

Evolution from the Digital Front Door to Asynchronous, Autonomous Care

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MOUNT SINAI HEALTH SYSTEM



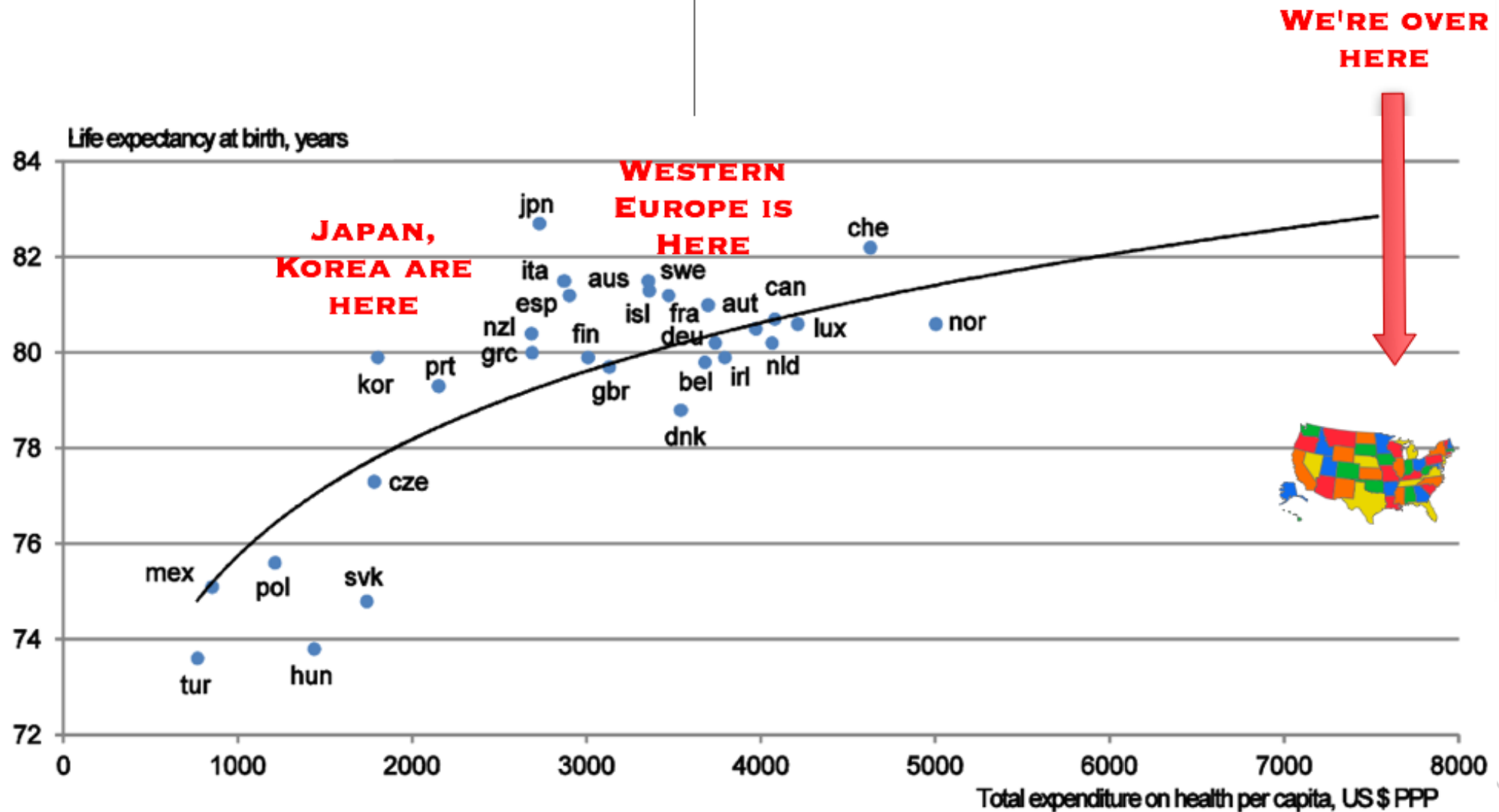
Agenda

- Definitions & Three Horizons Framework
- Incentives
- Principles for Innovation in Healthcare
- Acute care transformation to-date
- Asynchronous opportunity
- What's ahead

