



Decrease Friction, Increase Intelligence, *and* Improve Healthcare

Jackie Gerhart, MD
Associate Professor of Family Medicine
University of Wisconsin-Madison
Chief Medical Officer
Epic

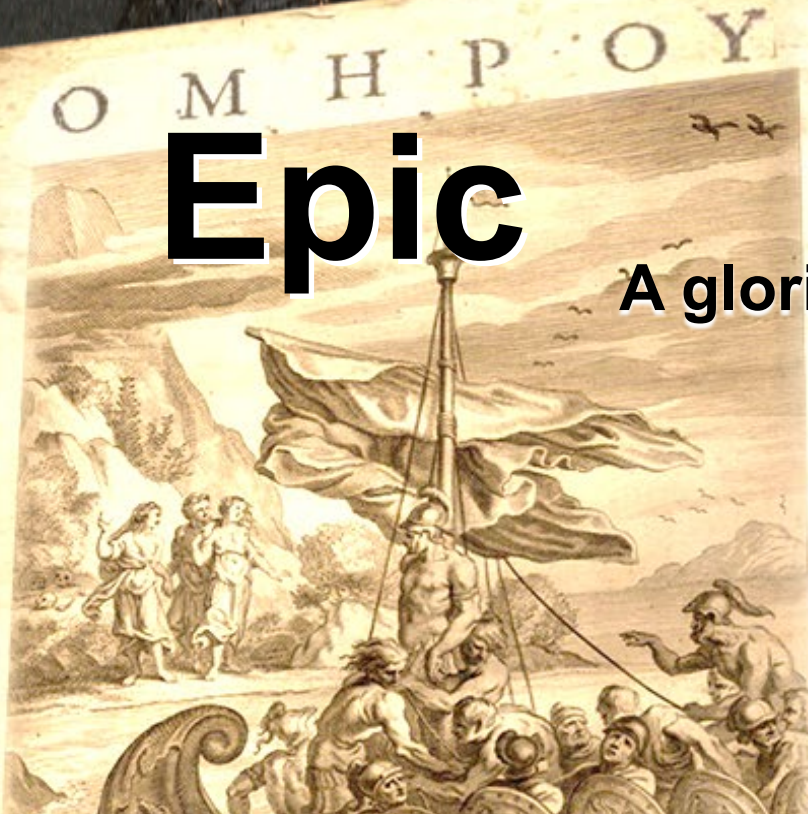


...with the patient at the heart

Epic

Epic

A glorious account of a nation's events



O M H P O Y
O Δ Τ Σ Σ Ε Ι Α.
H O M E R I
O D Y S S E A.
D E R E B V S A B V L Y S -
S E G E S T I S.

Eiusdem Batrachomyomachia
& Hymni.

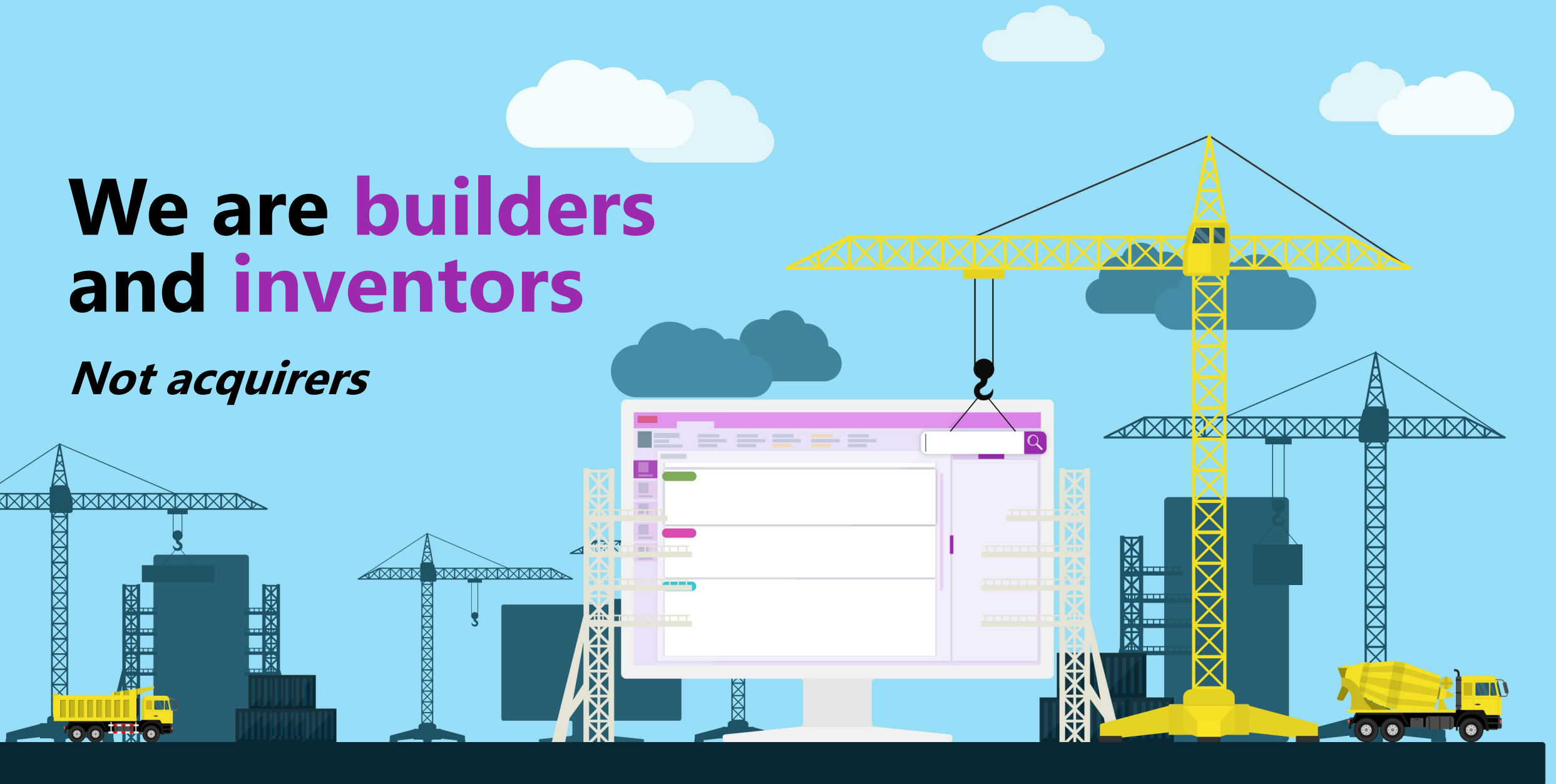
Latina versione ad verbum è regione appositae.





