



# ORH Webinar Series

February 27, 2025

## Rural Health Cybersecurity: Resources for Resilience

*The mission of the Oregon Office of Rural Health is to improve the quality, availability and accessibility of health care for rural Oregonians.*

*The Oregon Office of Rural Health's vision statement is to serve as a state leader in providing resources, developing innovative strategies and cultivating collaborative partnerships to support Oregon rural communities in achieving optimal health and well-being.*



## Webinar Logistics

- Audio is muted for all attendees.
- Select to populate the  to populate the chat feature on the bottom right of your screen. Please use either the chat function or raise your hand  on the bottom of your screen to ask your question live.
- Presentation slides and recordings will be posted shortly after the session at: <https://www.ohsu.edu/oregon-office-of-rural-health/resources-and-technical-assistance-cahs>.





Laura Kreofsky, MHA, MBA, PMP, CDH-E is a recognized leader in health care strategy and technology focusing on innovation to accelerate digital transformation for social impact. For over 30 years, she has worked in and with health care delivery organizations with a passion for advancing technology-enabled healthcare in underserved communities.

Today, Laura leads Microsoft Philanthropies work in Rural Health Resiliency that supports building cybersecurity and digital and AI capabilities for rural healthcare providers across the U.S. She is on the Advisory Board of the Oregon Chapter of HIMSS, a founder of the Rural Health Community whose mission is advocacy and affordable technology for rural providers, She has been recognized by Consulting Magazine as a Female Leader in Technology and the University of Minnesota Delta Omega Public Health Honor Society.

# *Supporting Rural America:* Rural Health Resiliency

*Laura Kreofsky, MHA, MBA*  
*Director, Rural Health Resiliency*  
*Microsoft Philanthropies*  
*[lkreofsky@microsoft.com](mailto:lkreofsky@microsoft.com)*

*DATE: February 27, 2025*

# Microsoft Corporation

Microsoft Philanthropies (CELA)

## Tech for Social Impact

Rural Hospital  
Resiliency

Campaign &  
Election Integrity

Cyber  
Disinformation

# 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



Did you get “The Letter?”

# The Change Healthcare Hack Timeline

Feb '24



Oct '24

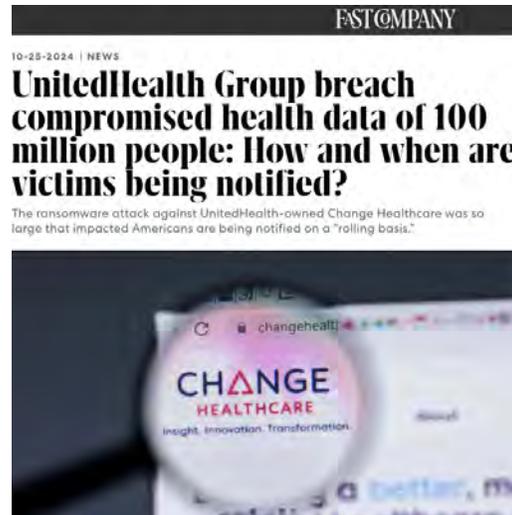


Forever...

July '24



Jan '25



# THE HEALTHCARE CYBER LANDSCAPE

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**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%+**

