

Thought Leadership Series

Demand for Medical Devices and Medical Supplies Continues to Rise. Can Your Distribution Network Keep Pace?



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Demand for medical devices and medical supplies is accelerating, and many distribution operations are struggling to keep pace.

An aging population, the rise of chronic disease, the expansion of home healthcare and rapid advances in medical technology are reshaping demand for medical devices, diagnostics and consumable supplies. Organizations are processing more orders, managing larger product portfolios and supporting a growing number of care settings than ever before. Every delayed shipment, inventory shortage or fulfillment error can impact not only operational performance, but ultimately patient care.

The challenge is no longer simply meeting demand. It's outpacing it. In this Insight, we explore why distribution is becoming a strategic advantage and how intelligent software, automation and AI are helping organizations build more resilient, scalable operations for the future.

More patients. More products. More complexity.



The U.S. population of people aged 65 and older is projected to grow from a reported 58 million in 2022 to 82 million by 2050.¹ The “silver tsunami” of baby boomers is upon us, with the aging population requiring more diagnostic testing, chronic disease management, surgical procedures and ongoing treatments.

At the same time, advances in medical technology and treatment approaches continue to expand product portfolios with connected devices, wearables, AI-enabled technologies and increasingly specialized products. The rapid adoption of GLP-1 medications is another example of how evolving treatment models can reshape demand patterns, creating new requirements for inventory planning, storage, replenishment and distribution capacity.

Additionally, the spike in home healthcare is shifting fulfillment models. As care moves beyond traditional hospital settings, distribution centers must support more delivery locations, smaller order quantities and faster response times.

These market shifts are occurring at the same time organizations continue to face persistent labor shortages, rising wage costs and increasing pressure to improve productivity. Adding more people is becoming more difficult and more expensive, making operational efficiency a strategic priority.

These trends are driving demand at a pace that traditional distribution models cannot support. Larger product portfolios, more complex inventory profiles and higher service expectations require organizations to rethink everything from warehouse design and inventory strategies to labor planning and execution.

This leads to a new level of operational complexity that cannot be solved simply by adding labor or warehouse space. Organizations need smarter, more connected distribution operations that can improve productivity, optimize resources and adapt as demand changes.

¹ <https://www.grandviewresearch.com/industry-analysis/us-home-durable-medical-equipment-market-report>

Distribution performance is becoming a competitive advantage

For medical supply distributors, operational success is measured by product availability, fill rates, order accuracy and service continuity. Stockouts, backorders or fulfillment delays can impact healthcare providers' ability to deliver patient care. Diverse product portfolios, high order volumes and frequent replenishment make inventory visibility and execution accuracy essential to maintaining service levels and controlling costs.

Medical device manufacturers and distributors face many of the same operational pressures while also managing serialization, regulatory compliance, traceability and complex product lifecycles. These organizations often handle high-value instruments and kits that require precise tracking and controlled handling. End-to-end visibility has become the foundation for reliable, compliant and scalable operations. After all, organizations cannot optimize what they cannot see.

Despite their different priorities, both medical supply and medical device organizations face the same underlying challenge: increasing demand, greater operational complexity and rising customer expectations require faster, more intelligent distribution. The organizations that consistently deliver the right product to the right location at the right time are creating competitive separation, not only through efficiency but also through improved customer trust.



Legacy distribution models weren't built for today's demands

Many of today's medical device and medical supply distribution networks were designed for a world with more predictable demand, fewer SKUs and less restrictive fulfillment requirements. Today's operating environment looks fundamentally different.

Today, distribution operations must manage:

- More products moving through the same facilities
- Greater inventory complexity
- Variable demand from emerging treatments and therapies
- Labor shortages and rising labor costs
- Increasing customer expectations for speed and reliability
- Growing pressure to improve productivity without sacrificing accuracy

These challenges often expose limitations in legacy warehouse management systems, manual workflows and disconnected automation technologies. In both medical device and medical supply distribution, operational inefficiencies can increase compliance risks, complicate recalls and impact the ability to maintain complete product traceability. In an industry where seconds can save lives, there is zero tolerance for delays caused by inventory errors or stockouts.

Without visibility and coordination across the operation, organizations struggle to optimize inventory, balance labor resources, reduce costs and respond quickly as demand changes. Modern distribution requires a shift from reactive execution to intelligent orchestration, where inventory, labor, automation and workflows are continuously improved using real-time operational data.

Defining the next generation of medical device and medical supply distribution

Warehouse automation, AI and intelligent software are enabling organizations to move beyond isolated process improvements toward fully connected systems. Together, these technologies provide the visibility, execution control and operational intelligence needed to make faster decisions, improve resource utilization and continuously enhance distribution performance.

The right automation strategy can help medical device and medical supply networks improve productivity to keep pace while creating the flexibility to adapt as demand evolves.

Technologies such as autonomous mobile robots (AMRs), goods-to-person systems, automated storage and retrieval systems (ASRS) and intelligent sortation increase throughput, improve inventory accuracy and reduce dependence on manual labor, enabling organizations to scale operations without proportionally increasing labor or warehouse space. For example, FORTNA automation solutions can reduce storage footprints by up to 75% while increasing daily order throughput by 3x and picking accuracy by 99.9%.

As distribution operations become more complex, the need for seamless integration becomes greater. Rather than managing disconnected technologies, warehouse execution systems like FORTNA WES™ orchestrate people, processes and technology into a single, coordinated operation, providing real-time visibility, balancing resources and optimizing workflows as business needs evolve. AI-powered capabilities further enhance these functions by helping organizations anticipate demand patterns, improve inventory positioning and continuously optimize execution.



Where to begin

Modernizing distribution doesn't require replacing every system or automating every process at once. The most successful organizations begin by evaluating where operational constraints have the greatest impact.

Consider questions such as:

- Where are manual processes creating delays, errors or unnecessary labor?
- Do you have real-time visibility into inventory, workflows and resource utilization?
- Which areas of the operation would benefit most from automation?
- Can your current systems adapt as product portfolios, fulfillment requirements and demand changes?

Answering these questions helps organizations prioritize investments that meet customer demand and deliver measurable business value while creating a roadmap for future growth.

Create an efficient distribution network built to scale

Every medical device and medical supply distribution network has unique challenges. That's why FORTNA begins with strategy rather than the technology. Our experts evaluate your operational requirements, identify opportunities for improvement and design scalable solutions that align with your business objectives, regulatory requirements and long-term growth plans. As a proven systems integrator, FORTNA develops and delivers flexible end-to-end network designs, seamlessly integrating the best-fit technologies to scale with growth.

Demand for medical devices and medical supplies isn't slowing down. Aging populations, chronic disease, home healthcare and continued innovation will only increase the pressure on distribution operations.

The organizations that can outpace demand will be best positioned to grow, compete and deliver the products patients depend on.

FORTNA

FORTNA CAN HELP

From improving inventory visibility and productivity to increasing throughput and operational agility, our experts design best-fit solutions that deliver measurable business outcomes. Connect with a FORTNA expert to learn how we can help optimize your distribution operations for long-term growth.

Contact us today at www.FORTNA.com