



HEARTLAND FIRE & RESCUE

NURSE NAVIGATOR



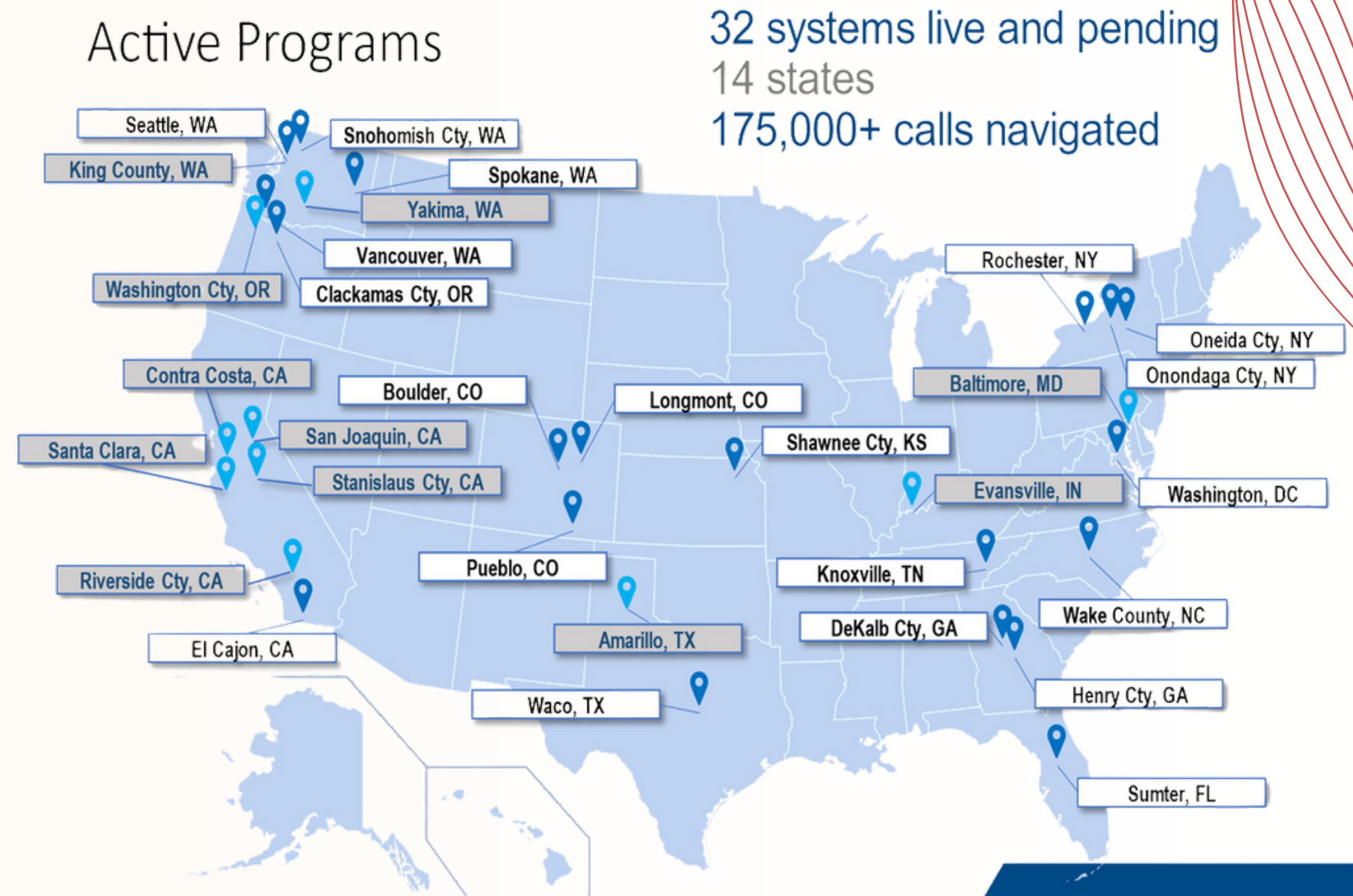


Right collaboration,
Right care,
Right caller,
Right now.

