4 things healthcare leaders must know about AI in 2023
Across first half of 2023, artificial intelligence (AI) has become a hot topic in a wide variety of circles, from boardrooms to dining rooms. ChatGPT and OpenAI have pushed discussions on the future of this transformative technology into the consciousness of the American public and business leaders from all industries. This is certainly true in healthcare — it is brought up in every discussion we have with industry players across the ecosystem.

However, this level of hype and discussion inevitably leads to confusion about what the technology is capable of, where the industry is headed, and how leaders should respond. To help, we’ve highlighted the four things we feel leaders must know about AI, from the potential capabilities of the technology itself to how various stakeholders view its future use.

01 Generative AI is here, and healthcare leaders must prepare for its impact

02 Leaders have come to view AI as a tool that will provide incremental value, as opposed to being a transformative, essential part of the health system

03 More Americans are open to AI in healthcare than we think

04 AI and automation may be two of the few ways to relieve the healthcare workforce crisis
Generative AI is here, and healthcare leaders must prepare for its impact

Generative artificial intelligence is a subset of machine learning that describes algorithms that create new content. This ability to generate new content distinguishes generative AI models from retrieval-based models and predictive AI.

The basics of generative AI models, particularly text-based models, have been around for years. Now, advancements in training are showing that this technology could be ready for use across a variety of fields in the next few years.

Notably, recent studies of OpenAI’s ChatGPT and Google’s Med-PaLM have highlighted the potential for these models to be used for healthcare purposes. A December 2022 study led by Google researchers found that Med-PaLM performed as good as or only slightly worse than clinicians across three areas: comprehension of inputs, correct retrieval of information, and correct reasoning. And in February 2023, a study found that ChatGPT could pass the U.S. Medical Licensing Exam.

Studies like this show that **we are much closer to real-world impact with generative AI than many healthcare leaders might think.** For example, imagine an AI tool that could take a patient’s medical history and write a quick summary paragraph that highlights the most relevant parts for the clinician. That could simultaneously improve patient care and the clinician workflow. We are already seeing tools developed with this in mind, such as Nuance DAX Express. And this is just one type of generative AI — the potential image and data creation capabilities indicate there will be wide-ranging applications in medical imaging and synthetic data as well.

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**POTENTIAL KEY IMPACTS OF GENERATIVE AI IN HEALTHCARE**

- Faster, cheaper drug discovery
- Improved clinician workflows
- Better patient experience through support tools
- Expanded access to care via digital therapeutics

Source: Advisory Board, Generative artificial intelligence.
Leaders have come to view AI as a tool that will provide incremental value, as opposed to being a transformative, essential part of the health system

Provider organizations are far less optimistic about artificial intelligence (AI) than they were four years ago — even though more of them than ever are using AI in clinical applications. In 2018 and 2022, Advisory Board conducted surveys of strategic and analytics leaders at 250 provider organizations to see how their perspectives of AI evolved over time.

Overall sentiment about AI has remained positive among provider organizations since 2018, although it has not grown. About 63% of respondents had positive expectations for AI in 2022, answering either “we believe AI will become a transformative, essential part of our health system” or “we believe AI will deliver incremental value.” A similar proportion, 64%, expressed a positive outlook on AI in 2018. However, the percentage of organizations expecting transformational change was cut nearly in half: only 19% expect AI to become transformational and essential at their organization, down from 37% in 2018.

So, what does this mean with the rise of generative AI? As the hype grows around this technology and its potential applications in healthcare, it is likely to be met with some level of skepticism at provider organizations. These leaders have already watched as other hyped AI products have turned into useful, non-transformative tools at their organizations. So while provider organizations are less likely to buy into the hype, they may actually be more ready than they previously were to adopt new AI tools for narrow, scoped use cases where they can quickly realize incremental value.

Source: Advisory Board, Prep for a new era of AI and analytics: 5 insights from Advisory Board’s 2022 AI and analytics survey.
More Americans are open to AI in healthcare than we think

A recent Pew Research survey reported that most Americans feel “significant discomfort” about AI being used in their own healthcare. Sixty percent of U.S. adults said they would feel uncomfortable if their healthcare provider relied on AI to perform tasks like diagnosing disease and recommending treatments.

The most important piece of data from this survey is not that 60% of Americans are uncomfortable with their provider relying on AI. The crucial number here is the 39% who are comfortable. Thirty-nine percent is a significant number for an unproven technology that most respondents likely understand little about.

