



AI in health care

Empowered by new claims
processing technology

How Artificial Intelligence is changing the industry

Artificial Intelligence (AI) and machine learning are becoming increasingly prevalent across all industries, with inevitable recognition in the health care space. The technology has proven to be transformative besides just administrative and customer experience use cases. It is being used to diagnose and treat disease, accelerate clinical trials, and analyze medical images. Going forward, AI will help pharmacists monitor patient medication adherence, manage inventory and even predict [potential drug interactions](#).

People compare artificial intelligence to being as revolutionary as the start of the internet. But despite its many benefits, there's great skepticism around the technology. When people think of AI, they think that the human element of customer experiences will diminish.

However, the truth is quite the opposite. AI is already in use today, helping to improve how services are delivered to customers, across many sectors, on a daily basis. At Cigna Healthcare, we've invested in AI technology to enhance claim handling, thereby enhancing the customer, client and medical provider experience. This also enables more customer service agent time to be used directly supporting customers with their issues, ensuring that queries are resolved on the first call.

How is AI transforming health care? How should health care organizations think about implementing AI in an ethical way? Beyond automation, data analytics and chatGPT, where will AI have the biggest impact to customers and the future of the health care experience?

Global Health Benefits



What is Artificial Intelligence?

Artificial Intelligence (AI) is broadly defined as any computer systems that mimic human behaviors such as perceiving, reasoning, learning and problem solving. There are different branches of AI, including:



Machine learning

(used to make predictions based on data and experiences such as expected patient length of stay)

Deep Learning

(a branch of Machine Learning)

Generative AI

(creation of new content, such as writing letters based on a prompt)

Despite AI being a big topic of conversation in just the recent two years, it has a long history – a 70+ year journey with breakthroughs that build upon the past. The [history of AI](#) tells us that groundwork for the technology really took place in the **1950s**, with a boom of rapid growth in the **1980s** as Deep Learning techniques were developed. In **2022** the GenAI era took center stage, as ChatGPT, AI generated imagery and large language models received a lot of attention.

There is considerable promise when it comes to AI and its utilization in health care and clinical practices. AI has the capacity to analyze enormous amounts of data, providing actionable recommendations at high speed, without limits on scale. Organizations in every industry are using it to create efficiency, increase accuracy and improve customer experience. Examples in health care include virtual care assistants and telemedicine.

Digital technology is allowing patients to play a more active role in their health care journeys, creating a more patient centric health care system. It is also allowing health care organizations and facilities to create efficiencies, allowing them to spend more time on tasks that matter like personalized treatments. We are seeing strides in the ability to diagnose not only earlier than ever, but with great precision. This intersection of technology and data in health care is already changing the industry as we know it, with growing promise that remains to be seen.

