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Supporting Rural America:
Rural Health Resiliency

Laura Kreofsky, MHA, MBA
Director, Rural Health Resiliency
Microsoft Philanthropies
lkreofsky@microsoft.com

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Pillars of Microsoft's Investments in Rural America

Airband
Broadband Expansion

Tech Spark
Training and Jobs

AI Skilling
Training and Jobs

+

Rural Health Resiliency

Cybersecurity Program for Rural Hospitals

Strategic cybersecurity solutions and services

Rural Health AI Lab ("RHAIL")

AI innovation for rural health

Microsoft

Did you get "The Letter?"

The Change Healthcare Hack Timeline

Feb '24

Oct '24

Forever...

July '24

Jan '25

THE HEALTHCARE CYBER LANDSCAPE

TOP 3
INDUSTRY IMPACTED BY CYBERSECURITY ATTACKS

130%
SURGE IN HOSPITAL RANSOMWARE ATTACKS IN PAST YEAR

2,000
CLINICS, HOSPITALS & HEALTHCARE ORGS HIT BY CYBER ATTACKS ANNUALLY

70%
OF HEALTHCARE CYBER ATTACKS ARE ON SMALLER ORGANIZATIONS

20%
INCREASE IN MORTALITY AFTER A CYBER ATTACK

100M
PATIENT RECORDS AFFECTED IN A SINGLE DATA BREACH IN 2024

80%+
ATTACKS DUE TO HUMAN ERROR

$10M
AVG COST OF HEALTHCARE DATA BREACHES IN 2024

WHAT COULD POSSIBLY GO WRONG?
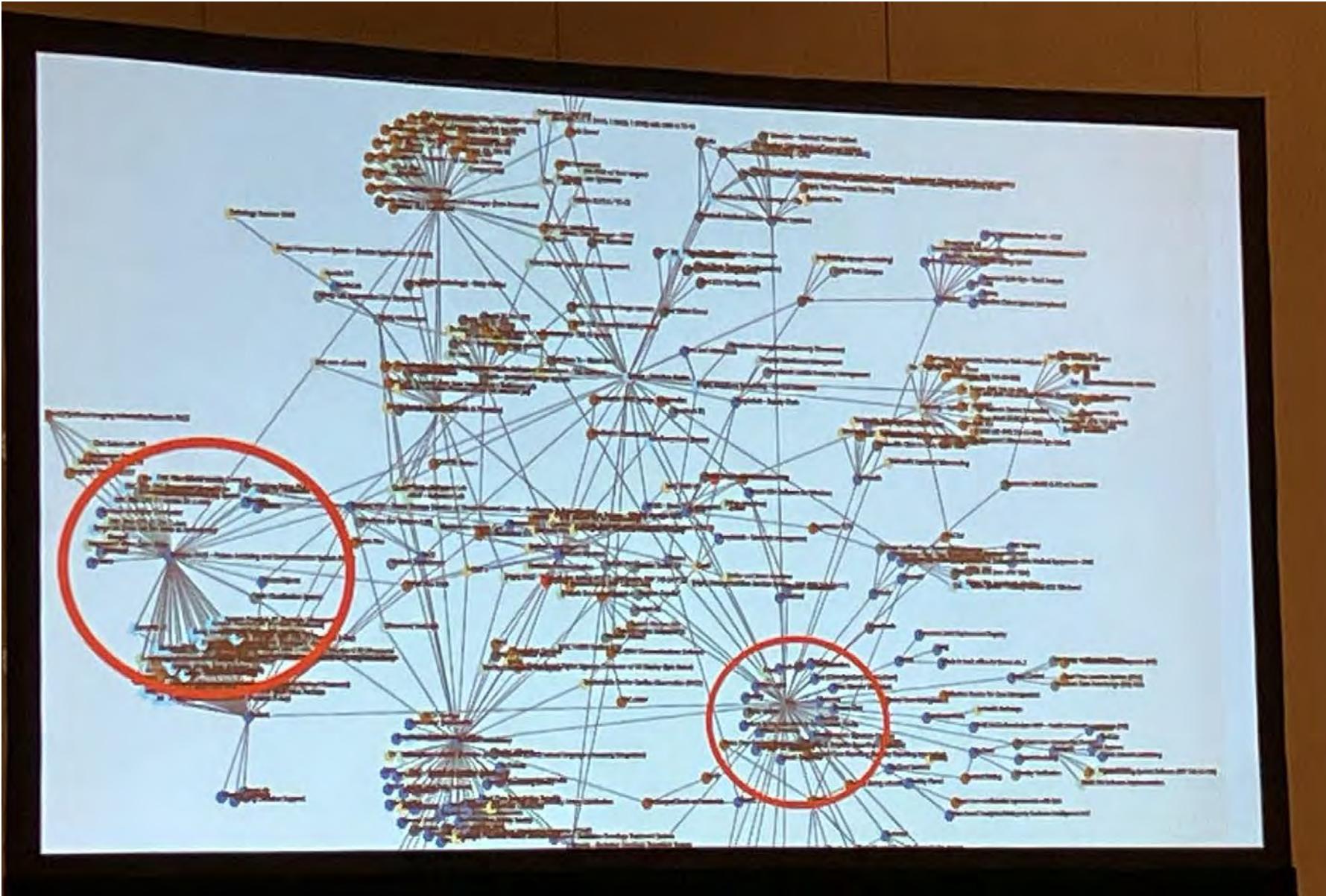
Source: John Riggi, American Hospital Association National Director Cybersecurity and Risk

CYBER ATTACKS HAPPEN...