Definitions

$$\text{VALUE} = \frac{\text{QUALITY}}{\text{COST}}$$

Why value matters



Source: The Atlantic

Definitions

Innovation: Change in the interest of value generation



Three Horizons Framework



Source: McKinsey & Co

Incentives

	Volume-Based	Value-Based
Payment	Fee-for-Service	Outcome Based
Incentives	Pass-A-Tube-Get-A-Payment	Keep-Em-Healthy-And-Make-A-Living
Focus	Episodes	Populations
Role of the Providers	Interaction on Individual Interactions	Team-Based Case Continuum
Information	Retrospective	Predictive

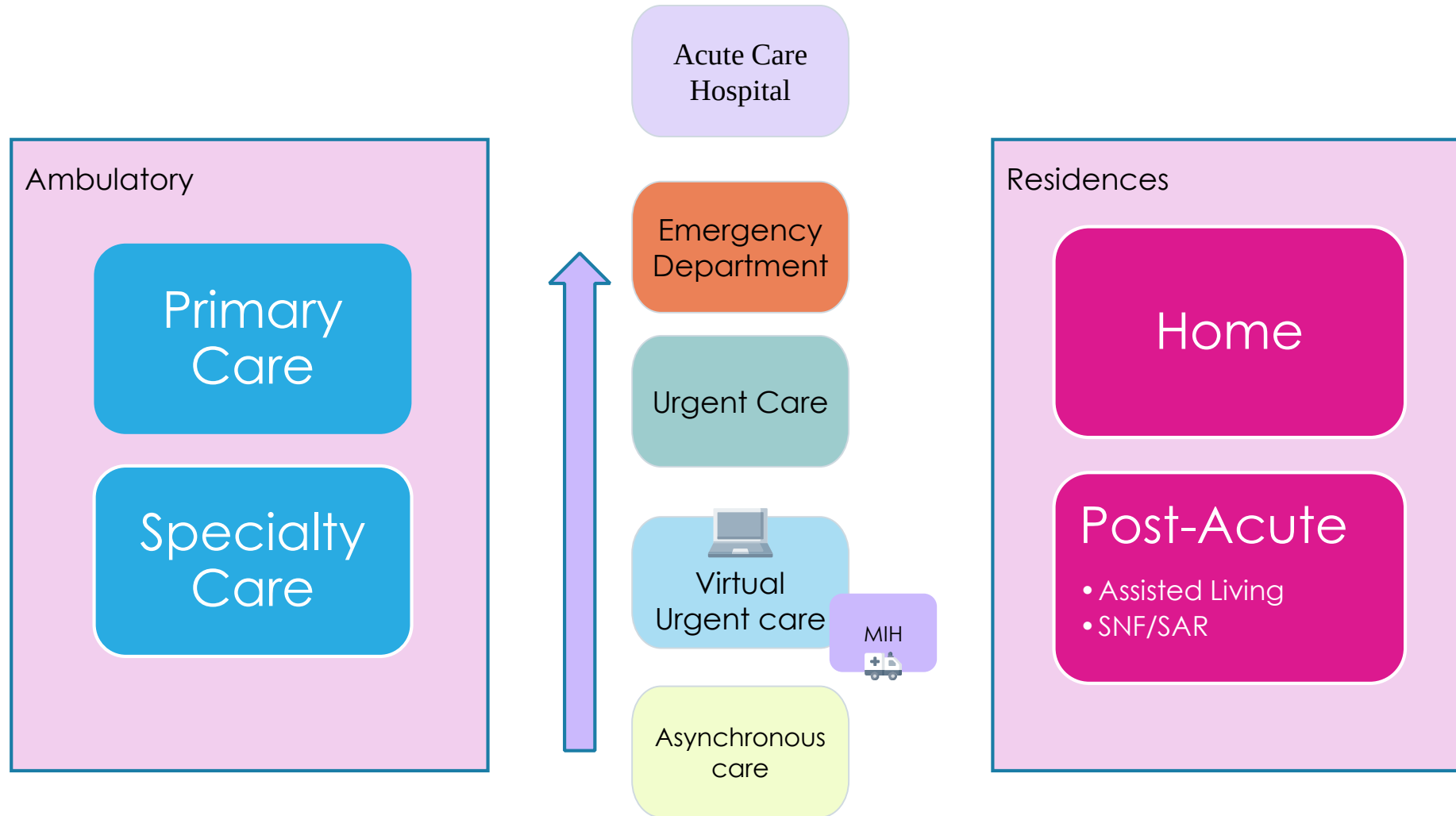
Principles for Innovation in Healthcare

- Tool must be usable & outcome must be desirable.
- Collaboration is everything.
 - Fruitful collaboration enables successful ideation.
- Pilot and test prototypes but you must be able to scale.
- Fail forward.
- Transform, don't react.

