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Harnessing technology's power to advance chronic disease solutions

Three in four American adults live with at least one chronic condition. These diseases quietly diminish quality of life while driving a large percentage of our nation's $4.9 trillion in annual health care costs. At a time when the United States fares worse than its peer nations in both life span and health span , despite spending more on health care than all of them, chronic disease remains a significant medical and financial burden.

The path forward is clear: better prevention, earlier intervention, and more personalized care. Yet the traditional healthcare system, built around episodic treatment rather than continuous management, has struggled to deliver on these promises at scale. Now, a new generation of technologies—particularly artificial intelligence (AI)—offers new tools for early intervention and personalized care. But its true potential to build healthier tomorrows depends on thoughtful integration with human judgment and healthcare systems.

In October 2025, the Milken Center for Advancing the American Dream and Deloitte brought together healthcare leaders, technologists, investors, and community advocates to explore how human-centered technology can more effectively prevent and manage chronic diseases and help Americans live healthier, longer, and more independent lives.

The following five themes capture the key insights from the discussion.

The consumer is the new CEO of health: AI is their co-pilot

The conversation opened with the acknowledgement of a fundamental shift in the role of the patient. For centuries, the default assumption was simple—doctors knew best, and patients followed orders. Technology has upended that dynamic, giving consumers more control, more options, and a greater say in their health decisions. They search online for information, connect symptoms to potential solutions, choose healthcare providers who listen and communicate well, and walk away from those who don't.

People are able to take increasingly active roles in managing their own health—but only when they have the right tools, data, and support. One participant described AI as a knowledgeable co-pilot: the technology processes information and surfaces patterns, but the individual remains in control, making decisions with their care team that reflect their values and circumstances.

The opportunity lies in supporting this momentum, rather than resisting it—balancing AI's vast processing power with the rational and emotional perspective and know-how of humans. When patients work with a knowledgeable partner—whether AI, an app, a health coach, or a care team—they can better understand data and options. Instead of expecting a provider to keep up with the firehose of medical literature—over 1.5 million scientific articles each year—patients can leverage AI to sift through the noise, uncover discoveries and treatment possibilities tailored to their biology and lifestyle, and bring these insights back to their care team.

True empowerment must reach everyone. Vulnerable populations—those facing economic pressures, digital divides, or distrust of institutions—require different kinds of support. Harnessing the potential of technology while preserving the uniquely human perspective each of us brings is key.

As Yuval Harari wrote in *21 Lessons for the 21st Century*: "For every dollar and every minute we invest in improving artificial intelligence, it would be wise to invest a dollar and a minute in advancing human consciousness."

Small nudges, big impact: Hyper-personalization and behavior change

This is where AI gets tangible. Technology now can micro-tailor health solutions to fit how people actually live, not just how guidelines suggest they should.

Behavior change often fails when it demands a dramatic overhaul. It succeeds when solutions meet people where they are. One speaker gave the example of AI-driven "nudges" that prompt small, scalable adjustments. If you love fried chicken, for instance, an AI co-pilot might nudge you to fry it in olive oil instead of canola, rather than asking you to give it up entirely. If you're dealing with depression, a nudge might encourage stepping outside for a 10-minute walk. These aren't revolutionary changes. They're micro-steps designed to fit into your everyday life.

The technology behind these nudges is sophisticated, but the insight is elegantly simple: Behavior change sticks when friction disappears and solutions feel achievable.

The most effective approaches tend to combine data sophistication with flexibility in delivery. Hyperpersonalization won't look the same for everyone. Some people use apps, others respond best to text messages, and some benefit most from in-person visits from a community-based care liaison. One speaker noted that her health system found that when community representatives visited certain people's homes, engagement jumped from 35% to 75%.

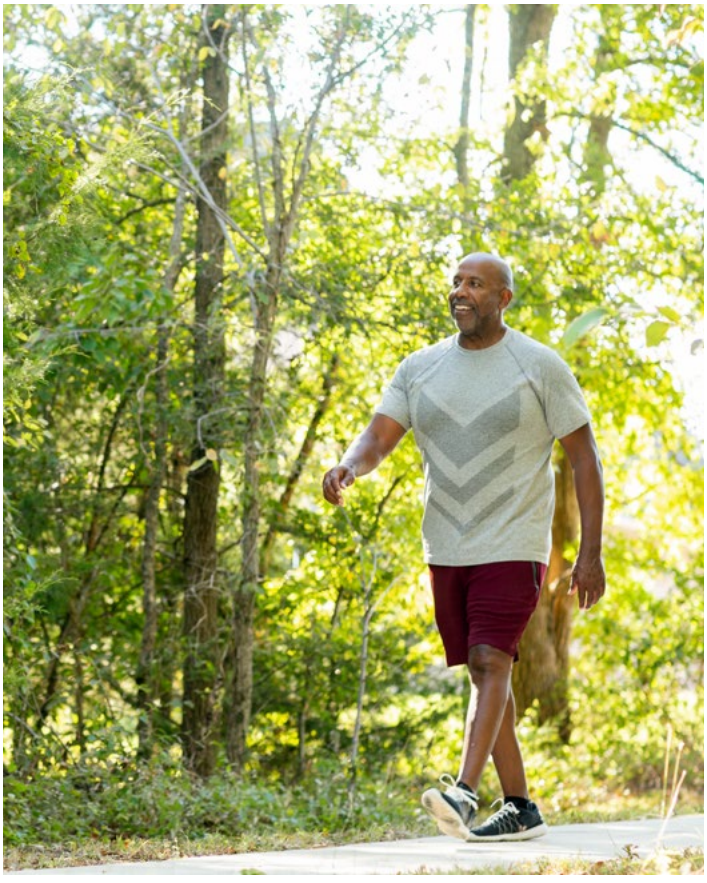
By combining AI's precision with empathy and adaptability, hyperpersonalized approaches can make lasting behavior change not only possible, but realistic for everyone.

