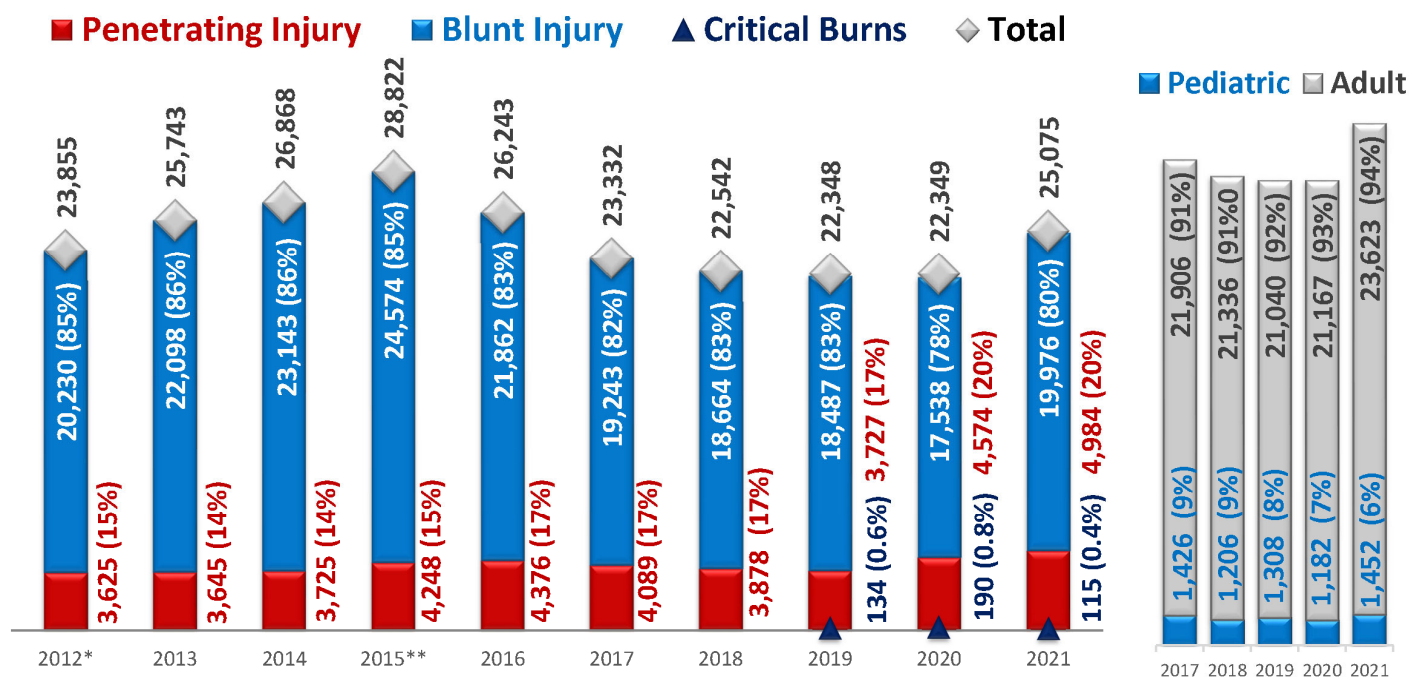
ED Patient Disposition (walk-in and 9-1-1)

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





Trauma Center Volume

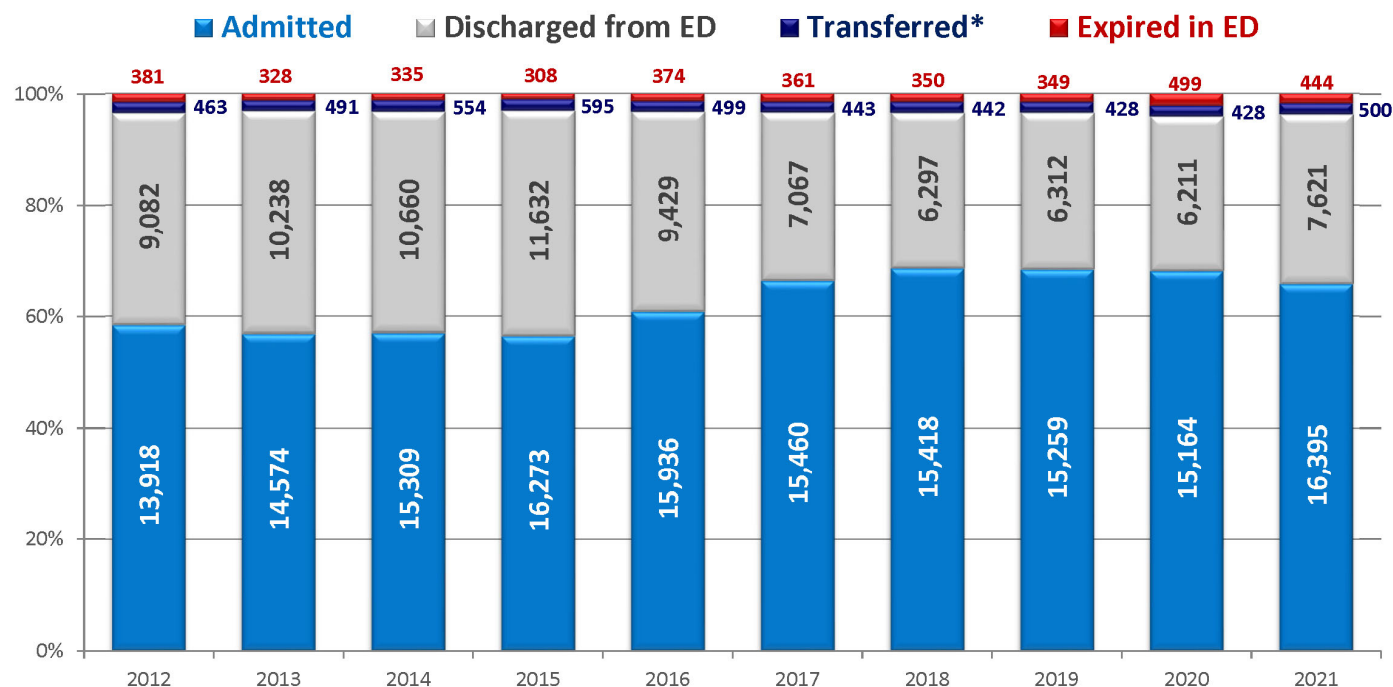


*2012: LA County adopted the Centers for Disease Control and Prevention Guidelines for Field Triage of Injured Patients

