

Augmented Intelligence: Policies, Procedures, and Preparation

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Abstract

Augmented intelligence (AI), sometimes referred to as artificial intelligence, is a rapidly evolving technology space with significant health care impact. Whether it's research, software development, patient care, or other platforms, physicians should know how it's being used and understand the inherent associated risks. This presentation is designed to help physicians understand how AI is integrated in health care to support clinical decision making and reduce administrative burden. Information about policies, procedures, and regulations will also be provided.

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Augmented and Artificial Intelligence Definitions



Artificial Intelligence

Artificial intelligence leverages computers and machines to mimic the problem-solving and decision-making capabilities of the human mind.

-IBM

Augmented Intelligence

Augmented intelligence is intended to co-exist with human decision-making and should not be used to replace physician reasoning or knowledge.

–TMA

Augmented intelligence is a conceptualization of artificial intelligence that focuses on AI's assistive role, emphasizing that its design enhances human intelligence rather than replaces it.

–AMA

TMA policy compendium: www.texmed.org/policy

<https://www.ama-assn.org/system/files/ama-ai-principles.pdf>

TMA Committee on HIT and AI

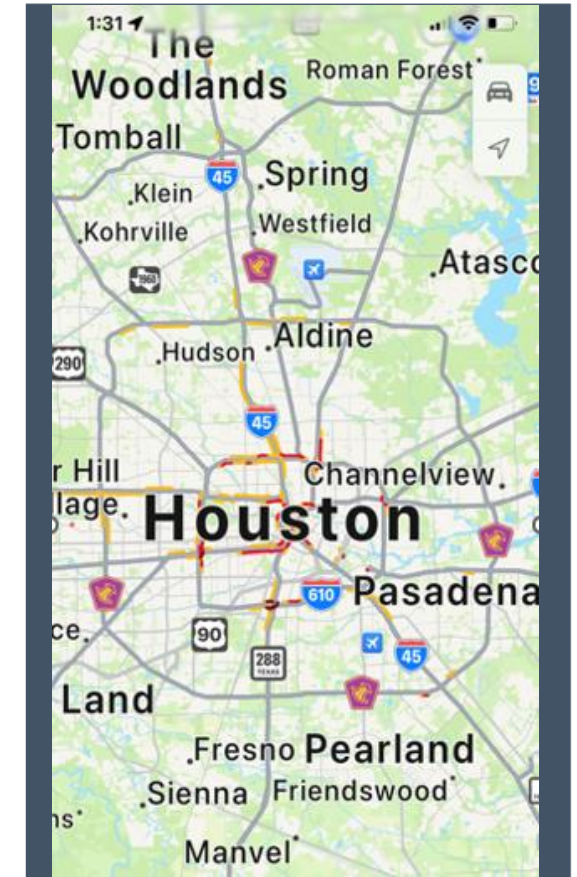
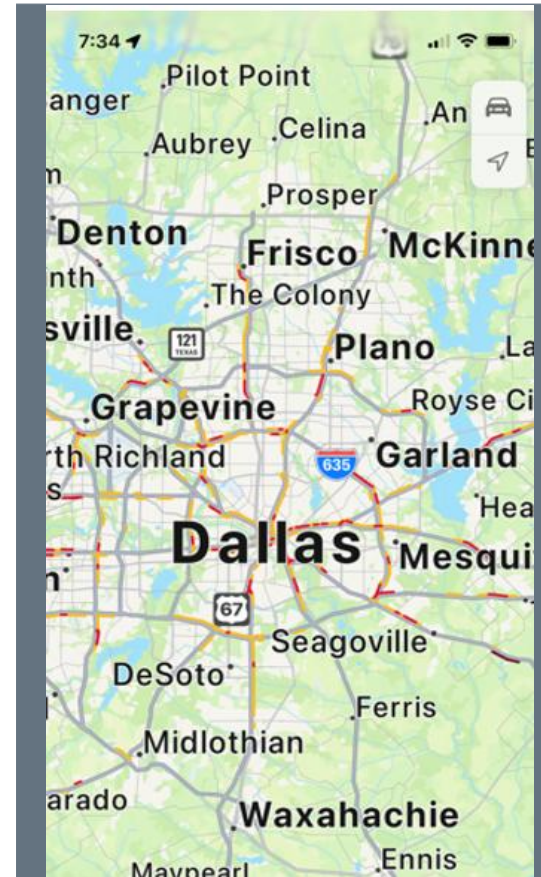
- In 2024, AI experts were added to the committee as consultants.
- In 2025, the Committee on HIT is renamed to include AI and its charges are expanded to include AI-specific functions.

Machine Learning

Machine learning (ML) is a type of artificial intelligence that allows software applications to become more accurate at predicting outcomes **without being explicitly programmed to do so**. ML algorithms use historical data as input to predict new output values. -*TechTarget*

Examples:

- Netflix/Amazon recommendations
- Social media ads
- Facial recognition
- Traffic / maps
- clinical decision support



Large Language Models & Generative AI

A large language models (LLM) is AI trained on massive amounts of data to understand and generate human-like content.