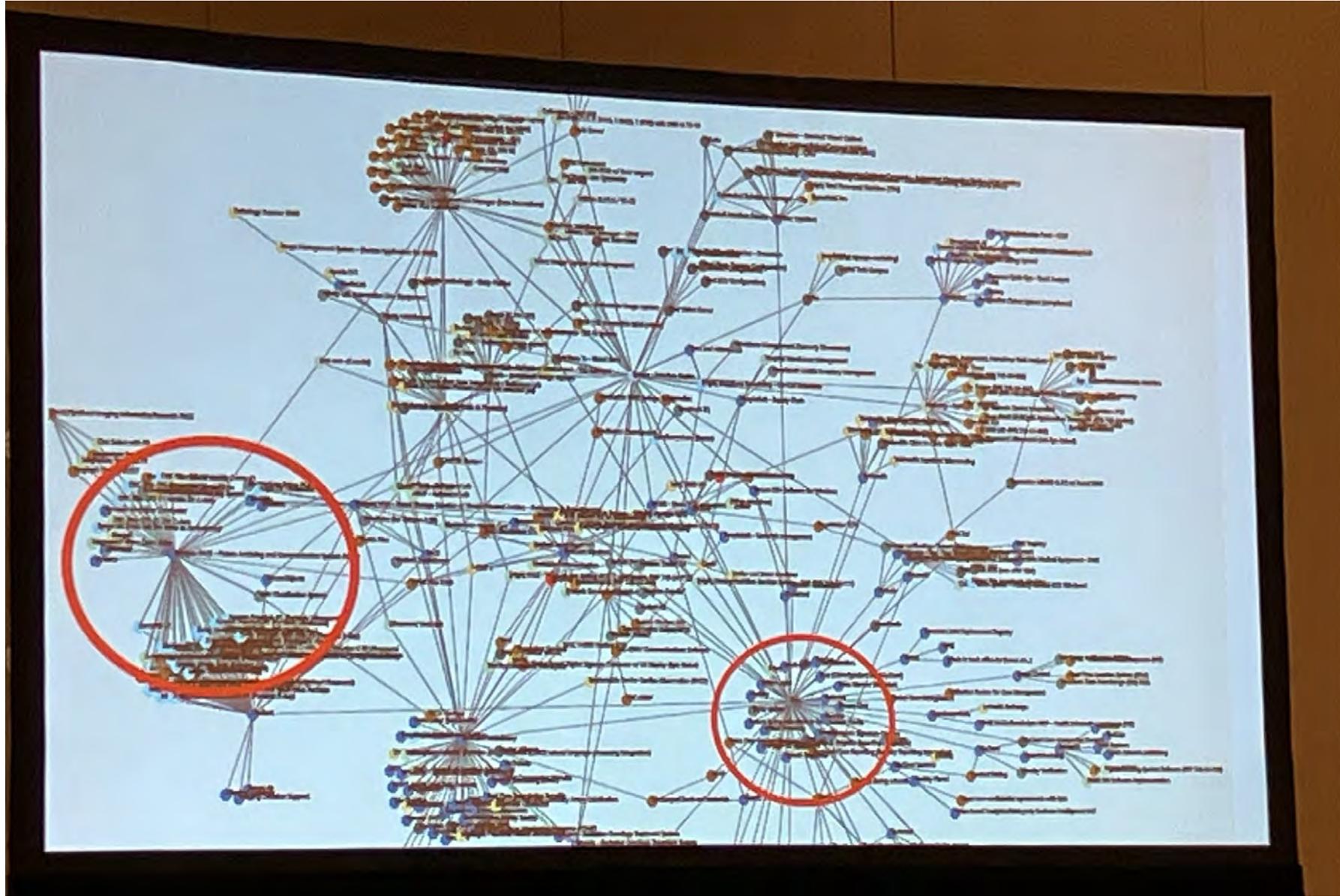
ATTACKS DUE TO  
HUMAN ERROR



**\$10M**

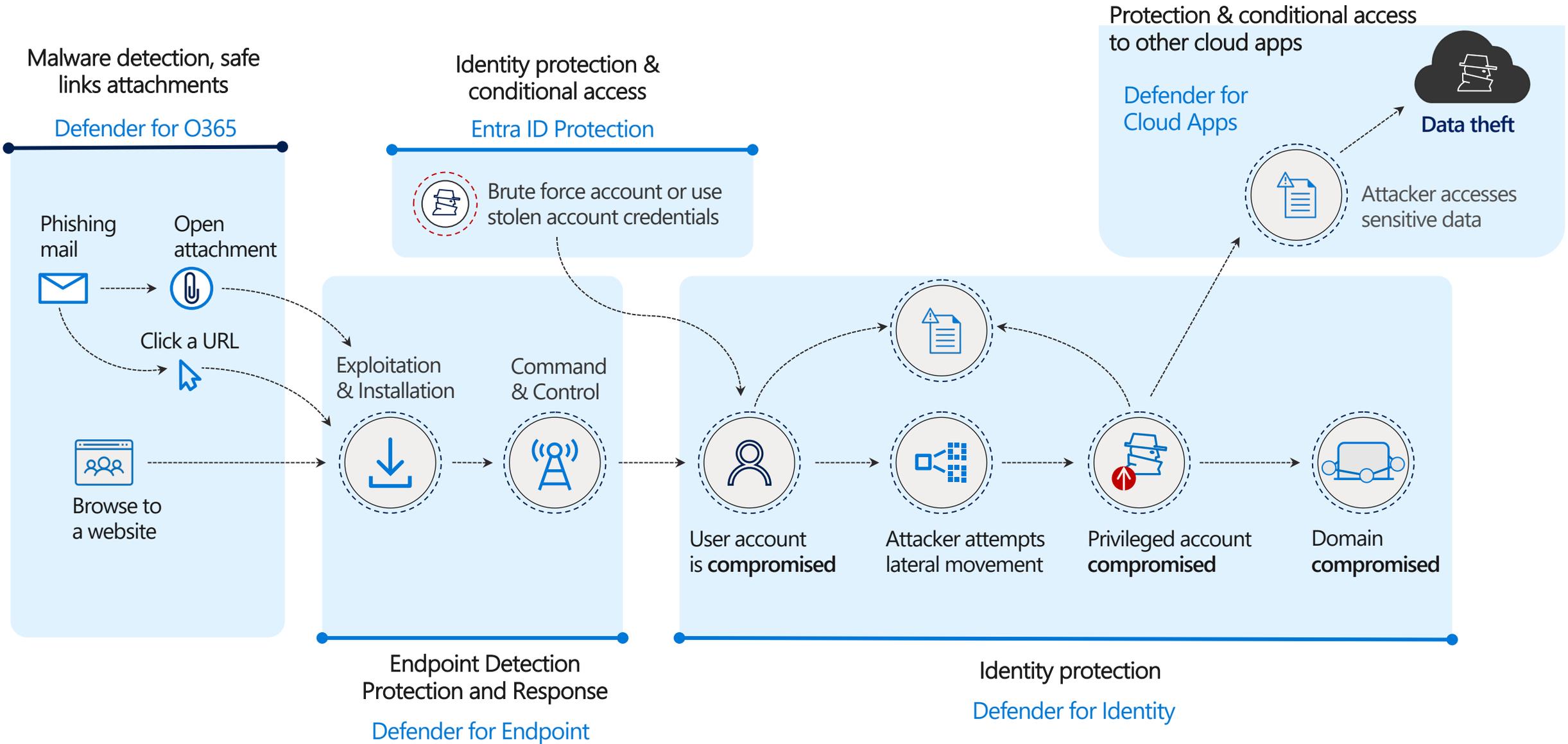
AVG COST OF  
HEALTHCARE DATA  
BREACHES IN 2024

