



## Finding New Opportunities to Reduce Spend Through Capital Purchases

To reduce organizational costs, health systems have turned their focus on supply chain, building in new efficiencies and consolidating and standardizing products. However, one area that is frequently overlooked is capital purchases—often big-ticket items with depreciable values. By turning attention to capital purchasing and its capacity for cost savings, organizations can widen their procurement strategies.

Recently, The Academy spoke with Bob Beyer, Vice President of Supply Chain, and Stephen Sabo, Director of Capital Equipment Contracts, at Hospital Sisters Health System (HSHS), a multi-institutional healthcare system serving 12 communities in Illinois and Wisconsin, about the financial impact of capital purchases and strategies for negotiating the best contracts.



**Hospital Sisters Health System**  
Springfield, Illinois

- Annual Inpatient Admissions: 78,759
- Operating Revenue: \$2.1 billion
- Total Staff Members: 14,626

### Addressing Unique Challenges

Capital purchases can make up a considerable portion of an organization's expenses. At HSHS, total supply expense is approximately \$300 million, and the capital budget can equal one-third to one-half of that total.

Certain challenges exist for capital purchases that are not present for commodity purchases. With commodities, HSHS works with a particular supplier. With capital, several suppliers are generally in play.

On top of that, reduced reimbursements mean capital budgets are "getting tighter," according to Sabo. The capital cycles are getting further elongated based on reimbursement cuts, and as a result, facilities are holding on to capital funds for longer periods of time and in many cases spending less on capital than in the past.

Adding another layer of complexity, many capital purchases have an IT component

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## Driving Sustainability with a Green Purchasing Cooperative

Keeping patients healthy is the number one mission of hospitals and health systems. Traditionally, this means treating illness, reducing hospital-acquired conditions, and researching advancing medical techniques. One organization is taking this further and creating a platform that taps into an area not always associated with patient welfare—environmentally preferred products. Practice Greenhealth, Health Care Without Harm, and a handful of provider organizations—Dartmouth-Hitchcock, Dignity Health, Partners HealthCare, and Gundersen Health System—have teamed to build the Greenhealth Exchange, a marketplace featuring green healthcare products at competitive prices.

The Greenhealth Exchange will incorporate everything from healthier, antibiotic-free food to environmentally friendly cleaning products, construction materials, furnishings, and office supplies. These purchases are directly connected to improving patient health because of the lessened impact on the patient's environment and community, according to the partners.

For Gundersen Health System—a network based in La Crosse, Wisconsin that is famed for achieving energy independence, reducing hazardous waste by 85%, and achieving a 43% recycling rate—their role in the exchange is another outlet for achieving their vision of creating a healthy environment at a lower cost for patients.

"Healthier environments mean healthier people," says Mark Platt, the system's

Senior Vice President. "We've always said that not only do we want to improve the environment and make it healthier for our community, we also believe that the fiscal health of the community is part of our responsibility."

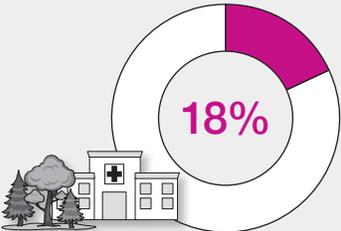
### "Chemicals of Concern"

Determining which products will fulfill that goal is not an easy task, as there is a broad definition on what makes a product "environmentally preferred." The Greenhealth Exchange is focused on offering products that do not have harmful chemicals like hydrocarbons, fluorinated hydrocarbons, DEHP, and PVC, says John Strong, President of Greenhealth Management, a subsidiary of Practice Greenhealth that is managing the execution of Greenhealth Exchange.

The issue with these chemicals is they release toxicity into the environment not only during the production phase, but also during disposal. At the end of a product's

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**Healthcare's Role in the Economy**  
Source: Centers for Medicaid & Medicare Services (2015)



In 2014, the healthcare industry made up 18% of the total U.S. gross domestic product, a percentage that is expected to continue rising.

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necessary to operate the equipment. That means many capital purchases have become IT projects and the departments have to coordinate their timelines.

“We need to make sure we’re involved as a facility,” Beyer says. “It’s not just IT. It’s also buildout and processes that go into placing new equipment—just because you have an MRI today in a room doesn’t mean that the new one will fit.”

