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DIGITAL MEDICINE SOCIETY

The Health AI North Star

By Jennifer Goldsack and René Quashie

In 2025, more than $14 billion in venture capital alone flowed into U.S. digital health startups, with AI-driven companies capturing the majority of those dollars. Health systems, technology companies, and policymakers are racing to deploy and govern these tools. Yet for all this investment and activity, the field still lacks a shared vision of success.

From our different vantage points in the healthcare ecosystem, we see this problem clearly. One of us leads the Digital Medicine Society (DiMe), a nonprofit focused on ensuring that new technologies meaningfully improve patients' lives. The other leads digital health initiatives at the Consumer Technology Association (CTA), working closely with many of the companies developing the tools promising to revolutionize care delivery.

Every day we work with clinicians, entrepreneurs, researchers, and policymakers pushing these technologies forward. Their creativity and urgency are inspiring. But healthcare is the industry that exists to care for people, often at their most vulnerable. If billions of dollars and enormous creative energy are going to be invested in these tools, we must be clear about the outcomes we are trying to achieve.

To help anchor that conversation, we offer a North Star.

The quintuple aim, the longstanding framework healthcare systems use to ensure that improvements in care quality, cost, and patient experience do not come at the expense of clinicians or vulnerable populations, provides a useful structure for imagining how AI could meaningfully improve healthcare. It allows us to hold the values of our industry constant rather than reinventing them for each new technology.

1. Improved Patient Experience

Imagine a nine-year-old boy newly diagnosed with a rare disease such as Duchenne muscular dystrophy. His family must now coordinate care across multiple specialists, appointments, and health systems, often repeating the same information at every step.

AI could help aggregate and summarize his medical records so that each clinician begins with a clear understanding of his history rather than starting from scratch. Systems could also identify clinical trials for which he may be eligible, connecting families to research opportunities far sooner than today's fragmented process allows.

This is what improving the patient experience should mean in the digital and AI era: reducing friction, accelerating access to support and treatment, and helping families navigate complex systems that weren't designed with them in mind. Realizing that future will require seamless exchange of patient records across providers; trustworthy tools that clinicians can rely on in to help, not disrupt; and smarter ways of connecting patients to the treatments that are most likely to work for them, or trials where these treatments do not yet exist.

2. Better Outcomes and Population Health

The U.S. healthcare system is among the most sophisticated in the world, excelling at treating disease but struggling to prevent it.

Consider a working mother of three who finally schedules a physical with her primary care physician after several years of putting it off. During the visit, patterns in her medical history and test results suggest she may be at elevated

risk for hypertension. Instead of waiting for the condition to fully develop, her clinician enrolls her in a care program that includes ongoing monitoring and follow-up between visits.

Through earlier detection, low-burden monitoring, and more high-touch engagement, risks that might once have gone unnoticed can be managed before they become chronic disease.

This is what improving population health should mean in the digital and AI era: shifting healthcare from reacting to illness toward helping people stay healthy in the first place.

3. Lower Costs

Here in the United States, we now spend nearly one-fifth of GDP on healthcare, yet much of that spending occurs only after disease has progressed to its most expensive stages.

Consider a Veteran with diabetes living in a rural community. At her local clinic, screening technology detects early signs of diabetic retinopathy, a condition that can lead to blindness if left untreated. Because the problem is identified quickly, she can begin treatment before the damage becomes permanent, avoiding both the personal toll of vision loss and the significant costs associated with advanced disease.

Earlier detection does more than improve outcomes. It can prevent the cascade of complications that drives so much healthcare spending. Used thoughtfully, new technologies can help clinicians intervene sooner, when care is both more effective and less expensive.

4. Clinician Well-Being

Clinicians enter medicine to pursue a vocation to care for patients, yet many have spent as much time navigating documentation and administrative requirements as they have delivering care.

Consider an emergency department nurse nearing the end of a twelve-hour shift. Between patients, he is entering information into multiple systems, documenting every detail of each encounter, and trying to keep pace with the steady flow of people needing care. The administrative workload is relentless, and it contributes to the burnout that is driving many clinicians out of the profession.

Thoughtfully deployed digital and AI tools could help shift that balance. Ambient documentation systems can capture and organize clinical conversations, generating notes and summaries that clinicians can review rather than create from scratch.

Optimally deployed, AI promises to restore something clinicians increasingly lack: time. Time to listen to patients, time to think through complex cases, and time to reconnect with the human side of medicine.

5. Health Access

For millions of Americans, quality of care isn't their primary concern. It's accessing care at all.

Consider a grandmother caring for seven grandchildren who has recently been diagnosed with breast cancer but has no reliable way to travel to her appointments. She may lose her battle, not because her diagnosis in incurable, but but of practical barriers like transportation, caregiving responsibilities, and the daily realities of life.

AI solutions could help her care teams identify these barriers earlier and coordinate support that extends beyond the clinic. A health plan or care manager could connect her with community organizations that provide transportation or other services, while also monitoring whether those supports are actually reaching the people who need them.

Technology alone will not eliminate disparities in access to care. Indeed, they must be intentionally developed and deployed to avoid widening challenges to access and outcomes. But used thoughtfully, AI can help health systems recognize unmet needs sooner, coordinate resources more effectively, and ensure that care reaches patients wherever they live.

Aligning Innovation with Purpose

If we want the billions of dollars now flowing into health AI to translate into better care in pursuit of our north star, the quintuple aim, we must align innovation with the outcomes the healthcare system is meant to deliver.

First, healthcare needs a risk-based governance framework for AI. Organizations developing and deploying these tools are currently navigating a patchwork of requirements that vary across agencies and jurisdictions. A coherent approach tailored to the realities of healthcare will provide clarity while ensuring that patients remain protected.

Second, the healthcare system must also continue improving the quality and interoperability of health data across the emerging health technology ecosystem. The effectiveness of new technologies depends heavily on the data used to train and deploy them. Without reliable, representative, and interoperable datasets flowing across the system, even the most sophisticated tools will struggle to deliver meaningful improvements in care.

Third, strengthening privacy protections is essential for maintaining public trust. As healthcare data increasingly moves across organizations and fuels the development and operations of digital solutions, patients must have confidence that sensitive information will be handled responsibly and securely.

Finally, clinicians must be equipped with the training and resources needed to integrate these technologies into care delivery. Without thoughtful implementation and support for clinicians on the ground, even the most promising innovations risk becoming additional burdens rather than meaningful tools for improving care.

A Shared North Star

Today, discussions about AI in healthcare quickly become technical and abstract. But healthcare is the industry that exists to care for people and depends on people to provide that care.

Our conversations must move beyond algorithms. We must focus on whether a child with a rare disease finds a clinical trial sooner. Whether a working parent avoids preventable chronic illness. Whether a clinician has time to focus on patients rather than paperwork. And whether someone living far from a major medical center can still access the care they need.

The pace of innovation in healthcare is accelerating, and billions of dollars are being invested in technologies that promise to transform how care is delivered. That transformation holds enormous potential. But without a shared sense of purpose, even the most powerful tools risk adding complexity rather than solving the problems patients and clinicians face every day.

The quintuple aim offers a clear North Star, as it always has: Improving patient experience, advancing population health, lowering costs, supporting clinician well-being, and expanding access to care. By keeping these goals at the center of the choices we make about how technology is built and deployed, we will accelerate innovation in the right direction.

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