

Jackson Care Connect Spring Conference 2025

Bringing Healthier Communities Together



April 25, 2025



THANK YOU



Jackson Care
Connect™

Part of the CareOregon Family



MERCY FLIGHTS

Nonprofit mobile healthcare services

Partners since 2016



MERCY FLIGHTS

Nonprofit mobile healthcare services

TOGETHER



Mercy Flights **MISSION**

Saving and enhancing lives by delivering vital integrated mobile healthcare in the sky and valleys below.

Why Mercy Flights exists, our purpose.

Mercy Flights **VISION**

Revolutionizing the nation's integration of mobile healthcare for all!

Where Mercy Flights is headed, long-term goal.

Mercy Flights **VALUES**

Community, Compassion, Teamwork, Excellence, and Service.

Principles that guide the organization's actions.



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Innovation
Focused

Today's Presentation Topics

Mobile Integrated Healthcare (MIH):
Chronic Care Management

Mobile Crisis Response:
*Partnership with
Jackson County Mental Health*

**Emergency Medical Service
Redesign Pilot Projects:**
Alternate Destinations
Emergency Care in Home

Mobile Integrated Healthcare (MIH)

Bringing Patient Care to the Community



Mobile Integrated Healthcare- WHAT IS IT?



**Patient Centered
Healthcare &
Social Services
Navigators & Integrators**



**Community Health Workers
EMTs
Paramedics
Allied Healthcare providers**



**Mobile Integrated
Patient Care
Equitable Access to Care**

Mobile Integrated Healthcare Services



Our MIH Team
Provides:

- **Quick response** to patient needs
- On-the-spot, **in-home healthcare** treatment
- **Crisis behavioral health & Substance Use Disorder** non-emergency response
 - Reducing need for multi-agency response from police, fire and ambulance
- Post-hospital care/High risk patients- **chronic disease management**, health & medication education, resource navigation and medication management
- **Care Coordination** –liaison for patient, family and care team
- **Social Determinants assessment** and **integrator** to services

Healthcare Delivery Redesigned

- Along with redesigning the way MIH provides healthcare, a new vehicle through a grant from the **Ashland Community Health Foundation** in 2023. With this grant, the team at Mercy Flights created a streamlined design for the vehicle.
- Reducing the attention brought to community members being seen.
- The revamp of Subaru allowed MIH to expand its reach into Ashland and surrounding areas.
- Provided an increased capacity to carry needed equipment and medical supplies.
- Medical Evaluation Tools and Crucial Medications
- Safe and secure supplies
- Controlled substance box



1887 MIH Program Referrals



- 75 Mobile Crisis Responses
- 152 Physical Assessments
- 109 Medication Reviews Completed
- 128 Patients referred for Dental Care
- 108 Patients connected to Primacy Care
- 38 Pieces of Medical Equipment Delivered
- 15 Patients connected to a Specialist
- 118 Individual Care Coordination Events



- Accumulated 940 hours of patient care experience



- 28 Patients received medically tailored meals or were connected to food resources.



- Facilitated transportation services for 96 patients.

Impact by the Numbers Jan-March 2025

January-March 2025
Outreach Outcomes
10 Outreach Days
108 individuals engaged

Mobile Integrated Healthcare Impacts

- Reduced \$\$\$ for Oregon Medicaid Program
 - CareOregon® through Jackson Care Connect
 - Emergency and Hospital Admission Reduction
 - Improved medication management and utilization
 - Improved chronic disease management – patient compliance prevention mechanisms
 - Jackson County Mental Health Partnership – Mobile Crisis Response
 - Improved care coordination – referral to outpatient behavioral health and substance abuse disorder services
 - Avoid unnecessary emergency room visits & law enforcement interventions
- Improved Patient Outcomes
 - Patient Engagement in healthcare and social services
 - Improved health – chronic disease management ----- *Patient Story!*



Mobile Crisis Response:

Partnership with Jackson County Mental Health



Understanding Mobile Crisis Response



What is Mobile Crisis Response

Providing effective and timely care to those experiencing a Crisis while allowing individuals to remain at home whenever possible.

Who does it serve?

Supports individuals facing mental health or substance use crises and those lacking resources and follow up care.

Impactful Outcomes



- Decreased Emergency Department (ED) Utilization
- Increased Connection to Ongoing Behavioral Health Services
- Cost Savings for Public Health and Safety Systems
- Improved Patient & Community Outcomes
- Enhanced Community Trust & Equity in Crisis Response

Jackson County Mobile Crisis Response Team

Launched in September 2022

Team of:

- Qualified Mental Health Associates (QMHA),
- Qualified Mental Health Professionals (QMHP), alongside
- Mercy Flights MH team

Calls Received from 988 and the local Crisis number

Extensive Cross Training for both teams

Protocols and procedures established

Continued Collaboration

Key Components of Mobile Crisis Response



Operational and Dispatch Integration

- How are the Crisis calls are received
- 988 vs 911
- Vehicle Setup and Equipment Needs

Clinical and Social Integration

- Screening Protocols
- Medical and Mental Health Assessments
- Follow-up and Case Management

Local Impact

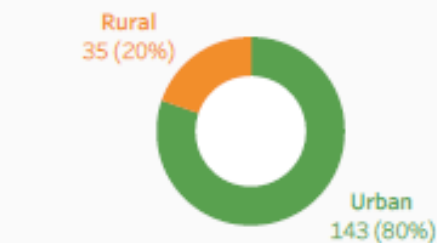
- 585 Crisis Responses in 2024
- 23% for Agitation or Disruptive Behavior
- 24% Harm/Risk to Self
- 26% Suicidality or Suicide Attempt
- 82% Engagement Rate
- 42% Additional Follow-up within 72 hours



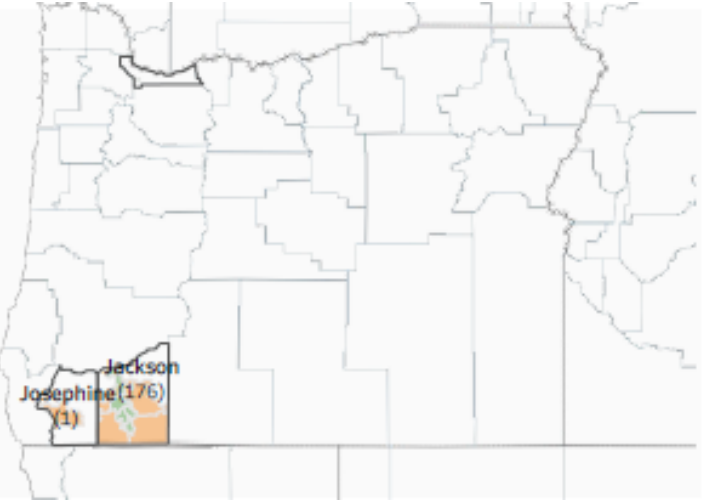
Local Outcomes

Dispatches by Rurality, Zip Code, and County (n = 178)

Map data reflects the distribution of dispatches across the state by zip codes associated with each county. The information provided does not reflect what agency responded to the dispatch.



© 2025 Mapbox © OpenStreetMap



Mobile Crisis Intervention Services Q4 2024 Quarterly Report (n = 178)

The first section of this report represents dispatches across the state during Q4 2024 (October 1 - December 31); historical data can be accessed at the end of the report. Throughout the report, responses displayed as 'Unknown' refers to the program-reported responses of 'Not Listed,' 'Client Unable to Answer,' 'Client Declined to Answer' or 'Did Not Ask.' 'Missing' refers to fields in which data was not received from the programs.

This report was prepared by the OHSU DAETA Team, please email mobilecrisisinfo@ohsu.edu for more information.