Measuring what matters: Healthspan over lifespan

Participants noted a profound shift in healthcare goals: from living longer to living longer well.

Currently, the average American lives to 78 years old. But roughly half of those years are spent in active decline. Imagine if we reoriented healthcare around maximizing healthy span—the years of genuine vitality, independence, and engagement. We could envision people living to 90 with 20 additional years of active, meaningful life.

This reorientation changes daily habits from "wellness optional" to essential interventions. Exercise becomes a drug. Sleep becomes a prescription. The integration of mental and physical health moves from peripheral to central. It means measuring success not by mortality statistics, but by whether someone can walk, think clearly, spend time with loved ones, and find meaning.



One speaker shared a sobering example: in San Antonio, Texas, there were 155 leg amputations among people with diabetes in a single year. These weren't people who had ignored their disease. They were on their medications. But they remained sedentary and ate poorly. The medications alone couldn't save their limbs or their health. "Medication is not enough," one physician emphasized. The full ecology matters—daily choices, access to healthy food, community support, the belief that change is possible.

This reorientation fundamentally challenges where resources flow. Social factors—housing, food access, transportation, community—become central to healthcare strategy, not afterthoughts. The investment shifts from fixing problems after they develop to helping people build lives where health is the natural outcome.

Making prevention pay: Aligning incentives to reward health

The healthcare system, participants lamented, is working exactly as designed. It rewards treatment, not prevention, and procedures and medications, not the daily behaviors and social supports that truly determine health.

This creates a vicious cycle. Tools focused on prevention must swim against powerful financial currents. Payment models don't typically compensate for social determinants of lifestyle factors. Insurance companies operate with short time horizons—if someone switches plans next year, this year's prevention investment doesn't pay off. "We're stuck in repair shop mode because that's what the financial structures reward," one investor observed.

Yet there are glimpses of what's possible when incentives align. Some health plans reimburse food programs and community health worker support. Some life insurers are starting to invest in prevention, recognizing the long-term payoff. Several employers are spearheading workplace wellness initiatives, with dramatic results—for example, smoking cessation rates surged when employers, not generic health systems, led the program.

Real change requires rethinking what we value and fund. Comprehensive health education could start in elementary school. Prevention investments could get tax incentives matching traditional healthcare. Health management could be treated like a job—with resources, mentorship, and recognition.

Much of this is already within reach: personalized health portals that integrate individual data, AI-powered grocery tools that prefill your cart with foods aligned to your goals, reimbursable prevention services, and trained community health liaisons. With the right incentives, prevention can finally move from the margins to the mainstream—transforming health from something we treat into something we build.

The future of health is still human

Technology is a tool. The real work of progress is fundamentally human—building trust, meeting people with empathy, and understanding their lives. Science and technology enable discovery, but humans and organizations deliver impact. The bottleneck isn't computational power; it's people and systems.

True innovation starts with connection. Trust is the foundation of every lasting healthcare relationship. Research shows that six in ten consumers will switch doctors if communication breaks down—and eight in ten will leave if trust is lost. Yet communities with a history of institutional failure carry justified skepticism. Real trust-building requires acknowledging past harms, listening authentically, and co-designing solutions *with* communities, not *for* them.

When people feel seen, heard, and valued, they engage with their health. That means meeting them where they are—in libraries, schools, churches, and community centers—with transparent conversations about health initiatives. It means recognizing community health workers and family caregivers as essential infrastructure—deserving professional development, fair pay, and respect. Health doesn't happen in hospitals alone; it's shaped by whether people can afford healthy food, have safe places to move, and feel a genuine sense of belonging. These are the foundations we need to build healthier tomorrows.

The opportunity ahead is real: smarter data, empowered individuals, innovative financing, and community-led approaches could transform how we address chronic disease. But realizing that potential depends on human choices. Will technology serve people—or profit from them? Will it deepen inequities—or expand access? Will it concentrate power—or distribute it?

The answers lie not in the technology itself, but in the wisdom and values of those who use it. The future of health will be defined not by the intelligence of our machines, but by the compassion of the humans who guide them.

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