

# Sacramento County Emergency Medical Services Agency



## Trauma Review Committee (TRC) Meeting Minutes

Aug 17, 2023

**Facilitator:** Gregory Kann, MD, [kanng@saccounty.gov](mailto:kanng@saccounty.gov)

**Scribe:** Rodriguez, Dorthy, [RodriguezDor@SacCounty.net](mailto:RodriguezDor@SacCounty.net)

### Meeting Attendees:

Name	E-Mail	Name	Email
David Shatz	<a href="mailto:Dvshatz@ucdavis.edu">Dvshatz@ucdavis.edu</a>	Joe Galante	<a href="mailto:jmgalante@ucdavis.edu">jmgalante@ucdavis.edu</a>
Jon Perlstein	<a href="mailto:perlstj@sutterhealth.org">perlstj@sutterhealth.org</a>	Katey Cloonan	<a href="mailto:CloonanK@saccounty.gov">CloonanK@saccounty.gov</a>
Christine Cocanour	<a href="mailto:cscocanour@ucdavis.edu">cscocanour@ucdavis.edu</a>	Sydney Freer	<a href="mailto:FreerS@Saccounty.gov">FreerS@Saccounty.gov</a>
Ana Robles	<a href="mailto:Anarobles@ucdavis.edu">Anarobles@ucdavis.edu</a>	Amanda Morse	<a href="mailto:MorseA@Saccounty.net">MorseA@Saccounty.net</a>
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Jen Fitzgerald	<a href="mailto:Jkfitzgerald@ucdavis.edu">Jkfitzgerald@ucdavis.edu</a>	Lisa De Bartolo	<a href="mailto:LaDeBartolo@UCDavis.edu">LaDeBartolo@UCDavis.edu</a>
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David Magnino	<a href="mailto:MagninoD@Saccounty.gov">MagninoD@Saccounty.gov</a>		
Gina Cates	<a href="mailto:GaCates@UCDavis.edu">GaCates@UCDavis.edu</a>		
Michelle Willaims	<a href="mailto:MWilliams@MarshallMedical.org">MWilliams@MarshallMedical.org</a>		
Jen Mcgrath	<a href="mailto:JMcrath@UCDavis.edu">JMcrath@UCDavis.edu</a>		



Trauma Review Committee (TRC)  
Meeting Minutes

Topic	Minutes	Open Items
Welcome and Introductions	Introduction of new Medical Director Dr. Kann  Motion to approve Minutes for TRC May 18, 2022 1. First motion to Approve: Dr. Cocanour 2. Second motion to Approve: Dr. Uter	
Old Items	<u>TXA Discussion</u>  Looking at TXA Administered in the field and will continue to explore this area. SCEMSA will like to request dat a from the trauma centers regarding blood pressure readings of patients that received TXA. The requirement for blood, how many units of blood were given in these patients.	
Quarterly Data Review	<u>Data for 2023 -1Quarter</u> <ul style="list-style-type: none"> <li>• Data illustrated for 2023-1Q</li> <li>• Suggestion to look at ED boarding in the future</li> <li>• Overactivations in elderly falls, Dr. Kann suggests hospital sets different levels of activation which do not activate the trauma service.</li> <li>• SSV not using the GCS of 6 criteria following review that showed 27 patients were missed. There may be a significant risk of under triage.</li> <li>• SCEMSA reviewed documented positive trauma triage taken to non trauma hospitals and it was found that non actually met criteria, documentation issue not a patient care concern.</li> </ul>	



Trauma Review Committee (TRC)  
Meeting Minutes

<p>Policies Review:</p>	<p><u>Policies Reviewed:</u></p> <p><i>PD# 2026.15 – Trauma Review Committee: No Changes</i></p> <p><i>PD#8065.12 – Hemorrhage – TXA dose increase from 1 to 2g and expanding the use of TXA to epistaxis.</i></p> <p><i>PD#2530 – Trauma Center Designation – Open till September 1<sup>st</sup> for comments. Edited version will be sent out before taking the policy to the MAC meeting</i></p>	
<p><b>New Items/ Discussion</b></p>	<p>New Items:</p> <p><b>TXA</b></p> <ul style="list-style-type: none"> <li>• 2023 1Q and 2Q shows only 12 TXA administrations in the field for the entire system. There is likely some opportunities for use.</li> <li>• Data shows seven patient missed opportunities of TXA.</li> <li>• TXA outcome data points to be included for next meeting. QI use of TXA and request hospital outcome.</li> <li>• Hospitals to begin sharing wrongfully administered TXA events with the LEMSA, these events are already shared with the provider agencies.</li> <li>• Concern of venous thrombosis uptick could happen with the TXA increase.</li> </ul>	<p>TXA hospital data</p>



Trauma Review Committee (TRC)  
Meeting Minutes

<p><b>Case Presentations:</b> <i>(No case presentations will be done during remote meetings)</i></p> <p><b>Round Table:</b></p>	<p><b><u>Restructure of meeting</u></b></p> <ul style="list-style-type: none"> <li>• We need the representation of EMS and Dispatch to make the meeting useful for all.</li> <li>• The goal is to identify Hospital cases that include field crew and dispatch, recognizing both needs for improvement and excellent care.</li> <li>• Invitation will be opened to EMS for the next meeting</li> <li>• Suggestion to look at cases that required IFT transfer to a higher level of care instead of percent survival.</li> </ul> <p>Case Presentations – KHS /SRMC /MSJ</p> <p><u>Round Table:</u></p> <p>Protocol for head injuries and trying to do some standardization across the county.</p> <p>November meeting EMS-based</p>	
<p>Adjournment</p>	<p>13:50</p>	

**Next Meeting: November 7, 2023**

# Trauma Review Committee

Completed By: Sacramento County EMS Agency  
2023 – 1Quarter (Jan-Mar)  
Presented August 17, 2023

# Trauma Review Committee

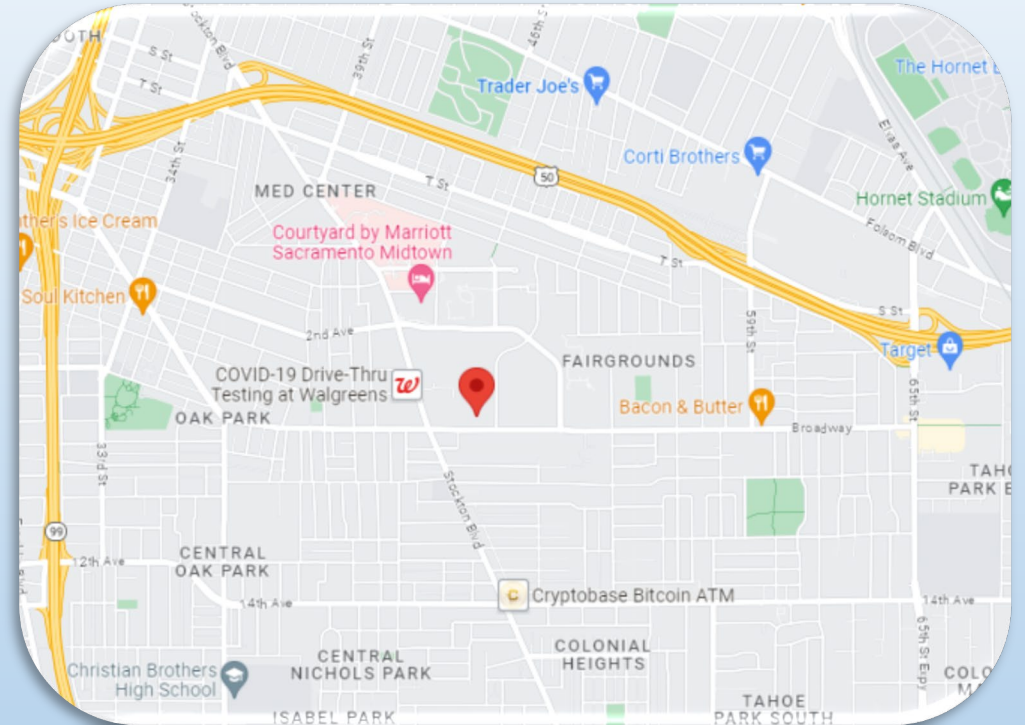
**Date:** August 17, 2023

**Location:**

University of California, Davis Medical Center;  
Rehabilitation Hospital  
4875 Broadway  
Sacramento, CA 95820