*Total dispatches responded to	2023		2024								Grand Total	
	Total Dis patches*	% Repeat**	Total Dis patches*	% Repeat**	Total Dis patches*	% Repeat**	Total Dis patches*	% Repeat**	Total Dis patches*	% Repeat**	Total Dis patches*	% Repeat**
** The proportion of dispatches within each year/quarter to repeat clients												
Jackson County Health & Human Services	252	20%	118	27%	110	17%	179	39%	178	25%	837	34%

232.14% Increase

Emergency Medical Service Redesign Pilot Projects:

Alternate Destinations
Emergency Care in Home



Health System & EMS Challenges Today

- Healthcare Workforce Challenges – Impacting Healthcare & EMS Systems
- Emergency Department –
 - Front Door to US Healthsystem & Early Red Flag
- Health System Redesigns –
 - Local Innovations
 - Regional partners play a role in redesign





Workforce
Challenges-
Impacting
Healthcare

Workforce Challenges- Impacting Healthcare



CHEAT SHEET
The State of the Clinical Workforce

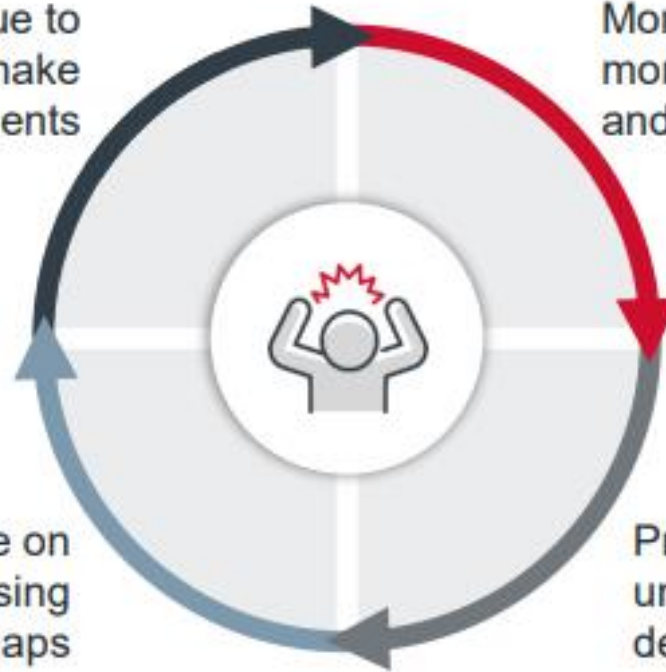
WHAT IS THE STATE OF CLINICAL WORKFORCE?

Structural issues remain due to lack of funds to make improvements

More clinicians leave due to moral distress, understaffing, and task mix

Systems must spend more on short-term fixes for addressing most urgent gaps

Providers are dangerously understaffed relative to demand



Workforce Challenges- Impacting Healthcare

Oregon's Health Care Workforce Needs Assessment 2025



January 2025

Tao Li, MD, PhD
Veronica Irvin, PhD, MPH
Jeff Luck, MBA, PhD
Arleen Bahl, BS

Prepared for:

Oregon Health Authority
Oregon Health Policy Board



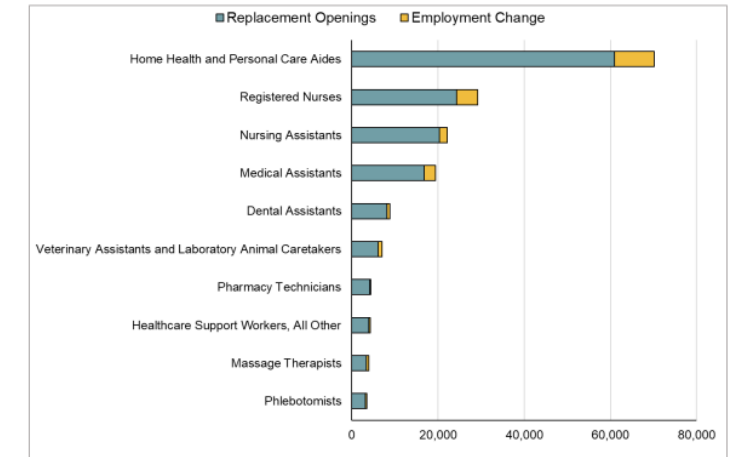
Oregon State University
College of Health

Table 5.3 Top health care occupations in Oregon with highest number of vacancies reported as difficult to fill, 2023

Occupation	Vacancies	Difficult to Fill	Share of Total
Personal Care Aides	2,700	1,662	62%
Registered Nurses	1,643	1,382	84%
Nursing Assistants	1,731	1,005	58%
Medical Assistants	933	674	72%
Dental Assistants	608	581	96%
Mental Health Counselors	925	488	53%
Dental Hygienists	416	416	100%
Social and Human Service Assistants	1,200	353	29%
Physical Therapists	292	292	100%
Rehabilitation Counselors	321	289	90%
Nurse Practitioners	248	248	100%
Medical and Health Services Managers	403	248	62%
Family Medicine Physicians	206	206	100%
Dentists, General	179	150	84%

Source: OED, Oregon Job Vacancy Survey

Figure 5.8. Health care occupations with most openings of employment projections 2022-2032