**We are builders
and inventors**

Not acquirers



Our Principles

1. Make our products a joy to use.
2. Have fun with customers.
- 3. Design in collaboration with users.**
4. Make it easy for users to do the right thing.
5. Improve the patient's health and healthcare experience.
6. Generalize to benefit more.
7. Follow processes. Find root causes. Fix processes.
8. Dissent when you disagree; once decided, support.
- 9. Do what is difficult for us to make things easy for users.**
10. Escalate problems at the start, not when all hell breaks loose.

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Epic's Priorities



Help **clinicians**
love their jobs



Help **healthcare organizations**
stay financially strong



Help **patients**
be healthy

My Journey

Epic

15 Physicians

41 Nurses

6 Pharmacists



Outline

Patients using AI
Responsible AI
Outcomes
What's Next

“

Clinicians adopt AI at the speed of **trust**.

Patients adopt it at the speed of **desperation**.



Sue Sheridan, CEO

Patients for Patient Safety US

Patients Are Turning to AI

KFF Health News

March 25, 2026

1 in 3

adults are using AI
for health questions

2 in 3

worry about
reliability

3 in 4

worry about
privacy

FIERCE
Healthcare

June 24, 2026

Patients are

3 times

more likely to trust an AI
agent in a **clinical
system** rather than a
public chatbot

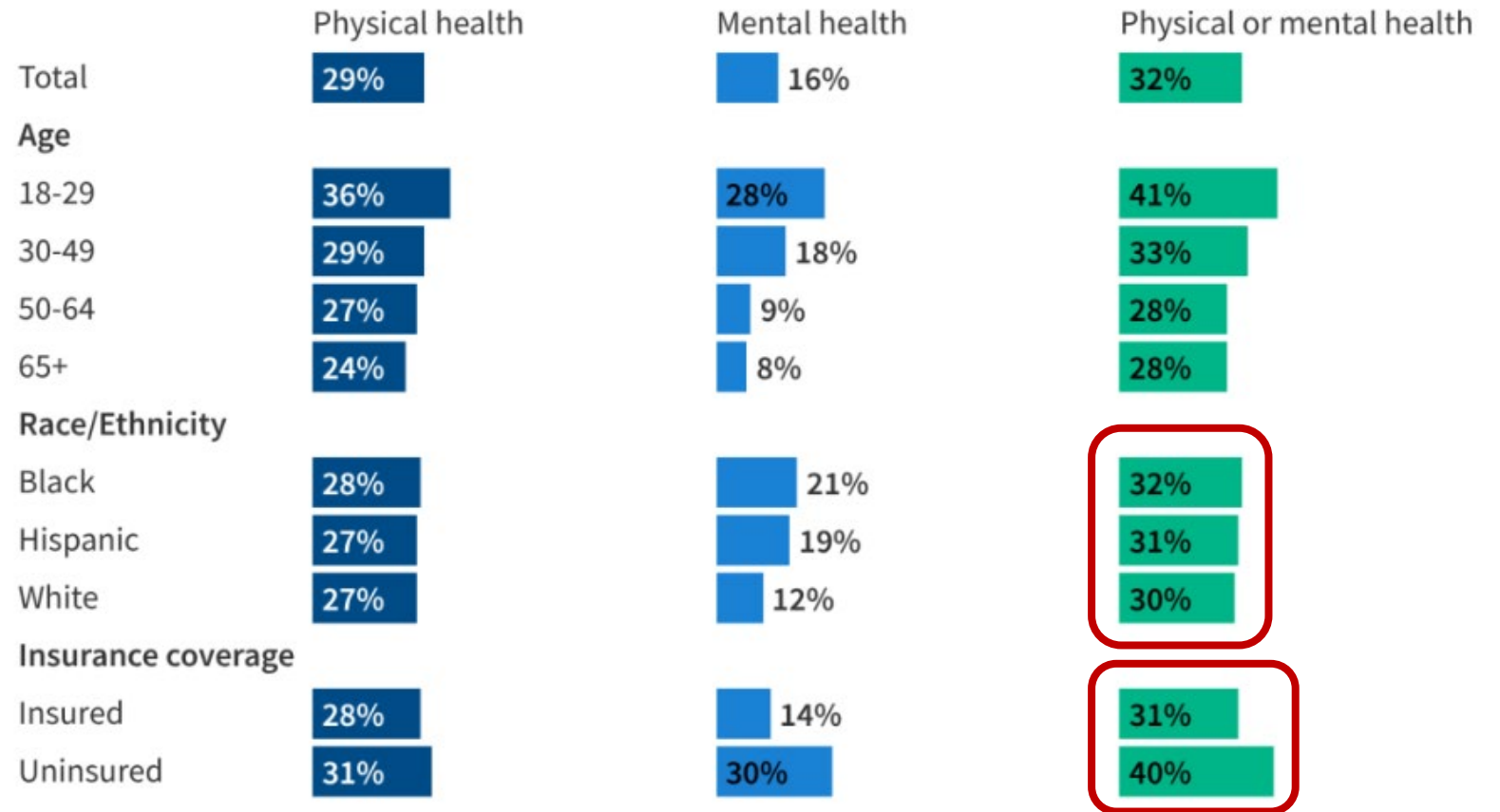
Challenging the “digital divide”

