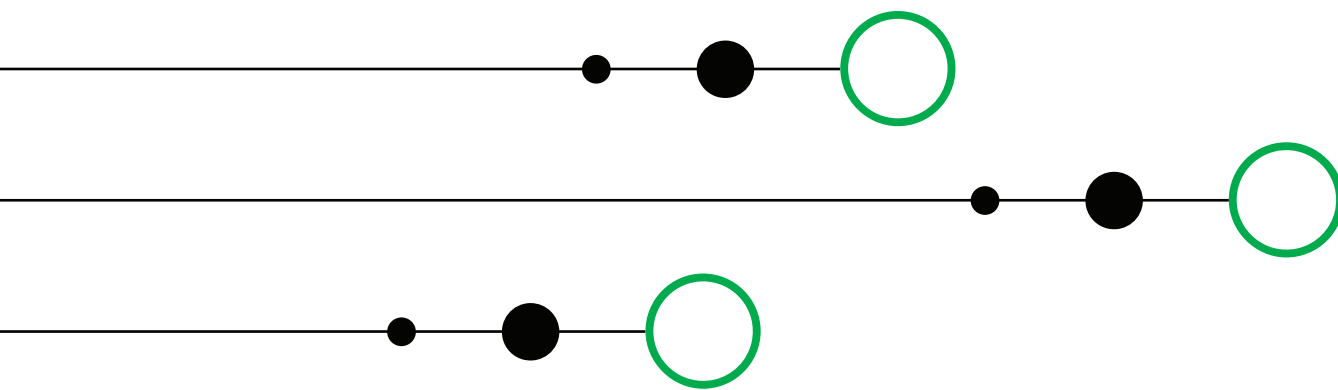




WHITE PAPER

Creating a Connected Pharmacy Ecosystem: How Allegheny Health Network Optimized Inventory by Integrating Automation and Intelligence

Inventory Optimization Service

Summary

Allegheny Health Network (AHN) pursued an enterprise strategy to standardize medication management across a multi-site system in an effort to not only improve inventory performance, but to strengthen safety, reliability, and operational consistency at scale. By combining Omnicell Inventory Optimization Service (IOS) with a connected ecosystem of automation and IV workflow solutions, AHN created a repeatable, data-driven approach to reducing stockouts, improving point-of-care availability, and driving measurable savings across the health system.

Addressing Inventory Challenges with an Enterprise Connectivity Strategy

Like many health systems, AHN faced the complexity of coordinating pharmacy operations across multiple sites while maintaining safety and service levels. Variation in processes, limited enterprise visibility, and manual tracking created friction for teams trying to manage inventory proactively – especially during periods of staffing strain, interruptions, and changing supply conditions.

To address these issues, AHN implemented an enterprise connectivity strategy leveraging Omnicell's ecosystem of solutions. Rather than implementing isolated point technologies, the health system combined enterprise analytics and workflow standardization with Omnicell's cabinet and perioperative automation devices—including Automated Dispensing Cabinets (ADCs), anesthesia workstations, carousels, and central pharmacy automation. To achieve enterprise-wide inventory visibility, AHN leverages Omnicell's Inventory Optimization Service (IOS) to collect real-time data from all Omnicell hardware devices – helping teams quickly see where specific medications are stocked and in what quantities. For IV standardization, AHN uses IOS to view usage of compounded items to help optimize the performance of Omnicell's IVX Workflow, a device that is designed to standardize how IV medications are compounded across AHN's hospitals and infusion centers.

This approach created a connected infrastructure that enabled AHN to quickly visualize trends and proactively manage inventory based on the information provided by IOS. It also allowed teams to standardize how medications are stocked, replenished, and managed across the network.

Leadership alignment and deliberate process design was essential to this effort. As the system evolved, AHN recognized that sustainable enterprise outcomes required more than technology – it required shared governance and clear standards. For AHN, IOS became a critical layer for turning defined enterprise goals into operational action.

AHN emphasized that partnership is a critical ingredient of sustained performance. Their collaboration with Omnicell extends beyond a traditional vendor relationship; Omnicell is an ongoing partner integrated into the program's success. AHN noted that this model works because both sides treat pharmacy and strategic partners as extensions of the pharmacy team — and that without this two-way commitment, results would not hold.

Performance Amplification Across the Enterprise

Through tight integration between automation hardware and intelligence software, AHN has been able to enhance inventory visibility and optimize medication management throughout the health system. Key areas of improvement include:

1. Stockout reduction and point-of-care availability

With IOS insights and enterprise execution, AHN reduced stockouts while increasing the percentage of medications stocked in cabinets. AHN described how, for them, even small percentage changes translate to large operational impact when measured across high transaction volumes — and how improved cabinet stocking supports faster medication access for nursing and patient care teams.

“We had a little over a 1% stockout rate before we started our enterprise connectivity strategy, now we’re around 0.4%. That translates into medications being available to nurses within 3 minutes of order verification.”

Arpit Mehta, PharmD

Director of Pharmacy,
Allegheny Health Network

2. NDC optimization and enterprise standardization

Beyond stockouts, AHN focused on standardizing purchasing at the NDC level and reinforcing compliance through enterprise governance. IOS-supported visibility helped identify opportunities, while AHN's processes ensured changes were managed centrally and executed consistently across sites. This approach supported the health system's emphasis on safety, reliability, and financial stewardship, while reducing variation that can occur when sites operate independently.

