

## Chapter 1 : Supply Chains for Healthcare and Hospitals

*"Simply stated, supply chain is the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole," James Spann, Practice Leader of Supply Chain & Logistics at Simpler Healthcare, said in a interview.*

Nursing Hospital and Healthcare Supply Into a New Age Nursing Hospital and Healthcare Supply Into a New Age Oct 24, Supply Chain 8 comments Given that hospitals and other healthcare facilities exist only to provide care to patients, it can come as a surprise to know that supply chain cost is typically the second largest expense such facilities incur, exceeded only by the cost of labour. Perhaps even more surprisingly, efforts to reduce healthcare supply chain costs were slow to gain momentum, at least compared with the inroads made in other industries. Today though, the ball is well and truly rolling, as hospital and healthcare executives feel the pressure of rising costs and seek ways to do more with less. Hospital and Healthcare Supply: The Need for Change The traditional hospital and healthcare supply chain model is fragmented, hampered by conflicting goals and in the main operated under the auspices of nobody in particular. Orders are typically placed by different factions within a single facility, and fulfilled by multiple manufacturers, wholesalers and distributors. The sheer variety of product ranges and the SKUs they comprise makes the healthcare supply chain a very complex environment. Patients after all, must be fed and looked after for the duration of their stay in a healthcare facility. As the necessity for meeting demand is similar in both government-run and private healthcare, there is not too much difference in the way each sector operates the supply chain. Both types of administration labour under similar pressures too, which is why healthcare systems around the world are now paying more than lip service to supply chain simplification and improvement. Trends in Hospital Supply Chain Transformation This new-found focus on supply chain improvement has given rise to an increasing trend toward centralisation and customer-centric thinking. While approaches may differ from country to country and from one organisation to another, the common driver is a need for hospital and healthcare supply chains to be more efficient: Perhaps the cost aspect needs little explanation. However, the need for better service is similarly driven by the need to achieve more with fewer resources. Centralisation then, is all about taking procurement and logistics out of the hands of medical professionals and placing it under its own governance structure. The extent to which healthcare systems are centralising distribution varies, but in most developed countries at least, hospital supply chains are transforming, with the following two models for example, becoming more prevalent. Vendor-managed Inventory While this form of inventory management may not totally transform a healthcare supply chain, many healthcare providers have turned to VMI as a way to improve service and cost performance. This is a customer-centric approach to hospital and healthcare supply chain operation, since it reduces the need for supplies to move in and out of a central store or warehouse. VMI can be applied to many material categories, including pharmaceutical supplies, consumables, food, medical devices and pathology supplies. Self-distribution It seems that hospital supply chain planners have been watching and learning from other industries, as some organisations in the United States and United Kingdom especially, have switched to self-distribution models. Self-distribution a term which seems to have been coined specifically for the healthcare sector works in a similar way to retail distribution, in that the healthcare organisation maintains a central distribution centre. In some operations, delivery drivers even offload shipments and then distribute individual orders to the various points-of-use in the hospitals. Other healthcare providers have chosen to create their own logistics divisions to run their self-distribution operations. Fleet Ownership and Outsourcing in Hospital Supply Chains Healthcare organisations appear to be divided regarding the pros and cons of owning supply chain facilities and assets. The aforementioned NHS for instance has partnered with a large logistics-service company, which owns the distribution centres and transport fleets that supply NHS hospitals. In Canada too, at least one large hospital group has chosen to outsource its supply chain operations, while some health systems in the United States have done the same. On the other hand, a number of the larger US healthcare providers have opted to buy or lease their own distribution centres and run their own truck fleets. The decision to keep distribution in-house seems largely to