Malware detection, safe links attachments

Defender for O365

Identity protection & conditional access

Entra ID Protection

Protection & conditional access to other cloud apps

Defender for Cloud Apps

Data theft

Phishing mail

Open attachment

Click a URL

Browse to a website

Brute force account or use stolen account credentials

Attacker accesses sensitive data

Exploitation & Installation

Command & Control

User account is **compromised**

Attacker attempts lateral movement

Privileged account **compromised**

Domain **compromised**

Endpoint Detection Protection and Response

Defender for Endpoint

Identity protection

Defender for Identity

Cybersecurity is not an "IT Thing"

A 2020 cyberattack on a **large academic health system**, attributed to malicious software embedded in an **email attachment** opened by an employee, affected more than **5,000 end-user devices** and 1,300 servers and led to revenue losses of more than **$63 million**.

Victims of medical identity theft incur on average costs of $**13,500** to recover from that theft, according to a study funded by the Institute for Critical Infrastructure Technology

*"At least in part because of senior management's lack of cybersecurity awareness, **many fail to invest or fail to invest appropriately** in cybersecurity infrastructure."*

"Small and Rural Health Care Providers Must Implement Strong Security Measures To Provide Efficient and Effective Health Care"

"Patients and communities have a critical need for health care providers…to be resilient and remain operational, which depends in part on the cybersecurity of their electronic information systems."

The "HIPAA Security Rule to Strengthen the Cybersecurity of Electronic Protected Health Information" Notice of Proposed Rule was issued Dec 27, 2024. It was archived from the HHS website in early February 025
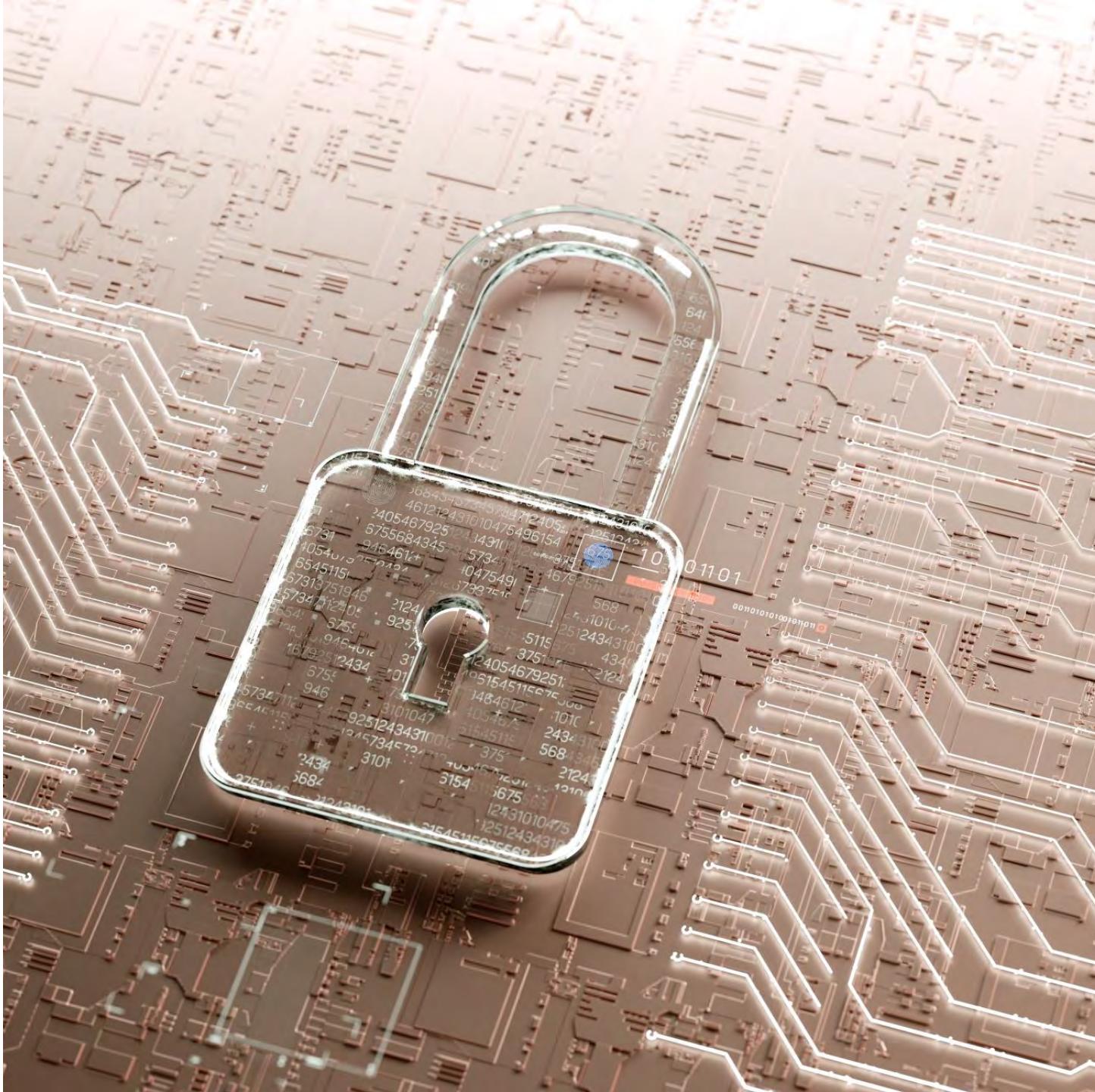
(Black & White) Insights from the Proposed Cybersecurity Rule...