Acute Care Transformation to Date



Acute, Unscheduled Care Ecosystem



Enablers

Virtual
Hospital

Ancillary
Services: Lab
& Radiology

Pharmacy

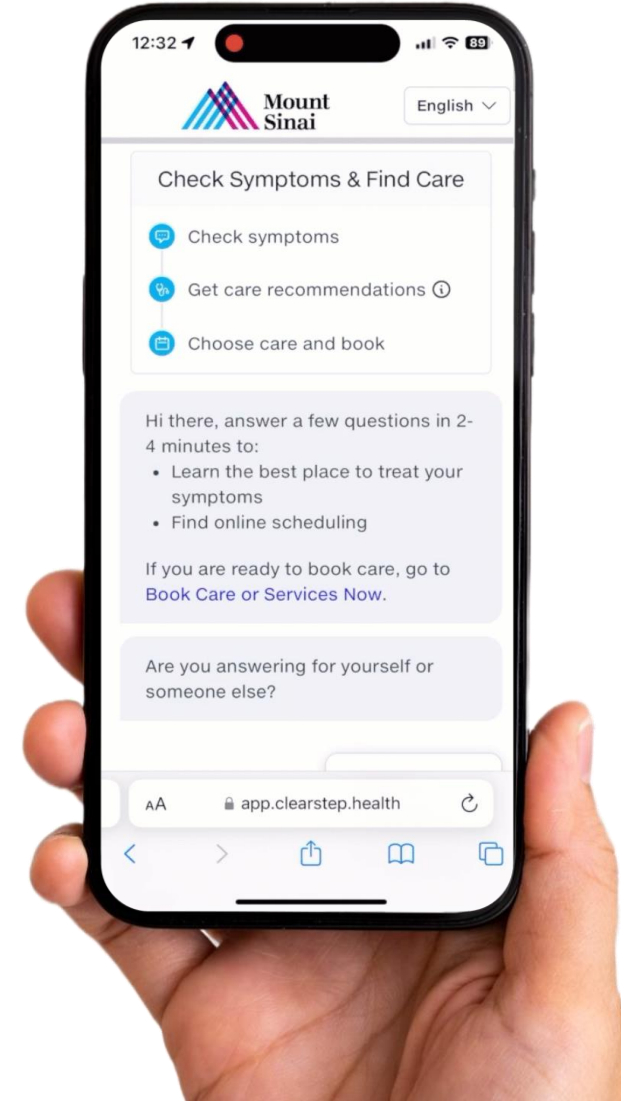
Community-
based
Organizations

Overview

Check Symptoms & Get Care provides patients guidance on whether they should seek care and surfaces personalized care options based on their preferences and health situation.

Feature Highlights

- AI-powered self-triage in conversational format
- Utilized the Schmitt-Thompson protocols to match **300+** unique primary symptoms to recommend the best care options for patients at Mount Sinai
- Appointment timeslots for patients to book immediately after completion of symptom checker
- Integrated with Epic (via MyMountSinai) and Find a Doctor
- Self-care instructions
- Recommend nearest Mount Sinai providers and locations
- Available in both English and Spanish



Mount Sinai's “Check Symptoms & Get Care”: Implementing AI Triage at Scale

First NYC health system to deploy an evidence-based AI symptom checker at scale · Web + MyMountSinai (Epic / MyChart) · Live since 2023

CONTEXT & SOLUTION

Care navigation was broken.

Patient focus groups: many didn't know where to turn for new symptoms driving ED overcrowding, delayed care, and inappropriate utilization across an 8-hospital NYC academic system.

The build.

