Department of Health Services
Timothy W. Lutz
Director

Divisions
Administration
Behavioral Health
Primary Health
Public Health

County of Sacramento

Sacramento County EMS Agency
APOT Summit #2 2024

October 3, 2024
9:00AM – 1:00PM

9:00AM – 9:20AM: Opening Remarks:
Greg Kann MD, SCEMSA Medical Director

9:20AM – 9:50AM: Preparing for the Next Patient:
Jon Rudnicki, Assistant Chief – Director of EMS

9:50AM – 10:20AM: APOT Mitigation Success Story:
Kimberly Adams/Chris Britton, Kaiser Roseville

10:20AM – 10:50AM: APOT Alley:
Amelia Hart RN, Mercy San Juan Medical Center

10:50AM – 11:20AM: Break – Refreshments

11:20AM – 11:50AM: County APOT Mitigation Strategies – Making Durable Change:
Dale Ainsworth PhD, Assistant Professor,
Sac State University

11:50AM – 12:00PM: County Leadership Prospectives:
Supervisor Pat Hume

12:00PM – 12:30PM: SB43 and Impact on APOT:
Dr. Ryan Quist,
Sacramento County Behavioral Health Director

12:30PM – 1:00PM: APOT Innovation – A Sacramento Story.
Monique Brown, The Growth Factory

Closing Remarks / Adjournment: Greg Kann MD

Division of Public Health
Olivia Kasirye, MD, MS
Public Health Officer

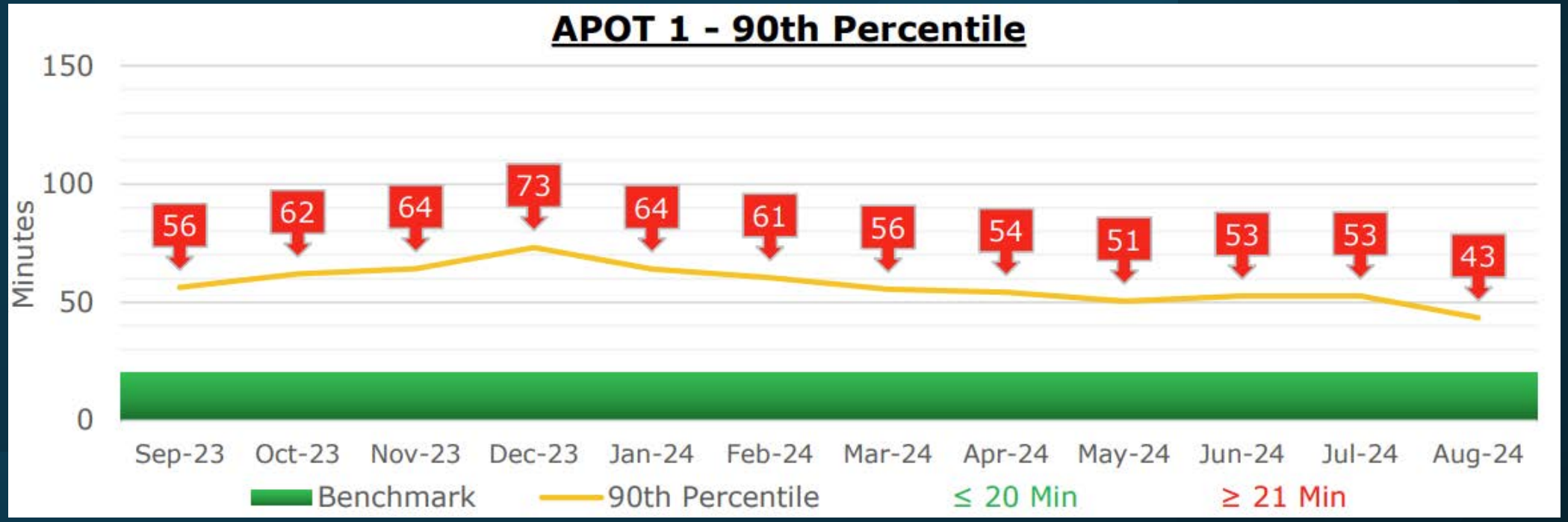
SACRAMENTO COUNTY PUBLIC HEALTH
Promote • Prevent • Protect

Sacramento County Emergency Medical Services Agency
9616 Micron Ave Suite 940
Sacramento, CA 95827
phone (916) 875-9753
www.dhs.saccounty.gov/pub/ems

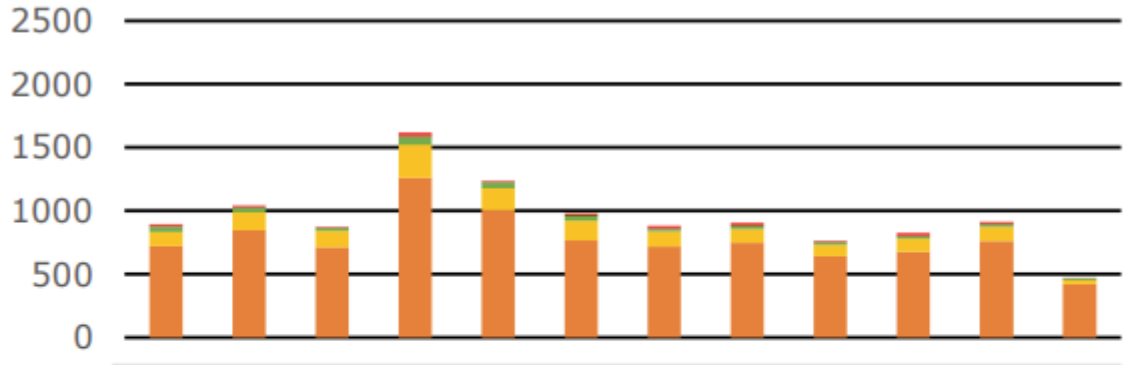
Sacramento County EMS Agency

APOT Summit 2 2024

3 October 2024
9:00 am – 1:00 pm

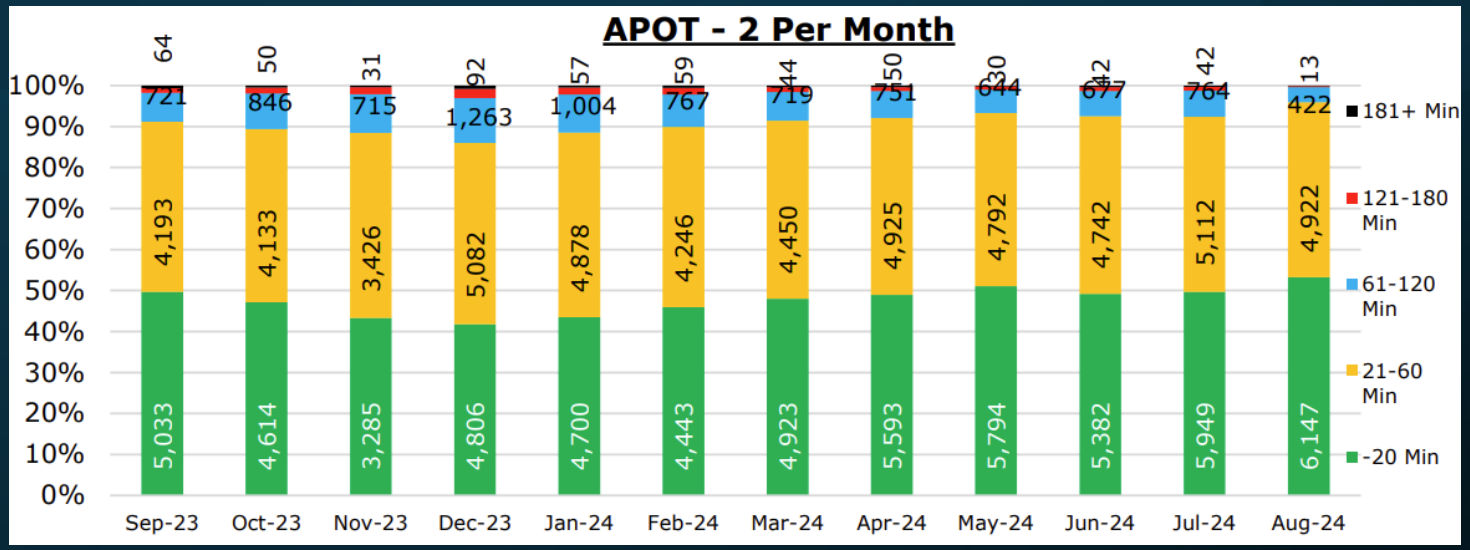

APOT 1 - 90th Percentile
150
100
50
0
Minutes
56
62
64
73
64
61
56
54
51
53
53
43
Sep-23
Oct-23
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Benchmark
90th Percentile
≤ 20 Min
≥ 21 Min

APOT >1 hr per Hour Range - per Month

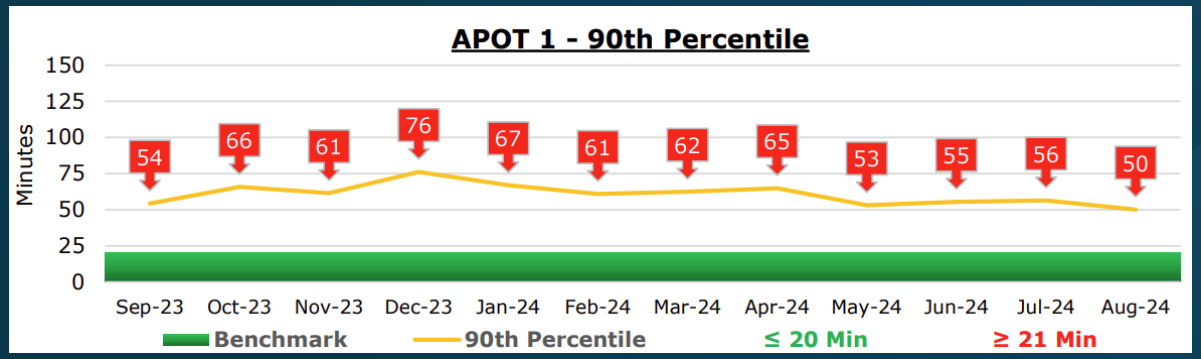


	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24
> 5	11	9	3	15	4	7	13	16	3	16	11	
4-5	15	7	7	17	9	15	14	11	11	7	11	2
3-4	38	34	21	60	44	37	17	23	16	19	20	11
2-3	112	143	127	260	175	154	119	104	87	101	108	31
1-2	721	846	715	1263	1004	767	719	751	644	679	764	423

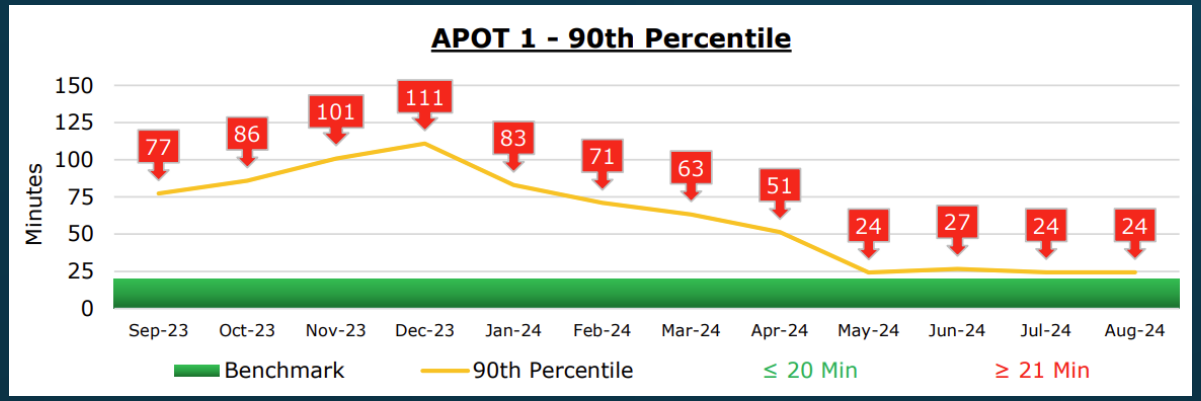
APOT - 2 Per Month



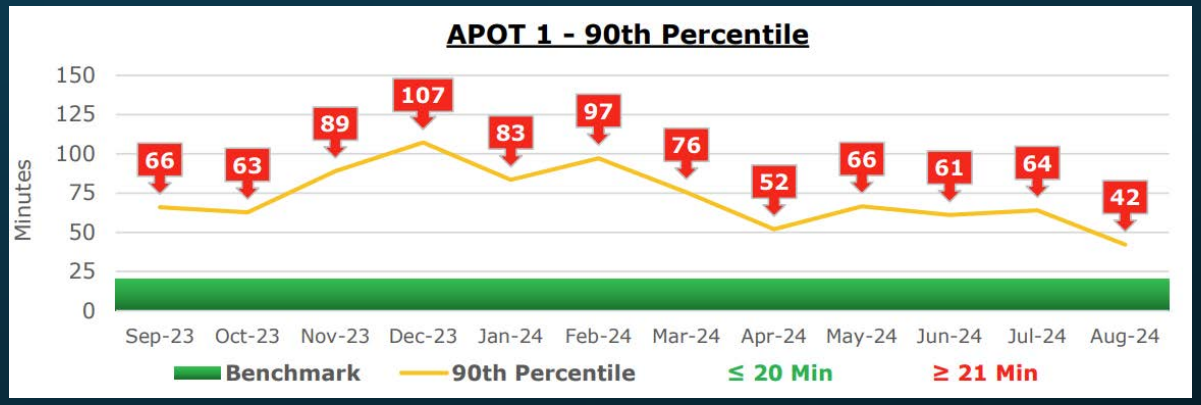
Month	APOT 90th Percentile HH:MM:SS	APOT Average in HH:MM:SS	Patient Count
01 - January	1:03:24	0:31:13	10,365
02 - February	0:58:28	0:29:28	9,618
03 - March	0:55:59	0:28:53	10,901
04 - April	0:53:51	0:28:13	11,065
05 - May	0:51:21	0:26:25	11,489
06 - June	0:52:41	0:27:39	10,935
07 - July	0:52:56	0:27:18	12,022
08 - August	0:43:32	0:23:37	11,463
09 - September	0:39:30	0:21:56	9,934