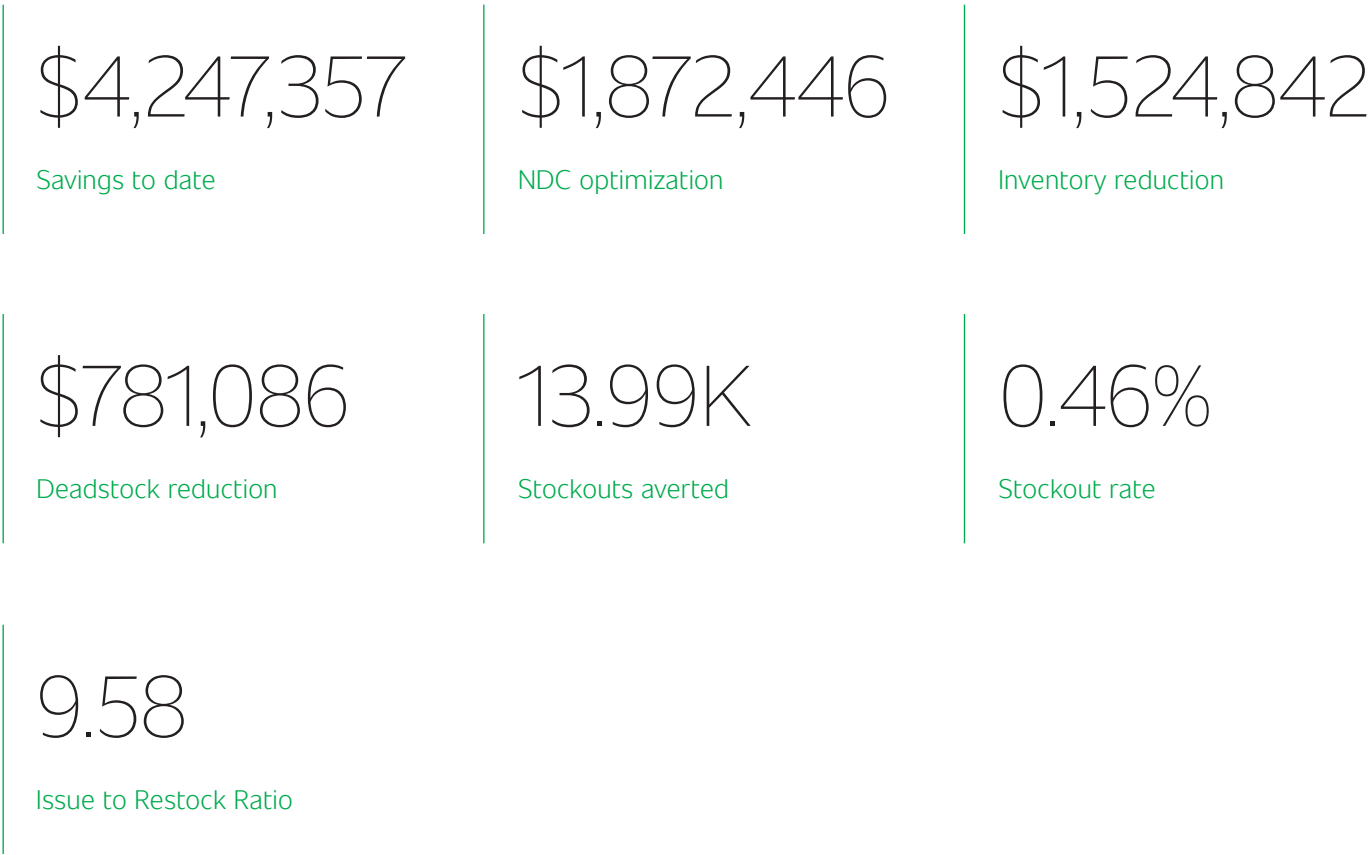
3. Shortage management and operational resilience

During periods of heightened disruption, AHN transitioned from spreadsheet-based shortage tracking to a more structured, system-wide approach. This enabled the organization to coordinate days-on-hand visibility and support consistent decision-making across facilities — improving their ability to respond to shortages without reverting to manual, site-by-site workarounds.

Outcomes and Value Delivered¹

AHN's outcomes reflect both measurable performance improvement and broader operational value. Quantitatively, the organization reports \$4,247,357 in total savings to date, including \$1,872,446 from NDC optimization, \$1,524,842 from inventory reduction, and \$781,086 from deadstock reduction. Operationally, AHN reports 13.99K stockouts averted with a 0.46% stockout rate; and an Issue-to-Restock ratio of 9.58 – supporting the system's goal of improving medication availability across care settings.

Outcomes to Date:



1. Outcomes and metrics reflect AHN's shared experiences and the performance figures provided by AHN for inclusion. Discussion of potential benefits or outcomes does not imply, and Omnicell does not guarantee, that any specific impact or improvement will be achieved. Customer outcomes are dependent upon many different factors and individual results may vary by organization.

Lessons Learned, Best Practices, and Future Vision

AHN emphasized that technology initiatives succeed when they are paired with culture, process design, and enterprise alignment. Leaders recommended breaking down silos early, designing processes around automation rather than expecting automation to solve process gaps, and maintaining transparency and accountability across sites.

“You have to break down the barriers that exist in silos. You also need to understand that automation technology isn’t going to solve everything for you. It needs to be paired with intentional process design.”

Laura Mark, PharmD

Vice President of Pharmacy,
Allegheny Health Network

AHN’s enterprise strategy continues to focus on standardization, integrated workflows, and sustained optimization. With a connected foundation in place, the health system is positioned to extend enterprise visibility, deepen analytics, and continue scaling consistent practices across additional areas of medication management.

Conclusion

AHN’s experience demonstrates how IOS outcomes are amplified when inventory intelligence is connected to automation, workflow standardization, and enterprise governance. By pairing data-driven visibility with a disciplined operating model, AHN improved medication availability, reduced stockouts, strengthened shortage response, and delivered measurable financial savings while reinforcing a culture of safety for both patients and employees.

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