KFF 2026 tracking poll

Use of GenAI for health information and advice

Larger Shares of Younger Adults, Black and Hispanic Adults, and Those Who Are Uninsured Are Turning to AI for Mental Health Advice

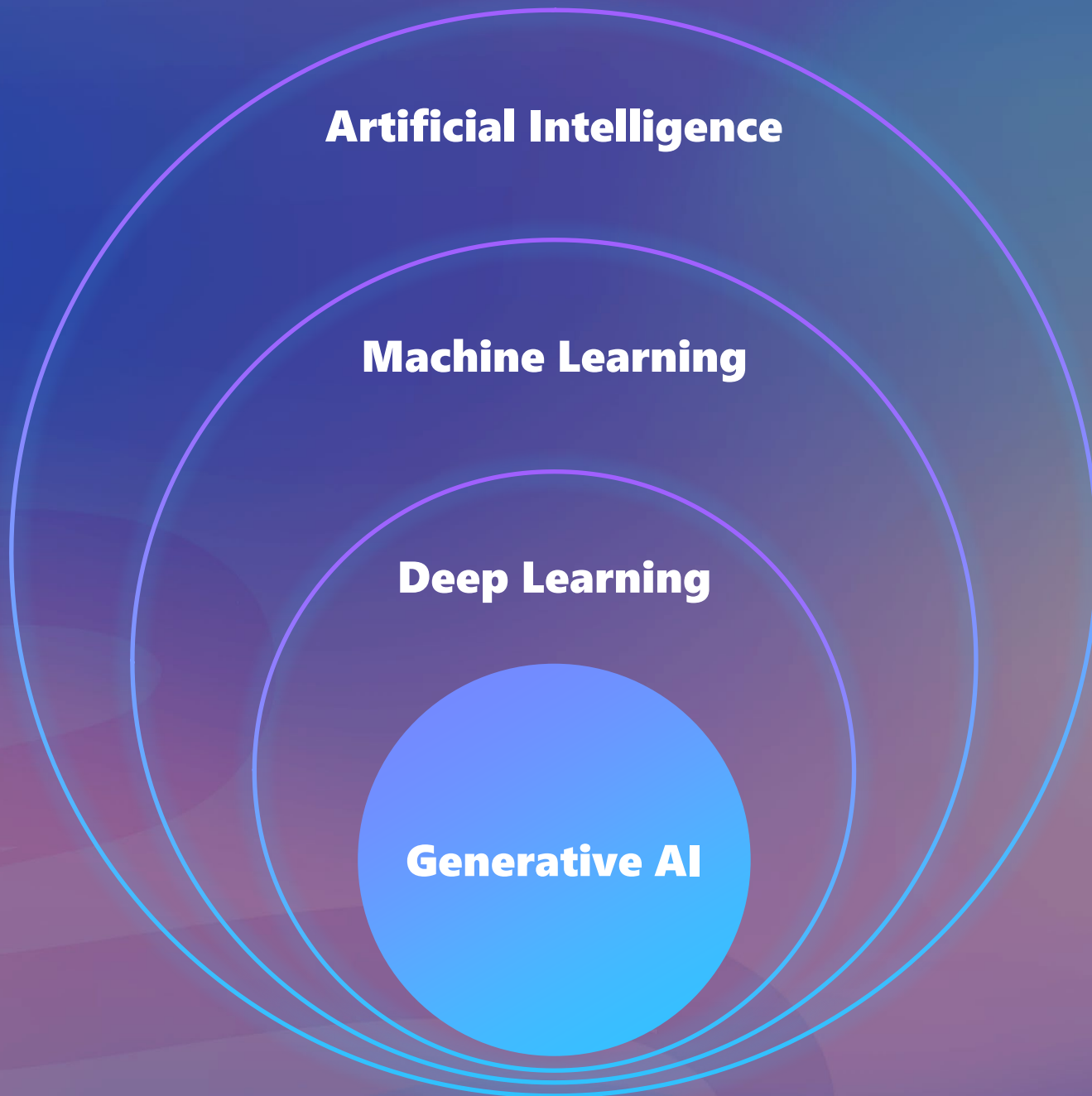
Percent who say they have sought information or advice about each of the following from artificial intelligence (AI) tools in the past year:



Note: See topline for full question wording.

Source: KFF Tracking Poll on Health Information and Trust (Feb. 24-Mar. 2, 2026)

KFF



1950s

Artificial Intelligence

Early attempts to create intelligent machines simulating human intellect

1990s

Machine Learning

Focused on learning from existing data to predict likely events

2010s

Deep Learning

Machine learning approach using neural networks to process data & make predictions

2020s

Generative AI

Creating new content given prompts or other multi-modal inputs

The Spectrum of Artificial Intelligence



Rule-Based Logic

Expert-defined and explicitly coded



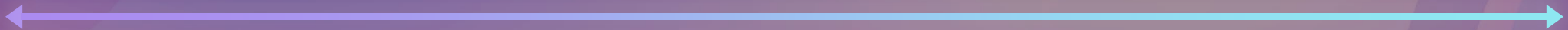
Predictive Analytics

Statistically derived to predict a pre-defined event



Generative AI (Large Language Models)

Generally-trained to generate novel content



Deterministic

Targeted

Probabilistic

More generalized

Responsible AI

Promote AI Literacy

Start with personal use

Evaluate Use Cases

Shiny object versus needed solution

Establish Trust

Test locally; evaluate errors and biases

Create Ongoing Governance

Local validation and ongoing monitoring

Approach to AI Decisions

What **problem** are you trying to solve?

Do you already have a **good solution**?

Does it **need AI**?