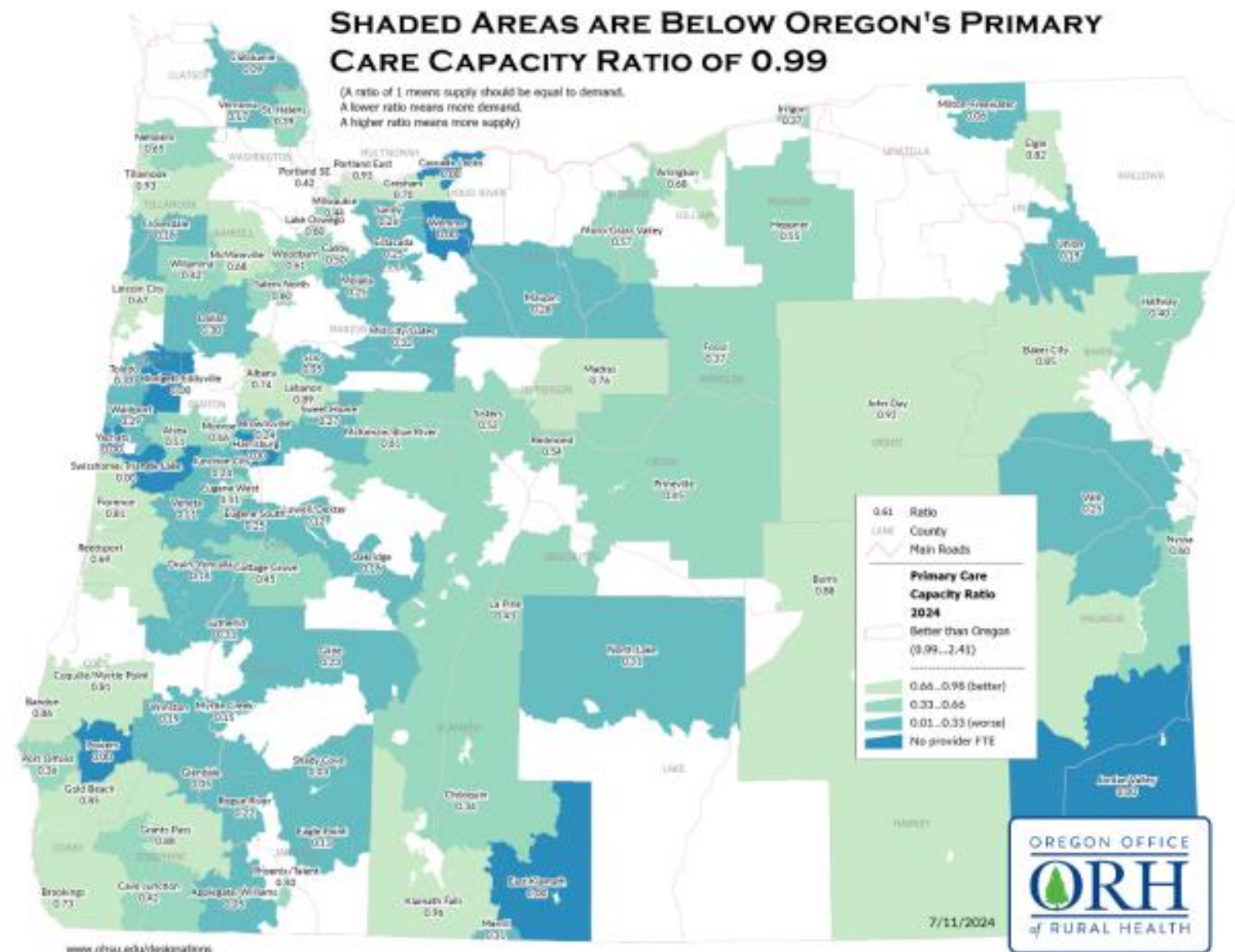


Source: OED, Occupational Employment Projections 2022-2032

Figure 13.4. "Leaky Bucket" model of Oregon Nursing workforce

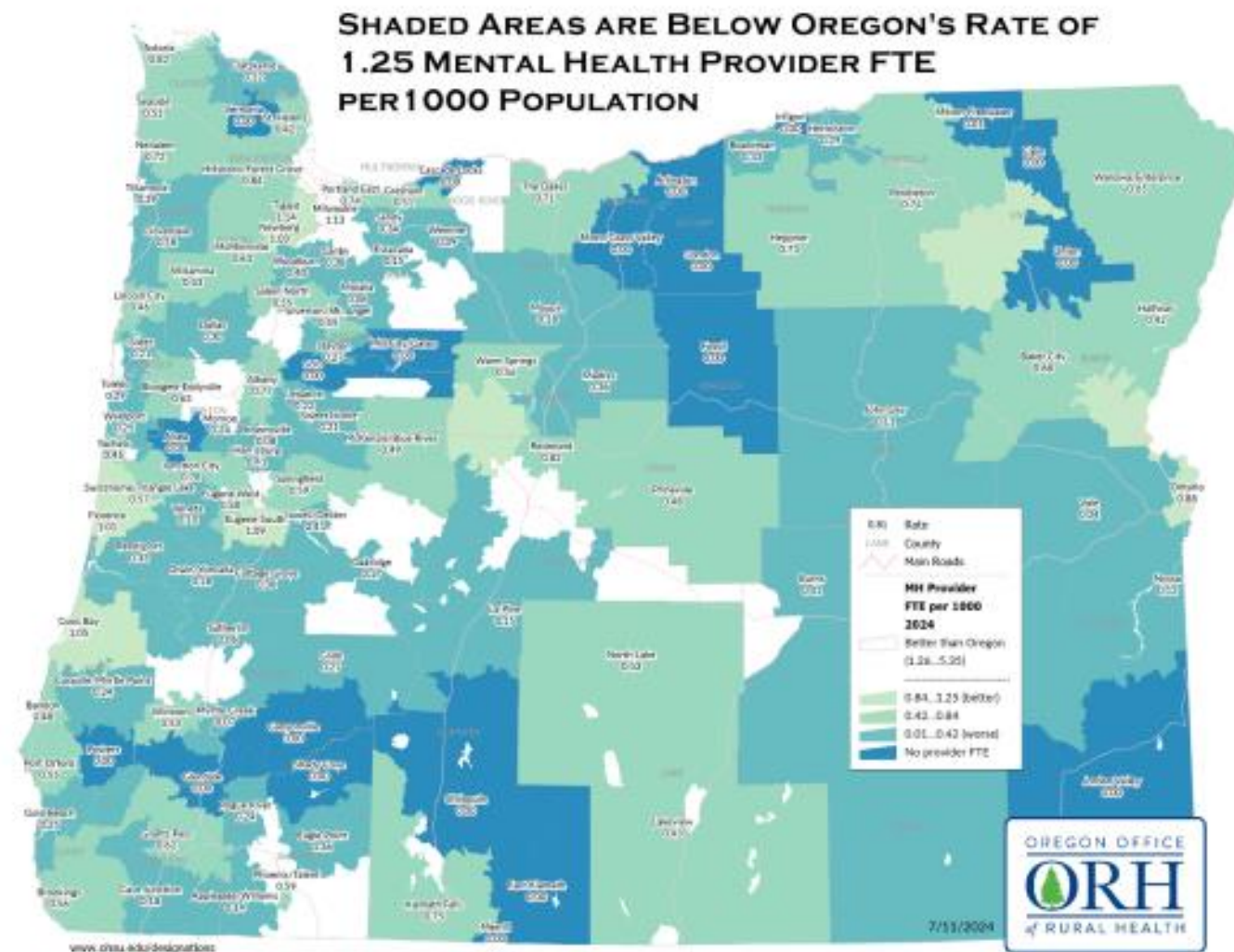


Figure 8.3. Primary Care Capacity by Service Area



Source: The Oregon Office of Rural Health. [The 2024 Areas of Unmet Health Care Need Report.](#)

Figure 9.2 Behavioral health provider FTE per 1,000 population by service area



Source: Oregon Office of Rural Health. [2024 Areas of Unmet Health Care Need Report.](#)

Workforce Challenges- Impacting Healthcare & EMS System



Emergency Department – Front Door to US Healthcare System



Emergency Department Boarding: A Public Health Crisis

In recent months, hospital emergency departments (EDs) have been brought to a breaking point. This is not due to a novel problem, but rather a decades-long, unresolved problem known as patient “boarding,” where patients are held in the ED following stabilization and care awaiting an inpatient bed to become available, or space in a tertiary facility to be transferred to.

Over the last year, **boarding has significantly worsened nationwide and become its own public health emergency**. ACEP collected more than [140 personal stories](#) from emergency physicians across the country and nearly all respondents (97%) cited boarding times of more than 24 hours, with one third having had patients stay more than one week, and 28% more than two weeks. Our nation’s safety net is on the verge of breaking beyond repair, and EDs are gridlocked and overwhelmed with patients waiting. And this breaking point is entirely outside of the control of highly skilled emergency physicians, nurses, and other ED staff doing their best to keep everyone attended to and alive.

Any emergency patient can find themselves boarded, regardless of their condition, age, insurance coverage, income, or geographic area. Even patients sick enough to need intensive care may board for hours in ED stretchers not set up for the extra monitoring they need. But boarding does not just affect those waiting to be moved out of the ED. When ED beds are already filled with boarded patients, other patients are decompensating and, in some cases, dying while in ED waiting rooms during their tenth, eleventh, or even twelfth hour of waiting to be seen by a physician. As well, ambulances often must remain out of service as EMS crews often wait for hours to safely hand over their patient to hospital ED staff.

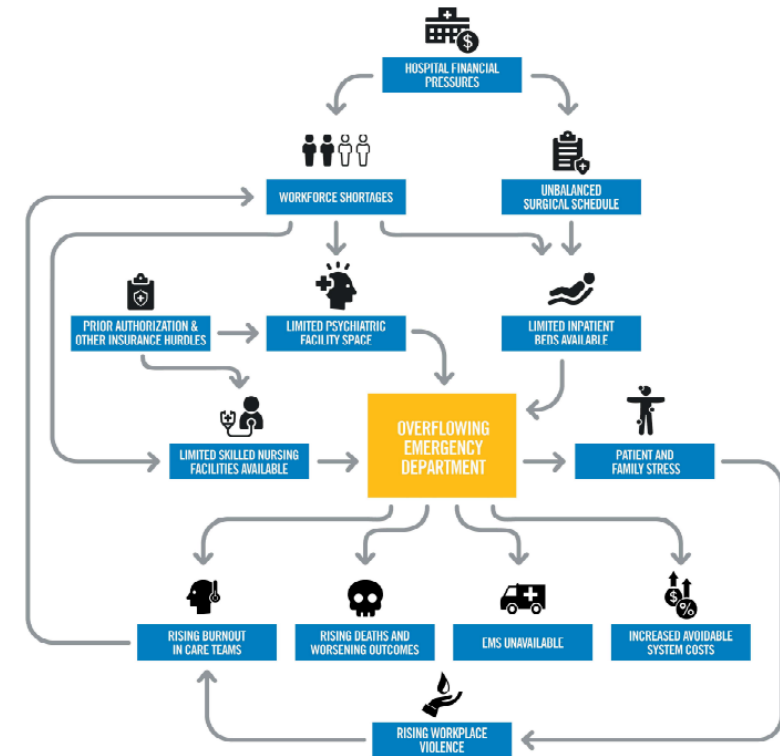
“At peak times which occur up to 5 days per week we have more patients boarding than we have staffed beds. High numbers have included last week when our 22-bed emergency dept had 35 boarders and an additional 20 patients in the waiting room...In addition, we have patients who unfortunately have died in our waiting room while awaiting treatment.

These deaths were entirely due to boarding.”
- anonymous emergency physician

While the causes of ED boarding are multifactorial, unprecedented and rising staffing shortages throughout the health care system have recently brought this issue to a crisis point, further spiraling the stress and burnout driving the current exodus of excellent physicians, nurses, and other health care professionals.

Ample research supports the conclusion that ED crowding leads to increased mortality. Boarding can also lead to ambulance diversion, increased adverse events, preventable medical errors, lower patient satisfaction, violent episodes in the ED, and higher overall health care costs. ED boarding also disproportionately affects vulnerable and historically disadvantaged populations. Those in mental health crises, often children or adolescents, board for months in chaotic EDs while waiting for a psychiatric inpatient bed to open anywhere. Patients with behavioral health needs wait on average three times longer than medical patients, but research has shown that 75 percent of psychiatric emergency patients, if promptly evaluated and treated in an appropriate location – away from the active and disruptive ED setting – have their symptoms resolve to the point they can be discharged in less than 24 hours, further highlighting the need to provide timely, efficient, and appropriate mental health care.

