Parkview Health Revolutionizes Approach
to Pharmacy Supply Chain Integration

SUCCESS STORY

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About **Parkview Health**

Parkview Health is a not-for-profit, community-based health system serving a northeast Indiana and northwest Ohio population of nearly 950,000. Its mission is to improve health and inspire well-being in the communities it serves. Parkview Health consists of 12 hospital facilities, four retail pharmacies, a specialty pharmacy and an extensive network of primary care and specialty care physicians. With more than 15,000 co-workers, it is the region's largest employer.

Not-for-profit
Health system

12
Hospital facilities

4
Retail pharmacies

15,000
Co-workers

Perception

Pharmacy is too complex and heavily regulated to be part of a health system's overall supply chain; therefore, its operations must stand alone.

Reality

A health system can gain visibility and control over both its drug and medical/surgical supply chain operations through a single enterprise-wide solution, as evidenced by the success of Parkview Health.

Executive **Summary**

Parkview Health has achieved what many have long believed impossible: integrating pharmaceuticals into its broader healthcare product supply chain processes to gain global visibility and drive informed decision-making. This groundbreaking work has placed the health system in a national leadership position for building an end-to-end, automated and digital supply chain across its network.

Named one of the country's "Most Wired" healthcare organizations for the ninth consecutive year, Parkview Health is no stranger to innovation.[1] Bringing greater control and visibility to the pharmaceutical supply chain is the latest success in a series of supply chain initiatives aimed at enabling the health system to not only survive, but thrive, in the face of rising supply costs and shrinking reimbursements.

With complete transparency into all supply purchases and inventory — medical/surgical (Med/Surg) and pharmaceuticals — Parkview Health is driving down costs, increasing efficiencies and capitalizing on savings opportunities, all while ensuring clinicians have the products they need for patient care.

Although Parkview Health's Supply Chain and Pharmacy teams faced some resistance along the way when pursuing this "revolutionary and fundamental change," they never faltered. They pushed forward in the belief that legacy systems and processes could no longer sustain the growth or maturity of the health system's operations.

This case study documents their journey at each step of the way, offering lessons learned and best practices for other health systems pursuing enterprise-wide supply chain modernization.

Leading the efforts

Donna J. Van Vlerah
Senior Vice President, Support Division
Parkview Health

Donna J. Van Vlerah is the senior vice president of Parkview Health Support Division, with responsibility for Supply Chain, Pharmacy, Security, Emergency Management, Environmental Services, Nutrition Services, Facilities, Mirro Conference & Event Center. She is also president of the board of directors for Hospital Laundry Service. Van Vlerah joined Parkview Health in 2010 from ITT where she was chief compliance and ethics officer in the Space Systems Division. She previously served a 20-year career in the U.S. Marine Corps as a logician, specializing in Supply Chain, Facility Maintenance, and Change Management.

Van Vlerah holds a Master of Arts in Military Science from the Marine Corps University and a Bachelor of Arts in Education from Bowling Green State University. She is also accredited by AMP and SCCE as a certified compliance and ethics professional (CCEP), Dean S. Ammer Healthcare Awardee and is a practicing Lean Six Sigma Black Belt.

Chris Jellison
Vice President, Pharmacy
Parkview Health

Chris Jellison is the vice president of Pharmacy for Parkview Health, where he is responsible for overseeing all pharmacy activities across the healthcare enterprise. During his 40-year career with Parkview Health, Jellison has held various leadership positions with responsibility for strategic planning, pharmacy operations management, technology and information system implementations, revenue cycle management, purchasing/procurement, USP and 340B, and acute care and ambulatory pharmacy-provider integration.

Jellison received his bachelor's degree in Pharmacy from Purdue University and his master's in Business Administration from Indiana Wesleyan University.

[1] https://www.parkview.com/about-us/news/news-story?news=214#:~:text=For%20the%202022%20survey%2C%20Parkview,country's%20 Most%20Wired%20healthcare%20organizations. *Link →*

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The **Challenge**

For health systems questioning whether they are spending far more on pharmaceuticals these days, the answer is a resounding "yes."