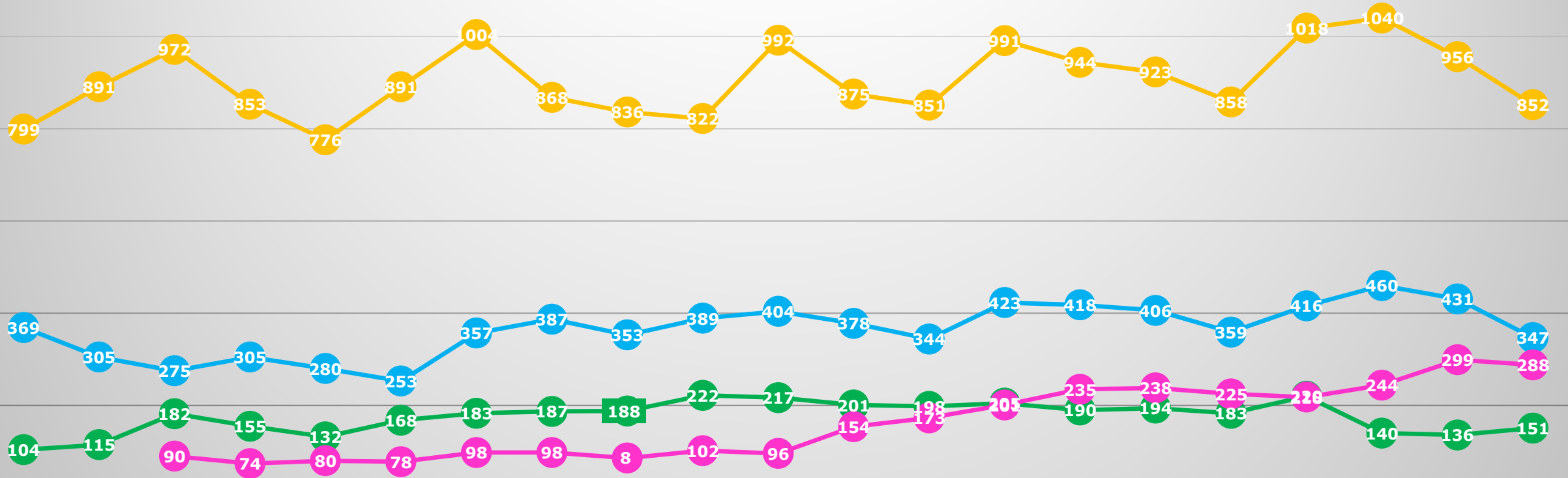
Dinning Room

**Facilitator(s):** Gregory Kann, M.D.  
EMS Agency Medical Director



# Incident Counts per Quarter per Hospital 2018 - 2023 1Q

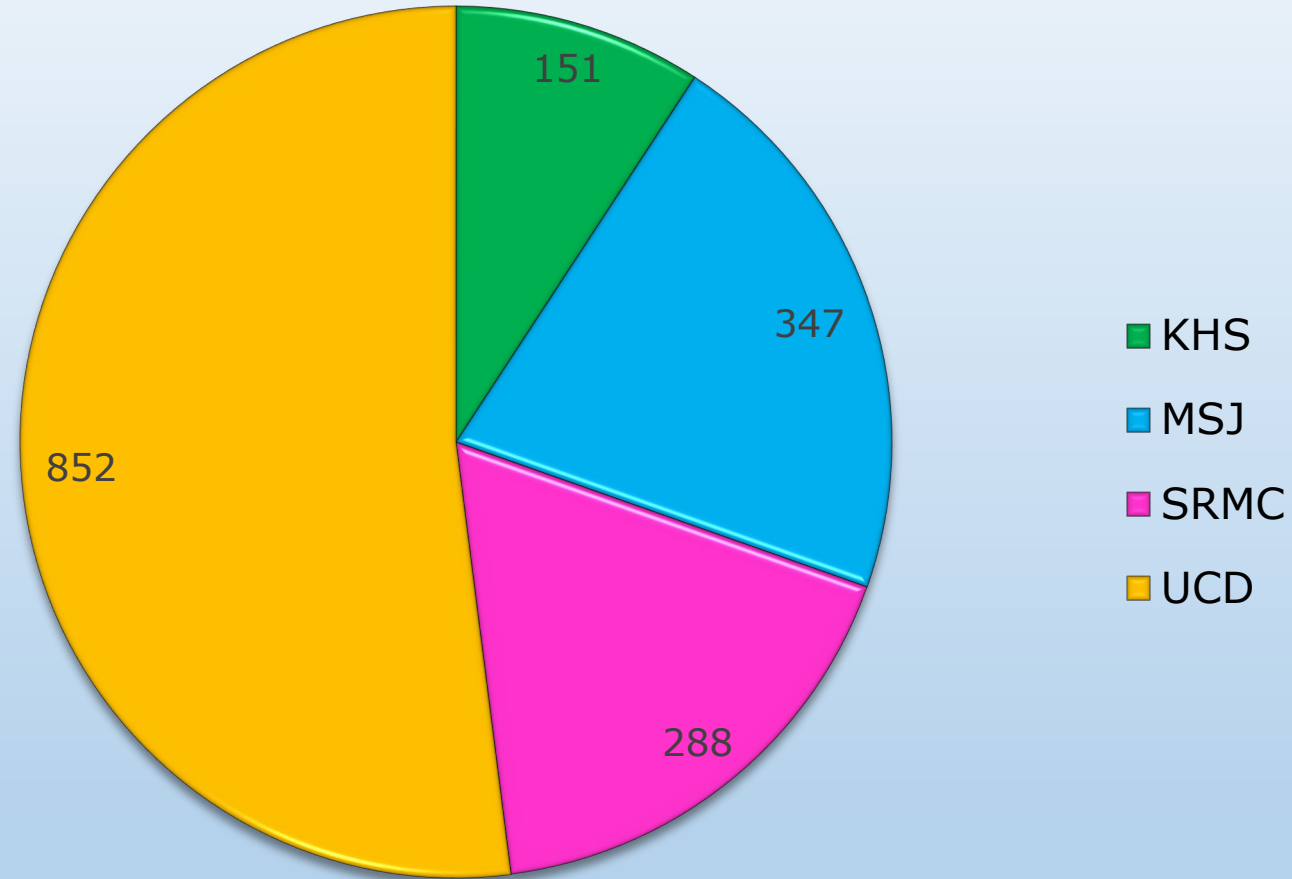
● KHS ● MSJ ● UCD ● SRMC



Trauma Review Committee



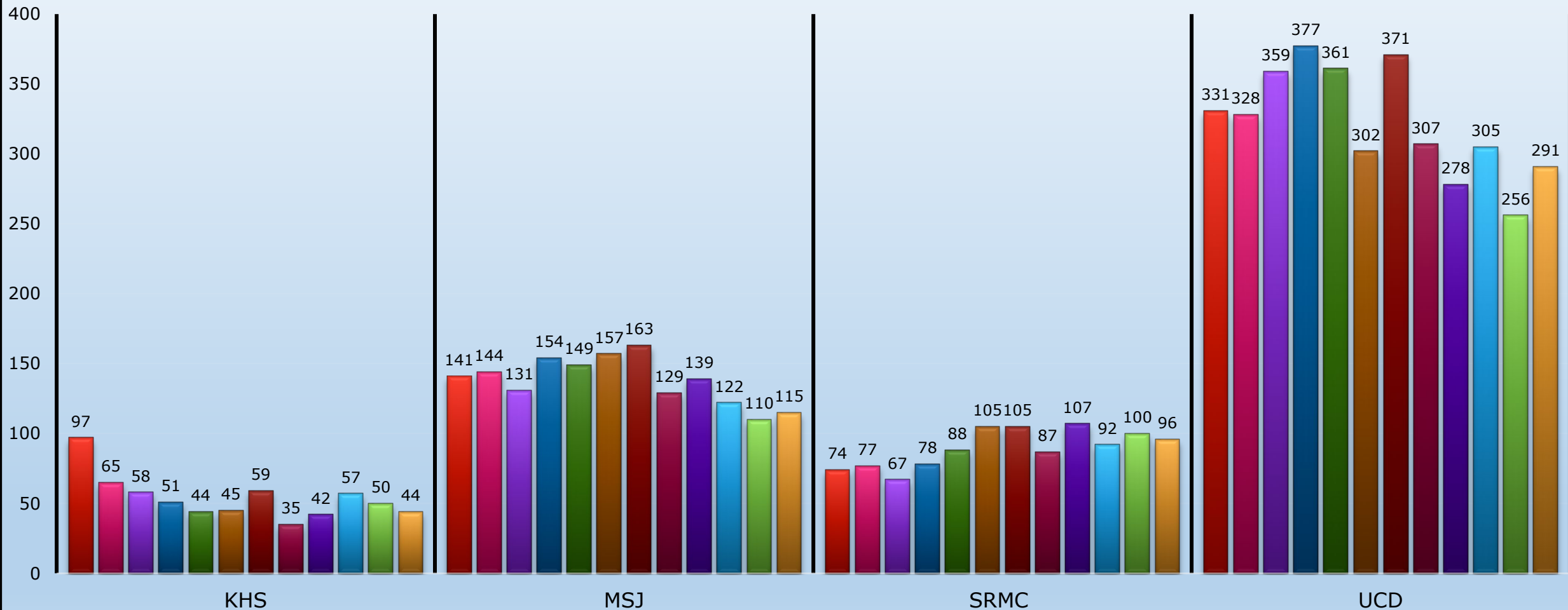
# 2023 1Q-Total Patients per Hospital



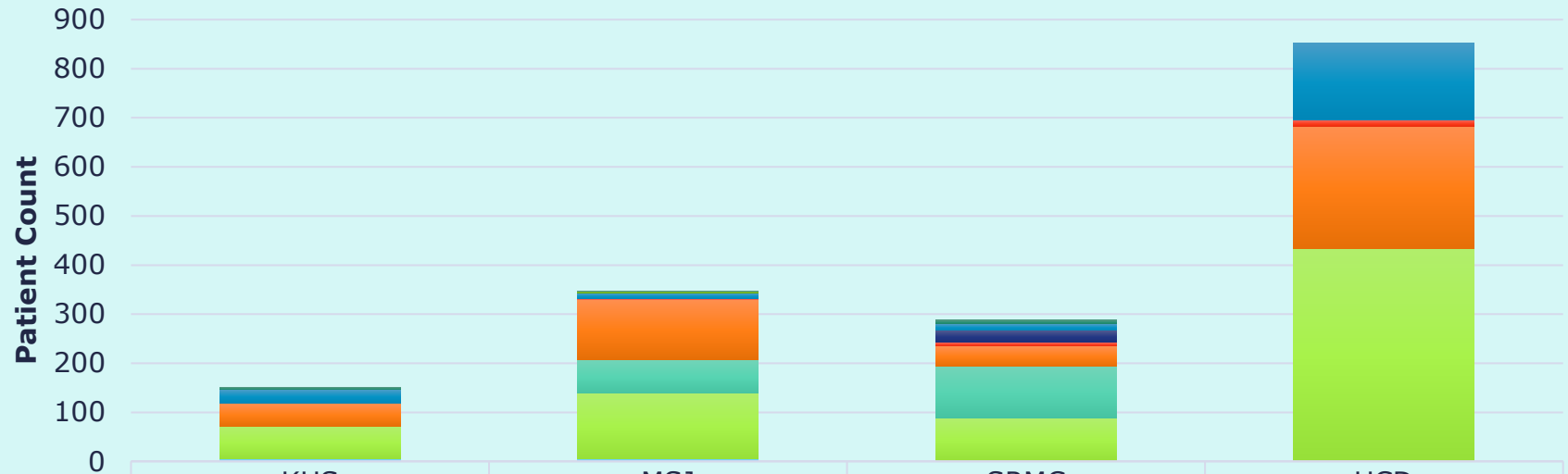


# Counts per Hospital – Rolling 12 Months

■ Apr 
 ■ May 
 ■ Jun 
 ■ Jul 
 ■ Aug 
 ■ Sep 
 ■ Oct 
 ■ Nov 
 ■ Dec 
