

AMA Augmented Intelligence Research

Physician sentiments around the use of AI in heath care: motivations, opportunities, risks, and use cases

Shifts from 2023 to 2024

Published February 2025

Background and objectives

- In August 2023, the American Medical Association conducted a comprehensive study of physician's sentiments towards the use of augmented intelligence (AI) in health care including current use and future motivations for use, key concerns, areas of greatest opportunity, and requirements for adoption.
- The AMA repeated the study in November 2024 to determine the degree of change given the rapidly evolving landscape of AI use across medicine.
- The objectives for this research include:
 - Capturing the sentiment among practicing physicians regarding the increased usage of AI in healthcare
 - Evaluating AI use cases based on their familiarity, relevance, and usefulness
 - Identifying key resources and areas of need for physicians to consider implementation of AI tools to their practice

Methodology

- The survey was designed to replicate the AMA's AI Physician Sentiment survey fielded in 2023 to have a statistically valid and reliable comparative sample.
- The survey was conducted among practicing physicians using the Qualtrics survey platform and the AMA Physician Professional Data file for the sample.
- The survey yielded a respondent base of N=1,183.

Total	РСР	Specialist	Physician Practice Owner	Employed Physician
1,183	464	719	307	724

Physicians' sentiments towards AI



Perceived Value and Attitudes Toward AI

Questions focused on how physicians feel about AI—whether they perceive it as advantageous or worrisome.



Requirements, Barriers, and Enablers for Adoption

Questions that identify critical factors for adopting AI—what must be in place (e.g., EHR integration, validation, liability coverage), and which regulatory or institutional measures would increase trust.



Current Awareness and Use of AI Questions assessing how much physicians know about AI in their environment and whether they are currently using AI tools—either clinically or administratively.



Decision-Making and Influences

Questions about who decides to use AI in a practice, how those decisions are made, when physicians want to be consulted, and whether they wish to opt in or out of new technology.



Outlook for AI Use Cases Questions exploring specific applications of AI—from administrative tasks to clinical decision support—and gauging physicians' perceived relevance, enthusiasm, and adoption timeline.



Resources, Evidence, and Education

Questions that uncover what types of information, training, or proof would help physicians evaluate, adopt, and effectively use AI—ranging from CME courses to clinical trials and peerreviewed data.

Summary of key insights



Physician sentiment of AI is trending positive with growing recognition of its benefits and increased enthusiasm.

- A growing majority of physicians recognize Al's benefits, with 68% in 2024 reporting at least some advantage in patient care (up from 63% in 2023).
- In 2024, 36% of physicians reported feeling more excited than concerned about AI (up from 30% in 2023).



There has been substantial growth in physician use of AI in practice.

- Usage of AI use cases nearly doubled (66% in 2024 vs. 38% in 2023). The dramatic drop in non-users (62% to 33%) in just one year is impressive and unusually fast for healthcare technology adoption.
- Significantly more physicians are currently using AI for visit documentation, discharge summaries and care plans, and medical research and standard of care summaries than in 2023.



Addressing administrative burden remains a key area of opportunity for AI.

- Most physicians (57%) view addressing administrative burden through automation as the biggest area of opportunity for AI.
- Near term adoption is focused on use cases to help with documentation.



Physicians still have key needs to build trust and advance adoption of AI.

- Physicians emphasize the need for a feedback loop, data privacy assurances, seamless workflow integration, and adequate training and education as critical factors for AI adoption.
- Nearly half of physicians (47%) ranked increased oversight as the number one regulatory action needed to increase trust in adopting AI tools.