AMBULANCE
CITY MANAGERS
CLINICS
COMMUNICATIONS AUTHORITY
ELECTED OFFICIALS
FIRE DEPARTMENT
MEDIA
MEDICAL DIRECTOR
NURSE NAVIGATOR (GMR)
GROSSMONT HEALTHCARE DISTRICT
SAN DIEGO COUNTY EMS

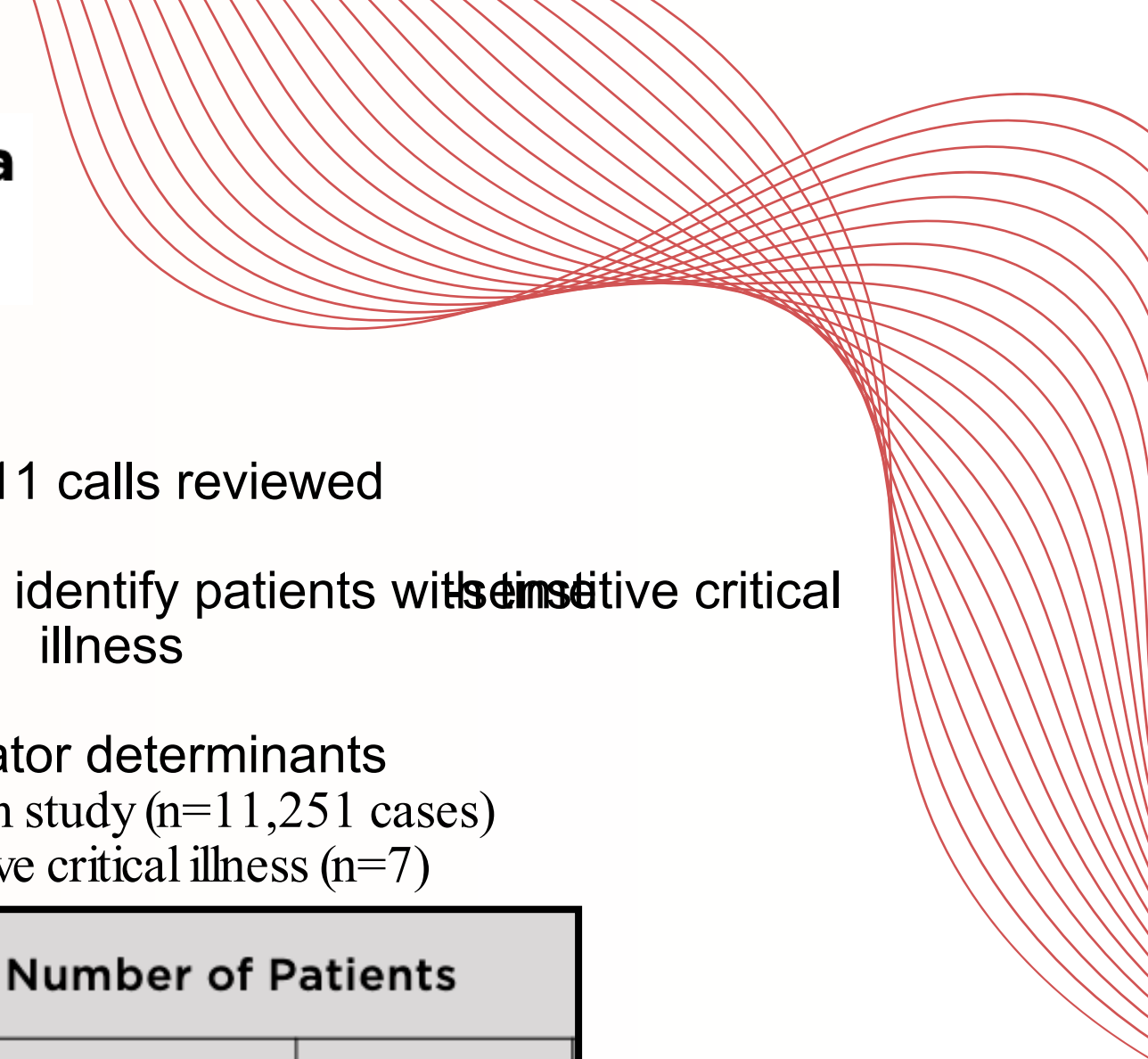
DATA SUPPORT

- GMR Nurse Navigator success elsewhere
- Field experience of low level calls
- QA analysis by GMR and Central Dispatch
- Literature studies



