Applying Supply Chain Best Practices from Other Industries to Healthcare

A GHX White Paper for Healthcare Executives
Introduction
Increasingly, hospital and healthcare delivery system executives are viewing the supply chain as a strategic asset that can be leveraged to meet operational, clinical and financial performance imperatives. This has not always been the case. For years, the supply chain was seen as little more than a necessary but ancillary function – to buy and deliver products as needed – with the primary supply chain improvement strategy focused on buying those products at the lowest price possible.

The growing appreciation for the supply chain is being driven by several factors, with a weak economy and declining reimbursements certainly among them. As the second largest and fastest growing operational expense for most hospitals, supply chain costs are clear targets to yield operational improvements and cost savings. A closer look uncovers even greater opportunities, particularly as it relates to capturing data that can be used to make better purchasing decisions by understanding the role supplies play in delivering quality patient care in a more cost effective and efficient manner, an imperative under healthcare reform.

As more supply chain professionals from other industries enter the healthcare arena, they bring with them a bevy of best practices. The purpose of this paper is to explore which supply chain practices are most applicable and/or can be adapted to the needs of healthcare. In addition, executives with leading healthcare delivery organizations provide their perspectives on how to put these concepts into practice.

The Bottom Line:
Successful supply chain transformation requires more than well-executed technology and process improvements. Supply chain leaders must have executive-level and enterprise-wide responsibility, a fundamental understanding of the interdependencies and interrelationships inherent in the supply chain, and the ability to change how their organizations behave, both internally and externally.
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The Supply Chain: The Elephant in the Room

If you consider the price paid for products, along with the labor and overhead costs to manage them, supply chain represents 40 to 45 percent of hospital or healthcare system operating expense, second only to labor. Supply chain costs are also increasing faster than labor for many hospitals. Using a calculator developed by the Strategic Marketplace Initiative, a number of leading healthcare organizations project that supply costs will supersede labor costs as early as 2022. With numbers like these, it’s hard for healthcare providers to ignore the role successful supply chain cost improvement can have on the bottom line. The supply chain is also getting more attention because most hospitals have already focused on staffing levels. When it comes to making a choice between cutting personnel or cutting supply chain costs, healthcare executives will almost always opt for the latter.

It’s also often easier to cut costs than grow revenue, especially in an era where healthcare providers need to be prepared to make less, not more, for the services they provide. According to “The Comparative Performance of U.S. Hospitals: The Sourcebook” (Thomson Reuters), it takes a $1,000 increase in revenue to have the same impact on the bottom line as a $1 reduction in operating expense. When it comes to physician preference items, the stakes are even higher. These items are typically among the most expensive products, are associated with the most profitable service lines, and potentially have the greatest impact on patient care. For example, for some orthopedic and cardiac implants, the cost of the product can account for 50 to 80 percent of the total cost of the procedure. Under health care reform, providers will be reimbursed based on value delivered, which is a function of both cost and quality. Hospitals and physicians, who will likely share bundled reimbursement payments, will need to better understand the role supplies play in creating value.

Dale Locklair, vice president of procurement and construction for McLeod Health in South Carolina, says, “the notion of a supply value chain that supports the objective of greater quality at lower cost is nothing new” – think Walmart, Dell and Toyota. “Not so in healthcare,” he adds. Many providers still focus their supply chain improvement efforts on

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pressuring suppliers to lower their prices. The fatal flaw in this approach is not recognizing that if you put pressure on one node in the supply chain, it will have repercussions upstream and/or downstream. Locklair contends that if we are truly to turn the healthcare supply chain into a means to achieve the goals of healthcare reform – better outcomes at lower costs – we need to apply supply chain best practices to healthcare that have proven successful in other industries.

The good news, according to Gartner Research, is that many providers can reduce supply chain costs by 5 to 15 percent if they better analyze, plan and control the purchase and use of goods and services. That can translate into a profit increase of 2 to 7 percent. The challenge, Gartner adds, is that few organizations have the level of supply chain talent and leadership necessary to make this possible.\textsuperscript{iv}

**Understand Total Cost of Ownership**

Brent Johnson assumed his current role as chief purchasing officer for Intermountain Healthcare after consultants from McKinsey & Co. told hospital executives they were managing their supply chain too casually and needed to bring in someone from outside healthcare. At the time, Johnson says, Intermountain was like a lot of healthcare systems, operating multiple and separate supply chains – for medical-surgical products, pharmaceuticals, food, etc. – making it difficult to effectively manage more than a billion dollars in non-labor spend. “They gave me broad organizational freedom so we could start to address total cost of ownership,” says Johnson.