1. The use of **antiquated hardware, systems, and software** by hospitals is concerning. 96% of hospital claim using end-of-life operating systems or software with known vulnerabilities, which is inclusive of medical devices

2. Only 49% of hospitals have adequate coverage in **managing risks to supply chain**. These risk rates as the third most important threat among 288 healthcare CISOs

3. Healthcare is rife with Asset Management deficiencies. **39% of hospitals don't have organizational data flows** and communication mapped and only 47% have external systems adequately catalogued

The Microsoft Cybersecurity Program for Rural Health

Microsoft, the **American Hospital Association,** and the **National Rural Health Association,** with support from **The White House** formed an unprecedented partnership committed to improving the security of all rural hospitals across the United States.

Assessments

- **Free cybersecurity assessments** to evaluate security risks and identify an action plan to protect the organizations

- Anchored in **health sector best practices** and cyber performance goals

Training

- **Free cybersecurity awareness training** resources for frontline staff to reduce risks and increase vigilance

- Foundational **cyber certification** and resources for IT staff in security and compliance roles

Affordability

- **Nonprofit pricing** for independent Critical Access and Rural Emergency Hospitals

- New licenses of the advanced E5 security product **free for 1 year** for other rural hospitals

- Free **Windows 10 Extended Security Update** (Summer 2025)

MS PROGRAM: FREE CYBER RISK ASSESSMENT

Discovery → **Evaluate Current State and Risk Profile** → **Report, Roadmap & Support**

Roadmap

Findings	Recommended Activities	FY24		FY25				FY26	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Separating User and Privileged Accounts	Implement the principle of least privilege and separation of duties.		X	X	X				
	Regularly test a plan to validate that privilege elevation processes takes place only when additional access is temporarily needed.					X	X		X
Pen-Testing	Work with an external penetration testing provider to schedule an annual penetration test to compliment the CISA external vulnerability scanning			X	X				
	Document findings from penetration test and address them where possible. When not possible, have asset owner accept risk					X			
Vendor Auditing	Creating a documented policy of standards and assurances for third party vendors, and establish a system to re-evaluate the policy	X	X						
	Create a vendor notification policy to advise a vendor when their equipment, modality, or software has a vulnerability discovered or is involved in a cybersecurity incident.	X	X					X	
Training and Education	Implement regular training schedule as well as quantifiable training for all employees. Track results and report to IT & hospital management. Observe results after cybersecurity awareness campaigns to see effects	X	X						
	Adapt training to specific roles and further develop other methods to reinforce cybersecurity awareness, including posters in strategic places, newsletters					X	X		

Sample

Cybersecurity Resilience: Across the Board Challenges

Percent of Rural Hospitals with a "Passing Score" based on Cyber Expert Opinion

■ % Rural Hospitals above Passing Score
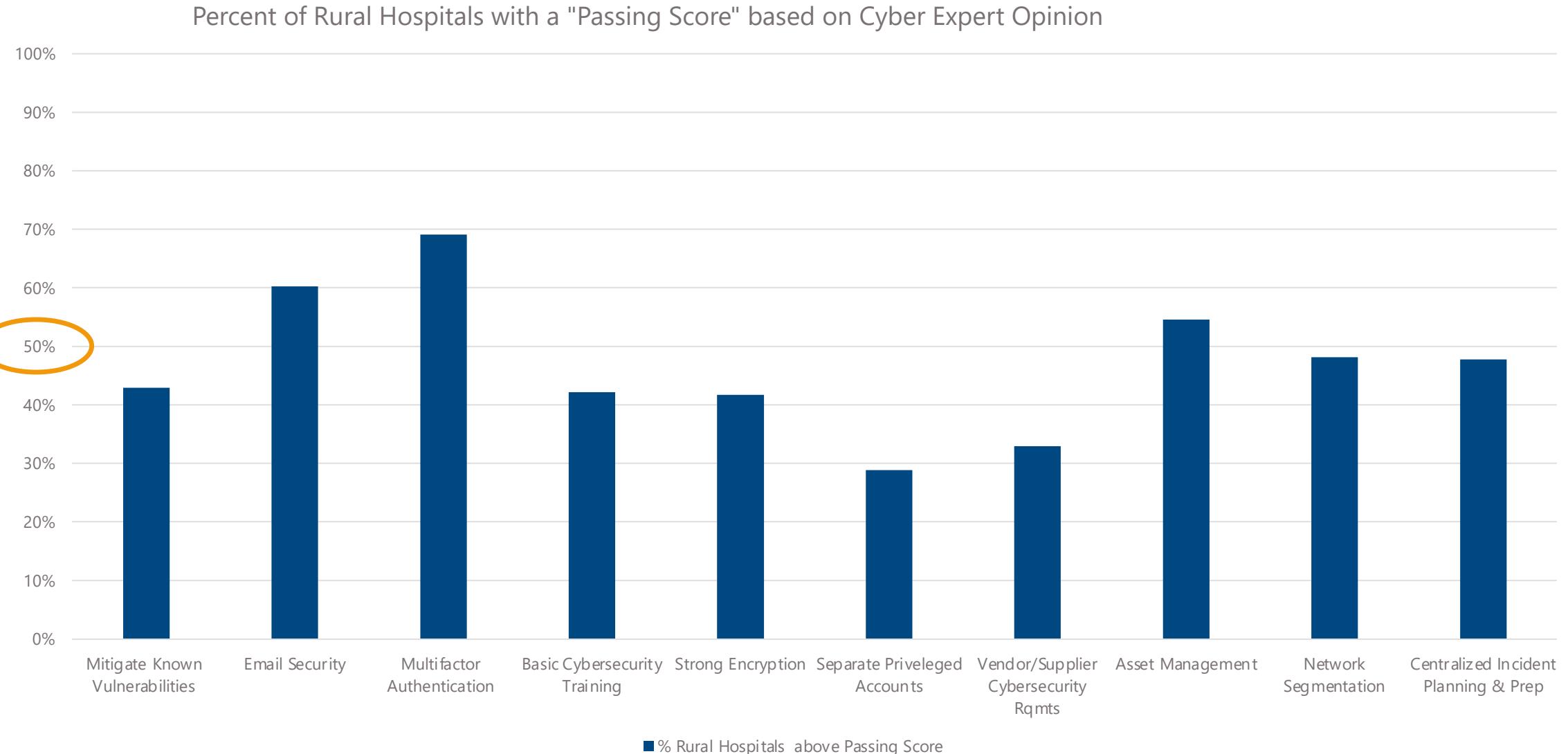
MS PROGRAM: FREE TRAINING & PRODUCT DISCOUNTS