Reprioritization of 911 Emergency Medical Calls Using Historical Clinical Data

Veer D. Vithalani, MD, FACEP, FAEMS^{1,2}; Greg Scott, MBA³; Christopher Olola, PhD³



EMD Protocol	n	Critical
2. Allergies (Reactions) / Envenomation	278	0
3. Animal Bites / Attacks	22	0
4. Assault / Sexual Assault / Stun Gun	81	0
5. Back Pain	139	0
10. Chest Pain / Chest Discomfort	411	0
11. Choking	124	1
13. Diabetic Problems	622	0
16. Eye Problems / Injuries	121	0
17. Falls	582	1
18. Headache	211	0
19. Heart Problems / A.I.C.D.	57	0
20. Heat / Cold Exposure	121	0
21. Hemorrhage (Bleeding) / Lacerations	337	0
24. Pregnancy / Childbirth / Miscarriage	102	0
26. Sick Person (Specific Diagnosis)	6,545	3
27. Stab / Gunshot / Penetrating Trauma	1	0
30. Traumatic Injuries (Specific)	464	0
31. Unconscious / Fainting (Near)	1,033	2
	11,251	7 0.062%

- 119,751 911 EMD triaged 911 calls reviewed
- Dallas Metroplex
 - Compared with ePCRs to identify patients with time-sensitive critical illness
- Matching HFR Nurse Navigator determinants
 - 82 of 92 found with values in study (n=11,251 cases)
 - Rate of 0.062% time-sensitive critical illness (n=7)

EMD Dispatch Priority Level	Number of Patients	
	Overall (N=11,9751) n	Critical (N=1,534) n (%)
Echo	1,186	404 (34.1)
Delta	28,647	832 (2.9)
Charlie	31,088	217 (0.7)
Bravo	36,344	58 (0.2)
Alpha	21,387	17 (0.1)
Omega	1,099	6 (0.5)



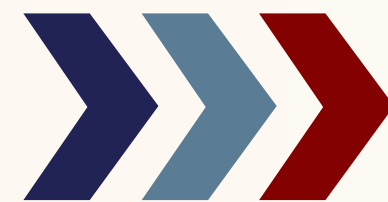
EXCLUSION



- Age less than 18
- Third party callers
- Life-threatening injury or illness
- Incarcerated/detained
- Drugs/alcohol impairment
- Pregnancy >20w, with OB complaint
- Homicidal or suicidal

INCLUSION

- 2. Allergies / Envenomations
- 3. Animal Bites / Attacks
- 4. Assaults / Sexual Assaults
- 5. Back Pain
- 10. Chest Pain
- 11. Choking
- 13. Diabetic Problems
- 16. Eye Problems
- 17. Falls
- 18. Headache
- 19. Heart Problems
- 21. Hemorrhage / Lacerations
- 23. Overdose / Poisoning
- 24. Pregnancy
- 26. Sick Person
- 27. Stab / Gunshot
- 30. Traumatic Injuries
- 31. Unconscious/Fainting



Alpha level
Omega level



Specific
determinants



**NURSE
NAVIGATOR**

LEVELS	#	DETERMINANT DESCRIPTORS
D	1	Unconscious or Arrest
	2	Not alert
	3	DANGEROUS body area
	4	Large animal
	5	EXOTIC animal
	6	ATTACK or multiple animals
B	1	POSSIBLY DANGEROUS body area
	2	SERIOUS hemorrhage
	3	Unknown status (3 rd party caller)
A	1	NOT DANGEROUS body area
	2	NON-RECENT injuries (≥ 6hrs)
	3	SUPERFICIAL bites

A	1	NOT DANGEROUS body area
	2	NON-RECENT injuries (≥ 6hrs)
	3	SUPERFICIAL bites

INCLUSION *EXAMPLES*

2 ALLERGIES (REACTIONS) / ENVENOMATIONS (STINGS, BITES)

KEY QUESTIONS

- (Snakebite) Where is the snake now?**
- Is s/he **responding normally** (completely alert)?
- Does s/he have **difficulty breathing** or **swallowing**?
 - (Yes and Alert)** Does s/he have **difficulty speaking/crying between breaths**?
 - (Non-verbal)** Does s/he appear to be **struggling to breathe**?
- (Allergy)** Has s/he ever had a **severe allergic reaction** to the **same** or **similar thing** before?
- (Allergy)** Does s/he have any **specific injections** or **other medicines** to treat this type of reaction?
 - (Yes)** Have they been **used**?
 - (No and Signs of severe allergic reaction)**
Tell her/him to **use them now**.