Total cost of ownership (TCO) is still a relatively underutilized concept in healthcare. When making sourcing decisions, other industries typically look beyond the price paid for products to consider fully landed costs, which include factors such as freight, rush charges and inventory carrying costs. TCO will take on even greater importance in healthcare with the need to report on quality and cost. This need to better understand TCO is driving hospitals to work more closely with both suppliers and clinicians. As one supply chain executive who recently made the move to healthcare stated: “The suppliers who make the product and clinicians who use it are in the best position to help you truly understand the total cost of ownership.”

**Establish New Relationships**

There are signs that the nature of the relationship between providers and suppliers is changing. As Alan Edwards, vice president of Supply Chain for Mary Washington Healthcare in North Carolina, stated at an executive roundtable at the 2011 GHX Supply Chain Summit, “The days of beating the supplier up over pricing are gone.”

Many attribute this change to an increased appreciation for the interrelationships between various players and functions in the supply chain. One of the first observations often made by supply chain professionals entering healthcare is the lack of collaboration between hospitals and their vendors. As one new healthcare supply chain executive stated, “In other industries, we view our suppliers as critical partners; too often in healthcare they are seen as the enemy.”

When suppliers serve as partners not adversaries, hospitals can gain new insights into opportunities for savings. “Hospitals need to understand what drives our costs and often, we don’t,” explains Nancy LeMaster, vice president of supply chain for BJC HealthCare. “Manufacturers, on the other hand, have industrial engineers, performance

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- Supply Chain Professional New to Healthcare
improvement staff and mathematicians who use scientific formulas instead of anecdotal data to manage their supply chains. “

Become a Less Expensive Customer to Serve

By tapping into suppliers’ knowledge, hospitals can become less expensive customers to serve, which in turn can lower suppliers’ SG&A (selling, general and administrative) costs, another area of differentiation between healthcare and other industries. Gartner Research has noted that SG&A costs for healthcare suppliers are nearly twice those of companies in other industries recognized for having highly efficient supply chains. Vance Moore, senior vice president of operations for Sisters of Mercy Health System and former president of its supply chain operation, Resource Optimization and Innovation (ROi), says this is a great place to begin a collaborative dialogue with a vendor: “If I can help you lower your SG&A costs, would you be willing to share some of the savings with me?”

Several years ago, Sisters of Mercy extended an open invitation to vendors to explore collaborative projects; while only one vendor, Johnson & Johnson Healthcare Systems, responded at the time, the result was a successful vendor managed inventory program. Moore says not every vendor makes a good collaborative partner, and there is no one-size-fits-all approach. Instead, he says, explore what works for you and your partner. Here are a few examples:

• New York City Health & Hospitals Corporation (HHC) had to make a $7 million investment in new beds. Without the necessary capital, HHC called in both of its bed vendors. The supplier that not only offered a lower price but also brought financing to the table won HHC’s business for the next 10 years.

• BJC HealthCare conducted a project with its primary distributor and a cardiac stent vendor to follow the product from the manufacturer to the point of use. Together, they identified several improvements that could be made, including changes to product packaging to reduce breakage. As a result, the cardiac stent vendor saved a quarter of a million dollars and passed on a portion to BJC.

• Another vendor reviewed data from GHX that showed BJC HealthCare was consistently ordering the same amount of product approximately 20 times every month. The vendor suggested to BJC that both parties could save money if those purchases were consolidated into fewer orders.

Turn Transparency into Trust, Demand Data into Value

Researchers at the University of Tennessee found that “world class supply chains benefit in many ways from collaboration – even in times of severe economic stress” with benefits including “lower operational costs” and “new product and process innovations borne from the working relationship between trusting partners.”