Generative AI uses LLMs to learn and understand the patterns of their input training data and then generate new data that has similar characteristics.

Examples: ChatGPT (Open AI),
 Gemini – formerly Bard (Google)
 Med-Gemini – limited use (Google)
 Microsoft Copilot

Agentic AI

Autonomous AI using agents to make decisions and execute tasks with minimal human oversight or even independent of human intervention.

Chat GPT

- Chat Generative Pre-trained Transformer (GPT), developed by OpenAI, uses deep learning, which leverages large amounts of raw data to train an AI system to perform a task.
- “Our text models are advanced language processing tools that can generate, classify, and summarize text with high levels of coherence and accuracy.” - OpenAI
- ChatGPT even passed the three USMLE exams at 60% accuracy without prior reinforcement or training. OpenEvidence AI scored above 90%!

<https://www.ama-assn.org/practice-management/digital/chatgpt-passed-usmle-what-does-it-mean-med-ed>

Future of ChatGPT

NEWS

ChatGPT maker OpenAI faces new class action lawsuit over data privacy

A new lawsuit against OpenAI could decide whether the company's use of training data scraped from the public internet may continue.

BUSINESS

Sarah Silverman and novelists sue ChatGPT-maker OpenAI for ingesting their books

Report: Potential NYT lawsuit could force OpenAI to wipe ChatGPT and start over

OpenAI could be fined up to \$150,000 for each piece of infringing content.

Predictive AI

Predictive AI collects and analyzes data to predict future occurrences. Predictive AI aims to understand patterns in data and make informed predictions.

-Geekflare

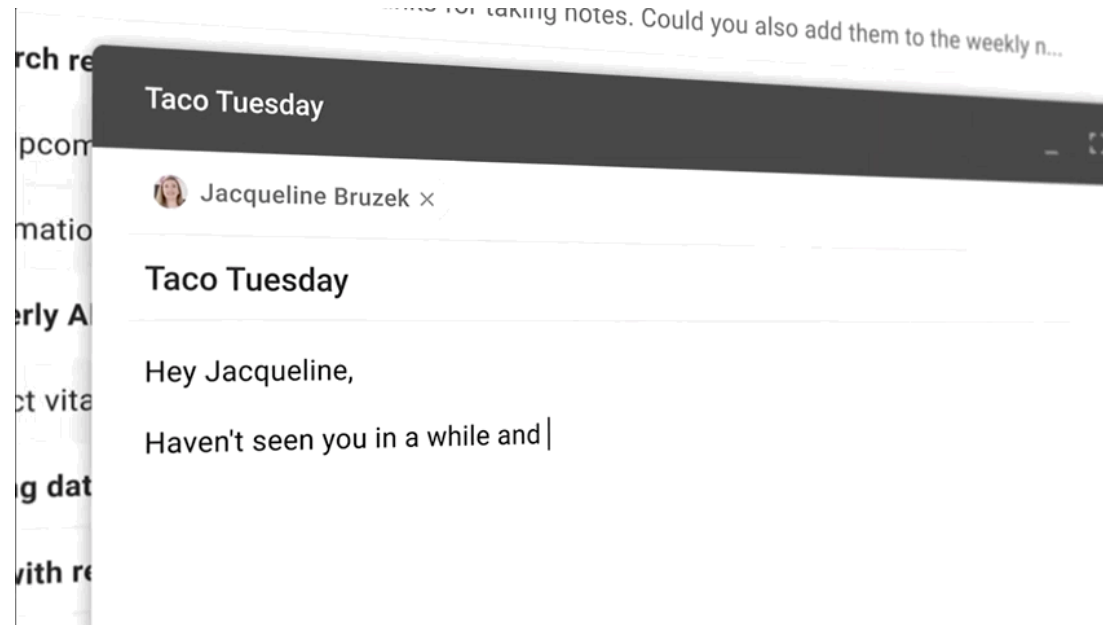
Example: based on a purchase made, intelligence tools would predict something you need to complement the purchase. Bought a new couch? How do you like this coffee table?

Can illness or disease be predicted based on a variety of patient factors?

Predictive Text

Predictive text is powered by machine learning and offers suggestions as you type.

-Google



Example of Gmail's Smart Compose feature.

Clinical Decision Support

Clinical decision support (CDS) provides timely information, usually at the point of care, to help inform decisions about a patient's care.

CDS tools and systems help clinical teams by taking over some routine tasks, warning of potential problems or providing suggestions for the clinical team and patient to consider.

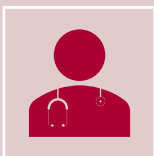
-Agency for Healthcare Research and Quality

Can be enhanced by machine learning – especially unstructured data!

