



# Accelerating the pace of innovation in health care

Deep knowledge of industry challenges and strategic collaborations are helping build a future of personalized care and more seamless digital experiences.

Today's health care landscape is changing fast—and for many employers, members and providers, that's a good thing. Age-old industry challenges remain pressing today, with stakeholders collaborating to develop solutions that aim to lower costs, improve health outcomes and create an experience better tailored to unique member needs.

Beyond the challenges associated with the traditional Triple Aim, health inequities and [social determinants of health](#) (SDOH) have garnered more attention than ever since the onset of COVID-19. Considering SDOH drive 80% of health outcomes,<sup>1</sup> it's no wonder industry stakeholders, including employers, are prioritizing health equity and whole-person health more than ever before.

Yet despite all the challenges facing health care today—many becoming more apparent and urgent during the pandemic—the public health crisis also spurred rapid innovation and an influx of investment.

One survey<sup>2</sup> of health care leaders found that 90% agreed the pandemic “will fundamentally change the way they do business, requiring new products, services, processes and business models.” Tens of billions of dollars are flowing annually into health care innovation and research and development (R&D) efforts. Big areas of focus include remote-monitoring devices, virtual care technologies, artificial intelligence (AI) tools to support clinical decisions, and data-sharing tools and applications for both providers and members.<sup>3</sup>

These important developments in health care innovation ladder to 3 overarching trends affecting employers and their employees—now and moving forward:



Data-driven personalized care



Digital experience—for providers and members



Strategic collaborations



**“After analyzing claims data for ER use, hospitalizations and lengths of stay, we are able to identify populations that might be struggling with health-related social needs, including hunger, safety or homelessness.”**

**Dr. Cyrus Batheja**  
National Vice President of Enterprise Transformation and Strategic Solutions  
UnitedHealthcare

United  
Healthcare

## Industry complexity calls for innovation

The health care industry faces unique innovation challenges stemming from its complexity. For members to realize increased value, upstream stakeholders—providers, payers, health systems and health plans—need to be in sync, says John League, managing director of digital health research with the Advisory Board at Optum Insight. The problem is that “most of their incentives do not push them in that direction,” he says. “There are short-term advantages to not being in sync, so everybody ends up with their own system, siloed.”

Fragmentation, in other words, is a big obstacle to innovation. To overcome that hurdle—to be able to successfully design and build, or invest in, solutions that can scale—requires both knowledge and bandwidth. “You need to have the deep industry knowledge and the resources to be able to scale things in a meaningful way,” says Kaylene Thompson, vice president of innovation at UnitedHealthcare.

**\$5B**

annual R&D  
and technology  
investment across  
UnitedHealth Group<sup>4</sup>

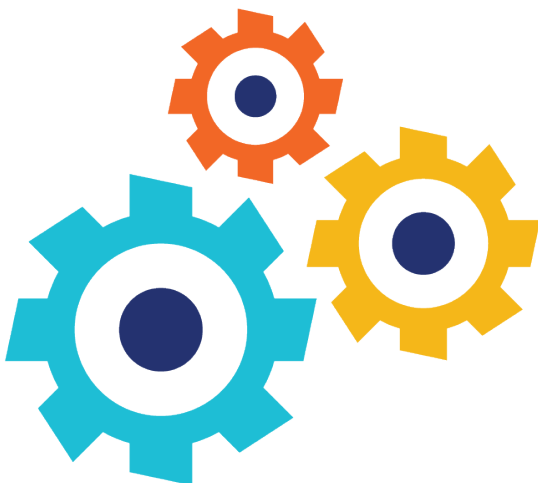
**“You need to understand health care’s complexity to be able to innovate internally and to cultivate the right external solutions.”**

**Kaylene Thompson**

Vice President of Innovation

UnitedHealthcare

With an annual investment of over \$5 billion in innovation, R&D and technology,<sup>4</sup> UnitedHealth Group, the parent company of UnitedHealthcare, is committed to building a better health care system. The goal is nothing less than health care that is more integrated, equitable and affordable for everyone. At the center of the innovation ecosystem? The member. When it comes to innovation, the goal is to start with the [member experience](#) and pain points and then work from there toward targeted solutions, Thompson says.