Immersions

23,126 R+D Immersion Days last year



Build

Provide Feedback on AI Features



Why did you choose this rating? (Optional) 

Feedback will be reviewed by your organization to improve your experience.

Not useful

Unclear

Too long

Inaccurate

Other

Share additional thoughts or suggestions

Submit Feedback



Why did you choose this rating? (Optional) 

Feedback will be reviewed by your organization to improve your experience.

Useful

Clear

Concise

Accurate

Other

Share additional thoughts or suggestions

Submit Feedback



Epic AI Trust & Assurance Suite

Binary Classifier Fairness Audit

Model Options

Target Column: Readmitted within 30 Days
Score Column: LGBM_score
Score Threshold: 0.15
☐ Combine scores?

Fairness Options

Threshold: 0.20
Fairness Metrics: Sensitivity, Specificity, PPV, NPV, Flagged, NNT@0.333
 ☐ Show code?

Cohorts

Age: [10-20], [20-50], [50-70], 70+
Race: African/American, Asian, Caucasian, Hispanic
Gender: Female, Male
Admission Source: []
Specialty: []
Primary Dx: []
Secondary Dx: []
Glucose: []
A1C: []
Taking Insulin: []
Taking Metformin: []

	Count	Sensitivity	Specificity	PPV	NPV	Flagged	NNT@0.333
Race							
Caucasian	74220	0.53	0.81	0.23	0.94	0.23	13.17
African/American	18772	0.51 (2.89%)	0.80 (0.88%)	0.21 (8.43%)	0.94 (-0.04%)	0.23 (-1.59%)	14.39 (-9.20%)
Hispanic	2017	0.51 (2.75%)	0.83 (-3.19%)	0.23 (0.10%)	0.95 (-0.66%)	0.20 (12.37%)	13.19 (-0.10%)
Asian	628	0.49 (6.98%)	0.88 (-9.58%)	0.31 (-37.23%)	0.94 (-0.12%)	0.15 (32.45%)	9.60 (27.13%)
Gender							
Female	53454	0.53	0.80	0.22	0.94	0.23	13.51
Male	45886	0.51 (3.74%)	0.82 (-2.08%)	0.23 (-3.39%)	0.94 (0.09%)	0.21 (7.44%)	13.07 (3.28%)
Age							
70+	44352	0.52	0.78	0.21	0.93	0.25	14.24
[50-70]	39118	0.51 (2.60%)	0.83 (-6.57%)	0.23 (-8.29%)	0.94 (-1.05%)	0.20 (20.58%)	13.15 (7.65%)
[20-50]	15020	0.59 (-14.44%)	0.83 (-5.87%)	0.27 (-27.43%)	0.95 (-1.60%)	0.21 (14.20%)	11.17 (21.53%)
[10-20]	690	0.47 (8.69%)	0.92 (-17.32%)	0.25 (-17.01%)	0.97 (-3.50%)	0.11 (57.67%)	12.17 (14.54%)

Legend

- the largest cohort for the category
- within 40.00% lower than the largest cohort
- more than 40.00% lower than the largest cohort
- fewer than 10 samples, data was censored
- within 20.00% of the largest cohort
- within 40.00% greater than the largest cohort
- more than 40.00% greater than the largest cohort



Open-source template & schema



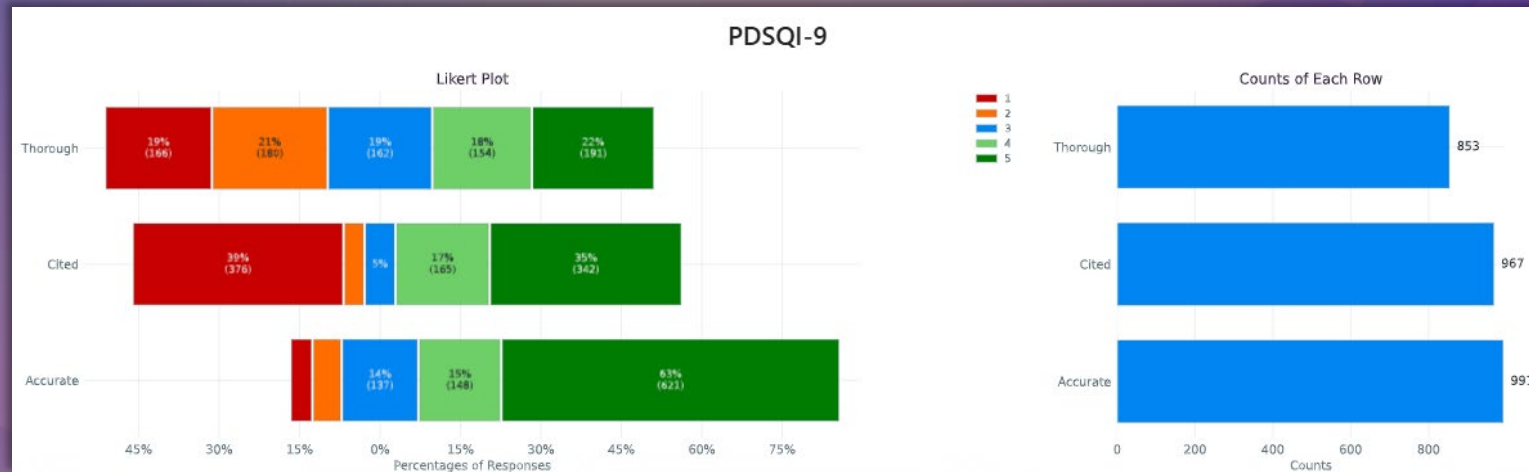
Performance on **local patient mix**



Real-time, **ongoing monitoring**



Tests models across **race, gender, age, and more**



Evaluate

Monitor

Measure

Validated *with* Research

UC San Diego

JAMA
Network | **Open**

Original Investigation | Health Informatics

AI-Generated Draft Replies Integrated Into Health Records and Physicians' Electronic Communication

Ming Tai-Seale, PhD, MPH; Sally L. Baxter, MD, MSc; Florin Vaida, PhD; et al

“This study shows that generative AI can be a **collaborative tool**. Our physicians receive about 200 messages a week. AI could help **break ‘writer’s block’** by providing physicians an **empathy-infused** draft upon which to craft thoughtful responses to patients.”