Kaiser North

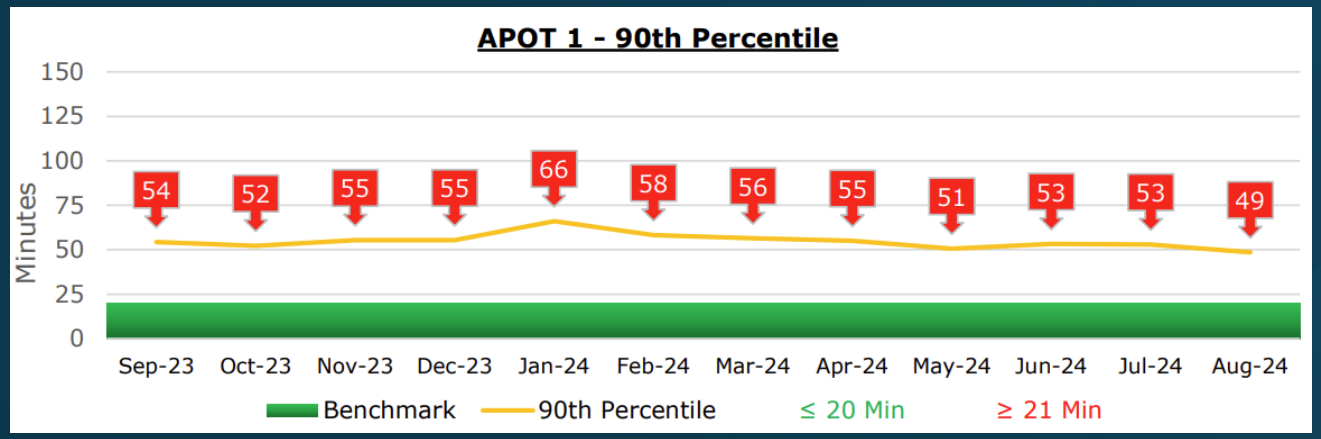


Kaiser Roseville



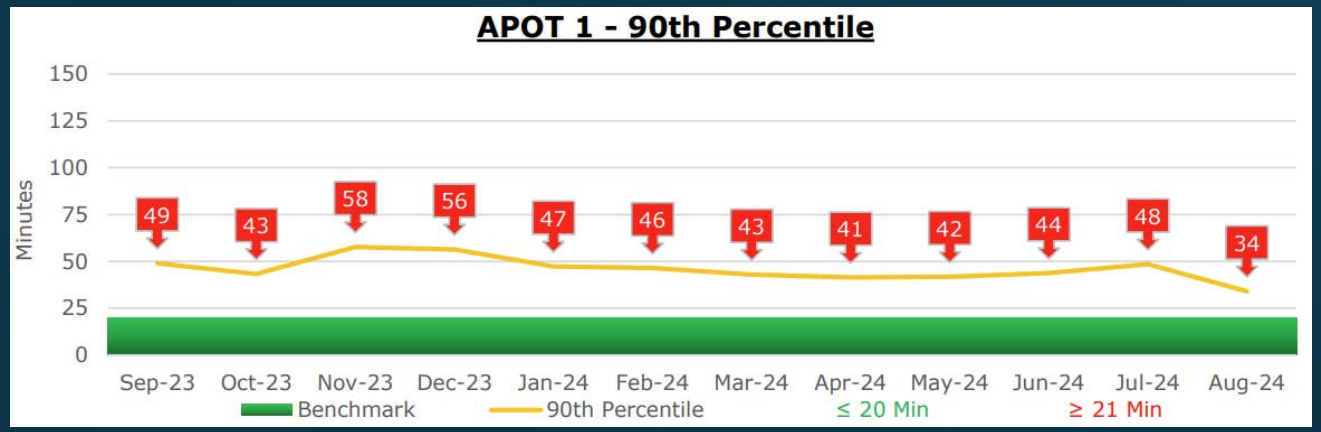
Kaiser South

September Trending – 39 minutes



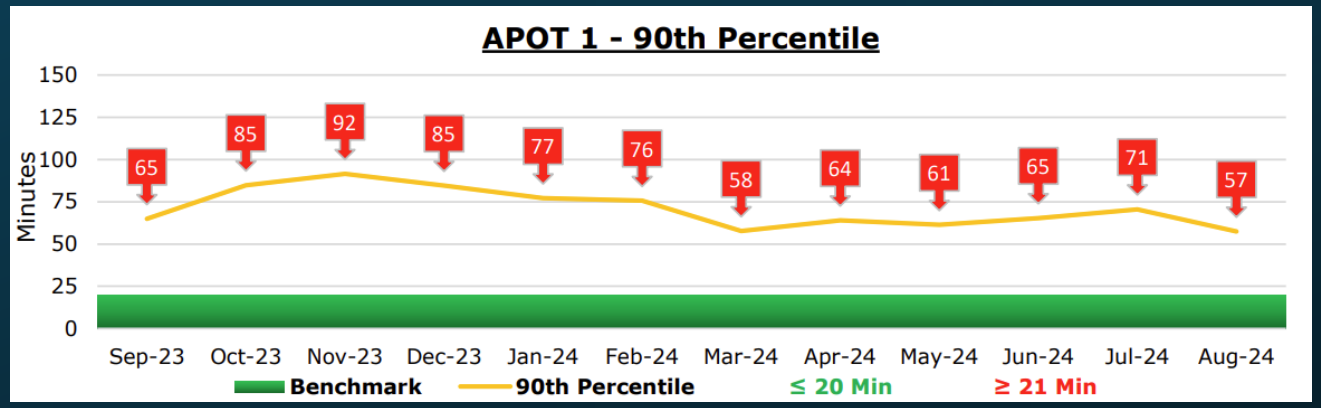
Mercy General

Last week - 47



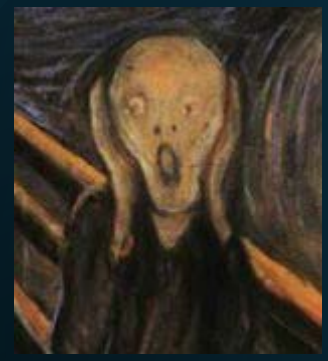
Mercy Folsom

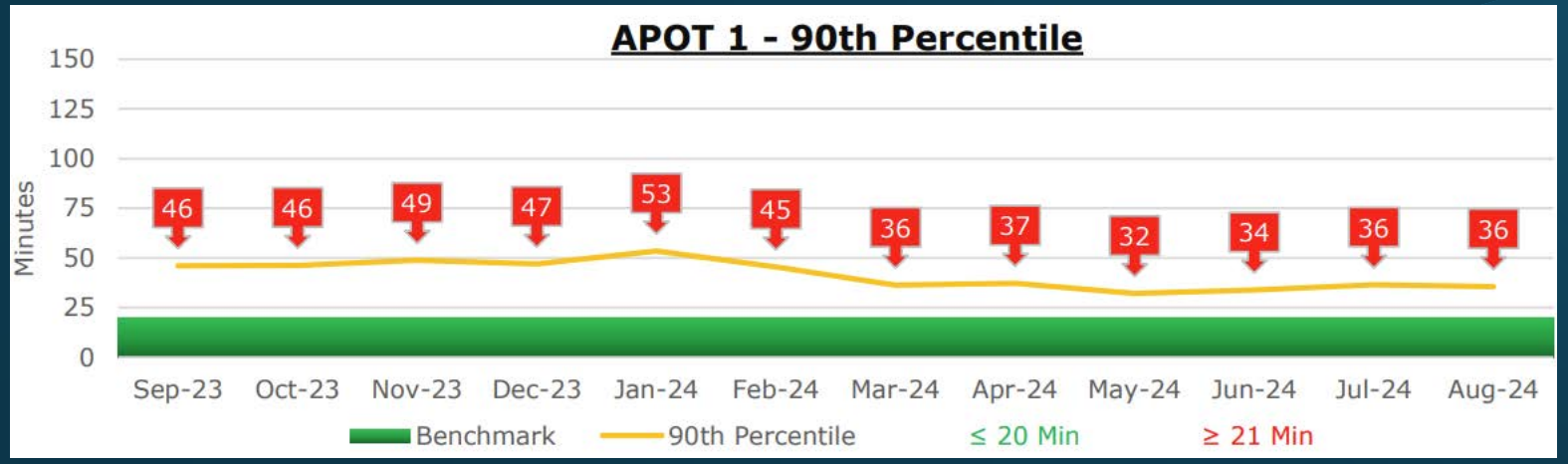
Last week - 27



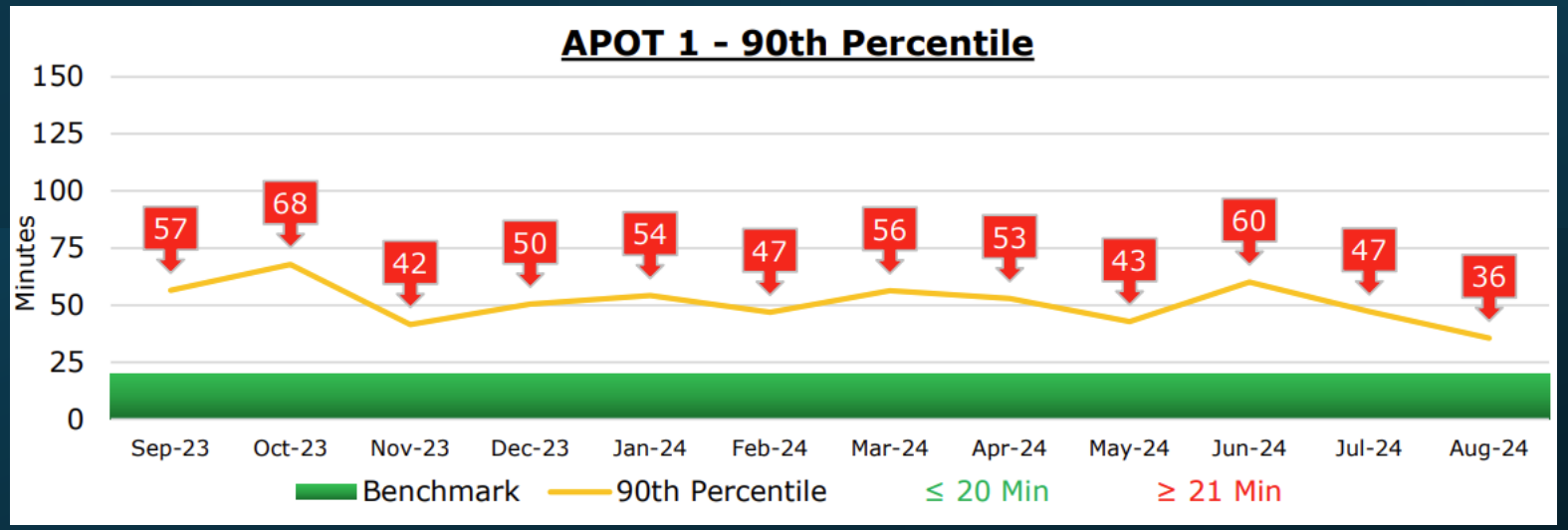
Mercy San Juan

Last week - 22

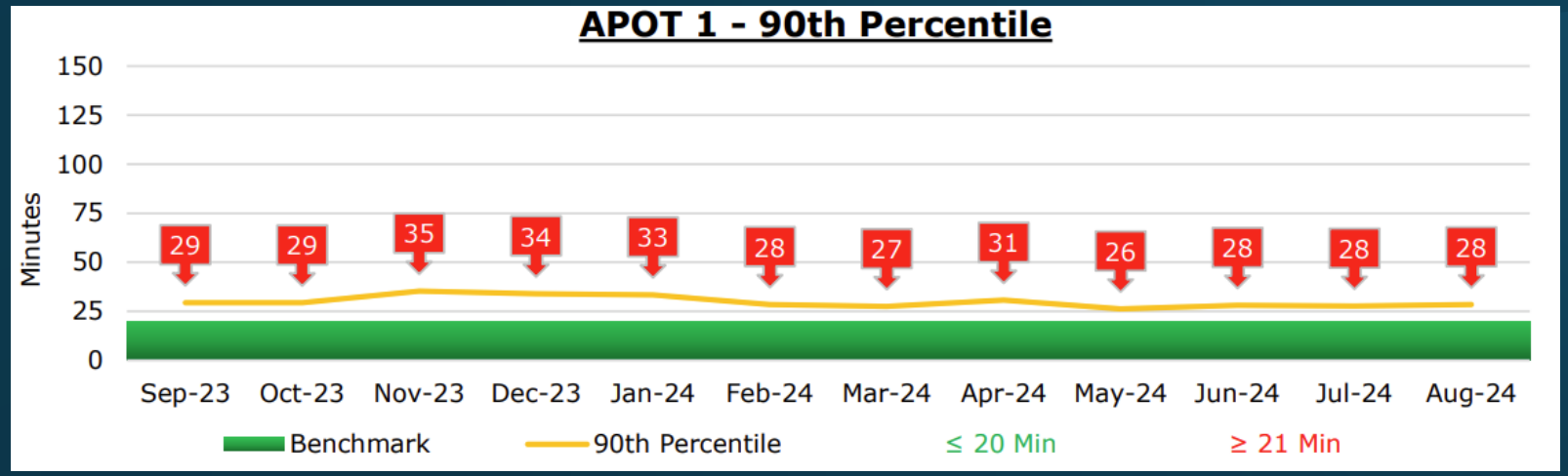




Methodist Hospital
September Trend - 31

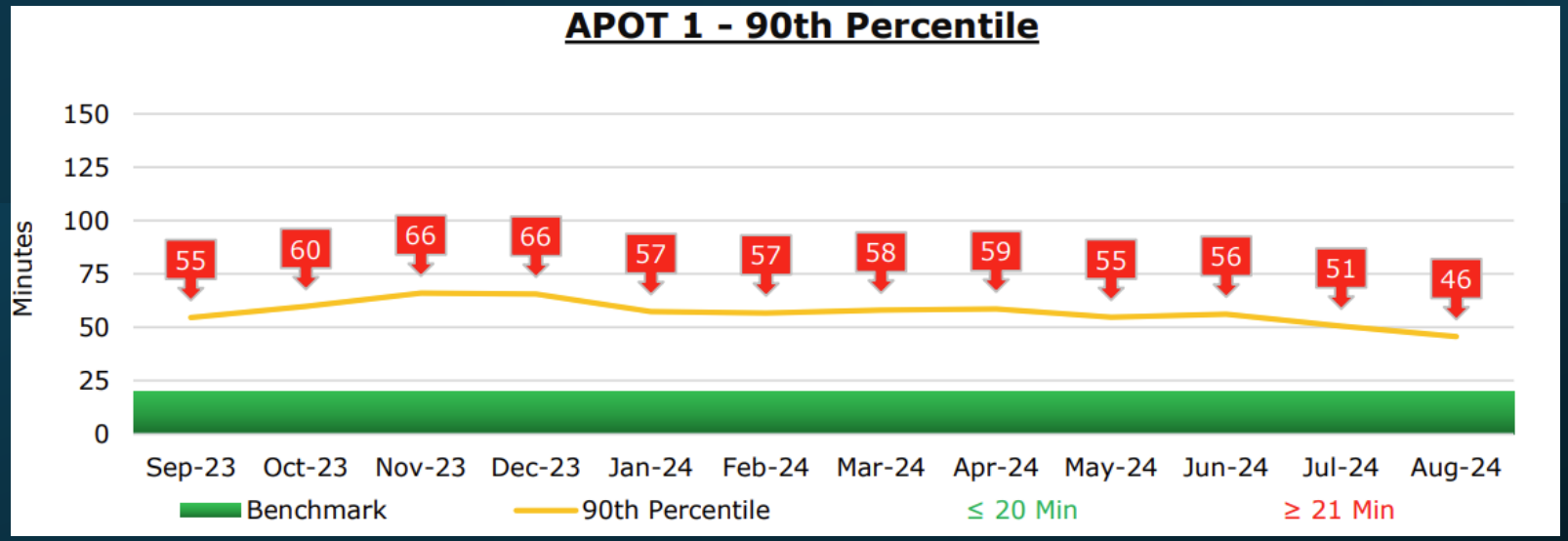


UC Davis Medical Center



Sutter Roseville

September Trend - 24



Sutter Sacramento

Being Available for the Next Patient:

- Medic Draw Down Events: 0-8 Ambulances Available.
- 2023: 24 events.
- YTD 2024: 14 events.

Our Collective Approach to APOT:

Our 7 Pillars:

- Hospital Collaboration – EMS pre-arrival notifications, dedicated offload zones.
- Technology – Automation of APOT measurement. AI decision support.
- Mobile Integrated Health (MIH) programs – Leveraging field-based care.
- Renew our focus on telemedicine and alternative patient care pathways.
- Nurse triage in dispatch – Sacramento County Dispatch recently ACE accredited.
- Education and Training – Regular EMS and ED staff training to improve efficiency.
- Policy and Protocols – Leverage 5050 and support offload pilot programs.

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY GAVIN NEWSOM, *Governor*

EMERGENCY MEDICAL SERVICES AUTHORITY
11120 INTERNATIONAL DR., SUITE 200
RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 324-2875

August 16, 2024

APPROVED

David Magnino, EMS Administrator
Sacramento County Emergency
Medical Services Agency
9616 Micron Ave Suite 940
Sacramento, CA 95827

Dear David Magnino,
This correspondence is in response to your Triage to Alternate Destination (TAD) submission dated June 6, 2024 and subsequent addendum dated July 24, 2024.

The Emergency Medical Services Authority (EMSA) has reviewed your TAD program submissions and has determined that your submission meets established program requirements and is approved for implementation.

This approval of the Sacramento County EMS Agency TAD program shall be for twelve (12) months from the date of this letter. Renewal of the Sacramento County EMS Agency TAD Program shall be completed annually through submission of the Community Paramedicine Annex of your annual EMS Plan submission as required in California Code of Regulations Title 22 Sections §100183 and Section §100190.

