

Using AI to go from Reactive to Proactive in Health Care

To BCG's network around the world,

Last spring, I wrote to you about how AI is bringing the power of “[bionic companies](#)” to life. I shared [an exciting example](#) of a mining company that's achieving a step change in operational performance by integrating the power of technology with the unique strengths of humans, leading to unprecedented productivity improvements.

I'm coming back to this theme today with another [AI impact story](#), this time from a very different angle.

More than five years ago, US health insurance company Humana set out to answer this question: could there be a way to predict a health problem before it surfaces, instead of treating conditions as they arise—helping members stay healthier overall?

Oftentimes, when we go about solving problems or answering questions with AI, the first step is figuring out how to gather enough data to present the fullest picture. But in the case of Humana, and health care generally, we often have the opposite problem: more than enough raw data without a clear way to use it.

Humana is careful to maintain a high level of sensitivity toward respecting the abundance of private health information that it has. It keeps all health data secured and follows strict privacy policies. Data analysis is always kept confidential, only used for the benefit of the member and never shared.

The company wanted to be able to take this range of protected data and harness the exact information that would look into an individual's future and improve his or her health. Not just “Will this person likely refill a prescription this week?” but “Is this person likely to have a heart attack in the coming months?” In addition, it hoped to be able to address some of the daily challenges preventing good health that its

members may occasionally face.

Humana started by creating a data platform using AI and machine learning tools to strip out the noise and mine data for key patterns and inferences—discovering, for example, that a person may be at high risk of developing a medical condition when there's still time to intervene and minimize, or even prevent, its impact.

Early on, the company addressed one of the greatest challenges in AI and machine learning: preventing unintended bias. The company has worked hard to offer equal and inclusive care, establishing a governance team focused on ensuring that all members—regardless of race, age, or gender—are offered the full range of treatments and solution options.

Part of the platform's success relies on a solution that Humana and BCG came up with together: a tool called Control Tower that consolidates data and presents use cases in a manageable way. Control Tower dynamically monitors potential gaps in care, alerting Humana teams so they can focus on the best solution right away. For example, if a patient isn't taking a critical medication or has missed important doctor's visits, Control Tower gets the proper care team engaged in order to address the issue. It can even alert a care team if a member is facing financial obstacles and may not be able to afford good nutrition, connecting that person with a local food bank or humanitarian group.

Like the mining example I wrote about before—in which AI allowed highly skilled operators to make valuable decisions—Humana's story is bionic, too. Health care can't happen without humans, no matter how sophisticated an algorithm may be. The predictions that Humana can now make about its members' health allow clinicians to see around the corner, make decisions that result in proactive care, and improve the overall health of members.

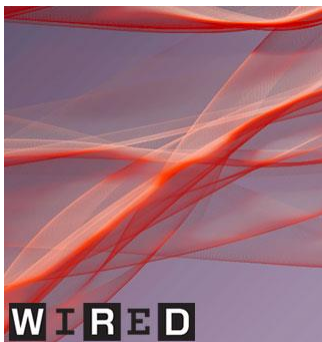
Please see below for an article about this story from *Wired*, a new video series about digital transformation success, and a useful digital assessment tool.

Until next week,

A handwritten signature in dark ink, appearing to read "Rich", with a stylized flourish at the end.

Rich Lesser
Chief Executive Officer

Further Reading



What Does It Really Mean to Be More Healthy?

Humana centralized hundreds of billions of data points to create a platform that would allow them to develop a new standard of care.

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