- Ming Tai-Seale, PhD, MPH, professor of family medicine, UC San Diego School of Medicine



Completeness, Correctness and Conciseness of Physician-Written Versus Large Language Model Generated Patient Summaries Integrated in Electronic Health Records

16 Pages Posted: 24 May 2024

[Roseanne Schoonbeek](#)

University of Groningen – University Medical Center Groningen

[Jessica Workum](#)

Elisabeth-Tweesteden Hospital

“Researchers from UMCG and ETZ ... studied the quality of generative AI-powered patient summaries, finding them to be **comparable to physician-created summaries** in terms of completeness, correctness, and trustworthiness.

The mean writing time for a physician’s summary was seven minutes. For AI, it was just over **15 seconds**.”

- Stephanie Klein Nagelvoort Schuit, Vice President, Board of Directors and Professor of Health Care Innovation, Universitair Medisch Centrum Groningen

nature

Current and Future State of Evaluation of Large Language Models for Medical Summarization Tasks



Prompt Engineering on Leveraging Large Language Models in Generating Response to In Basket Messages



Artificial Intelligence-generated Draft Replies to Patient Inbox Messages

Measure

AI Research *in* Wisconsin

UWHealth

Current and Future State of
Evaluation of Large Language
Models for Medical Summarization
Tasks

nature

UWHealth

Call Me Dr Ishmael: Trends in Electronic
Health Record Notes Available at
Emergency Department Visits and
Admissions"

JAMIA
OPEN

UWHealth

Automating Evaluation of AI Text
Generation in Healthcare with a
Large Language Model (LLM)-as-a-
Judge

nature

UWHealth

Development and validation of the
provider documentation summarization
quality instrument for large language
models

JAMIA
OPEN

Measure



5.7 min

Epic (68 orgs total)

saved per day in Notes activity
with Chart with Art

↓32%



less time spent on documentation
and communication tasks
with Inpatient Insights

Up to

↓1 hour



less time spent in In Basket per day
with In Basket Art Draft Responses

↓2-3 min



saved per discharge
with Draft Hospital Course in Discharge Summary

Outcomes



↓58%



decrease in billing customer
service messages
with Billing Questions in MyChart

↓30%



decrease in billing case volumes
with Billing Questions in MyChart

↑9%



increase in appointment
confirmation rate

↑28%

increase in call answer rate



↓20%

Epic (top 1/3 of orgs)

decrease in coding denials
with AI Coding Assistant

\$924,000



saved per year in labor costs
with AI Coding Assistant

↑10%

Epic (100 orgs total)

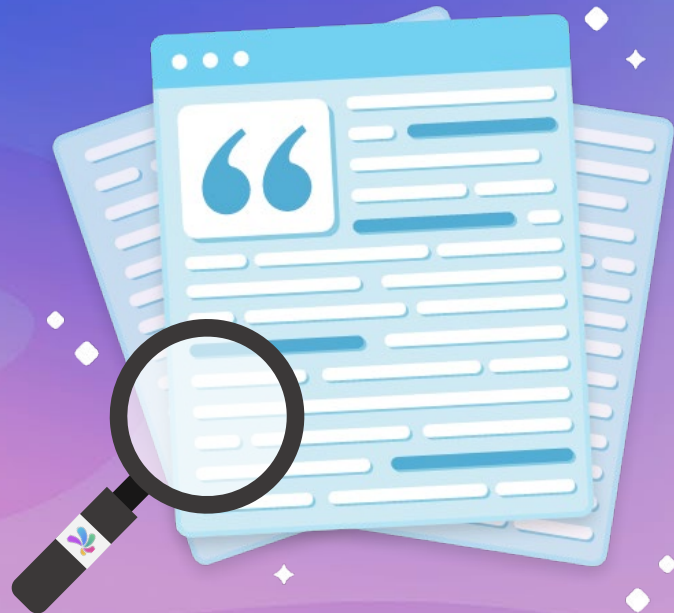
increased approval rate for ePAs
with Draft Answers for Prescription Prior Auth

↓44%



decrease in time for
gen surgery authorizations
with Medical Necessity Insights for Prior Auth

Outcomes *from* Extracted Lung Nodule Findings



4.5x More lung nodules documented
And acted upon

68% Lung cancers
identified at
Stage 1

42% National average
lung cancers
detected at Stage 1

Return on Investment

How much is it being used?

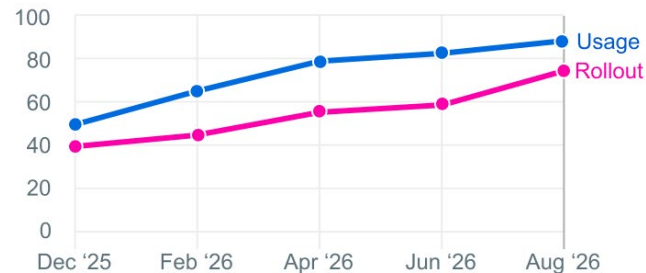
AI Adoption

Usage

83.8 /100 Generations

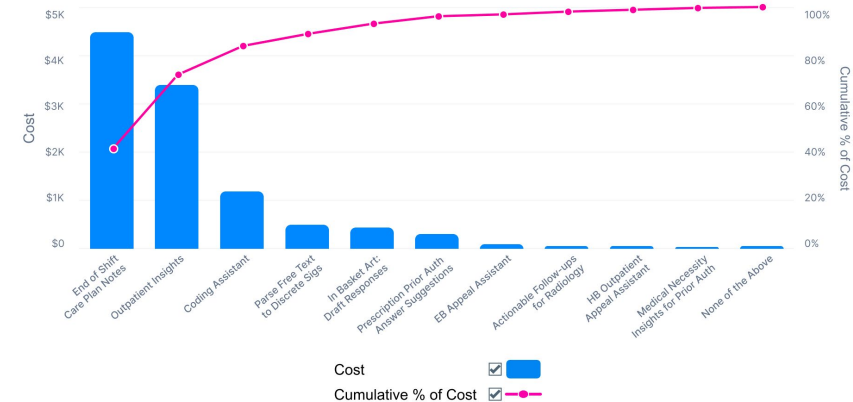
Rollout

60.7 /100 Charges



What does it cost?