**2015: Trauma Center Registry inclusion criteria was reduced.

***2019: Critical Burns added as a Trauma Center Criteria

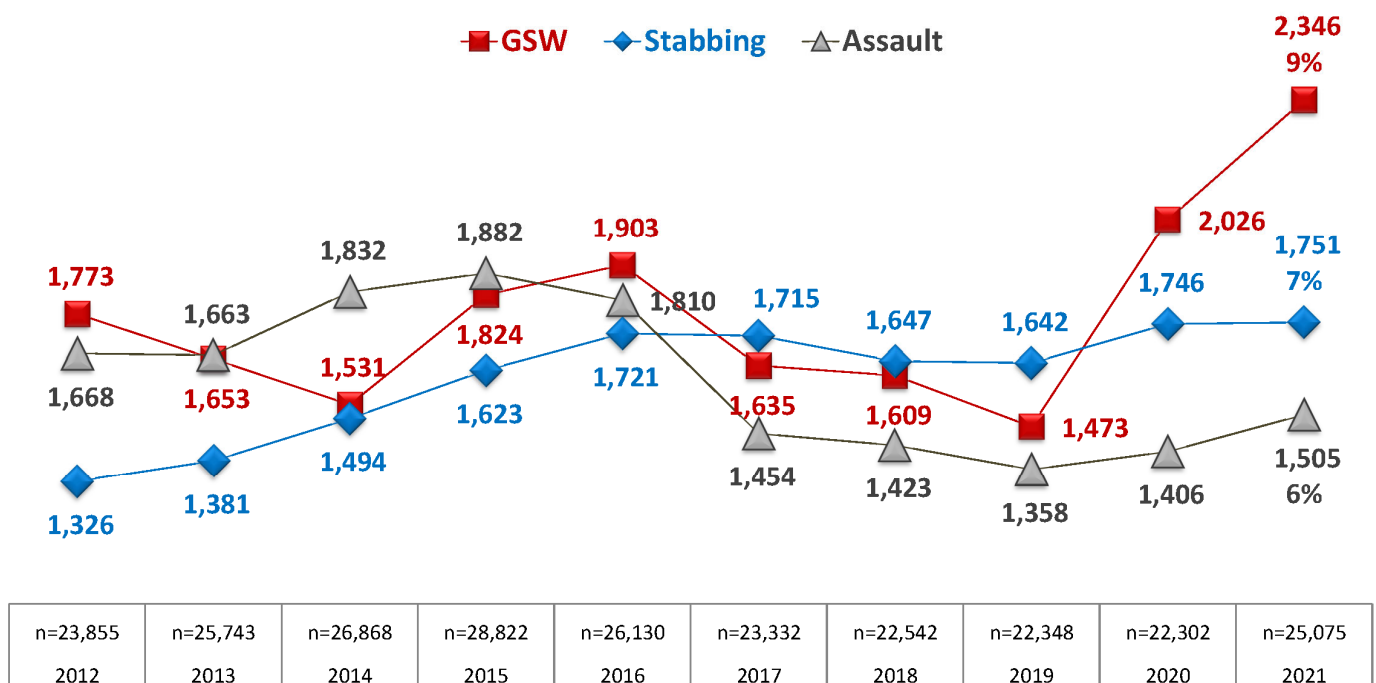
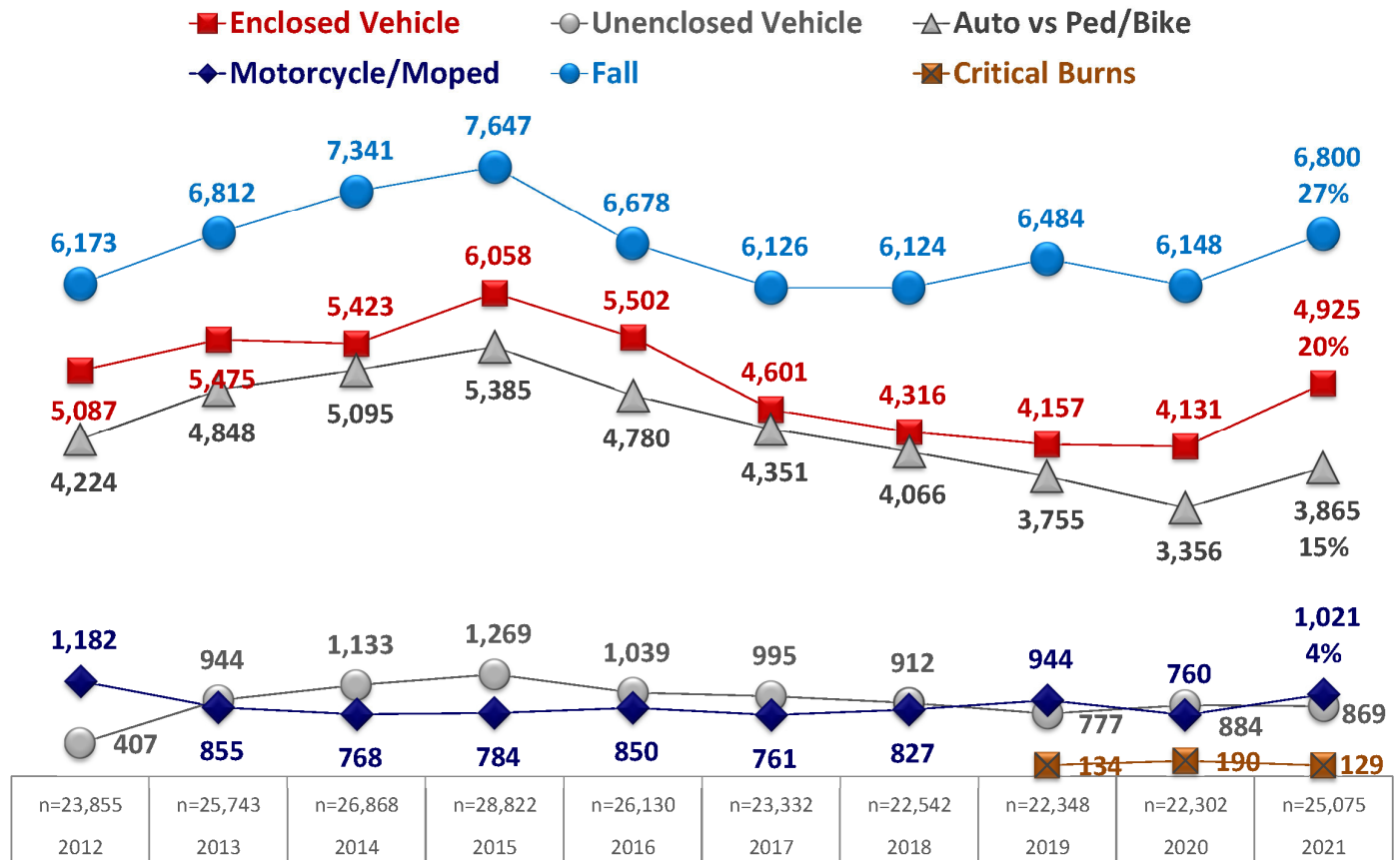
Patient Disposition of Trauma Center Patients



