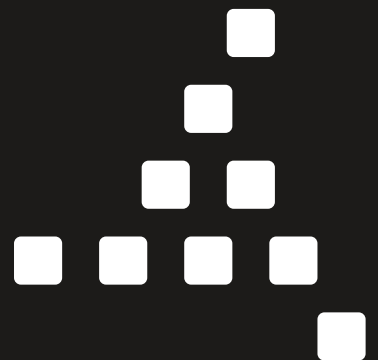


From possibility to performance:

How health systems can operationalize AI,
strengthen resilience, and lead through change



Standardizing adaptability as healthcare technology evolves and resource stability challenges operations

Health care today is characterized by rapid changes, and it would be reasonable for any stakeholder, from health system leaders to frontline providers, to feel fatigued by the rate of change.

Accelerating technologies, operational bottlenecks, and a shifting landscape for the healthcare workforce all pose challenges that have forced adaptation at a scale and pace new to the industry.

Some of these dramatic developments, such as the introduction and expansion of artificial intelligence (AI) in clinical settings, can drive innovation and inspire excitement about the potential for greater efficacy in care delivery. Other inflection points, like growing risks to supply chains in a global economy, can bring anxiety and hesitancy.

Trimedx and a group of health system executives recently gathered to discuss measurable approaches to tackling pressing challenges and how the industry can adapt while staying focused on safe, sustainable patient care. This report examines how practical AI solutions & policies, supply chain resilience strategies, and a culture of change management can prepare health systems to better navigate a changing world.

Keeping pace with the rapid growth of healthcare AI

Healthcare leaders are confronting a fundamental mismatch: artificial intelligence is advancing faster than the industry can absorb it. This gap is not just a matter of technological resources.

Health care remains deeply labor-dependent with a large accumulation of technology debt, and organizations are constrained by regulatory and operational models built for stability rather than speed. AI does not arrive as a single innovation to evaluate and adopt. Its true potential lies in serving as a force multiplier that challenges long-standing assumptions about productivity, decision-making, and scale.



Eric Larsen

*President Emeritus,
The Advisory Board*

*President,
TowerBrook Advisors*

As Eric Larsen, president of TowerBrook Advisors points out, “Health care is particularly vulnerable to AI driven disruption due to its heavy reliance on human labor, vast data volumes, and slow adoption of technological advancements.” Labor shortages persist across clinical and technical roles. Productivity growth has lagged for years. At the same time, healthcare generates enormous volumes of data, which often sit unstructured and underutilized. AI now makes that data usable at scale, shifting the bottleneck from insight generation to

organizational readiness. The question is no longer whether AI can deliver value, but whether health systems are prepared to integrate it responsibly and effectively.

Many organizations have responded with experimentation: pilots, proofs of concept, and isolated use cases. While necessary, experimentation alone is insufficient. Leaders must decide how AI fits into the enterprise operating model. That decision forces a strategic choice: use AI to expand output with existing staff, or use



it to stabilize operations by reducing costs and friction as demand continues to rise. Avoiding that choice does not delay consequences. Instead, it simply ensures they arrive unplanned.

Keeping pace requires more than enthusiasm. It requires governance that accelerates adoption rather than constraining it. Clear standards for data use, vendor diligence, and model transparency create confidence and allow organizations to move faster with less risk. Equally important is partner discipline. Health systems that spread attention across dozens of vendors and tools struggle to scale. Those that curate a smaller set of deeply integrated partners gain learning velocity and operational coherence.

Leadership behavior is the final differentiator. AI diffusion does not happen organically. It requires visible executive engagement, hands-on familiarity with tools, and a willingness to move from consensus-driven deliberation to decisive execution once direction is set. In this environment, inaction is not neutral. Organizations that hesitate risk falling into a widening gap between AI “haves” and “have-nots,” where early adopters compound advantage through faster learning and stronger operating leverage. Keeping pace with AI is ultimately not about chasing technology. It is about building the organizational capacity to absorb change continuously before external pressures force the issue.



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Achieving real results with AI to drive sustainable clinical operations

Health systems do not need more proofs of concept; they need outcomes that hold up under pressure. Healthcare organizations need to be ready to track measurable improvements that reduce friction for teams, protect capacity, and create room for better decisions. The fastest path to value starts outside of direct patient care functions, in the operational work that keeps care moving. Administrative processes, analytics, asset management, revenue cycle, and supply chain functions offer clearer feedback loops, lower risk, and more readily verifiable outputs, making them ideal first targets for enterprise AI applications.