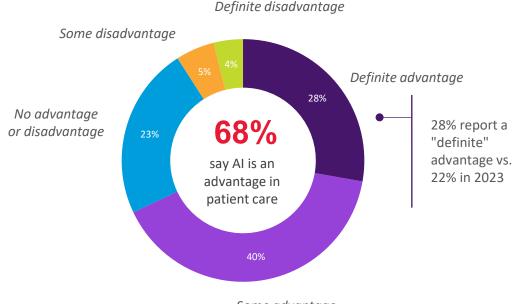
Physicians' sentiments towards Al in health care

Enthusiasm, use, and outlook





Physicians' confidence in Al's advantage for patient care remains strong and is on the rise



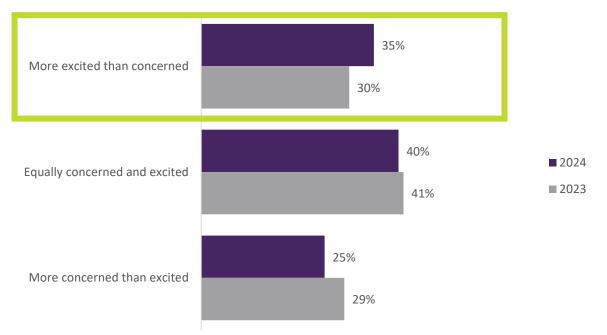
Some advantage

Considering the overall impact, how much of an advantage do tools using Al give to your ability to care for your patients?

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Excitement about AI is growing among physicians



Increased Use Of AI Makes You Feel...

8

Overall, would you say the potential increased use of AI in your professional life makes you feel...

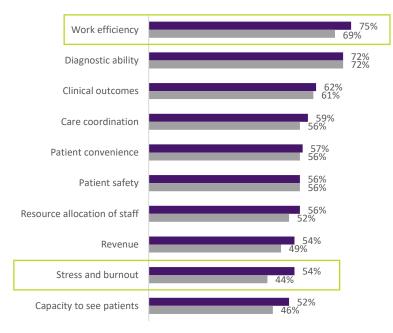


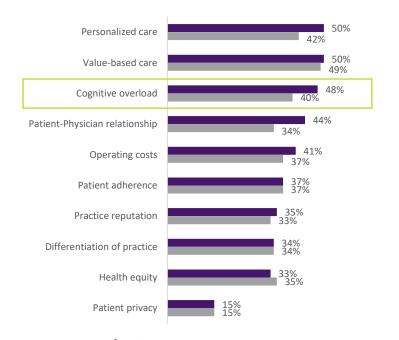
Physicians' belief that AI tools could be helpful increased across factors focused on burden and efficiency

AI Tools Would Be Somewhat/Very Helpful With The Following Factors

2024

2023



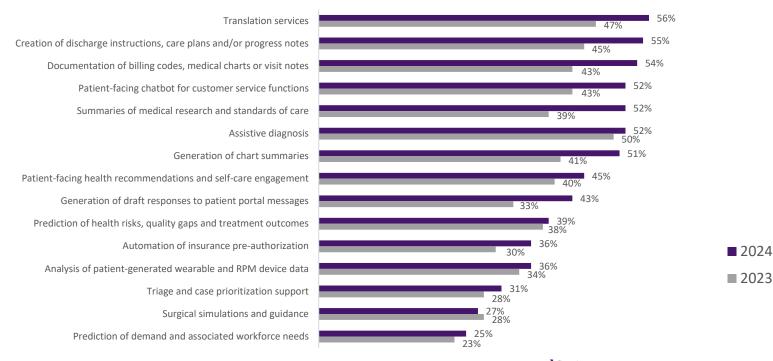


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How do you anticipate tools using AI will impact the following factors?

Physicians are becoming increasingly more familiar with various AI use cases

Somewhat/Very Familiar With AI Use Cases



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How familiar are you with each of the AI use cases described below?

Al use cases helping with documentation continue to be the most relevant to physicians

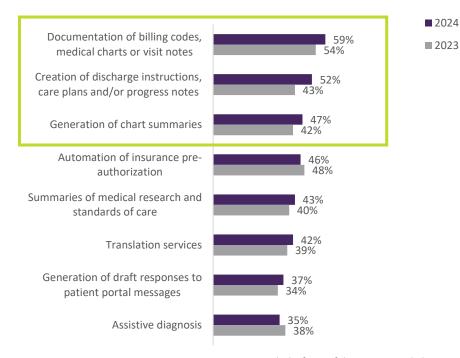
2024 Generation of draft responses to patient portal 57% Documentation of billing codes, medical 80% messages charts or visit notes 74% 2023 Prediction of health risks, quality gaps and 57% 60% treatment outcomes Creation of discharge instructions, care 72% Patient-facing health recommendations and 56% 55% plans and/or progress notes 67% self-care engagement 54% Automation of insurance pre-Assistive diagnosis 71% 59% authorization 69% Patient-facing chatbot for customer service 53% 52% functions 69% Translation services 49% 66% Triage and case prioritization support 51% Analysis of patient-generated wearable and 43% 43% 69% RPM device data Generation of chart summaries 66% Prediction of demand and associated workforce 42% needs Summaries of medical research and 65% 31% 31% standards of care 61% Surgical simulations and guidance