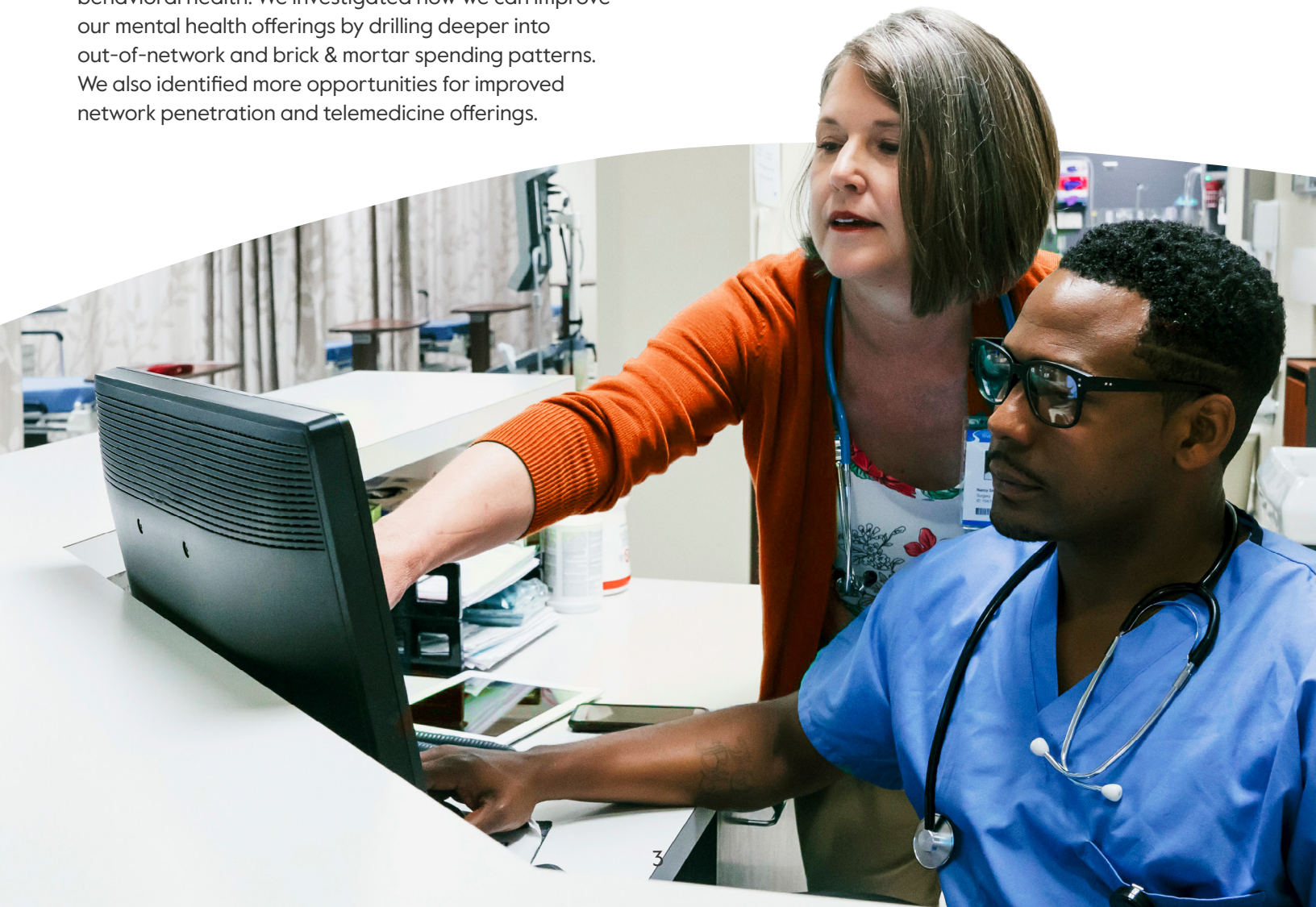


How AI is helping safeguard vitality globally at Cigna Healthcare

Safeguarding the health and [vitality](#) of the people we serve, no matter where they are in the world, is our priority. We continually challenge ourselves to strengthen and evolve our capabilities. We are investing in cutting-edge, differentiating capabilities that make a positive difference to our customers and clients. [The Cigna Group](#) is leveraging data to find actionable insights through automation and continuous improvement of artificial intelligence.

In Global Health Benefits, our patent pending claims processing technology empowers us to serve customers more effectively, with greater speed and efficiency. By leveraging AI and machine learning, we are able to deliver faster claims processing turnaround times with higher levels of accuracy. This technology is also enabling us to deliver an enhanced service experience. It's a powerful solution that we are expanding for broader impact across the business. Without removing the human element of the process, it facilitates better decisions by improving the quality of the claims data and providing a more holistic view of customer health. The program has also provided meaningful insights for the future regarding behavioral health. We investigated how we can improve our mental health offerings by drilling deeper into out-of-network and brick & mortar spending patterns. We also identified more opportunities for improved network penetration and telemedicine offerings.

Our AI solutions are used to augment, never substitute, the human experience, allowing experts to spend more time in the areas where they can apply their expertise. It does not replace people, as claims submitted still receive human review. Rather, AI is helping reduce errors while delivering greater speed of service. The Cigna Healthcare AI Center of Enablement ensures that [ethical AI practices](#) are followed by implementing guardrails, systemic controls, and processes that ensure responsible use. This cross functional group brings together individuals across technology, privacy, security, legal, compliance, marketing and more to assess new use cases of AI and whether they meet our AI ethical principles. These include transparency, accountability, and safety. These guardrails ensure we are incorporating useful and meaningful human interactions.





How will AI change the health care landscape?

With all the capabilities AI offers, health care has significant opportunity for transformation. With people living longer, and how rapidly technology is advancing in the digital age, technology is set to play a role in innovating health care. Chronic disease is rampant, and the systems we turn to in critical moments need new solutions to keep up. Examples of [how AI is transforming the future of health care](#) span from assistance with administrative tasks to recognition of scans, diagnostic or predictive capabilities that can assist with quicker patient interventions, and more. The pharmaceutical industry, as well as clinicians and providers, have recognized AI's many capabilities and are leveraging them today.

