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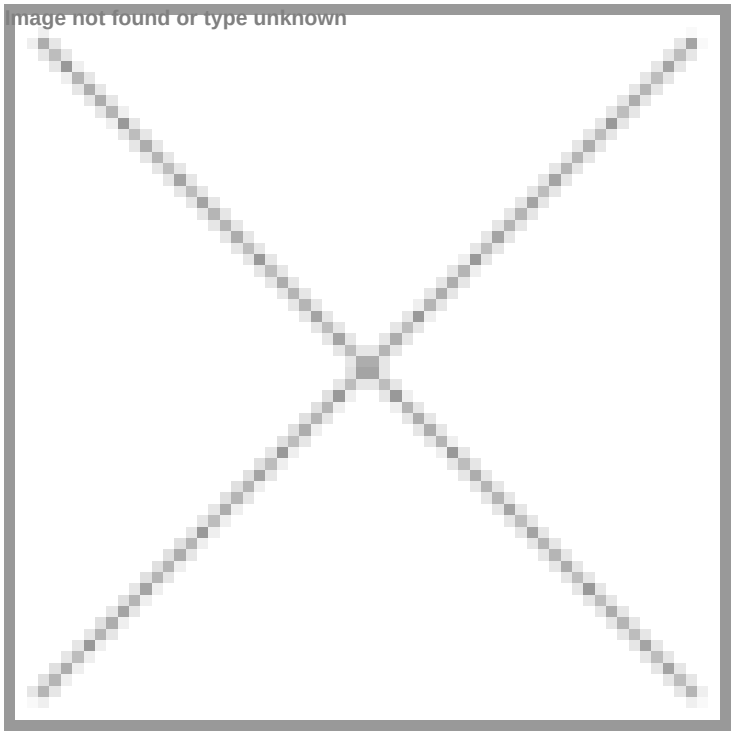
Are Pharma and Medical Device companies rewarding shipments instead of consumption?

08 April 2026 | Views | By Alpana Shirgaonkar, Senior Executive Director, Business Process Services, Nexdigm

Inventory buffers will remain essential for ensuring the availability of medicines and medical devices



Across industries, inventory is often viewed as a sign of preparedness. Manufacturers produce in anticipation of demand, distributors maintain stock to ensure availability, and retailers build buffers to avoid shortages. However, these buffers can also lead to inventory that remains unused, outdated, or eventually discarded.

In sectors such as retail, electronics, and automotive components, surplus inventory may eventually be discounted or redirected to other markets. In healthcare, the consequences are more complex. Medicines, medical devices, and clinical supplies operate within regulatory frameworks, strict handling requirements, and defined shelf lives. When inventory accumulates faster than it is used, the result is not only financial inefficiency but also operational strain and avoidable waste across the healthcare system.

Within pharmaceutical and medical device supply chains, one structural factor contributing to this imbalance is the gap between shipments and actual consumption.

The Shipment–Consumption Gap

In many pharmaceutical and medical device organizations, commercial performance is still evaluated through shipments to distributors and channel partners. Once products leave the manufacturer's warehouse, they are typically recorded as revenue for that reporting period.

However, shipments do not necessarily reflect real utilization at the point of care. Hospitals and pharmacies may not dispense products at the same pace at which they enter the distribution network. When this misalignment persists, inventory can gradually accumulate across distributors, hospital stores, and pharmacy networks.

Similar shipment-driven dynamics can appear in other industries as well. In sectors such as consumer goods or electronics, however, excess inventory can often be discounted, redistributed, or redirected to alternative markets. In healthcare supply chains, regulatory restrictions and product shelf lives make such adjustments far more difficult.

Why Inventory Builds Across the Channel?

Inventory accumulation rarely results from a single operational decision. Instead, it typically develops through a combination of planning practices, distribution models, and commercial incentives.

Production planning in pharmaceutical manufacturing is often based on demand forecasts developed months in advance. When projections prove optimistic or market conditions shift, products may enter the distribution channel faster than they are consumed. At the same time, distributors maintain buffer stock to ensure product availability for hospitals and pharmacies.

Safety-stock models are common across many industries, including electronics and automotive supply chains.

However, healthcare supply chains face an additional limitation: medicines and medical devices have regulated shelf lives and strict handling requirements. Once excess inventory enters the system, redistributing it becomes significantly more difficult. Over time, these dynamics can cause inventory levels across the channel to grow faster than actual consumption.

The Scale of Unused Medical Inventory

Studies highlight the scale of inventory inefficiencies across healthcare systems.

Metric	Key Insight
Global pharmaceutical waste	Approximately $259 billion worth of medicines are wasted globally each year
Pharmaceutical stock losses	Around 7% of pharmaceutical products are lost due to expiry, damage, or ove
Hospital inventory waste	Hospitals may discard up to 20% of inventory due to expiration or non-usage
Expired medicines in waste streams	Expired drugs account for nearly 79% of pharmaceutical waste in some health

These figures indicate that unused inventory is not simply a hospital-level issue. It reflects inefficiencies across the broader healthcare supply chain, including manufacturing, distribution, procurement, and inventory management practices.

Looking Ahead

Inventory buffers will remain essential for ensuring the availability of medicines and medical devices. Across industries, companies rely on stock reserves to manage demand fluctuations and maintain supply continuity.

However, the growing volume of unused medical inventory suggests that shipment-driven supply models may need closer alignment with actual demand. While other industries may address surplus inventory through discounting or secondary markets, healthcare supply chains face tighter regulatory and operational constraints.

Improving visibility across supply chains, strengthening demand forecasting, and aligning shipment volumes with actual consumption can help reduce excess inventory while maintaining supply reliability. Addressing this imbalance is an important step toward improving supply chain efficiency and ensuring that critical medical resources reach the patients who need them most.

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