Nonprofit Pricing* for Independent CAHs and REHs includes

- MS 365 Business Premium
- MS 365 E3
- MS 365 F3
- Power BI Desktop
- Power BI Pro
- Azure
- Power Apps
- Dynamics
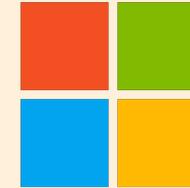
* FQHCs and RHCs are also eligible

All Other Rural Hospitals are Eligible for...

The Microsoft E5 Security add-on, which can be integrated with Microsoft 365 E3 to provide advanced security, threat protection, compliance features, and analytical tools.

The Microsoft Cybersecurity Program for Rural Hospitals: Program Registration Link

Understanding Generative AI, OpenAI, and Microsoft Copilot

- **Generative AI** "learns" from existing information to create new content.
- **OpenAI and Deepseek** are organizations developing AI models.
- **Microsoft Copilot and ChatGPT** integrate AI to enhance productivity tools
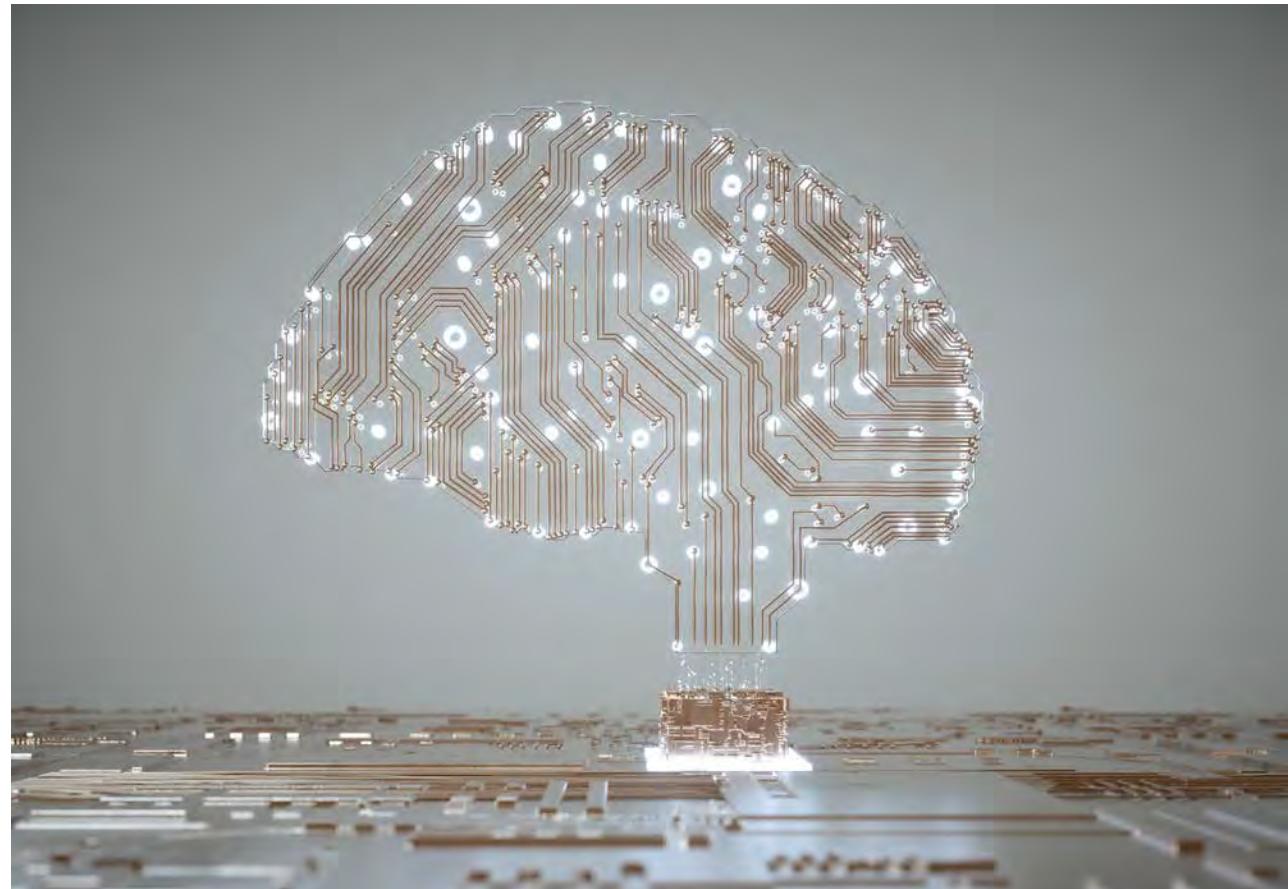
AI: The 4th Industrial Revolution

- Use of generative AI **nearly doubled** in six months (MS/LinkedIn 2024 Work Trend Index)

- Heartland Forward's AI poll across AL, IL, IN, LA, MI, ND, OH, OK and TN found:
  - **79%** of respondents believe AI has potential to make a positive difference in health care.