Please contact Candace Keefauver, CP/TAD Program Manager, at Candace.Keefauver@emsa.ca.gov or (916) 969-6669 if you have any questions.

Sincerely,

Tom McGinnis

Tom McGinnis, MHA, EMT-P
Chief, EMS Systems Division

“This is why we do what we do”

METRO
FIRE
Firefighter

SACRAMENTO REGIONAL FIRE/EMS
9-1-1
FIRE
EMS
DISPATCH
COMMUNICATIONS CENTER

SACRAMENTO METROPOLITAN
EST.
2000
FIRE

SACRAMENTO
ORG. FEB 5, 1850
FIRE

VA

AMR
A Global Medical Response Solution

SACRAMENTO COUNTY
EMERGENCY MEDICAL SERVICES

NORCAL
Ambulance

COSUMNES
ELK GROVE
CFD
GALT
FIRE

Medic
Ambulance

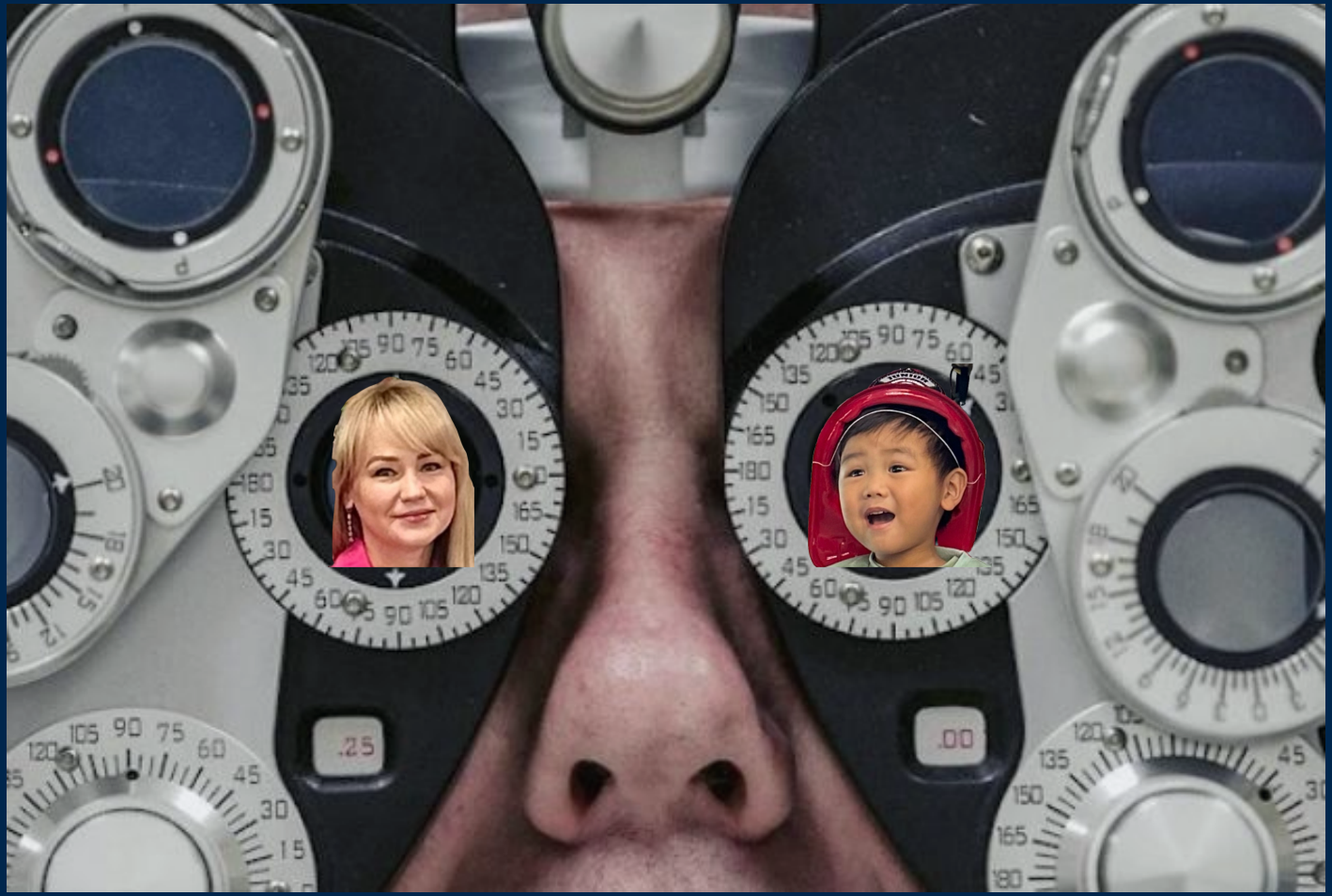
BAY MEDIC
AMBULANCE

UCDAVIS
HEALTH

CITY OF FOLSOM
FIRE
RESCUE
EMS
EST. 1857
CALIFORNIA

PT-1
AMBULANCE

Who’s lens are we looking through


.25
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WHAT WE ARE DOING

- Operational adjustments
  - Drawdown plan
  - 5050
  - Consolidation
  - Surge
  - BLS ambulance
  - Addition of ambulances
- Enhanced EMS services
  - Telemedicine
  - Mobile Integrated Health (MIH)
  - Transport to Alternate Destination (TAD)

39

Minutes

Sep - 24

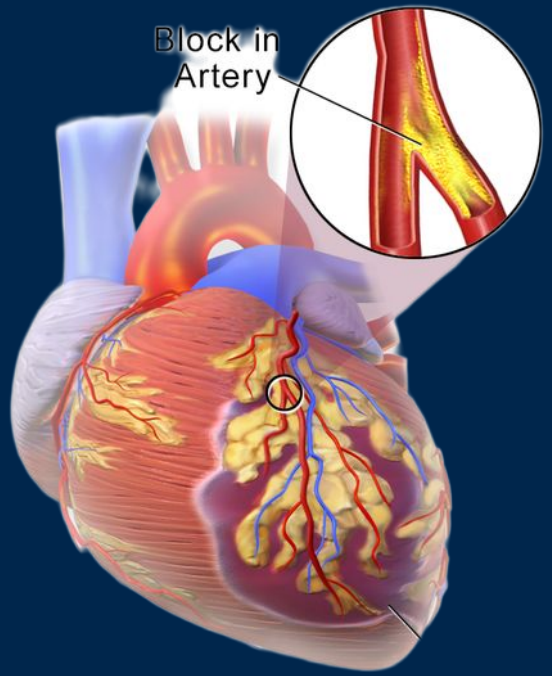
Does Time Matter?

2101
Patient Initiated Refusal of Service or Transport
2521.06
APOT Data Collection and Reporting
2033.15
Determination of Death
2524.05
Extended (APOT)
5102.17
Interfacility Transfers
5050.19
Destination
7500.17
MCI/Disaster Medical Services Plan
8001.18
Allergic Reaction / Anaphylaxis
8004.02
Suspected Narcotic Abuse
8015.26
Trauma
8018.21
Overdose and/or Poison Ingestion
8030.25
Discomfort/Pain of Suspected Cardiac Origin
8031.25
Non-Traumatic Cardiac Arrest
8042.21
Childbirth
8061.19
Decreased Sensorium
8062.10
Behavioral Crisis / Restraint
8063.10
Nausea / Vomiting
8067.04
Sepsis/Septic Shock
8808.17
Vascular Access
8810.11
Transcutaneous Cardiac Pacing
8829.09
Noninvasive Ventilation (NIV)
9002.17
Allergic Reaction / Anaphylaxis
9006.22
Pediatric Medical Cardiac Arrest
9007.03
Pediatric Diabetic Emergency
9011.01
Pediatric Overdose

Does Time Matter - Heart Attack

The standard benchmark is to achieve a Door-to-balloon (D2B) time of less than 90 minutes.