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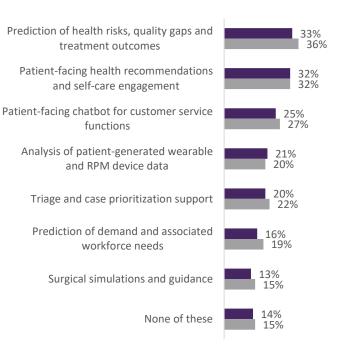
Relevance Of AI Use Case To Practice Regardless Of Familiarity Or Current Use

Regardless of whether or not you are currently using or are familiar with these AI use cases, how relevant to your practice would each be?

Physicians report an increase in enthusiasm for 3 top AI use cases



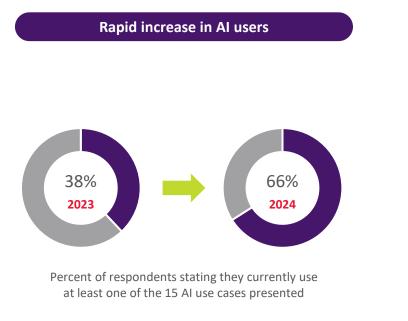
AI Use Case Enthusiasm



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Which, if any, of the AI use cases below are you enthusiastic

Usage of AI use cases nearly doubled



Top use cases gain users Documentation of billing codes, medical 21% charts or visit notes 13% Creation of discharge instructions, care 20% plans and/or progress notes 14% 14% Translation services 11% 2024 Summaries of medical research and 13% standards of care 6% 2023 12% Assistive diagnosis 11% 12% Generation of chart summaries 8% Patient-facing chatbot for customer 10% service functions 8% Patient-facing health recommendations 10% and self-care engagement 8%

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Which, if any, of the following use cases do you currently incorporate into your practice?

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However, a significant portion of physicians report uncertainty about whether they use AI tools in practice

Use Of AI-Enabled Tools For Non-Clinical, Administrative Applications in Practice

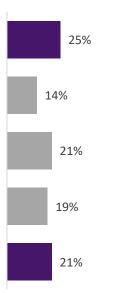
I'm certain I use non-clinical, administrative AI-enabled tools in my practice

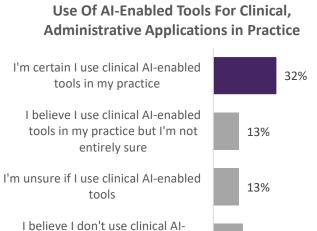
I believe I use non-clinical, administrative AI-enabled tools in my practice but I'm not entirely sure

I'm unsure if I use non-clinical, administrative AI-enabled tools in my practice

I believe I don't use non-clinical, administrative AI-enabled tools in my practice but I'm not entirely sure

I'm certain I don't use any non-clinical, administrative AI-enabled tools in my practice





enabled tools in my practice but I'm not entirely sure

I'm certain I don't use any clinical Alenabled tools in my practice

To what extent are you aware of currently using AI-enabled tools in your practice for non-clinical, administrative applications? *New question in 2024

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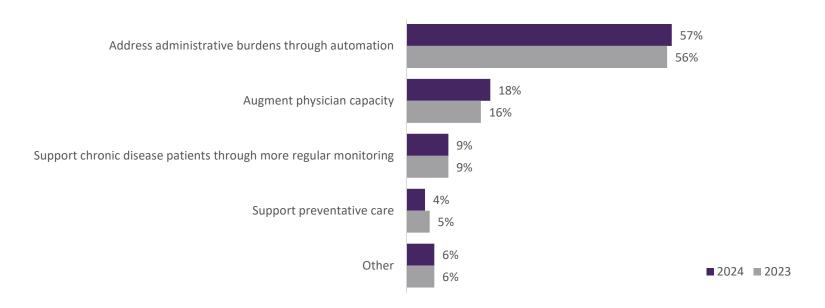
15%

26%

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Addressing administrative burdens remains the biggest area of opportunity for AI by far

Biggest Area of Opportunity for AI



© 2025 American Medical Association. All rights reserved. With workforce shortages increasing and physician burnout a key concern, what is the biggest area of opportunity for AI to address key needs?