  - **64%** want AI training in the workplace, indicating a willingness to embrace AI through education and training.
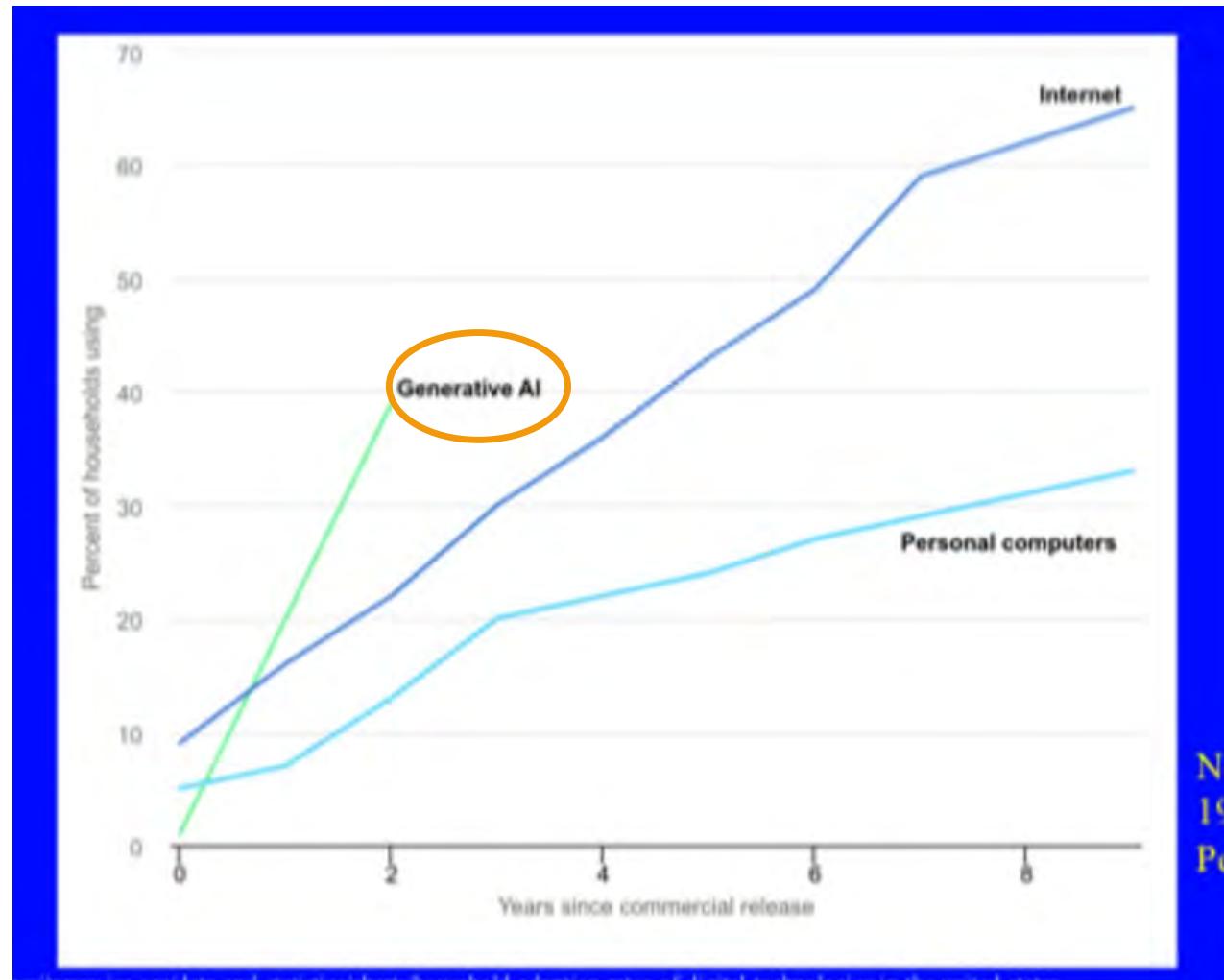
Source: Jamie Orlikoff/AHA 2025 Rural Health Leaders Conference

AI in Rural Health

Artificial intelligence supports our decision making and activities

Clinical Services

- **Access to Care**: AI-powered virtual care, remote consults and chronic condition monitoring
- **Decision-Making**: support timely, accurate diagnosis and clinical actions
- **Resource Allocation**: identify high-risk patients, allocate resources and streamline workflows

