



Responsible Use of AI to Support Patient Care

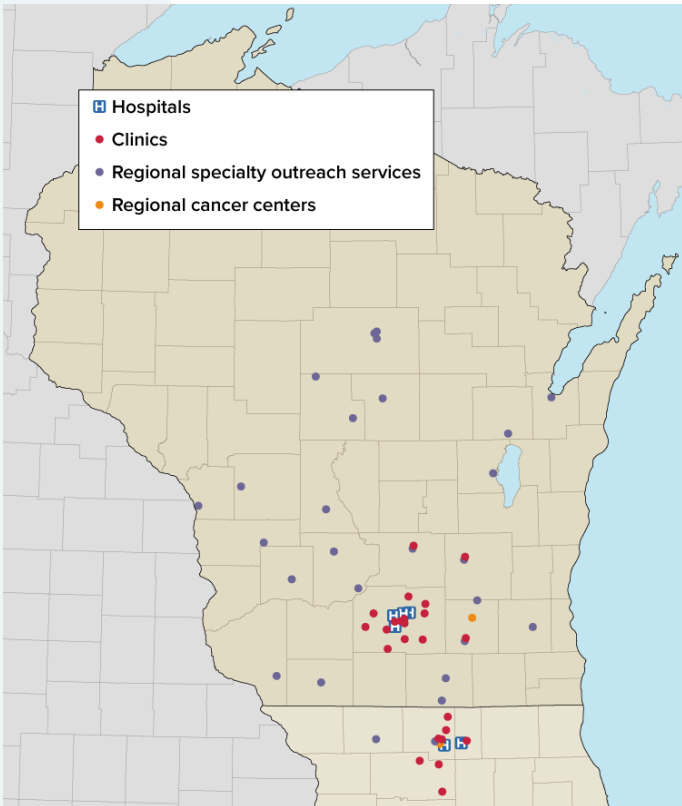
Frank Liao, PhD

Senior Director, Digital Health and Emerging Technologies

UW Health

UW Health At a Glance

UW Health is the integrated health system affiliated with the University of Wisconsin-Madison.



Sites of Care

6 main hospitals in WI and IL

1 join operating agreement hospital and
2 hospitals within main IL hospital

90+ primary and specialty outpatient
locations in WI and IL

Home care through UW Health Care
Direct



Team

24,000+ employees

1,800+ physicians

5,800+ RNs

750+ residents and fellows

Visits



800,000+
Patients



3.7M+
Clinic visits



83,500+
Surgeries

Key Partnerships:

- University of Wisconsin School of Medicine and Public Health
- UnityPoint Health-Meriter
- Majority ownership stake in Quartz Health Solutions, Inc.

Financials

\$5.1B total system revenue

Total system joint operating agreement revenues

Frank Liao



- Senior Director, Digital Health and Emerging Technologies – UW Health
- Clinical Adjunct Assistant Professor – UW Madison
- Other positions held: Sutherland Healthcare, Epic Systems R&D