AI Policy and Selection



AI Policy



TMA's House of Delegates adopted policy related to augmented intelligence in health care during TMA's 2022 annual meeting (updated in 2024 & 2025).



Policy can help guide statutes, regulations, and product evaluation.

AI Use

AI should be supported when used to:

- Appropriately support decision making
- Enhance patient care,
- Improve administrative functions, and
- Improve public health

-All without reducing the importance of physician decision-making

-AI must not replace nor diminish the patient-physician relationship

AI Design

AI should be used in ways that:

- Reduces physician burden, and
- Increases professional satisfaction

The technology should have user-centered design that allows for efficient and satisfactory use of the technology.

AI should have a level of compatibility to allow the use of information between disparate systems.

AI Algorithms

Algorithms must be designed for the benefit, safety, and privacy of the patient and

- Should be developed transparently (accessible, explainable, and understandable)
- Have reproducible and explainable outputs
- Function in a way that promotes health equities while eliminating potential biases
- Have a feedback loop allowing users to report potential safety hazards (problems, malfunctions, and improvement opportunities)

AI Mandates and Liability

- Physicians should not be mandated to use augmented intelligence without having input or feedback into how the tool is used
- Shared risk with liability appropriately placed (developers, distributors, and users)

Training and Compliance

- Physicians and other users should receive adequate training and have access to educational materials
- Sellers and distributors should disclose meeting all legal and regulatory compliance with regulations (e.g. HIPAA, FDA, HHS)
- Practices should have AI-specific policies and procedures (template available at www.texmed.org/AI)

AI System | Locked vs. CLS

Determine if the tool is a locked or continuous learning system (CLS)

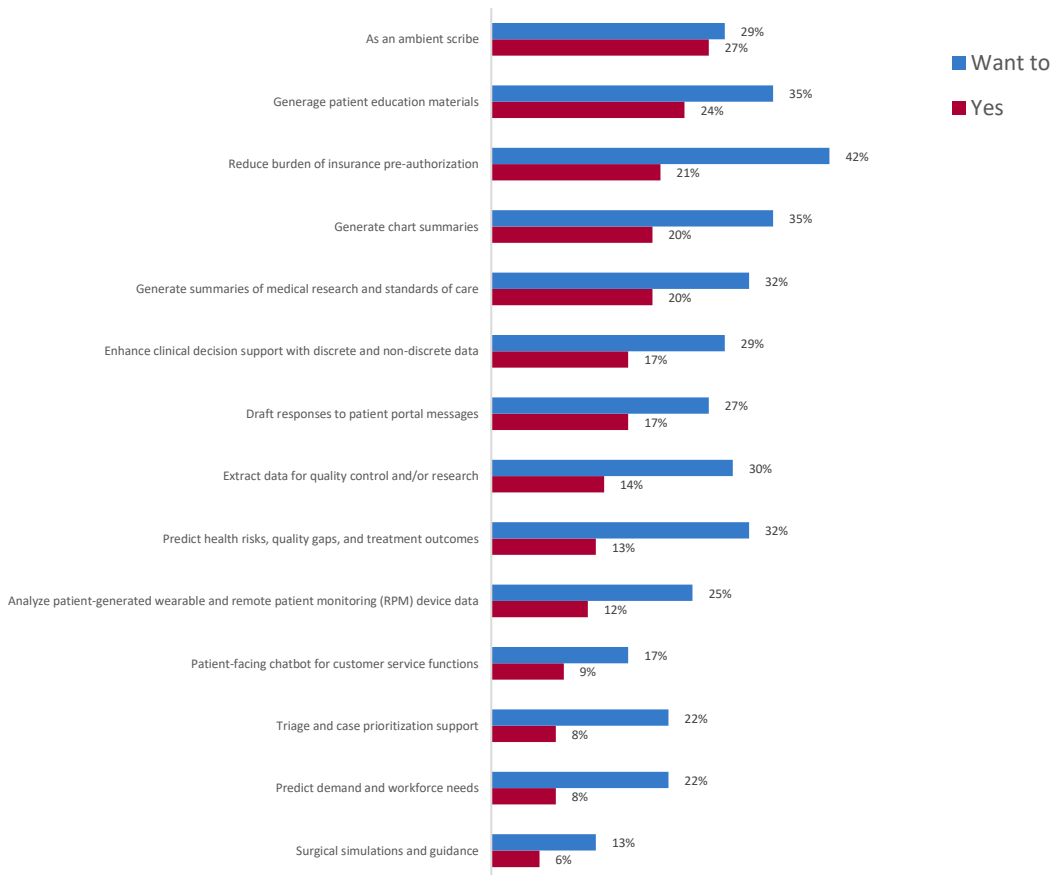
- A locked system gives a predictable output
- Continuous learning systems are dynamic and may provide different outputs as the system continues to learn

AI Use



AI Question on TMA 2025 HIT Survey

How are you using or wanting to use AI in your practice? (n=384)



Using AI

27% using ambient scribes

24% using AI to generate patient education materials

Wanting to use AI

42% want to use AI to reduce prior auth burdens

38% want to use AI for chart summarization

AI Potential Use in Practice

Administrative use

- Claims processing and scrubbing
- Ambient scribes
- Language translation
- Letters for medical necessity
- Employee reviews
- Job descriptions

What about patient consent when using AI?

