VueMed MultiCare

aim CASE STUDY AWARD IOT 2026

CASE STUDY

Mastering Multi-Site Clinical Inventory: How MultiCare Transformed Its Supply Chain Operations with VueStat™

Managing clinical inventory across geographically dispersed care sites once required MultiCare's supply chain staff to travel daily between facilities—an inefficient model that couldn't keep pace with the health system's rapid growth. Seeking a smarter solution, MultiCare partnered with VueMed to implement VueStat™, a powerful electronic shelf label solution that connects supply rooms across the entire network in real time. With automated replenishment, instant inventory visibility, and proactive supply alerts at the push of a button, VueStat transformed a manual process into a data-driven supply chain ecosystem. In this case study, discover how MultiCare dramatically reduced manual workload, improved clinician confidence in supply availability, and built a scalable model for managing clinical inventory across the Pacific-Northwest.

EXECUTIVE SUMMARY

In 2024, Multicare Health System (Multicare), one of the largest community-based healthcare systems in the Pacific Northwest, undertook a transformative initiative to modernize supply chain operations across its geographically dispersed non-acute locations. Managing clinical inventory as a multi-site organization had become increasingly unsustainable as Multicare was expanding its services rapidly to meet the needs of growing patient populations.

Alex VandenBroek, Supply Chain Operations Manager for Multicare's non-acute locations, spearheaded and continues to lead this bold and innovative initiative.

To address these challenges, Multicare implemented VueStat™, an electronic shelf label (ESL) technology solution developed by VueMed in 2024. This system digitally connects clinical supply rooms through wireless labels that display real-time item information and enables clinicians or supply staff to signal replenishment needs instantly. Inventory status updates—including backorders, recalls, expiring items, and substitutions—are managed centrally and communicated across all locations simultaneously.

The VueStat pilot at Multicare has transformed supply management from a resource-heavy, manual, and travel-dependent process into a connected, data-driven system. Multicare significantly reduced staff travel and manual inventory tasks while improving supply visibility, clinician confidence, and operational efficiency across multiple care sites.



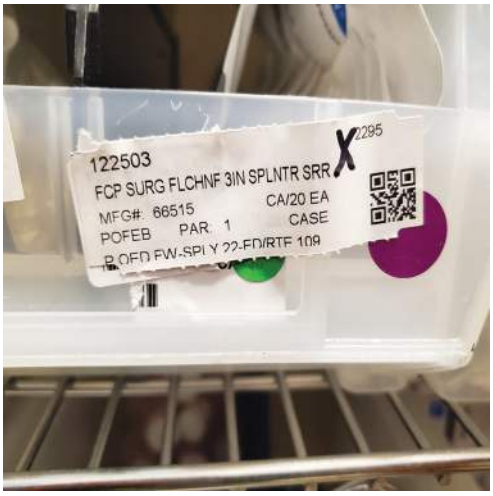
Through this initiative, staff capacity has been redeployed to higher-value work such as optimizing PAR levels, managing vendor initiatives, and directly supporting frontline clinical teams. The result has been dramatic improvements in operational efficiency, clinician satisfaction, stockout reduction, and financial performance.

BACKGROUND AND CHALLENGE

Throughout the country, the healthcare landscape is rapidly evolving to meet the demands of growing and geographically dispersed patient populations. Many health systems are expanding into community-based care sites, rural clinics, and ambulatory locations while operating with limited supply chain staffing resources.

Multicare faced these challenges directly as it continued expanding clinical services across multiple locations throughout the Pacific Northwest. Each site contained multiple PAR supply rooms that had to be monitored to ensure supplies were available for procedures. Prior to the VueStat initiative, supply chain staff were required to travel between facilities daily to check inventory levels, receive and put away supplies, manually reorder products, and maintain supply room organization. This labor-intensive process was inefficient, stressful for staff, and increasingly unsustainable as the health system continued to grow.

