

## **Streamlining Supply Chain Practices as Health Systems Expand**

Health care supply chain challenges are growing.  
Supply chain leaders can convert this potential  
logistical nightmare into a value-driven  
opportunity with the right planning and execution.

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# Introduction

Supply chain challenges facing hospitals, health systems and medical practices didn't end when the COVID-19 Public Health Emergency expired on May 11, 2023. The depth of the nationwide shortage of personal protective equipment has been replaced by the breadth of nationwide shortages of everything from prescription drugs to fetal scalp electrodes, sterile water and syringes.

Sixty percent of nearly 200 health care supply chain leaders surveyed by ECRI, the Plymouth Meeting, Pennsylvania-based health care patient safety organization, responded that more than 20 drugs, single-use supplies or pieces of durable medical equipment were in short supply at their facilities during the first six months of 2023. The respondents cited surgery/anesthesia as the top clinical area experiencing shortages (Figure 1). A recent American Society of Health-System Pharmacists report noted a much higher number of drug shortages, citing 129 pharmaceuticals that were in short supply through September 2023.

At the same time, many hospitals, health systems and medical practices are still recovering from the negative financial impact caused by the pandemic — reduced revenue largely due to declining patient volume and higher expenses primarily caused by higher labor costs and inflation. That has prompted many provider organizations to consider and execute strategically driven mergers, acquisitions and openings or expansions of care sites or services.

For example, hospitals and health systems announced 18 mergers

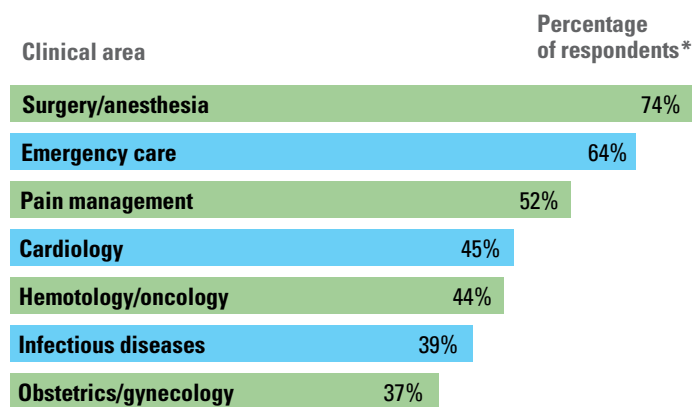
or acquisitions in Q3 2023, up from 10 and seven announced in the same quarters of 2022 and 2021, respectively, according to the latest quarterly mergers and acquisitions (M&A) report from Kaufman Hall (see Figure 2).

These two macroeconomic trends — more supply chain challenges and more M&A activity — meet at the door to the supply chain director's office. It's the supply chain leader's job to simultaneously juggle and manage both, as adding a new hospital, medical practice, site or service only serves to multiply whatever supply chain issues exist.

Further, the strategic success of whatever merger, acquisition or expansion that hospital, health system and medical practice senior leaders are planning largely depends on the value — lower costs and better outcomes — that a supply chain leader can create from combining two disparate supply chain operations into one.

This Trailblazers report from the American Hospital Association's Center for Health Innovation details how health care supply chain leaders deploy people, processes and technology to manage this dynamic across the country. Done well, supply chain leaders can convert what could be a logistical nightmare into a significant opportunity to create value for their organizations, communities and patients. Two health system case studies and insights shared by experts in the field help to address this common supply chain challenge. ●

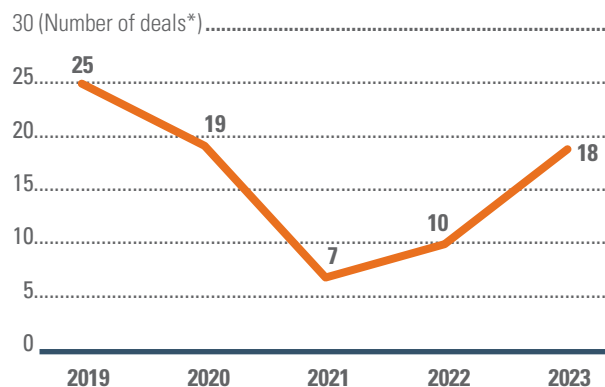
Figure 1  
**Surgery/anesthesia tops list of clinical areas affected by supply chain shortages**



\*Percentage of respondents who cited a clinical area as experiencing more than drug, single-use supply or durable medical equipment shortages during the first six months of 2023

Source: ECRI

Figure 2  
**Pace of hospital and health system mergers and acquisitions rebounding after the pandemic**



\* Number of proposed hospital and health system mergers and acquisitions in third quarter of respective year

Source: KaufmanHall

# People



Processes and technology won't do their jobs if hospitals and health systems lack the right people to follow the right protocols and push the right buttons as they absorb an outside supply chain operation into their own due to a merger, acquisition or expansion.