The patient's data may help train the AI model.

AI and EHRs

EHR vendors are primarily using AI to reduce administrative burden.

- Visit Summaries (opportunity for specialty specific)
- Clinical summaries
- Patient education materials
- Prior authorization letters
- Workers Comp evaluations
- Social Security determination letters

Ask your vendor! Offer to participate in focus groups.

AI Liability

- ✓ Are your decisions and actions defensible?
- ✓ How is clinical decision support determined?
- ✓ Are you following the care standards?
- ✓ Do you know how the algorithms are developed?
- ✓ Do you have a business associate agreement?
- ✓ Are you complying with HIPAA?

What about documentation?

Is the use of AI relevant to decisions made?

Beware of Hallucinations

An AI hallucination is incorrect information generated by the AI model caused by:

- Insufficient training data
- Incorrect information in the training model
- Perceived patterns or objects that are non-existent
- Incorrect assumptions made by the model
- Biases in the data used to train the model

Rely on your training, experience, and knowledge!

Muffin or Chihuahua?



Patient Education Materials

Please prepare education for a patient with high cholesterol using AMA guidelines.

You
please prepare education for a patient with high cholesterol using AMA guidelines

ChatGPT
I'd be happy to provide general advice based on guidelines commonly followed in managing high cholesterol. However, it's important to note that individual cases may vary, and specific recommendations should be made by a healthcare professional after a thorough assessment of factors. Always consult with your healthcare provider for personalized advice. Here's a general education based on common guidelines for managing high cholesterol.

Understanding Cholesterol

1. Cholesterol Basics:

- Cholesterol is a fatty substance found in all cells and is essential for the production of hormones and vitamins.
- There are two main types of cholesterol: low-density lipoprotein (LDL) and high-density lipoprotein (HDL).
- LDL is often referred to as "bad" cholesterol because it can build up in arteries, leading to heart disease.
- HDL is considered "good" cholesterol as it helps remove LDL from the bloodstream.

Risk Factors:

1. Know Your Numbers:

- Understand your cholesterol levels, including total cholesterol, LDL, HDL, and triglycerides.
- Ideal levels may vary, but generally, LDL should be below 100 mg/dL, HDL above 40 mg/dL for men and 50 mg/dL for women, and triglycerides below 150 mg/dL.

2. Risk Factors:

- Age, family history, diet, physical activity, and certain medical conditions can influence cholesterol levels.
- Smoking, obesity, and an unhealthy diet can increase your risk.

Remember, individualized advice is crucial, and the patient should work closely with their healthcare team to create a plan tailored to their specific needs and health status. Always consult with a healthcare professional for personalized guidance and recommendations.

Lifestyle Modifications:

1. Heart-Healthy Diet:

- Choose a diet rich in fruits, vegetables, whole grains, and lean proteins.
- Limit saturated and trans fats, found in fried foods and many processed snacks.

2. Physical Activity:

- Aim for at least 150 minutes of moderate-intensity exercise per week.
- Include activities that elevate your heart rate and improve cardiovascular health.

3. Maintain a Healthy Weight:

- Losing excess weight can improve cholesterol levels and overall heart health.

1. Manage Stress:

- Chronic stress can impact cholesterol levels. Incorporate stress-reducing activities like meditation or yoga.

2. Limit Alcohol Intake:

- If you drink alcohol, do so in moderation. Excessive alcohol intake can raise cholesterol levels.

Follow-Up:

1. Communication with Healthcare Provider:

- Keep your healthcare provider informed about any changes in your health or lifestyle.

Remember, individualized advice is crucial, and the patient should work closely with their healthcare team to create a plan tailored to their specific needs and health status. Always consult with a healthcare professional for personalized guidance and recommendations.



Patient Education Materials

- When using generative AI tools:
 - Never put PHI into the tool unless the tool is HIPAA compliant
 - Consider crediting the tool when creating patient education materials
 - For example: Developed by Dr. Jane Smith with assistance from ChatGPT

Article or Study Summary

Asked Chat GPT to summarize an article:

- Full text is 1772 words
- Summarized text is 273 words

<https://go.imohealth.com/rs/699-LAE-696/images/ChatGPTNLP.pdf?version=0&alid=eyJpljoialo5cFM4cGE0MUVpZG9iUyIsInQiOil2OGx4dHpVSTdmQWU0a3c4SlwvcINJdz09In0%253D>

AI Supported Screenings

AI-supported mammogram screenings found 20% more breast cancers than experienced physicians alone.

