The Future of Healthcare Supply Chain Management: a View from 2025

How an Optimized Supply Chain Can Help the Industry Seize Opportunity
Spotlight on supply chain.
The COVID-19 pandemic underscored the importance of the global healthcare supply chain—and its deep vulnerabilities. A resilience gap quickly revealed itself: providers who were further along in digital transformation were more easily able to navigate through uncertainty and emerge stronger and better prepared to support providers and patients. On the other hand, organizations that did not have systems in place to support agility leaned heavily on the strength of their team members. Today, those organizations remain uncertain of their capacity to weather future unpredictability.

When we look to the future, this resilience gap will only grow. Because while the pandemic served as a wake-up call to the limitations of a lean, just-in-time delivery model, the reality is that COVID-19 is only the most recent destabilizing factor in a rapidly changing industry. An aging society, increasing rates of chronic disease, and eroding margins place additional strain on the traditional care model. As providers shift to value-based care and population health management, they are also leveraging technology to improve efficiency and clinical outcomes.

“Challenges in healthcare supply chains are especially urgent because they directly impact patient care,” says Gregg Winkiel, a senior manager at Deloitte who specializes in supply chain optimization. “Having supplies on hand is critical to delivering the highest level of care, so forward-looking organizations must constantly apply lessons learned to better prepare for the future.”

The industry’s shift from fee-for-service to value-based care is pushing supply chain management out of the back office and into the spotlight. That’s because supply chain costs represent roughly 30% of a hospital’s total operating expenses, so health systems cannot reduce the cost of care without managing the cost of goods.

One example of the impact of value-based care is the continuing move to shift care from the hospital—the most expensive site of care—and into the patient’s own home. As providers increasingly use virtual health to monitor patients’ vital signs and symptoms, health systems will increasingly ship supplies such as blood pressure cuffs, pulse oximeters, and wearable devices to homes. Patients, meanwhile, have become accustomed to digital tracking since e-commerce exploded. And, while an e-commerce delivery can wait an extra day, healthcare requires that the right item be available to the right person at the right time.
At the same time, risks ranging from climate change to cybersecurity will proliferate. Accordingly, the most successful healthcare supply chain teams are moving from a reactive focus on transactions to a proactive focus on creating value through analytics, cost containment, and process improvement.

Future-ready healthcare organizations can—and must—act now to strengthen their supply chain management so that it can surface insights, meet the organization’s evolving needs, and nimbly navigate the industry’s most significant challenges. A reactionary stance may not be enough to survive the next crisis unscathed—resilience is what will set the industry standouts apart. Here’s how healthcare organizations can get future-ready now.

Mitigating vulnerabilities.

The healthcare supply chain is fragile because it’s subject to a variety of disruptions, including those caused by the just-in-time strategy. Widely embraced because it lowers the carrying cost of inventory, this lean strategy can backfire. Consider, for example, if surgical supplies due to arrive the night before don’t show up. The best-case scenario is that a hospital loses money by moving or rescheduling the surgery. The worst? The quality of a patient’s care may be impacted.

To help mitigate these risks, some healthcare organizations are procuring raw materials to manufacture necessary supplies themselves—providers, for instance, investing in pharma compounding capabilities. Others are trying to shift from a just-in-time to a just-in-case approach, expanding their warehousing capabilities and shouldering the additional carrying costs of inventory.

“This creates different needs than just making sure supplies are stocked in a storeroom, as healthcare organizations look to deliver care in lower-cost settings with a greater focus on preventive care and lifestyle choices, supply chain needs to be there to support the changes in business.”

Keith Lohkamp
Senior Director of Industry Strategy, Workday
But to truly take control of their supply chains, leaders will increasingly rely on the total upstream visibility provided by cloud-based management tools. Planning is paramount as risks increase, so organizations must become intimately familiar with every detail of their supply chains to be able to pivot instantly when necessary.

These cloud-based tools offer situational awareness around the inherited risk assumed when selecting products, which will prompt supply chain leaders to identify alternative products and suppliers earlier and add them to assessments and sourcing strategies well before a disruption occurs. A high concentration of suppliers in a particular geographic region, for instance, means a localized disruption could send shock waves through a healthcare organization’s supply chain. Greater supplier diversification, by contrast, means the impact of any single weather event, political instability, or logistical tangle is more contained.

Similarly, advanced track-and-trace solutions, smart packaging, and next-generation RFID sensors will mitigate the supply chain’s physical security by increasing transparency.

This focus on risk mitigation has already begun to transform supply chain executives’ relationships with their suppliers—a trend that’s only expected to gather momentum. Eventually, leaders will be able to see real-time details down to the inventory level within a distribution center.

“In the future, we’ll be able to get immediate signals from suppliers if they don’t have something,” says Lohkamp. “It’s going to be really interesting to see how that collaboration among providers, distributors, and manufacturers evolves to help providers manage through future disruptions.”
Realizing the value of scale.
Pressure to lower costs, increase quality and care coordination, and invest in technology has prompted significant hospital consolidation for decades. The top 10 health systems now control 24% of the market share, and the financial pressure created by the pandemic means this M&A trend will accelerate over the next five years.