### Collaborating with Physicians and Executive Leadership

HSHS has set thresholds for when capital purchasing gets involved in the process. At \$20,000, all items must first be vetted by the capital purchasing department. Purchases between \$500,000 and \$1 million can be approved by the system CEO. Anything above \$1 million requires board approval.

The \$1 million mark is a cumulative figure, not just a single line item. For instance, if a department needs a quantity of 10 items, such as anesthesia machines, each at \$110,000, the cumulative purchase is \$1.1 million and will be reviewed by the board.

Along with purchase approval, capital purchasing and executive leadership work together on strategic procurement. Recently, HSHS added a robotic surgical system to assist in minimally invasive surgeries. The system is a significant step forward in OR technology and comes with considerable cost—over \$1 million per unit. Executive leadership came to capital purchasing to negotiate the contracts and establish a timeline for bringing in the units.

Capital purchasing also collaborates with physicians on certain purchases, such as radiology items or surgery equipment. Physician preference is taken into account in those cases and physicians are encouraged to take part in the conversations. There is a system of accountability to ensure physicians are moving through the appropriate channels to get items approved. That may include physicians developing a business

plan that illustrates the need for the item and justifies the expense.

### Considering Total Cost of Ownership

During the procurement process, the capital purchasing department has to consider the maintenance contracts that cover equipment malfunctions and breakdowns. Each organization has its own philosophy of when and under what terms to negotiate these contracts. HSHS uses a variety of maintenance solutions: in-house contracting, third-party maintenance companies, and original equipment manufacturer (OEM) warranties. Currently, HSHS is revamping its clinical engineering program to include more in-house technicians.

*“You always have to keep vendors thinking it’s competitive. When they’re not sure which way we’re going, they give us their best offer, and we’ll take the best offer.”*

– Stephen Sabo  
Director of Capital Equipment Contracts  
Hospital Sisters Health System

When negotiating service agreements with the OEMs, Beyer prefers to extend negotiations beyond the time of sale. Initially, pressing suppliers to provide longer warranties may be the most prudent strategy. After the warranty term has expired, service agreements can be discussed, allowing the hospital to consider its service options. In some cases, alternate methods, like those stated above, may be more desirable.

Maintenance contracts are only one piece of the total cost of ownership for capital purchases. On top of the equipment cost, an organization has to negotiate freight, installation, and other ancillary items, such as consumables. Ideally, freight and installation can be negotiated down to no charge at the time of sale.

Consumables can add considerable cost over the lifetime of the capital purchase. Even if the organization has negotiated a great price, there may be hundreds of thousands of additional dollars spent annually

on consumables. Often, organizations neglect addressing consumables at the time of sale and end up stuck with the associated costs. Beyer and Sabo do their best to get ahead of that by rolling consumables into every negotiation.

For larger health systems, the needs of their other hospitals can be included in the deal. For instance, if another hospital requires service, it can be negotiated at the time of sale for the capital equipment. If the supplier produces other pieces of noncapital equipment—for instance, MRI accessories or ultrasound devices—attempts can be made to add those to the purchase package.

### Keeping It Competitive

Utilizing multiple strategies during capital equipment negotiations has allowed HSHS to create millions of dollars in annual savings. Smart tactics, like aligning purchases with a supplier’s fiscal year to take advantage of motivated salespeople, contribute to the cost-reduction efforts.

“I would say that this original budget starts at about \$150 million,” Beyer says. “And we’re able to tailor that back at least \$25–30 million.”

To realize those savings, an organization can leverage economies of scale when making any capital purchase. Most medical equipment suppliers are large companies with a wide variety of products under their umbrella. Purchasing many items apart from the capital purchase can significantly lower the aggregate price.

“The more you bring to the table, the bigger the discount,” Sabo says. “Make the deal as large as possible to leverage your buying power.”

Organizations are best served when they take advantage of supply chain’s expertise in negotiating contracts. One of the challenges supply chains face is when departments attempt to negotiate unilaterally. Suppliers are trying for the best deal and will capitalize on physicians unaccustomed to contract negotiation.

In terms of purchasing, Beyer recommends physicians keep their cards close to their chests and let capital purchasing and supply chain do what they do best.

“You always have to keep vendors thinking it’s competitive,” Sabo says of negotiations. “When they’re not sure which way we’re going, they give us their best offer, and we’ll take the best offer.” ■

#### Capital Purchases Budget at Hospital Sisters Health System



**\$300M**

Approximate Supply Chain Spend

**\$100–150M**

Annual Capital Purchase Budget

Capital purchases make up a significant portion of an organization’s annual spend. At HSHS, capital purchases are equal to one-third to one-half of the total supply spend.