BOARDING IN THE EMERGENCY DEPARTMENT



The Cost of ED Boarding?

- **Study: Umass Chan Medical School & Umass Memorial Health, Worcester, Mass.**
 - *Published in Annals of Emergency Medicine*
- **Daily cost: ED versus Inpatient = 2 X \$\$**
 - ED overhead
 - ED Nurse staffing costs
 - ED Physician costs
- **Cost increases with travel nurses ~**
 - Typically, 35% nurses in ED versus 13% nurses in inpatient units
- **Not only more expensive – but also less equitable care**
 - Care directed toward “healing” traditionally begins with inpatient placement
- ***Note- other studies suggest impacts on quality, patient safety, & patient experience.***



Emergency Department Overcrowding:

Rogue Valley Experience???

Overutilization Emergency Department



Reducing Overutilization of the Emergency Department

OHSU Nursing Students: Jessica Amieva & Erin Hayes

Background

Mercy Flights is a non-profit organization dedicated to providing air and ground medical transport.

The annual average of Emergency Department visits in the US is **139.8 million** (CDC, 2023)

28% of ED visits in 2017 did not meet criteria for emergent or urgent (Allen et al., 2021)

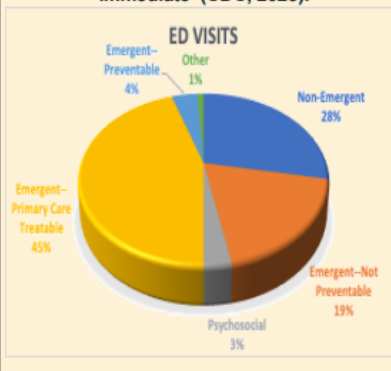
$139.8 \times 0.28 = 39.144$ million individuals

Population

Jackson County currently has an estimated population of **223,259** with a higher proportion of elderly and unhoused individuals than in neighboring counties (US Census Bureau, 2019).

Significance of Problem

In 2019, almost 80% of ED visits were triaged as 'non-emergent' or 'non-immediate' (CDC, 2023).



Project Goals

- Identify current trends and high frequency diagnoses for ED visits in Jackson County hospitals.
- Recognize reasons for hospitalizations that could be managed in the community through MIH.
- Collaborate with Mercy Flights MIH staff to establish new protocols that can manage clients in the community thus preventing visits to the ED based on data collected.

Assessment Methods

Windshield Surveys

- Observed patient and population during ride along with MIH Team, and hospital visits.

Key Informant Interviews:

Mercy Flights Mobile Integrated Health Team

- Dr. Bond- Mercy Flights Medical Director
- Emergency Dispatch for Rogue Valley
- Mercy Flight Dispatch Team

Literature and Data Review

- Conducted comprehensive analysis of Emergency Department activity over the year using Excel data, providing insight into operational trends.
- Evaluated and refined existing protocols and policies at Mercy Flights.
- Explored additional resources and innovative tools to enhance MIH practices in the field.

TOP 'TREAT & RELEASE' EMERGENCY VISITS

Nausea and Vomiting
Open Wounds
Urinary Tract Infection
Musculoskeletal Pain
Respiratory Signs & Symptoms
Sprains & Strains
Upper Respiratory Infection
Nonspecific Chest Pain
Abdominal Pain
Superficial Injury
Headache/Migraine
Skin Infections

Findings



Urgent Care VS. Emergency Room



Acknowledgements

Program Manager, CP-C, CHW Sabrina Ballew- Preceptor
Rachel Boney, MSN- Clinical Instructors
Mercy Flights-Entire Department



Recommendations

- Expand MIH protocols to provide interventions in patients' home.
 - Nausea & Vomiting
 - Back Pain
 - Cellulitis
- Implementation of mobile ultrasound and EPOC tool in the community.
- Education and awareness campaigns on necessary visits to the ED.

Conclusion

Reducing ED overutilization will take creative efforts in addressing all system components of the issue. A major cause of ED crowding is the lack of education amongst the community on the severity of their symptoms and whether they should go to urgent care or the ED. Additionally, limitations in health insurance networks or coverage prevent patients from utilizing urgent care and their primary care providers. Lastly, the restricted accessibility to timely PCP appointments, locations and hours of urgent care and pharmacies increase the unnecessary utilization of the ED.

Mercy Flights MIH is working to bridge the gaps in accessibility while providing essential education to their patients. We have worked to expand the protocols of the agency to allow the MIH team to treat patients in their homes whose chief complaints are nausea & vomiting, back pain, or cellulitis.

Next steps should include implementing these new protocols and continuing to expand protocols to provide in-home treatment for other diagnoses that are frequently seen in the community. Additionally, we recommend creating a program that refers patients to MIH when follow-up appointments with their PCP's are not achievable in a timely manner.

Healthsystem & EMS Re-designs

Drivers of Change

Local Innovations

Reimagining Emergency Medical Services (EMS) in Medford and Central Point

Potential Pilot Project

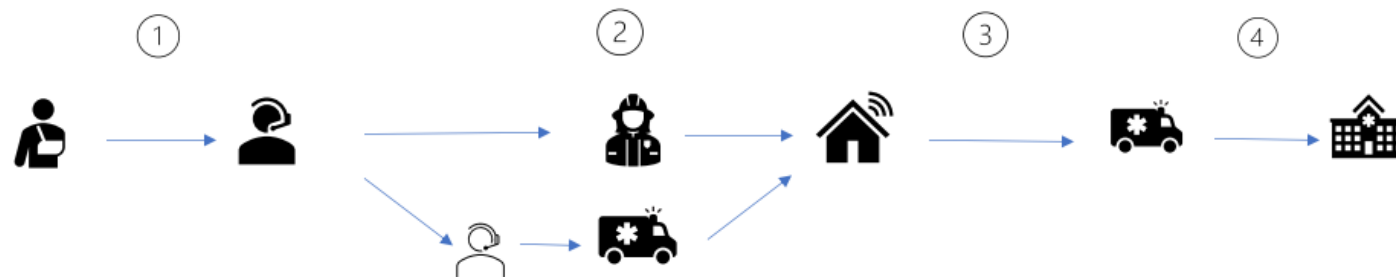
Problems to Solve: Realign services to meet current community needs; manage constrained resources effectively; reduce cost associated with EMS systems

911 Call Intact & Dispatch Segment

Response Segment

Care and Transportation Segment

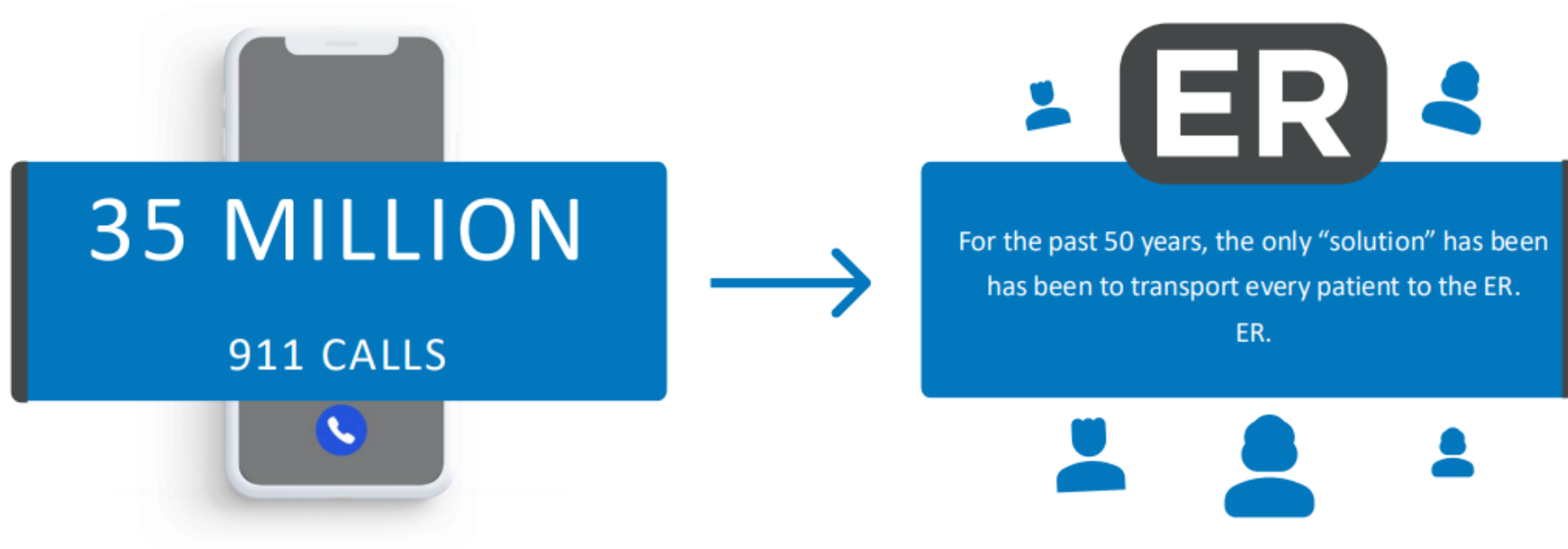
Icons depict traditional EMS model starting with patient calling 911 (ECSO), then ECSO dispatching Fire First Responders & Mercy Flights (MF) dispatching Ambulance and then Mercy Flights assessing patient's care needs in the home and transporting the patient to the hospital as appropriate.