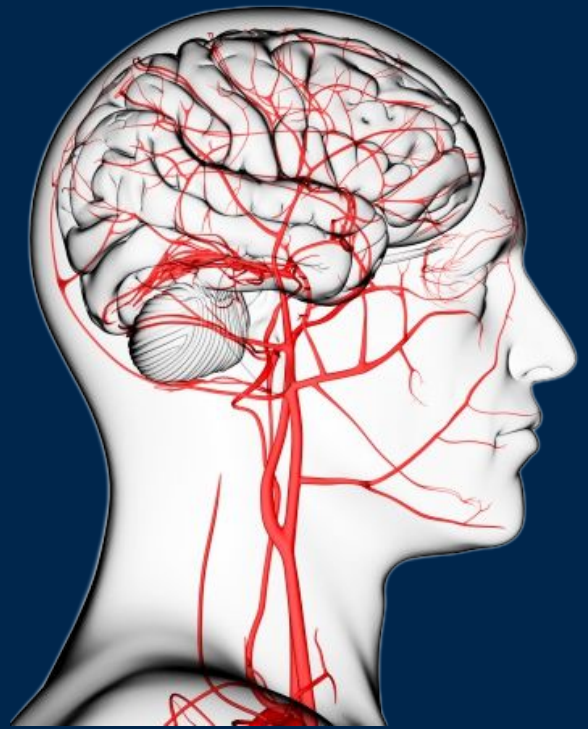
Although the **90-minute** benchmark remains, aiming for even faster intervention, especially within **60 minutes,** has shown to improve patient outcomes.



Does Time Matter - Stroke

The American Heart Association **recommend a Door-to-Needle (DTN) time of less than 60 minutes**

A study from the *American Heart Association's* found that reducing the DTN time by **10 minutes could significantly improve outcomes**.

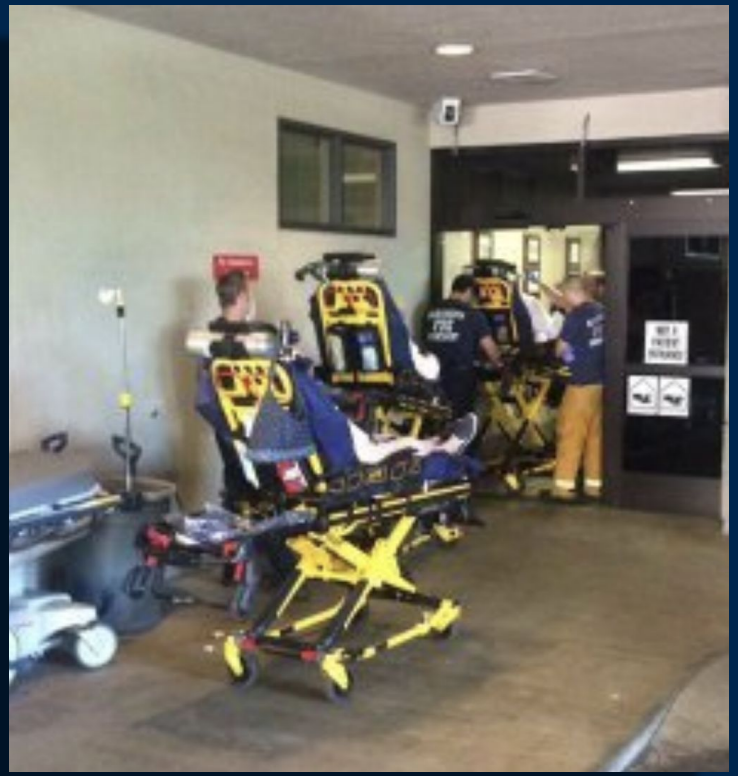


Does Time Matter - APOT

APOT Benchmark

vs

APOT Goal



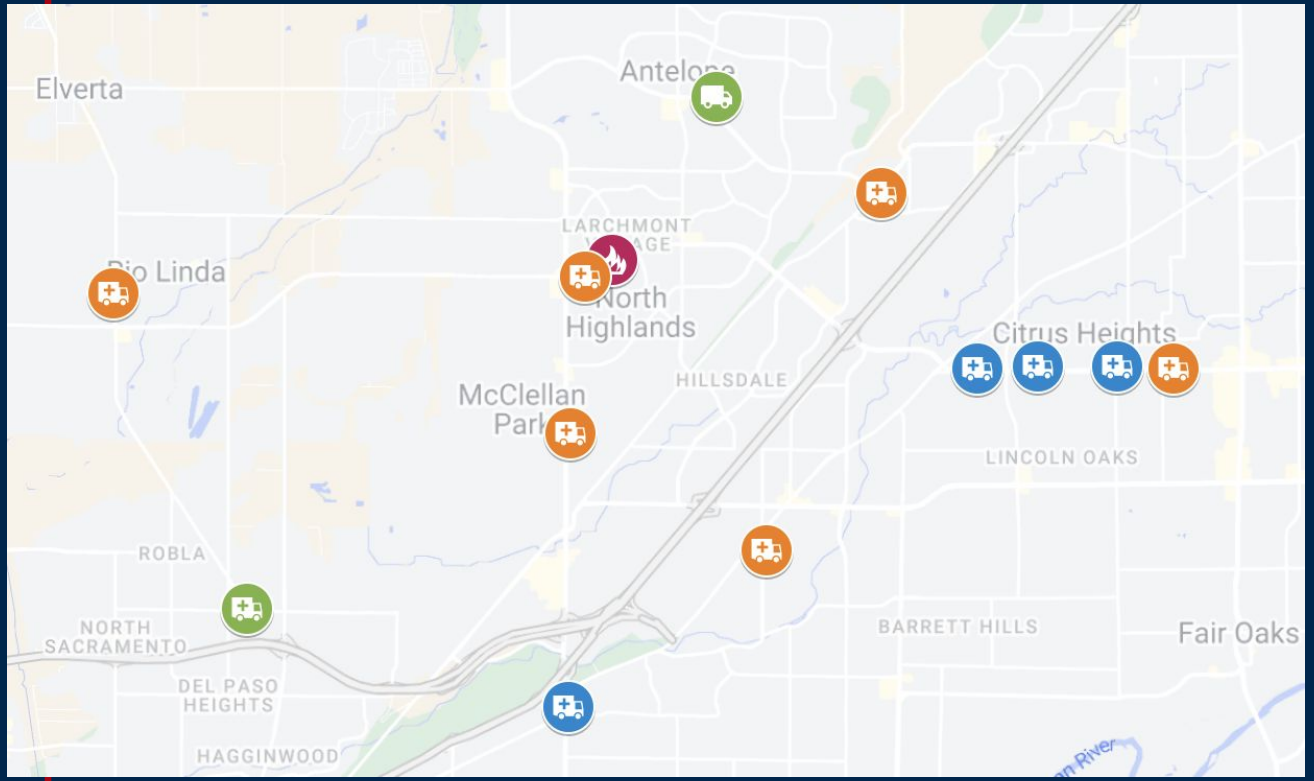
AB40

APOT Standard means the maximum length of time for APOT **developed and adopted by the LEMSA, not to exceed 30 minutes**, 90% of the time.

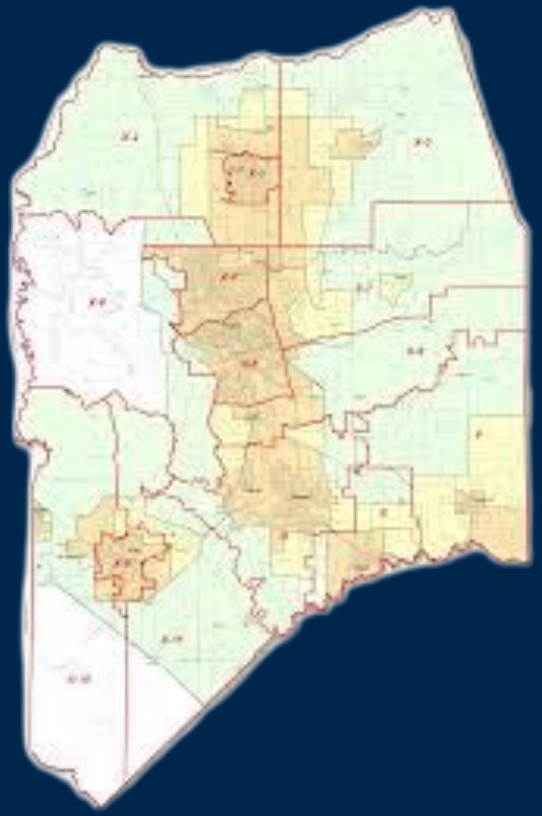
	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	2521.06
	PROGRAM DOCUMENT: **Ambulance Patient Offload Time (APOT) Data Collection and Reporting**	Initial Date:	10/10/16
		Last Approved Date:	01/31/24
		Effective Date:	05/01/23
		Next Review Date:	12/01/24

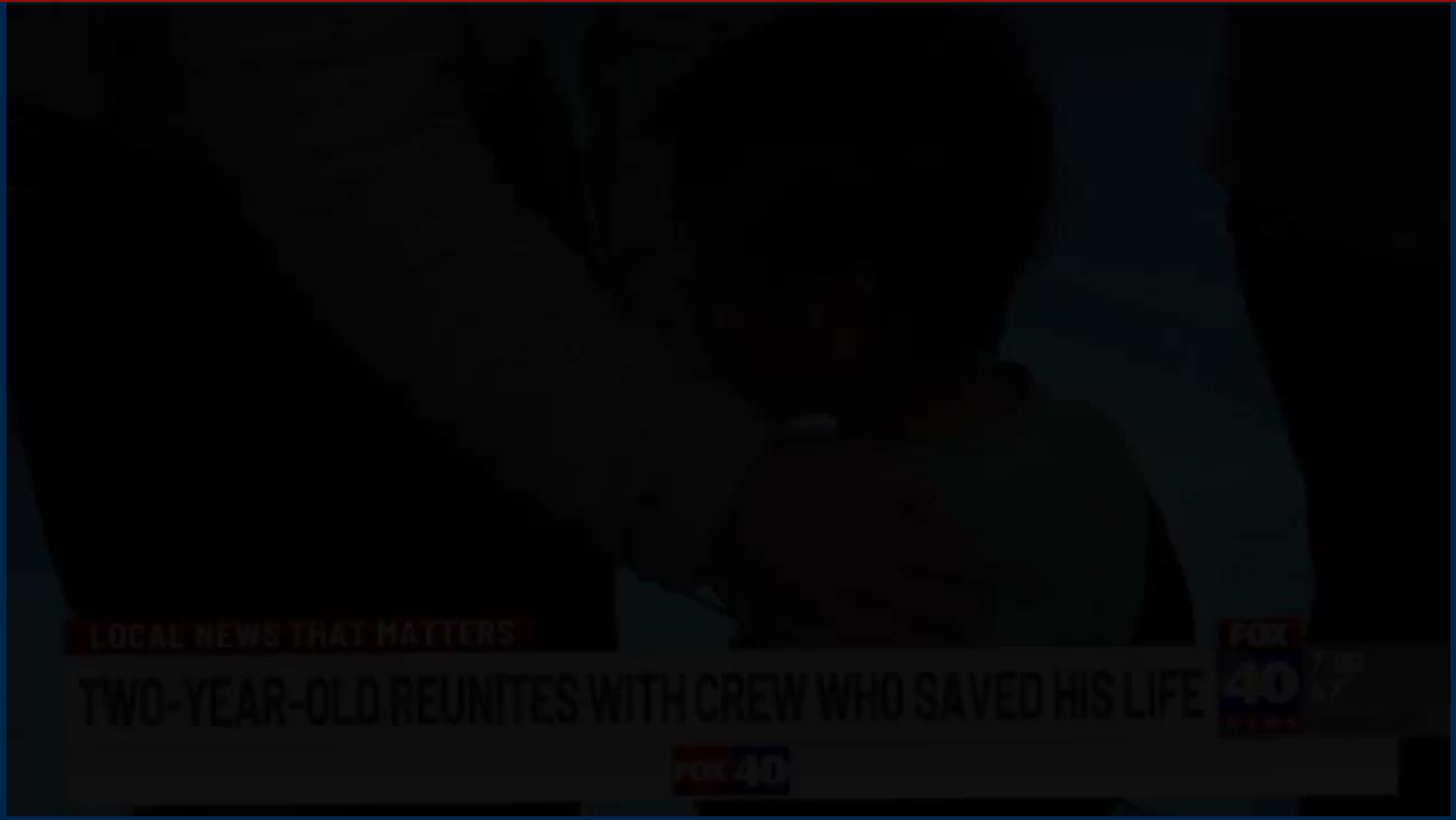
Standard Offload Time APOT: Receiving hospitals have a responsibility to ensure policies and processes are in place that facilitates the rapid and appropriate transfer of patient care from EMS personnel to the ED medical personnel within **20 minutes** of arrival at the ED.

M821- **27 minutes** APOT



M641-T2
M625-TA
M842-OS
M621B-TA
M821-27 minutes APOT
M623-67 minutes APOT
M823-48 minutes APOT
M624B-C3
M803-66 minutes APOT
M111-TA




LOCAL NEWS THAT MATTERS
TWO-YEAR-OLD REUNITES WITH CREW WHO SAVED HIS LIFE
FOX 40

“This is why we do what we do”

Ambulance Patient Offload Time Task Force

Kaiser Roseville Emergency Department

Kim Adams, MSN, RN
Emergency Department Director

Chris Britton, BSN, RN, CEN
Assistant Nurse Manager

October 9, 2024

AB40

- Develop an ambulance patient offload time (APOT) reduction protocol by September 1, 2024.
- The protocol will address mechanisms to improve hospital operations to reduce APOT.
- The hospital is required to file its protocol with the authority and to report any revisions to the protocol annually.
- The authority is required to monitor monthly APOT data for each hospital on or before December 31, 2024.
- The authority is required to report APOT in exceedance to the relevant local EMS agency and the Commission on Emergency Medical Services if, by December 31, 2024, the hospital has an APOT that exceeds the local EMS agency standard for the preceding month.