*** DELTA-level codes**

POST-DISPATCH INSTRUCTIONS

- I'm sending the **paramedics** (ambulance) to help you now. **Stay on the line** and I'll tell you **exactly** what to do next.
- (Asymptomatic allergic reaction with prescribed medicine available)** Keep her/his medicine **readily available** and **administer** it **immediately** if s/he develops any **symptoms** as advised by her/his doctor.
- (DELTA or CHARLIE)** Tell her/him **not to stand or walk** but to **(Difficulty breathing) sit down/(No difficulty breathing) lie down**.
- (Non-elapid snakebite)** Keep her/him from **moving** around. Keep the bitten area **below heart-level** if possible. **Do not** apply **ice** or a **tourniquet**. **Do not** give her/him any **alcohol** to drink.

*** Stay on the line** with the caller if patient has a **history of severe allergic reaction** to the **same type** of insect or substance or if her/his condition seems **unstable** or is **worsening**. If an auto-injector has **already been used** and a second dose is available, the **second dose should be advised** if the patient's condition has **worsened** or has **not improved** after **5 minutes**.

DLS * Link to X-1 unless:

Danger	X-9
Unconscious	NABC-1
INEFFECTIVE BREATHING and Unconscious	NABC-1
Epinephrine (Adrenaline) Auto-Injector	P-1 pullout
Elapid Snakebite	AI-1
Stingray/Lionfish	AI-2
Jellyfish	AI-3

LEVELS	#	DETERMINANT DESCRIPTORS	→ I M	CODES	RESPONSES	MODES
E	1	INEFFECTIVE BREATHING		2-E-1		
D	1	Not alert		2-D-1		
	2	DIFFICULTY SPEAKING BETWEEN BREATHS		2-D-2		
	3	SWARMING attack (bees, wasps, hornets, etc.)		2-D-3		
	4	Snakebite		2-D-4		
C	1	Difficulty breathing or swallowing		2-C-1		
	2	History of severe allergic reaction		2-C-2		
B	1	Unknown status/Other codes not applicable		2-B-1		
A	1	No difficulty breathing or swallowing (rash, hives, or itching may be present)		2-A-1		
	2	Spider bite		2-A-2		
	3	Asymptomatic allergic reaction complaint (no severe reaction history)		2-A-3		

2. Allergies / Envenomations

- No difficulty breathing or swallowing
- Spider bite

INCLUSION *EXAMPLES*

26 SICK PERSON (SPECIFIC DIAGNOSIS)

KEY QUESTIONS

1. Is s/he **responding normally** (completely alert)?
ALTERED LEVEL OF CONSCIOUSNESS
2. Is s/he **breathing normally**?
3. Is s/he **bleeding** or **vomiting blood**?
Yes _____ 21
4. (Alert) Does s/he have any **pain**? 10
Chest pain (including discomfort) _____
Sickle cell crisis
Thalassemia
Autonomic dysreflexia/hyperreflexia
Acute adrenal insufficiency/crisis or Addison's disease
Other

POST-DISPATCH INSTRUCTIONS

- a. I'm sending the **paramedics** (ambulance) to help you now. **Stay on the line** and I'll tell you **exactly** what to do next.
- b. (Patient medication requested) Remind her/him to do what her/his **doctor has instructed** for these situations.

* (Suspected heart attack) See the **HEART ATTACK** Symptoms list on Protocol 10.
* (Suspected stroke) See the **STROKE** Symptoms list on Protocol 28.