When hospitals merge, a goal is to lower costs through increased purchasing power and greater efficiency. However, these unions also bring together many disparate legacy systems that can obscure the intended path to growth. Moreover, each merger increases the complexity of the health system’s supply chain by growing its portfolio of sites beyond hospitals to ambulatory care centers, physician offices, rehabilitation facilities, and more.

To fully deliver on the promised value of their mergers, health systems of the future need to embrace cloud-based tools that quickly establish a unified system, including a single item master, consolidated contracts, and increased visibility. By streamlining operations, these solutions can reduce off-catalog spending and drive greater cost control through better purchasing decisions.

Maryland-based Bon Secours Health System and Cincinnati-based Mercy Health took this approach after merging in 2018 to become one of the 20 largest health systems in the U.S.

“Our older technology couldn’t align with how we wanted to see things, because we’re so focused on the details of how we move product, where it sits, and how that aligns with the revenue side of the equation,” says Dan Hurry, Bon Secours Mercy Health’s chief supply chain officer.

After deploying Workday Supply Chain Management, the new system gained real-time reporting and mobile capabilities that provided improved insights and efficiencies. “We immediately had a much cleaner picture of our supply chain to help us better manage the business,” Hurry says.

Digital transformation and the data deluge.
As healthcare organizations produce, capture, and rush to leverage ever-increasing amounts of data, procurement leaders must break down the data silos.

To truly understand supply usage, leaders must be connected to a single source that provides real-time information not just about procurement and inventory, but also clinical, financial, human capital management, and planning data.

Modern cloud-based tools create a complete, real-time picture of performance to help leaders improve labor and supply spending to support future growth and reduce friction for clinical staff. And, because these systems can integrate into electronic health record and patient billing systems, leaders can precisely analyze and optimize the impact of supplies and equipment on the cost, quality, and outcomes of care.
The value of real-time data to drive better decisions will only grow in coming years. Because information can become almost instantly outdated and irrelevant, the speed at which organizations harvest data-driven insights and put them into action across their supply chains will separate the top performers from the rest.

In addition, advancements in IoT technology mean that smart sensors embedded in products are becoming critical to improving supply chain data and transparency. Thanks to improved microprocessors, storage, and diagnostic capabilities, these sensors can provide relevant data about both the products being shipped and the surrounding conditions to create more holistic, accurate, and real-time understanding. Health systems and other providers, then, must master this fully connected, always-on digital supply chain to improve analytical insight and drive better costs and performance.

**Continuous intelligence and hyper-automation.**

Decreasing reimbursements, increasing insurance deductibles, and rising costs will continue to squeeze hospitals’ margins in the future. As a result, clinicians and leaders will continue to be asked to do more with less. The good news is that artificial intelligence and machine learning will ease the burden and empower employees to focus on higher-level strategy or direct patient care.

To keep pace, healthcare organizations must accelerate the organization’s digital transformation by proactively automating supply chain tasks such as requisitions, tracking, and replenishing. As AI advances, a system that automatically tracks inventory and measures cost performance over time will be able to uncover otherwise hidden opportunities for additional optimization and cost reduction.

“Large health systems have so many goals to tackle that they need a technology partner to support predictable tasks so they can focus on the long-term vision and ability to innovate,” says Lohkamp. “Once they’re connected to real-time information on both the clinical and supplier side and have automated as many decisions as possible, their focus can move on to optimization and strategic decisions.”

The goal is to establish continuous intelligence, or the integration of real-time analytics into operations to make faster decisions. Continuous intelligence relies on data analytics and machine learning to augment human intelligence by processing data much faster while eliminating human bias and error, resulting in complete visibility that cultivates agile thinking and continuous innovation. By reviewing machine-processed data and instant analytics, supply chain leaders and other executives can more quickly understand a situation and make the best decision to move forward.

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**Gregg Winkiel**  
Senior Manager, Deloitte
Continuous intelligence and hyper-automation is still aspirational at this point, but not for long. According to global advisory firm Gartner, supply chain organizations throughout the next decade will increasingly invest in artificial intelligence and advanced analytics capabilities to improve decisions.

“The volume of data is soon going to surpass what we’re able to crunch,” Deloitte’s Winkiel says. “The combination of the data we’re collecting and the advances in artificial intelligence will allow analytical systems to achieve complex decision-making skills that will augment human decision-making and create continuous intelligence.”

**Taking control of healthcare’s future.**

Cloud-based supply chain management systems will be integral to the creation of a seamless, demand-driven healthcare supply chain. But, as always, technology is only as good as the strategy that drives it. As they look to the next decade, healthcare organizations must completely rethink supply chain strategies and reinvent processes to support changing care realities. Each organization must move closer to owning its sourcing process, determine creative new ways to partner across functions with vendors and suppliers, and leverage collaborative tools to manage operations from anywhere while aligning closely with the business.

As the industry’s complexity and challenges continue to grow, technology and AI will give providers the boost they need to keep pace. A seamless, automated supply chain will create the stability and flexibility required to support high-quality patient care.