Steven Martin

Trimedx

Chief Technology Officer

But even the best use case fails without a well-thought-out adoption strategy. In practice, trust is the first KPI. “A poor first experience can set adoption back months. Trust builds faster when AI behaves like an assistant, not a supervisor,” says Steven Martin, chief technology officer at Trimedx. In a category moving as fast as AI, months of lost trust is a delay that organizations cannot afford. Martin describes an approach shaped by hard lessons: early AI experiences must feel assistive

rather than directive. Tools that tell experienced technicians exactly what to do get ignored and go unused. Tools that suggest task prioritization, serve the correct information from the right manuals, and highlight known issues earn a second look. Over time, these solutions will earn the buy-in for more specific functions.

This trust-first design philosophy directly supports operational sustainability. AI tools that reduce administrative burdens help experienced teams stay focused on higher-complexity work, while newer staff can access more resources for effective on-the-job learning. In practice, personalization matters: concise prompts for veterans, step-by-step guidance for new hires, and an explicit “I am here to assist” posture that respects professional judgment. That is not window dressing. It is effective and approachable change management embedded in the product experience.

**In practice, trust is the first KPI.
Without it, even the best AI use case stalls.**

Where does this translate into measurable results? In the healthcare technology management space, “real results” often start with asset visibility and uptime. Clinical asset intelligence can serve as a scalable foundation for data-driven decisions that improve inventory accuracy, anticipate failures, and synchronize supply chain steps, enabling repairs to move faster with fewer delays.

With the AI capabilities to process larger datasets quickly and reliably, health systems that use Trimedx have achieved operational outcomes, including over 99% equipment uptime and 31,000+ hours of prevented unplanned downtime. Financially, organizations have used these insights and services to achieve up to 20% savings in baseline clinical engineering operational expense and up to 35% capital expense deferral without compromising patient care.

The enabling factor beneath these outcomes is data breadth and quality. In executive discussion, participants emphasized that aggregated, heterogeneous datasets consistently outperform models trained on narrower inputs. In other words: data beats algorithms. This matters because healthcare organizations often attempt to solve AI in isolation, but the strongest operational insights come from patterns across many environments, many device types, and many years of longitudinal performance.

To sustain results, leaders need a measurement model that matches the work. Valuable HTM KPIs to track include:

Reductions in unplanned downtime

Cycle time improvements in parts ordering and work-order readiness

Asset inventory accuracy

Planning quality indicators such as avoided purchases and improved capital allocation decisions

These metrics are verifiable and tightly tied to operational capacity, a crucial factor in patient access and experience.

Building resilience to navigate complex supply chain challenges in health care

Few functions illustrate the cost of fragility more clearly than the healthcare supply chain. Over the past decade, disruption has shifted from episodic to persistent. Natural disasters, geopolitical instability, manufacturing concentration, and demand volatility have exposed the vulnerability of “lowest cost” sourcing strategies. For many health systems, the lesson has been expensive: resilience is an operational requirement, not a premium feature.

Executive discussions increasingly reflect a reframing of value. Upfront price still matters, but it is no longer the dominant criterion. As Kelley Jacobsen, senior vice president of supply chain and shared services at Trimedx, puts it, “Supply chain cost management still matters, but trust and continuity matter more.”



Kelley Jacobsen

*Trimedx
Senior Vice President,
Supply Chain and
Shared Services*

Leaders are weighing vendor transparency, manufacturing redundancy, and inventory visibility alongside cost. In one example, a modest price differential in an IV solution RFP was outweighed by a supplier's ability to demonstrate real-time tracking, geographic manufacturing diversity, and defined inventory buffers. The alternative of risking millions in backorder costs during a disruption was no longer acceptable.

Effective resilience strategies are layered, not singular. They include broker engagement to improve sourcing transparency, tighter alignment between group purchasing organizations and operational teams, and category-specific redundancy rather than blanket duplication. In some cases, health systems are selectively insourcing production, particularly in pharmacy, where control and continuity outweigh scale efficiencies. The goal is not to eliminate risk, but to understand it well enough to respond before it becomes a crisis.

Data plays a central role, helping organizations map products to manufacturing locations, monitor global events, and link inventory decisions to real usage patterns to gain precious time. Healthcare organizations that can confidently trust their data and use it to drive decisive actions before disruption strikes will benefit from significantly more operational flexibility, even as external factors fluctuate.

“Supply chain cost management still matters, but trust and continuity matter more.”

Proactive disruption monitoring supported by dedicated teams rather than ad hoc responses allows systems to act days or weeks before broader market signals. These capabilities shift supply chain management from reactive problem solving to anticipatory planning.