## Personalized care grounded in data



Members increasingly expect providers to personalize their experience—to recognize them at an individual level across the spectrum of touchpoints, as is increasingly common in other industries.<sup>5</sup> More personalized products, services and experiences are emerging with the help of AI and data science, precision medicine and multi-omics (genomics, proteomics and others), and redesigned health plans, networks and pharmacy services.

Personalized health care can mean many different things—everything from providers delivering care virtually to wearable devices enabling individualized management of chronic diseases such as diabetes.<sup>6</sup> But when Jaime Murillo thinks about personalized care, he thinks about data. As senior vice president and chief medical officer of Optum Labs—the research and development arm of UnitedHealth Group—Murillo has an up-close view on how emerging data-driven AI and machine-learning (ML) technologies can help clinicians zero in on the unique needs of specific member populations.

“No two human beings are the same, but too often they are treated the same in a medical setting,” Murillo says. He sees a future where clinicians have access to an AI-based algorithm that draws on various data streams—the patient’s own medical history, but also relevant demographic and SDOH-related data—to suggest the best treatment. “We can use AI-powered technology to make more personalized treatment recommendations more efficiently,” he says.

That experience starts with data. Optum Labs’ innovation efforts, he notes, are fundamentally enabled through data collection. The organization has access to a significant database that Optum’s AI and ML capabilities can then leverage to design clinical solutions that help deliver better care. What does all this data analysis mean for the member-provider experience?

Consider the pharmacy experience for members, as well as physicians, care providers and pharmacists. There are tools informed by data that help clinicians direct members to available lower-cost drugs and proactively push savings alerts to members so they’re aware of opportunities to save on prescriptions. “Members deserve to have this kind of transparency in savings opportunities,” says Susan Maddux, chief pharmacy officer at UnitedHealthcare. “It’s a good example of how innovation efforts can drive costs out of the system while improving the member experience. Affordability and improving that experience are core goals for us.”

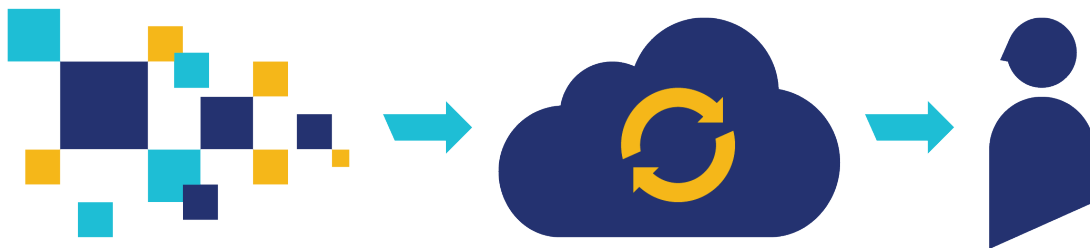
The impact of data and personalization is also seen in the provider’s office. Real-time access to improved data about the quality of network specialists, for example, could help reduce overall costs and suggest for members a care regimen more tailored to their unique needs.

“Imagine if a primary care physician could understand the quality of a specialist not by word of mouth but based on data detailing a lack of patient readmissions,” says Dr. Gerald Hautman, chief medical officer for UnitedHealthcare National Accounts.

**“We can help providers better support members by providing this kind of information so they can adjust their decision-making based on potential impacts on each patient sitting before them.”**

**Dr. Gerald Hautman**  
Chief Medical Officer  
UnitedHealthcare National Accounts

## Digital fuels the provider-patient relationship



Digital advancements continue to provide greater convenience and access to care through remote monitoring, home testing and virtual care. More information in the hands of members can empower them to be more proactive in their own health care, under the guidance of providers, Murillo says.

Digital is about more than just the **member's experience**, though. Better tools and more data in the hands of providers help drive improved outcomes and experiences, as well as reduced costs.

Historically, organizations may have thought of “digital health care” as distinct from the broader health care experience. But just as “e-commerce” has become a redundant term, as innovation investments continue to bear fruit, “digital health care” is on its way to just being “health care,” League says. “That’s where we’re heading; digital will be baked into the health care experience,” he says. “It touches on everything.”

The future of digital, in other words, is about more than specific tools and platforms used to improve the member experience: apps, member portals, virtual care and remote monitoring devices. These things matter, but the value of digital goes beyond channels and devices.

“It’s great that these devices will ping you and say you need to stand, or you need to walk, or your blood pressure is too high,” says Craig Kurtzweil, vice president for advanced analytics at UnitedHealthcare. “But what members really struggle with is, ‘What do I do with that information? What does it mean?’”