* Transferred to another health facility



Mechanism of Injury: Patients Transported to Trauma Centers

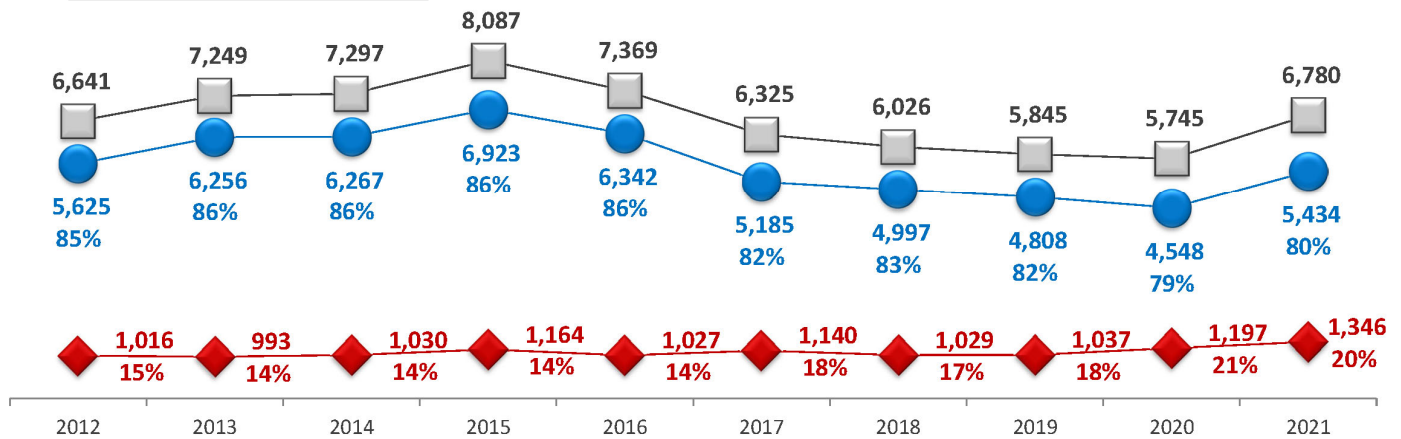




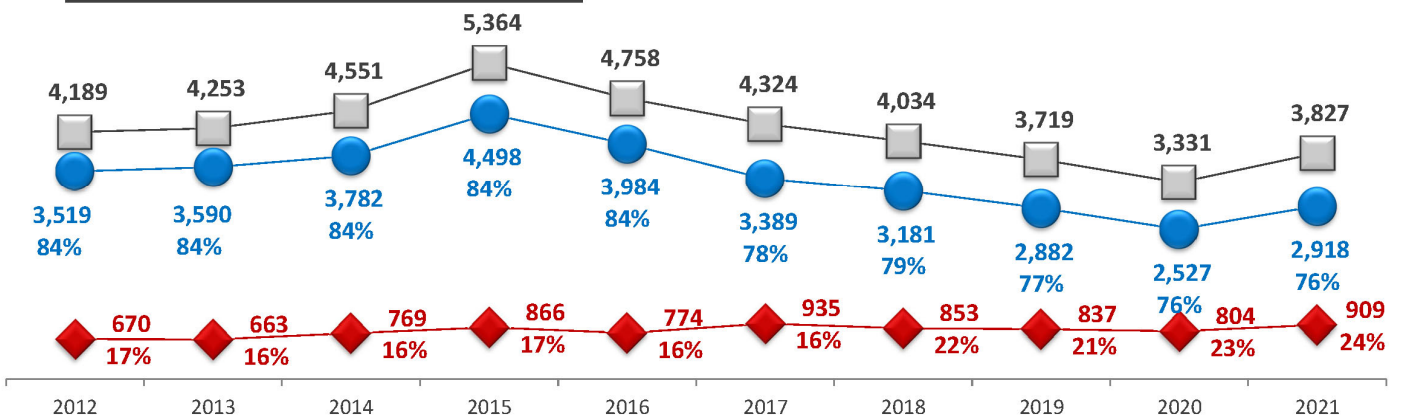
Injury Severity Score by Mechanism of Injury

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.