# WHAT COULD POSSIBLY GO WRONG?



Source: John Riggi, American Hospital Association National Director Cybersecurity and Risk

# CYBER ATTACKS HAPPEN...



# 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**.

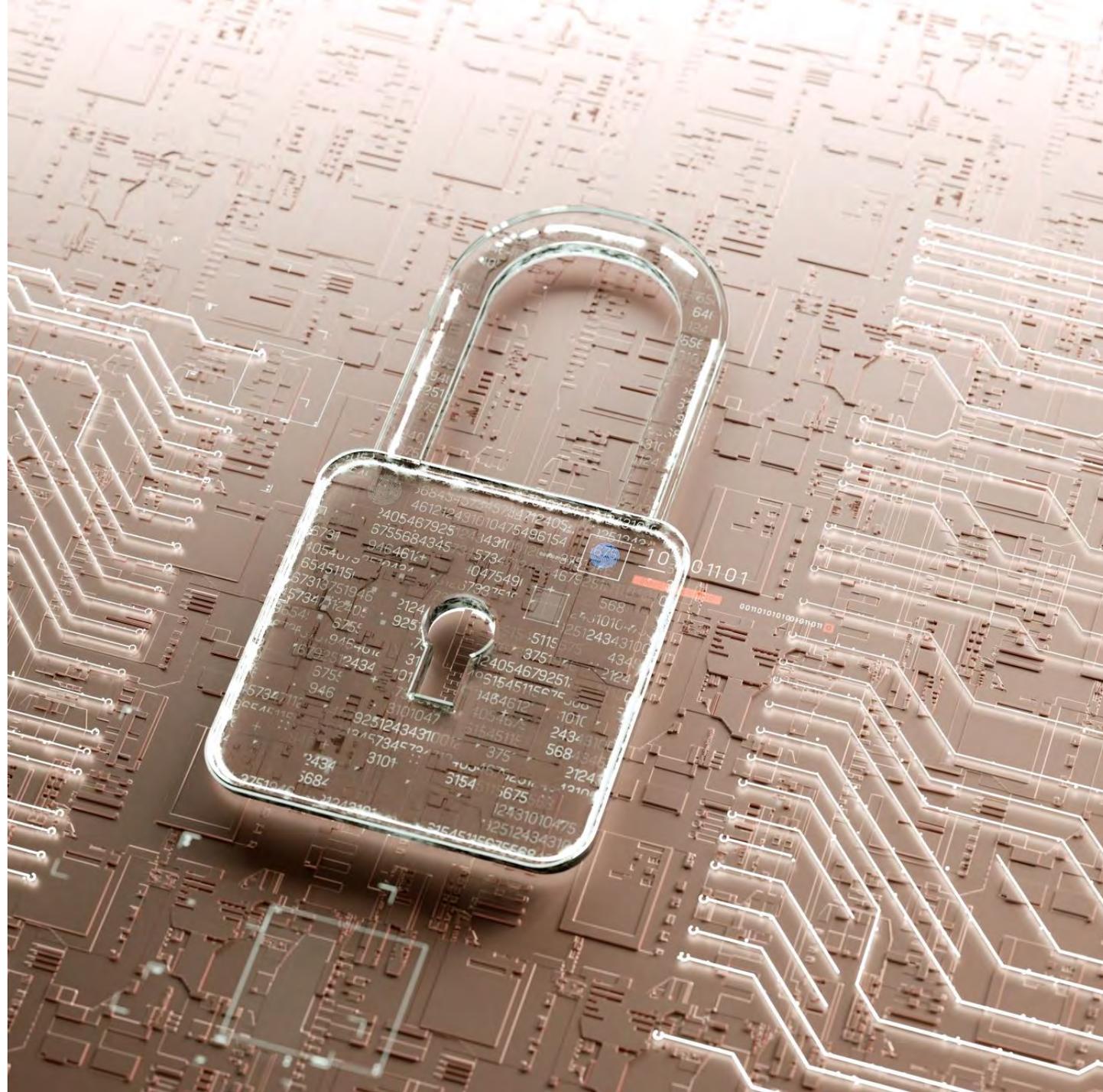
**Victims of medical identity** theft incur on average costs of **\$13,500** to recover from that theft, according to a study funded by the Institute for Critical Infrastructure Technology