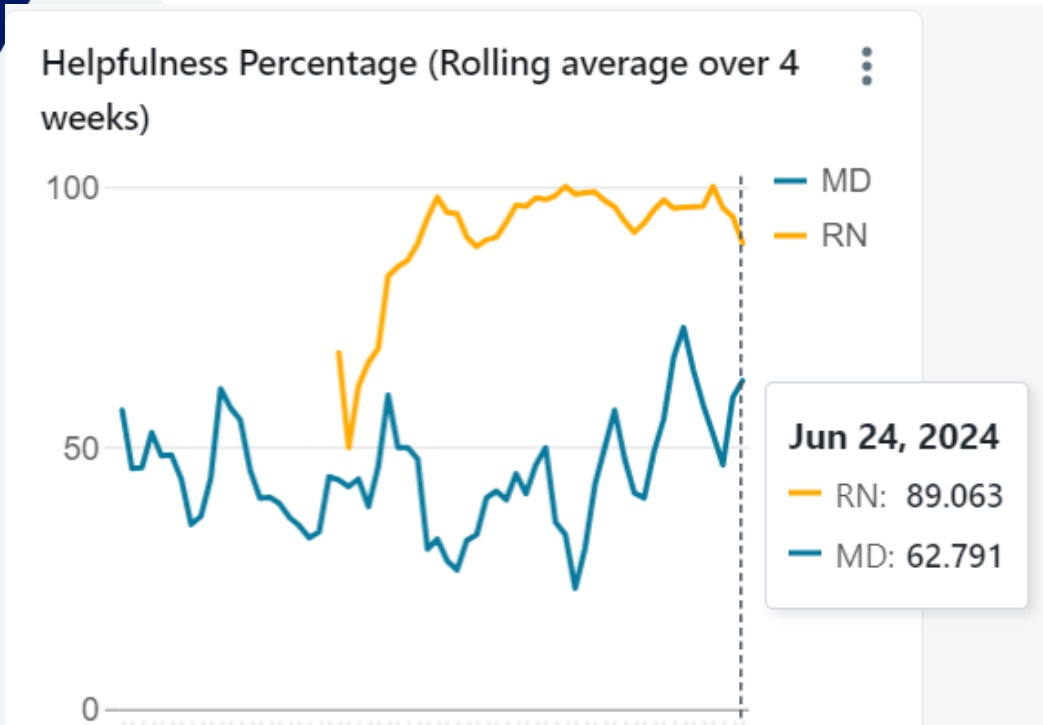
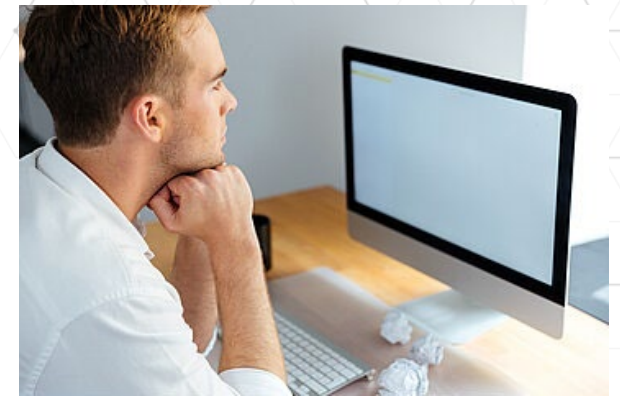
Outline

- Examples of UWH AI Adoption
 - Drafting Provider In Basket Messages
 - AI Scribing for Providers
- UWH Guiding Principles for AI
- National Roundtable on AI in Healthcare
 - Overview
 - Key Takeaways

Drafting In Basket Messages for Provider

- Patient messages to providers increased by 60% increase in volume during COVID at least through 2023
- Since April 2023, UW Health has partnered with Epic to use a large language model (LLM) to draft replies to patient messages
- Clinicians participating see the draft message and can either modify this draft before sending to patients, or discard the draft and start a new response
- Overcomes ‘writer’s block’ or ‘blank screen syndrome’ to help providers managing increasing message volumes