- RFP across symptom-checker vendors → selected Clearstep (built with Dr. Barton Schmitt co-author of the Schmitt-Thompson protocols used by 95% of US nurse call centers)
- Hybrid engine: LLM-enhanced NLP + supervised ML + expert-system protocols (not black-box)
- Two front doors: public website + MyMountSinai app via Epic/MyChart with SSO and in-app webview
- 2–4 min chat-style triage → schedulable Mount Sinai slots, virtual urgent care launch, or direct-to-care

YEAR-1 PERFORMANCE

60,000+
visits · ~22,000 completed triages

37%
INITIATION RATE
of visitors started

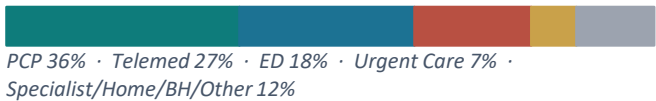
80%
COMPLETION RATE
of starters finished

85.5
SUS SCORE
“excellent” usability

75%+
RATED 8+ / 10
of users

71% of triages happened outside business hours
· 26% on weekends

Recommended care distribution



CLINICAL IMPACT

0 patient safety incidents
reported across launch + Year 1 of operations

Triage corrects intent.

62% of patients with a “clear intent” had a clinically sub-optimal plan.

→ 79% under-seeking care (often defaulting to ED or self-care); 21% over-seeking. CSGC redirects to the right level of care.

2023 eHealth Leadership Award Best Interactive Experience

TAKEAWAY

Evidence-based AI triage + EHR-native integration + cross-functional sponsorship can safely expand digital access and right-size demand at urban scale.

Live on Mount Sinai
public website + in
MyMountSinai

Mount Sinai Check Symptom x

symptomchecker.mountsinai.org

Mount Sinai

English

Please note this is an automated chat, not a live person. If you have a medical emergency, call 911.

Check Symptoms & Get Care

Check symptoms — Get care recommendations — Choose care and book

Hi there, answer a few questions in 2-4 minutes to:

- Learn the best place to treat your symptoms
- Find online scheduling

If you are ready to book care, go to [Find Care Now](#).

Are you answering for yourself or someone else?

Myself

Someone Else

? This question doesn't make sense

www.loom.com is sharing your screen. Stop sharing Hide

Give Feedback

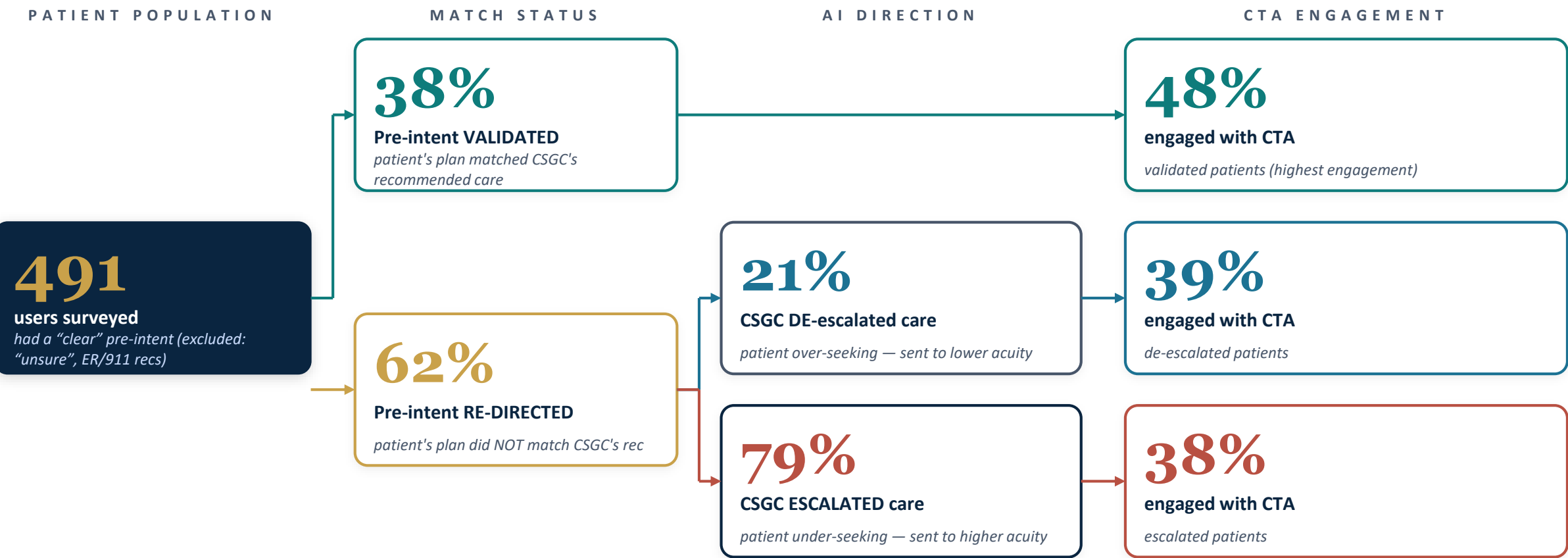


A.I. CHAT
AND
TRIAGE

FIGURE 8 · CSGC RE-DIRECTS PATIENT CARE-SEEKING INTENT

How CSGC re-shapes patient care-seeking intent

8-week random sample · 20% of incoming volume surveyed pre-results (n=662) · 491 had a “clear” pre-intent



KEY INSIGHT The AI triage's most consequential action isn't reassurance, it's **escalating under-prepared patients** (79% of redirects). Engagement drops only ~10 points when AI overrides the patient's plan, suggesting patients accept clinically appropriate redirection.

Access scheduled and on demand service options



Virtual Urgent Care: Whenever, Wherever You Need

- Available 7 days a week (NY & FL).
- Conditions treated: upper respiratory infections, COVID-19, flu, allergies, pinkeye, urinary infections, back pain, or mild headache and more!
- 10,000 Virtual Urgent Care visits in 2024

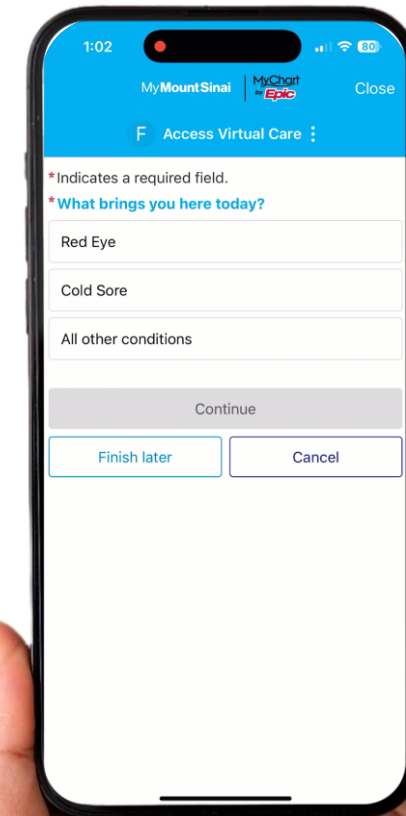


Message Only Care

- Resolve common health issues without an in-person office or video visit.
- Live with 6 Conditions (Red Eye, UTI, Yeast Infection, Cold Sore, Birth Control, Emergency Contraception).
- 593 Message Only Care visits in 2024 (experience released Q3 2024)
- 382 Message Only Care visits Q1 2025

Positive Feedback ★★★★★

Easily accessible through the app! | Quick & easy! |
"this is a fantastic service! Especially for working people
who can't get to the doctor or urgent care! thank you



**We Are
OneMount Sinai**

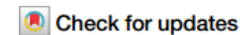
Access & Clinical

Accelerate Digital
Self-service
Balance of Clinical Services



<https://doi.org/10.1038/s41746-025-01590-6>

Virtual urgent care in an integrated value based healthcare system



Khang Nguyen, Dinh Nguyen✉, Sinjin Lee, Jin Chang, Yvonne Bach, Kien La, Ferdinand Justus, Tianyuan Shao, Caleb Wang, Mason Kellogg, Raquel Taylor & Alan Evans

Virtual urgent care (VUC) is not well understood when delivered through an integrated value-based healthcare system. The Southern California Permanente Medical Group operates *Get Care Now* (GCN), a VUC program complementing its urgent care clinics (UCC). Quality and patient experience dimensions are included in this study, comparing GCN and UCC patients. Females and Hispanics/Latinos were predominant in both groups and proportions of patients with chronic conditions were nearly identical within the leading 30–49 age band. Wait times for GCN were 21.19 min lower than for UCC, and positive patient survey results align with GCN's average Net Promoter Score of 87. 3-day return rates to the ED (2.53% GCN vs. 3.26% UCC) and to UCC (5.44% GCN vs. 2.42% UCC) were comparable between GCN and UCC utilizers. Findings demonstrate that 24/7 VUC sustainably supports meeting patient demand for urgent care services in an integrated value-based system.