15



Al adoption timing varies, with documentation tools likely to be incorporated more quickly

When Expected To Incorporate AI Use Case Into Practice

Translation services	34%	23%	28%	7% 8%
Summaries of medical research & standards of care	32%	23%	29%	6% 10%
nenation of billing codes, medical charts or visit notes	31%	24%	29%	7% 9%
charge instructions, care plans and/or progress notes	31%	25%	30%	6% 8%
Assistive diagnosis	31%	21%	28%	11% 9%
Surgical simulations & guidance	30%	16%	26% 12%	16%
sis of patient-generated wearable & RPM device data	30%	19%	31%	9% 11%
eration of draft responses to patient portal messages	27%	28%	32%	<mark>5%</mark> 8%
Generation of chart summaries	27%	25%	33%	7% 8%
on of health risks, quality gaps & treatment outcomes	25%	24%	36%	7% 8%
Patient-facing chatbot for customer service functions	24%	29%	32%	8% 7%
Automation of insurance pre-authorization	22%	25%	35%	7% 11%
ing health recommendations & self-care engagement	21%	30%	32%	9% 8%
Prediction of demand & associated workforce needs	21%	28%	34%	8% 9%
Triage & case prioritization support	20%	25%	33%	12% 10%
	1			

Creation of discharge in: Analysis of pati Generation of Prediction of heal Patient-fa Patient-facing health Predictic

Already using/Immediately

Within the next year

Within next 2-5 years

Within next 5-10 years

Do not plan to incorporate

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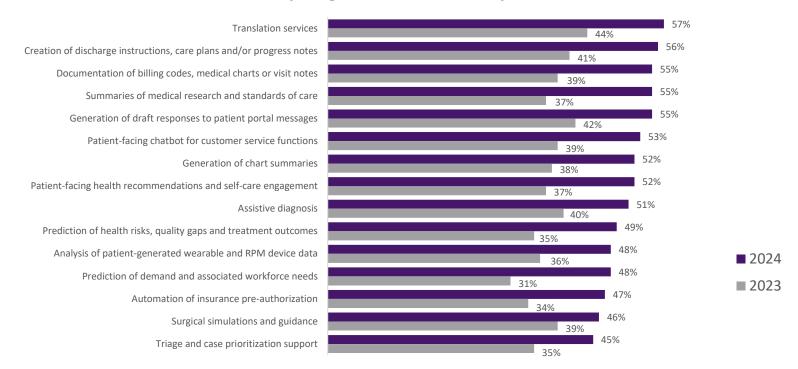
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Documenation

When would you expect to start incorporating this AI use case into your own practice?

There was a significant increase in physicians already using or planning to use AI in the near term

Already Using/Plan To Use Immediately/Plan To Use Within Next Year



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When would you expect to start incorporating this AI use case into your own practice?

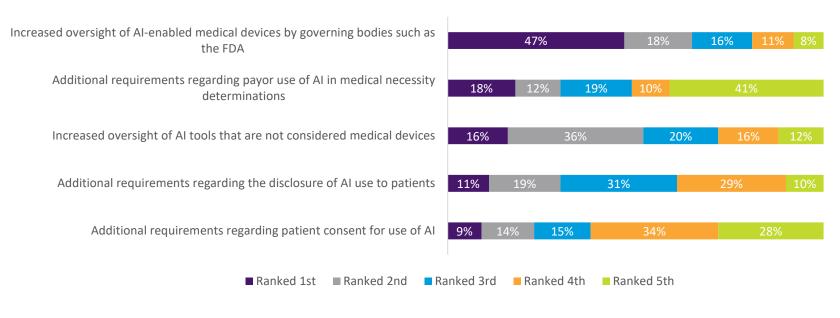
Advancing augmented intelligence in health care Key physician requirements and desired support for adoption





Increased oversight is the number one ranked regulatory action needed to increase trust in adopting AI tools

Regulatory Actions That Would Increase Trust In AI And The Likelihood You Would Adopt AI Tools



Which of the following regulatory actions would increase trust in Al and the likelihood that you adopt AI tools? Please rank each of the following in order of importance to you.