be based on a wish to stay in direct control of issues such as legal compliance, especially with regard to pharmaceutical supply. However some organisations also claim that insourcing the hospital supply chain is the way to make substantial cost savings. This was the experience of the Mercy Health System, one of the largest healthcare providers in the United States. The Healthcare Supply Chain Question Utah-based health system Intermountain Healthcare is another provider to take the in-house option. Intermountain decided to open its own supply centre to service its network of 22 hospitals and more than clinics. Rather than outsource the operation, Intermountain chose to keep control of all procurement and supply activities. This enabled the company to encourage all departments to collaborate and create a standardised, but tailored logistics network, taking advantage of synergies and achieving a premier standard of service. The relationship has been so successful that the 10 year-old contract has recently been extended for a further two years. Either way, after a slow start, health authorities and private healthcare systems around the world are learning to capitalise on the value provided by an efficient, centrally controlled supply chain. It actually extends all the way through to technology choices, such as bar code and RFID tracking to improve inventory management. Scanning For Improvement in the Hospital Supply Chain Hospital and healthcare service organisations are beginning to catch on to the many benefits of scanning technology. Barcode scanning is becoming a commonly used method of tracking inventory and for those organisations that have embraced it, has resulted in reduced inventory losses and obsolescence, and helped to promote a shift from push to pull in supply chain strategy. Because of the greater cost of RFID, growth in adoption has been slow but steady for logistics and supply chain purposes, but has been enjoying a greater rate of take-up for patient care and tracking of equipment inventories in operating theatres. There and elsewhere, RFID is being used in the distribution of pharmaceutical supplies as well as other commodities such as linen. Concerns over the cost of implementation are eroding as hospitals recognise the massive savings potential offered by RFID, and the cost of scanning technology continues to come down. Scanning portals are installed throughout the hospital to record the whereabouts and movements of all tagged items. Through the use of this system, the hospital has transformed the management of supply and inventory and is enjoying the following advantages: This type of system has become particularly popular in the management of pharmaceutical supplies, which require a high degree of diligence in terms of distribution and dispensing. However, RFID has also proven its value in managing other types of hospital inventory. For instance, BJC Healthcare, a hospital system operating in Missouri and Illinois, installed a solution including more than 70 smart cabinets in a pilot project at one of its hospitals. The RFID platform is used to manage a range of medical supplies and is just the beginning for BJC, as they expect to install the cloud-based system across all their remaining facilities by mid Small RFID tags are sown into sheets, gowns and other linen items, enabling them to be tracked as they move between hospitals and laundry centres. Not only have losses reduced as a result, but hospitals are processing laundry faster, and there are far fewer cases of sheets and gowns being left inadvertently inside laundry bins and storage areas. It was a similar story for a French laundry service provider, responsible for cleaning linen from 20 hospitals in the Paris area. Linen in the Healthcare Supply Chain Linen management in general presents an interesting issue for hospital and healthcare supply chain leaders. Concerns often exist regarding which types of hospital supplies can or should be transported together. Contention over this matter can present an obstacle to transport efficiency, especially in health organisations where physicians and medical staff are involved in logistics decision-making which is probably most of them. Used linen must be sent out to laundries for washing, but because it might be soiled or contaminated in various ways, clinicians can understandably be concerned about allowing used linen to be transported on the same vehicle as other healthcare materials. Some organisations have overcome concerns and have found ways to consolidate shipments composed of multiple product types, including linen. As much as possible, Intermountain consolidates all the supply needs for each healthcare facility into a single shipment: Combining laundry transportation with other hospital supplies appears to be the exception rather than the rule though. Health authorities largely choose either to contract linen services to a third-party provider or to own their own laundries, which are rarely co-located with other supply or logistics functions. Still, the need to reduce costs is a strong incentive for change. Certainly the Intermountain supply centre is being hailed as a shining example of supply chain excellence. From Dock to Bedside: Best Practices in Hospital Goods

Receiving As mentioned earlier in this article, a lot of logistics activity takes place inside hospitals, so internal logistics activity is a prime target for organisations seeking to reduce supply chain costs. The goods-in dock may be just one touch point in many before inbound deliveries arrive at the locations where they are required. Internal logistics problems are exacerbated by the fact that most activity is conducted by medical staff—people who are skilled in caring for patients, not in logistics efficiency and best practice. Leading institutions are turning to robotics technology, implementing automated guided vehicle AGV systems to distribute inbound goods from the unloading dock to points-of-use. Traceability is usually provided by barcode technology, but more hospitals are graduating to RFID for the benefits of hands-off scanning, which is also more compatible with automated transport systems. If robots and RFID are at the cutting edge of hospital goods receiving though, what about healthcare providers for whom such technology is simply not yet affordable? According to the experts, best practice still requires the ability to bring technology—albeit at a less advanced level—to bear. Suggested best practices for receiving at the hospital end of the healthcare supply chain include: Not only does this give them more time to focus on patient care, it also reduces the risk of inventory hoarding and shrinkage, which tends to be a costly issue for most healthcare organizations. These might serve as a source of ideas for any healthcare chain seeking to drive improvements and savings in both external and internal logistics activity. Privately held healthcare system. Self-distribution using own assets. Serves 22 hospitals, clinics, 26 retail pharmacies, and home-care services. Number of SKUs Carried:

**Chapter 2 : Association for Health Care Resource & Materials Management | AHRMM**

*The healthcare supply chain management market has been analyzed based on expected demand. We have used the bottom-up approach to estimate the global revenue of the healthcare supply chain management market, split into regions.*

The study provides a detailed view of the healthcare supply chain management market, by segmenting it based on product type, by time span, by end-user, by operation, by internal and external factors and regional demand. Virtual centralization of the supply chain to minimize the cost and time factor is one of the key factor fueling the growth of the market. Availability management, supply management, request management, and problem management are some of the few basic processes that can be managed by healthcare supply chain management. High demand of product availability at the right time, and at a right place in various healthcare sectors, creates a huge market opportunity for supply chain management market during the forecasted years. Try Sample Report <https://www.aahrmm.com>: The segmentation also includes by product type, by time span, end-user, operation, internal and external factors in all regions. These include different business strategies adopted by the leading players and their recent developments. A comprehensive analysis of the market dynamics that is inclusive of market drivers, restraints, and opportunities is part of the report. Additionally, the report includes potential opportunities in the healthcare supply chain management market at the global and regional levels. Market dynamics are the factors which impact the market growth, so their analysis helps understand the ongoing trends of the global market. Therefore, the report provides the forecast of the global market for the period from 2020 to 2028, along with offering an inclusive study of the healthcare supply chain management market. The report provides the size of the healthcare supply chain management market in 2020 and the forecast for the next nine years up to 2028. The size of the global health care supply chain market is provided in terms of revenue. The market dynamics prevalent in North America, Europe, Asia Pacific, Middle East and Africa and Latin America has been taken into account in estimating the growth of the global market. Market estimates for this study have been based on revenue being derived through regional pricing trends. The healthcare supply chain management market has been analyzed based on expected demand. We have used the bottom-up approach to estimate the global revenue of the healthcare supply chain management market, split into regions. Based on product type, time span, operation, end-user, and internal and external factors we have summed up the individual revenues from all the regions to achieve the global revenue for healthcare supply chain market. Companies were considered for the market share analysis, based on their innovation and application and revenue generation. The report covers a detailed competitive outlook that includes the market share and company profiles of key players operating in the global market. The global Healthcare supply chain management market has been segmented into: Global Healthcare supply chain management Market:

**Chapter 3 : Master's Degree in Healthcare Administration - Supply Chain Management & Logistics**

*A group purchasing organization (GPO) is an entity that helps healthcare providers “ such as hospitals, nursing homes and home health agencies ” realize savings and efficiencies by aggregating purchasing volume and using that leverage to negotiate discounts with manufacturers, distributors and other vendors.*

News Exploring the Role of Supply Chain Management in Healthcare Healthcare supply chain management is the regulation of the flow of medical goods and services from manufacturer to patient. Many organizations have looked to the billing and services portion of the revenue cycle for budget decreases, but others have started to examine their healthcare supply chain management. The supply chain generally refers to the resources needed to deliver goods or services to a consumer. In healthcare, managing the supply chain is typically a very complex and fragmented process. Healthcare supply chain management involves obtaining resources, managing supplies, and delivering goods and services to providers and patients. To complete the process, physical goods and information about medical products and services usually go through a number of independent stakeholders, including manufacturers, insurance companies, hospitals, providers, group purchasing organizations, and several regulatory agencies. However, by promoting efficiency in the healthcare supply chain, hospitals and physician practices can create substantial cost-reducing opportunities across their organization. Here is a look at what goes into healthcare supply chain management and how healthcare organizations can overcome major challenges to further reduce spending. Take a moment to think about what providers use every day to treat patients. Providers use a myriad of items, such as syringes, prescriptions drugs, gloves, pens, papers, and computers. Employees involved in healthcare supply chain management are responsible for stocking organizations with the products providers need and managing inventory. However, managing supply chain is not as simple as making sure providers have enough gloves. Managing Healthcare Costs, Data Analytics Top C-Suite Priorities The healthcare supply chain starts at the medical product manufacturer where items are produced and sent to a distribution center. Depending on the type of product, hospitals can either purchase inventory directly through the manufacturer or distributor, or the transaction can be conducted through a group purchasing organization, which establishes a purchasing contract with the manufacturer on behalf of the hospital. Medical products are then sent to the healthcare organization, where the goods are stocked into inventory for providers and patients. The organization ensures that providers are not left without essential medical products and patients have access to potentially life-saving tools. Another aspect of healthcare supply chain management involves the participation of regulatory agencies, such as the Federal Drug Administration, and healthcare payers, including Medicare and private health insurance companies. Regulatory agencies and payers determine if a medical resource is fit for consumer use and whether providers will be reimbursed for using it on specific patients. Why is healthcare supply chain management so complex? Healthcare supply chain management is unique because each stakeholder has their own interests to protect. Different stages in the supply chain flow may be focused on their own goal. Providers may want to use a specific product because they were trained with it, whereas hospital executives aim to purchase the most affordable quality items. Healthcare organizations must take into account numerous requests and viewpoints to settle on specific product budgets. Patients also have a voice in the healthcare supply chain management process. Healthcare organizations may be able to regularly order the correct sizes of gloves and keep them stocked, but some patients may need more customized medical products, such as latex-free options, depending on their health status. Likewise, providers may prefer a specific brand or type of medical product, which could lead to cost concerns. For example, providers may prioritize their own preferences for certain products, while financial managers attempt to cut healthcare costs and reduce out-of-date products. Oftentimes, hospitals face hoarding or squirreling away of certain products by providers. This can contribute to cost variance and off contract spending which are hard to uncover. One more invisible cost that is often overlooked is the time spent looking for supplies or waiting for someone to deliver what they need. How can providers overcome common challenges in healthcare supply chain management? Some healthcare organizations have found success with supply chain management through cost transparency. By harnessing price and utilization data, healthcare