Multicare needed a new operational model that would allow supply chain teams to maintain reliable inventory management across a geographically dispersed network without continually adding staff resources.



BEFORE w/Paper Labels



AFTER w/ESL

GROWING ESL CAPABILITIES AND SCOPE

VueStat builds on proven ESL technology in the retail industry by expanding its design and use into healthcare supply environments. In addition to providing critical data display, VueStat functions as a two-way communication tool and applies data analytics to optimize clinical inventory management system-wide, enabling continuous visibility and coordination across supply rooms and care settings.



Each supply bin is equipped with an electronic or digital label displaying key product information on an e-ink screen. Labels are wirelessly connected and centrally managed through cloud-based software, providing and updating readable information remotely and in real time while reporting specific feedback to the cloud for analysis.

The ESLs display all required product details on a label-size screen, using e-ink text, images, QR codes, and barcodes. In the context of clinical supply management, VueStat offers multiple display screens capable of presenting product descriptions, barcode identifiers, inventory status (including on-order, back-order, and out-of-stock conditions), warnings such as recalled or expiring items, bill-to-patient indicators, latex warnings, minimum and maximum PAR levels, and approved substitute products.

A broad selection of screen sizes allows the system to be configured for different environments such as procedural areas, clinical supply rooms, warehouses, and storage facilities. The labels can be mounted on bins, carts, racks, shelves, cabinets, or pallet storage systems depending on operational needs.

VueStat functions as a two-way communication system using Power over Ethernet cabling to power non-intrusive and easy-to-install gateways. Each gateway can communicate with thousands of ESLs, enabling updates to individual labels remotely within seconds through a web-based management portal.

Each ESL also transmits real-time operational feedback through pre-programmed button pushes that signal events such as varying levels of stock on hand, replenishment requests, replenishment completion, and damaged inventory. Supply chain teams can monitor supply levels across multiple locations from a single computer interface and initiate replenishment with a single action across sites.

This is much more than just digital labels replacing paper labels.

CORE FEATURES

Everything you need for comprehensive hospital inventory management

Stock Alerts

Signals low stock and replenishment needs in real time.

Stock-Out Prevention

Enables proactive par level adjustments to avoid stock-outs.

Voice-Activated Tracking

Responds to in-room voice commands to flag items and find them instantly.

Guaranteed Availability

Ensures on-hand availability of needed items for procedures – no more stock-outs.

Description Accuracy

Ensures consistent and accurate display of item descriptions across all locations.

Automated Reordering

Streamlines and automates replenishment and reordering.

Remote Updates

Remotely updates item information and delivers real-time alerts for critical issues, such as backorders and recalls.

Patient-First Focus

Enables clinicians to focus on patient care, rather than inventory management.

QUALITATIVE AND QUANTITATIVE BENEFITS OF VUESTAT

With ESLs wirelessly connected across multiple locations, Multicare established instant, system-wide visibility into inventory levels across its network of care sites. Through VueStat, the supply chain team can automate replenishment with a single button push, helping ensure consistent item availability and clinician satisfaction.

Real-time inventory status—including on-order, back-ordered, out-of-stock, recalled, expiring, and approved substitute items—enables proactive, data-driven decision-making. More than a Kanban update, the solution functions as a communication bridge between clinicians and supply chain teams, strengthening trust, transparency, and accuracy.

The VueStat implementation delivered measurable improvements in operational efficiency and clinical workflow support. Prior to implementation, supply chain personnel spent significant time traveling between facilities and manually managing inventory processes. Following implementation, Multicare achieved reductions in inventory reordering and put-away time, substantial decreases in staff travel and commute hours, faster and more efficient communication of supply status to clinicians, and a major reduction in printed labels and manual documentation.

Within a short period of time, measurable improvements included:

- More than 50% reduction in manual bin-scanning time
- Approximately $120,000 in annual savings from reduced staff travel
- Improved real-time visibility of stock status and substitute products
- Reduced incorrect orders and associated restocking costs
- Faster identification of supplies in crowded storage rooms through blinking LED indicators and voice-activated commands

Perhaps most importantly, VueStat helps ensure that the right items are available and on hand when clinicians need them, supporting clinician satisfaction and better patient care.