Top Contributing Features



Epic

Epic Family Medicine

Search (Ctrl+Space)

1
 1
 1
 Secure
 Log Out
 Mark E Juarez

Chart Review
 Encounter
 SliderDicer

Draft Hospital Course in Discharge Summary Governance

Draft Hospital Course Metadata
Review Overdue (5 days past)

Name
Draft Hospital Course in Discharge Summary

Owner
Pat Cooper, MD

Description
Generates a draft hospital course note from clinical information within the time frame of a clinical encounter.

Governance Policy
Standard

Automation
None

Rollout
Full Rollout

Next Steps
Monitor for hallucination rate regression after deployment.

Reviewed
Approved

Status
Production

Last Review Date
2/24/2026

Predictive DSI
View

Documentation
Overview | Outcomes | Signal

Build Team
IP Orders

Alerts
Report completed: Tue 3/9 2:55 PM

Low draft acceptance in Pediatrics (5%)
Occurred: Feb 9, 2026 at 11:23 AM

High rates of negative feedback from Neonatology related to "missing delivery information"
Occurred: Feb 10, 2026 at 08:45 AM
Resolution: Add "External NICU Delivery Summary" note type to feature configuration

Outcomes

Clinical Outcomes
Report completed: Tue 3/9 2:55 PM

107.6 hours saved in the last month

5% less time in notes for frequent users

11% less time in chart review

Usage

AI Feature Usage
Report completed: Tue 3/9 2:55 PM

2,146
Uses This Week
↑ 8% vs last week

45%
Adoption Rate
Eligible discharges

127
Active Users
↑ 12 new this month

Weekly Prediction Volume (Last 8 Weeks)

Week	Volume
Wk 1	1845
Wk 2	1923
Wk 3	1867
Wk 4	1991
Wk 5	2034
Wk 6	2089
Wk 7	1988
Wk 8	2145