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usable life, many are sent to either a landfill or are incinerated. Both expose the environment to hazardous toxins. Healthier alternatives are recycling and using more compostable materials.

Within the hot topic of population health management—the actions care providers take to improve clinical and financial outcomes—the healthcare industry is keen for ways to improve health and well-being throughout the communities they serve.

Sustainable practices may play a vital role in those efforts. Hospitals have a large impact on the environment, as their operation naturally consumes a large amount of energy, creates hazardous waste, and generates emissions. One of the goals of the Greenhealth Exchange is to determine exactly how these factors contribute to illness in the community. By doing so, the exchange hopes to determine hard data advocating the positive effects of sustainable items on healthcare.

“One of the things that a number of healthcare providers are very keen on is making sure that they’re not contributing to the illness of the communities that they serve,” Strong says. “What we’ll do is measure what was in the product before and the level of toxicity, and then by taking those chemicals of concern out, we will have a comparison and be able to determine the value to the community.”

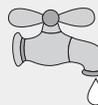
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**Vetting the Right Product**

To find those products that promote sustainability, Greenhealth Exchange is setting specifications for green products and services to evaluate how clean and green they are. Suppliers are invited to share products that meet those specifications and have their products reviewed by Greenhealth Exchange. They will also investigate any regulations or legislation surrounding each product category. After analyzing the product for both performance ability and environmental impact, the organization will negotiate pricing with vendors and enter a

**The Healthcare Industry’s Effect on the Environment**  
Source: *The Sustainability Roadmap for Hospitals (2015), Practice Greenhealth (2016)*

 <b>7K</b> Tons of material waste daily	 <b>95%</b> of hospital emissions are fossil fuels	 <b>7%</b> of all U.S. water use occurs in hospitals
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As one of the largest consumption industries, there is a great opportunity to find and adopt sustainable practices in healthcare.

contract, which will be housed in an electronic catalogue. Members will be able to access the catalogue and purchase under the Greenhealth Exchange contract. Over the next two years, the goal is to fill the catalogue with environmentally preferred products for several categories: food and beverages, food service disposables, furnishings, construction materials, energy, office products, medical products, electronics, and cleaners.

Greenhealth Exchange will be analyzing currently available green products to determine if they really do have more of a positive impact on the environment. As the organization gains traction and more providers become involved, the goal is to create enough demand to motivate manufacturers to create innovative new products that are even more sustainable than what is currently on the market.

There are a number of avenues hospitals and health systems can take to gain access to the catalogue. First, they can become a “member patron,” which is effectively an owner of the Exchange. Member patrons can share their access with an unlimited number of affiliated healthcare organizations. There is a \$150,000 investment to become an owner. However, because the Greenhealth Exchange is a cooperative, owners receive dividends back in years when Greenhealth Exchange turns a profit. The five-year return on investment is expected to be several times the amount of the original investment, and it grows with the local level of purchasing done by the member patron.

The other option is to become an “associate patron” and pay a yearly membership cost to have access to the catalogue. An important difference between the two participation levels is member patrons will have a seat on the subcommittees that are evaluating products and finalizing contracts.

“They’ll have a tremendous amount of input in the vetting of these products, defining the needs they’d like to go after to green their

product selection,” Strong says. “They really control the governance of the organization.”

**Financial Considerations**

In some cases, environmentally preferred products understandably come at a high cost. Production runs can be smaller and the products themselves are more specialized and require different research and development. For the individual hospital or health system, this can be a major deterrent, or even an impassable roadblock, to buying green. In some cases, the cost of buying cleaner, more sustainable products is passed on to patients, Platt says.

To avoid this, Greenhealth Exchange is operating on the same principle that drives success for group purchasing organizations: accumulate enough buying power to create leverage for lowering prices. With enough hospitals on board, suppliers will likely be incentivized to lower prices.

“We believe if we can aggregate enough demand, then we can create the supply,” Platt says. “Down the road, we can work with the right suppliers who haven’t created the product yet, but may invest in the development of those kinds of products if they know the demand already exists.”

With the four current owners, the Greenhealth Exchange is already sitting on top of more than \$4 billion in purchasing volume. As more hospitals join up, that will only grow. As the healthcare industry accounts for almost 18% of the nation’s economy, hospitals and health systems are in a solid position to drive sustainable change in the manufacturing of goods, one that could extend far beyond the realm of healthcare supply production.

As organizations continue to look for sustainable options and Greenhealth Exchange fleshes out its catalogue, they may look to the Exchange as a tool to lessen their impact on the environment and improve the health of their communities and patients. ■

# Supply Chain Metrics for Inventory Cycle Counts

One of the ongoing struggles for health-care supply chains is determining meaningful benchmarks. Determining the performance and productivity of a department can be difficult without something to measure results against.

Cycle counting involves dividing products according to value and type and performing periodic inventories on those products. For instance, the top 20% of items according to cost may be inventoried once every one to three months, while the bottom 20%, items such as small-dollar consumables, may be inventoried every six months to a year.

The advantage of cycle counting is that it avoids having to shut down operations for lengthy and costly annual inventories. Cycle counts can more easily be integrated into daily processes. Additionally, with frequent counts for high-dollar items, issues such as shrinkage due to expiration (in the case of pharmaceuticals), obsolescence, or mismanagement can potentially be avoided. By having a cycle count procedure in place with the right metrics, organizations can have greater control over their inventory.

In seeking to create greater performance transparency, many hospitals and health systems have initiated or enhanced their

Cycle Count Metrics	
Source: Supply Chain Academy (2016)	
Metric	Formula
Actual Inventory Valuation	Pre-Count Inventory Valuation (\$)—Post-Count Inventory Valuation (\$)
Inventory Accuracy	(Number of Correct Records/Number of Records Checked) x 100
Put-Away Accuracy	(Number of Items in Correct Location/Total Number of Items) x 100
Quantity Variance	(Actual Quantity Used—Standard Quantity Used) x Standard Cost Per Unit (\$)
Inventory Obsolescence	(Obsolete Inventory \$)/Total Inventory (\$) x 100
Warehouse Damage/Shrinkage	(Product Disposed of Due to Damage and Spoilage \$)/Amount of Inventory (\$) x 100
Value of Product Damaged or Expired in the Warehouse	(Total Value of Damaged and Expired Products \$)/Total Value of Products (\$) x 100
Value of Unaccounted Stock	(Value of Missing Units \$)/Value of Total Units Currently in Stock (\$) x 100
Hit/Miss Accuracy (Percentage of Items Within Tolerance)	(Total Hit Entries/Total Number of Entries) x 100
Exact Matches Rate (Percentage of Items that Match Anticipated Inventory Level)	(Total Match Entries/Total Number of Entries) x 100
Stocked According to Plan	(Items Stocked Between Established Min. and Max. Levels/Items Stocked) x 100

*Tracking metrics can provide valuable insight into operations. They can also be used in benchmarking analysis to compare an organization's efficiency.*

monitoring of key performance indicators and productivity. Because today's health-care climate is data driven and outcome focused, accurately capturing data requires the thoughtful establishment of metrics for benchmarking purposes. Metrics should be comprehensive enough to provide a global snapshot of operations, and appropriately

granular without creating inefficiencies due to overmanagement.

The above list provides performance indicators that can offer supply chain leaders a tool for establishing benchmarks to be used to monitor operational successes. For a more comprehensive list of metrics and workbook, please visit our portal. ■

## Now Available on The Academy Member Portal

### Capital Equipment Purchasing Policy

[hbinsights.com/viewid/23263](http://hbinsights.com/viewid/23263)

This policy, compiled from multiple industry-sourced purchasing policies, outlines a clear purpose, definition, and procedure for member organizations to utilize when creating their own working documents. The document is easily set up for organizations to alter to their own needs or use as is.



**Suggested Keywords to Search:** Capital Equipment, Purchasing Policy, Working Document

### Supply Chain Metrics for Docking and Central Supply

[hbinsights.com/viewid/59457](http://hbinsights.com/viewid/59457)

A collection of metrics for measuring docking and central supply productivity and performance The Academy has compiled to aid hospitals and health systems in establishing baseline benchmarks. These benchmarks can in turn be used to continually monitor performance of strategic areas of the supply chain.



**Suggested Keywords to Search:** Supply Chain Metrics, Productivity, Benchmarking, Key Performance Indicators

Download these tools from our members-only website. As a reminder, your email is your user ID. To set up accounts for additional members of your team, contact The Academy's membership services at 888.700.5223. We would be happy to schedule an orientation for new members!