DLS * Link to X-1 unless: **NABC-1**

Unconscious _____

LEVELS	#	DETERMINANT DESCRIPTORS	CODES	RESPONSES	MODES
D	1	Not alert	26-D-1		
C	1	ALTERED LEVEL OF CONSCIOUSNESS	26-C-1		
	2	Abnormal breathing	26-C-2		
	3	Sickle cell crisis/Thalassemia	26-C-3		
	4	Autonomic dysreflexia/hyperreflexia	26-C-4		
	5	Acute adrenal insufficiency/crisis or Addison's disease	26-C-5		
B	1	Unknown status/Other codes not applicable	26-B-1		
A	1	No priority symptoms (complaint conditions 2-12 not identified)	26-A-1		
	2-12	NON-PRIORITY Complaints	26-A-2-12		
Ω	1	This code is not in use	26-Ω-2-28		
	2-28	NON-PRIORITY Complaints			

AMPDS™ v14.0, NAE-s

26. Sick Person (non priority ALPHA)

- Fever/chills
- Nausea
- Transportation only
- Unwell
- Vomiting

- Hepatitis
- Hiccups
- Itching
- Nervous
- Object stuck
- Object swallowed

26. Sick Person (non priority OMEGA)

- Boils
- Bumps
- Can't sleep
- Can't urinate (without and pain)
- Catheter (urinary, no hemorrhage)
- Cut-off ring request
- Deafness
- Defecation/diarrhea
- Earache
- Enema
- Gout

- Painful urination
- Penis problems
- Rash/skin disorder
- STD
- Sore throat
 - without difficulty breathing
- Toothache (without jaw pain)
- Wound infected
- No priority symptoms
- Fever/chills
- Nausea
- Other pain (non-OMEGA)
- COVID suspected

QUALITY ASSURANCE/IMPROVEMENT

Run Number	Date	Dispatch Determinant Code / ProQA Code (list)	Optional: Dispatch Determinant Suffix Code (list)	Detail Line Utilized by RN Navigator / ProQA Code (list)	Patient Impression (text)	Disposition (list)	Patient Destination (text)	Referred Back to 9-1-1 System by RN Navigator (Y/N)	Optional: Reason for 9-1-1 Referral (text)	Repeat 9-1-1 Call within 5 Days? (Y/N)	Optional: Patient Outcome - Appointment Follow Through (Y/N)	Optional: Patient Outcome - Higher Level of Care (Y/N)	Optional: Patient Outcome - Hospitalized (Y/N)
<p>Collaboration /Data collection from: CADs, GMR Nurse Navigation, Heartland and AMR Dispatch and Grossmont Clinics</p>							<p>Meetings with GMR Nurse Navigation :</p> <ul style="list-style-type: none"> •Nurse Navigation Volume/Dispositions •Referral Destinations •Patient Satisfaction •Telephony Metrics •Complaint/Issue Management •Case Discussions •Updates 						