Administrative Burden

- **Ambient-listening** to ease documentation time
- **Scheduling** of staff, patients, ORs, etc.
- **Billing and coding** accuracy and efficiency
- **Denials Management**
- **Grant** identification and writing
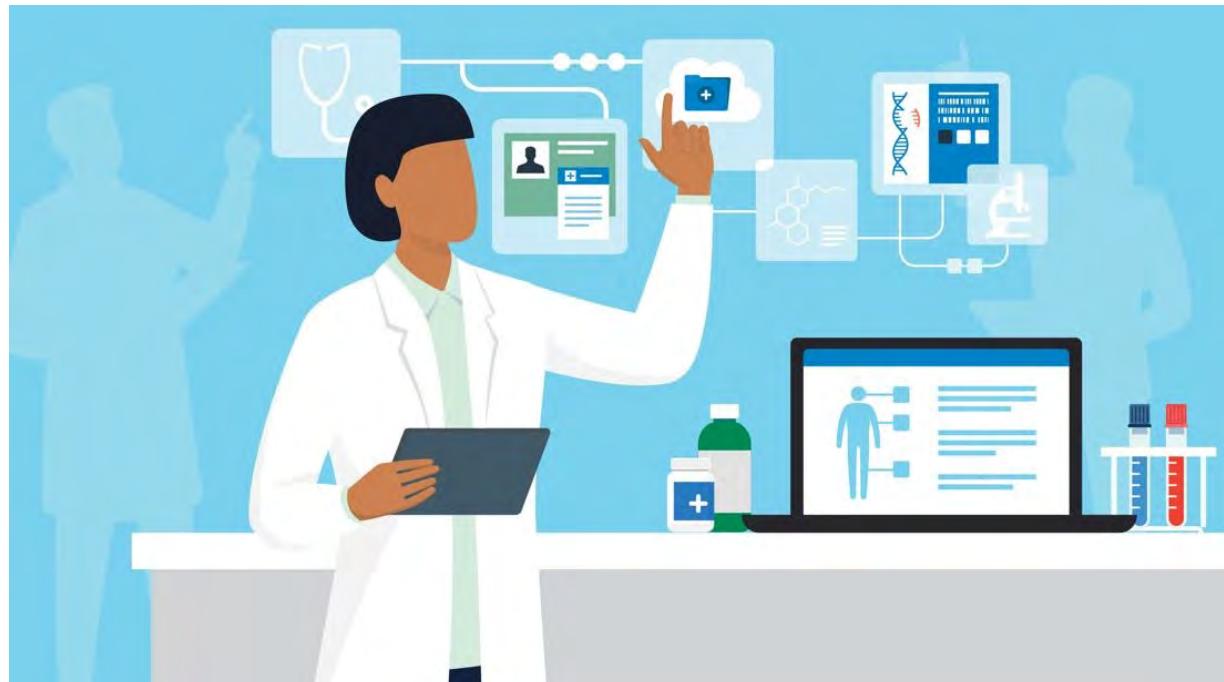
Image Source: Cleveland Clinic

RHAIL: Fostering AI Innovation for Rural Health

Microsoft launched the **Rural Health AI Innovation Lab** (RHAIL) to collaborate with rural customers in developing innovative AI solutions for rural health's challenges

- The goal is to drive technology advancement, financial performance and address health disparities unique to the patients and communities served by Rural Health

- Use Cases identified and framed by the voice of the customer

- Aligned with Responsible AI practices and principles

- "Low Code/No Code" to build

- Affordable and accessible

  - Tools put on GitHub to access for free

By starting small, we can have a big impact

RHAIL IN ACTION

The Initial Rural Health AI Cohort aligned on addressing the laborious but critical task of researching and resolving denied Medicare, Medicaid and Commercial Insurance claims

- *Hospitals spend almost $20B annually appealing denials.*

- *HHS' Office of Inspector General (OIG) found that 75% of care denials were subsequently overturned.*

- *Hospitals are not paid for the costs incurred to navigate the burdensome and resource-intensive process.*

https://www.youtube.com/watch?v=FkPDbBSOiKQ
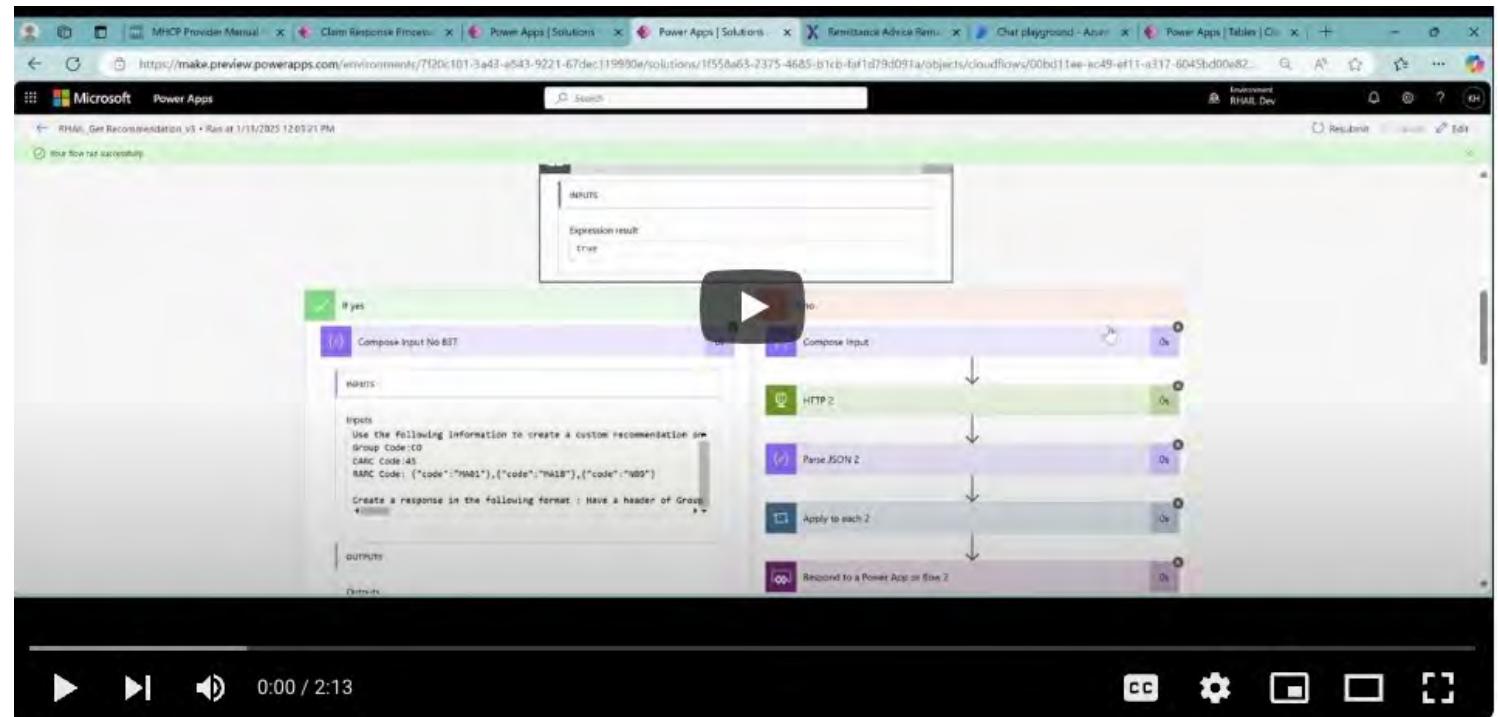
RHAIL #2: The Referral Router