The challenge is trust is hard to come by in the healthcare supply chain. In both 2009 and 2010, Gartner Research found that 93 percent of supply chain participants reported a lack of trust among trading partners, up from 74 percent in 2008. Trust and visibility, meanwhile, go hand in hand. When trading partners do not share information, mistrust grows, and when parties do not trust one another, they are less willing to share information, which only perpetuates the problem. The result is increased inefficiencies and missed opportunities.

For example, if suppliers do not have visibility into customer demand, they will often
overstock inventory at the point of consumption in order to make sure they do not miss a sale. As a result, products often expire or become lost or obsolete before they can be used, a cost that's ultimately borne by the entire supply chain.

In contrast, large retailers all have systems in place that use point-of-sales information to trigger upstream supply chain activities. For example, when a product is purchased at Walmart, the product's barcode is scanned at the register, which sends a series of notices upstream: to the warehouse that another product is needed on the shelf; to the supplier that the warehouse needs a new product; and to the supplier's suppliers that raw materials are needed to manufacture another product. By employing technology and, more importantly, sharing information, all parties are collaborating to serve the customer better and faster, while helping to address inefficiencies that otherwise lead to excessive inventory and higher costs.

This is the concept behind Efficient Consumer Response (ECR), which first focused the spotlight on the healthcare supply chain nearly 15 years ago. The 1996 Efficient Healthcare Consumer Response study, modeled after similar studies in the grocery industry, identified $11 billion in waste that could be saved in part through expanded supply chain automation and the use of e-commerce. Since then, the percentage of orders processed electronically by hospitals has risen dramatically, from 5 to nearly 60 percent, but the concept of ECR remains essentially untapped.

Orlando Health is one of the relatively few healthcare providers making a concerted effort to share demand forecast data with suppliers. Rosaline Parson, corporate director, supply chain services for Orlando Health, says her organization has already begun seeing the benefits, including: a 75 percent reduction in backorders; more than a 100 percent increase in inventory turns; and a $2 million decrease in inventory at its consolidated service center.
Speak the Same Language
One of the challenges with sharing data between trading partners is the lack of adoption of industry standard product identifiers and use of auto ID and capture technology such as barcodes and RFID in healthcare. Mercy Health’s Moore notes that in other industries, real progress on the supply chain front can be traced back to use of a common language. That’s expected to improve with the pending FDA Unique Device Identification (UDI) rule requiring manufacturers to uniquely identify their products, but there are concerns that healthcare providers will not be ready or able to take full advantage of those identifiers. Consider this: the FDA rule mandating barcodes on medications went into effect six years ago, and today only about a third of U.S. hospitals are actively scanning medications at the bedside. When asked, providers said “a lack of resources” was the biggest barrier to getting ready to use the UDI. (See Figure 1)

Invest in Supply Chain Technology
Historically, healthcare providers have invested less on information technology than organizations in other industries, and the money they do spend is primarily devoted to clinical systems. That scenario is even truer these days, with the federal government requiring providers to make substantial investments in electronic medical records. By contrast, former Gartner Managing Vice President Hussain Mooraj (now with Accenture) says, “walk into any manufacturing environment, anywhere in the world, across any industry, and you will typically see 60 percent of the IT budget devoted to operations and supply chain.”

A study of more than 270 hospitals over a 4-year period recently highlighted the problems associated with limited investments in supply chain technology. The study, conducted by Oracle Healthcare Insight, also provided a
strong business case for reversing that trend, noting that “healthcare providers that make greater investments in back-office automation and process improvement enjoy operating cost ratios that are 2 to 4 percent better than those of their peers.” vii Specifically, the study called on providers to increase investments in tools to enable electronic order exchange with suppliers (including the use of order acknowledgments and advanced ship notices) and automate processes around procurement, invoicing and catalog price updates.

Industries that invest in these kinds of technologies are better able to virtually integrate various functions and organizations, which in turn can increase appreciation for the interdependent nature of the supply chain. An e-commerce infrastructure, for example, creates connectivity and linkages that enable supply chain partners to share data with one another, building both trust and visibility to drive many of the improvements discussed so far in this paper.