Drafting Provider In Basket Messages



116 Providers

41 MDs

75 RNs

30+ Clinics

5100+ Drafts Used

22%-27% MD Usage Rate

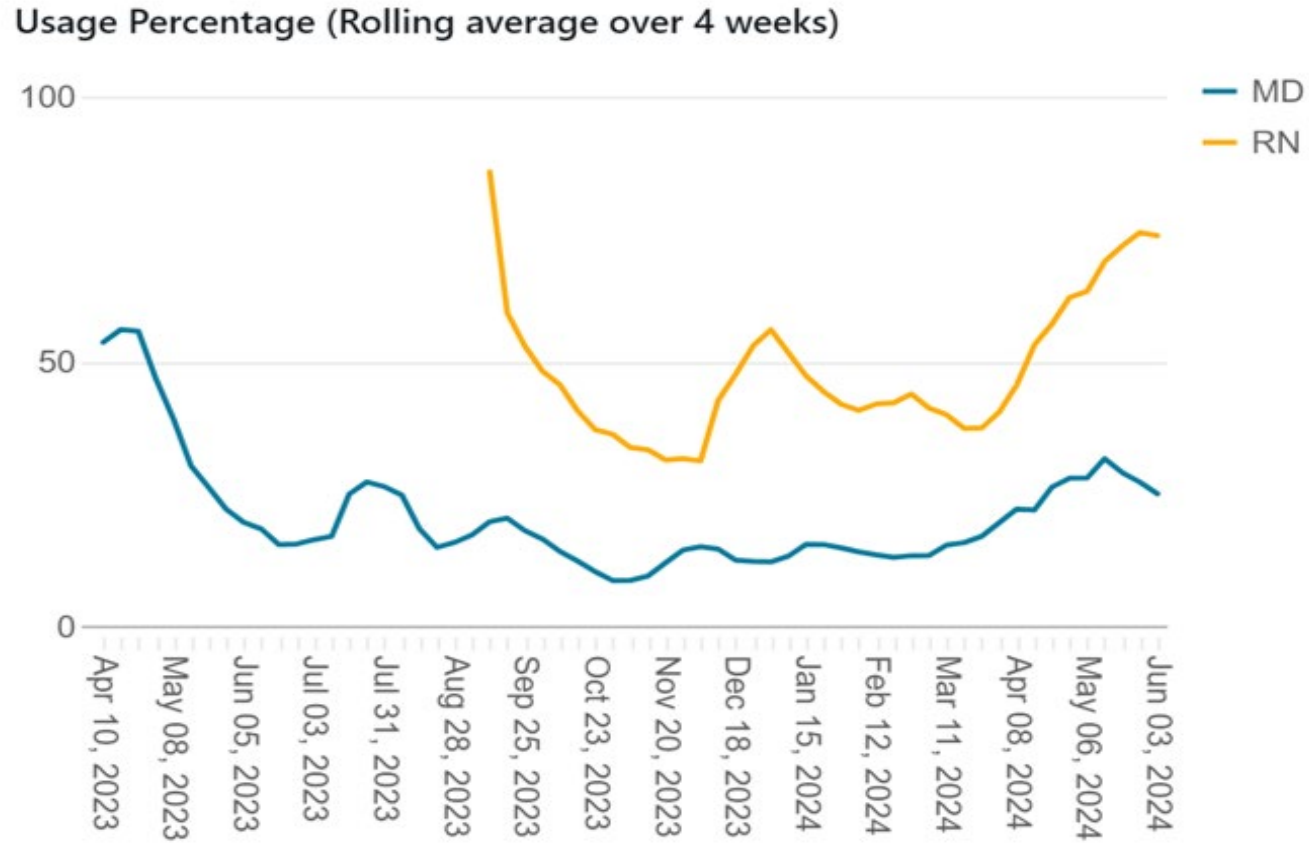
63%-74% RN Usage Rate

63% MD Helpfulness Rate

90% RN Helpfulness Rate

0.3% messages identical to the draft, aka "off-label" usage

Drafting Provider In Basket Messages



Higher uptake among nurses than physicians

AI Scribing for Providers



First cohort: 70-80% utilization rate of tool

Hey Joel,

Biggest advance/improvement in clinic efficiency in my medical career by far!

It works great! Can you tell my scribe goodbye from me?