*“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)

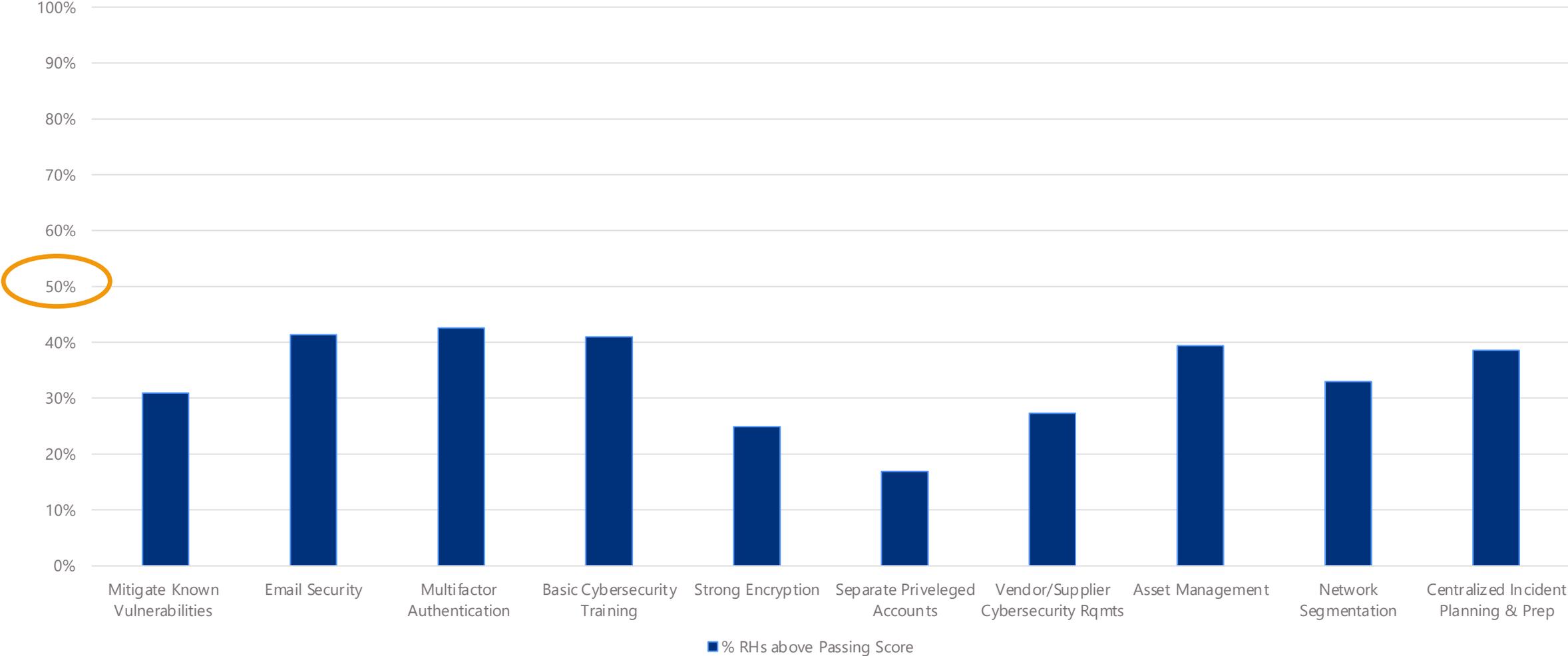
# MS PROGRAM: FREE CYBER RISK ASSESSMENT



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.								
	Regularly test a plan to validate that privilege elevation processes takes place only when additional access is temporarily needed.								
Pen-Testing	Work with an external penetration testing provider to schedule an annual penetration test to compliment the CISA external vulnerability scanning								
	Document findings from penetration test and address them where possible. When not possible, have asset owner accept risk.								
Vendor Auditing	Creating a documented policy of standards and practices for third party vendors, and establish a system to re-evaluate the policy								
	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.								
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								
	Adapt training to specific roles and further develop other methods to reinforce cybersecurity awareness, including posters in strategic places, newsletters								

# Cybersecurity Resilience: Across the Board Challenges

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



# MS PROGRAM: FREE TRAINING & PRODUCT DISCOUNTS

Microsoft

## Cybersecurity skilling for rural hospitals

**Microsoft Cybersecurity Program for Rural Hospitals**

Cyberattacks are a growing threat that can severely impact patient care and compromise private data. Microsoft is committed to helping rural hospitals keep their health services safe and secure.

[Learn More](#)

**Cybersecurity is for everyone**

Educate everyone in your organization with the cybersecurity awareness resources and training curated by the security experts at Microsoft.

### Ensure frontline workers understand cybersecurity basics

Get your team started with the free Microsoft Learn Path: **Essential cybersecurity awareness for healthcare staff**

- Basic cybersecurity threats, attacks, and mitigations
- Authentication and authorization in cybersecurity
- Device-based threats and security controls
- Application-based threats and how to protect against them
- Securing your Basics and beyond

### Certification and advanced skilling for IT staff

Earn your free **career essentials certificate** in cybersecurity

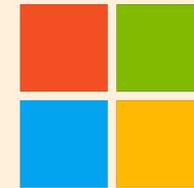
**Advanced skilling**

Complete additional learning paths

- Microsoft security documentation
- Microsoft 365 security and compliance capabilities

## 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



# Microsoft

\* 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](#)

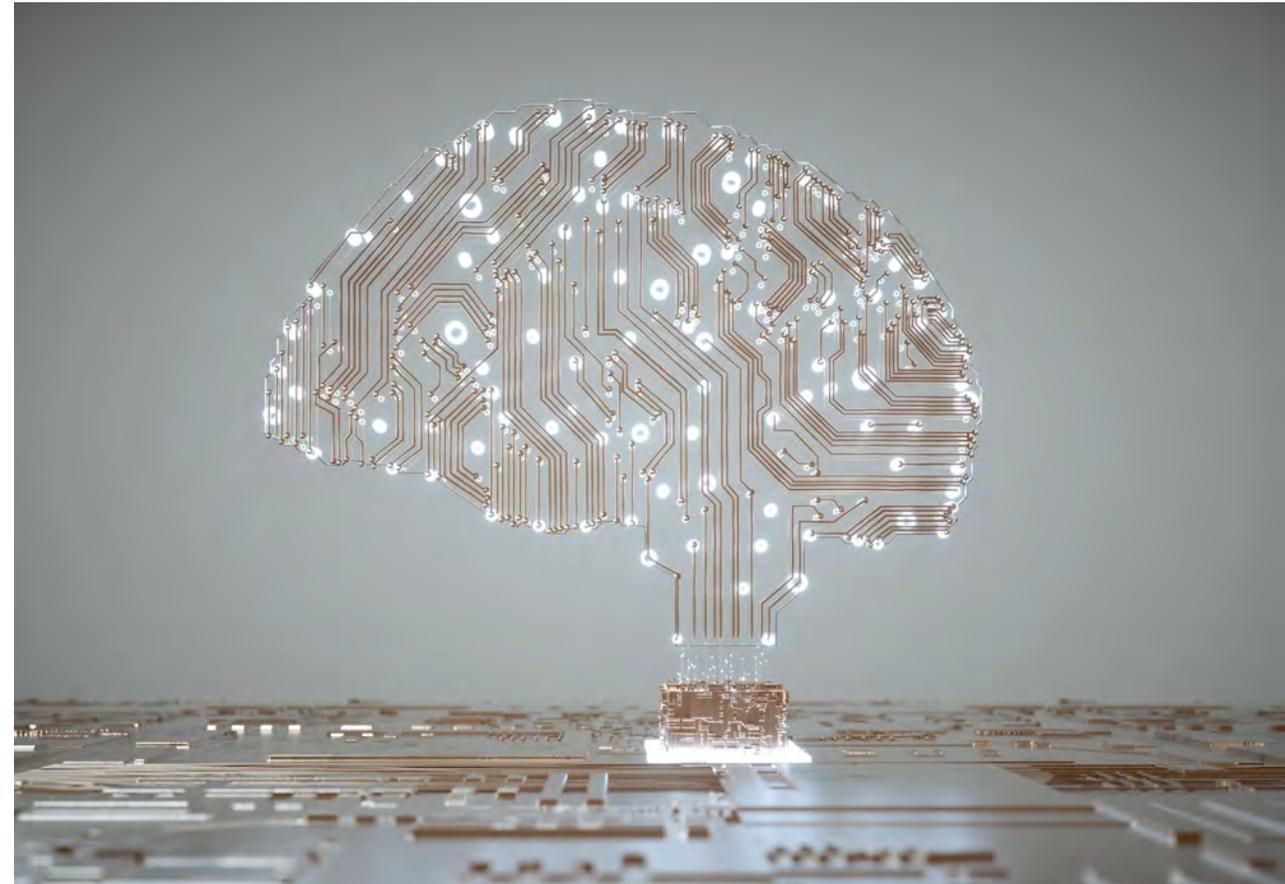


# AI in Support of Rural Health



# Understanding Generative AI, OpenAI, and Microsoft Copilot

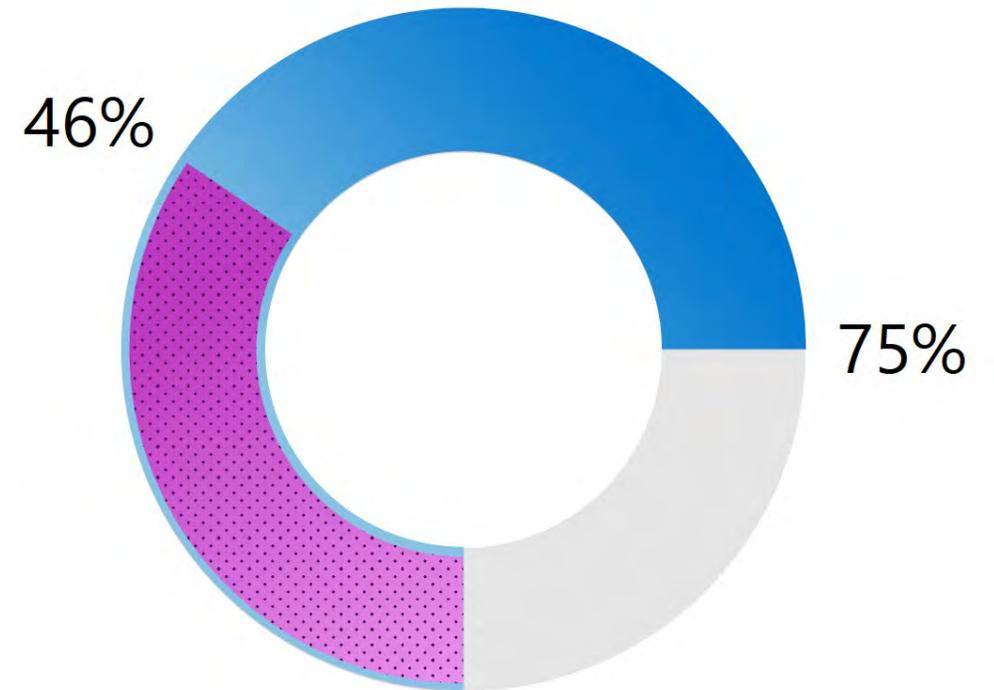
- **Generative AI** “learns” from existing information to create new content.
- **OpenAI and Deepseek** are organizations developing AI models.
- **Microsoft Copilot and ChatGPT** integrate AI to enhance productivity tools



# AI is here to stay

- Use of generative AI has nearly doubled in the last six months with **75%** of global knowledge workers using it..... and **46%** of users started using it less than six months ago. (Microsoft and LinkedIn 2024 Work Trend Index)

- Heartland Forward's AI poll across **Alabama, Illinois, Indiana, Louisiana, Michigan, North Dakota, Ohio, Oklahoma and Tennessee** found:
  - 78.5% of respondents believe AI has potential to make a positive difference in health care.
  - The majority of respondents – 64% agree they should receive AI training in the workplace, indicating a willingness to embrace AI through education and training.



# 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

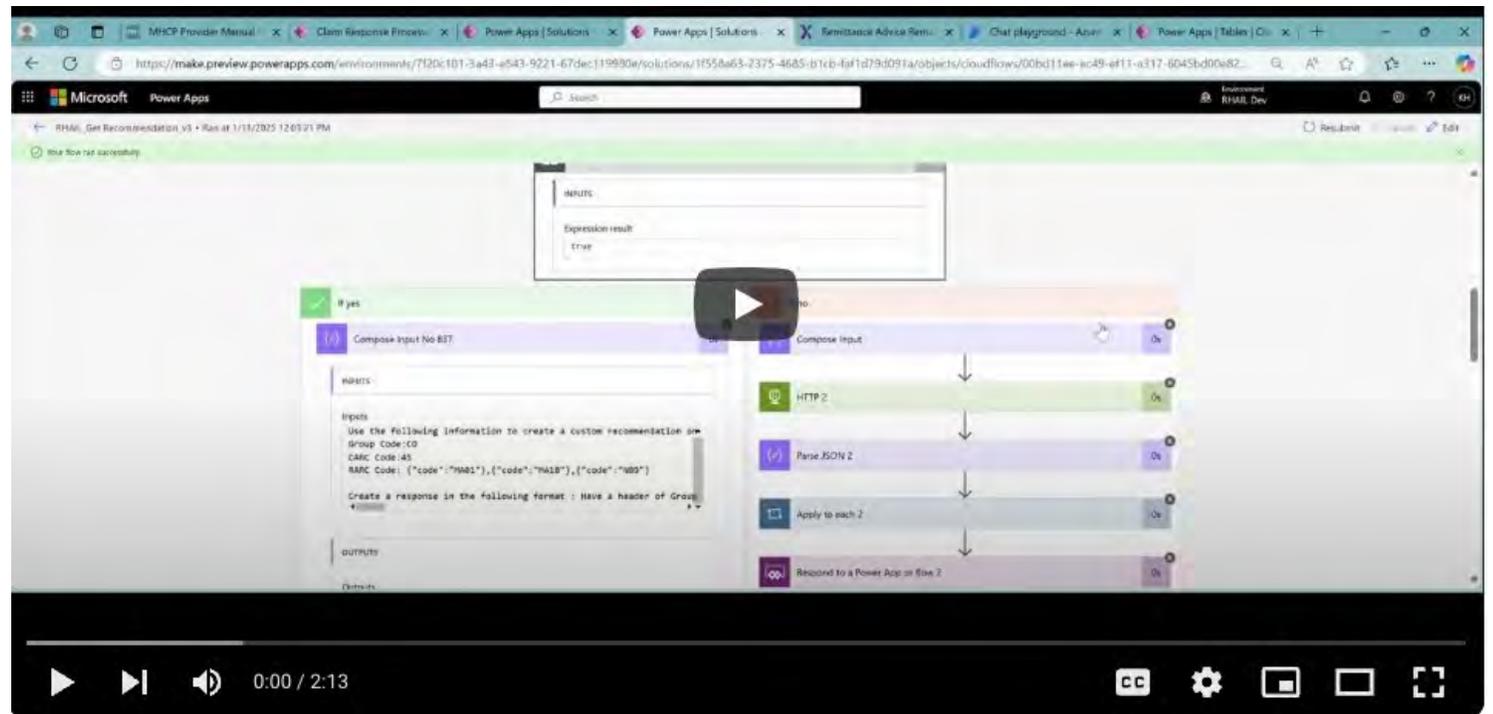


By starting small, we  
can have a big impact

# 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=FkPDdBSoiKQ>

# RHAIL #2: The Referral Router Copilot

**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 address 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

# Where are **YOU** on AI Adoption?

- Use of genAI has nearly doubled in the last six months
  - **75%** of global knowledge workers use it
  - **46% of users started using it less than six months ago**