Over 1,000 prescription drug prices in 2022 exceeded the rate of inflation with some increasing by more than $20,000 or 500%.[2]

At the same time, healthcare is facing the highest rate of ongoing and active drug shortages in nearly a decade, including local anesthetics, basic products like antibiotics and chemotherapy drugs.[3]

Like most health systems, Parkview Health's pharmacy resided on its own island with only rudimentary inventory management capabilities through its enterprise resource planning (ERP) system. Lack of visibility and control resulted in frequent overordering, excess inventory and returns, potential overpayments to wholesalers and suppliers, and a massive amount of non-value-added work for the Pharmacy team.

While they couldn't pinpoint all the exact gaps in the pharmacy's supply chain because of lack of transparency into its processes and data, Jellison and Van Vlerah instinctively knew there were significant opportunities for greater efficiency and cost savings.

Obstacles to overcome

The Parkview Health pharmacy ERP system mostly contained drug products purchased through the health system's wholesaler and approximately 60% of its overall pharmaceutical inventory was managed by a perpetual inventory system. The Pharmacy team was able to manage min/max levels for these items through the ERP and upload orders via a wholesaler's web interface.

Procurement, inventory management and replenishment processes for the remaining 40% of drugs outside of the ERP were reliant on pharmacy staff members manually creating and sending POs to the suppliers, counting items on shelves (or someone alerting them to stockouts) and attempting to maintain the required levels of products in-house to meet demand.

For both items within and outside of its ERP system, the Parkview Health Pharmacy team did not have the capability to perform a three-way match between PO, PO acknowledgement (POA) and invoice. They had no automated way to confirm the health system was paying the correct prices for drug products based on class of trade, which is ever-changing due to the nature of the pharmaceutical marketplace.
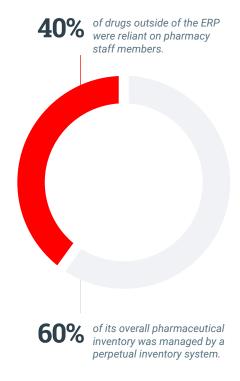
And with no true receiving functionality within the ERP, the Pharmacy team struggled to confirm whether items inside or outside of the ERP ever arrived at their doors. They used a "work queue" to document when received products were put away. But if they did not document receipt of all items prior to when the next day's orders went out, they ran the risk that they would reorder items in the belief they never arrived. This led to overordering, excess inventory, waste and returns.

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"In this era of bottom-line pressures, pharmacy leaders must be more business savvy than we've ever been before. We can't afford to not evolve with healthcare. As uncomfortable as change might be, the consequences of not changing have the potential to be a lot more uncomfortable."

Chris Jellison
Vice President, Pharmacy
Parkview Health

40% of drugs outside of the ERP were reliant on pharmacy staff members.

60% of its overall pharmaceutical inventory was managed by a perpetual inventory system.

[2] Price Increases for Prescription Drugs, 2016-2022, Assistant Secretary for Planning and Evaluation (ASPE), Office of Health Policy, September 30, 2022. *Link →*
[3] Drug Shortage Statistics, ASHP. *Link →*

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The **Opportunity**

Van Vlerah had a broader vision for Parkview Health's supply chain.

The U.S. Marine Corps veteran, who directed logistics during Operations Desert Storm and Desert Shield, has leveraged government best practices in supply management to transform Parkview Health's medical/surgical supply chain operations.

Beginning in 2010, she has been leading an initiative in partnership with Tecsys that has resulted in the establishment of a consolidated service center (CSC), and implementation of an enterprise-wide, automated supply chain management (SCM) solution for Med/Surg supplies. The SCM solution encompasses warehouse, distribution and transportation operations, item tracking from receipt through point of use (POU), and demand planning.

The question became: Could Parkview Health achieve the same level of visibility, control, cost savings, efficiencies and waste reduction in its pharmaceutical supply chain?

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"We recognize that pharmacy is one of the most critical elements of both expense and revenue for healthcare systems. If you think about the spend you have in pharmacy, it's significant. So why would we manage it any less effectively and efficiently than we would the Med/Surg supply chain?"

Donna J. Van Vlerah
Senior Vice President, Support Division
Parkview Health

"There was an evolution going on in supply chain that didn't translate to pharmacy initially, and it was a pretty big eye opener for us. While we thought we had a decent inventory management system, when you compared it to what was really going on in the supply chain industry, the gaps were jaw-dropping."