User Feedback
Report completed: Tue 3/9 2:55 PM

92
Positive Feedback

57
Negative Feedback

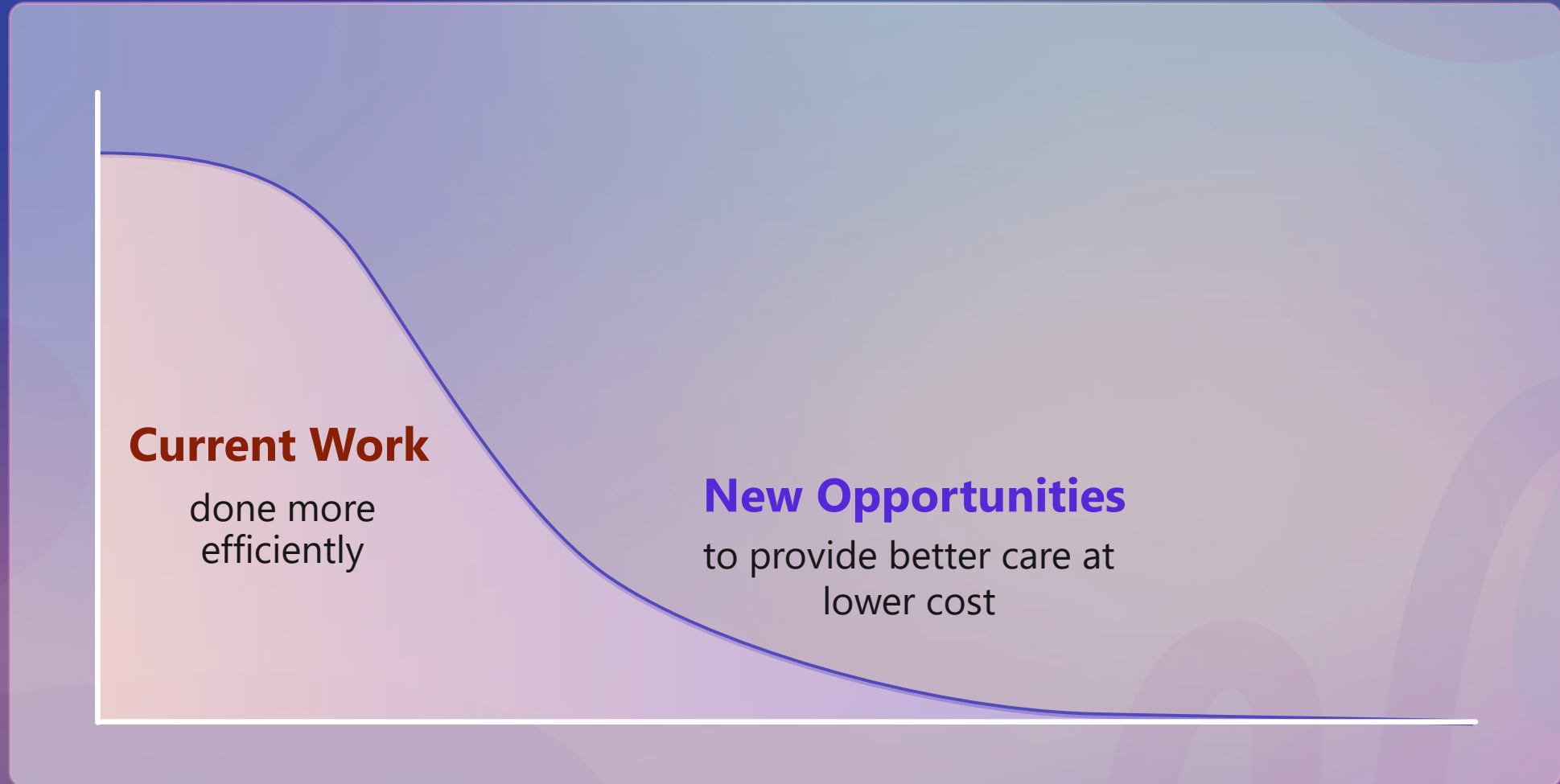
Recent Comments

Comment	User	Date
"Missing delivery information"	Neonatologist	Feb 8
"Saved a lot of time for complex long stay discharge"	Hospitalist	Feb 7
"Draft was too long"	Resident	Feb 6
"I haven't written a discharge summary since we went live."	Hospitalist	Feb 5

Top Issues

Issue	Count
Missing relevant information	23
Length	15
Does not match clinical picture	11
Over simplified	8

New Opportunities, Beyond Efficiency





Take It

Leverage Epic's released AI

Shape It

Customize out-of-the box AI

Make It

Build AI Tailored to You

Take it: Evidence in Art



Epic Highland Health

Search (Ctrl+Space)

AI

What could my next step be for Jim's blood pressure management?

Medication options to manage high blood pressure for Jim

- 1. Add Thiazide-like diuretic (e.g. chlorthalidone)**
Adding a thiazide-like diuretic showed improved BP in patients like Jim when lisinopril wasn't enough. Note: diuretics can increase nighttime urination so a morning dose may be best given sleep concerns. [1 Best Care Choices](#)
Goal: Lower blood pressure
45.8K patients like Jim out of 322 million patients in [Cosmos](#).
Stayed on Current Treatment
20.1% of patients like Jim who stayed on their current treatment of lisinopril (PRINIVIL, ZESTRIL) reached their blood pressure goal after one month.
20.1% Patients at goal (1 month)
Changed to Alternative Treatment
Added **Thiazide-like Diuretics**
31.6% Patients at goal (1 month) [Show orders in this class](#) ✓
- 2. Increase lisinopril dose**
Jim has tolerated 20mg well. Because Jim has financial insecurity, doubling his current medication could be the lowest-cost option. The drug label does not list insomnia as an adverse reaction for this medication for hypertension management. [2 Patient SDOH Data](#) [3 ZESTRIL](#)
- 3. Add a calcium channel blocker** [4 Highland Health Guidelines](#)

Best Care Choices for My Patient

Drug Facts

Organization Protocols

Clinical Guidelines

ANNOUNCING: UpToDate®

Peer-Reviewed Journals

Follow-up

Start Review

ADD ORDER

ADD DX (0)

Family History

- Brother 1 - Daniel (Alive); Hypertension
- Father - Gus (Alive); Hypertension
- Father - Gus (Alive); Sleep Apnea