Getting the right people starts by assessing existing staff resources and knowing what additional resources may be needed. Staff shortages make that assessment more complicated. If both organizations are short-staffed, the merged operation will be short-staffed, making recruitment and retention a priority to be able to run a merged supply chain operation 24/7.

On the other hand, a merger of two short-staffed supply chain operations creates opportunities to reorganize. The lead organization can consolidate supply chain management, eliminate duplicative and often open supply chain positions and realign reporting structures and staff to build a more efficient centralized supply chain operating model.

Assuming the two supply chain staffs are using different enterprise resource planning (ERP) systems and following different ordering and purchasing protocols, the lead organization should invest in training and education, so the combined staffs use the same system and follow the same ordering and purchasing protocols. ●

# Process



Words that supply chain leaders don't want to hear when launching a supply chain integration are "duplicate" and "different." Maintaining duplicative processes and different products can prevent a hospital or health system from realizing the clinical, financial and operational benefits of expanding its patient care footprint. Job 1 becomes eliminating duplicate processes and reducing product variation.

That starts with the item master formulary. It's the master list of all the products — drugs, supplies and equipment — approved for use and contracted for. The two parties essentially must reconcile their item masters and merge them into one.

For some items, like two-by-two-inch gauze bandages, it's easy. However, physician preference items likely will be the most challenging conversions when trying to standardize the item master. In the case of two different products used for the same clinical purpose, the organization needs to analyze the use, price and efficacy of the items and all other instrumentation that goes with them before making a choice that's acceptable to clinicians or physicians.

Other duplicate processes that need to be standardized include contracting, ordering, purchasing, logistics and accounts payable. Eliminating redundant material and information workflows is a given. ●



## Doing the Right Things in the Right Order

Munson Healthcare, a health system based in Traverse City, Michigan, can trace its Traverse City roots to 1925 with the opening of James Decker Munson Hospital. Over the next nearly 100 years, the 55-bed hospital grew to become 442-bed Munson Medical Center, adding seven community hospitals along the way to become the regional health system it is today. Munson Healthcare now includes 1,000 physicians in 63 medical specialties.

With each merger, acquisition or expansion, Munson adjusts its supply chain operations.

Today, that responsibility falls to Tracy Cleveland, Munson’s vice president of supply chain, a position he’s held since September 2020. Cleveland also is president of the Northern Michigan Supply Alliance, a Munson subsidiary that provides supply chain management services for all the system’s hospitals and care settings. In fiscal 2023, which ended June 30, Cleveland oversaw \$32 million in supply chain spend, which includes supplies, pharmaceuticals and purchased services (See System Snapshot).

Cleveland says four supply chain issues immediately bubble to the surface the minute he learns about a proposed Munson merger, acquisition or expansion. In ranked order of concern are:

**STAFFING** | Will Munson have sufficient staff resources to effectively manage a larger supply chain spend? Can it manage the additional spend with existing staff? Or will it need additional staff?

**PRODUCT AVAILABILITY** | Can Munson procure and standardize prescription medications, supplies and equipment required by an addition to its supply chain from its existing formulary, suppliers, distributors and group purchasing organizations (GPOs)?

### SYSTEM SNAPSHOT

#### Munson Healthcare

**Headquarters:** Traverse City, Mich.

**Hospitals:** 8

**Employees:** 7,500

**Physicians:** 1,000

**Medical specialties:** 63

**Operating revenue:** \$1.3 billion (fiscal 2022)

**Supply chain spend** (supplies, pharmaceuticals and purchased services): \$32 million (fiscal 2023)

Source: Munson Healthcare; Fitch Ratings

(continued on Page 5)

CASESTUDY **Munson Healthcare**

PROTIP

**MAYHEM TO SUCCESS**

Following a merger, acquisition or service expansion, hospital supply chain leaders should expect their supply chain compliance metrics to go “haywire.” The stock keeping unit (SKU) count and production variation will go up. Contract compliance will go down. Volume will go up. If the supply chain integration is successful, over time the SKU count will go down. Product variation will drop. Contract compliance will go up. And volume will stay up.