Chris Jellison
Vice President, Pharmacy
Parkview Health

Results of Parkview Health's partnership with Tecsys for Med/Surg supply chain optimization:

$8M
Minimized obsolescence with a potential savings of over $8M per year.

$193M
Reclaimed over $193M of uncharged supplies to become billable items over a ten-year period.

$46K
Helped capture over $46K a day in unclaimed revenue.

50%
Reduced manual work by 50%.

8%
Reduced non-catalog items by 8%.

Objectives for Success

Building on the success of Parkview Health's Med/Surg supply chain execution platform and strategic visibility, Van Vlerah and Jellison aimed to modernize and centralize the health system's pharmacy supply chain.

The objectives of this initiative were to:

1. Effectively manage drug spend

With drug prices on the rise, it was critical for health systems like Parkview Health to gain control over pharmaceutical supply spend. Gaining visibility into the procure-to-pay process for all drug purchases (not just those contained within the ERP system) and automating price updates and three-way matches, would help drive accurate purchases and payments aligned with the health system's contracts.

2. Improve inventory management

Parkview Health wanted real-time visibility into all drug products at every stage — from the moment they are ordered to when they are received and stored. With this knowledge, they could make data-driven purchasing decisions to support patient care while minimizing unnecessary costs and waste.

3. Gain transparency into operations

The Parkview Health Pharmacy team wanted transparency into its supply spend reporting and management to not only gain greater control over it, but also help the rest of the organization understand how its supply chain works, as well as the impact of drug choices.

4. Support continued growth

By integrating pharmaceutical products into its broader supply chain processes and taking advantage of storage space in the CSC, Parkview Health had the room it needed to expand. Furthermore, the economies of scale gained with co-locating Med/Surg and Pharmacy centralized distribution and automated processes would help the health system maximize existing labor and non-labor resources.

ACCURACY

REAL-TIME VISIBILITY

TRANSPARENCY

GROWTH

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The **Solution**

Finding the right technology

Jellison and his Pharmacy team had spent some time looking for a new pharmacy ERP solution with more robust supply chain management capabilities but found none that met their needs.

A change in the health system organizational chart, where Jellison began reporting to Van Vlerah, prompted Jellison to realize the solution for pharmacy might already be in-house with Parkview Health's SCM solutions provider Tecsys.

The **Initiative**

Parkview Health's Logistics team, overseen by Van Vlerah, and Pharmacy team, led by Jellison, embarked on an initiative with Tecsys to design and deploy an integrated procurement and inventory management system that supports increased inventory visibility by planning and reporting on pharmaceutical supplies. In essence, they would extend the groundbreaking work done with Parkview Health's Med/Surg supply chain into the pharmacy.

The new pharmacy supply chain ecosystem would enable Parkview Health to capture demand, auto-generate replenishment orders, source best drug pricing benefit, and manage purchasing and vendor invoice matching through EDI, while ensuring regulatory compliance.

Allocating resources

To keep the initiative focused, on track and moving forward, Van Vlerah, Jellison and Tecsys allocated resources from their teams. For Jellison, it was critical to assemble a project team comprised of pharmacy staff members who were most passionate about building a pharmacy supply chain that would support the future of the health system.

These subject matter experts (SMEs) played an essential role in helping Parkview Health and Tecsys develop a pharmacy-specific model that addressed some of its unique needs. This included compliance with regulations such as the U.S. Food and Drug Administration's (FDA) Drug Supply Chain Security Act (DSCSA).

With regards to drug pricing, pharmaceuticals in the U.S. are often priced based on what type of entity will be using the drug. For example, retail pharmacies can have one price, an acute care hospital can have another price (or multiple prices), and an outpatient ambulatory center could have yet another; these are only three entity types that are part of Parkview Health.

"The pricing for a drug may be the same or different from facility to facility so we needed a partner like Tecsys who could manage those different classes of trade," **said Jellison.** *"We needed to not only satisfy those requirements but also assure our distributors that we have tight enough controls to do so."*

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> *"It was making sure we had those people at the table who could identify the things that are important in managing the pharmacy supply chain, like storage requirements, cold chain transportation, repackaging and the impact of repackaging on obsolescence."*
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> **Chris Jellison**
> *Vice President, Pharmacy*
> *Parkview Health*

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Managing change

While Van Vlerah and Jellison both believed it was in the health system's best interest to extend its digital supply chain into pharmacy, some Pharmacy team members required some convincing. There is a pervasive belief throughout the industry that pharmacy must stand alone in its supply chain operations because it has challenges and processes that are unique from Med/Surg.