Key facilitators of AI adoption include a feedback loop, data privacy, workflow integration, and sufficient training **Key Attributes for AI Adoption**

Physician Ratings of Importance (4 or 5 on a 5-Point Scale)

88%

87%

87%

There is a designated channel for feedback should issues arise	n/a	88%
Data privacy is assured by my own practice/hospital & EHR vendor		85% 87%
Is supported & well-integrated with my EHR		84% 84%
Is well-integrated into practice workflows & not just a "point solution"		84% 82%
Receiving proper training/education on Al tools being used	n/a	84%
Is covered by my standard malpractice insurance		83% 86%
Its safety & efficacy is validated by a trusted entity & monitored over time		82% 84%
I am not held liable for errors of AI models		82% 87%
Is proven to be as good or superior to traditional care		81% 82%
The implementation is being overseen by a physician	n/a	79%

	Can be implemented in a reasonable timeframe	2024
	Its safety & efficacy have been demonstrated in peer	2023
	reviewed publications	
	Intuitive, requires no special training	
_	It aligns with my organizational/practice strategy	
	l receive informed patient consent & am confident that PHI will not be misused	
	There will be a return on investment in a reasonable timeframe	
	I feel that bias in the model has been addressed	
	I understand the inputs/outputs of the model also known as a "white box" or explainable AI model	
	It is the standard of care	
_	The leaders within my practice/area of specialty	
	recommend it	
	Other physicians I know are using it	

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How important are each of the attributes below in facilitating the adoption of tools using AI into your practice?

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78% 77% 77%

79%

76%

73%

75%

76%

74%

74% 68% 71%

67% 68%

58%

56%

50%

49%

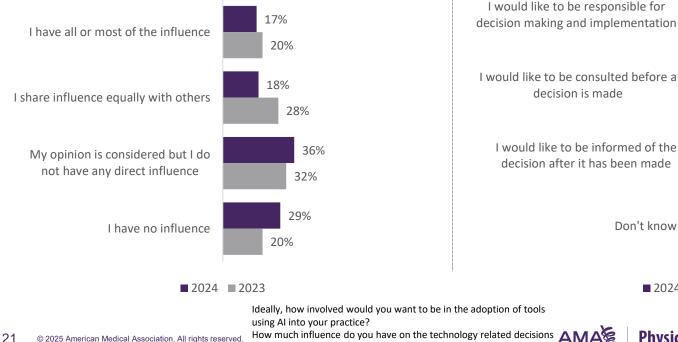
46% 46%

59%

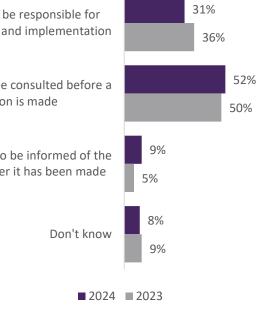
62%

Physicians influence on tech decisions is declining, desire for input on AI adoption remains stable

Influence On Technology Related Decisions In Practice



Involvement In Adoption Of AI Tools Into Practice



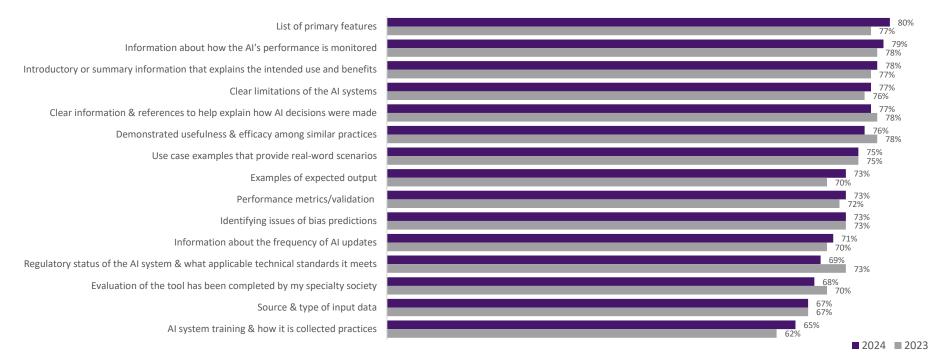
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made for your practice?