Across all industries, AI and machine learning is used to largely eliminate or reduce administrative burden of employees, saving time and resources. Doctors' offices may use AI to perform tasks such as sending patient reminders and confirmations, handling patient inquiries, managing automated billing and payments, accessing patient digital files for visits, and sending prescriptions to the pharmacy. Virtual assistants largely help with alleviating capacity, streamlining many of these tasks. GenAI transcribes practitioner notes, allowing doctors and nurses to validate instead of typing. This enables them to dedicate more time to listening to their patients. By removing these burdens, we can imagine a world where improved personalized care becomes possible. Patient and doctor relationships will be improved along with the level of service. It also solves for staffing shortages in rural areas where qualified talent is less available.

[The Cigna Group](#) is leveraging AI to [identify certain cancer diagnoses earlier in customers](#). Receiving a cancer diagnosis is often the scariest moment a person can come across in their lifetime. Based on a pilot, our breast cancer identification model identifies customers on average 27 days earlier, and our lung cancer model 22 days earlier, allowing for a quicker diagnosis*. This personalized, proactive support empowers patients to make a more informed care decision that results in better outcomes and higher cost savings. Historically, health service organizations often find out about the diagnosis after the course of treatment has been decided. We are bending the historical trend and using AI to connect with patients and providers earlier in the process, taking the burden off the customer's shoulders and helping them navigate more affordable treatment options.

When it comes to diagnostics, there is immense opportunity to reduce human error and drive efficiency. By applying AI to diagnostic tests, such as electrocardiograms, echocardiograms, X-rays, MRI images or other common assessments, providers could theoretically detect abnormalities faster, complementing physician judgment and creating opportunity for intervention sooner, saving lives. For example, [AI solutions are being developed](#) to automate image analysis and diagnosis, highlighting areas of interest on a scan to a radiologist. Medical devices are evolving to better integrate and enhance their capabilities.

One of the biggest challenges of running clinical trials is running them efficiently while enrolling patients that meet necessary criteria. [Johnson & Johnson](#) is applying AI and ML algorithms to large data sets to identify clinical research locations as well as patients who potentially meet the requirements for a certain trial. It also ensures diversity of clinical trials by using analytics to find locations and institutions where diverse patients will likely be treated.

Digital tools have potential to reshape how we think about our own health management. The combination of AI, data and wearable devices creates improved quality of care that is accessible to everyone. They provide early detection of issues and potential problems without visiting a doctor. The emergence of wearable

technologies and digital sensors opens the door for access to more patient health data than ever before, leading to earlier diagnosis, personalized treatment and streamlined medical practices.

Another example of how AI is making health care more accessible is through telehealth, powered by AI. [The intersection of telehealth and AI](#) means that providers can deliver services to expanded geographic areas, allowing patients in rural areas to get treated without having to travel long distances. Research also shows that AI can guide patients by triaging who are uncertain of the level of care they require for minor issues, resulting in a reduction of emergency room visits and alleviating capacity.

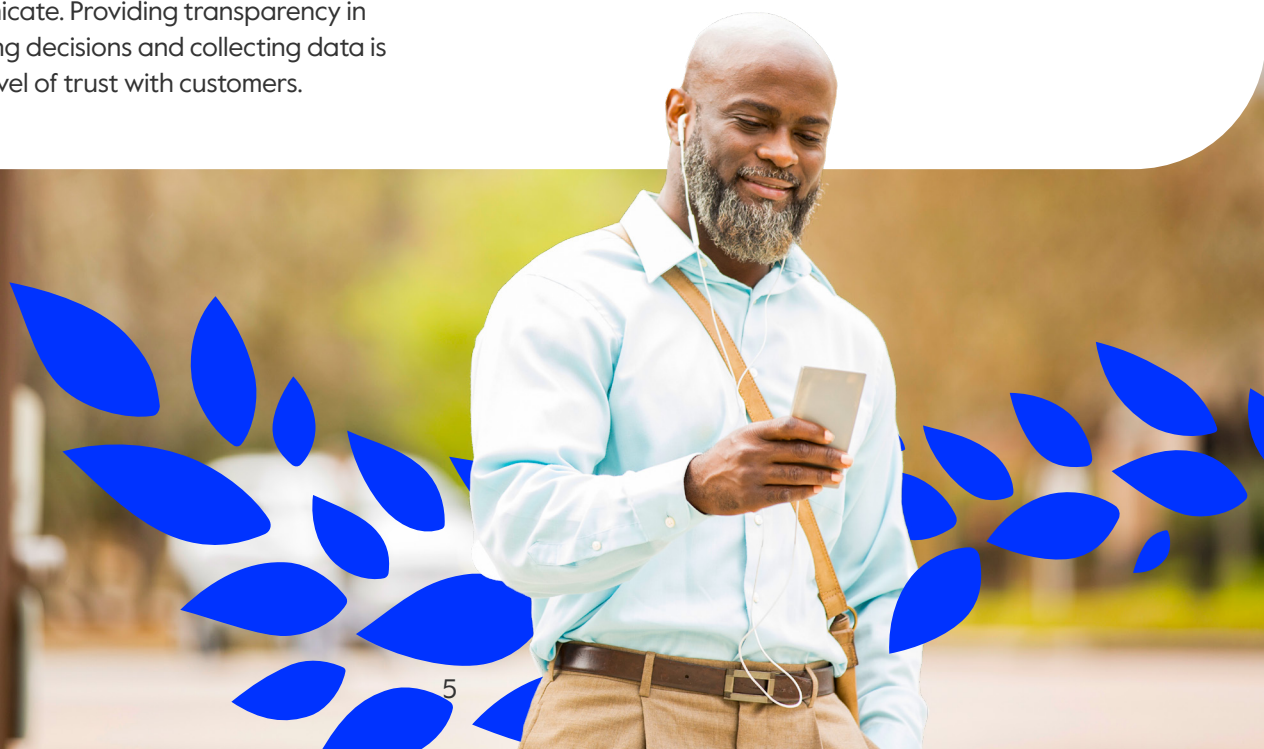
AI adoption and implementation

When it comes to determining whether AI makes sense, businesses must first start with the problem they want to solve. What needs to be addressed, and does the application of this technology warrant the costs? From there, what benefit does it provide the business? Would leveraging AI result in cost reduction, new revenue streams or improved customer experience? Lastly, what are the risks associated, such as data quality or organizational changes? The level of effort to overcome these barriers will need to be determined ahead of time. Having a strong team to support, scale and manage implementation is critical.

With the exciting changes new technology brings, there is likely to be disruption. Bringing the benefits to light as well as what it means for both patients and providers is important to communicate. Providing transparency in terms of how AI is making decisions and collecting data is key for maintaining a level of trust with customers.

As different models of AI make their way into health care organizations, we will see a dramatic shift in patients taking more control over their health care journeys.

The tools and technology available provide better service as well as long-term savings for both patients and providers. By leveraging the advancements of technology in an ethical way, organizations are primed to deliver solutions that improve patient outcomes, driving health care forward.





Global Health Benefits



* Based on the analysis of a pilot of model performance conducted on a population of breast cancer customers identified for oncology case management from April 2021 – June 2021 using predictive model (experimental group) vs. control (standard identification triggers). Based on the analysis of a proof of concept of model performance conducted on a population of lung cancer customers identified for oncology case management in March 2021 using predictive model (experimental group) vs. control (standard identification triggers).

References to third-party organizations or companies, and/or their products, processes, or services, do not constitute an endorsement or warranty thereof. Products and services may not be available in all jurisdictions and are expressly excluded where prohibited by applicable law. All group insurance policies and health benefit plans contain exclusions and limitations. For costs and details of coverage, contact a Cigna Healthcare representative.

Product availability may vary by location and plan type and is subject to change. Products may not be available in all jurisdictions and are excluded where prohibited by law. All group health insurance policies and health benefit plans contain exclusions and limitations. For costs and details of coverage, review your plan documents or contact a Cigna Healthcare representative. References to a third party or its products do not constitute an endorsement or warranty thereof.

Cigna Healthcare products and services are provided exclusively by or through operating subsidiaries of The Cigna Group, including Cigna Health and Life Insurance Company, Cigna Life Insurance Company of Canada, Cigna Global Insurance Company Limited, Evernorth Care Solutions, Inc., and Evernorth Behavioral Health, Inc. The Cigna Healthcare name, logo, and other Cigna marks are owned by Cigna Intellectual Property, Inc., licensed for use by The Cigna Group and its operating subsidiaries. "Cigna Healthcare" refers to The Cigna Group and/or its subsidiaries and affiliates.