-The Lancet Oncology

Beware of Automation Bias

“Incorrect advice by an artificial intelligence–based decision support system impaired the performance of radiologists with expertise ranging from inexperienced to very experienced, when reading mammograms.”

Trust your training and knowledge!

-Radiology Society of North America

<https://pubs.rsna.org/doi/10.1148/radiol.222176>

How Patients are Using AI

INFO SYMPTOMS QUESTIONS CONDITIONS DETAILS TREATMENT

WebMD Symptom Checker WITH BODY MAP

Identify possible conditions and treatment related to your symptoms.

This tool does not provide medical advice. [See additional information](#) ▾

Age

Sex Male Female

Continue >

<https://symptoms.webmd.com/>

How Patients are Using AI

I have a burning sensation in my feet while walking. What is wrong?

I have a burning sensation in my feet while walking. What is wrong?



ChatGPT

I'm not a doctor, but there are several potential reasons why you might be experiencing a burning sensation in your feet while walking. It's important to consult with a healthcare professional for a proper diagnosis and appropriate treatment. Some possible causes include:

It's important to consult with a healthcare professional....

1. **Peripheral neuropathy:** This condition involves damage to the nerves in the feet, often due to diabetes, alcohol abuse, or other underlying health issues.
2. **Poor circulation:** Reduced blood flow to the feet can lead to a burning sensation. Conditions like peripheral artery disease (PAD) can contribute to this.
3. **Tight or ill-fitting shoes:** Shoes that are too tight or don't provide proper support may cause discomfort and a burning sensation.
4. **Nerve compression:** Conditions like Morton's neuroma or compression of nerves in the foot can result in pain and burning sensations.
5. **Tendonitis:** Inflammation of the tendons in the feet can lead to discomfort, including a burning sensation.
6. **Infections or injuries:** Infections, such as athlete's foot, or injuries like sprains may cause pain and a burning feeling.
7. **Neuromas:** Benign growths of nerve tissue can cause pain and burning sensations.

Again, it's crucial to consult with a healthcare professional to determine the specific cause of your symptoms. They may conduct a physical examination, order tests, or refer you to a specialist for further evaluation. If you experience severe or persistent symptoms, seek medical attention promptly.

It's crucial to consult with a healthcare professional....

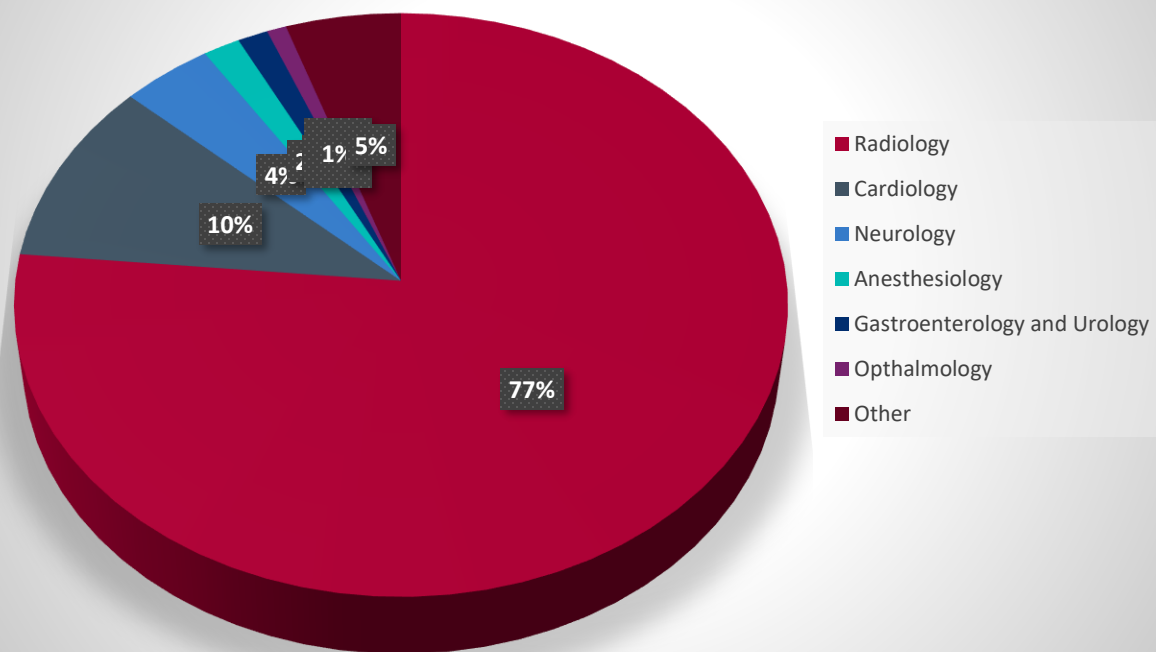


AI Regulations



FDA Oversight – medical devices

Almost 1,000 FDA-Approved
AI Medical Devices



- 77% in Radiology
- 10% in Cardiovascular
- 4% in Neurology (5),
- 2% in Anesthesiology (2),
and
- 1% in urology and
gastroenterology
- 1% in ophthalmology