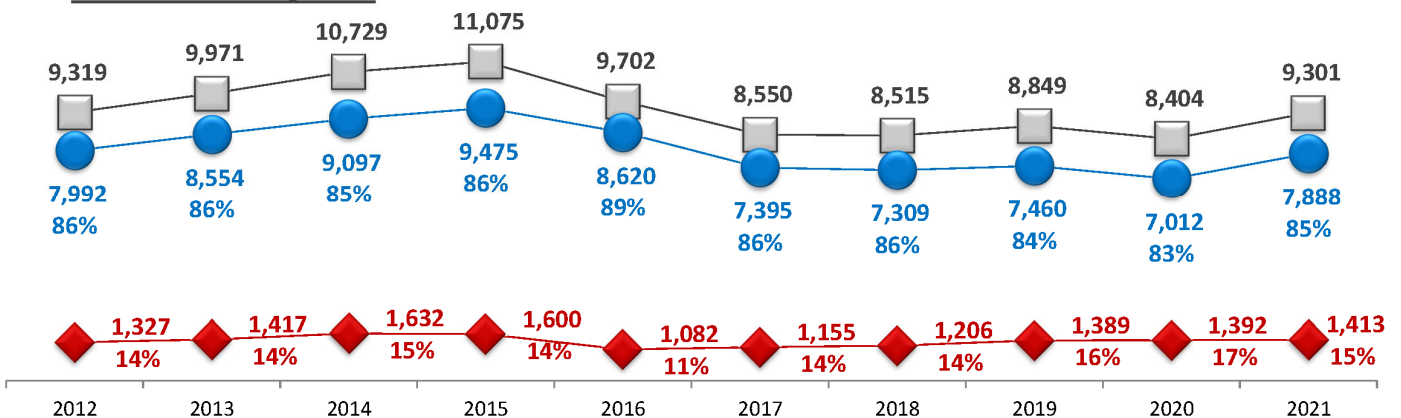
Motor Vehicle Accident



Automobile vs Pedestrian/Bicycle



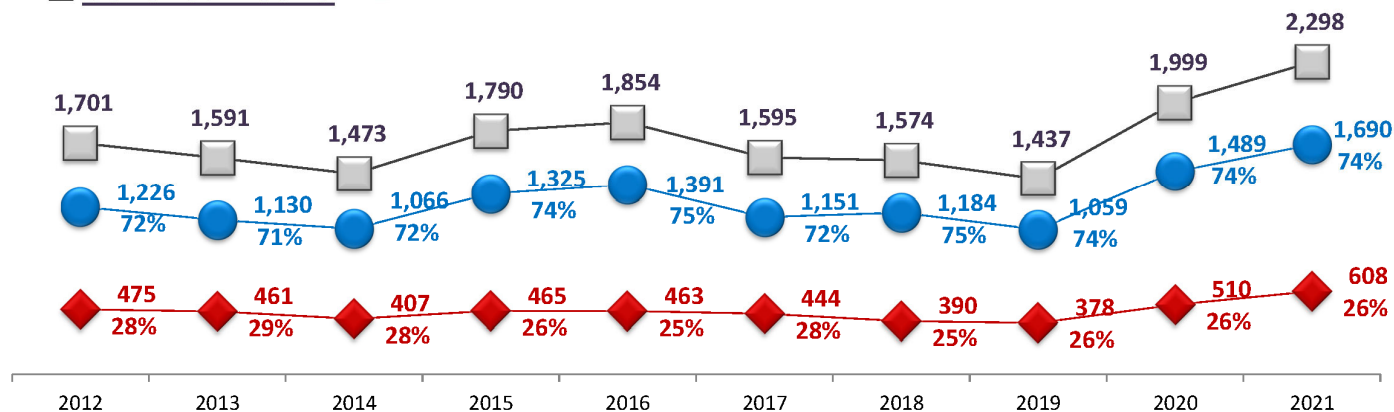
Other Blunt Injuries



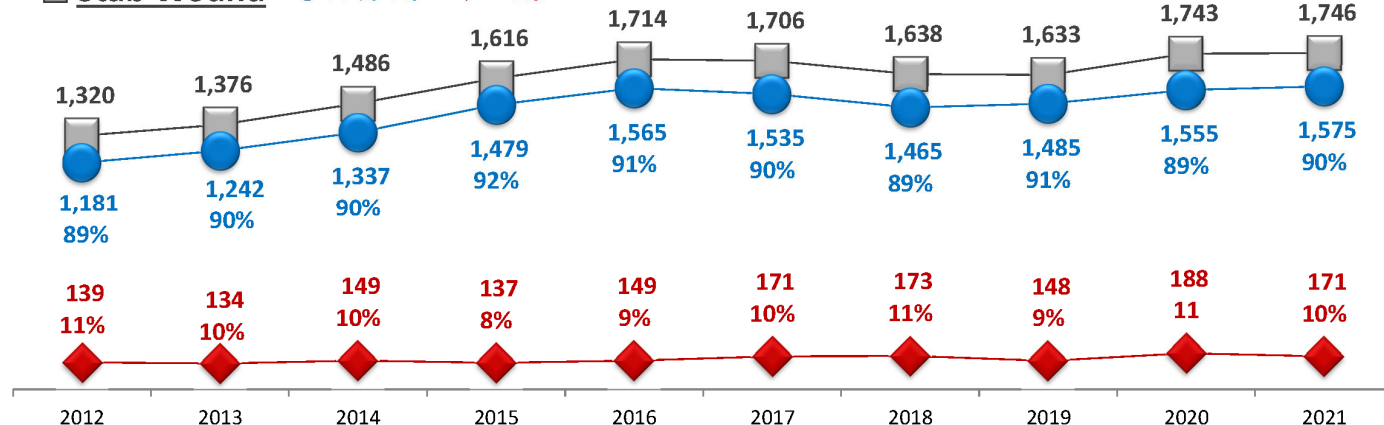


Injury Severity Score by Mechanism of Injury

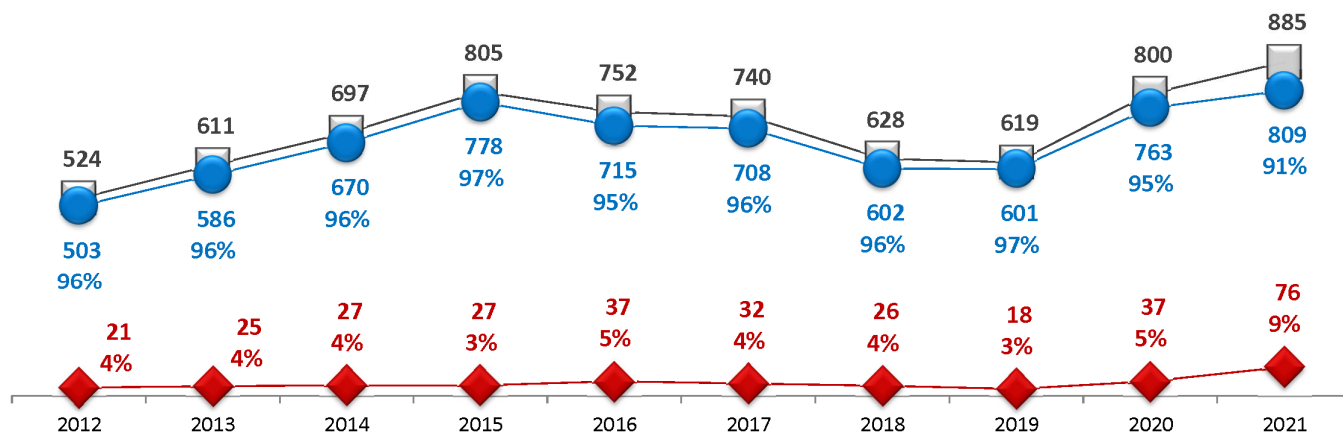
■ Gunshot Wound ● 1 to 15 ◆ > 15



■ Stab Wound ● 1 to 15 ◆ > 15



■ Other Penetrating Injury ● 1 to 15 ◆ > 15





ST-Elevation Myocardial Infarction (STEMI)