Leadership Lessons
North Carolina State University Professor of Supply Chain Management Rob Handfield believes “many of the problems associated with rising healthcare costs can be addressed through simple supply chain concepts that have been around for years.” But as he noted in his blog, viii many providers disagree, arguing that healthcare is “different because you’re dealing with patient care,” to which the distinguished professor responds, “Phooey!” Handfield is optimistic that opinions are shifting as more chief procurement officers are moving into healthcare from other industries such as oil and gas, automotive and manufacturing.

Meanwhile, appreciation is growing among healthcare supply chain leaders. “We’re leveraging industry best practices – not the best in hospitals, but really the best in industry. A number of our teammates come from other industries and are driving a philosophy of ‘we’re different, but we’re not all that different.’ Supply chain and best practices are pretty transferrable.” says a director of supply chain from a large Midwestern healthcare delivery organization.

Successful supply chain transformation encompasses more than just application of best practices. It requires a fundamental shift in how an organization behaves internally and with its business partners. In other words, it is an exercise in change management that must be led from the top of the organization, with effective execution across the enterprise. The following are some concepts that can help guide your organization’s transformation, regardless of whether you have been in healthcare for days or for decades:

Strategic Fit
In most hospitals and healthcare systems, the supply chain is still viewed as a tactical function as opposed to a process that touches nearly every aspect of the organization. As a result, the supply chain rarely holds a seat in the executive suite and is limited in its ability to contribute to overall corporate strategy. By contrast, Intermountain Healthcare’s Johnson says most other industries consider the head of supply chain an executive-level position. Hospital leaders that still have a materials management department are encouraged to consider creating a senior-level position with broader authority for all aspects of the supply chain.

Systemness
Researchers at Arizona State University have identified “systemness,” including the centralization of key supply chain functions, e.g., sourcing, contracting, GPO utilization and distribution for all non-labor spend across their

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enterprises, as a prerequisite for creating close linkages between supply chain and organizational strategy.\textsuperscript{4} Consolidation of responsibility and processes across the enterprise can also enable organizations to attract professionals with the expertise needed to take the supply chain to the next level.

**Professional Development**

Supply chain optimization requires a broader skill set than most hospitals currently possess. For example, the vast majority of hospital supply chain departments do not have personnel with formal training in areas such as industrial engineering or logistics. Mercy’s Vance Moore notes that when he was with UPS, industrial engineers discovered that a minor change to driver seat configuration enabled drivers to make two more deliveries a day. In healthcare, he says, “many organizations don’t even measure the cost of a delivery.” Moore says that if the supply chain represents 30 percent of our costs, we should be investing a proportionate amount in professional development in this area, noting that few healthcare industry associations devote much, if any, attention to supply chain topics.

**Talent at the Top**

A September 2007 Harvard Business Review article entitled “Are You the Weakest Link in Your Company’s Supply Chain,” called on industry executives to recognize not only the power of the supply chain to drive performance, but also the need to have an experienced professional managing the complexity of the process: “Enlightened CEOs should insist that only the best supply chain professionals be hired.”\textsuperscript{5} The challenge for healthcare system executives is attracting top talent. Historically, because healthcare has devalued the supply chain role, it has not offered the level of authority, compensation or resources to compete with other industries for skilled supply chain leaders. With a greater appreciation for the role the supply chain can play in optimizing the quality of care and improving efficiencies – the milestones by which healthcare organizations will be measured and reimbursed going forward – the time is now for healthcare executives to make the supply chain an integral, not ancillary, part of their organizations.

**About the Author**: Karen Conway has more than 25 years of experience in strategic communications, more than half of which have been in healthcare. As the senior leader of industry relations for GHX, Conway works closely with providers, suppliers, trade associations, industry analysts, media and government leaders to understand the impact of market and regulatory trends on the healthcare supply chain and how the supply chain can play a more strategic role in advancing healthcare.

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\textsuperscript{4}Supply Chain Consultants and Outsourcing Providers for Healthcare Delivery Organizations, Gartner Research, 5 July 2011

\textsuperscript{5}http://www.scmr.com/article/the_many_benefits_of_supply_chain_collaboration

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\textsuperscript{10}http://hbr.org/2007/09/are-you-the-weakest-link-in-your-companys-supply-chain/ar/1