DISPATCH QUALITY ASSURANCE/IMPROVEMENT

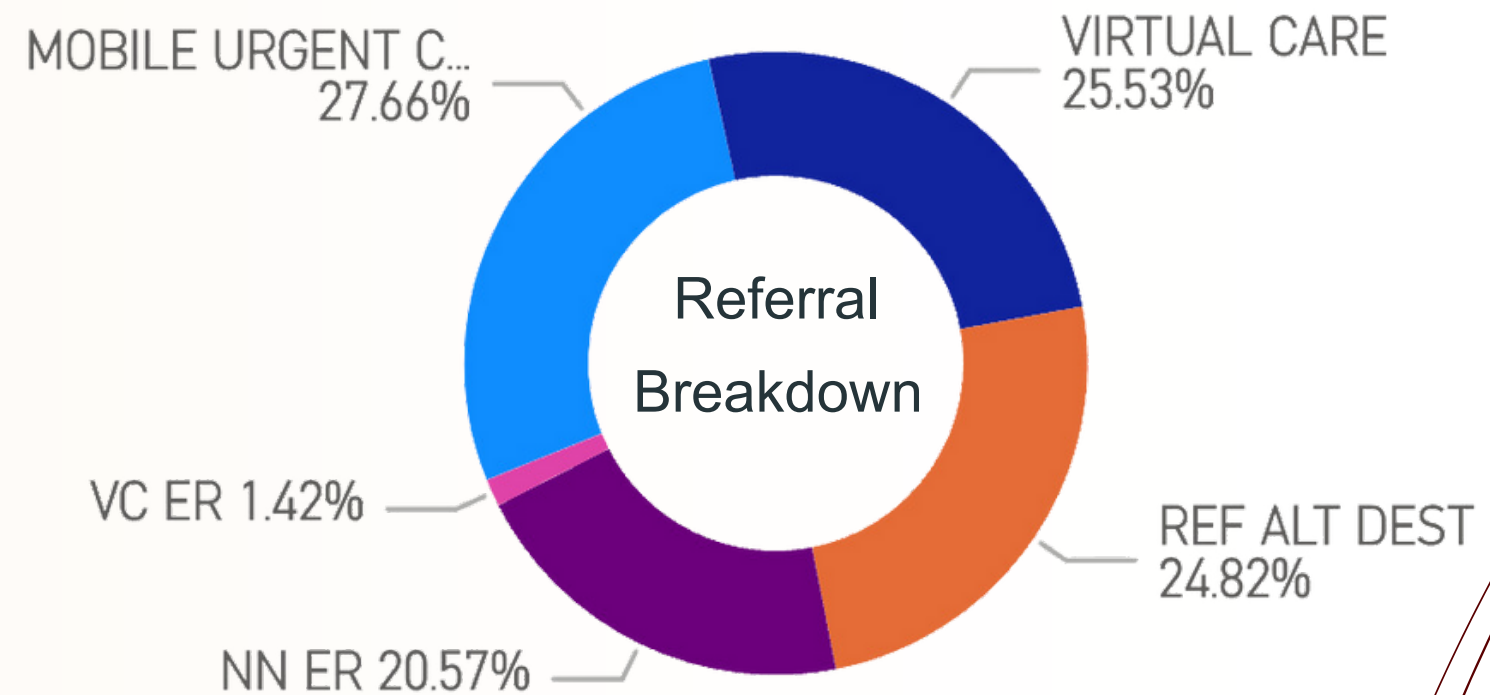
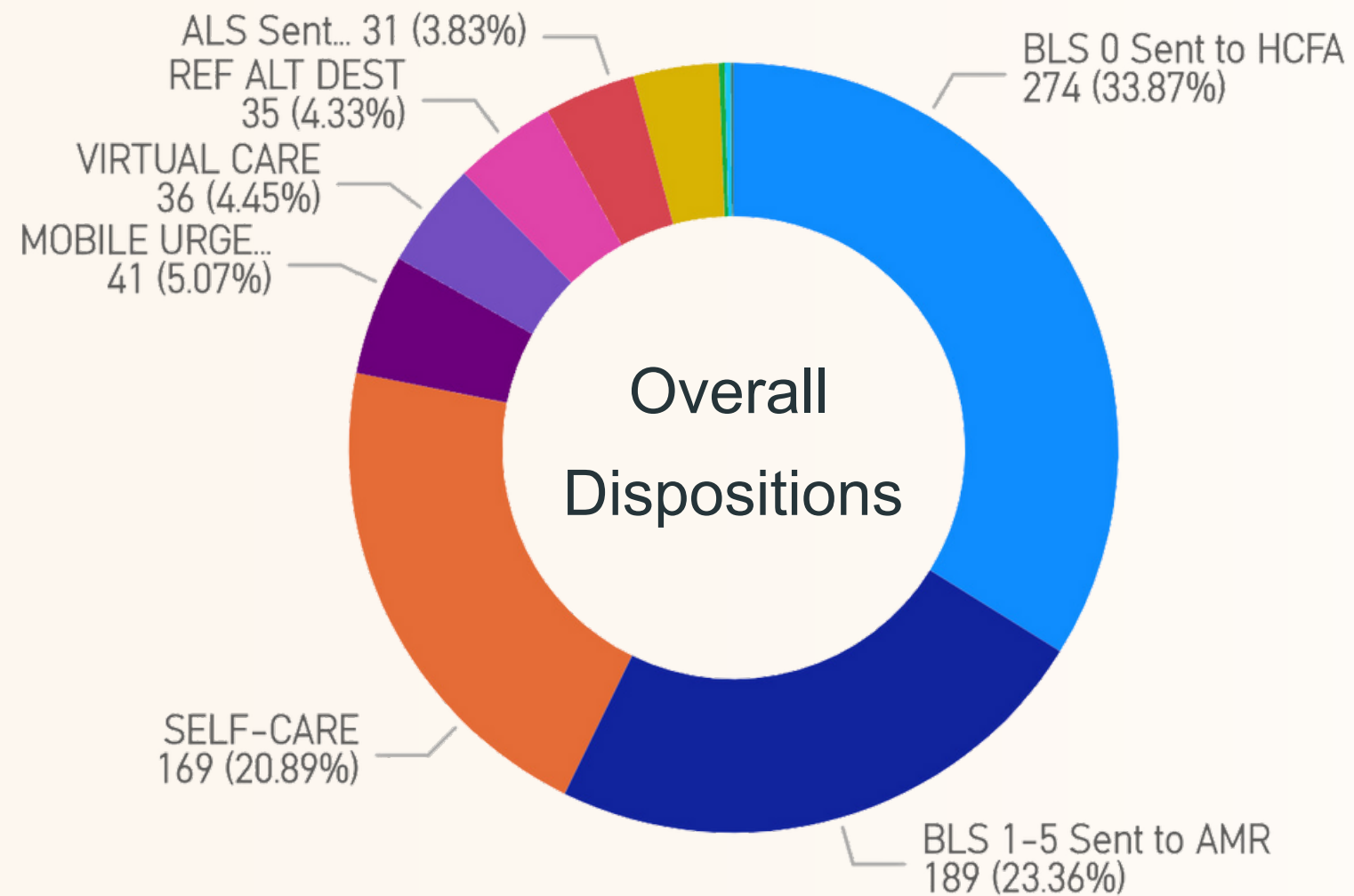
- What determinant codes were NN transfers
- How many times the same code was used
- How many calls an ambulance was requested and which ones ended in a transport
- **Calls from same person within 48 hours**