Ambulance Patient Offload Time (APOT) General Information

Ambulance Patient Offload Time (APOT) Definition – The time interval between the arrival of an ambulance patient at a hospital emergency department (ED), and the time the patient is transferred to the ED gurney, bed, chair or other acceptable location and the ED assumes full responsibility for care of the patient. The following NEMSIS Version 3.4 data elements, descriptions and calculations (as documented on the legal electronic patient care report by EMS personnel) are utilized to determine/report the APOT data:

ED Task Force Team

- Front-line nursing staff
- EMS Liaison
- EMS Medical Director
- Service Line Director

Off The Wall

Methodology

Reason For Action

Problem Statement: Patients who present to the ED via ambulance experience a delay in transfer of care from EMS to nursing.

Aim: To decrease the time it takes to transfer patients to a treatment space

Scope: Patients arriving to the ED via ambulance

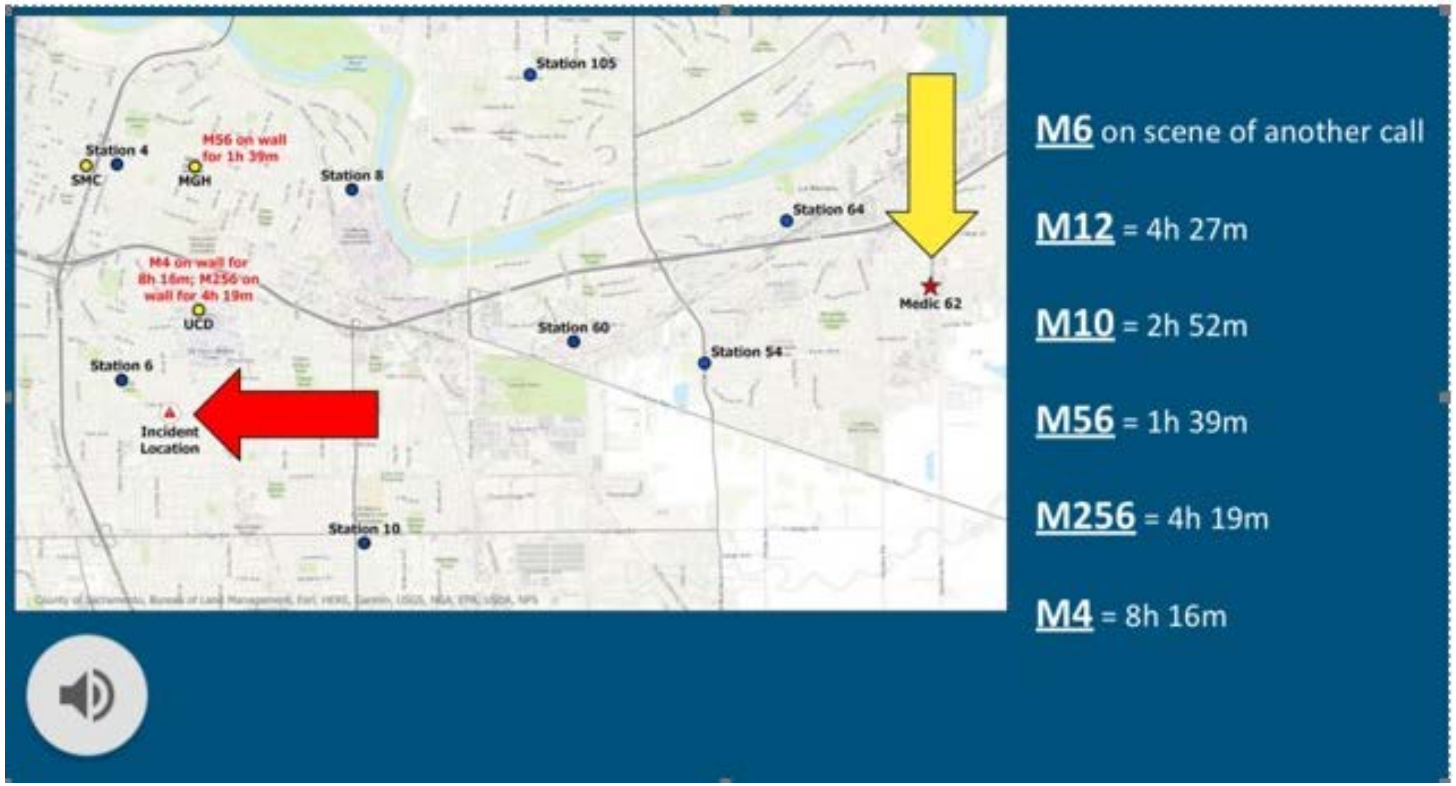
Initial State and Target State

Metric: APOT 90th Percentile

Initial State = 83 minutes

Target State = 30 minutes

Perspective



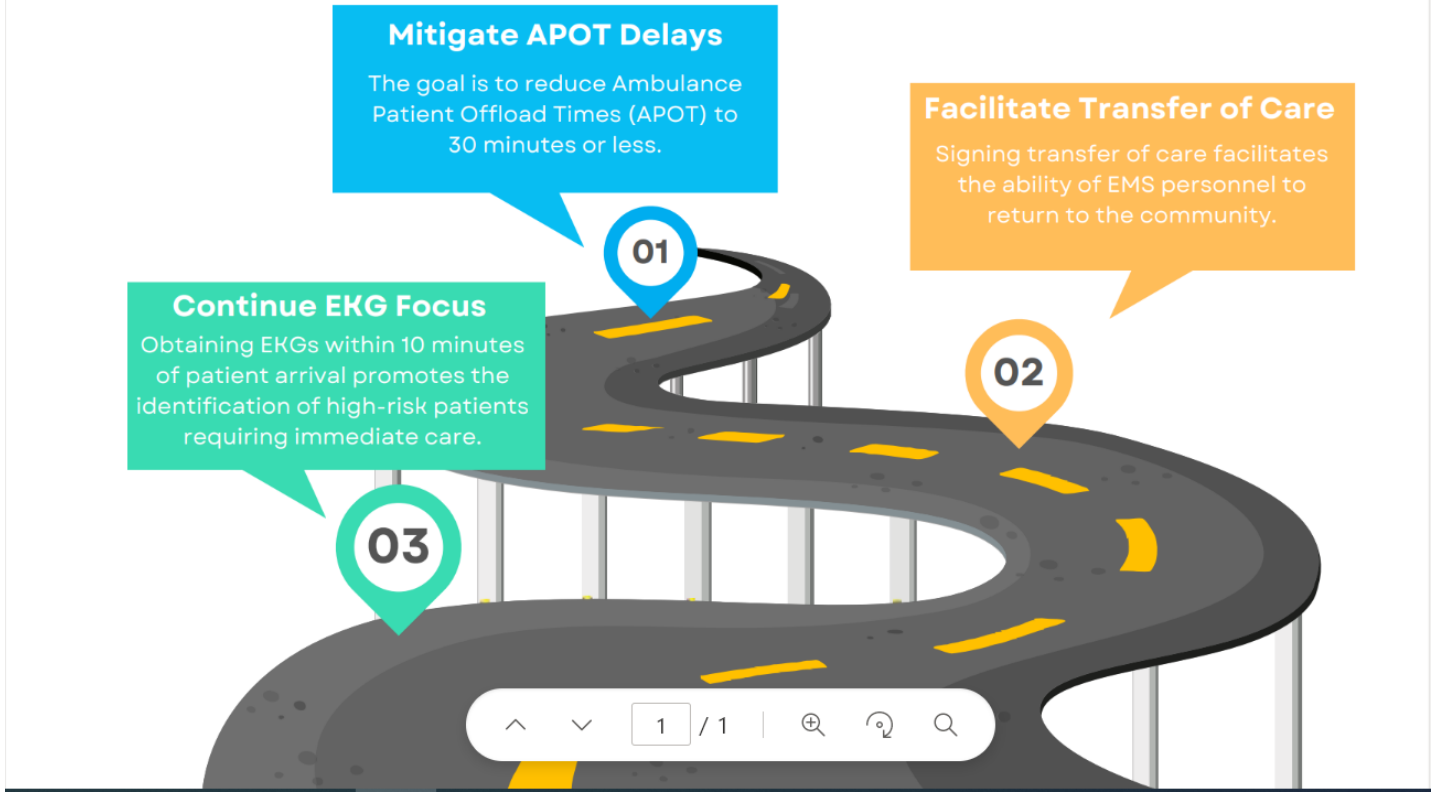
- Community
- EMS
- Emergency Department
- Hospital

Ambi ROAD

BUILDING A ROAD TO REDUCE APOT

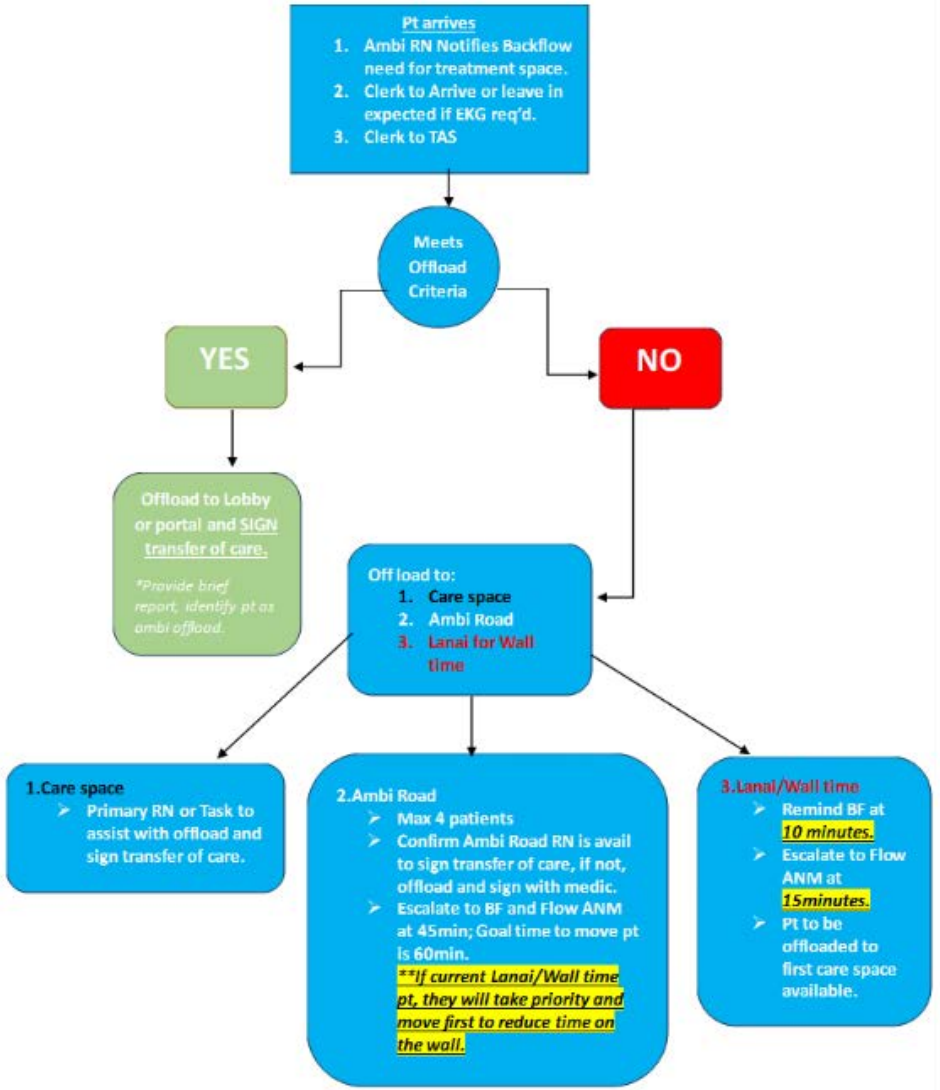
Rapid **O**ffloading of **A**mbis into the **D**epartment