Outbound referrals for specialized care in rural healthcare systems are disproportionately challenging due to:

- Manual, opaque, and inconsistent processes
- Limited specialist availability
- Logistical constraints
- Insurance complexities
- Poor patient communication mechanisms

Impact: impeded/delayed care, patient outcomes, patient/provider satisfaction, and revenue leakage

The AI-enabled "Referral Router" will addresses the front-end referral process to:

1. **Improve Patient Care:** Faster access to specialists and better outcomes.
2. **Enhanced Experience:** Simplify and clarify the referral process.
3. **Increase Operational Efficiencies:** Reduce staff burden of scheduling and follow-ups.
4. **Minimize Leakage:** Keep patients within the rural system for ongoing care.

ETA Fall 2025

If you do only One Thing after today's session

YOUR

Expanding opportunity with AI skills

Aka.ms/AISkillsNavigator

AI Skills Navigator landing page

1 **New AI-powered assistant helps learners find their best path to AI skills**

2 Assessment to find the right starting point

3 Access breadth of learning pathways

Microsoft | AI Skills Navigator   Digital Skills   Microsoft Learn   LinkedIn Learning
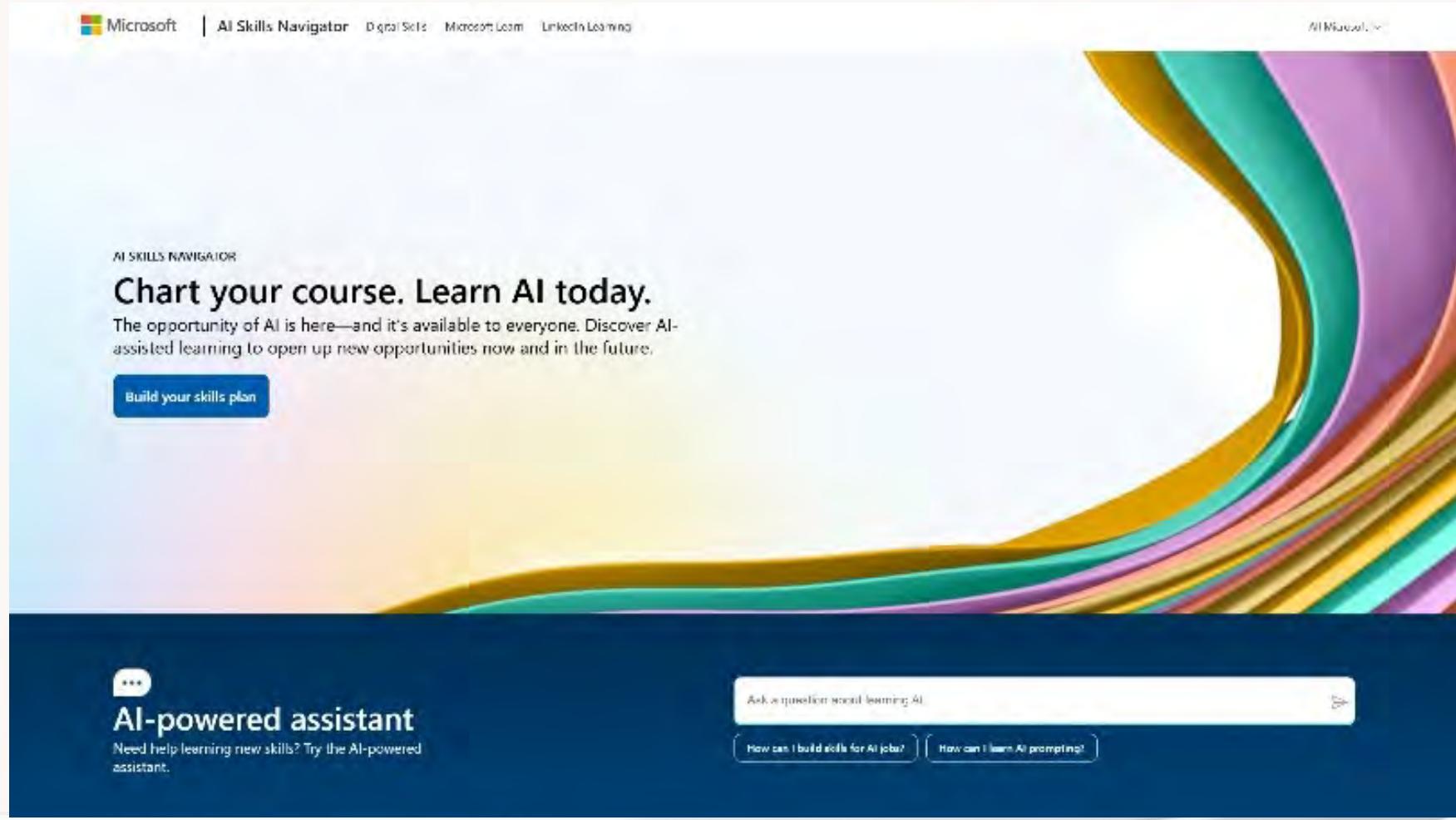
AI SKILLS NAVIGATOR