**PROXIMITY** | Given the system’s primarily rural service area, can Munson distribute drugs, supplies and equipment to the additional care site?

**TECHNOLOGY** | Is the supply chain technology used by a new care site compatible with technology used by Munson? Depending on the size of the care site, does it even use technology to manage its supply chain needs?

Although those four supply chain issues are in Cleveland’s ranked order of concern, he says he may not address and resolve them in the same order. It depends on the prospective Munson patient care partner.

The determining factor driving the order is culture. If the cultures are similar, product availability — and more specifically, product standardization — and staffing may come first as there’s little friction in deciding what products to use and who should join the combined supply chain team. If the cultures are significantly different, then technology and purchasing processes and protocols come first because debating every product or staffing change would be

counterproductive and could take years.


If that’s the case, technology integration includes getting the new care site on the same systems: ERP, inventory management, patient accounting, product identification and tracking, product purchasing and more. Purchasing processes and protocols, including authorization and approval paths, are next.

With all the technologies and purchasing processes on the same platform and running the same way, Munson then has visibility into product preferences, purchasing behaviors, contractual arrangements, prices, utilization, vendors, suppliers and manufacturers. Those data then can drive informed decisions about product standardization and staffing.

Cleveland says Munson typically builds out a one-year plan for integrating a new care site into its supply chain operations. Depending on the complexity of the integration, it could take up to three years before both parties see meaningful results from the effort, he adds. ●

**“When we work with a new care site to change a product, there is naturally going to be some apprehension. Having now spent 30 years in supply chain, we’re always able to find a collaborative solution that provides greater ease and efficiency for both the site and system overall.”**

— **TRACY CLEVELAND**  
Vice president of supply chain, Munson Healthcare




## Learn how Amazon Business can make your hospital or health system's supply chain more efficient

Amazon Business is a B2B procurement hub that provides solutions for hospitals including 92 of the 100 largest hospital systems in the U.S. We're improving the way health care organizations source and purchase products, making supply chains more efficient, simplifying contract administration and bringing comparison shopping to the field. Amazon Business offers a suite of features that can help in a number of areas, including cost savings, operational efficiency and compliance.



### ● COST SAVINGS

Amazon Business helps hospitals save money by offering discounts on eligible purchases, free shipping on orders over \$25 and access to millions of products from thousands of suppliers. Hospitals also can compare prices and reviews from multiple vendors, with a comprehensive store for health care providers, featuring business-only prices and volume discounts.



### ● OPERATIONAL EFFICIENCY

Amazon Business simplifies the procurement process by allowing hospitals to create and manage purchasing groups, set spending limits and approval workflows, and track orders and invoices in one place. In addition, hospitals can integrate Amazon Business with their existing purchasing systems, such as Coupa, SAP Ariba and Oracle, to streamline data and workflows.



### ● COMPLIANCE

Amazon Business helps hospitals comply with regulatory and contractual requirements by providing detailed purchasing reports, tax-exempt purchasing options, and access to credentialed suppliers. Hospitals also can customize their product selection and restrict purchases of noncompliant items using the Guided Buying feature.

Amazon Business is a valuable partner for hospitals and procurement professionals who are looking to grow, consolidate or transform their operations. We can help you achieve your strategic goals while finding opportunities to reduce costs, improve efficiency and promote compliance. To learn more about how Amazon Business can partner with your hospital, visit our website at [business.amazon.com/en/work-with-us/healthcare](https://business.amazon.com/en/work-with-us/healthcare).





## Standardize, Standardize, Standardize is Their Mantra

**T**om Harvieux, vice president and chief supply chain officer at BJC HealthCare, can't be clearer. The success of a supply chain integration after the St. Louis-based health system completes a merger or acquisition, opens a new care site, or launches or expands a new clinical service is standardization.

That applies to everything from raw data to contract terms. Without it, BJC can't realize the full clinical, financial and operational value from any type of expansion of its patient care footprint.

BJC has been expanding that footprint since 1993, when the then-Barnes-Jewish Hospital merged with Christian Health Services to form the BJC Health System. Now BJC HealthCare, the system operates 14 hospitals in Missouri and Illinois with combined net revenue of more than \$6 billion (See System Snapshot).

Harvieux is quick to name his three biggest daily supply

chain challenges when he logs on to his supply chain management system:

- Data quality.
- Lack of visibility with "trading partners," (i.e., vendors, suppliers, manufacturers, distributors and GPOs.)
- Product variation.