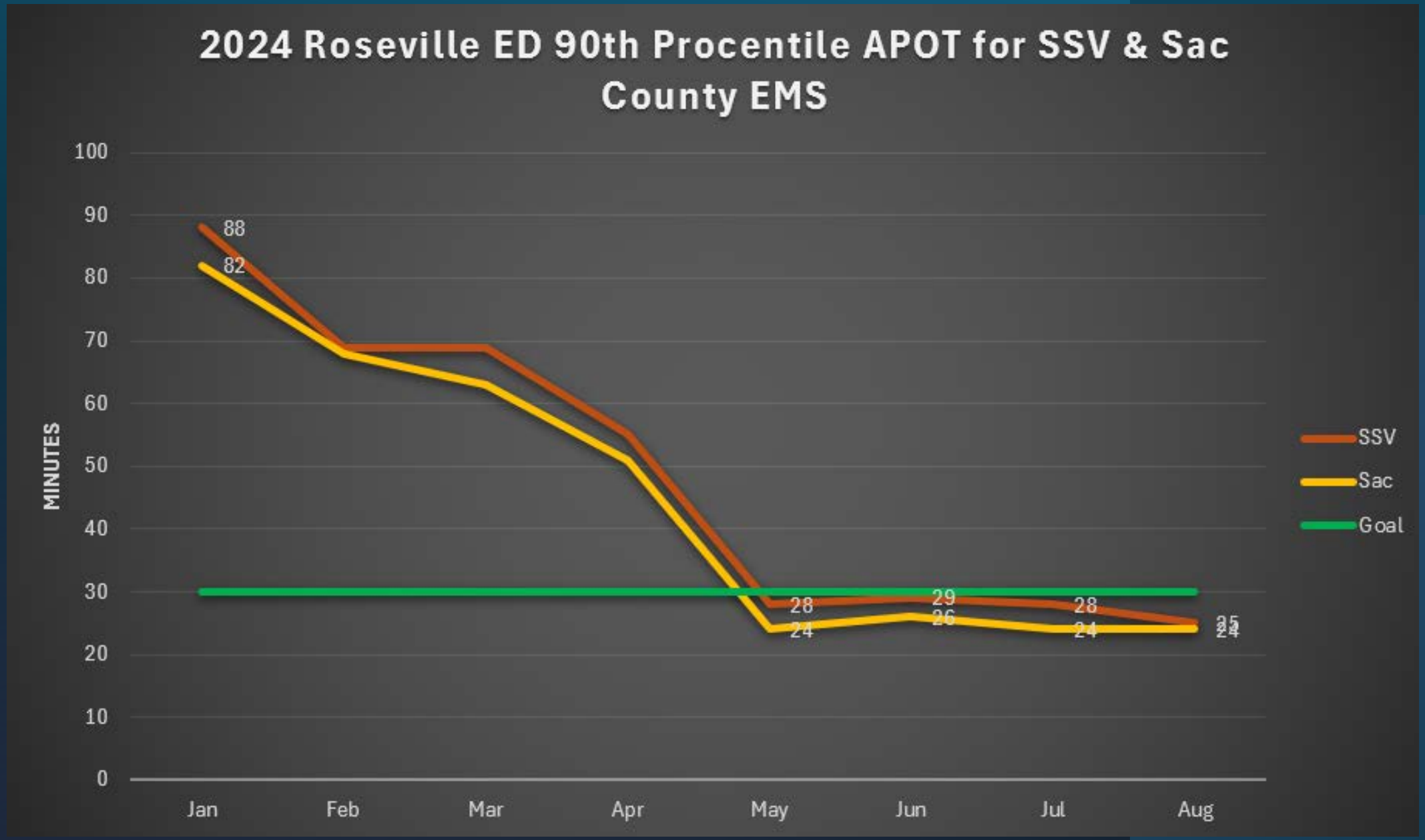
In response to AB40, and to increase the safety of patients in the hospital and the community, the three aims of this initiative are to:



New Workflow

APOT FLOW


Pt arrives
1. Ambi RN Notifies Backflow need for treatment space.
2. Clerk to Arrive or leave in expected if EKG req'd.
3. Clerk to TAS
Meets Offload Criteria
YES
NO
Offload to Lobby or portal and SIGN transfer of care.
*Provide brief report, identify pt as ambi offload.
Off load to:
1. Care space
2. Ambi Road
3. Lanai for Wall time
1.Care space
Primary RN or Task to assist with offload and sign transfer of care.
2.Ambi Road
Max 4 patients
Confirm Ambi Road RN is avail to sign transfer of care, if not, offload and sign with medic.
Escalate to BF and Flow ANM at 45min; Goal time to move pt is 60min.
**If current Lanai/Wall time pt, they will take priority and move first to reduce time on the wall.
3.Lanai/Wall time
Remind BF at 10 minutes.
Escalate to Flow ANM at 15minutes.
Pt to be offloaded to first care space available.

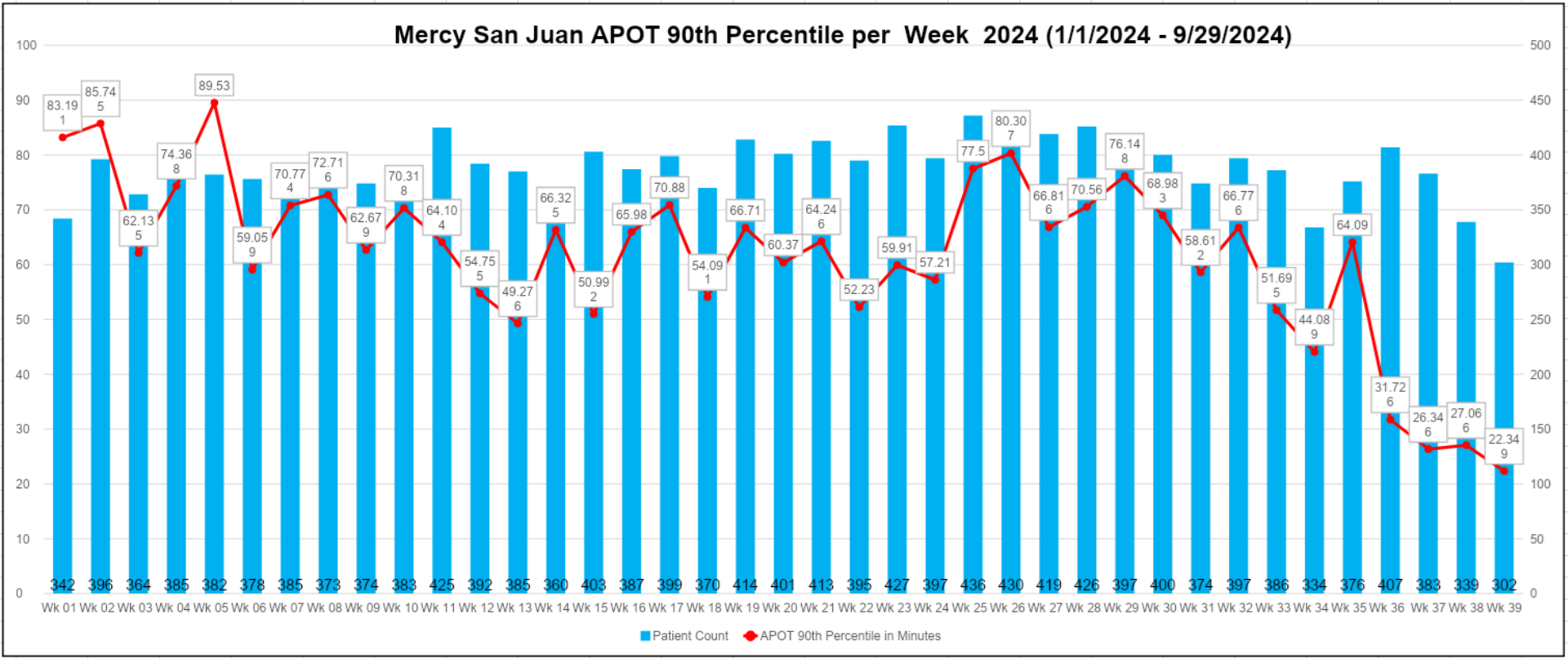

2024 Roseville ED 90th Procentile APOT for SSV & Sac County EMS
MINUTES
100
90
80
70
60
50
40
30
20
10
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
88
82
28
24
29
26
28
24
25
24
SSV
Sac
Goal

Questions ?

Mercy San Juan APOT ALLEY

Amelia Hart, EMS Coordinator
October 3, 2024

CommonSpirit


Mercy San Juan APOT 90th Percentile per Week 2024 (1/1/2024 - 9/29/2024)
Wk 01 342 83.191
Wk 02 396 85.745
Wk 03 364 62.135
Wk 04 385 74.368
Wk 05 382 89.53
Wk 06 378 59.059
Wk 07 385 70.774
Wk 08 373 72.716
Wk 09 374 62.679
Wk 10 383 70.318
Wk 11 425 64.104
Wk 12 392 54.755
Wk 13 385 49.276
Wk 14 360 66.325
Wk 15 403 50.992
Wk 16 387 65.98
Wk 17 399 70.88
Wk 18 370 54.091
Wk 19 414 66.71
Wk 20 401 60.37
Wk 21 413 64.246
Wk 22 395 52.23
Wk 23 427 59.91
Wk 24 397 57.21
Wk 25 436 77.5
Wk 26 430 80.307
Wk 27 419 66.816
Wk 28 426 70.56
Wk 29 397 76.148
Wk 30 400 68.983
Wk 31 374 58.612
Wk 32 397 66.776
Wk 33 386 51.695
Wk 34 334 44.089
Wk 35 376 64.09
Wk 36 407 31.726
Wk 37 383 26.346
Wk 38 339 27.066
Wk 39 302 22.349
Patient Count
APOT 90th Percentile in Minutes

Destination Decision

1. Immediate Bed
   a. Codes
2. Lobby
   a. Lobby Criteria
3. APOT Alley
   a. Cardiac Monitoring

Dignity Health.

EMS SCREENING FORM

RN initials _____ Time ____

MD _____ Time ____

INTAKE

Chief Complaint

Associated Symptoms

Patient Home TX

EMS Impression

Pertinent Info

(Mech injury, Description of Event, LWK, blood thinners, etc)

BP ____ HR ____ RR ____ SPO2 ____ Temp ____ LMP ____

☐ BS ____ ☐ Pain ____ ☐ RA ☐ NC ____ L Pregnant: yes/no

Height ____ Weight ____ Allergies ____

EMS Interventions

☐ D50/Glucagon ☐ IM EPI ☐ Albuterol ☐ IV

☐ ASA ☐ Narcan ☐ Benadryl

☐ Nitro ☐ Narcotics ☐ Splint/bandage

☐ IV Fluids ☐ Zofran ☐ Other

Green Armband applied ☐ Yes ☐ No

Living Situation

☐ SNF
☐ Board and Care
☐ Room and Board
☐ House/Apartment
  ☐ Alone
  ☐ With someone
☐ Homeless
☐ Other

Name & Address of Facility

Capacity

☐ Makes own decisions
☐ Does not make own decisions
☐ Conserved
☐ POA/ Caregiver

Name of POA/Caregiver

Phone Number

PAST MEDICAL HX

Baseline Mental Status:

Ambulatory Status: Independent|Assisted|Bed Bound

☐ POLST/DNR available

Past Medical Dxs:

☐ CAD ☐ CVA
☐ CHF ☐ MI
☐ Dysrhythmia ☐ Liver Failure
☐ HPT ☐ Behavioral
☐ Diabetes ☐ Surgery
☐ CKD ☐ Cancer
☐ COPD ☐ Other
☐ Asthma
☐ Emphysema

CURRENT MEDS

☐ Nitro ☐ ASA
☐ Blood pressure ☐ Seizure
☐ Cholesterol ☐ Thyroid
☐ Diabetic ☐ Blood Thinners
☐ Cardiac ☐ Psych meds
☐ Narcotics
☐ NSAIDs
☐ _____

APOT Start Time _____

APOT End Time _____

Time to Room _____

Pt Sticker

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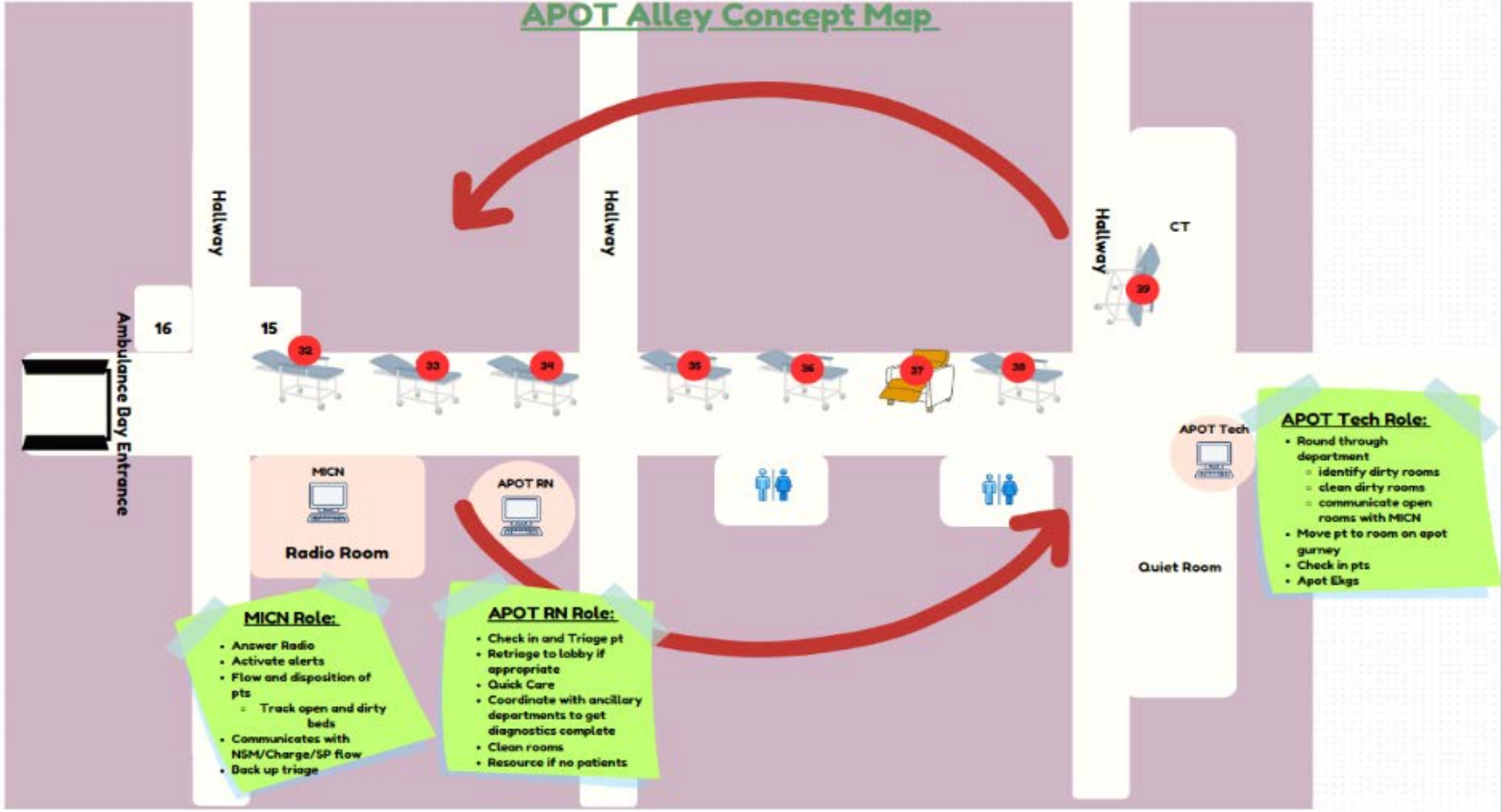
APOT Alley Concept Map
Hallway
Hallway
Hallway
CT
16
15
32
33
34
35
36
37
38
39
Ambulance Bay Entrance
MICN
Radio Room
APOT RN
APOT Tech
Quiet Room
MICN Role:
Answer Radio
Activate alerts
Flow and disposition of pts
Track open and dirty beds
Communicates with NSM/Charge/SP flow
Back up triage
APOT RN Role:
Check in and Triage pt
Retriage to lobby if appropriate
Quick Care
Coordinate with ancillary departments to get diagnostics complete
Clean rooms
Resource if no patients
APOT Tech Role:
Round through department
identify dirty rooms
clean dirty rooms
communicate open rooms with MICN
Move pt to room on apot gurney
Check in pts
Apot Ekgs