Internal Referral to Medicine

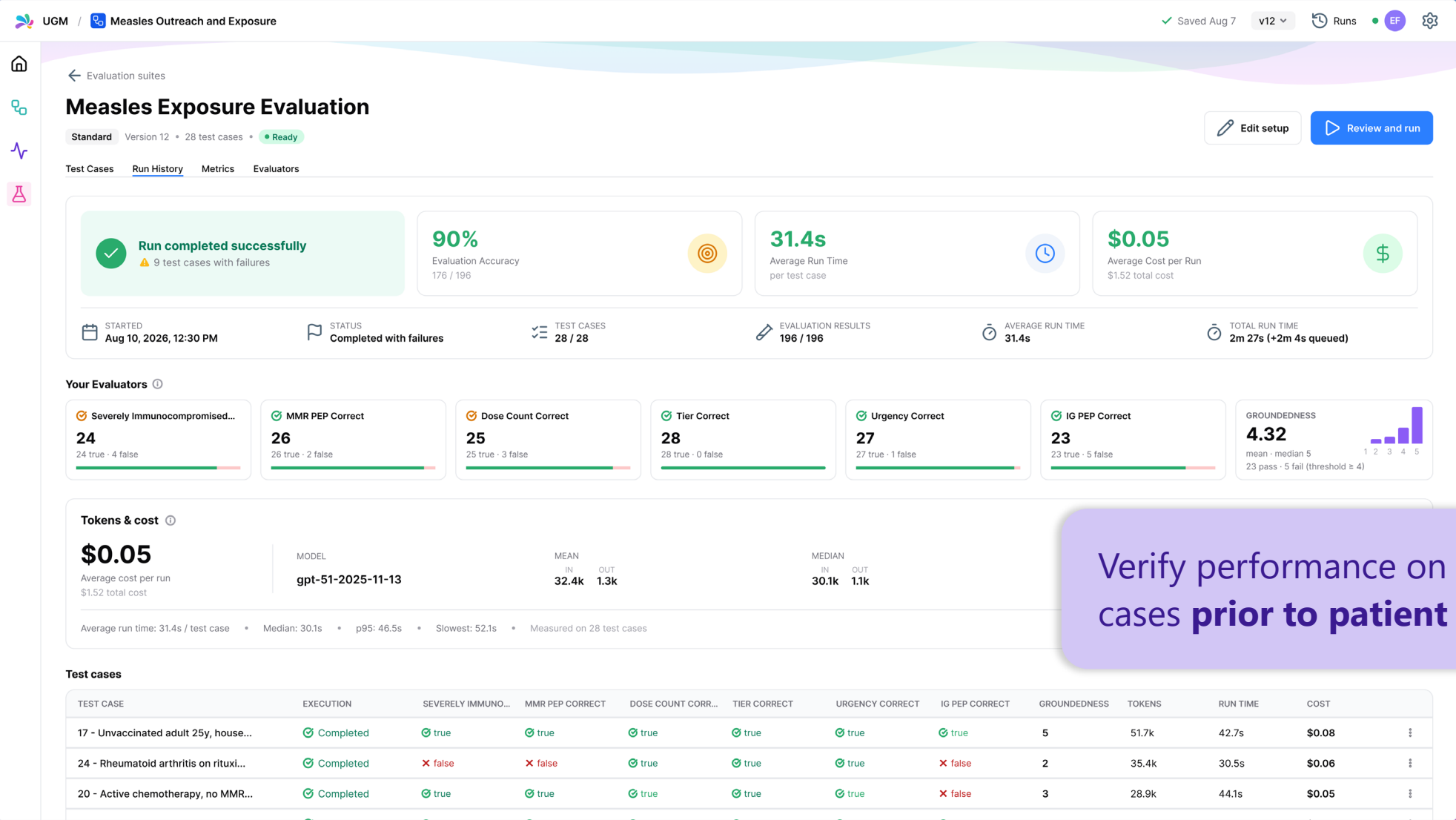
Pend

Sign

PRINT AVS

SIGN

Make it, and Test it Locally



Verify performance on test cases **prior to patient care**

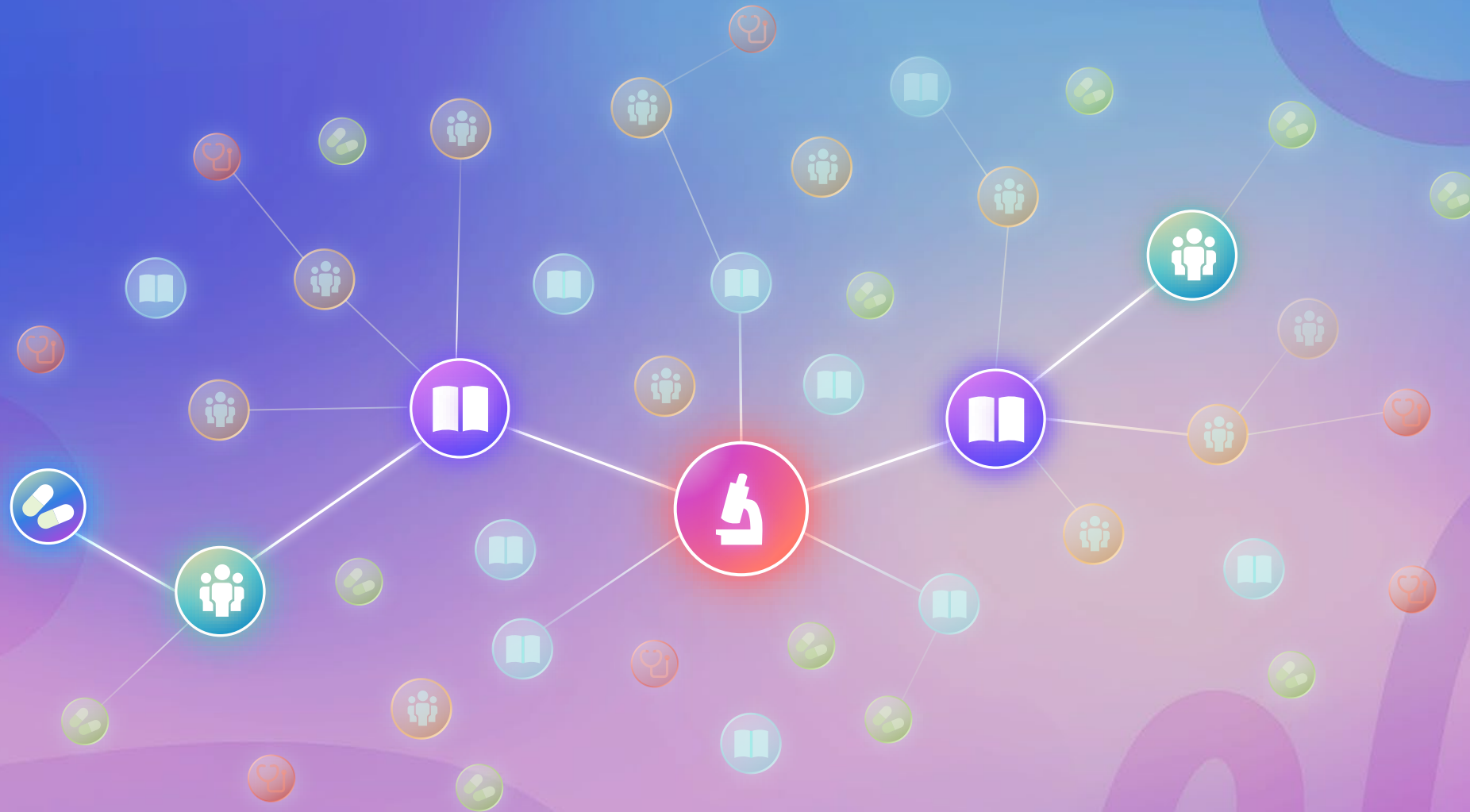


Ask Questions. Cosmos Answers.

Personalized Evidence

Predict a patient's health trajectory

The Speed of Medical Evidence



The Hand of Humanity



Hugo Campos

- What remains uniquely human in the clinician is:
- clinical judgment shaped by lived experience
 - contextual wisdom about tradeoffs in a specific person's life
 - responsibility—which AI cannot assume
 - relationship—which AI does not form

*...and the human qualities AI can only simulate—
empathy, humility, honesty, and integrity.*



Jackie Gerhart, MD
jgerhart@epic.com

<https://www.linkedin.com/in/jacquelinegerhart/>

...with the patient at the heart

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