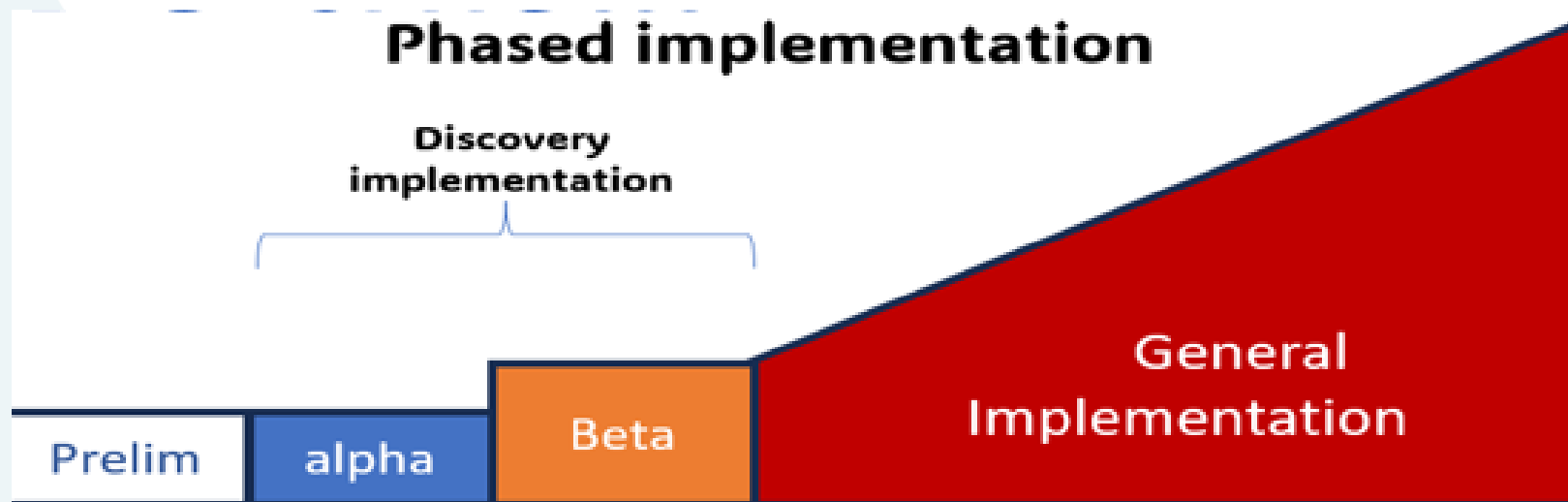
Hope you're doing well! Abridge so far is super awesome and pretty please never let me go back to traditional scribes.

It is AMAZING!

UWHealth

AI Scribing for Providers

- Partnership with UW Madison School of Medicine & Public Health (SMPH)
- Institute of Clinical Translational Research
- Structured as a Pragmatic Clinical Trial to rigorously measure outcomes



AI Guiding Principles



AI PRINCIPLES



EFFECTIVENESS



EMPATHY



EMPOWERMENT



EQUITY



ETHICS

Aligned with existing frameworks including FAVES



STRATEGIC IMPERATIVES

- Value-creating care
- Destination for specialty care
- Future work and workforce

OPERATIONAL PRIORITIES

- Staffing of clinical areas
- Access improvement
- Financial imperatives
- Regulatory mandates



OUTCOMES & METRICS

- Operational outcomes
- Clinical benefits
- Adoption and usage metrics
- Compliance metrics



National Roundtable on AI in Healthcare

- June 5, 2024 at U.S. Capitol in Washington, DC
- Sponsored by UW Health and Epic
- Participants included leading national health systems, health technology companies, HHS, congressional staff, academia and other experts/advocates
- Primary Discussion Themes
 - Patient Care and Experience

Final Report on Roundtable – 4 takeaways

- **AI's potential to address workforce shortages in healthcare**
- Participants agreed AI can augment clinical and administrative roles, enhance efficiency, and allow organizations to strengthen the “face to face” human interactions necessary for high quality care while integrating new technologies. They emphasized the need for strategic AI adoption, focusing on outcomes rather than outputs, and discussed specific AI use cases such as real-time patient monitoring and automated data entry.
- **The critical need for transparency as AI reaches the point of care**
- Healthcare organizations implementing AI must work to build trust in the technology with both patients and providers, inform patients when AI is used in care delivery, and ensure transparency on data use by external providers. Participants agreed that successful AI use cases must focus on alleviating existing stressors in the healthcare workforce. Healthcare staff should understand that their employers' goal is use AI to support them, not replace them.

Final Report on Roundtable – 4 takeaways

- **Ensuring access to AI in healthcare regardless of the patient’s location**
- To be truly transformative, AI and its benefits must be accessible in rural and underserved areas. Participants agreed on the importance of infrastructure development and technical assistance for equitable AI adoption. The discussion also covered the need for flexible definitions and governance frameworks for AI based on risk rather than the technology itself.
- **Fostering local validation to ensure AI’s efficacy across diverse patient populations**
- Participants clear support for local validation of AI models, complemented by overarching federal policies. Healthcare organizations serve varying populations based on location, focus, and many other factors, which limits the effectiveness of validation based on “generic” patient pools. AI adoption methodologies must include validating models against each organization’s unique set of patient data



Final Report on Roundtable – Discussion

- AI as an investment for our healthcare workforce
- ‘Not all AI is equal’