- **76%** of people say they need AI skills to remain competitive in the job market.
- **79%** say AI skills will broaden their job opportunities.
- In six months, the use of LinkedIn courses to build AI aptitude spiked **160%** among non-technical professionals
- **60 – 75% of heartland residents think employers should teach them AI skills, per Heartland Forward**

If you do only One Thing after today's session

**YOUR**  
Expanding opportunity with AI skills

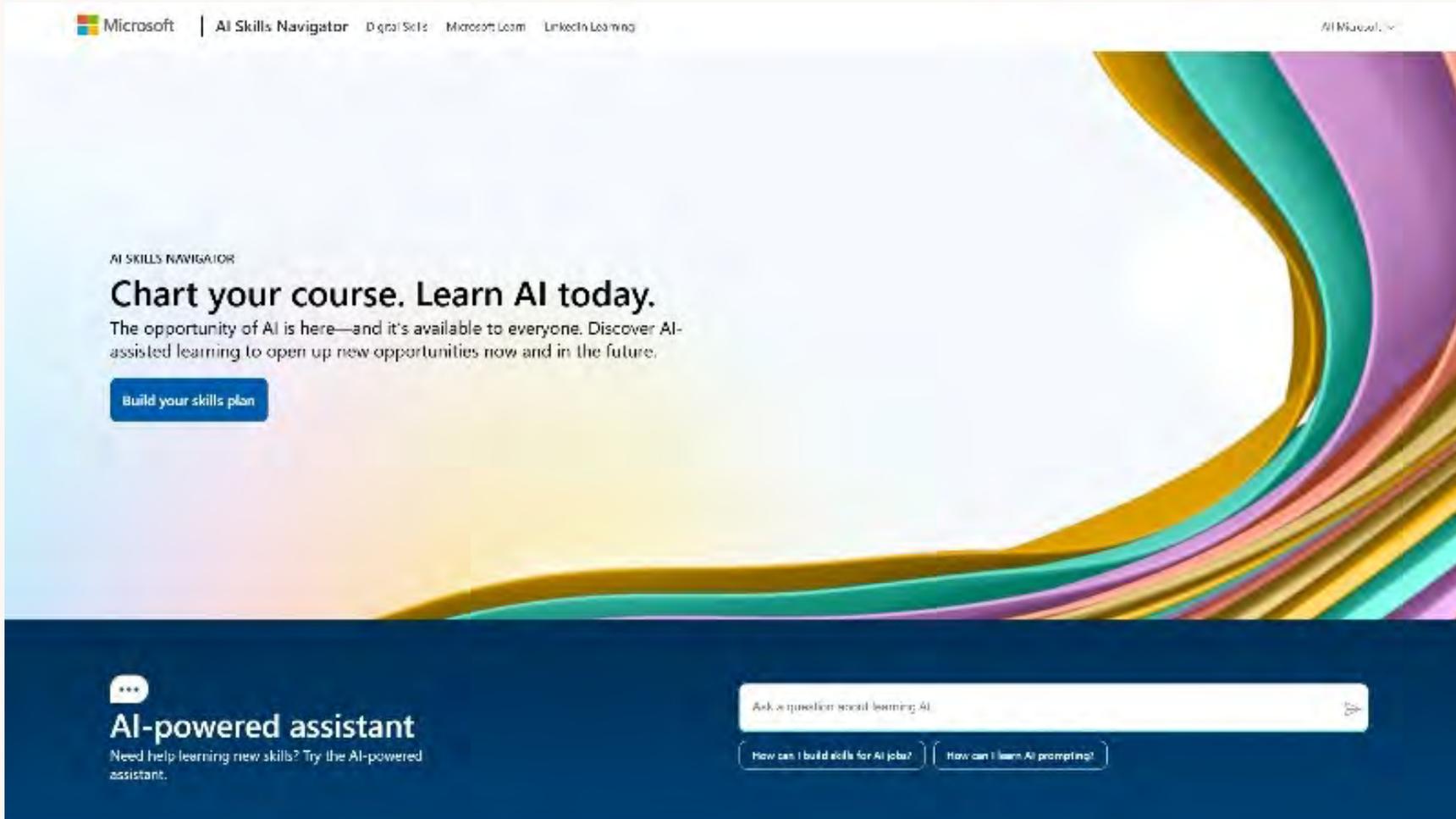
[Aka.ms/AISkillsNavigator](https://Aka.ms/AISkillsNavigator)

# 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



## 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.



# 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!](#)

# (The Rural Health Community

## BACKGROUND:

The national **Rural Health IT 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 fall of 2024 by rural health CIOs, CHIME - the digital health leaders association - Microsoft and Nordic Consulting.

## OBJECTIVES:

- ✓ **Advocate as a voice to the private and public sector** in support of technology needs of rural healthcare
- ✓ Provide access to, and/or establish innovative programs and **cost-effective solutions** for rural health.
- ✓ **Foster relationships and collaboration** among rural health IT teams.

## JOIN THE [RURAL HEALTH IT COMMUNITY HERE](#)

- ✓ It's free to join/be a member
- ✓ The reg. list will only be used to inform members of upcoming events.

# 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](mailto: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



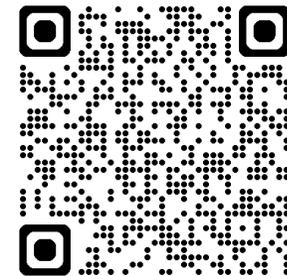
**Linked Learning** supports decision makers responsible for managing adoption of generative AI and integrating it into workflows

- [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.





# Appendix



<b>Feature</b>	<b>Microsoft 365 E3</b>	<b>Microsoft 365 E5</b>
<b>Information Protection &amp; Governance</b>	<b>Yes</b>	<b>Yes</b>
<b>Universal Print</b>	<b>Yes</b>	<b>Yes</b>
<b>Microsoft Defender for Endpoint Plan 1</b>	<b>Yes</b>	<b>Yes</b>
<b>Microsoft Defender for Office 365 Plan 1</b>	<b>Yes</b>	<b>Yes</b>
<b>Microsoft Defender for Identity</b>	<b>Yes</b>	<b>Yes</b>
<b>Microsoft Defender for Cloud Apps</b>	<b>Yes</b>	<b>Yes</b>
<b>Customer Lockbox</b>	<b>No</b>	<b>Yes</b>
<b>Defender for IoT - Enterprise IoT Security</b>	<b>No</b>	<b>Yes</b>
<b>Immersive spaces for Teams</b>	<b>No</b>	<b>Yes</b>
<b>Information Protection and Governance Analytics - Premium</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Defender Application Guard for Office</b>	<b>No</b>	<b>Yes</b>
<b>Machine Learning-Based Classification</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Endpoint DLP</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Insider Risk Management</b>	<b>No</b>	<b>Yes</b>
<b>Safe Documents</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Defender for Endpoint Plan 2</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Defender for Office 365 Plan 2</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Defender for Identity Plan 2</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Defender for Cloud Apps Plan 2</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Defender for Endpoint</b>	<b>No</b>	<b>Yes</b>
<b>Microsoft Defender for Office 365</b>	<b>No</b>	<b>Yes</b>



# ORH Announcements

**Next ORH Biweekly Policy Update Meeting | March 7 | 12:00 p.m. ([Register here](#))**

**Next Community Conversations | May 23 | 12:00 p.m.  
ORH's New Rural Health Resource Hub ([Register here](#))**

**Rural Population Health Incubator Grants | Applications due April 11, 2025  
([More information here](#))**

**May 19-21, Seaside, OR | 2<sup>nd</sup> Annual Forum on Rural Population Health & Health Equity  
([Register here](#))**

**October 1-3, Bend, OR | 42<sup>nd</sup> Annual Oregon Rural Health Conference  
([More information here](#))**

# Thank you!

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