organizations can track and manage inventory more efficiently and construct more informed purchasing contracts with manufacturers. Inventory levels come down for everybody. Product expiration can be virtually eliminated. Getting all hospital departments on the same page is also a key strategy for optimizing healthcare supply chain management. In the era of value-based care, healthcare organizations are focused on reducing redundancies and eliminating waste, but providers also need to work together to effectively reduce costs and boost performance. Physicians will engage when they understand the issues, and it is very important to let them help craft a solution that they can stick to.

## Chapter 4 : Healthcare Supply Chain Management Trends | SpendEdge

*January 04, - From gauze and paper gowns to implantable medical devices and prescription drugs, provider organizations must implement efficient healthcare supply chain management processes to cut overall costs and standardize care delivery. But for many organizations, healthcare supply chain.*

Management of healthcare supply chain involves gathering resources, managing supplies, and delivering goods and services to patients and providers. The physical goods and information about medical products and services have to pass through several independent stakeholders like insurance companies, manufacturers, providers, hospitals, group purchasing organizations, and several regulatory agencies before the completion of the supply management process. What is supply chain management? Supply chain management is the process of managing supply chain activities to maximize the value of a customer and acquire a sustainable competitive advantage. Supply chain activities involve processes ranging from product development, production, sourcing, and logistics. It also includes information systems that coordinate these activities.

### Healthcare Supply Chain Management Trends

- 1. Standardization of patient care**  
Standardization of care is a very crucial instrument to make healthcare sustainable, especially from the perspective of a patient. Healthcare supply chain management will pave the way for this instrument. The supply chain sits on the valuable cluster of data that can help in determining not only the best price but also the best results in the healthcare industry. It will help in changing slow, inefficient, and wasteful processes involved in the process of healthcare. Increase in use of data and advanced analytics  
**Big data and advanced analytics** are benefiting supply chain management. The growing need for forecasting supply chain outcomes is one of the driving forces behind the increasing need for reliable data. This is one of the popular trends that is emerging in healthcare supply chain management. The use of advanced analytics helps in identifying:  
**Benchmarks of supply chain performance**  
**Integration of clinical data with supply chain data**  
**Transparency of data across the supply chain**  
Data is crucial for improving quality, cost, and outcomes and helps providers and suppliers to take an informed and strategic approach to supply chain management. Advanced analytics is not only improving the supply chain itself but is also crucial for analyzing the outcomes. It also helps in making decisions about cutting the cost and savings initiatives. Moreover, cloud computing is also helping healthcare become an industry driven by data. Access to the valuable data leveraged by certain software like PREDICT facilitates supply chain teams to aggregate purchases across several types of projects and hospitals to minimize costs. Innovation caused by changing population health  
**The health of the population is changing every day, and this is one of the major trends driving innovation in healthcare supply chain management.** Increasing chronic health issues is creating a more patient-centric supply chain and is leading to an environment where care can be provided as and when patients need it. This trend is going to make healthcare delivery and supply chain management more integrated.  
**Clinically integrated supply chain management**  
A clinically-integrated supply chain plays a very crucial role in the success of the healthcare industry. Clinicians and supply chain professionals work in synchronization, share their ideas, compare outcomes and make informed decisions. Physicians are maintaining a relationship with supply chain professionals to avail a better guidance on price points, results, and alternatives. With the role of automation, there is a decrease in the order errors by suppliers and cost providers that they commit through inaccurate payments, invoices, and products. The providers and suppliers with the help of an automated process can catch discrepancies in no time and address issues in real time. By promoting efficiency in the healthcare supply chain management, physicians and hospitals can create cost-reducing opportunities across their organization. To Know more about healthcare supply chain management Tags.