The Asynchronous Opportunity



Evidence in support of asynchronous care



Original Investigation | Health Informatics

Electronic Visit Use and Resolution Rates for Adult Outpatient Conditions in an Integrated Care Setting

Tracy A. Lieu, MD, MPH; Jie Huang, PhD; Khai Tran, MD; Dao Nguyen, MD; Mary E. Reed, DrPH

Key Points

Question How extensively can structured asynchronous electronic visits (e-visits) be used for selected outpatient conditions, and do rates of point-of-contact resolution differ from telephone, video, or office visits?

Findings In this cross-sectional study of 73 560 e-visits in an integrated care setting, patients selected e-visits for 58% of urinary tract infection, 24% of seasonal allergy, 24% of acne, and 56% of international travel initial visits. After e-visits, follow-up visits within 7 days were uncommon and rates were usually similar or lower than after other visit modalities.

Meaning Results of this analysis found that high percentages of patients selected e-visits for common outpatient conditions; e-visits had high rates of point-of-contact resolution.

Experience with One Payer

- Patients have a low volume of additional care within 72 hours of asynchronous encounters
 - 8.6% up-triage rate to virtual urgent care
 - 1.8% subsequent encounter within 72 hours
- Rare circumstances lead to charge of asynchronous and virtual encounters within 24 hours
- Reimbursement gaps between these two platforms do not incentivize movement toward more efficient, patient-friendly model

Asynchronous care: at the tipping point

Synchronous telehealth c. 2017	Asynchronous care 2026
0.1% of total claims	3-5% of specialized claims (eg dermatology and radiology)
53% increase from 2016-2017	24-27% CAGR through 2030
25% of physicians use it weekly	80% of physicians report using some asynchronous tool
Access for rural & under-served communities	Efficiency & burnout reduction for overloaded clinicians

Defining the Asynchronous Opportunity

Acute Care

- UTI
- Yeast infection
- ...

Chronic Condition Management

- Insulin titration
- GLP1 titration
- ...