HTI-1 Final Rule

- Assistant Secretary for Technology Policy (ASTP) finalized its Health Data, Technology and Interoperability final rule.
- In addition to EHR certification updates, it includes detail on “algorithm transparency.”
- Makes it possible for clinical users to access a consistent baseline set of information about the algorithms they use to support their decision making.
 - Assess the algorithms for fairness, appropriateness, validity, effectiveness, and safety.

<https://www.healthit.gov/topic/laws-regulation-and-policy/health-data-technology-and-interoperability-certification-program>

Texas

- Governor Abbott signed HB 2060 (88R/2023)
- Created an AI advisory council
- The council was charged to
 - Study and take inventory of how state agencies are using AI
 - Assess whether the state needs a code of ethics for AI
- State agencies primarily using AI for
 - Job seekers – recommends job openings
 - Language translation
 - Call-center tools
 - Cybersecurity and fraud detection

<https://capitol.texas.gov/BillLookup/history.aspx?LegSess=88R&Bill=HB2060>

2025 Texas Legislative Session – AI Bills (5/15)

HB 149	Texas Responsible AI Governance Act (TRAIGA)	Green
HB 1265	Artificial Intelligence in Mental Health Visits	Red
HB 1268/SB209	Technology Innovation Program – grants for businesses	Red
HB 2818	AI Division within Department of Information Resources	Green
SB 815	Artificial Intelligence Utilization – prohibits payer use of AI to deny services	Green
HB 3512	Artificial Intelligence Training Programs – applies to state agencies	Green
HB 3755	Biometric Identifiers Performance AI – destruction after use	Red
HB 4018	Utilization Review for Health Plans	Red
HB 4455	Disclosure of AI use in health care	Red
HB 4635	Disclosure when AI used to deny services	Red
HB 5496	Disclosure of how AI is used to make business decisions impacting individuals	Red
SB 668	AI Disclosure – Applies to businesses generation \$100 billion +	Red
SB 1411	AI used by health plan benefit issuers – certification of AI algorithms	Red
SB 1822	AI Algorithms in Utilization Review for Health Plans	Red
SB 1964	Regulation of use artificial intelligence – heightened security	Green

HB 149 – TRAIGA

Texas Responsible AI Governance Act – effective Jan. 1, 2026

- Required disclosure of AI use to patients prior to treatment (except in an emergency)
- Has provisions for consumer protection
- Holds AI developers and deployers responsible
- Provides for a regulatory sandbox for testing AI programs

SB 815 – authored by Senator/Dr. Schwertner

- Prohibits a utilization review agent from using an automated decision system to wholly or partially make an adverse determination.
- Has provisions for TDI to audit a utilization review agent's use of an automated decision system.
- Allows the use of an algorithm, AI, or automated decisions system for administrative support or fraud-detection functions.
- Effective Sept. 1, 2025

SB 1188 – Disclosure requirement

- A health care practitioner who uses artificial intelligence for diagnostic purposes, including the use of AI for recommendations on a diagnosis or course of treatment based on a patient's medical record, must disclose the practitioner's use of that technology to the practitioner's patients.
- Effective Sept. 1, 2025

Other AI bills – Effective Sept. 1, 2025

- **HB 2818** – Establishes an AI division within the Texas Department of Information Resources.
- **HB 3512** – relates to AI training programs for certain employees and officials of state agencies and local governments.
- **SB 1964** – Regulates the use of AI by state agencies.

AI Resources



TMA AI Resources

www.texmed.org/ai

- CME/Podcasts and webinars
- AI policies and procedures
- Vendor evaluation questionnaire
- Free technology contract review for members:

www.texmed.org/coker

Artificial/Augmented Intelligence



The Texas Medical Association supports the use of augmented intelligence (AI) when used appropriately to support physician decision-making, enhance patient care, and improve public health. AI should be used in ways that reduce physician burden and increase professional satisfaction.

Augmented intelligence should be the preferred health care term over artificial intelligence as it should be used to augment care by providing information for consideration. Augment intelligence is intended to co-exist with human decision-making and should not be used to replace physician reasoning and knowledge.

For more information, refer to the [principles for AI in health care](#)  adopted by TMA's House of Delegates.

AI Topics

[Advocacy Letters and Testimonies](#)

[AI Vendor Evaluation Tool](#)

[Articles and Resources](#)

[AI CME](#)

[Texas Legislature](#)

[First Tuesdays at the Capitol](#)

[Action Alerts](#)

[TMA Grassroots Action Center](#)

Continuing Medical Education

These courses are *free* for members!