Resilience is also cultural. Hiring and developing teams invigorated by change, rather than optimized for steady-state operations, can standardize reliance as an organizational priority. Decision-making structures that include frontline clinicians and end users help align sourcing choices with clinical reality and build buy in before disruption hits. When procurement is guided by outcomes rather than brand familiarity, organizations make better tradeoffs under pressure.

AI is beginning to amplify these efforts. Early applications focus on resilience first by identifying substitute products, forecasting shortages, and stress testing sourcing strategies before extending into utilization and inventory optimization. While technology alone does not create resilience, it sharpens judgment and accelerates response.

In a healthcare environment where disruption is inevitable, resilience is no longer a defensive posture. It is a competitive capability.

Adapting organizational culture to thrive during moments of change

Systemic transformations, including shifts in technology, in the healthcare industry rarely fail because the tools do not work. They fail because organizations underestimate the human cost of change. Large change initiatives fall short of their goals, often due to staff resistance, inadequate training, or poorly executed transitions. In an industry already under strain, the consequences—including operational disruption, delayed care, and avoidable turnover—are too costly to ignore. Ford Koles, vice president and national spokesperson for The Advisory Board, observes that “the U.S. healthcare system is not collapsing under outside attack from “disrupters” (who only seem to disrupt themselves). Indeed, the system’s fragmentation, though in many ways a curse, is also a blessing in that it makes for a nearly impenetrable defense mechanism. Diffusion, not disruption, defines the current moment.”

The challenge is compounded by timing. AI, supply chain redesign, and operational restructuring are not unfolding sequentially; they are converging. This convergence can create fatigue and skepticism among teams that have lived through waves of “next big things” that promised efficiency but delivered disruption.

Effective change management begins with transparency, consistency, and overcommunication. Leaders who treat communication, training, and reinforcement as optional quickly lose momentum. In contrast, organizations that create structured forums for dialogue, such as regular cross-functional check-ins, peer-led learning, and transparent discussion of trade-offs, build trust even when outcomes are uncertain. Peer advocacy has emerged as one of the most reliable drivers of adoption. Frontline employees who experience tangible benefits become credible champions in ways leadership alone cannot.

Standardization is often the most difficult cultural hurdle. Health care values professional autonomy, yet scale demands consistency. Several executives described navigating this tension by separating how decisions are made from how they are implemented. Broad input and debate shape direction, but once a path is chosen, execution must be disciplined. This balance allows organizations to move faster without eroding trust.

Purpose also matters. Teams are more willing to adapt when change is clearly linked to patient safety, care continuity, or the organization’s sustainability. Abstract efficiency goals rarely motivate. Concrete links between daily work and real-world impact do exist.

Culture will ultimately determine whether change accelerates or stalls. Organizations that treat adaptation as a core capability are better positioned to absorb future shocks in an environment where seismic shifts are becoming more common. In a period defined by uncertainty, the ability to move people with the strategy may be the most durable advantage of all.



Ford Koles

*Vice President and
National Spokesperson,
The Advisory Board*



Conclusion

From insight to action

The rate of change in health care brings a wide variety of challenges. However, health systems can capitalize on this moment to challenge long-standing assumptions and critically assess the disadvantages of the status quo. Artificial intelligence is advancing faster than organizations can comfortably absorb. Supply chains remain exposed to persistent disruption. Workforce pressure and financial constraints continue to narrow the margin for error. Taken together, these forces leave little room for incrementalism.

The discussions held between Trimedx's gathering of health system leaders point to a consistent conclusion: sustainable progress comes from disciplined execution, not isolated innovation. Health systems that succeed will be those that treat AI as an enterprise capability

rather than a collection of pilots, invest in data and governance as foundations for speed, and apply technology first where impact can be measured and trusted. Just as importantly, they will design resilience into operations and build cultures that can absorb change without losing purpose or cohesion.

None of this requires abandoning what makes health care unique. It requires clarity about where standardization is a priority, honesty about where systems are fragile, and leadership willing to move decisively once direction is set. In an environment defined by uncertainty, the greatest advantage is the ability to act on insights consistently, at scale, and with people brought along rather than left behind.

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All systems critical

Trimedx is an industry-leading clinical asset performance company, helping health systems transform medical devices from a cost into a source of strategic advantage. Built by providers, for providers, our experts deliver clinical engineering, clinical asset management, and cybersecurity while continuously capturing intelligence from the clinical floor. Powered by TMX—our clinical asset intelligence platform built on a service history of more than 6.6 million devices with data on 90-95% of in-use U.S. medical equipment—Trimedx turns unmatched intelligence into predictive insights that help prevent failures before they happen. The result is lower operating expenses, optimized capital investments, stronger medical device safety and security, and more resources available for patient care—because in critical environments, all systems are critical.

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