Lobby Criteria

- GCS 15
- Has capacity or caregiver with them
- Does not meet green armband criteria
- Can stand or maintain sitting position independently

Adult Vitals:

  - SBP ≥ 100 and ≤200
  - Diastolic ≤ 120
  - Pulse ≥ 50 and ≤110
  - Respiratory rate ≥ 10 and ≤24
  - SP02 ≥ 94 or baseline on oxygen

Pediatric Vitals:

  - Within normal limits
  - Caregiver present

Lobby Criteria continued

- If after 30 minutes the pt is re triaged and now meets the above criteria the pt can be moved from APOT alley and into the lobby
- If chief complaint is chest pain and MD has cleared the EKG ok to go to lobby
- If any of the following prehospital medications were given must wait in APOT Alley 30 mins and have normal vitals prior to going to lobby:

    - Nitro - clear EKG and normotensive
    - Narcotics - ao x 4 and normal vitals

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	B	C	D	E	G	H	I	J	K	L	M	N
1												
2	APOT Start Time	APOT End Time	APOT Total (Minutes)	Time to Bed	APOT to Bed (Minutes)	Reason 1	Reason 2	Reason 3	90th Percentile			
3	10:20	10:30	0:10	10:47	27				17.4	0:10	10	0
4	11:10	11:15	0:05	11:29	19					0:05	5	2
5	11:15	11:21	0:06	11:25	10					0:06	6	2
6	11:38	11:40	0:02	12:46	68	Boarding Psychs				0:02	2	3
7	12:46	12:58	0:12	13:57	71	Boarding Psychs	Patient Acuity			0:12	12	4
8	13:19	13:24	0:05	14:42	83	Boarding Psychs	Patient Acuity	Patient Volume		0:05	5	4
9	13:22	13:31	0:09	14:50	88	Boarding Psychs	Patient Acuity	Patient Volume		0:09	9	5
10	13:54	14:02	0:08	14:41	47					0:08	8	5
11	14:11	14:21	0:10	15:13	62	Boarding Psychs	Patient Acuity	Boarding Admits		0:10	10	5
12	14:11	14:23	0:12	14:57	46					0:12	12	6
13	15:56	16:00	0:04	17:15	79	Boarding Psychs	Boarding Admits	Patient Volume		0:04	4	6
14	16:08	16:12	0:04	16:54	46					0:04	4	6
15	16:15	16:21	0:06	17:10	55					0:06	6	7
16	16:31	16:38	0:07	16:55	24					0:07	7	7
17	16:43	16:52	0:09	17:40	57					0:09	9	8
18	17:32	17:37	0:05	20:35	183	Boarding Psychs	Patient Volume			0:05	5	9
19	18:01	18:14	0:13	20:25	144	Boarding Psychs	Patient Volume			0:13	13	9
20	18:10	18:27	0:17	19:15	65	Patient Volume	Boarding Admits	Boarding Psychs		0:17	17	10
21	18:18	18:24	0:06	19:45	87	Patient Volume	Boarding Psychs			0:06	6	10
22	18:21	18:24	0:03	18:46	25					0:03	3	11
23	18:33	18:40	0:07	20:25	112	Boarding Psychs	Patient Volume			0:07	7	12
24	18:45	19:01	0:16	19:30	45					0:16	16	12
25	19:10	19:23	0:13	20:20	70	Boarding Psychs	Patient Volume			0:13	13	13
26	19:47	20:06	0:19	21:56	129	Patient Volume	Boarding Psychs			0:19	19	13
27	20:42	21:51	1:09	21:51	69	Boarding Psychs	Patient Volume			1:09	69	16
28	21:06	21:06	0:00		#NUM!					0:00	0	17
29	20:20	20:22	0:02		#NUM!					0:02	2	19
30	21:40		2:20		#NUM!					2:20	140	69
31	21:42	21:53	0:11	21:53	11					0:11	11	140
32			0		0						0	

+ ≡ TEMPLATE | 9/3 | 9/4 | 9/5 | 9/6 | 9/7 | 9/8 | 9/9 | 9/10 | 9/11 | 9/12 | 9/13 | 9/14 | 9/15 | 9/16 | 9/

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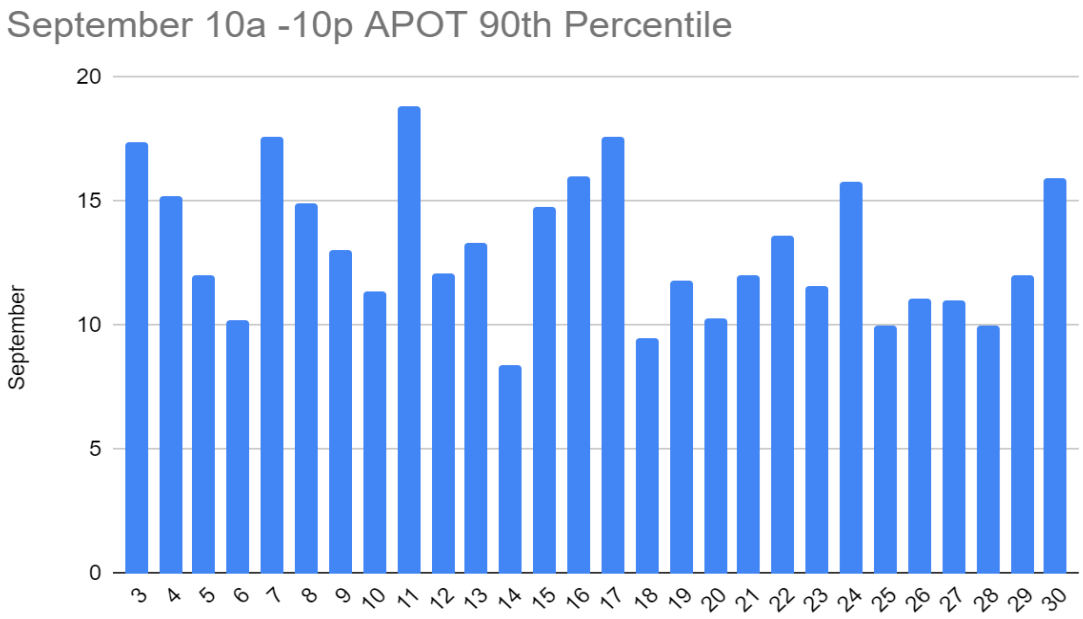
90th Percentile from 1000-2200



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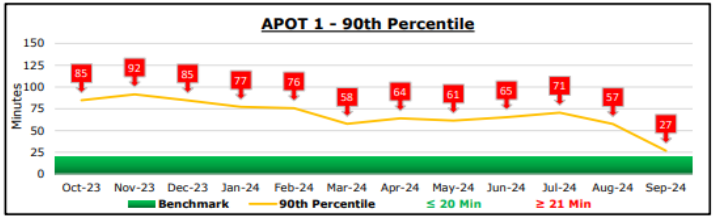
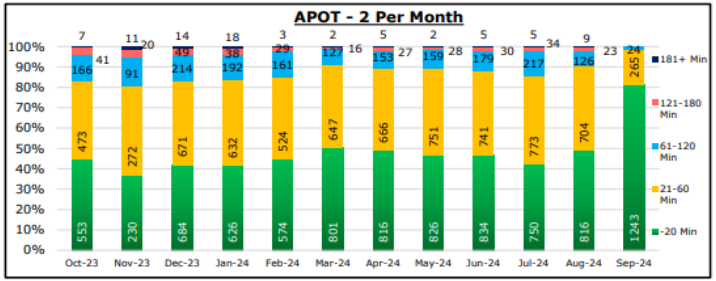
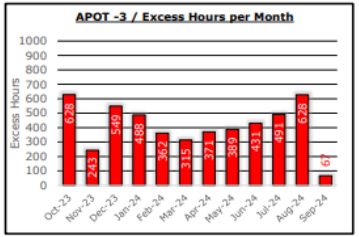
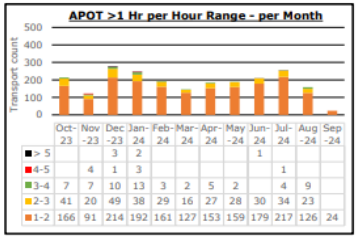
APOT 1, 2 & 3 - ROLLING 12 MONTHS / MERCY SAN JUAN (MSJ)

APOT-1 represents the time (in minutes) under which 90% of patients have their care transferred from EMS to hospital staff. **APOT-2** is the percentage of patients whose care is transferred from EMS to hospital staff by designated time frames (see graph key for time ranges). **APOT-3** represents the excess time (in hours) over 20 minutes (Min.) aggregate of patient transferred from EMS to hospital per month. Illustrated is the System Total Excess hours per month. *Example: if APOT in minutes is 184 minutes then 184-20 (APOT benchmark) = 164 minutes. Then 164/60 = 2.73 hours.* APOT >1 hour represents any transport with an APOT greater than one hour per hour range.









	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
> 5			3	2					1			
4-5		4	1	3						1		
3-4	7	7	10	13	3	2	5	2		4	9	
2-3	41	20	49	38	29	16	27	28	30	34	23	
1-2	166	91	214	192	161	127	153	159	179	217	126	24

Completed by: Sacramento County Emergency Medical Services Agency (SCEMSA)
Updated: 10.02.2024.

Thank you

Amelia Hart
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Sacramento County APOT Summit

October 2024

Creating Lasting Change in Healthcare Organizations to Reduce APOT

Main topics

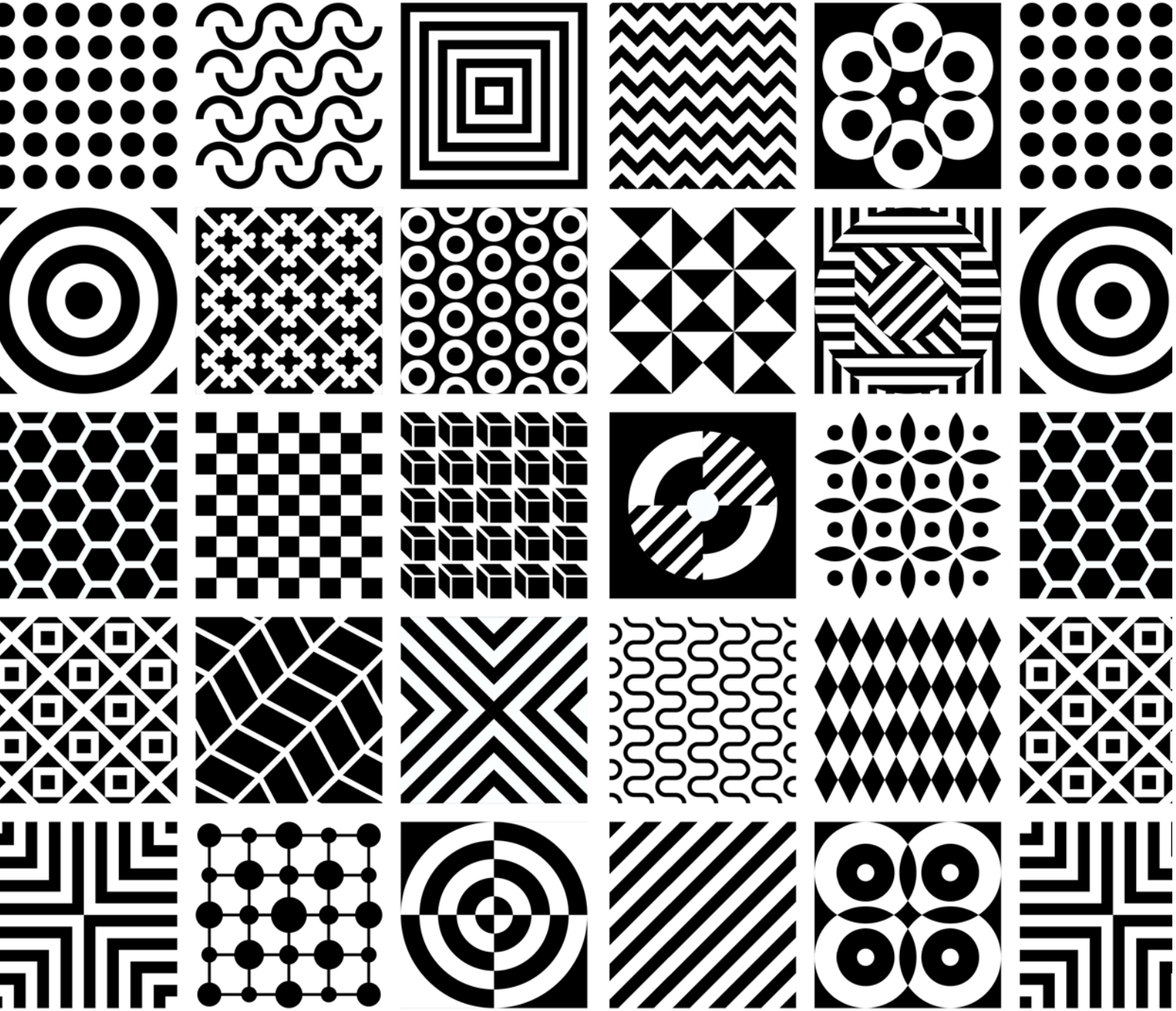
- What is “planned change?”
- Why is it important?
- Why is it so hard?
- What are the “levers” of lasting changes?