[AI in Health Care: Vetting Tools and Vendors](#)

CME to Go/Podcast

[AI in Health Care: A Doctor's Perspective on Getting Started](#)

CME to Go/Podcast

[AI in Health Care: Revolutionizing Drug Development](#)

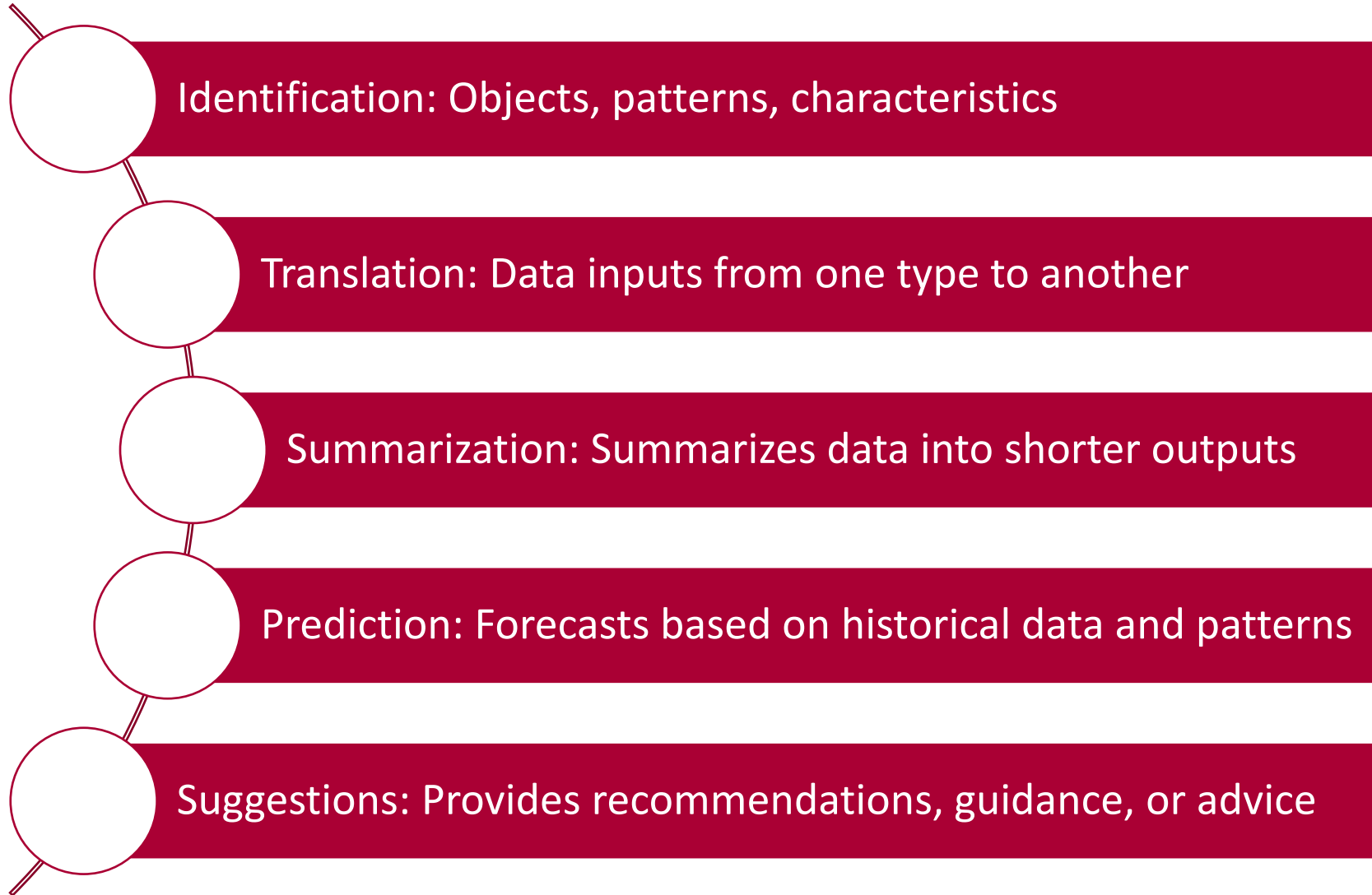
CME to Go/Podcast

The Coalition for Health AI (CHAI™)

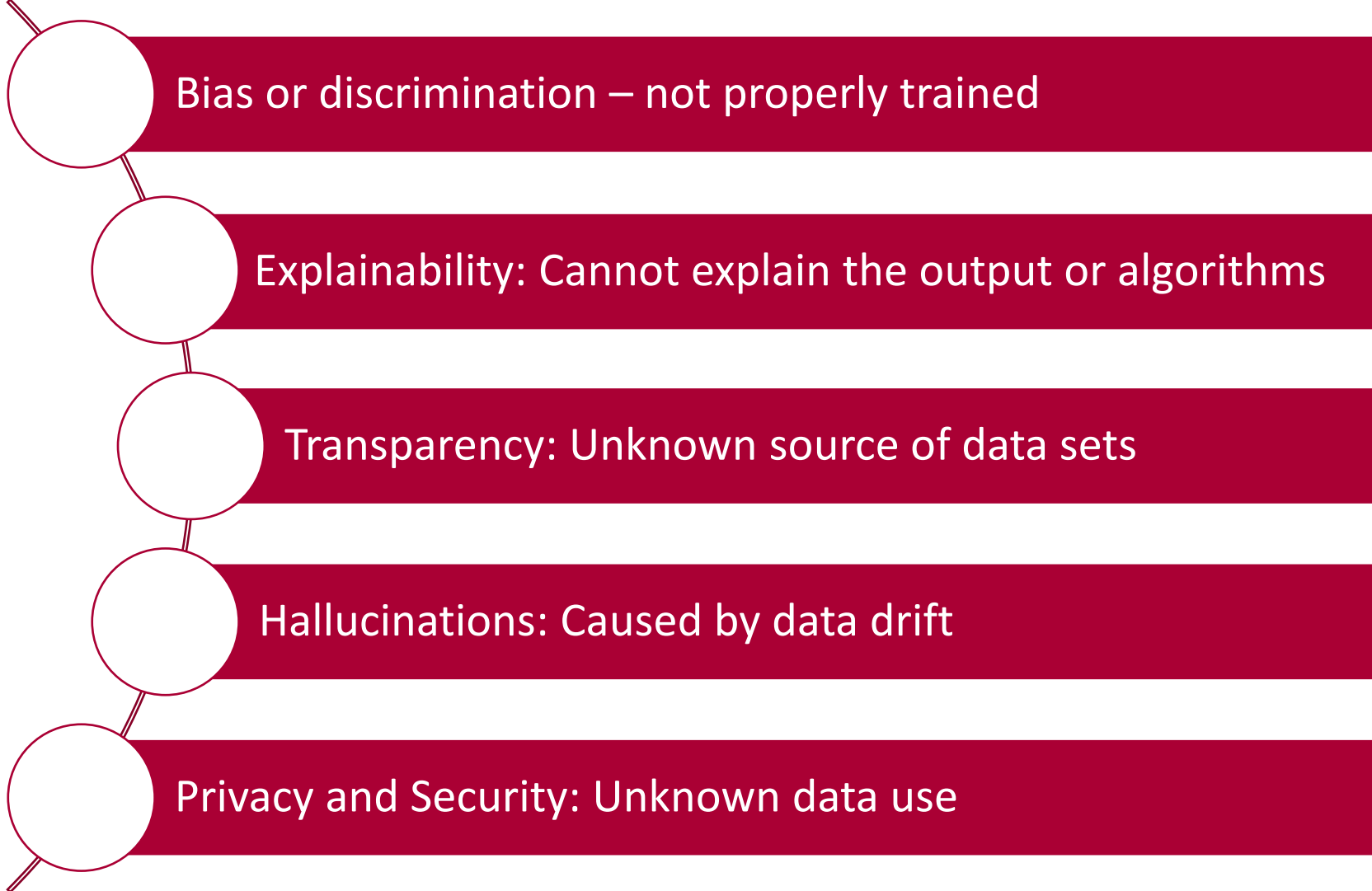
- **The Coalition for Health AI (CHAI™)** is a community of academic health systems, organizations, and expert practitioners of artificial intelligence (AI) and data science. These members have come together to harmonize standards and reporting for health AI and educate end-users on how to evaluate these technologies to drive their adoption.
- Our mission is to provide guidelines regarding an ever-evolving landscape of health AI tools to ensure high quality care, increase credibility amongst users, and meet health care needs.
- <https://coalitionforhealthai.org/>



How AI Helps



AI Concerns



AI Opportunities and Challenges

Lots of new
use cases

New ways to
solve problems

Don't soften
your critical
thinking skills

Don't fully rely
on EHR
prompts and
reminders

Trust but verify!

“I would treat AI like a medical student giving a rounds report:

Thanks for the recommendation, now let me review what you’ve done.”

-Jeffrey Richards, MD, member of TMA’s Committee on HIT

A large group of approximately 50-60 physicians, many wearing white lab coats, are posing for a group photo in front of the Texas State Capitol building. The building's iconic dome is the central focus of the background. The sky is bright blue with light, wispy clouds. The text 'Thank you, Physicians!' is overlaid in the upper right quadrant of the image.

**Thank you,
Physicians!**

IMIA



Questions?

Self report your CME at www.texmed.org/CME

Thank you!

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TEXAS MEDICAL ASSOCIATION