This is where UnitedHealthcare can add value, he adds. By putting data-driven tools and analytics in the hands of providers, outcomes may be improved. “Yes, we need to gather and integrate data streams and apply machine learning algorithms to it,” Kurtzweil says. “But at the end of the day, the value is about clinicians reaching out to members with clear and concise recommended actions to improve their health. We can help providers guide the member into action.”

Some of Optum Labs’ innovation efforts have focused on developing decision-support tools and algorithms to help providers make better decisions by surfacing information that helps streamline administrative tasks and overall care delivery, says Troy Anderson, vice president of product management at Optum Labs.

For example, with the COVID-19 pandemic heightening mental health challenges and the need for behavioral health care, Optum Labs is developing a care-enablement tool that helps providers identify patients who are at higher risk for mild to moderate mental health challenges and facilitates collaboration with mental health professionals designed to be as seamless as possible.

“A lot of physicians are so busy, they may have a hard time identifying when they’re dealing with somebody that may benefit from working with a behavioral health care professional,” Anderson says. “So the tool is about supporting physicians’ decisions, while also reducing the administrative burdens they can face.”

**“Digital will be baked into the health care experience. It touches on everything.”**

**John League**

Managing Director of Digital Health Research  
Advisory Board at Optum Insight

## Strategic collaboration powers innovation

True innovation doesn't happen in silos—key stakeholders need to collaborate to surface important problems and design viable solutions. Employers, academic institutions, provider systems, policy leaders, nonprofits and other organizations can together develop an innovation agenda that advances the industry through solutions that bring value for providers, employers and their employees.

While Optum Labs' teams include doctors, nurses, pharmacists and clinicians—along with data scientists and health care economists, among other experts—the organization collaborates with UnitedHealthcare to help ensure solutions are designed to solve challenges employers are facing today. “When we work with clients, we aren't just pushing a solution that our team is invested in,” Anderson says. “We can actually co-develop something that really gets at the heart of a problem and customize it for a specific employer's needs.”

Given the complexity of health care delivery and systems, strategic collaborations to drive innovation take many forms. UnitedHealth Group collaborates with stakeholders both inside and outside the organization to advance its innovation agenda:

- UnitedHealth Group's innovation ecosystem has a big emphasis on nurturing promising startups, through direct investments via [Optum Ventures](#), a venture capital fund with more than \$600 million in assets under management
- [Optum Labs](#) works to create the most effective, affordable, equitable and engaging health care solutions by leveraging data insights, artificial intelligence, machine learning, disruptive product development, engineering and clinical research
- The [UnitedHealthcare Accelerator](#) program focuses on helping early-stage startups foster growth through mentorship and investing, enabling pathways to commercialization



As vice president of innovation at UnitedHealthcare, Thompson oversees the Accelerator program. Cross-functional collaboration is built into its DNA. The mentors, events and curricula it offers to startups bring people together from across UnitedHealthcare, UnitedHealth Group and from external collaborators to help solve important problems.

The immediate goal is to help startups grow, but the program plays an important role in reinforcing the culture of innovation at UnitedHealthcare by providing exposure to new ways of thinking and risk-taking. “My team is really focused on how we accelerate the pace of innovation and how we bolster the right capabilities to innovate with speed and confidence,” Thompson says.

In health care, a common obstacle to successful innovation—meaning new products and services that work at scale—is the fragmented nature of the sector. But the integrated nature of UnitedHealth Group brings together a payer (UnitedHealthcare), a technology company (Optum) and a provider (Optum Care) under one roof as innovation collaborators. That matters, Thompson says, because it sets the stage for strategic collaborations. “We have a greater chance of being able to actually scale things in a meaningful way,” she says.

**“The only way you'll successfully innovate is if you go out there and try. A lot of companies shy away from what looks tough. But you have to be fearless to attack these problems. You can't be afraid of failing.”**

**Dr. Gerald Hautman**

Chief Medical Officer

UnitedHealthcare National Accounts

## Innovation in action

The following programs are examples of UnitedHealth Group and its companies, UnitedHealthcare and Optum, collaborating inside and outside the organization to advance an innovation agenda designed to reduce costs, create a stronger member experience and improve health outcomes.

### Surest, a UnitedHealthcare company

Surest, formerly Bind, originated as an external UnitedHealth Group investment and was born from market trends the firm was observing to provide members with clear, upfront pricing in advance of seeing a doctor or provider—allowing members to make more informed health care decisions. Through strategic investments, UnitedHealth Group was able to grow the idea externally before bringing it in house. Now, Surest serves as an example of member-centric innovation. Members have clarity, control and flexibility to check costs and compare options for doctors, treatments and prescription drugs via the intuitive Surest app or website. And prices for health services that often occur together, such as labs during an annual physical, are combined into a single copay so the member receives one bill.

**80%**

of Surest members spend less than \$500 out-of-pocket annually<sup>8</sup>

### Level2

Born out of UnitedHealth Group's research and development team, Level2<sup>®</sup> is a holistic diabetes accountable care organization designed to drive better outcomes, lower out-of-pocket costs and return guaranteed savings. Using a continuous glucose monitor and activity trackers, members' biological data is updated dynamically—hundreds of times per day—with real-time sensors providing actionable feedback. Members are continuously monitored by a care team—intercepting early to help enable faster response.

**75%**

of members lose weight within 90 days<sup>9</sup>

### Cancer Guidance Program

The Cancer Guidance Program is not new—in fact, the evidence-based utilization management and analytics service has delivered more than 800,000 treatment authorizations for patient regimens since its 2015 launch.<sup>7</sup> But its latest advancements demonstrate the importance of ongoing innovation to core capabilities. The program presents multiple patient-specific treatment options to providers, with recommendations based on information on more than 60 types of cancer and 2,100 regimens. Importantly, many prior-authorization requests are auto-decisioned, reducing the administrative burden and time to treatment, while speeding payment to the provider.

**57%**

of prior authorizations are auto-decisioned<sup>10</sup>

**Learn more**

Contact your broker, consultant  
or UnitedHealthcare representative

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<sup>1</sup> Patient health and wellness: What's a ZIP code got to do with it. Wolters Kluwer. Jan. 13, 2021.

<sup>2</sup> The essentials of healthcare innovation. McKinsey & Company, May 5, 2021. Available: <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-essentials-of-healthcare-innovation>. Accessed: Aug. 1, 2022.

<sup>3</sup> 5 healthcare innovation trends to keep a close eye on. Becker's Health IT, July 20, 2021. Available: <https://www.beckershospitalreview.com/digital-transformation/5-healthcare-innovation-trends-to-keep-a-close-eye-on.html>. Accessed: Aug. 1, 2022.

<sup>4</sup> Our Mission in Action 2021 Sustainability Report. UnitedHealth Group, June 14, 2022. Available: <https://sustainability.uhg.com/content/dam/sustainability-report/2021/pdf/2021-sustainability-report.pdf>. Accessed: Aug. 1, 2022.

<sup>5</sup> New Survey Shows Consumers Expect Better Healthcare Experiences—But Are Often Disappointed. Forbes, Dec. 7, 2021. Available: <https://www.forbes.com/sites/debgordon/2021/12/07/new-survey-shows-consumers-expect-better-healthcare-experiences-but-are-often-disappointed/?sh=631b288773f6>. Accessed: Aug. 1, 2022.

<sup>6</sup> UnitedHealthcare taps wearables, individualized coaching to enhance diabetes management. Fierce Healthcare, Jan. 10, 2018. Available: <https://www.fiercehealthcare.com/technology/unitedhealthcare-wearables-type-2-diabetes-management-medicare-advantage-data>. Accessed: Aug. 1, 2022.

<sup>7</sup> UnitedHealthcare provider auto-approval rate reports, 2015-2021.

<sup>8</sup> Surest self-funded 2020 members enrolled 12 months, medical and pharmacy claims.

<sup>9</sup> UnitedHealthcare analysis of more than 790 Level2 participants enrolled in employer-sponsored and Medicare Advantage plans, 2020.

<sup>10</sup> UnitedHealthcare provider auto-approval rate report, Jan. 2022.

Disease Management programs and services may vary on a location-by-location basis and are subject to change with written notice. UnitedHealthcare does not guarantee availability of programs in all service areas and provider participation may vary. Certain items may be excluded from coverage and other requirements or restrictions may apply. If you select a new provider or are assigned to a provider who does not participate in the Disease Management program, your participation in the program will be terminated. Self-Funded or Self-Insured Plans (ASO) covered persons may have an additional premium cost. Please check with your employer.

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