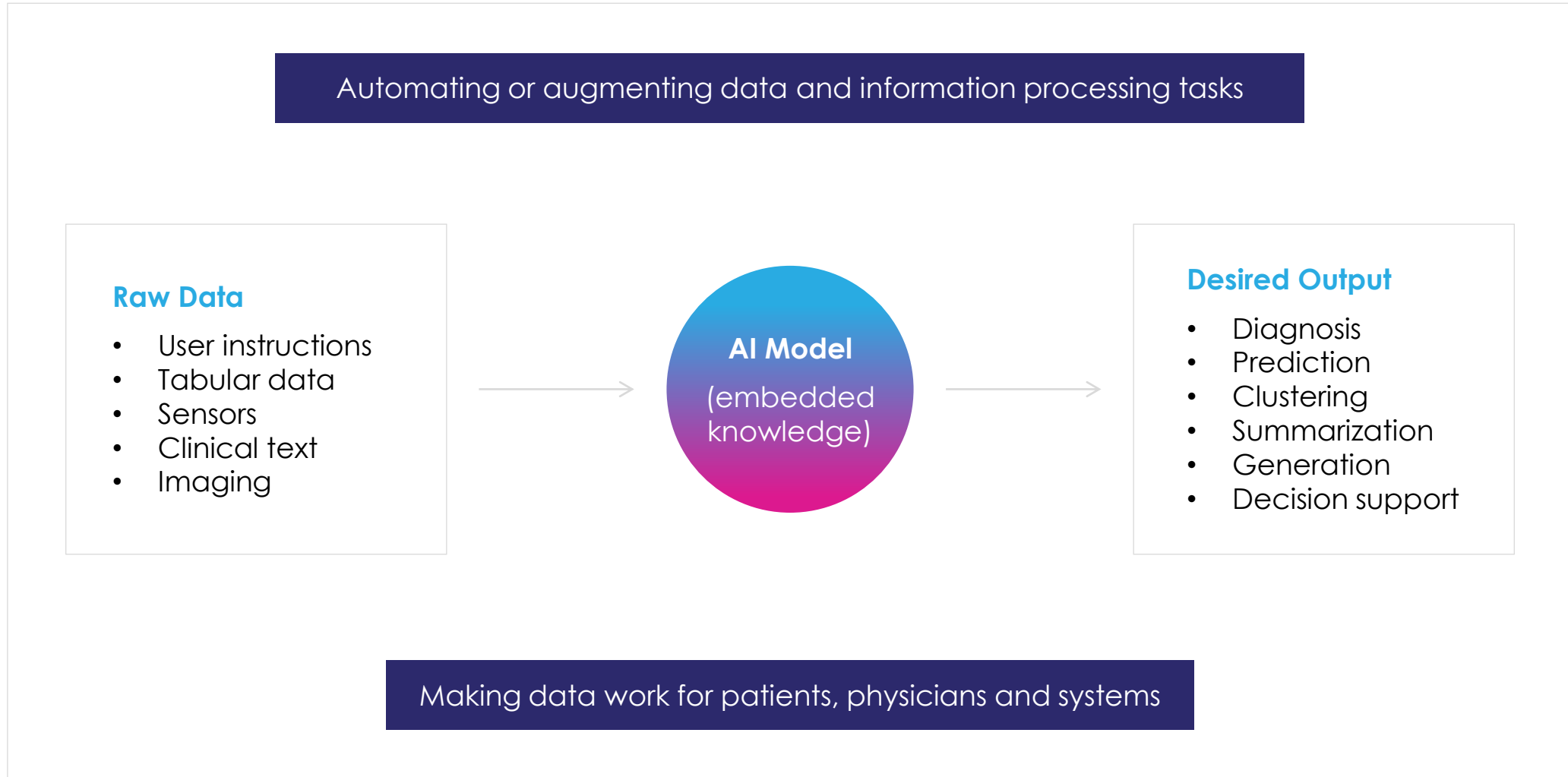
Preventive Care

- PrEP
- Contraception/Emergency contraception
- ...

What's Ahead



The promise of AI in Health



RESEARCH ARTICLES

MACHINE LEARNING

Performance of a large language model on the reasoning tasks of a physician

Peter G. Brodeur^{1†}, Thomas A. Buckley^{2†}, Zahir Kanjee¹, Ethan Goh^{3,4}, Evelyn Bin Ling⁵, Priyank Jain⁶, Stephanie Cabral^{1,7}, Raja-Elle Abdulnour⁸, Adrian D. Halmovich⁹, Jason A. Freed¹⁰, Andrew Olson¹¹, Daniel J. Morgan^{12,13}, Jason Hom⁵, Robert Gallo^{14,15}, Liam G. McCoy^{1,16,17}, Haadi Mombini¹⁸, Christopher Lucas¹, Misha Fotoohi¹, Matthew Gwiazdon¹, Daniele Restifo¹, Daniel Restrepo¹⁹, Eric Horvitz^{20,21}, Jonathan Chen^{3,4,22†}, Arjun K. Manrai^{2†*}, Adam Rodman^{1†*}

More than 65 years ago, complex clinical diagnostic reasoning cases were introduced as the gold standard for the evaluation of expert medical computing systems, a standard that has held ever since. In this study, we report the results of a physician evaluation of a large language model (LLM) on challenging clinical cases across five experiments with a baseline of hundreds of physicians. We then report a real-world study comparing human expert and artificial intelligence (AI) second opinions in randomly selected patients in the emergency room of a major tertiary academic medical center. In all experiments, the LLM outperformed physician baselines and displayed continued improvement from prior generations of AI clinical decision support. Our study suggests that LLMs have eclipsed most benchmarks of clinical reasoning, motivating the urgent need for prospective trials.

A True Learning Health System



Key Take-aways

- $\text{Value} = \text{Quality} / \text{Cost}$
- Innovation requires investment and failures
- Virtual acute care and asynchronous care are safe care delivery models
- Asynchronous care is a bridge to (some) semi-autonomous care
- Acute care is in the midst of a digital transformation.