Right now, we wouldn’t categorize any clinicians as “relying” on AI. Some specialties have begun using AI tools to aid in diagnosis and treatment (radiology, oncology, cardiology), but we would categorize those as supports and fail-safes — not tools those specialties are reliant upon. This means that 39% of Americans are responding based on a trust and belief in the future potential of AI, not on current practice.

Taken together, this survey and recent tech developments tell us three things:

1. There is a consumer market ready to be early adopters of AI-powered healthcare

While the limited number of current AI tools in healthcare mostly function behind the scenes, that may not continue to be the case for much longer. At a minimum, the industry needs to be ready for “Dr. Google” to become “Dr. ChatGPT” (or any other LLM). That means executives and clinicians should understand and respect the limitations of these technologies. Clinicians especially need to expect and be able to discuss diagnoses that patients share from “Dr. Google.”

2. Americans realize healthcare needs help

Read another way, 39% of survey respondents are saying that they are willing to trust unproven technology over our current healthcare system. Even more striking, when asked if AI would make patient outcomes better or worse, 38% of respondents said it would make outcomes better, while only 33% said worse. And 51% of respondents felt that AI would make the problem of bias better. To us, this is more of a comment on the state of U.S. healthcare than it is a comment on the potential of AI.

Source: Advisory Board, How Americans feel about AI in healthcare, in 5 charts.
A lot is riding on early success or failure

This survey comes at a time when AI still represents a big unknown to most Americans, particularly in terms of day-to-day impact. But a high-profile success (imagine an intelligent chatbot version of WebMD, or a clinical decision support tool that improves the accuracy of diagnosis) or failure (a chatbot repeatedly providing misinformation) will shape public sentiments for years to come.

AI and automation may be two of the few ways to relieve the healthcare workforce crisis

AI or automation — of any kind — in clinical care can be a sensitive subject. Neither providers nor patients want to lose the human connection of delivering and receiving care. But the reality is that healthcare must deploy these technologies because, if for no other reason, clinicians are overwhelmed and burnt out and must have more robust support.

The administrative burden on clinicians is enormous. Nearly three out of five physicians cite “too many bureaucratic tasks” as the top contributor to burnout on the Medscape 2022 Physician Burnout and Depression Report. That’s not a surprise, since between one-third and one-half of physicians’ time is spent reviewing medical records and writing notes.

Artificial intelligence excels at repetitive tasks that humans usually perform as the connective tissue between silos of data and accountability. The AI solutions incorporate many different kinds of technology — voice recognition, predictive classifiers, natural language processing, and computer vision are relatively common — which can then be layered on top of robotic process automation to create adaptive and resilient applications. These solutions can do repetitive tasks, but they can also learn and be taught to do them differently and better as needs change.

Source: How AI and automation can help clinicians practice at top-of-license; Medscape 2022 Physician Burnout & Depression Report.
Help clinicians add value to patient interactions

Even (and especially) for high-performing, high-productivity clinicians, AI-enabled solutions can add value to patient interactions. A clinician’s experience, expertise, and time is wasted if they are wading through screens in the EHR. From a throughput perspective alone, less time spent on documentation means more time with attention on patients — and potentially more patients.

Reduce clinical documentation demands

In 2013, Advisory Board researchers wrote about helping nurses practice at top-of-license, and the very first element of those recommendations was to streamline documentation demands. Nearly a decade later, the demands have only increased, both in terms of volume and complexity. But as technology gets better and less expensive, more clinicians will use them — and indeed rely on them as a regular part of their practice. Attracting and retaining clinicians in the future is going to depend heavily on how any healthcare organization supports them to deal with burnout — and part of that is going to be the technology that is provided to make their work easier.

Make accountability more than just scolding clinicians into compliance

While AI can provide automated visibility into how well clinicians adhere to processes, the opportunity isn’t in monitoring clinicians in a far more pervasive, if accurate, way. It’s not even in being able to send them more specific or robust alerts to scold clinicians into compliance. It can be about identifying high performers and learning from them. We can also use this technology to close the accountability loop, not only by picking out adverse actions and outcomes for attention and escalation, but also by identifying actions and outcomes that should be reinforced with recognition. Leaders can use this information to give high-performing clinicians kudos for a job well done. That’s solving a problem of clinician experience that goes far beyond simply helping them spend less time on a tedious task.
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