 ■ Jan 
 ■ Feb 
 ■ Mar



# Emergency Room Disposition 2023 1Q- per Hospital



■ Transferred to another hospital	5	1	8	
■ Other (jail, institution, etc)		3		
■ Operating room	27	12	13	157
■ Observation			25	
■ Not Applicable / Direct Admit	1	2	7	13
■ Intensive Care Unit	46	121	41	249
■ Home without services		69	106	
■ Floor bed (general admission, non specialty unit bed)	67	134	87	431
■ Deceased/Expired	5	4		2
■ AMA		1	1	



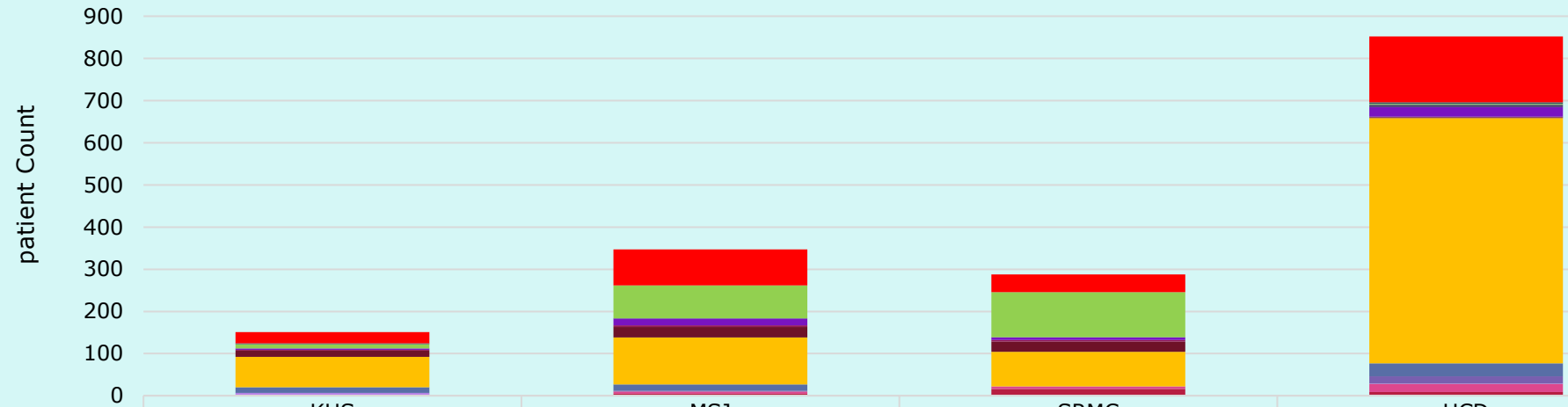
# Emergency Room Disposition- Rolling 4 Quarters

*Hospital Data*

Emergency Room Disposition	KHS				MSJ				SRMC				UCD				Grand Total
	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	
AMA					1	3	1	1	3	2		1					<b>12</b>
Deceased/Expired	4	6	10	5	4	5	5	4					1	1	4	2	<b>51</b>
Floor bed (general admission, non specialty unit bed)	108	65	72	67	121	154	140	134	71	71	82	87	512	498	535	431	<b>3148</b>
Home Without Services					90	134	96	69	81	133	128	106					<b>837</b>
ICU	62	43	31	46	168	137	154	121	21	1	37	41	268	284	246	249	<b>1909</b>
Not Applicable (Direct Admit)			1	1	5	2	5	2	1	21	4	7	19	25	25	13	<b>131</b>
Observation									19	4	32	25					<b>80</b>
Operation room	40	24	17	27	18	18	24	12	15	3	9	13	218	232	146	157	<b>973</b>
Other (jail, institution, etc)	1		2		4	4	3	3	2	9							<b>28</b>
Transferred to another hospital	5	2	3	5	5	3	3	1	5		7	8					<b>47</b>
<b>Grand Total</b>	<b>220</b>	<b>140</b>	<b>136</b>	<b>151</b>	<b>416</b>	<b>460</b>	<b>431</b>	<b>347</b>	<b>218</b>	<b>244</b>	<b>299</b>	<b>288</b>	<b>1018</b>	<b>1040</b>	<b>956</b>	<b>852</b>	<b>7216</b>



# Hospital Discharge Disposition 2023-1Q



	KHS	MSJ	SRMC	UCD
■ Skilled Nursing Facility (SNF)	27	85	42	156
■ Psychiatric Visit	2			4
■ Not Applicable / ED Disposition	10	78	107	2
■ Long Term Care Hospital (LTCH)		1	1	5
■ Inpatient Rehabilitation Facility (IRF)	3	16	6	23
■ Hospice care	2	4	4	1
■ Home with Home Health Services	15	25	24	2
■ Discharged to home or self-care (routine discharge)	72	111	82	582
■ Deceased/Expired	13	15		31
■ Correctional Facility or in Law Enforcement Custody	1	2		17
■ Another type of institution not defined elsewhere	3			1
■ AMA		5	6	19
■ Acute care hospital	3	5	16	9



# Hospital Discharge Disposition- Rolling 4 Quarters

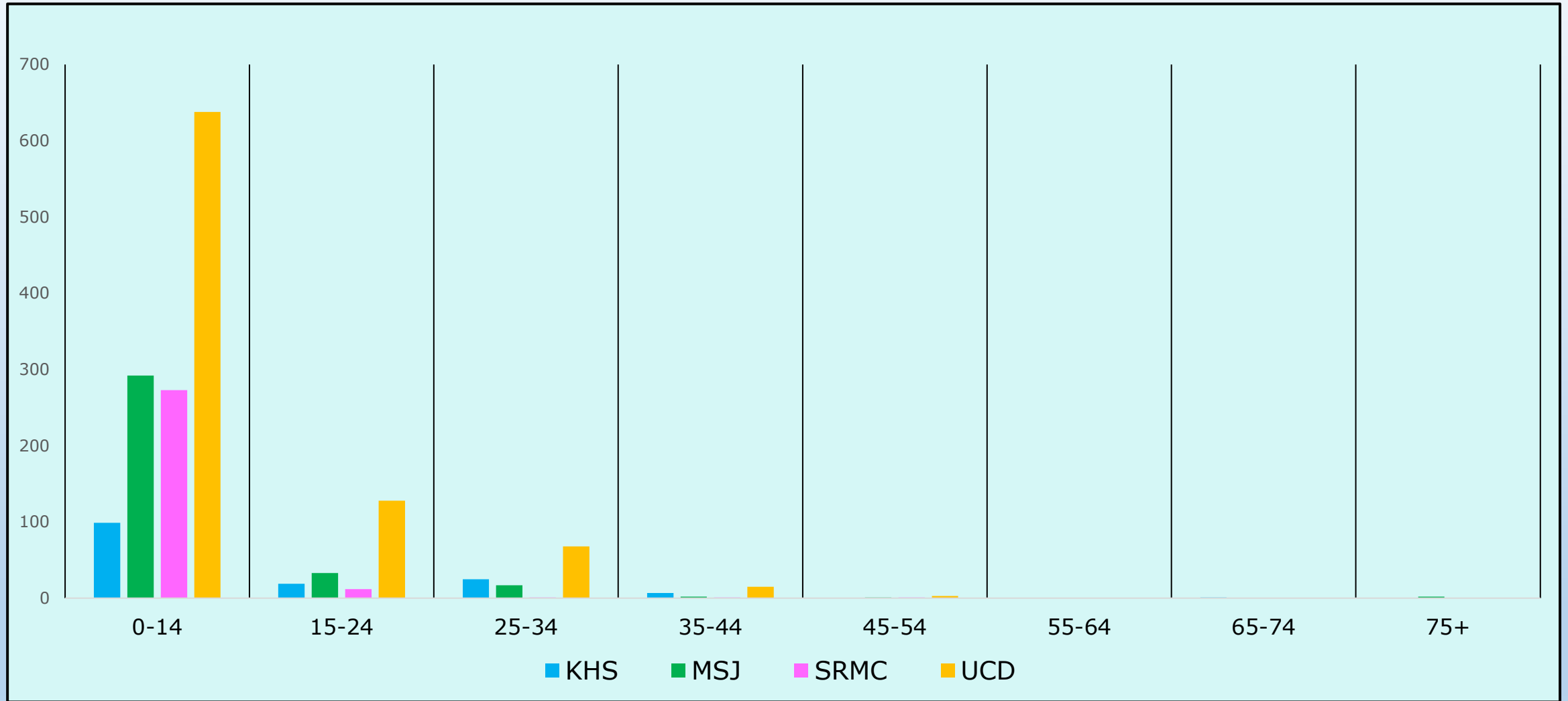
Hospital Data

Emergency Room Disposition	KHS				MSJ				SRMC				UCD				Grand Total
	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	
Acute care hospital	1	2		3	6	12	4	5	3	2	5	16	24	22	21	9	<b>135</b>
AMA	5	1	5		10	13	13	5	3	2	1	6	19	32	13	19	<b>147</b>
Another type of institution not defined elsewhere	2	2	2	3		1							2	2	1	1	<b>16</b>
Correctional Facility or in Law Enforcement Custody	1	1	1	1	2	5	2	2					12	18	12	17	<b>74</b>
Deceased/Expired	11	5	4	13	8	14	15	15	5	4	1		42	30	28	31	<b>226</b>
Discharged to home or self-care (routine discharge)	94	63	60	72	165	136	135	111	57	58	75	82	738	735	658	582	<b>3821</b>
Home with Home Health Services	26	14	9	15	23	29	34	25	15	26	31	24	5		2	2	<b>280</b>
Hospice care	5	2	2	2	2	2	6	4	3	6	5	4	1	2	2	1	<b>49</b>
Inpatient Rehabilitation Facility (IRF)	4	6	1	3	18	16	7	16	2	1	4	6	35	32	23	23	<b>197</b>
Long Term Care Hospital (LTCH)						2	1	1		1		1	2	5	3	5	<b>21</b>
Not Admitted (ED Disposition)	10	8	15	10	104	149	108	78	91	112	133	107	1	1	4	2	<b>933</b>
Psych Visit	1	1		2	3	1	5						8	2	4	4	<b>31</b>
Skilled Nursing Facility (SNF)	60	35	37	27	75	80	101	85	39	32	44	42	129	159	185	156	<b>1286</b>
<b>Totals</b>	<b>220</b>	<b>140</b>	<b>136</b>	<b>151</b>	<b>416</b>	<b>460</b>	<b>431</b>	<b>347</b>	<b>218</b>	<b>244</b>	<b>299</b>	<b>288</b>	<b>1018</b>	<b>1040</b>	<b>956</b>	<b>852</b>	<b>7216</b>

**Trauma Review Committee**



# ISS Range per Hospital – 2023 1Q



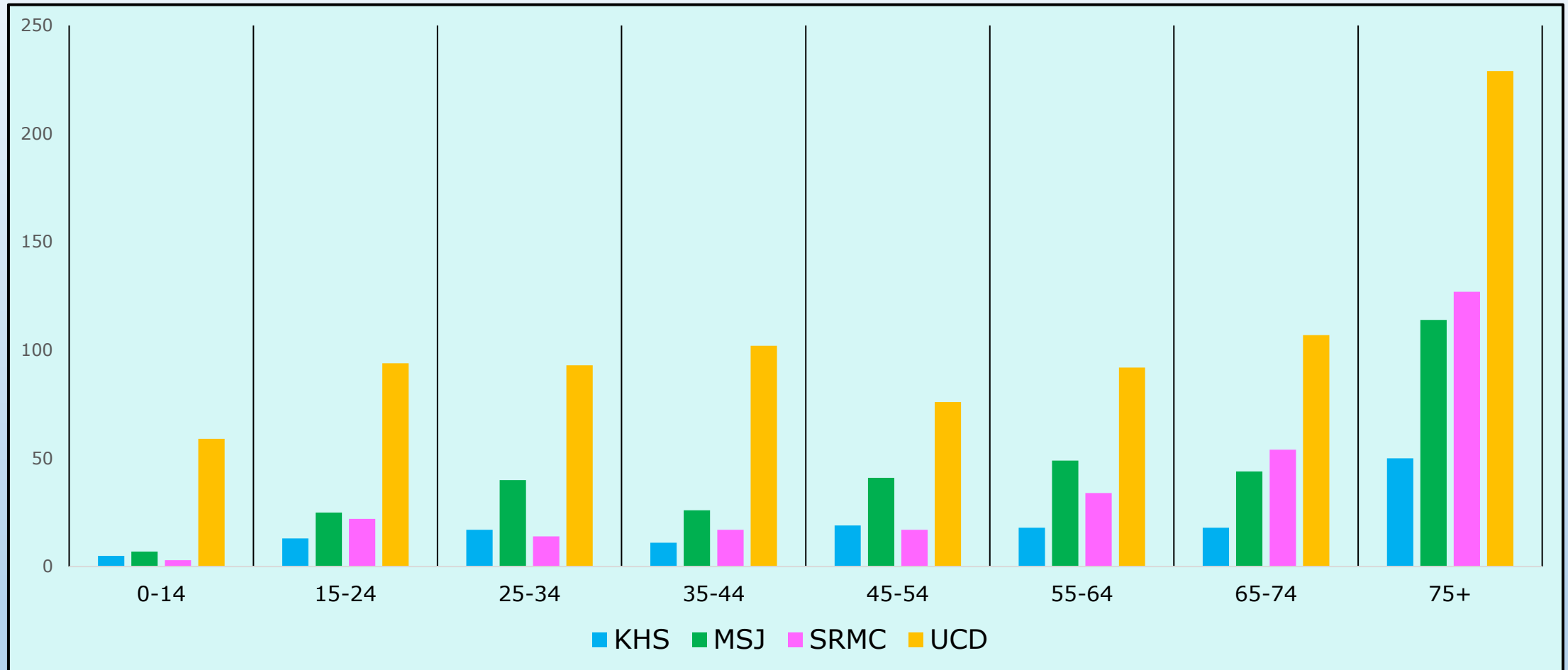
# IS Score per Hospital – Rolling 4 Quarters

*Hospital Data*

ISS Range	KHS				MSJ				SRMC				UCD				Grand Total
	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	
0-14	155	90	95	99	368	405	370	292	202	234	287	273	756	753	713	638	5730
15-24	33	28	20	19	32	39	34	33	8	7	5	12	151	139	144	128	832
25-34	17	17	14	25	15	10	21	17	8	2	6	1	74	103	78	68	476
35-44	6	2	3	7	1	2	6	2	0	0	1	1	18	28	13	15	105
45-54	3	0	1	0	0	0		1	0	1	0	1	14	12	6	3	42
55-64	3	1	1	0	0	2			0	0			4	4	1		16
65-74	0	1	1	1	0	0			0	0			1	1	1		6
75+	3	1	1		0	2		2	0	0			0	0			9
<b>Totals</b>	<b>220</b>	<b>140</b>	<b>136</b>	<b>151</b>	<b>416</b>	<b>460</b>	<b>431</b>	<b>347</b>	<b>218</b>	<b>244</b>	<b>299</b>	<b>288</b>	<b>1018</b>	<b>1040</b>	<b>956</b>	<b>852</b>	<b>7216</b>



# Patient Age Range per Hospital – 2023 -1Q





# Patient Age Range per Hospital – Rolling 4 Quarters

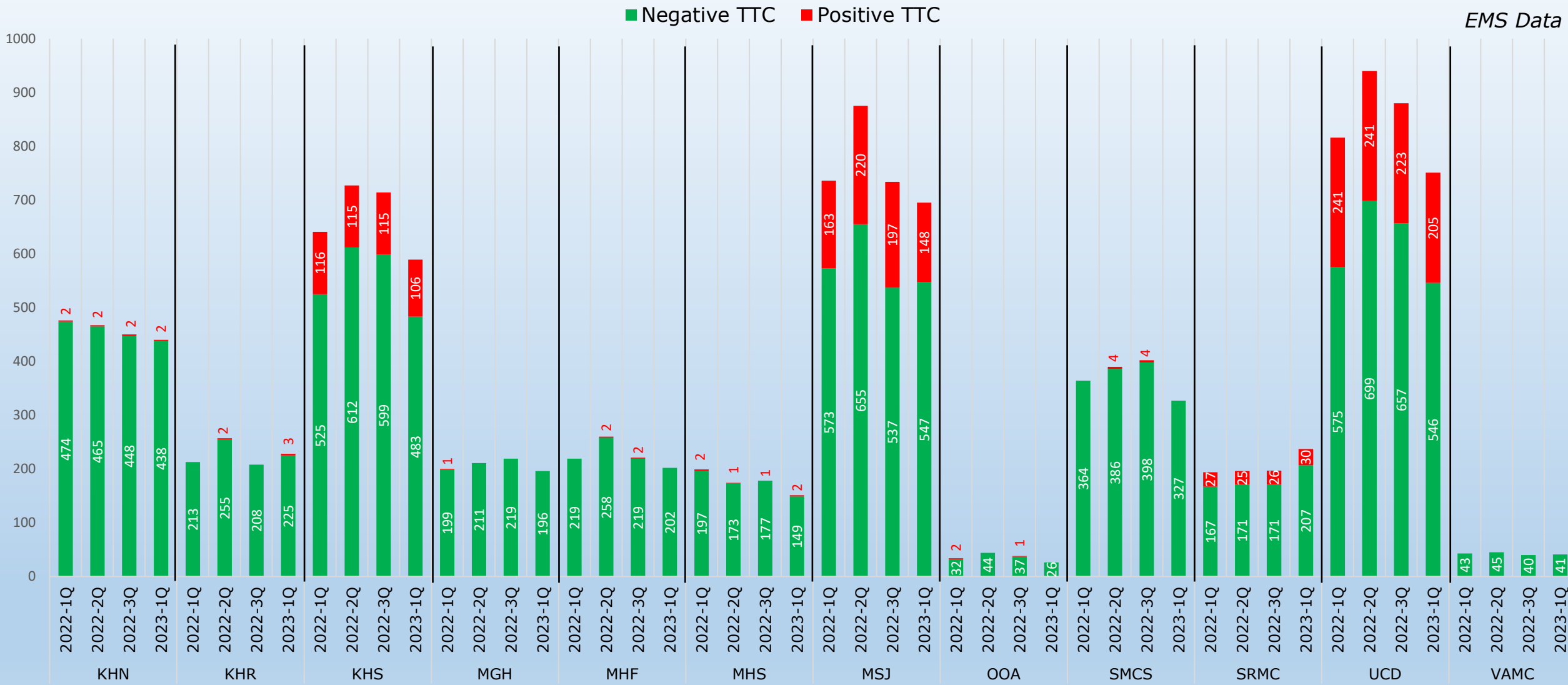
*Hospital Data*

Age Range	KHS				MSJ				SRMC				UCD				Grand Total
	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	2022-2Q	2022-3Q	2022-4Q	2023-1Q	
0-14	0	1	2	5	6	4	5	7	7	7	6	3	184	172	66	59	534
15-24	24	15	4	13	39	43	46	25	14	17	17	22	115	106	112	94	706
25-34	23	19	22	17	65	61	50	40	14	18	21	14	111	124	105	93	797
35-44	19	8	20	11	50	53	63	26	18	14	19	17	115	118	97	102	750
45-54	15	11	12	19	36	58	41	41	16	19	27	17	84	91	81	76	644
55-64	26	20	16	18	63	80	50	49	19	25	23	34	115	111	107	92	848
65-74	45	17	17	18	57	66	62	44	32	41	53	54	107	130	142	107	992
75+	68	49	43	50	100	95	112	114	98	103	133	127	187	188	246	229	1942
Not Recorded							2	1									3
<b>Totals</b>	<b>220</b>	<b>140</b>	<b>136</b>	<b>151</b>	<b>416</b>	<b>460</b>	<b>431</b>	<b>347</b>	<b>218</b>	<b>244</b>	<b>299</b>	<b>288</b>	<b>1018</b>	<b>1040</b>	<b>956</b>	<b>852</b>	<b>7216</b>





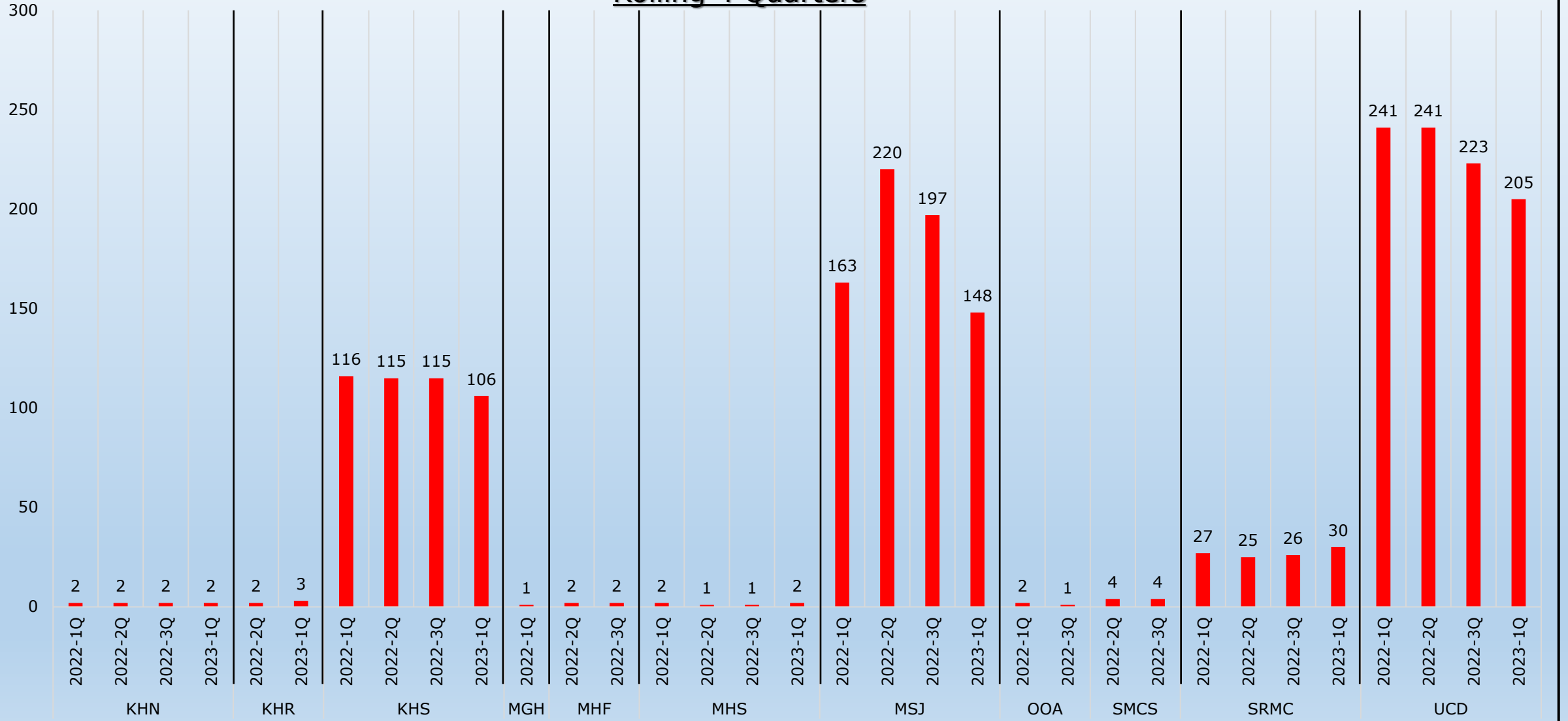
# EMS Transported Patients with Primary Impression of Trauma Negative vs Positive Trauma Triage Criteria - Rolling 4 Quarters



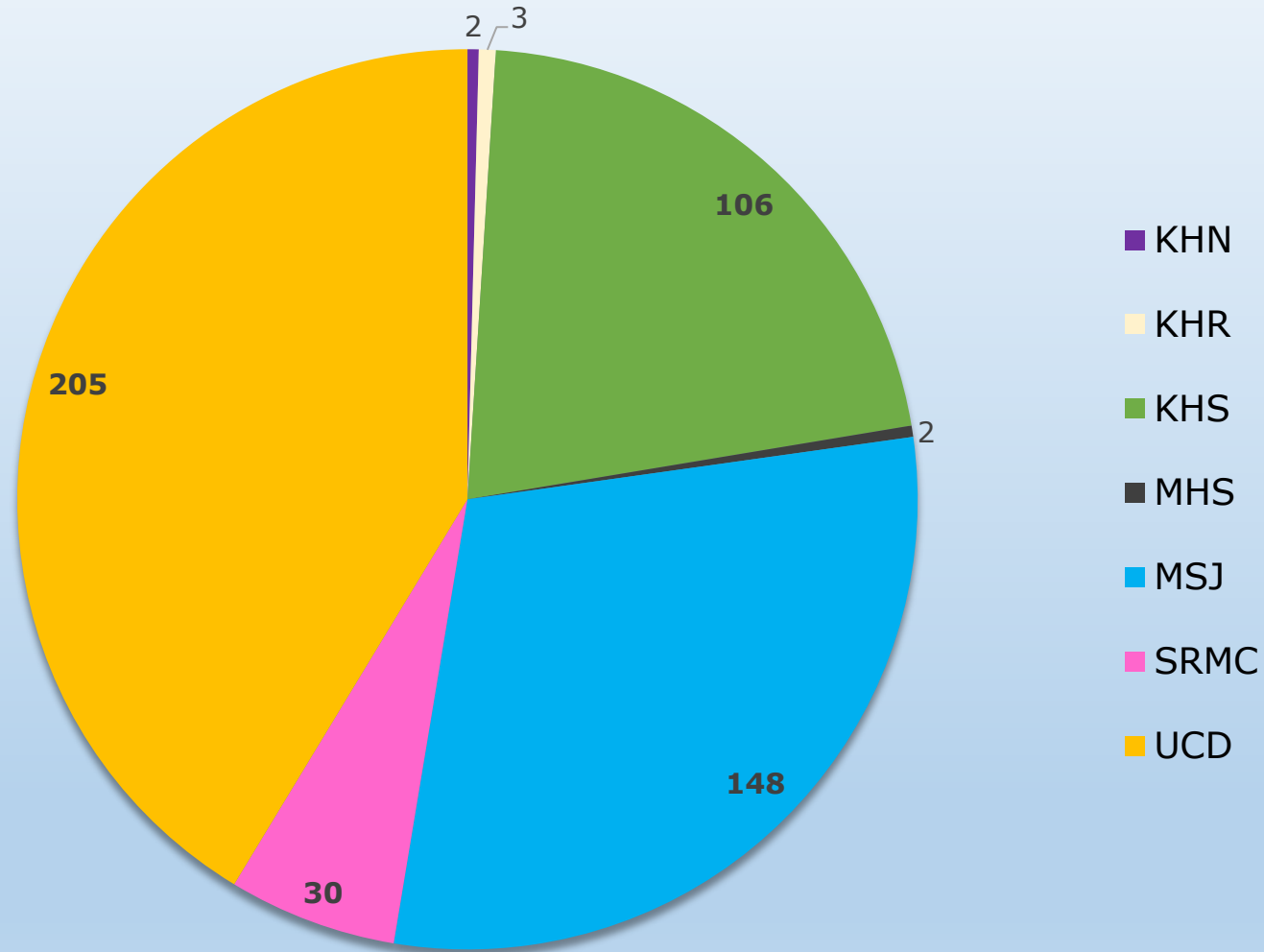
**Trauma Review Committee**



## EMS Transported Patients with Documented Positive Trauma Triage Criteria – Rolling 4 Quarters



# EMS Transported Patients Meeting Trauma Triage Criteria - 2023-1Q



# Review of Positive Trauma Triage Criteria to Non-Trauma Hospital – 2023-1Q

## Documented Trauma Triage (Drop down box)

- Long Bone Fracture
- Fall Adult >20ft
- Fall Adult >20ft
- Fall Child >10 ft
- Auto Vs Pedestrian
- Auto Vs Pedestrian
- Amputation Proximal to Wrist or Ankle

## Findings (ePCR Narrative)

- Femur Deformity (+TTC)
- Ground Level Fall (-) TTC
- Ground Level Fall (-) TTC
- Not a Child - Ground Level Fall (-) TTC
- MVA (-) TTC
- Broken Nose /No Fall - School Fight
- Ground Level Fall (-) TTC