Alternative Solutions to Explore:

<p>①</p> <ul style="list-style-type: none"> • Add Call-taker role to triage caller needs (fire, law, medical) prior to dispatcher • Utilize MF for medical dispatch for region • Add Nurse Navigation for medical • Add Customer Expectation management to non-emergent calls 	<p>②</p> <ul style="list-style-type: none"> • Tiered Response – match resources to patient acuity / need • First Responder assess & release protocols • First Responder -clinical upgrade response mechanism • Behavioral Health – Mobile Crisis Response 	<p>③</p> <ul style="list-style-type: none"> • Treat in Place • Virtual Emergency Dept. • Alternative Destinations • Telehealth services • MIH and Community Paramedicine (care navigation, social determinant management, etc.) 	<p>④</p> <ul style="list-style-type: none"> • Alternative transport- low acuity – Uber • Ambulance Patient Offload Time (APOT) - improve
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12/1/2023



It is time for this to change.

Most of these problems can be addressed in the home or outside of an ER.

The Problem

CMS, State, and EMS leadership agree that overutilization of 911 for non-emergency medical conditions results in unsustainable costs for payers and patients, overwhelms the EMS System, and leads to suboptimal clinical outcomes.



PAYERS

Higher costs
No data from EMS
Contrary to in-home care



EMS AGENCIES

Higher call volume
Limited resources
Longer response times



PATIENT

Disconnected care
Higher out-of-pocket costs
No follow-up
Poor member experience

18M

AVOIDABLE ER VISITS ADD
United Health Group, 2019

\$32B

AVOIDABLE ER COSTS
United Health Group, 2019

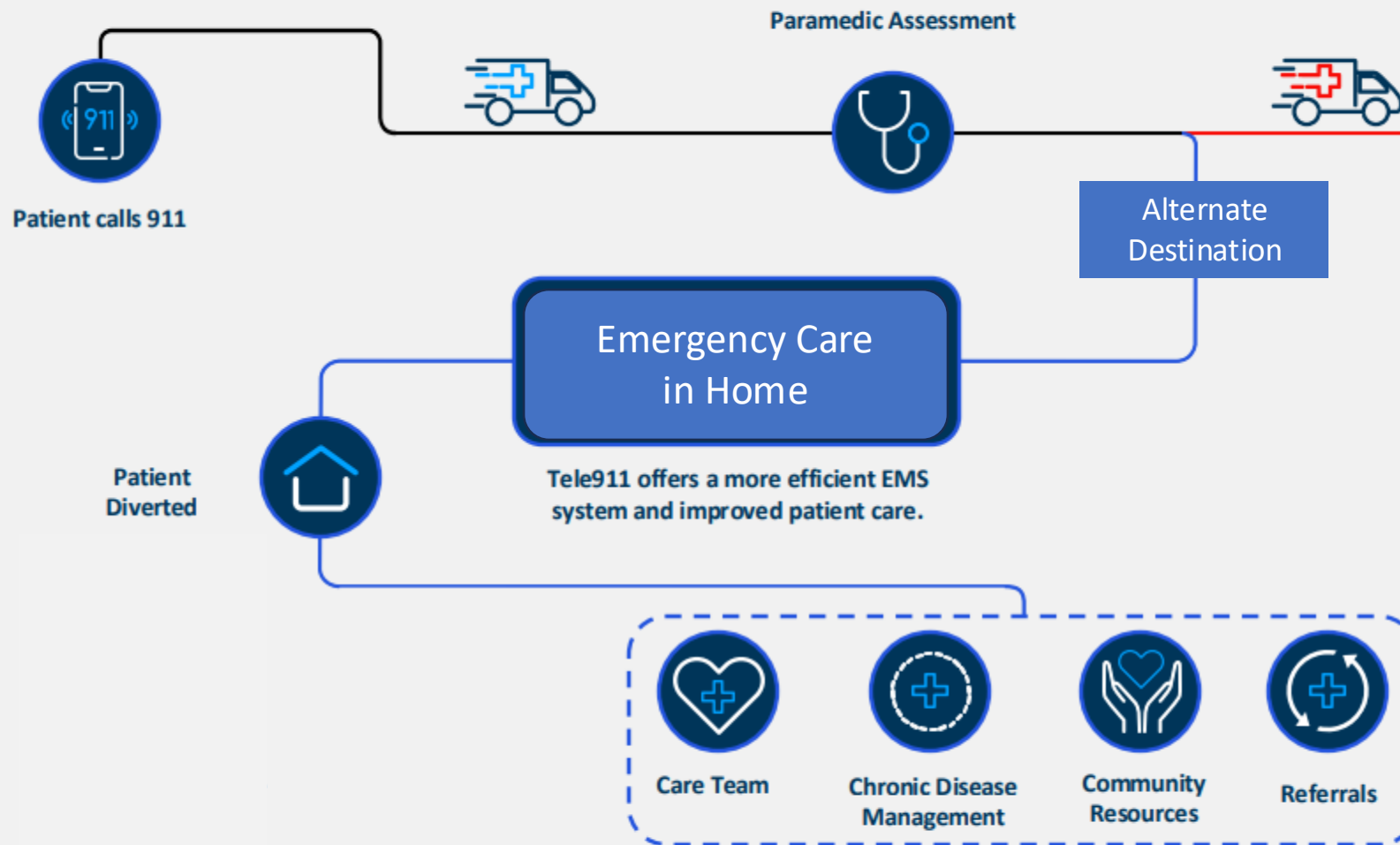
\$3,200

MORE FOR AN ER VISIT THAN
PRIMARY CARE
United Health Group, 2019

63%

OF 911 ER VISITS ARE
TREATED AND RELEASED
ACEP, 2022

Alternate Destination or Emergency Care in Home Models



The "You Call, We Haul" approach is not sustainable.

Hospital/ER Transport

- Waiting times to unload patients at overcrowded emergency rooms make paramedics unavailable to respond to time-critical emergencies.
- Once a patient is transferred to an ER, paramedics must decontaminate the ambulance, which adds even more time before their unit becomes available. This not only prolongs response times but has a negative impact on paramedic morale.
- Many patients do not need to go by ambulance to an ER and, more often than not, would rather stay home.
- Many patients simply use the ambulance as a ride to the hospital taking precious resources from somebody who may truly need it.

Alternate Destinations: Urgent Care



EMERGENCY ROOM
or
URGENT CARE?

Do you need to race to the ER or make a trip to urgent care?

Here's a quick guide to help you choose the right care for your situation.



Urgent Care or Emergency Room: Key Differences

	Urgent Care	Emergency Room
Cost	\$-\$	\$\$\$-\$\$\$\$
Wait times	Typically shorter	Longer wait times are common due to higher patient acuity
Hours of Operation	Typically open 5-7 days a week	Open 24/7
Imaging Services	Limited x-ray services	Ultrasound, CT scans, MRIs, x-ray services

URGENT CARE
For Non-Life-Threatening Conditions

Visit urgent care for illnesses or injuries that require prompt attention but are not emergencies. Examples include:



Illnesses
Flu, colds, sore throats, allergies, pink eye



Minor Injuries
Sprains, strains, insect bites, minor burns or cuts



Other Conditions
Rashes, painful urination, congestion, moderate back pain, ear pain, removing stitches, vomiting (with no/mild abdominal pain)

Urgent Care or Emergency Room: Similarities

✓ Both provide expert care from physicians, physician associates (PAs), nurse practitioners, and medical assistants



Remember, call 911 for life-threatening emergencies.