## Chapter 5 : Supply Chain Management for Healthcare | Workday

*Supply chain management is another area within healthcare that's being radically transformed by technology, with increasing opportunities to improve optimization and the flow of goods among.*

Practice Management News 3 Most Common Healthcare Supply Chain Management Challenges The top healthcare supply chain management challenges for provider organizations include provider preference items, a lack of supply chain health IT, and invisible costs. But for many organizations, healthcare supply chain management is not as simple as tracking how items are acquired and where they go after purchase. Many healthcare organizations, however, face some roadblocks with making their supply chain more efficient. Some of the top healthcare supply chain management challenges include costly provider preference items, a lack of health IT implementation for supply chain functions, and limited hidden costs transparency. Managing Healthcare Costs, Data Analytics Top C-Suite Priorities Many healthcare organizations employ a provider preference card or request system method for managing their supply chain. However, basing inventory on provider preferences can result in significant cost variation. A The Milbank Quarterly study showed that physician preference items accounted for up to 61 percent of healthcare supply chain spending. While providers have control over some supply chain costs, another recent report revealed that some providers were unaware of how much their preference items actually cost. A Health Affairs survey found that orthopedic surgeons correctly estimated the cost of a commonly used implant only 21 percent of the time, and their estimates ranged from 0. A common area of preventable supply chain waste, however, is standardizing provider preference items or reducing item variation, James Spann, Practice Leader of Supply Chain and Logistics at Simpler Healthcare, told RevCycleIntelligence. Spann explained that healthcare organizations that meet particular item requests from every provider could end up buying items that are more expensive than alternatives with similar outcomes or purchasing supplies in bulk that are only used by a handful of clinicians. The lack of health IT to gather and analyze supply chain data can lead to billions in wasteful spending. In response to healthcare supply chain data challenges, more provider organizations are looking to implement health IT systems that can better manage supply chain costs under value-based reimbursement models, a December Black Book survey found. Many value-based reimbursement models require healthcare organizations to accurately measure and compare healthcare costs with patient outcomes. But Kiewiet noted that healthcare organizations can also implement Radio Frequency Identification RFID technology and computerized provider order entry CPOE systems to make healthcare supply chain management more efficient. The health IT solutions facilitate data-sharing, which can help healthcare organizations reduce costs by decreasing process variations. The technologies can also help to better track supplies from purchase to expiration to eliminate wasteful spending. Inventory levels come down for everybody. Product expiration can be virtually eliminated. Other areas of focus are product standards, purchase price variance, expired products, and excess supplies. Spann added that provider organizations should also question how much it costs to manage and move supplies. To develop a healthcare supply chain management strategy that incorporates visible and hidden costs, healthcare organizations may want to consider a Lean approach. Another key area of savings for the hospital was pinpointing employee productivity inefficiencies. For example, the Lean strategy revealed that nurses were performing labor-intensive supply chain work that could have been done more effectively and at a lower cost in the material management department.

## Chapter 6 : 3 Most Common Healthcare Supply Chain Management Challenges

*Johnson notes that supply chain management in healthcare is not only about medical-surgical supplies anymore, but complex in nature involving more technology, consolidation and partnerships within.*

## Chapter 7 : What is Supply Chain Management (SCM)? | Supply Chain Resource Cooperative | NC State U

*AutoPricer is the most sophisticated and intuitive technology on the market today to analyze medical-surgical expense. AutoPricer uses BroadJump's comprehens.*

## Chapter 8 : Healthcare Supply Chain Management Summit | Inventicon

*The authors, with over 60 years combined experience in healthcare administration, supply chain, and academia, examine the critical topics of sourcing, logistics, security and compliance, purchasing, storage and inventory management, distribution, vendor management, as well as future challenges in health care.*

## Chapter 9 : Healthcare Supply Chain Management | FTI Consulting

*As a healthcare supply chain professional, leadership is increasingly turning to you for ways to eliminate costs from your organization - and there is only so much you can do to negotiate lower prices for med-surg supplies.*