Chart your course. Learn AI today.

The opportunity of AI is here—and it's available to everyone. Discover AI-assisted learning to open up new opportunities now and in the future.

Build your skills plan

AI-powered assistant

Need help learning new skills? Try the AI-powered assistant.

Ask a question about learning AI

How can I build skills for AI jobs?   How can I learn AI prompting?

AI-powered assistant

Build your skills plan

Tell us a little about yourself to get personalized resources.

02:20 PM

How are you hoping to leverage AI?

I want to use AI to boost my productivity.

I want to build AI solutions or leverage its power to solve complex problems.

I want to harness AI to drive business transformation.

I want to train others to leverage AI.

02:20 PM

To learn AI prompting, you can follow these steps and utilize the resources available:

1. Start with the Basics:
- Learn the core concepts of Artificial Intelligence and generative AI functionality. This will provide a solid foundation for understanding how AI prompting works.

2. Explore Generative AI Tools:
- Familiarize yourself with currently available generative AI tools and their impacts. This includes understanding the ethical considerations when using these tools.

AI-generated content may be incorrect

Ask a question.

0/2000

RESOURCES

Rural Health Resiliency Webinar Series

A Free Webinar Series to help rural health (IT) Leaders learn and develop new skills

The Rural Health Cyber Landscape
March 19, 1:00 PM–1:40 PM ET

Best Practices in Identity and Access Management using Microsoft Entra ID
June 11 1:00 PM–1:40 PM ET

Supporting Rural Health through AI Innovation
September 10, 1:00 PM–1:40 PM ET

Next level innovation for rural health: A CIO's real-world example
April 9, 1:00 PM–1:40 PM ET

What I learned from my CAH's Cyber-attack: Best Practices in Incident Response
July 9, 1:00 PM–1:40 PM ET

Security Transformation is Cloud Transformation
October 8, 1:00 PM–1:40 PM ET

Understanding the security features of Microsoft Business Premium, E3, and E5
May 14 1:00 PM–1:40 PM ET

Best Practices in Endpoint Management using Microsoft Intune
August 13, 1:00 PM–1:40 PM ET

Register for the series here!

https://nonprofits.tsi.microsoft.com/EN-US/rural-hospital/

The Rural Health Community

BACKGROUND:

The national **Rural Health Community** is a dedicated forum for Rural Health IT leaders to connect, share solutions, best practices and drive innovation for rural health. It was founded in 2024 by rural health CIOs, CHIME - the digital health leaders association - Microsoft and Nordic.

OBJECTIVES:

✓**Advocate as a voice to the private and public sector** in support of tech needs of rural healthcare

✓Provide access to/establish innovative programs and **cost-effective solutions** for rural health.

✓**Foster relationships and collaboration** among rural health IT teams.

JOIN THE COMMUNITY!

E-mail to join the mailing list

Info@RuralHealthCommunity.org

It's free to join/be a member

(and we won't spam you/sell your info)

Rural Health Resources

- [Microsoft Cybersecurity Program for Rural Hospitals](#) – register here for access the Assessment, Training and Licensing Offers.
  - [Nonprofit Offers Registration](#)
  - [Cyber Awareness Education](#)
  - [Cyber Essentials Certification Course](#)

- Rural Cyber Webinar Series: *Coming Soon. Register above to be informed of topics and schedule*

- Join the national **Rural Health IT Community**

Contact the Microsoft Rural Health Team
with questions or feedback: MRHTP@Microsoft.com

AI Resources

Users/Staff

LinkedIn Learning offers pathways to for those using generative AI in their jobs and daily lives

- [LinkedIn Generative AI Pathway](#)
- [LinkedIn Productivity with GenAI Learning Pathway](#)
- [Digital Skills Compass](#)
- [LinkedIn CoPilot for Productivity Pathway](#)
- [AI fluency content](#)

Organizational Leaders

Linked Learning supports decision makers responsible for managing adoption of generative AI and integrating it into workflows

- [LinkedIn AI for Organizational Leaders Learning Pathway](#)
- [LinkedIn AI for Managers Learning Pathway](#)
- Learn AI collection for business leaders

AI Learning Hub

The Microsoft AI Learning Hub offers curated learning journeys to support business and technical staff in building AI skills.

Microsoft

Thank you!