EMERGENCY ROOM
For Life-Threatening or Serious Conditions

Head to the ER for severe injuries or illnesses that pose a risk to life or limb. Examples include:

Critical Symptoms



Chest pain (especially if it radiates to your arm, jaw, or is accompanied by sweating, vomiting or shortness of breath), severe abdominal pain



Uncontrolled bleeding, loss of consciousness, or seizures



Difficulty breathing



Sudden dizziness, blurred vision, or severe headaches



Suicidal or homicidal feelings



Vomiting (with moderate/severe abdominal pain)



Neck or spinal injury

Major Injuries
Broken bones, spinal or head injuries, severe burns, eye injury

Serious Reactions
High fever with rash, major allergic reactions, possible overdose



Future locations TBD

Today, only JCC Members qualify for alternate destinations! Insurance issue.



Commercial Insurers

Alternate Destinations Pilot Project – Early Observations

Health system and community partner advocacy high

Bigger training curve than anticipated

Slower acceptance by patient than anticipated

Inclusion criteria – too tight – narrows participation

Commercial insurance & Federal receptivity less than anticipated

Pilot project – lessons helping to set stage for broader innovation of systems

Emergency Care in Home



Local Health systems

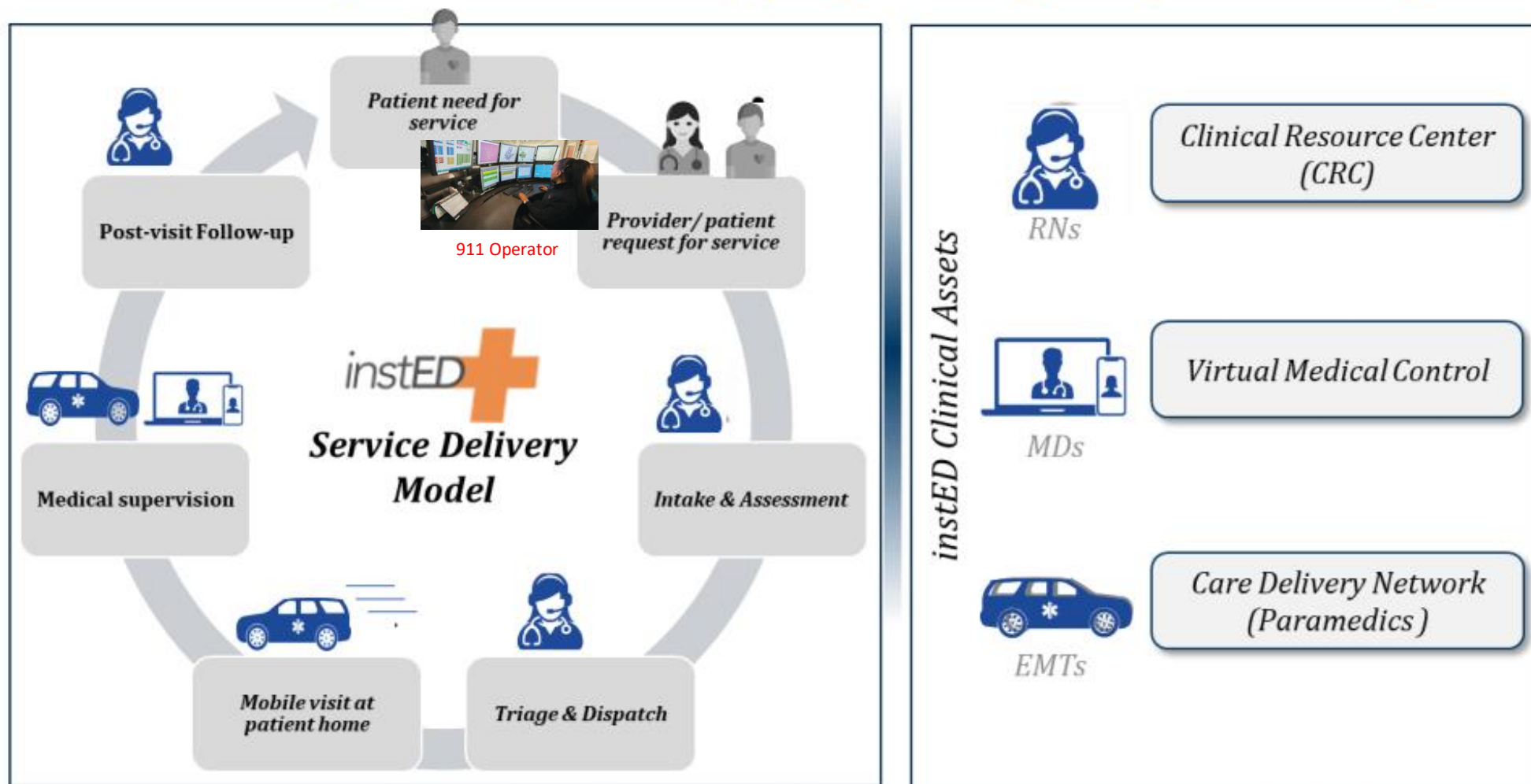
911 Communication Center

Fire Agencies – First responders

Insurance Providers

instED's Integrated Care Delivery Model

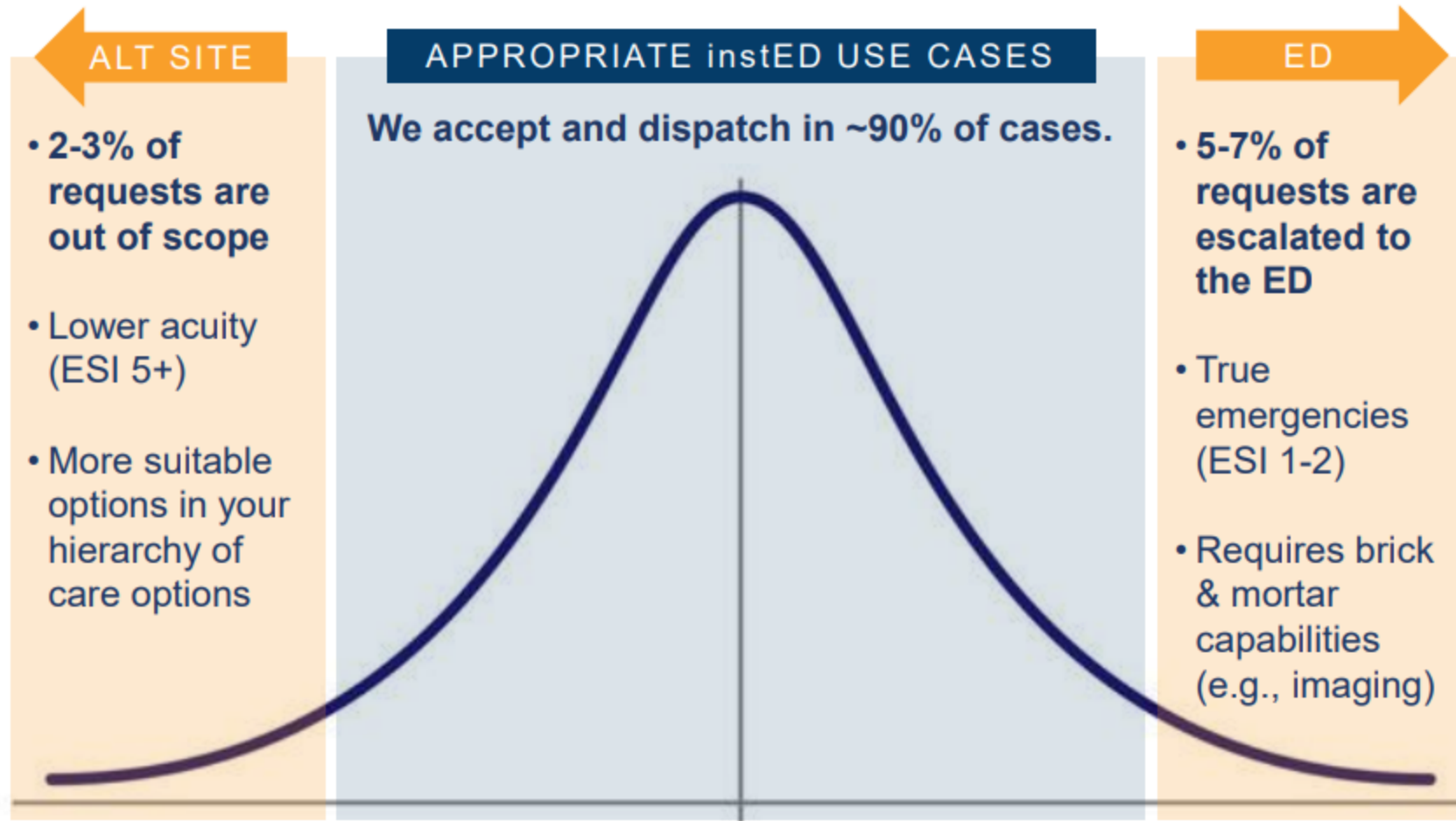
Scalable and designed to ensure appropriate, quality and timely care



Proprietary & Confidential

Every triage declination includes a redirect to the right care setting.