<i>proQADeterm</i>	COUNT	AMB REQ	ARRIVED AT HOSP
13A01	1	1	1
17A02G	2	2	1
17A03	1	0	0
18A01	1	1	1
21A01T	1	0	0
26A01	4	1	1
26A04	3	1	1
26A06	2	0	0
26A07	1	0	0
26A08	5	1	1
26A10	1	0	0
26A11	2	1	1
26O05	1	0	0
2A02	1	0	0
30A03	1	0	0
31A01	1	1	1
Grand Total	28	9	8

PROGRAM OUTCOMES

Disposition

- 809 patients
- 62% diverted from of immediate ambulance dispatch



1/31/23 -

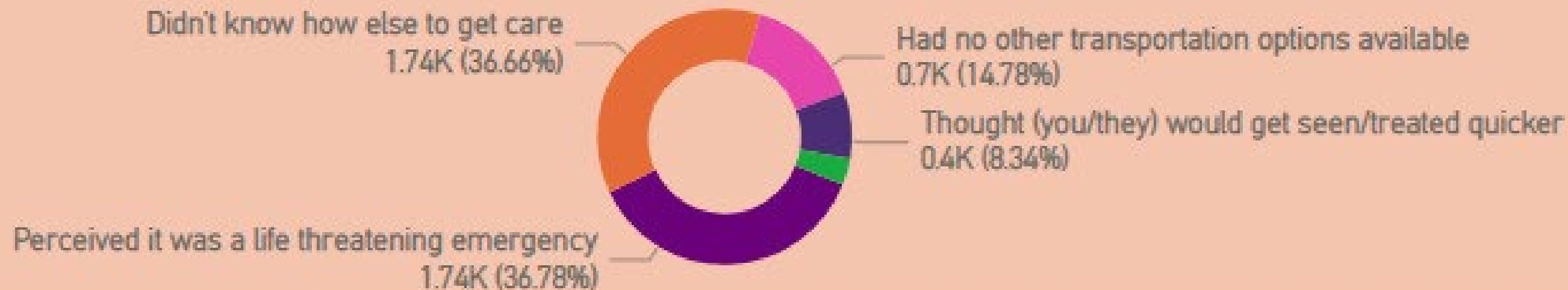
10/21/24

PATIENT FEEDBACK

patient satisfaction score

94%

Which of these statements best describes why you accessed 9-1-1?



- NEXT PHASE
- TIPS FOR THOSE INTERESTED IN STARTING



Right collaboration,
Right care,
Right caller,
Right now.