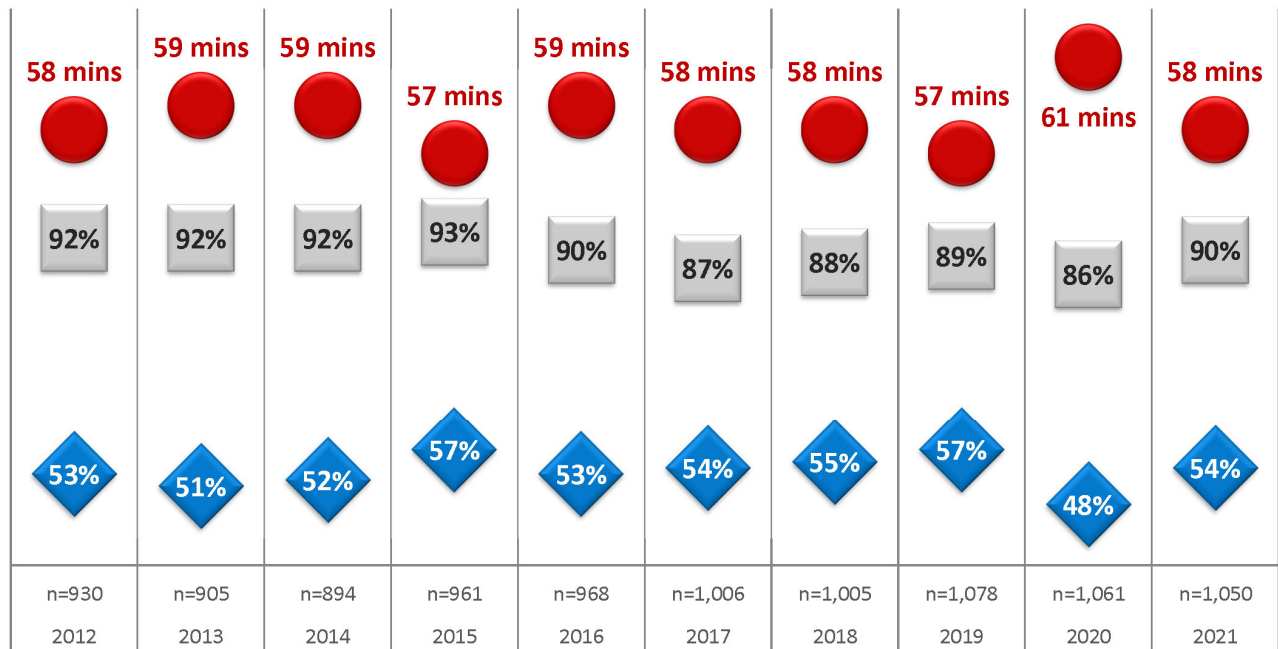
STEMI Receiving Center: Door-to-Device (D2B) Time

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

● Median D2B Time

■ % with D2B < 90 mins

◆ % with D2B < 60 mins



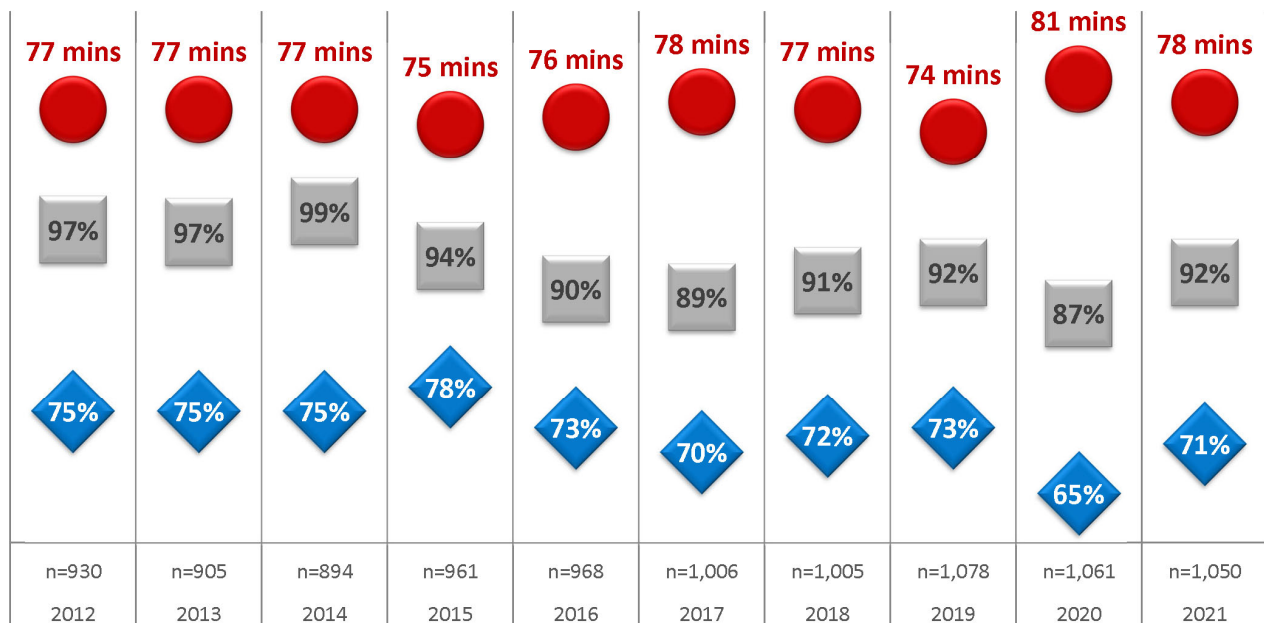
STEMI Receiving Center: EMS Medical Contact-to-Device (E2B) Time

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

● Median E2B Time

■ % with E2B < 120 mins

◆ % with E2B < 90 mins

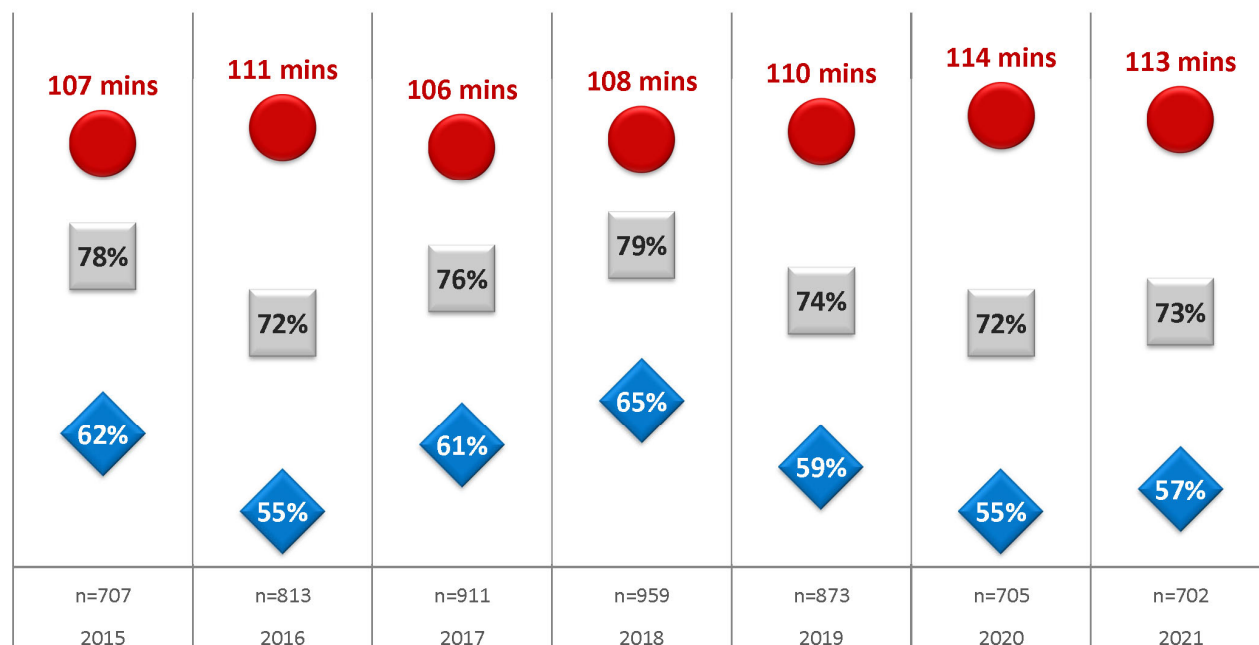




STEMI Referral Facility: Door-to-Device (D2B) Time

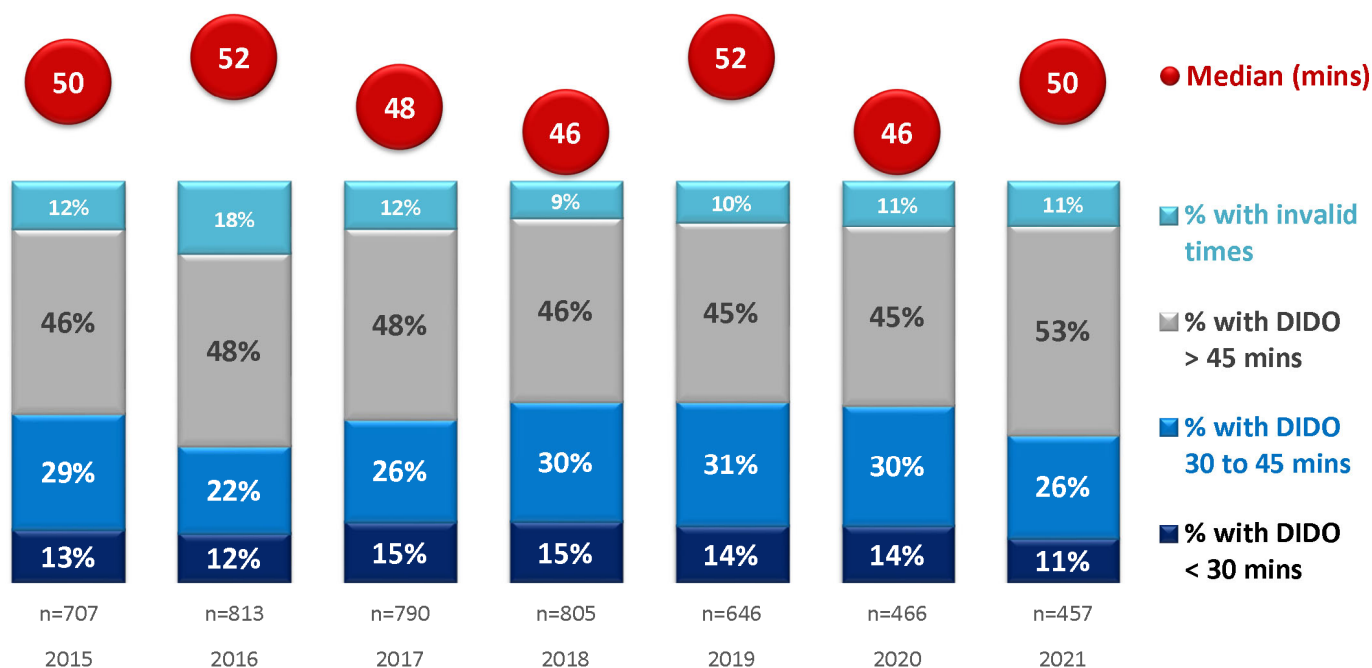
LA County Target: within 150 minutes 90% of the time

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



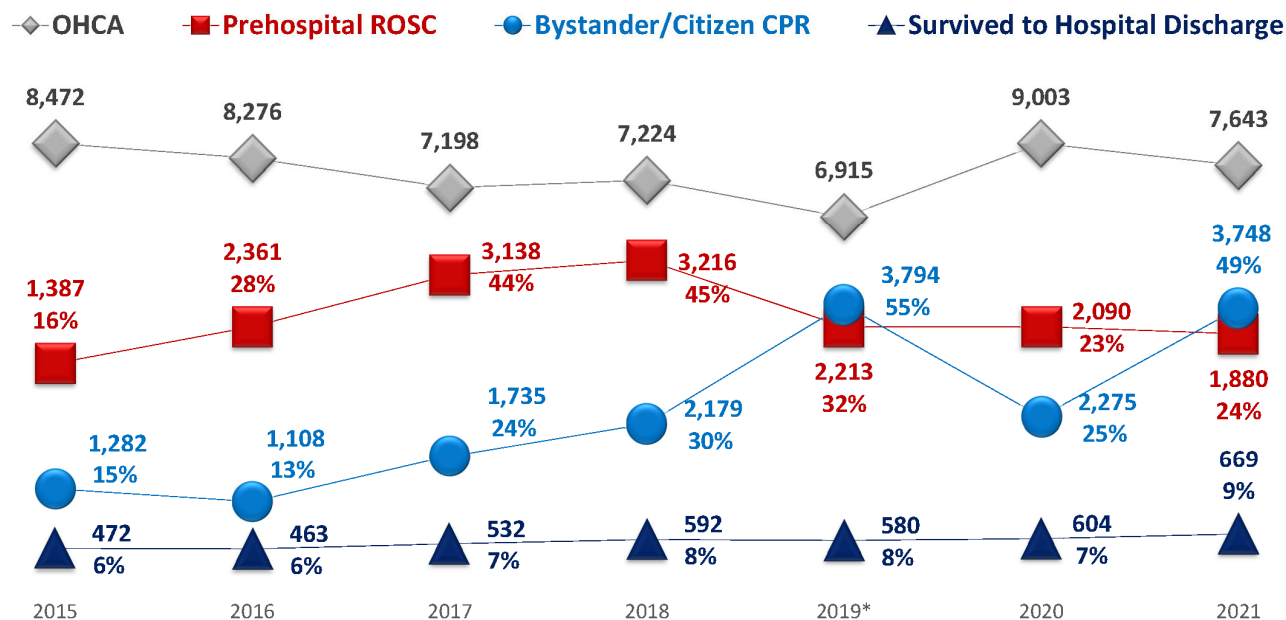
STEMI Referral Facility: Door-in Door-out (DIDO) Time

LA County Target: < 30 minutes

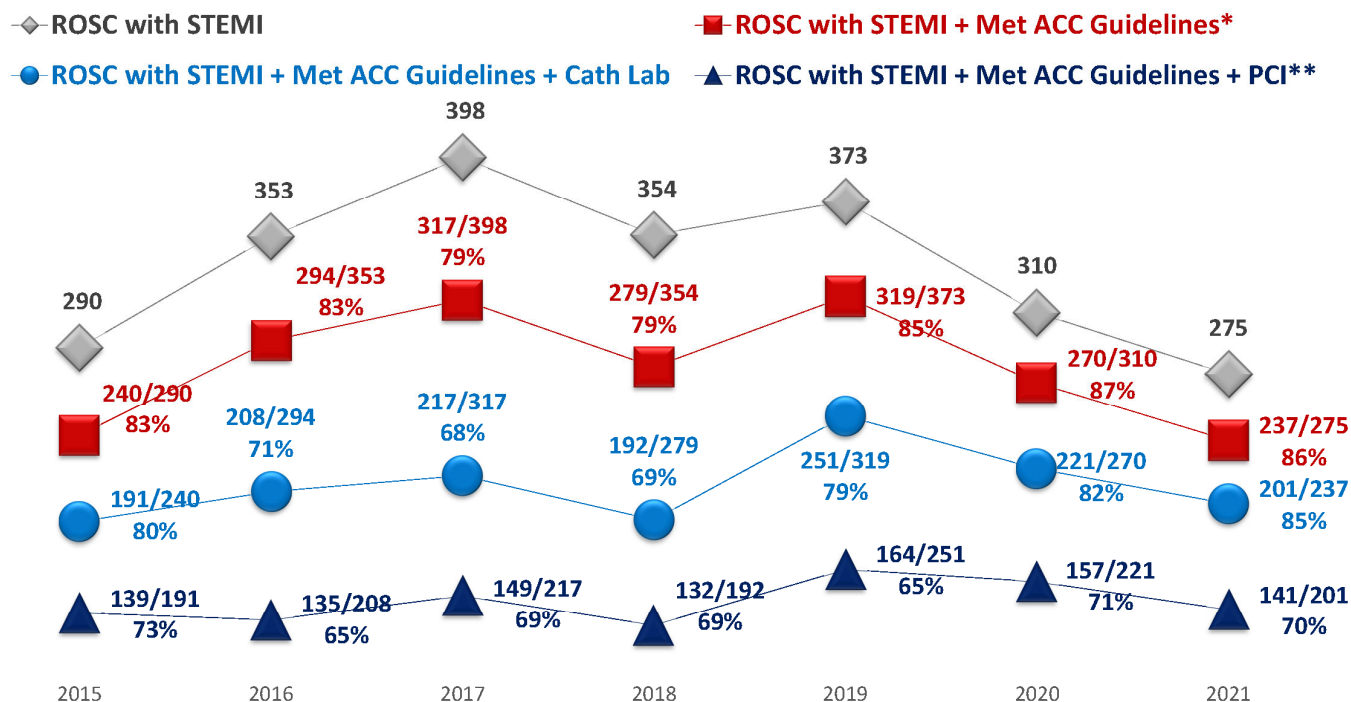




Out of Hospital Cardiac Arrest (OHCA) Return of Spontaneous Circulation (ROSC)



*2019 OHCA population is based on Provider Impression Cardiac Arrest Non-Traumatic, which was fully implemented April 1, 2019. DOAs were excluded.
2015-2018 OHCA population was based on Chief Complaint of Cardiac Arrest.



*ACC Guidelines for coronary angiography include: Age ≥ 18 , pt did not expire, no DNR, no medical condition that precludes coronary angiography, treatment not refused and CL available.

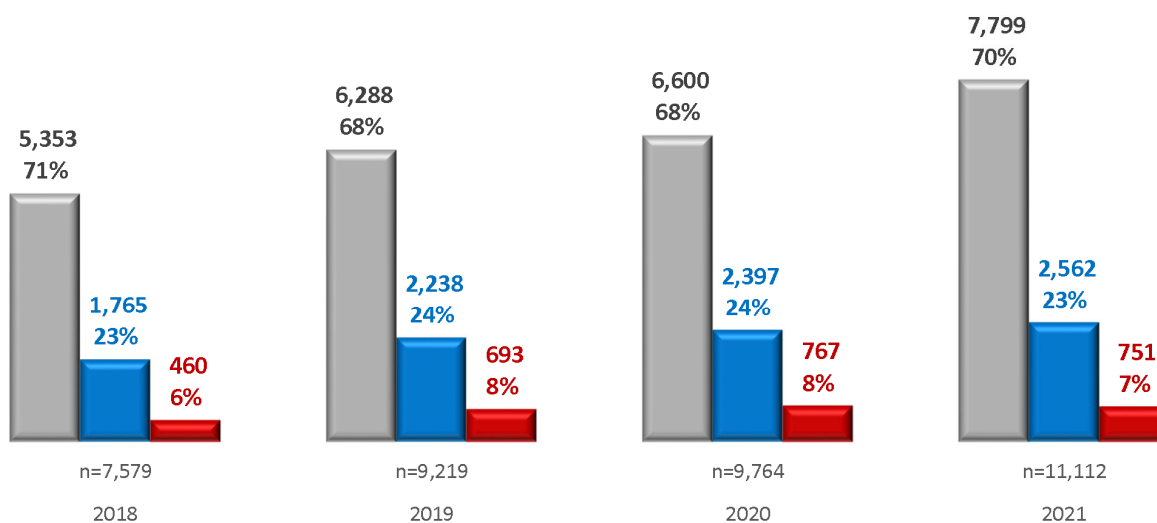
**PCI - Percutaneous Coronary Intervention is a procedure used to open or widen a narrowed or blocked coronary artery to restore blood flow supplying the heart.