Outcomes following CRC declinations serve as a litmus test for appropriate use and help us hone triage criteria.



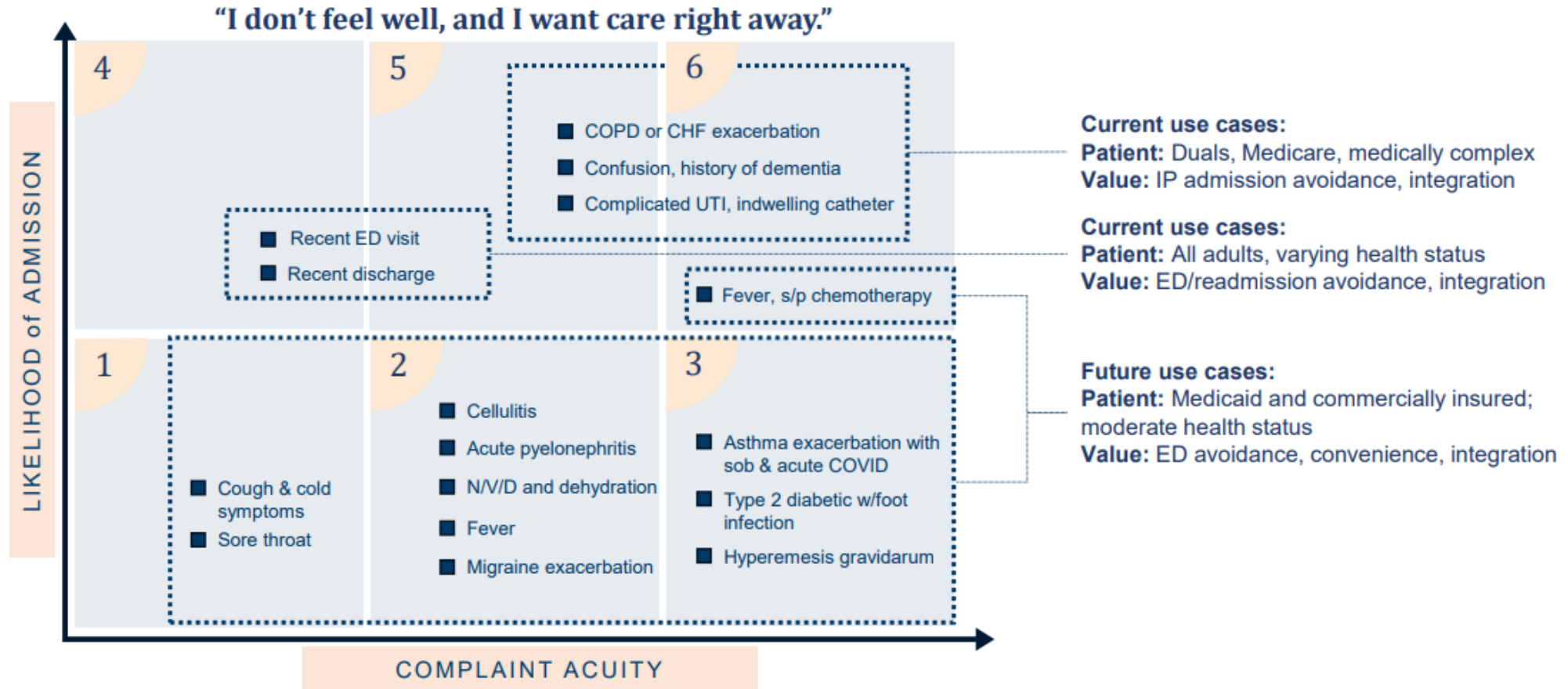
Appropriateness can be **defined and scaled based on client need** for on-demand, episodic care:

- Reactive use cases
- Proactive use cases (discharge planning, condition mgmt.)
- Ongoing use cases (TCM, care gap closure)

Source: 2024 YTD instED data

Proprietary & Confidential

Our model of care applies to use cases across the acuity spectrum.



Treatment Capabilities and Diagnostic Testing

Illnesses and symptoms:

- Urinary Tract Infections
- Cellulitis
- Shortness of breath
- COVID and flu-like symptoms
- Migraine/Headaches
- Back and joint pain
- Abdominal pain
- Weakness/lethargy
- Dehydration
- Nausea/Vomiting
- Altered Mental Status
- Edema
- Fever/chills
- Anxiety/depression
- Electrolyte imbalance
- G-tube/Foley flush/troubleshooting
- Failure to thrive
- Gastroenteritis
- Ear pain



Chronic Conditions:

- Congestive Heart Failure
- Asthma/COPD
- Chronic kidney disease
- Diabetes
- Cancer
- Autonomic dysfunction
- Behavioral Health

Injury Treatment:

- Fall Assessment
- Muscle strain and spasm
- Basic Wound Care
- Sprains and Strains
- Burns

Including point-of-care testing, blood draws, cultures, EKGs, IV therapies, & first dose medication

Paramedic Field Tools & Capabilities

Diagnostics, Procedures, Medications included in Care Delivery



Diagnostics & Procedures:
cardiac monitor, defib, and EKG
IV placement, otoscope, bladder
catheterization, basic wound care



**Point-of-care blood
analyzer; urine dip;
respiratory swabs; blood
draws & send out ucx**



Medication Formulary (IV, IM, PO):
Antibiotics; Antihypertensives;
Non-narcotic analgesics;
Antiemetics; Steroids; Diuretics;
Nebulizers; IVFs; Electrolytes

instED's model avoids costs at each step of the ED utilization journey

For high-risk, dual-eligible patients, cost avoidance averages \$2K+ per visit

Ambulance Transport
(48%, \$490)

\$235

ED Visit
(100%, \$850)

\$850

Hospital Admission
(4.5% Obs. At \$3,057,
8.5% IP at \$13,623)

\$1,296

Average cost avoidance per visit: \$2,381

With instED:

90%
of instED patients remain at home
on day of index visit*

11%
presented to ED after 3 days; 56%
were discharged*

17%
presented to ED after 7 days; 56%
were discharged*

**2023-2024 YTD instED customer
data; ~13K encounters;
predominately duals*

Sources:

Impact Evaluation: Estimating Causal Effect of instED on Emergency Dept. Use in Massachusetts. Oct. 2022.

Business Intelligence unit costs and utilization rates (5/2022-9/2023), 77 hi-vol MA hospitals, including top 45 ICD-10 dx for appropriateness among top 219 ICD-10 dx by volume.

National Center for Health Statistics, Emergency Department Visits. Accessed 9/2024. <https://www.cdc.gov/nchs/fastats/emergency-department.htm>.

Proprietary & Confidential

CASE STUDY

Emergency Department in Home (EDiH): A Novel Approach to Delivering Acute Care

Evan Berg, MD, Daniela Estrella, MPH, Vasiliki Patsiogiannis, MPH, CPH, Meghan McGrath, MD, Chloe Eustache, RN, MS, John Zambrano, MD, MHS, Tor Ekstrom, Yoni Dvorkis, MS, Gregory Snyder, MD, MBA

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Across the United States, ED demand exceeds emergency care supply. There is an urgent need to find an alternative to sending people to the ED for acute symptoms. The Emergency Department in Home (EDiH) care delivery model was created to deliver acute episodic care to patients at home in Massachusetts. In collaboration with referring provider group, Atrius Health, Medically Home Group (MHG) operate delivery model. The intervention operates in three phases: patient intake, care and care transition. Eligible patients are triaged and cared for by in-home care paramedics within 2.5 hours of referral with medical direction by a virtual emergency medicine (EM) physician. During care delivery, patients receive ED-level services including laboratory testing, imaging, and medications, in the home. Imaging conducted in the patient's home by a third-party service provider technician. The study is completed within 4 hours after being ordered by the EM physician. The innovative model has the potential to reduce crowding in hospital EDs and use. Over the first 2 years of the program described here, 2021-2022, a referenced a net savings per encounter under the EDiH referral model of \$1,250 compared with the traditional ED referral model. In addition, the program bore all costs related to staffing and managed services, with the savings detailed, the program became profitable for MHG at approximately \$1,250 per encounter. The savings for the customer are realized on a per-encounter basis as visit count grows. Controlled clinical trials of EDiH should be conducted.

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Medically Home Advances the Movement to Decentralize Patient Care, Brings the Emergency Department to Patients at Home



NEWS PROVIDED BY
Medically Home →
Jan 10, 2023, 09:07 ET

ED in Home allows patients with participating providers to be triaged, evaluated in the safety and comfort of their homes; Nearly 5,000 patients treated to date

BOSTON, Jan. 10, 2023 /PRNewswire/ -- Medically Home today announced ED in Home is another example of Medically Home advancing the movement to safely deliver care to the home. Medically Home designed its model of care delivery for patients with or complex illness, bringing hospital-level care to patients at home and making it possible to easily expand to other high-acuity use cases, including emergency-level care for patients.

[Continue Reading](#)

Medically Home's ED in Home program was designed by leading emergency care physicians with the goal of expanding access to care for medically complex patients experiencing acute exacerbations of illness who would otherwise seek care in a brick-and-mortar emergency

THIS JUST IN

PWW | AG

A two fer for you to start the week...

The report last Friday brought to mind another report June 27th about in-home 'emergency care'. Both illustrate the shift in services available to reduce ED visits.

The Urgent Care/ED hybrid model could be an effective Transport to Alternate Destination (TAD) option from communities in which this option is available. It will be interesting to evaluate which level of service is provided most often.

The report on the in-home 'emergency care' model cites the average ED cost of \$2,700 identified by UnitedHealth Group. This may be a good reference point for EMS agencies who are evaluating the economic savings to payers and patients for avoided ED visits. The report also highlights the ongoing challenges with payment models catching up to clinically innovation and patient centric care delivery.

Both DispatchHealth and Medically Home have been excellent EMS partners in many communities. Medically Home is also a robust Hospital at Home (H@H) provider, also partnering with EMS agencies to provide episodic care for



Cleveland Clinic Virtual Emergency Medicine Program (VEMP)

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EMERGENCY CARE | April 30, 2024

'The next frontier of emergency medicine': House calls following emergency room

By Liam Connolly

Some patients needing follow-up care can avoid going back to the hospital

(SACRAMENTO) **UC Davis Health** <https://health.ucdavis.edu/welcome/> has launched an innovative program that provides adult patients with care at home following certain emergency department visits.

The initiative is part of UC Davis Health's efforts to bring care to patients' homes. It comes less than a year after the health system **started delivering in-home urgent care** <https://health.ucdavis.edu/news/headlines/uc-davis-health-brings-in-home-urgent-care-to-sacramento-region/2023/08/> for adults with a range of illnesses and injuries.



From right to left: Vimal Mishra, Kelly Owen, BJ Lagunday and Daniel Colby

The new program is called ED to Home. It aims to improve access to care, deliver a more personalized patient experience and reduce unnecessary repeat visits to the emergency department. **UC Davis Medical Center** <https://health.ucdavis.edu/medical-center/> is one of few hospitals nationwide to establish an ED to Home program.

"UC Davis Health is proud to be the first health care system in the region to offer follow-up care for certain patients at home after their emergency room visit," said Vimal Mishra, associate chief medical officer at UC Davis Health. "This innovative initiative makes health care more convenient, and more accessible to our patients, especially for those having trouble with activities of daily living. We believe it will help them avoid unnecessary trips to the emergency department or stays in the

hospital."



Thank you!

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Transition to Hospital in Home Model

'Definitions matter': Cleveland Clinic's approach to hospital at home

Cleveland Clinic has grown its [hospital-at-home program](#) by "demonstrating value to patients and gaining adoption from brick-and-mortar caregivers," a leader told *Becker's*.

The health system has one of the largest [acute hospital care at home](#) initiatives in the country, with an average daily census of 24 patients (and peak census of 26). The program is available to patients at Cleveland Clinic's five Florida hospitals, with plans to expand to Ohio in late 2025.

Becker's caught up with Richard Rothman, MD, chief medical operations officer of Cleveland Clinic Florida, about how hospital at home has evolved at the health system and what comes next. The conversation has been edited for clarity and brevity.

Question: What has changed since we last spoke for a [story](#) in April?

Richard Rothman: The volume of patients has increased since April. We've admitted nearly 3,000 patients, one of the fastest ramp-ups in the country. We're now live with hospital-at-home across all of Cleveland Clinic Florida, which includes five hospitals spanning about 150 miles. Patient outcomes have been strong, with trends suggesting outcomes as good as or better than hospital care for chronic diseases like COPD and heart failure.

We recently published a paper in the American College of Cardiology journal on heart failure patients, [exploring](#) whether the optimism around hospital-at-home is warranted.

Since we last talked, we, along with Mayo Clinic, developed the Cleveland Clinic-Mayo Clinic Home-Based Care Consortium. This created a registry combining deidentified patient data to study outcomes at scale. Outside of CMS data, this is the largest registry for clinical research.

We're also focusing on defining hospital-at-home. Many programs labeled as such are actually discharging patients from the hospital and providing post-acute care, which differs from the CMS waiver's definition. We published an editorial in the [Journal of Hospital Medicine](#) about this issue.

From an outcomes perspective, most patient results are as good as or better than brick-and-mortar hospitals. However, readmission improvements are less significant than some early studies suggest. We need larger studies to confirm whether this model consistently delivers better care.

Q: Are some programs mixing CMS waiver patients with others receiving post-acute care?

RR: Yes. Some large programs exclusively provide post-acute care, not true hospital-at-home care under the [CMS waiver](#). This distinction is crucial to understanding patient outcomes and cost-effectiveness. Programs not under the CMS waiver may jeopardize patient safety and fail to meet inpatient care standards.

Q: Have the types of patients you're treating changed?

RR: We're treating more patients with complex wounds, tube feeding, postoperative needs, and neutropenic fever.

Q: What challenges have you faced?

RR: Decentralizing healthcare is [inherently complex](#), requiring robust coordination and creating challenges for caregivers and family members. Additionally, adoption remains limited — our census represents about 5% of inpatient admissions. Nurses are also adapting to virtual care, which has a steep learning curve.

Q: What are the startup costs for this program?

RR: Startup costs are significant, in the [millions](#), covering technology and infrastructure.

Q: What's next for the care model?

RR: [Extending the CMS waiver](#) is critical. Without it, we couldn't admit high-acuity patients directly to their homes. Programs would shift to post-acute care, which is less resource-intensive but not true inpatient care.

Q: Any final thoughts?

RR: The narrative needs to shift from growth to patient outcomes. Definitions matter — outcomes must be based on inpatient populations, not post-acute care.

Latest articles on Telehealth:

[Brown University Health develops hospital at home: 5 notes](#)

[Atrium Health Wake Forest Baptist launches virtual primary care practice](#)

[University of Rochester Medical Center plans hospital-at-home program](#)

<https://www.beckershospitalreview.com/telehealth/definitions-matter-cleveland-clinics-approach-to-hospital-at-home.html>



HEALTH & MEDICINE

Home hospital model reduces costs by 38%, study says



iStock

Randomized controlled trial of the model reports improvements in outcomes, care

Haley Bridger
BWH Communications
December 16, 2019



TESTING A NEW MODEL FOR RURAL HOME HOSPITALIZATION

University of Utah Health is partnering with Ariadne Labs to develop the Rural Home Hospital Program — delivering health care to rural areas through cutting-edge medical and communication technology.

Dec 06, 2019

The ranch house, which is about 15 miles outside the small town of Vernal, Utah, sits along a rugged landscape of wind-sculpted hills and sagebrush-dotted desert. About 175 miles east of Salt Lake City, this area is home to many older residents who pride themselves on their independence and who also may need medical attention that is not readily accessible.

This includes folks like Scott Timothy, age 62. Timothy has a heart condition and requires oxygen daily. "When I had my heart attack, the emergency folks weren't too happy with me because I had my wife drive me the 20 minutes to get to the hospital," said Timothy. "But by the time the ambulance would get out here, it would be 40 minutes to get to the hospital." His wife, Doylene, nods. "A lot of these older people can't drive," she said. "They have to wait for someone to go get them. All that time – they just wait."