Not surprisingly, what each one lacks is standardization. His team must clean the data in its item master formulary so they can be transacted efficiently using automation technology rather than inefficiently using manual manipulation. Harvieux's team needs standardized data — specifically GS1 identification standards and unique device identifiers (UDI) — to gain visibility into purchasing and distribution agreements across his trading partners. The team also

### SYSTEM SNAPSHOT

#### BJC HealthCare

**Headquarters:** St. Louis, Mo.

**Hospitals:** 14

**Employees:** 27,081

**Physicians:** 4,636

**Medical specialties:** 33

**Net revenue:** \$6.3 billion (2022)

Source: BJC HealthCare

(continued on Page 8)

PROTIP

**INTEGRATION STRATEGY**

When merging supply chain operations, assemble an integration team, appoint an integration lead and make operational leaders responsible for the execution of the work. Follow the lead organization's existing supply chain merger playbook, which includes having difficult conversations up front about what is expected to happen during the integration. There should be no surprises.



needs product standardization to reduce costly and inefficient variations in drugs, supplies and equipment used by BJC's care sites and clinicians.

When BJC merges, acquires or expands, each of those daily challenges magnifies as does the lack of standardization. Not only are the challenges magnified, but they often live on totally different ERP systems and ERP subsystems, further exacerbating the lack of standardization.

As a result, the first step in merging supply chain operations after a merger, acquisition or an expansion is the integration of disparate ERP systems and subsystems used by both parties. In short, systems must talk to each other. Step 2 is cleansing and standardizing data before being integrated from one set of systems to the other. Step 3 is generating reports from the integrated systems based on the integrated data.

Then and only then can BJC see how the integration of

supply chain operations is affecting its overall supply chain performance metrics. With that visibility, BJC can identify and address drivers of unexplained price or product variances as well as opportunities to improve its supply chain performance. The visibility also gives Harvieux and his team the information they need to prioritize their work.

An example is pursuing price parity for an item after BJC learns its new care setting is paying less for the same item than BJC is paying. The goal, of course, is paying the lower price.

Given the emphasis on data, technology and integration, the most valuable players on BJC's supply chain team are data specialists, and its favorite nonsupply chain department is the corporate information technology team. They all follow the same supply chain merger playbook that emphasizes standardization. ●

**“About 40% to 50% of the value that comes from a merger or acquisition typically comes from the supply chain.”**

— **TOM HARVIEUX**

Vice president and chief supply chain officer, BJC HealthCare





## Technology

Similar to processes starting with reconciling item masters, technology starts with reconciling ERP systems. Given the number of industry-agnostic ERP systems on the market, it's likely that the parties to a merger, acquisition or service expansion are on different ERP platforms. Each platform has its own modules for purchasing, inventory and requisitions.

Reconciling ERP systems could mean having one organization move to the other's ERP system; resolving incompatibilities between the two systems; or dropping both systems and moving to a completely new ERP platform.

The organizations should go through the same technology reconciliation process if they use disparate materials management information systems (MMIS). MMIS manage GS1 identification standards and UDIs — both essential to an efficient and streamlined supply chain.

No matter where the organizations end up on their ERPs and MMIS, their reconciliations won't mean anything without a robust data integrity program. Migrating data from one ERP system or MMIS to the other will require significant data cleansing to drive compatibility and interoperability.

The organizations also should reconcile technologies that drive value analysis, supply cost benchmarking and space management if they want to enjoy a successful supply chain integration. ●

## Conclusion

Hospitals and health systems merge, acquire, expand and open to improve and increase patient access to care, and other strategic reasons.

Mergers, acquisitions, expansions and openings can significantly disrupt a supply chain, sending all the metrics on a supply chain performance dashboard spinning wildly out of control when running a supply chain is tough enough in today's health care economy.

With the right planning and execution in three domains — people, processes and technology — hospitals and health systems can rein in those metrics and point all the needles in the right direction. ●

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The AHA's Center for Health Innovation thanks the following people and organizations for their insights, support and contributions to this Trailblazers report:



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## Footnotes

- 1 [COVID-19 Public Health Emergency](#). Department of Health and Human Services, May 16, 2023
- 2 [ECRI and ISMP Drug, Supply, and Equipment Shortage Survey](#). ECRI, Oct. 13, 2023
- 3 [M&A Quarterly Activity Report: Q3 2023](#). KaufmanHall, Oct. 12, 2023



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