TEN KEY METRICS TRACKED

1. **Reordering and put-away time**
2. **Finding items in crowded supply rooms**
3. **Frequency of onsite visits and commute hours by supply chain staff**
4. **Printing, relabeling, and affixing labels for every item**
5. **Number of delivery days**
6. **Speed of item status communication with clinical staff**
7. **Number of returns due to incorrect orders**
8. **Visibility of back-ordered items**
9. **Optimization of PAR levels and storage space based on actual usage**
10. **Assurance of product availability and clinician satisfaction**

"VueStat has been key for helping our staff take care of our community at all our sites. The capabilities have been endless. It's important that we continue to come up with great ideas that make the jobs of those people supporting our communities even easier. Before VueStat, our staff would enter a supply room and see that a product was low and then have to report it and go through an involved process to make sure it was on order. They don't have to do that anymore. If somebody marks it under PAR, it's already on order and the next day the product shows up, creating trust and confidence in the technology." — Alex VandenBroek, Supply Chain Operations Manager, Multicare

SUSTAINABILITY – ENSURING LONG TERM SUCCESS

To ensure long-term success, VandenBroek embedded the initiative within Multicare's broader strategic vision rather than treating it as a standalone project. She partners closely with clinical leadership to build shared ownership, aligning operational goals with frontline priorities so the work remains meaningful and sustainable over time.

Senior leadership has given her the freedom to implement innovations that bring measurable value to the organization. She leads her team in rigorous daily and weekly monitoring of performance, enabling rapid identification of issues and timely corrective action.

She maintains open collaboration with clinical staff to surface concerns early, resolve compliance questions quickly, and reinforce trust in the process. She also works closely with VueMed to pursue continuous improvements, refine workflows, and identify new opportunities to enhance efficiency and the clinician experience. By empowering clinicians to signal needs directly and providing transparent communication around backorders, substitutes, and replenishment status, the initiative strengthened trust between clinical and supply chain teams and improved confidence in operational reliability.

Equally important, VandenBroek redefined how supply chain talent contributes to care delivery by shifting staff from manual travel and reactive tasks to strategic optimization, vendor collaboration, and continuous improvement. Her partnership-driven approach has created a scalable model for future sites and demonstrates how thoughtful innovation can enhance workforce effectiveness, clinician experience, and organizational resilience.

APPLYING INNOVATION AND CREATIVITY

VueMed's partnership with Multicare demonstrates a creative approach to addressing a longstanding healthcare challenge: maintaining accurate supply visibility across decentralized clinical sites with limited human resources. Rather than relying solely on traditional inventory management approaches, the organization adopted ESL technology from another industry and adapted it to healthcare supply environments.

Through collaboration among supply chain leadership, clinicians, information technology teams, and technology partners, inventory management was transformed from a manual and reactive process into a proactive, technology-enabled, and data-focused system.





POTENTIAL TO ENHANCE THE INDUSTRY

The success of VueStat at Multicare demonstrates the broader potential for ESL technology to transform healthcare supply chain operations. Healthcare systems across the United States face increasing pressure to expand services into geographically dispersed and community-based care environments while operating with limited supply chain staffing.

By enabling real-time inventory visibility, automated replenishment, and improved communication between clinicians and supply chain teams, ESL technology provides a scalable model for modernizing supply chain operations across distributed care networks.

VueStat also integrates with hospitals' existing enterprise systems and EMR platforms, including Allscripts, Cerner, Epic, Infor, Merge, Oracle, Philips, Siemens, and Workday, allowing healthcare organizations to connect supply chain data directly with clinical and enterprise workflows.

Visit www.vuemed.com/vuestat/
or email info@vuemed.com to learn more.

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