Suspected Stroke Patient Destination

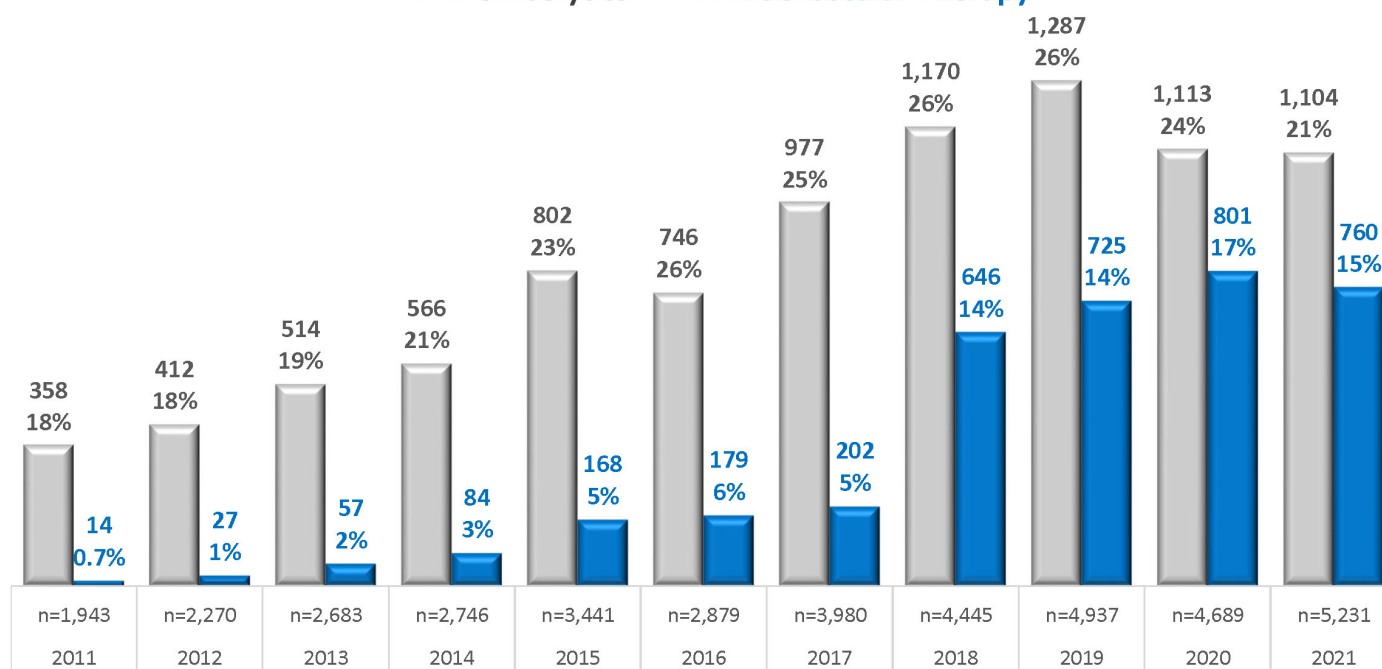
The routing of suspected stroke patients with large vessel occlusions based on a Los Angeles Motor Scale (LAMS) score of 4 or 5 to designated Comprehensive Stroke Centers began on January 8, 2018.

- Transported to a Primary Stroke Center
- Transported to a Comprehensive Stroke Center (also the most accessible stroke center)
- Transported to a Comprehensive Stroke Center (bypassed most accessible Primary Stroke Center)

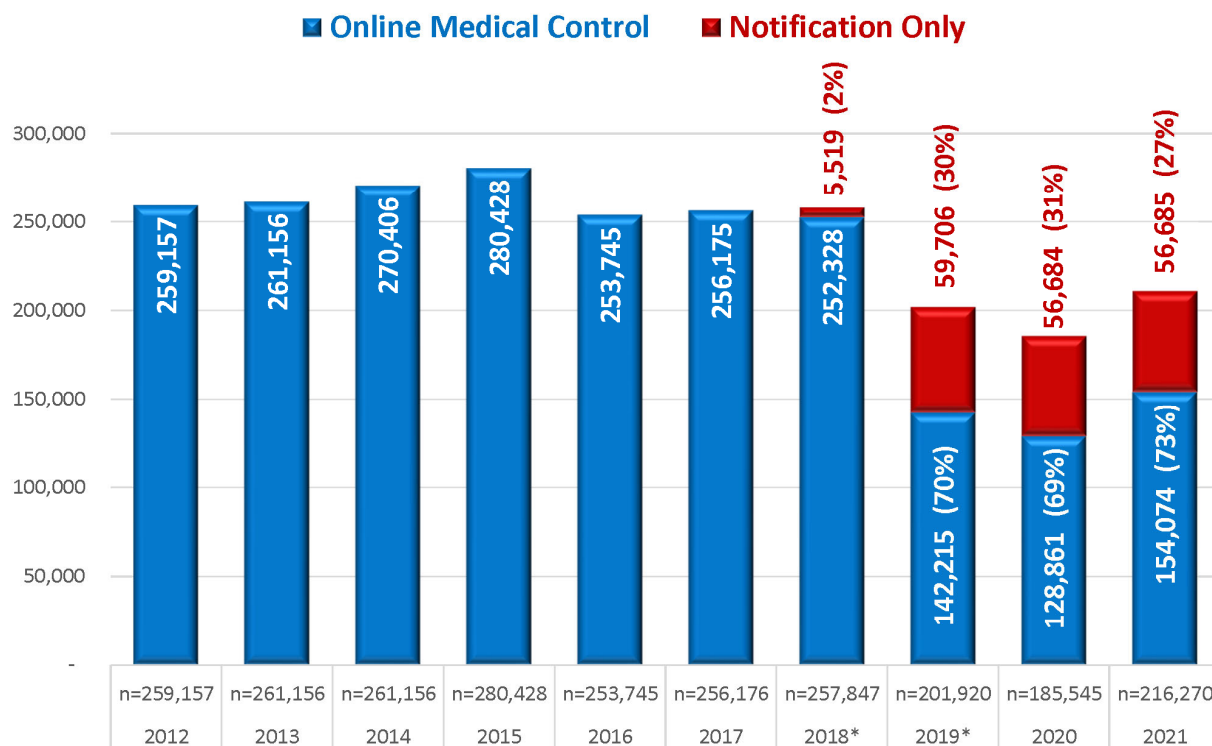


Treatment—All Ischemic Stroke

- Thrombolytics
- Endovascular Therapy



Paramedic Base Hospital Contact Volume



* 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.

EMS STRONG
RISING TO THE CHALLENGE

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