There were small shifts in the key information physicians need to understand AI capabilities

Usefulness of Information

Physician Ratings of Usefulness (4 or 5 on a 5-Point Scale)



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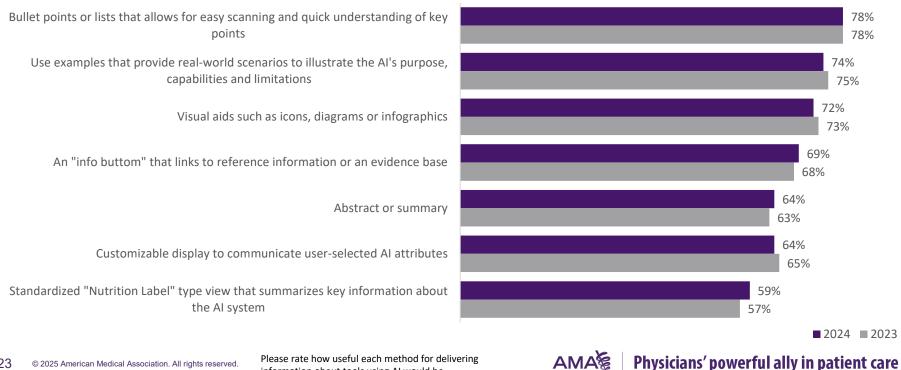
Please rate the usefulness of the information about a tool using AI in order for you to have a clear understanding of the AI's capabilities.



Clear descriptions, real-world examples, and visual aids are most useful for conveying AI tools

Usefulness of Method

Physician Ratings of Usefulness (4 or 5 on a 5-Point Scale)



Please rate how useful each method for delivering information about tools using AI would be.







Key Definitions

- The American Medical Association uses the term augmented intelligence (AI), also commonly known as Artificial Intelligence. AI has a wide range of potential use cases in healthcare, including but not limited to deriving insight for better clinical decisions and relieving physicians and staff from time-consuming and burdensome tasks so they can spend more time with patients.
- When "automation of insurance pre-authorization" is referenced throughout this study, it is related to the potential impact AI can have on prior authorization within the physician practice/care delivery environment.



Additional AMA AI Resources

Al Policy

AUXILIAR AUX

Augmented Intelligence Development, Deployment, and Use in Health Care

BACKGROUND

The issue of Al first presented itself as an area of potential interest to AMA physicians and medical students that necessitate consist of AMA policy in DIA: A that time, physicians and medical students plinarily considered Al-enabled technologies within the context of medical device and clinical decision support, although administrativa applications of AI began to grow exponentially and started to gain traction in the hospital, health system, and insures sec. Since the development of the AMAS burnditional Al policy in 2018 and subsequent policy on coverage and payment for AI in 2019, the number of Al-enabled medical devices approved by the U.S. Ford and DTAM, dehinistration FOAI burn grown to over 800. In 2022, the concept of preventive AI and and the physical coverage and payment of the AIAS burndition and policy in coverage. In the coverage and payment of AI in 2019, the number of Al-enabled medical devices approved by the U.S. Ford and DTAM, definitional FOAI burndition and policy in coverage to the physical burndition and policy in coverage. In the coverage and payment of AI in 2019, the number of Al-enabled medical devices approved by the U.S. Ford and DTAM, definitional FOAI burndition and policy in coverage burndition and policy in coverage and payment of AI in 2019, the number of Al-enabled medical devices approved by the U.S. Ford and DTAM, definitional FOAI burndition and FOAI burnd

Al Landscape Report

AMA

Future of Health:

The Emerging Landscape of Augmented Intelligence in Health Care



AI Learning Series

Introduction to Artificial Intelligence in Health Care Argent wormscherket Meterster Weter vor reards to:



