CardinalHealth
Essential to care™

The Business of Healthcare:

Growing integrated delivery networks

Executive Summary

One system, with one vision

Create a better patient experience at the best possible cost: This is the new mandate driving the evolution of integrated delivery networks (IDNs) today. The acute-centric model of decades past is giving way to a new view of what a health system can be: an interconnected network of acute and non-acute sites that provide a consistent patient experience and outcome no matter where the patient is in the system. This new vision focuses not only on intervention, but also on prevention and wellness, guiding patients to the most appropriate site of care, at the right time—and right cost.

Today, each IDN is determining the care delivery model—such as an Accountable Care Organization (ACO)—that will help it be the premier health system in the community it serves. And while there is no single right answer for everyone, there are some guiding principles that can help lead the way:

- **To manage change,** we must seek inspiration to meet challenges never seen before.
- **To work faster,** we must develop better ways to achieve critical goals, without sacrificing quality.
- **To be efficient,** we must take the responsibility to continually improve every process.
- **To collaborate,** we must have a genuine commitment to work together with select partners.
- **To innovate,** we must develop new ideas that spark savings and efficiency.
- **To adapt,** we must understand that healthcare today moves faster than ever before—and that the IDN leaders will not only react to change, but anticipate it and be ready for new solutions.

What's inside

- Making the consolidation trend work for you
- Controlling costs with Lean Six Sigma
- Connecting acute and non-acute sites of care
- Bringing doctors on board
- Evolving to new care delivery models

Grow successfully

The purpose of this series is to help IDN executives better prepare to grow successfully, now and in the future. The direction of healthcare may be uncertain, but your next steps don't have to be. Now more than ever, it is essential that IDN executives focus on **The Business of Healthcare.**

The new world of healthcare

With a single word, we can sum up the major trend that's shaping the role of IDNs in the new world of healthcare: *consolidation*. In fact, this trend is so pervasive across the country that it's fast becoming the 'new normal.'

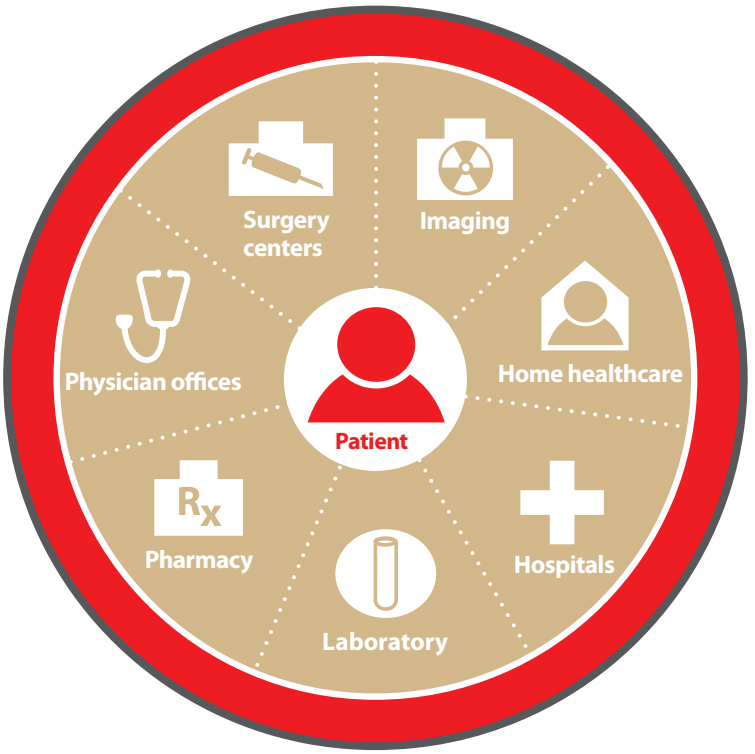
"Make no mistake—consolidation is occurring," said Steve Inacker, President of Channel Management—Medical Segment for Cardinal Health. But it should come as no surprise: Economic market conditions and healthcare reform have been leading up to it for some time. Declining reimbursements and changes in the payor mix are pressuring margins like never before. And it's all leading to the focus on cost reduction that's driving consolidation today.

According to Inacker, healthcare reform drives new regulation, which results in cost reduction throughout the industry. "It's a natural occurrence," he said. "And the marquee IDNs are determining now how to best create the network that serves the full continuum of end-to-end patient care," Inacker said. The end result can be a win-win for everyone: a better patient experience at the best possible cost.

Consolidation is happening on two levels, both horizontally and vertically:

- **Horizontally:** Acute and non-acute sites of care are coming together under a single corporate umbrella, typically with different supply chain systems. And that creates a host of challenges, such as integrating different product numbering systems, item master files and back-office operations, improving work flow, creating consistent standards of care and implementing system-wide HIT (health information technology), especially Electronic Medical Records. There's a critical need to quickly transform those inconsistencies into a more homogenous corporate-level workflow environment. Key to this transformation is the integration of data across all sites of care, to help IDN executives make more informed decisions faster.
- **Vertically:** Simultaneous with horizontal integration is the rapid rise and growing acquisition of non-acute sites of care—all with varying levels of business acumen, technological sophistication and supply chain expertise. These sites include skilled nursing, long-term care (LTC), physician practices, surgery, laboratories and wellness centers.

But there are other growth opportunities as well, and their importance is accelerating by the day. One opportunity is retail, and it includes both retail pharmacies 'within the four hospital walls,' as well as offsite retail locations such as the 'minute clinics' which help drive non-trauma care away from hospitals and into a lower-cost non-acute setting. At the same time, these retail locations can be a significant source of additional revenue, while improving the overall patient experience, outcomes, and wellness (such as greater drug adherence, because discharged patients are able to pick up their medications at an onsite pharmacy before they leave the hospital).



A new world of healthcare

IDNs are rapidly building coordinated care delivery networks that follow patients across the entire care continuum. The aim: to better manage patient populations and deliver better patient outcomes overall at the best possible cost.

Another growth opportunity is nuclear pharmacy. As imaging becomes more and more sophisticated—with the rise of technologies such as PET (Positron Emission Tomography)—the role of nuclear pharmacy in diagnosing and evaluating disease has never been greater. So the importance of nuclear pharmacy in an IDN's network continues to grow. The challenge is to ensure reliable delivery of unit-dose radiopharmaceuticals—which are highly perishable—to the site of care. IDNs need to have confidence in the integrity of their nuclear pharmacy supply chain, because the lives of their patients depend on it.

While the need—and inevitability—of consolidation is clear, the challenge is *execution*. IDNs need integration planning that focuses on maximizing efficiency, containing costs and eliminating waste—all while ensuring that quality of care is maintained. The first step may be as challenging as it is counterintuitive: to see acute and non-acute sites as a single, integrated business operation, with shared resources and goals.

"Improving the performance of the healthcare supply chain will be a core element of reducing the cost of healthcare in the U.S. But it should go without saying that the job of reducing healthcare's value chain costs is bigger than any one company. We must all break through the industry's siloed thinking, challenge old paradigms and push ourselves to find solutions for the industry's issues. This is our opportunity. It can be done—and it's a job that cannot wait much longer."

Michael Duffy
Executive Vice President, Global Manufacturing and Supply Chain, Cardinal Health

'Owning' the integration

The growing attention to non-acute care is "imperative because today's new reimbursement models reward prevention. Physicians must be quarterbacking patient care if we want to reduce readmissions and manage chronic diseases," said Matt Rowan, President and CEO of the Health Industry Distributors Association (HIDA).

The effective integration of acute with non-acute (or vice versa, depending on your point of view), is essential to delivering quality, cost-effective care to the patient population that each IDN serves. IDNs are determining how best to 'own' the idea of consolidation in their respective markets, becoming the one source for end-to-end patient care—from non-acute to acute to retail—in the communities they serve.

The goal is to connect the continuum of the IDN network to the continuum of patient needs. Beyond acute care intervention, this continuum includes prevention and wellness as well—both keys to creating a better patient experience and better outcomes. This is about keeping people healthy, as well as taking care of them when they're sick. Equally important is having the fully-integrated network that ensures each patient is using the correct point of care, based on need.

By helping ensure that patients are making the correct choices and receiving the right care, at the right facility and at the right time, IDNs plan to create a consistent, positive patient experience. By doing so, IDNs hope to achieve their ultimate goal: building loyalty and trust among the patient populations they serve. And that will lead to the market share they seek.

Work Faster

Market leadership

To become the single source of care for their respective markets, IDNs are quickly acquiring new assets, heavily weighted toward non-acute sites. The challenge for becoming the single source: how to manage costs while creating a consistent patient experience across all sites of care.

Adding sites of care can be challenging, because of the inherent differences between acute and non-acute care. For example, expanding an ER department is far different from adding a new oncology practice. This variation between acute and non-acute supplies instantly makes the health system's total supply chain more complex. Adding non-acute sites increases the number of SKUs and adds more variety. To help an IDN not only understand the differences between acute and non-acute, but also plan for a successful transformation, it's important to ask such questions as:

What are your goals and how many (and what type) of non-acute sites do you plan to acquire?

Who are your competitors? Are they stand-alones in ambulatory care, or are they part of a system?

How will you manage expenses?

Then consider the special challenges of acquiring practices:

How can you compete for the best doctors, particularly specialty practices?

How do you give them input and a measure of control, to help keep them satisfied?

How will you efficiently integrate your health system's clinical standards with new sites of care?

Integration is a gradual process: It's not like flipping a switch. There's some training involved with ordering supplies, for example. It's a big transition from using sticky notes as order reminders to an online ordering and inventory management system.

Be Efficient

Controlling costs

Across the country, IDN chief executives are seeking to take costs out of their health systems, while improving their focus on the quality and safety of patient care. The two largest expenses to focus on are labor and the supply chain, which includes both pharmaceutical and medical-surgical products. Supply chain costs include not only the price of drugs and medical-surgical supplies, but also their cost of distribution—from the manufacturer to the point of use.

IDNs are concerned by what healthcare reform is going to do to their reimbursements, so they're looking for new ways to take cost out of their supply chain and improve their logistics flow, because they believe the financial pressures will only become greater.

Inacker added, "The more savvy and intuitive IDNs realize that the next great source of savings is the supply chain." Indeed, the supply chain is typically a health system's second largest expense, behind only labor. But this is no time for traditional thinking, as these IDNs know. So they're identifying new savings opportunities and improving the overall financial health of their systems. Rather than focus on product costs alone, executives are turning to where the truly untapped savings are: in supply chain processes. And Lean Six Sigma (LSS) is the key to evaluating and improving these processes.

According to Inacker, start your LSS efforts by evaluating each touch point, from the final point of consumption to the ordering process and all the way back to the dock. (Working with distributors and manufacturers, you can continue this evaluation all the way to the product's point of origin). As you evaluate these touch points, ask yourself, 'What does the full replenishment cycle really look like?' For many providers, this is the first time the entire process becomes truly transparent.

Throughout the LSS evaluation, the aim is to identify and eliminate non-value-added touch points. Typically, most healthcare providers find that there are two to three times more touch points than are truly needed. "Draw big, red boxes around those you can eliminate," Inacker said. By eliminating waste, redundancy and non-value-added touch points, you will reduce your total supply chain cost, while increasing staff productivity. (Truly, the goal of supply chain optimization.)

"Many IDNs are bringing in consultants with a background in lean," said Dean Kurtti, Region Director for Cardinal Health. "They're using lean to take waste out of the system, reduce touch points and create a more efficient patient cycle."

For example, some IDNs in the region that Kurtti serves are implementing their own Kanban two-bin systems. Both bins hold the same item and are labeled with barcodes. One bin sits in front of the other, and when it is empty, its barcode is scanned to place a replenishment order. The second bin then moves to the front, and the cycle repeats. It's a simple and effective system to maintain proper inventory levels and avoid stockouts.

Controlling costs as you add sites of care

IDNs shouldn't add sites of care without managing supply chain costs first, according to Tony Vahedian, Senior Vice President and General Manager, Medical Channel Services & Solutions for Cardinal Health. "You can't manage cost until you look at *total* cost—from the sourcing country to the ultimate point of use." This is true for healthcare providers of *any* size. But for IDNs, *total* cost also includes another component that is central to the very idea of an integrated network itself.

To truly look at your total spend holistically, you have to think about *all* of the physical assets that your supply chain connects. An IDN has both acute and a growing number of non-acute sites of care. Together, they represent your aggregate spend. And viewed together, they represent your opportunity to lower your total cost.

The holistic view is the *realistic* view, and IDNs can't manage total cost without having a cost control strategy that considers all of the elements that impact that cost. "Trying to reduce costs without a control strategy is almost impossible," Vahedian said.

The *total* cost control strategy for your health system should include two parts: 1) what you do yourself and 2) what you outsource to select vendors, such as distributors and GPOs. How should you decide what to handle in-house and what to outsource to others? According to Vahedian, weigh each decision based on the following:

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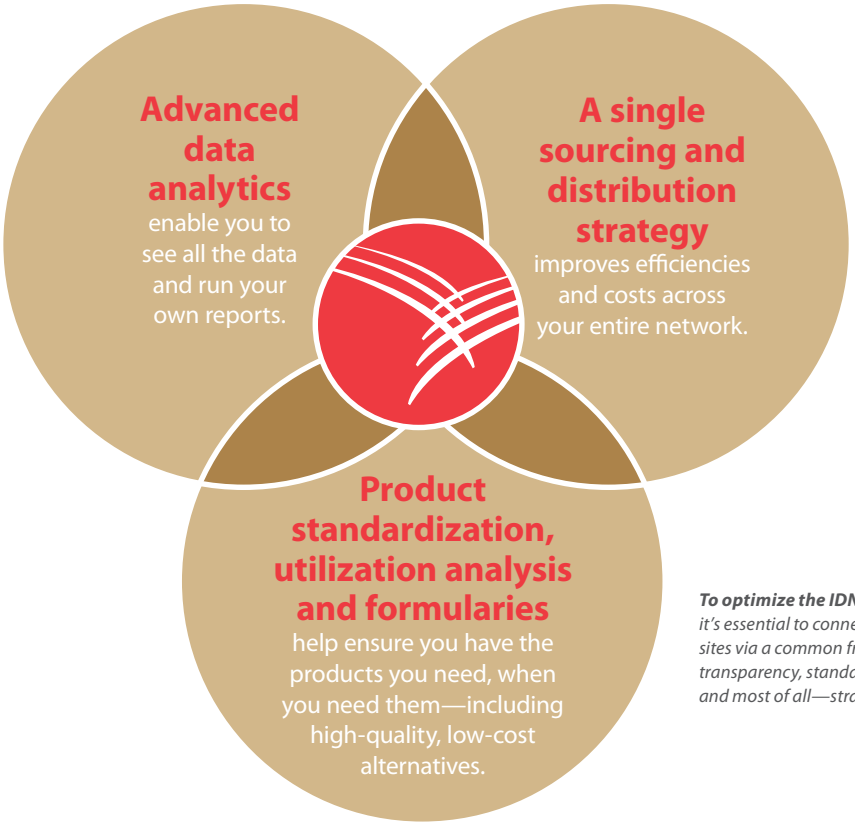


To optimize the IDN supply chain today, *it's essential to connect acute and non-acute sites via a common framework of data transparency, standardization, distribution and most of all—strategic perspective.*

"The window for IDNs to act is the next three to five years."

Steve Inacker
President, Channel Management—Medical Segment, Cardinal Health

Be Efficient *cont.*

Sourcing Strategy:

What are your policies for purchasing products domestically vs. overseas suppliers?

Outsourced Distribution: The first 3 steps

1. Establish a logical-unit-of measure (LUM) and just-in-time (JIT) distribution platform to stabilize product flow to the storeroom and open up visibility to par locations.

2. At par locations, optimize the replenishment logic and routing, resulting in improved product availability and materials staffing efficiencies.

3. Use effective data management systems to maintain real-time visibility of product flow. The better the data, the faster the first two steps will improve.

External Supply Chain: From the supplier to your warehouse. There are two approaches:

1. **Outsourced Distribution:** This is ideal if you want to leverage the financial and operational resources and expertise of select vendors—for example, distributors, GPOs and regional purchasing coalitions (which offer local buying opportunities that may not be available through national GPOs). Today, your outsourced distribution solution can include such advanced strategies as product standardization, utilization, par optimization, low-unit-of-measure (LUM) and just-in-time (JIT) delivery. When these advanced strategies are combined into a single, powerful strategy, the result is better utilization and lower costs.

2. **Self-Distribution:** This option isn't for everyone. But it has the potential to be viable for hospitals that have the balance sheet for owning inventory and the risk tolerance for uncertainty, such as product recalls and emergency recovery due to power outages, natural disasters and other unforeseen events.

IDNs have another important consideration as well: There are few similarities between acute and non-acute distribution: "It's such a different animal; it's not the same thing on a smaller level," according to Scott Adams, Vice President of Medical Distribution Solutions, Inc., the publisher of *Repertoire* magazine. There are experts that focus on acute and non-acute as separate businesses; but ideally, IDNs would view them both as one, aggregate spend and seek out supply chain experts who share that perspective and can assist with strategy and implementation.

One other component of your external supply chain to consider is the direct-ship relationships you have with manufacturers. While a distributor may not have the data visibility to help you manage the product prices themselves, you may be able to lower your total costs by reducing shipping expenses via managed freight solutions. Cardinal Health offers OptiFreight® Logistics to help healthcare providers lower the shipping portion of their total costs. With this program, providers can reduce freight costs by 30 – 50 percent.

Internal Supply Chain: This is from the dock to the hospital and within the hospital's 'four walls'. According to Vahedian, supply chain orchestration is the key: How does the product get where it needs to be, when it needs to be there—most efficiently and at the best possible cost? In particular:

- Where's the patient?
- How is the workflow structured?
- What is the capital equipment readiness? (e.g., bed cleaned, ready to be occupied)

For more about your distribution options and solutions, please see Optimizing Your Supply Chain, another in this ongoing series on **The Business of Healthcare.**

Standardizing across all sites of care

"Providers need to get ahead of the curve," Adams said. "The question is, 'How can we be more efficient and improve quality of care?' For example, which new products can help patients get out of the hospital a day earlier?" Standardization can answer that question and more. This strategy reduces product spend and supply chain complexity at the same time. And when standardization is applied to your combined acute and non-acute supply needs, IDNs can reduce total costs system-wide.

According to health system executives across America, the time to standardize is now. Said the CEO of one large hospital chain: "Efficiency has not been the hallmark of healthcare delivery operations… we need savings now more than ever." Another CEO of a large hospital chain sees standardization as one strategy for combating rising costs: "We used to have 20 gloves… now we're looking to have two."

Eight keys to successful standardization:

1. Analyze your current product mix for redundancy and waste.
2. Seek cost-effective, clinically-equivalent alternatives, which will lower both your spend and line count.
3. Look for 'early win' opportunities such as standardizing commodity items, which will set the stage for doing the same with clinical preference items.
4. Use data analytics to provide the rationale for converting products to equivalent quality at a lower cost. (With data analytics as the foundation, value analysis demonstrates the advantages of standardization.)
5. Evaluate the use of GS1 data standards to simplify and integrate product location and identification information among all trading partners.
6. Standardize across all sites of care (including non-acute sites, even though your spend is comparatively less). By standardizing holistically, you'll gain the broader efficiencies to lower your total spend system-wide.
7. Work with supply chain consultants to create site-specific formularies for specialty practices, as appropriate (for example: oncology, cardiology, nephrology, OB/GYN, pediatrics and so on). "As IDNs are getting more sophisticated with their asset strategies, we're helping them build templates for specialty clinics," said Tony Szado, Director of Account Management for Cardinal Health.
8. Seek opportunities to remain GPO compliant as you standardize.

When possible, work with the same internal and external teams to look at standardization across the entire health system. It's more efficient than looking at acute and non-acute separately.

Spotlight on Success:

Self-distribution at North Shore - Long Island Jewish Health System

North Shore-Long Island Jewish Health System is the primary provider of healthcare for the more than 7.5 million residents of Long Island, New York. Every day, this vast and vibrant community relies on North Shore-LIJ to reliably deliver care, no matter what. So when the unthinkable happened on 9/11, the system's executives asked themselves, What if it happens again—and this time, even closer to home?

Because the community is literally an island, it could be isolated in another emergency—and its medical supply distribution routes cut off. So the health system decided the best way to ensure supply chain continuity was to build its own distribution center, right on Long Island. "We wanted to be self-sustaining in an emergency and maintain continuity of patient care," said Pinak Shah, Senior Director of Contracts, Procurement & Distribution/Logistics for North Shore-LIJ. "We wanted to ensure a seamless supply in any situation, and we had the volume to justify our own DC."

North Shore-LIJ's decision to self-distribute is not an isolated one. There is a current trend for IDNs to consider self-distribution, "but it's not for everyone," according to Jonathan Driscoll, Supply Chain Executive for Cardinal Health Supply Solutions (CHSS). "It takes the right IDN, with the appropriate capital and HR investment."

While a self-distribution center is not the answer for every IDN, North Shore-LIJ had decided that it was the right one for them. Making that decision was just the first step: There were many more to ensure that the health system created the best self-distribution approach for its own, unique needs. "There are no cookie-cutter solutions—you have to do your due diligence," Shah said.

Shah explained that the right distribution model will vary based on the provider's business needs, including its unique, geographic challenges. The final decision must take into account the distance to all locations, to ensure supply chain continuity and reliability in any situation.

For North Shore-LIJ, there were other strategic reasons for the move to self-distribution as well:

- Improve cross-departmental collaboration, integration and processes within each hospital.
- Increase collaboration with suppliers to enhance strategic sourcing.
- Improve labor efficiency and throughput by maximizing resources and streamlining processes to reduce inventory touch points. The result—more bedside time for clinicians.
- Consolidate logistics and streamline sourcing to reduce loading dock congestion, compensate for limited supply storage space and mitigate the challenge of managing non-stock supply orders at each hospital.
- Enable product standardization.

"It's important to incorporate best practices, partnering with the experts," Shah said. "Kudos to Cardinal Health for thinking outside the box and working as one team with us, from design to implementation."

Spotlight on Success:

Creating consistency at Fairview Medical Group

"What can we do to save money without losing people? We're reducing our total cost of care by having the same supplies everywhere," according to Kelly Nelson, Manager of Supply Chain operations for Fairview Medical Group, the non-acute care network of Minnesota-based Fairview Health Services. "If clinical effectiveness and product utilization are the same, then we don't need six different sterile 2x2s, for example. A Band-Aid is a Band-Aid is a Band-Aid."

How does Fairview standardize products for 40+ primary care clinics, plus a wide range of specialty services, including home care and senior care? "We work with Cardinal Health to create standard templates, so we can act quickly when we open a new clinic," Nelson said. She also sets par levels when possible, to help minimize picking charges.

Working with Cardinal Health, Fairview also develops supply formularies for specialty practices. "It takes out the guesswork and helps us set par levels. When we do our legwork on the front end, we save time and money on the back-end," Nelson said.

"We're positioning ourselves for change and to be a leader in Accountable Care Organizations. We're shifting our focus from managing acute capacity alone to keeping people well in an ambulatory setting. Our goal is for the patient to have the same good experience everywhere," she said, regardless of where the patient is in the continuum of care.

Be Efficient *cont.*

Adopting GS1 standards

One of the greatest challenges with the integration of non-acute sites is the disparity in how data is managed—in particular, how products are identified differently from database to database. "Many IDNs struggle with how to manage inventory, because each hospital and physician office uses different numbers to identify the same product," said John Abrams, Vice President, Application Design & Development, EIT Solutions, for Cardinal Health. For example, if a physician office uses an Excel spreadsheet and the hospital uses an entirely different IT solution, there's no way to efficiently merge the two together.

IDNs need to normalize data across their entire systems, and a proven way to do that is to rely on data standards. In fact, a major trend is data consolidation and more IDN executives are now reaching out to seek assistance. The concept of data standards—while still new to healthcare in America—has been widely embraced by other industries for years. Around the world, these industries rely on the GS1 system for product identification. The system's components include GLN (Global Location Number) for common location and GTIN (Global Trade Item Number) for individual product identification.

While GLN provides the foundation for data normalization, GTIN is much more granular, giving IDNs new transparency and insight into every product, from the moment of purchase to its use at the point of care—wherever that is across the IDN's care delivery network. For example, the GTIN can reveal the product's unit of measure and which patient is connected to the product's use.

The GTIN is even useful for managing product recalls, which is a growing challenge for health systems everywhere. The GTIN not only tells the IDN where a product is, but when and where it was purchased (critical information to determine if a particular product is affected by the recall notice).

Together, the GS1 components create a common language—a 'Rosetta Stone' for the healthcare supply chain. Adopting GS1 enhances supply chain visibility, drives opportunities for cost savings and improves patient safety. It is the language of the supply chain—a common language that everyone understands and is beneficial to the healthcare industry overall.

Once products are identified via GS1 standards, how does this information stay up to date? After all, companies update their offerings constantly, adding new products, deleting others, making improvements and more. GS1 standards wouldn't do anyone much good if they didn't keep pace with a company's changing product catalog. And that's where data synchronization comes in, via the GS1 GDSN®: Global Data Synchronization Network. When a company makes a product change, that information is instantly updated throughout the GS1 world, so trading partners always have the most up-to-date data in their systems. Global synchronization makes it faster, easier and more cost-effective for trading partners to do business together. And that is the foundation of an optimized supply chain.

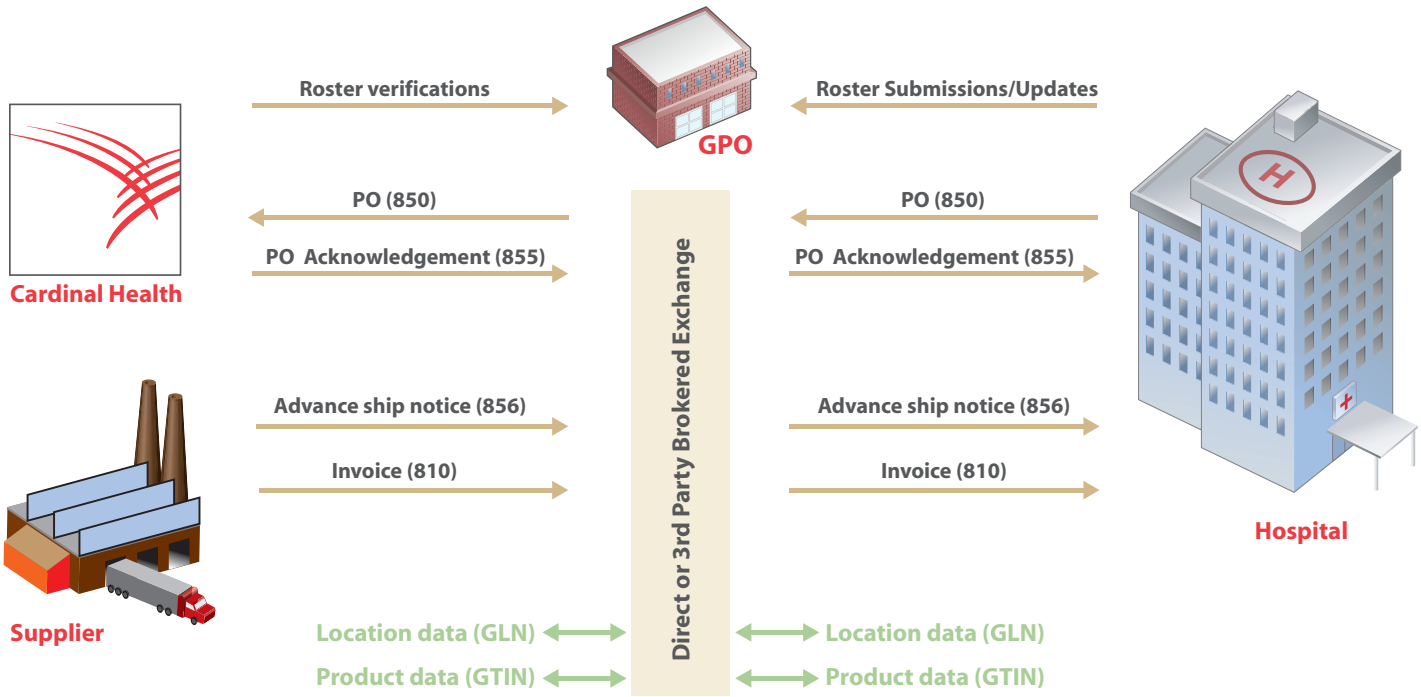
GS1 benefits are well recognized around the world—and not just by consumer packaged goods companies. Case in point: Japan's entire healthcare industry has already adopted GS1 standards. Yet, healthcare as a whole has been slow to embrace the change—even though there is ample evidence that GS1 works. For example, the supply chain efficiencies of global leaders such as Apple are built on the fundamentals of a common product identification language. "As efficient as healthcare thinks it is today, we have a long way to go to match Apple's supply chain," Abrams said. "Others have proven that GS1 works, and it's healthcare's turn to embrace it."

Forward-thinking IDNs are doing just that: Many IDN leaders recognize the importance of common data standards and are working with their trading partners to leverage the efficiencies of GS1. For example, Cardinal Health has integrated GS1 standards into its recent SAP transformation and is working with health systems that have already begun to adopt GLN and GTIN standards. The benefits are clear: Suddenly, these providers have total visibility and can see their aggregate spend across all contracts. There's new efficiency and time savings, because trading partners are 'speaking the same language.' Data normalization even eliminates unit-of-measure errors. For those IDNs that have not yet committed to GS1, they can be comfortable that others have done this already. New adopters would not be setting a precedent for IDNs.

To create a single supply chain across all sites of care, data transparency and normalization is an important first step. And it empowers you to objectively compare products, which leads to the standardization that improves the financial health not only of individual sites of care, but also the integrated delivery network as a whole.

"We simply cannot be satisfied until we improve the availability of products at the point of use, while reducing end-to-end system costs."

Michael Duffy
Executive Vice President, Global Manufacturing and Supply Chain, Cardinal Health



Spotlight on Success:

GS1 at Mayo Clinic

"GS1 is a no-brainer; why wouldn't you do it?" said Joe Dudas, Vice Chair, Supply Chain Category Management for Mayo Clinic. "Without data standards, how can you turn data into information?"

According to a jointly-published white paper in 2010, "Mayo Clinic and Cardinal Health are among the first organizations in healthcare to implement GLN standards in supply chain transactions… Standards adoption is now considered a requirement for effectively controlling both cost and quality in healthcare going forward… Industry groups like the Association for Healthcare Resource & Materials Management (AHRMM), Health Industry Group Purchasing Association (HIGPA), Healthcare Supply Chain Standards Coalition (HSCSC) and Strategic Marketplace Initiative (SMI), as well as various integrated delivery networks (IDNs), group purchasing organizations (GPOs) and suppliers have all endorsed GS1 standards… Industry-wide implementation of data standards such as the GS1 System can improve supply chain integrity."

Mayo Clinic's top 25 suppliers are adopting GLN. "This is now the norm, and account numbers are the exception," Dudas said. The first GTIN implementation is also underway: "We're doing one category at a time, starting with the most complex, volume-heavy ones," Dudas said.

The Mayo Clinic/Cardinal Health white paper reveals the benefits of GLN: "Price accuracy improves with location identification accuracy. Location identification errors can cause loss of discount eligibility, as well as tier qualification and rebate disputes… price accuracy is currently 99.5 percent. All other suppliers average 95 percent accuracy. Superior price accuracy is attributed to not only GLN, but also to the commitment that both organizations make to price integrity and associated improvement efforts."

"GS1 is a no-brainer; why wouldn't you do it? Without data standards, how can you turn data into information?"

Joe Dudas,
Vice Chair, Supply Chain Category Management
Mayo Clinic

Collaborate

More than a vendor

What can a supply chain company do to support IDN growth, from acquisition through integration of new assets? The voice of IDN executives is loud and clear:

Make it easier: Support rapid growth by creating a single-source distribution path for a single-source IDN network. For example, have a single, strategic relationship for not only basic distribution services, but also Lean Six Sigma expertise, data transparency, price synchronization, product standardization, standardized clinical/lab protocols, a single electronic medical record (EMR) and so on.

Know the difference: The worlds of acute and non-acute care are very different, and that includes the supply chain. Adding a non-acute site of care—and supporting it with the products it needs—is not the same as adding a new department in a hospital. The products and distribution infrastructure is fundamentally different, and that's just for starters.

Work faster: As IDNs rapidly expand their networks to better manage the patient populations they serve, anticipate and align with this growth. In other words, meet the need for speed. Data analytics, standardization, equipment templates and formularies are good places to start.

Help us compete: Work with us to build the health system that attracts and retains the most highly regarded physicians and practices, especially in the specialties.

Be the business foundation: Provide the 'back office' services that non-acute sites and their clinicians need, so they can integrate more efficiently into our operations and can focus more on providing quality patient care. "As IDNs acquire more and more clinics, their staff is being asked to do things outside of their traditional scope," Szado said. "They generally aren't familiar with the sophistication of an IDN's supply chain and ordering processes, so we're here to help facilitate that."

"As the business behind healthcare, we do more than recommend new ways to improve supply chain efficiency and costs," said Mark Rosenbaum, Chief Customer Officer for Cardinal Health. "We collaborate closely with our customers to implement these innovations, measure results and continually improve. You can't do that from behind a desk. You have to work side-by-side with customers every day, walking the hospital floors and looking for every new opportunity to lower costs while maintaining the quality of care. Teamwork is the key to success in the new world of healthcare."

"Teamwork is the key to success in the new world of healthcare."

Mark Rosenbaum
Chief Customer Officer, Cardinal Health

Spotlight on Success: Non-acute growth at Norton Healthcare

Norton Physician Services (NPS) is the non-acute care network of Norton Healthcare, the leading health system in the Louisville, Ky., area, with 46 percent market share. And at NPS, the prognosis is growth.

"We have more than 170 locations now," said Paula Sheets, director of Materiel Management for Norton Healthcare. What is the secret to such rapid growth? "We allow the doctors to be doctors, and we take care of the business operations side," Sheets said.

In fact, NPS's progressive employment model has made Norton Healthcare a regional leader in attracting and retaining physicians.

"The idea was to establish a model that would allow medical providers to focus their time and energies on providing exceptional patient care and let the organization be responsible for the business side of the operation," said Ginger Figg, president of NPS. "Over the past 15 years, many health systems have been in and out, and in again, with the strategy of employing medical providers. Norton Healthcare has not only maintained a viable employment model but has built upon it to be the successful model it is today."

NPS physicians agree: "An increasing number of physicians are attracted to the employment model because it lets them focus on quality patient care rather than the complex and time-consuming business aspects of running a physician practice," said Mary Ann Henry, M.D., one of the founding physicians of NPS, which was created in 1995.

To help simplify business operations, Sheets maintains the same formulary for every site of care. As she puts it, "it's the same cotton ball for everyone." From the 80,000+ products available from Cardinal Health, Sheets narrows it down to about 3,500. Practice managers order online and can see and pick only from those 3,500. All products are first evaluated by a clinical team, the Norton Physician Services Council.

Because of rigorous vetting, "I rarely have a problem with a doctor who says, 'I can't use this product,'" Sheets said. It's also important to recognize that change is inevitable. "A formulary is a moving target, not stationary."

When a new physician office is added to the network, it presents a product list to Sheets. She cross-references it with the NPS formulary. If the product or its clinical equivalent is not in the database, only then can the new product be added to the formulary. Of course, it still must meet NPS guidelines for quality, safety and cost. While naturally it's a consideration, "We never buy on price alone," Sheets said.

Cardinal Health is the primary supplier for the divisions' 170-plus locations. "You get a level of collaboration that you wouldn't have with multiple vendors," She said. "I like having one delivery, and one invoice. When there's a recall, I can check one place to see how I'm affected."

Above all, Sheets recognizes and manages the difference between non-acute and acute sites of care. "Ambulatory is very different from acute," she said. "If the hospital is a square, then the ambulatory site is a circle feeding into that square."

NPS's goal is to cut costs by 10%, "and it's hard to pull from contracts alone. You have to change the way you practice. If all you're doing is cutting product costs, you'll never make your savings goal. You have to change your processes. And if you put the patient first, you'll always come out making the right decisions," Sheets said.

Sheets uses the example of a patient sitting on a three-legged stool, with NPS, Cardinal Health and vendors comprising the three legs. "If it's a win-win for everyone, then it's a successful outcome for the patient."

Piloting an ACO

Norton Healthcare and Humana are one of only four national pilot sites, and the only one in Kentucky, to study the Accountable Care Organization (ACO) model through the prestigious Brookings-Dartmouth ACO Pilot Project. According to Norton Healthcare, the goal of the pilot is to eliminate waste and unnecessary (or misused) care, while improving patient flow through the health system and increasing efficiency and quality. By following the evidence-based (EBM) guidelines of the ACO, physicians can improve both diagnoses and treatment plans. The pilot is producing results: In 2012, it was recognized for improving patient outcomes via increased utilization of clinical laboratory tests.

Thinking in new ways

The healthcare industry has talked about the growing importance of non-acute assets for more than ten years. Now, the future is here.

IDNs used to see non-acute centers primarily as sources of new referrals—in other words, 'keeping the patient in the family'. Now, a growing number of health systems are seeing non-acute facilities as a source for higher-margin profits than are possible in acute settings today.

The biggest challenge for this growing integration is the cultural divide between hospitals and doctors. "We have to understand that they are two very different businesses," said Matt Rowan, President and CEO of HIDA. The key to bringing them together is to align and integrate incentives. Rowan recommends a "light touch" when introducing best practices to newly acquired practices, to help maintain physician satisfaction. To connect acute and non-acute sites of care, "doctors are the solid linkage," Rowan said.

Another challenge is that, as IDNs expand into alternate sites and specialty care, the supply chain becomes more diverse than ever before. "Having one nice, neat package is counterintuitive to the way networks are being built," Rowan said. As the supply chain adds complexity, "look for special expertise for each new area. There isn't a one-size-fits-all strategy… but silos can be appropriately aligned and linked" to gain efficiency and cost savings.

From a distribution standpoint, physician offices pose their own unique challenges, according to Tracy Howard, Vice President of Marketing and Strategic Planning for Cardinal Health. "For example, doctors are less concerned with national brands and want low-cost high quality products. At the same time, they do have some clinical preference items, such as sutures. So a distributor has to fill both needs." Technology can also be a challenge: "Smaller practices—those with one to five physicians—are typically less sophisticated when it comes to technology," she said. "A nurse or office administrator may work from a 'shopping list' and rely on their sales representative to order. And because of cost and storage space concerns, they want the lowest unit-of-measure possible." Contrast that to ambulatory surgery centers, which may focus on being GPO compliant and want to make sure they're paying contract prices, Howard added.

Finally, there's the challenge of distance. As site acquisition expands an IDN's geography, the supply chain needs to remain reliable and strong.

Bringing the doctors on board

The pure revenue of physician offices is not significant to the bottom line—relative to the financial impact of acute care —but the doctors' *influence* is, according to Adams. Particularly as care shifts away from acute and into non-acute settings as appropriate, the physician will play a significant role in where patients are funneled to ensure they receive the best care at the best cost.

According to Adams, one motivation to gain physician buy-in to the *business side* of the IDN is to provide bonuses for lowering the *total* cost of care *system-wide*. Giving physicians a stake in the game will help drive such essential business strategies as standardization and utilization throughout the health system, from non-acute to acute.

The key challenge: How do health systems compete for the best physicians, particularly in specialties such as oncology, cardiology, nephrology, orthopedics and so on? One approach is to provide newly-acquired physicians resources and some control over building their businesses, according to Rhonda Rivera, Manager of West Territory Sales for Cardinal Health.

Focusing on non-acute spend

A health system's non-acute spend might be only a few percentage points of total cost, so it may not seem like a vital area of focus. But the rationale for managing it more closely has a far-ranging impact on the entire health system. When providers connect non-acute spend to acute—and manage them both together—they create a *single system* for sourcing and distribution. That means having a single supply chain across all sites of care and the same supplies everywhere. Via system-wide standardization, providers create more efficiency and lower the *total* cost. Plus, the more non-acute sites that IDNs can shift to profitability (from being 'in the red' or just 'breaking even'), the bigger the impact on the overall bottom line. Shift several dozen to profitability, and the difference is real and significant.

"There isn't a one-size-fits-all strategy… but silos can be appropriately aligned and linked."

Matt Rowan
President and CEO, Health Industry Distributors Association (HIDA)

Fee-for service: embracing the trend

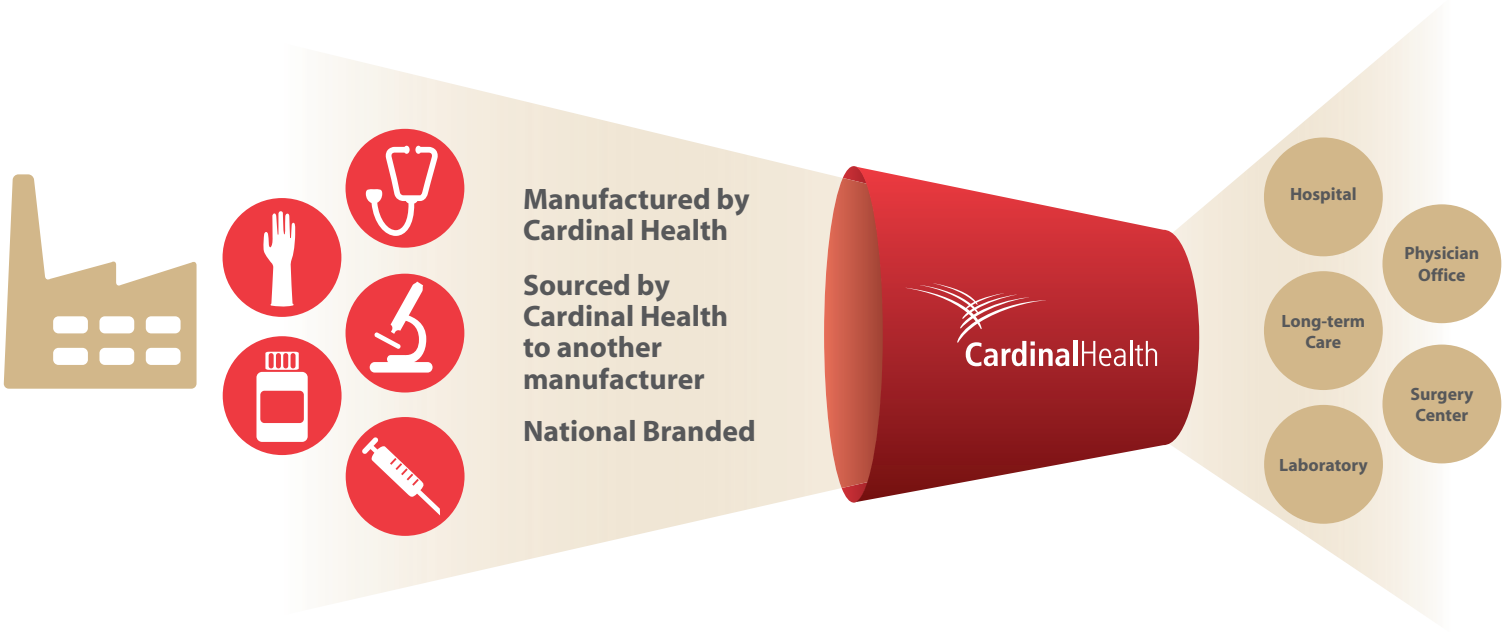
Supply chain executives are familiar with the traditional cost-plus model, in which each product typically has a markup of a specified percentage, regardless of the actual cost to deliver that product to the point of care. But there is no set mark-up with the fee-for-service model. Instead, the distributor is compensated for *actual* costs incurred to move the product from the manufacturer to the provider, such as labor, administration, transportation and so on.

Naturally, actual costs vary for a product based on where it is delivered in an IDN network. For example, delivery costs to non-acute sites are typically higher than those for acute sites. To have a clear picture of this cost variation, many IDNs require distributors to have costing transparency. When it's in place, IDNs can see that they're paying the same GPO price for an item, regardless of its ultimate destination in the network. The total cost will then be determined by that final destination.

To lower the total cost, health systems and distributors typically agree on joint incentives that reward both for being more efficient. So they look closely at streamlining the activities that determine fees, such as number of purchase orders placed, lines picked and products delivered. Quite simply, the less activity required, the lower the fees. For example, if the number of lines picked is reduced to a certain threshold—but the dollar volume remains the same—the provider may benefit from lower fees. The incentive structure is unique to every provider-distributor relationship.

Lowering total costs via product management

If standardization is a key to lowering costs, what is the key to standardization? To start, IDNs can develop a product management (also called 'category management') strategy that provides a transparent, objective view of both the clinical relevance and total cost of every product in the mix. This strategy can be a roadmap for how to prioritize and standardize products across the entire health system.



From a collection of products to a comprehensive strategy: *The right distributor can help IDNs develop the most effective product mix for each site of care, lowering costs while ensuring clinical efficacy.*

Innovate *cont.*

First, organize products by their clinical relevance and impact on patient care, from no significant impact to high. This classification assumes that the product meets its essential functional requirements and is of acceptable quality:

Clinical relevance/Patient impact	Examples
Very limited to none	Plastic basin
Limited to moderate	Surgeon glove
Potentially high	IV catheter
Very high	Implant

Standardizing the most clinically impactful, often higher priced items—while more challenging—is also becoming more important, as health systems seek to contain costs everywhere possible. The traditional view is that these items are more difficult to standardize, because of 'physician preference': However, surgeon gloves should be easier to standardize than an implant.

Two proven ways to lower total product cost:

1. **Aggregate volume for greater leverage** and a better negotiating position; for example, standardizing to only one brand of exam gloves across the entire health system, at every site of care.
2. **Standardize not only products,** but also care protocols across all sites, for consistency. For example, if a clinician moves from one site of care to another, the same IV start kit is there. The familiarity saves time and creates an instant comfort level.

So how can IDNs make the best case for standardizing products? "The key is to focus on the potential patient or clinical impact of a product, versus an emotional attachment to it," said Isabelle Billet, Senior Vice President, Marketing & Innovation—Category Management. "Data is important" for supporting product standardization, but the data needed to demonstrate quality and efficacy is different depending on the clinical impact of the product. At that point, it's up to the health system to adopt the transition: "The system may want to rethink how they evaluate their categories across all sites of care and how they organize around it to enable unified decision making across the entire system. This approach could be different based on the clinical or patient impact of a product," Billet said.

As an IDN reimagines its product mix, what is the surest path to success? "Focus on good quality, no matter where it comes from," said Lisa Ashby, President of Category Management. "A system doesn't need seven suppliers that provide the same thing. What is the one supplier that delivers the best combination of quality and cost?" By looking at patient outcomes first, IDNs have an objective system for lowering expenses via standardization. And that is the key to creating a better patient experience at the best possible cost.

Seeing the future

To help providers improve patient care while lowering costs, trading partners require a new level of understanding, collaboration and discipline. This new approach includes not only logistics expertise, but also the operational excellence achieved from Lean Six Sigma processes—and the greater insights gained from data analytics. "We can see the future," said Jon Giacomin, President of U.S. Pharmaceutical Distribution at Cardinal Health. "And it challenges us to quickly move beyond pockets of individual success among the various trading partners to full collaboration and execution across the value stream. While this may sound like a lofty goal, the exciting part is we're already seeing it happen in many places today—connecting and optimizing the value stream from the manufacturer all the way to the patient bedside."

Adapt

Seeing around corners

Evolving to a new care delivery model:

The message is clear for health system executives: thinking, acting and organizing in a traditional way is a clear path to exacerbating the financial challenges that IDNs face today. Waiting on the sidelines is not the answer, either—because healthcare will continue to evolve whether health systems adapt or not.

IDN leadership needs to actively review current capabilities, assess readiness for emerging models and determine the care delivery model that will work best for the unique needs of the patient population and health system that serves it. Care delivery models include:

Accountable Care Organization (ACO): Ties provider reimbursements to quality metrics and the total cost of care for a defined patient population. "Interest in ACOs is exploding again," Adams said. "Private payors are moving to the ACO model, because it's a great way to measure efficiency, quality and patient satisfaction."

Bundled Payments: The entire care delivery team is compensated by a single, 'bundled' payment, which motivates each provider to deliver quality care more efficiently and cost-effectively. Key benefits include market share upside, physician alignment, shared accountability across the health system, incentives to control costs and increased product and process standardization.

Pay-for-Performance (Value-Based Purchasing): While traditional efforts to negotiate product price discounts may lower costs, they do little to ensure the quality of care is maintained or even improved. Value-based purchasing holds providers accountable for both cost and quality of care, revealing the tie between patient outcomes and the expenses to achieve them.

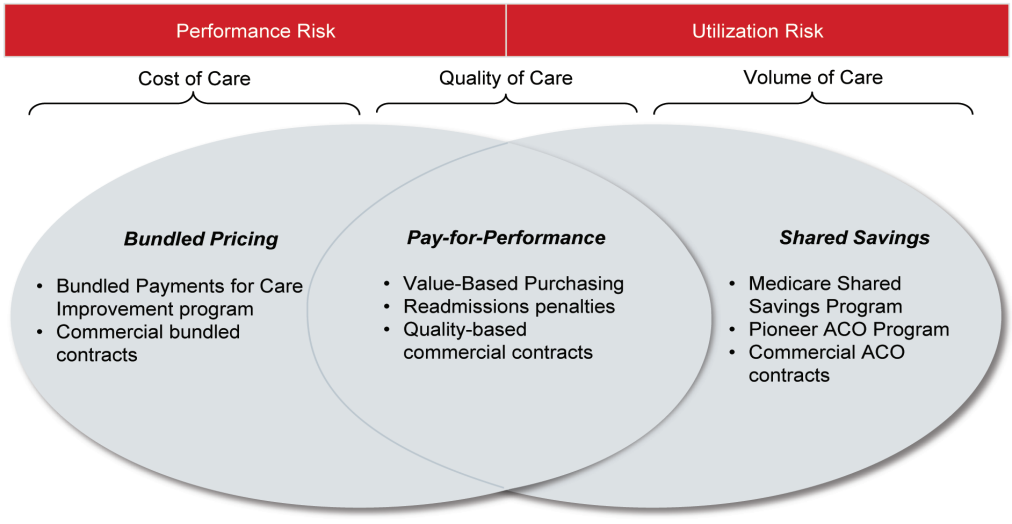
Shared Savings: If the IDN reduces costs below what the payor (such as Medicare) would have expected to pay, the IDN can receive a portion of the savings. The result: lower costs for the payor and more revenue for the IDN.

Better alignment with acquired sites of care:

From a cost containment standpoint, the affiliations among newly-acquired assets will "remain loose" until there's greater data connectivity, according to Inacker. "They're still acting autonomously for now, but this will change. Once remote locations are tied to a common data platform, the IDN will have more control over the information, and that will create the transparency that will lead to the standardization and formularies that will improve both costs and quality of care."

When all sites are connected electronically, IDNs will have the data transparency to thoroughly integrate standardization and formularies, monitor utilization and improve the cost/quality equation. Distributors can help facilitate the connections, gather/analyze data and help system executives make better decisions faster as market conditions change and their cost control strategy needs to adapt. "A distributor can assist, but the IDN still has to make the connections work," Inacker said.

Accountable Payment Models



Source: Health Care Advisory Board interviews and analysis.

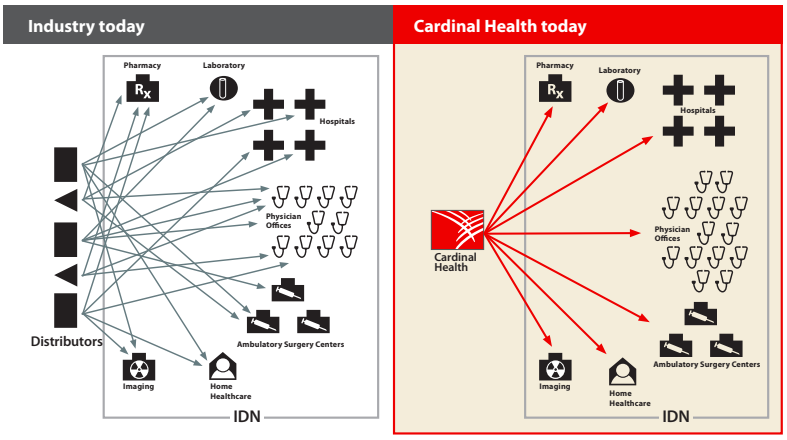
"To maximize savings and efficiency today, and to 'follow the patient' to provide exceptional care, providers need a tailored set of best-in-class operational, clinical and analytical solutions that work across the continuum of care."

Jon Giacomin
President, U.S. Pharmaceutical Distribution, Cardinal Health

About Cardinal Health

Cardinal Health is a healthcare services company uniquely positioned to help IDNs build a single-source network to better manage patient populations. "We have structured our network and capabilities to support an IDN-centric network that will best serve our customers. We can ship in logical unit of measure or full pallet to acute care sites, partial pallet or small bulk into surgery centers, ship parcels to physician offices and clinics, perform desk top deliveries to labs and other specialty areas, and much more," Inacker said. "We are a key enabler to help IDNs understand the full benefits they can receive from integration. And then, help these IDNs achieve them."

The right distributor can help you create and maximize the value of a single supply chain, lowering costs and improving efficiency across every acute and non-acute site of care. For example, Cardinal Health conducts Joint Value Creation Assessments in which data and processes are compared with national benchmarks—providing a roadmap for optimization. When a distributor can make a customer's value stream flow better across the entire healthcare system, there's true collaboration. And that's the essential step for connecting and optimizing a single supply chain and achieving greater success in the new world of healthcare.



A simple supply chain is a more efficient supply chain. *As the business behind healthcare, Cardinal Health streamlines supply chain processes across the entire continuum of care—saving time and money everywhere. So clinicians can focus on what matters most: taking care of patients.*

The way to successful growth today

Across America, IDNs are making the most of the consolidation trend—combining their growing acute and non-acute sites of care into a single, comprehensive care delivery strategy, creating a better patient experience at the best possible cost. For more information about how Cardinal Health can support your own IDN's growth strategy, please visit www.cardinalhealth.com/healthcaresystems.

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cardinalhealth.com

Cardinal Health
7000 Cardinal Place
Dublin, Ohio 43017