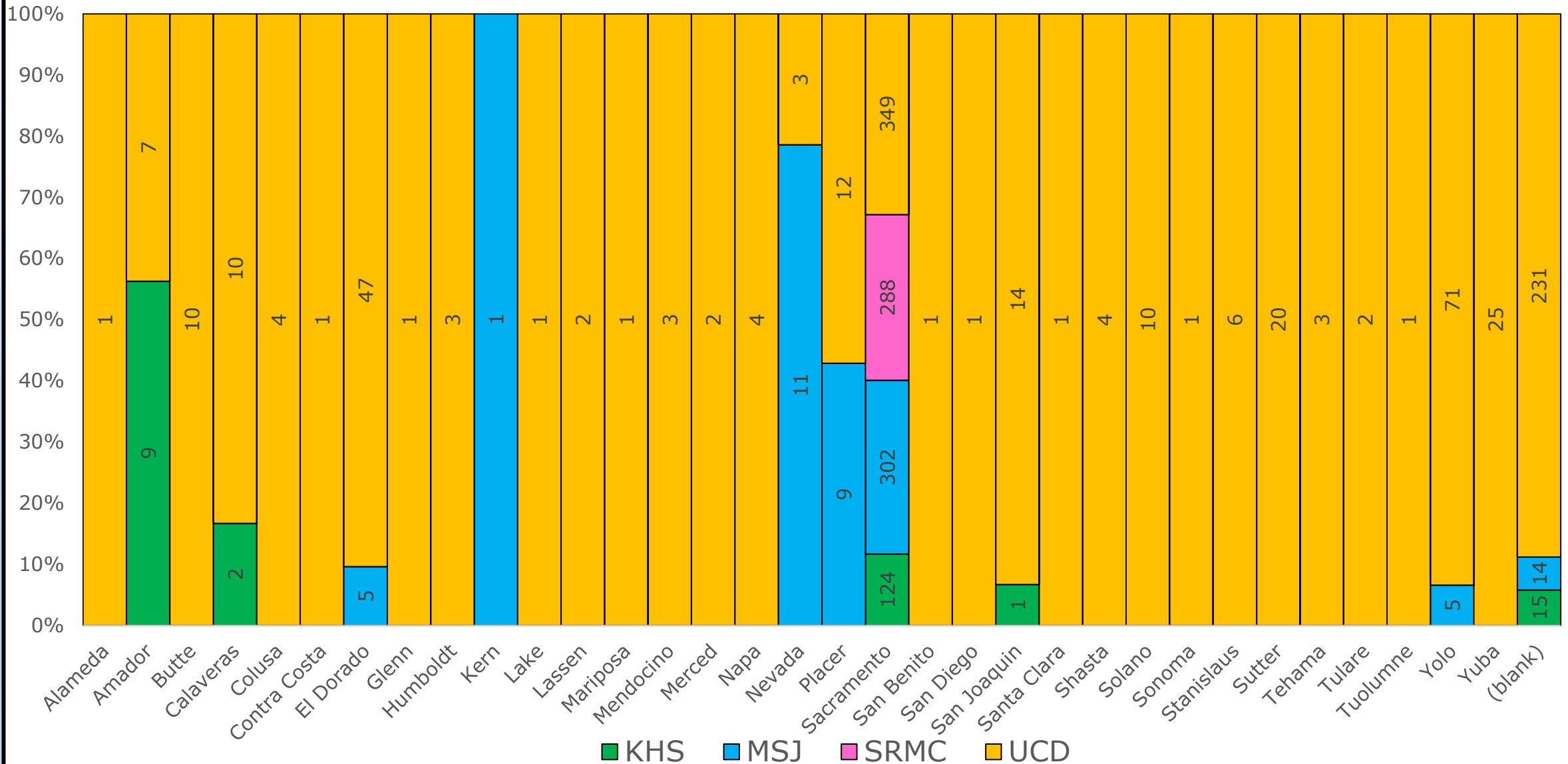


# Hospital Data - County of Origin Out of Area vs Sacramento County

Hospital	Out of Area	Sac County	Total
KHS	27	124	151
MSJ	45	302	347
UCD	503	349	852
SRMC	0	288	288



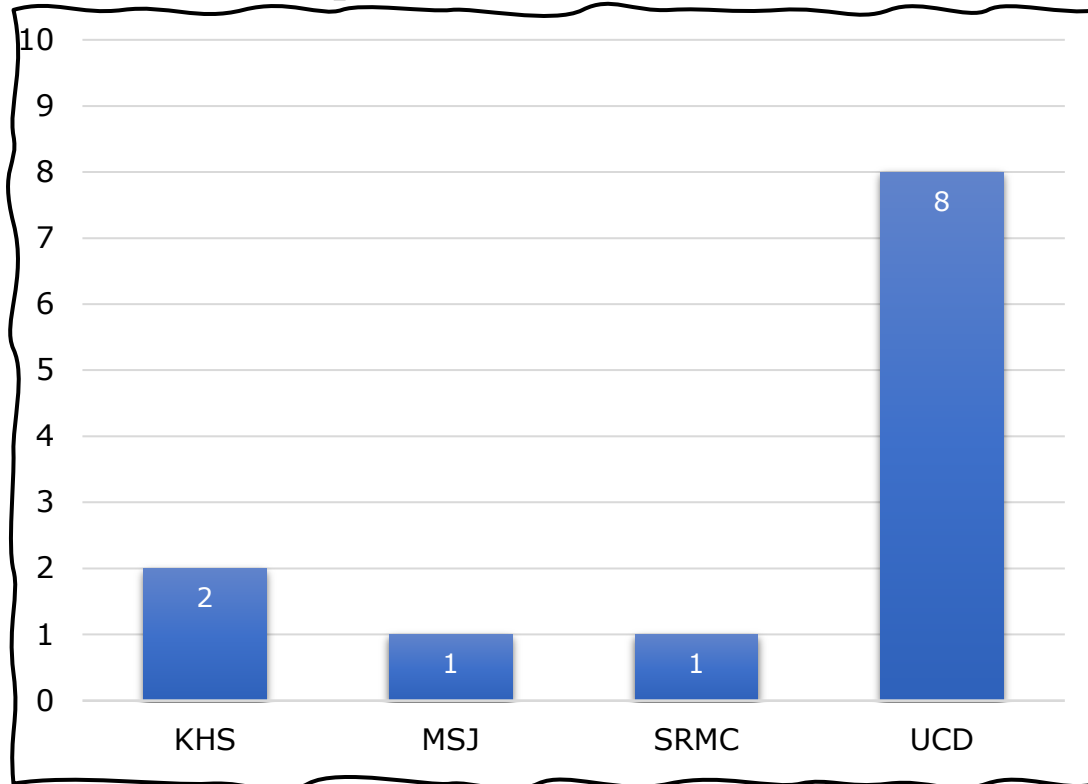
## County of Origin vs Destination Hospital 2023-1Q



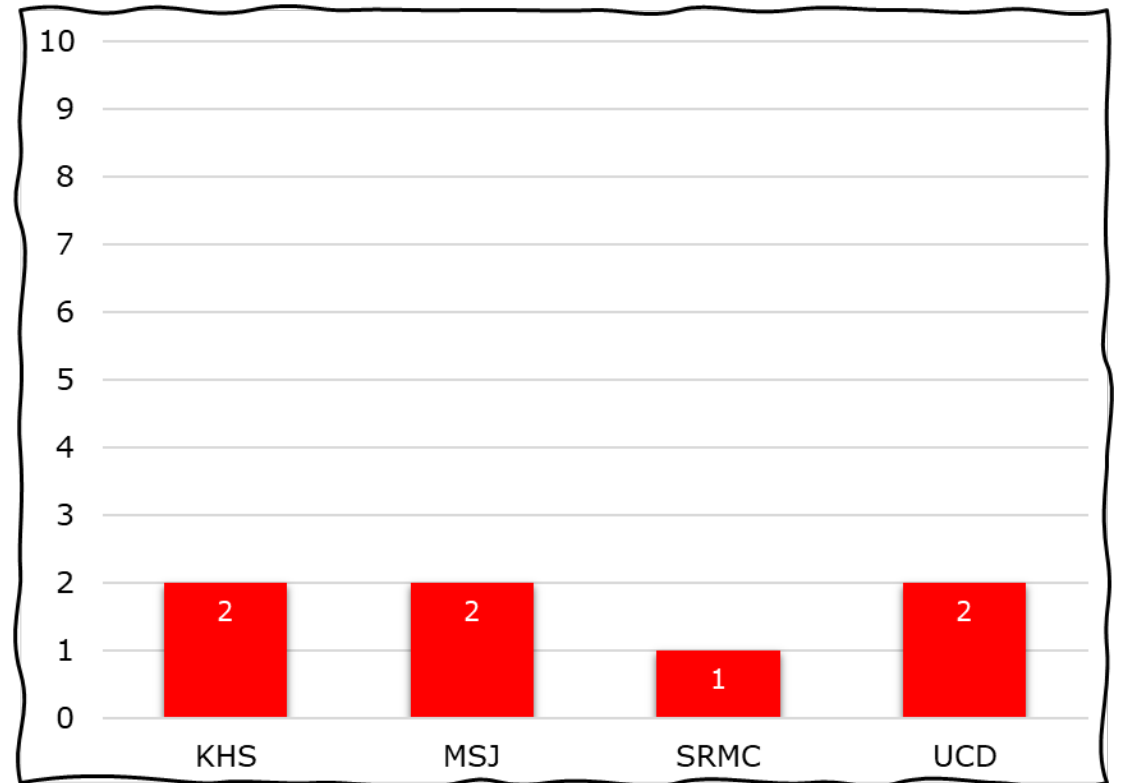


# TXA use 2023-1Q & 2Q Hospital Distribution

## TXA Administered (12 Patients)



## Missed opportunity for TXA administration (7 Patients)





# TXA Possible Missed Opportunity (Scene)