To help overcome this challenge, Jellison started with the "why" when describing the work to extend supply chain centralization and automation into the pharmacy. He created a "burning platform" to get his team inspired and truly invested in the change.

He was careful to describe in detail the phases of the project and its impact on operations so his team could, in his words, "separate that chaos that's going on with a change process from the day-to-day chaos that is the life of a pharmacist in a hospital."

Scoping and mapping the project: an "aha" moment

Once the Supply Chain, Pharmacy and Tecsys teams were aligned on where they wanted to go with the initiative, the next step was to scope and map it. As Jellison described, there was initially frustration and confusion when attempting to map Pharmacy and Med/Surg supply chain processes to uncover similarities and synergies, understanding there were still differences to be addressed.

It came down to translating everything into a common language that was understandable to everyone involved.

"There was a lot of back and forth and at times it felt like we just kept moving further apart and this alignment would be an insurmountable obstacle to success," **Jellison explained.** *"Then someone said something along the lines of, 'OK, let's just take a deep breath. We are calling it this, you are calling it that, it looks like this, and they are kind of the same thing.' We had a couple more meetings with that kind of tone and realized that Med/Surg and Pharmacy supply chain processes aren't so different."*

Expanding centralized storage and distribution

Parkview Health had set the stage for centralized storage and distribution of drug products during the COVID-19 pandemic. The Pharmacy team had made bulk purchases of items in short supply, which they stored in the health system's CSC.

To effectively bring these drug products into the fold of Parkview Health's centralized supply chain processes, the health system needed to deploy additional hardware in the CSC, such as carousels and packaging machines. Tecsys had the task of collaborating with equipment vendors to integrate its SCM software with these platforms. They worked in partnership with Parkview Health's IT and Data Operations teams to ensure data flowed seamlessly from one system to the next.

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"One of our bigger lessons learned was the level of complexity in the pharmaceutical world. There was a learning curve that had to take place for us to move forward. There are a lot of commonalities but helping the teams get aligned and collaboratively work together between Pharmacy, Supply Chain and Informatics was something that has helped us become a better organization."

Donna J. Van Vlerah
Senior Vice President, Support Division
Parkview Health

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Jellison and Van Vlerah made the decision to establish a team to manage centralized distribution in the health system's CSC that was separate from the hospital Pharmacy team. The rationale behind this choice was that it first provided the capacity for the health system to grow its pharmacy supply chain operations.

As a result, 85-95% of staff members managing pharmaceutical supplies in the CSC came from Parkview Health hospitals, while the rest were sourced from external central fill operations.

Testing ... 1,2,3

While some health systems will test several scripts in preparation for an IT solution implementation, the Parkview Health project team went far beyond this model, creating a test environment that was a "carbon copy" of their actual pharmacy supply chain environment.

The project team had the good fortune to have pharmaceutical supplies from the pandemic in Parkview Health's CSC that they could use to test the Tecsys solution in this "quasi-live" environment.

"While we were doing the actual testing, going through all of our scripts and scenarios, we could apply the test system to real products here and there to see how it would work," **Jellison commented**. *"Where the test scripts failed, we had a sense of the real-world impact of that failure and whether it was something we could manage if it happened at go-live. In this way, we kept the project moving forward."*

Training and SOP development

The extensive testing served as a training period for Parkview Health's Pharmacy staff on the Tecsys solution. Having used Tecsys for Med/Surg supply management for two decades, Parkview Health's Supply Chain team was extremely knowledgeable and lent their expertise by training the Pharmacy team.

As they tested and trained, the Pharmacy team developed standard operating procedures (SOP) for the health system's use of Tecsys for pharmaceutical supply management. They translated what they were experiencing into an implementation playbook, which Parkview Health is now using to bring its individual hospital pharmacies on board with the solution.