AB40 reduction protocol must address the following factors…

- Notification (informing)
- “Mechanisms” to reduce APOT (examples, not mandates)
  - Employ a **different processes** (surge plan)
  - Improve an **existing process** (triage, transfer systems)
  - **Reduce number of patients** in hospital (transfers, no elective admissions, discharge, use alternative care sites)
  - **Increase resources** (staffing)
  - Improve **coordination** in hospital
- “Direct operational changes…”

Simple Wisdom

“If you always do what you’ve always done, you’ll always get what you’ve always got.”



"All organizations are perfectly designed to get the results they get."

David Hannah

Avis is only No.2 in rent a cars
So we try harder.
ELLER

What is “planned change?”

- A process of deliberately preparing an organization (or a part of it)
- Achieve ***new*** goals or move in a ***new*** direction
- Includes culture, internal structure, processes, measurement and rewards, or any other aspects

Importance: Leadership Core Competency

2. Leadership

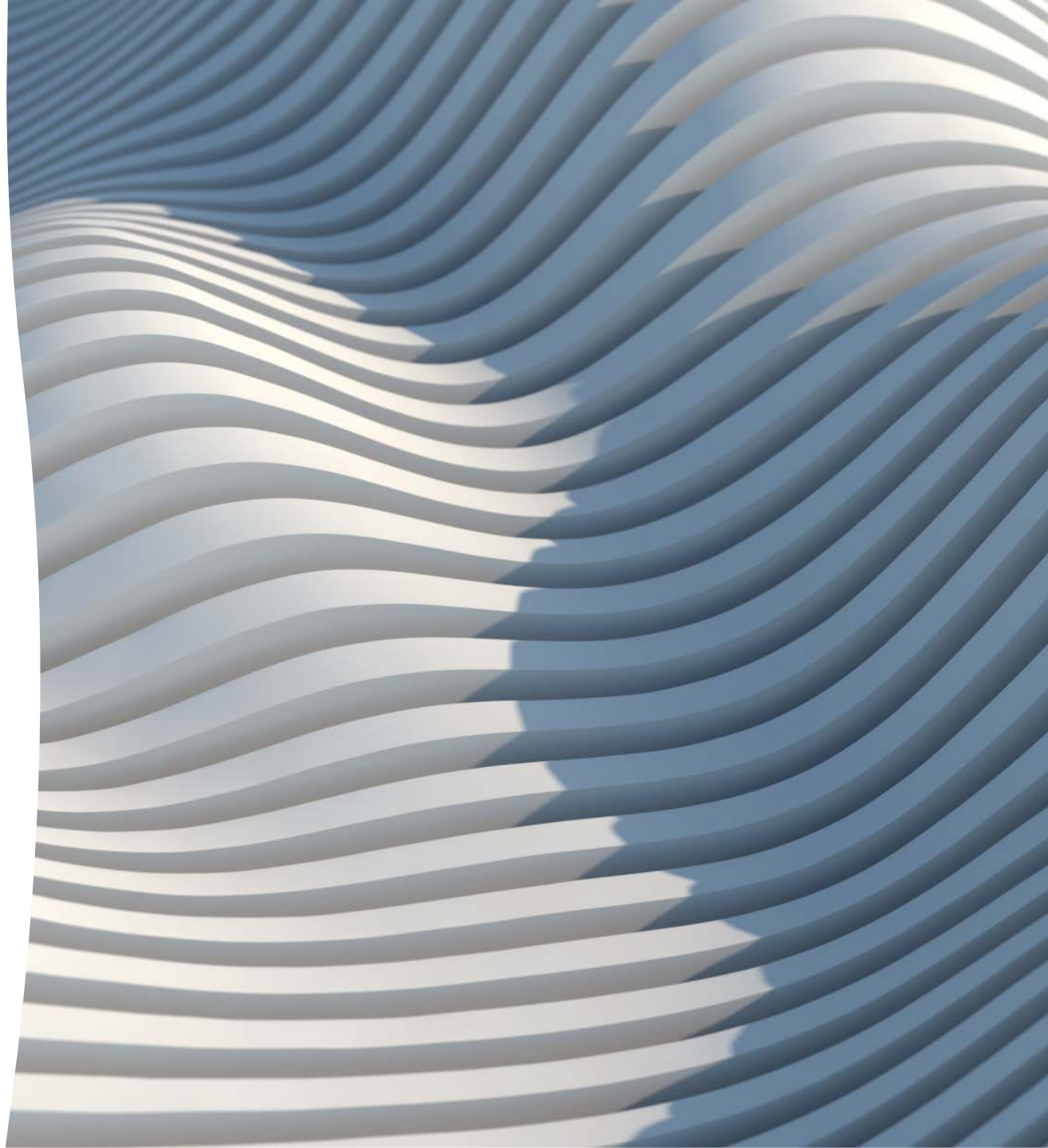
The ability to inspire individual and organizational excellence, create a shared vision and successfully manage change to attain the organization's strategic ends and successful performance. According to the HLA model, leadership intersects with each of the other four domains.

Leadership includes:

A. Leadership Skills and Behavior
B. Organizational Climate and Culture
C. Communicating Vision
D. Managing Change

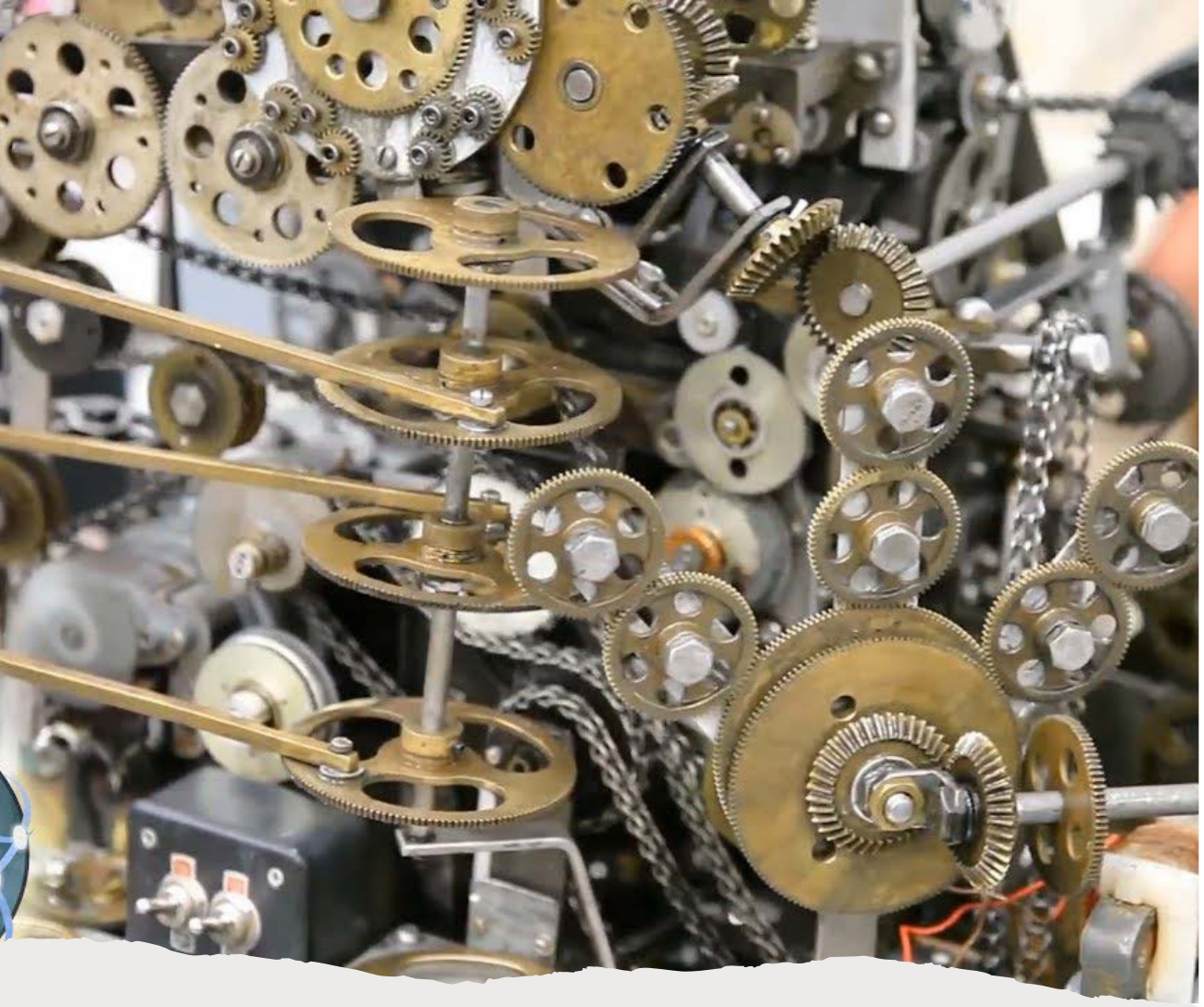
Why change? The evolving nature of society demands it

- Demographic
- Legal/regulatory
- Economic
- Technology
- Socio-cultural
- Environmental



Why is change so hard? Why not ”just ‘fix’ it?”

- **Size matters:** larger organizations are more complex
- **External/Internal regulatory demands:** the more regulated, the more constraints
- **People naturally resist change:** change efforts trigger fear



Why is Change so Hard?

Why is change so hard?

Convincing people that there is a problem

Convincing people of the solution

Knowing what to change: the need for data and monitoring systems

Culture, tribalism

Leadership

Incentivizing participation

Sustainability

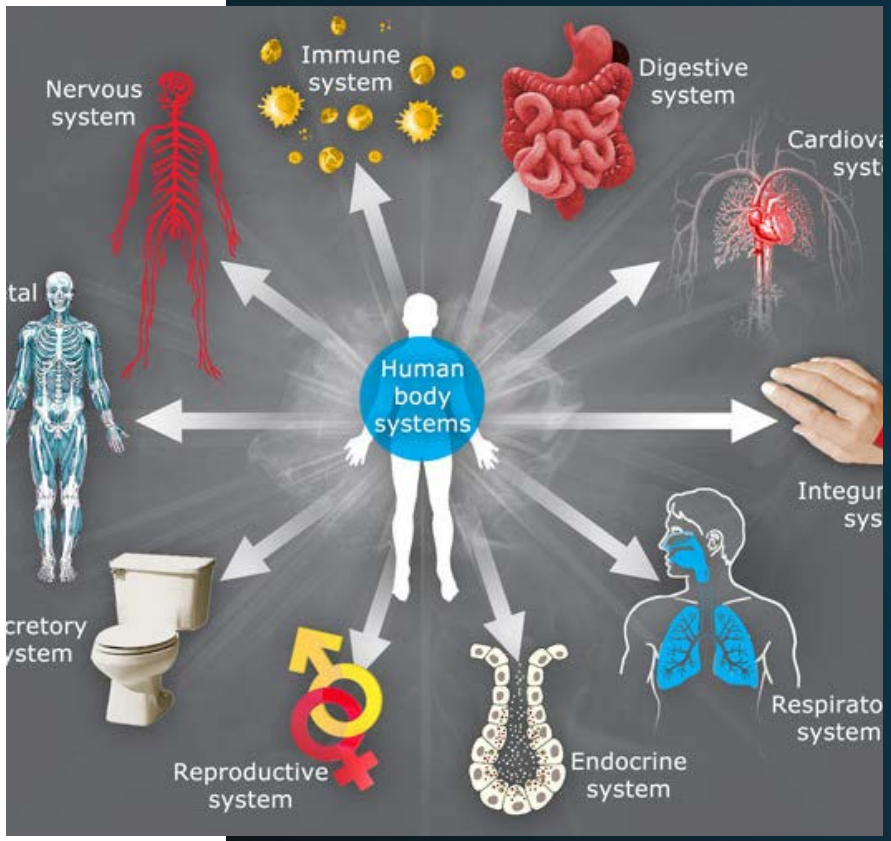
Unintended consequences

Ten challenges in improving quality in healthcare: lessons from the Health Foundation's programme evaluations and relevant literature

Mary Dixon-Woods, Sarah McNicol, Graham Martin

BMJ Qual Saf 2012;**21**:876–884. doi:10.1136/bmjqs-2011-000760

What do we change?

All organizations, though different in many ways, share the same “design components”

- **Processes**
- **Measurement systems**
- **Human resource systems**
- **Structure**
- **Strategy**
- **Culture**