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> *"It helps ensure we've got people focused on a specific area of our pharmacy supply chain instead of individuals who are cross-trained and split between differing priorities. This avoids putting people in a position where they are not as efficient as they could be because they have to manage two disparate operations in the same location."*
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> **Chris Jellison**
> *Vice President, Pharmacy*
> *Parkview Health*

SOP

As they tested and trained, the Pharmacy team developed standard operating procedures (SOP) for the health system's use of Tecsys.

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Going live with the solution

Parkview Health went live with the Tecsys Elite™ Pharmacy Inventory Management System (PIMS) in November 2022, integrating pharmaceuticals into its broader healthcare product supply chain. According to Jellison, the go-live went smoothly.

"I was thrilled to get on those calls over the weekend as we were migrating from test to production to hear everything was going well," **Jellison stated**. *"As Donna says all the time, our job as leaders is to jump in and remove obstacles that are in the way of our people being able to do the things they want and need to do. So, the fact they weren't banging on doors saying they needed help meant the project was a success."*

Jellison acknowledged that any technology implementation isn't going to be flawless right off the bat, but the Parkview team was confident that Tecsys would work with them to resolve any initial issues and remain on board to help with any growing pains.

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"We got about 80% of the way at our go-live, which got us off the ground. From there, we worked with Tecsys to close the remaining gaps."

Chris Jellison
Vice President, Pharmacy
Parkview Health

The **Outcome**

Parkview Health has achieved what many feel is impossible — collaboration between a health system's pharmacy and broader healthcare product supply chain to deploy a single, end-to-end, electronic and automated solution for both Pharmacy and Med/Surg product management.

The resulting benefits to date include:

Global visibility to drive informed decision-making

Parkview Health has real-time visibility into all drug products, including those purchased from their wholesaler and other suppliers.

Data-driven spend management

With price updates received electronically into the Tecsys solution and automated three-way match between PO, POA and invoice, the Pharmacy and Finance teams can now feel confident that the health system is purchasing drug products at the correct prices. If a discrepancy arises, they have real-time access to data all in one place to identify and resolve the issue.

Support of multiple class-of-trade price points

Parkview Health is capturing all applicable information required for managing multiple classes-of-trade, thus improving its management of medication reimbursements.

Optimized inventory management

They can now track every step in their supply chain, including product receipt. Transparency into drug inventory, with real-time access to supply status in the CSC, drives the Pharmacy team to place rightsized orders that meet clinical demand and avoid the accumulation of excess supplies and unnecessary returns.

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Compliance with regulations

From a regulatory and compliance perspective, the health system has the foundation it needs to meet the FDA DSCSA requirements around tracking and tracing of drug products down to the unit level.

Streamlined workflows and greater efficiency

By automating previously manual processes, Parkview Health has improved efficiency to maximize its pharmacy labor resources.

Significant opportunities for supply savings

With access to actionable analytics on pharmaceutical supply spend and inventory, the Pharmacy team can identify new savings opportunities.

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"Tecsys bridges that [pharmacy and supply chain] gap and takes the question of "ownership" off the table. With Tecsys, there's no reason why Pharmacy can't continue to lead pharmacy supply chain, and Med/Surg continue to lead their own supply chain. It just happens that there's a common platform, one strategic vendor out there, that meets the need of both."

Chris Jellison
Vice President, Pharmacy
Parkview Health

"The one thing I've always said about Tecsys, and that to me is very attractive in the selection of them as a strategic partner, is they are extremely flexible and innovative. While other solutions providers might shy away, Tecsys embraces change. A lot of companies wouldn't be willing to put in the time and effort like the Tecsys team has to support our supply chain vision."

Donna J. Van Vlerah
Senior Vice President, Support Division
Parkview Health

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About **Tecsys**

Since our founding in 1983, so much has changed in supply chain technology. But one thing has remained consistent across industries, geographies and decades — by transforming their supply chains, good organizations can become great.

Our solutions and services create clarity from operational complexity with end-to-end supply chain visibility. Our customers reduce operating costs, improve customer service and uncover optimization opportunities.

We believe that visionary organizations should have the opportunity to thrive. And they should not have to sacrifice their core values and principles as they grow. Our approach to supply chain transformation enables growing organizations to realize their aspirations.

Speak to a Healthcare Supply Chain expert →

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