

Mitigating and Managing Drug Shortages: The Role of Healthcare Distributors

Introduction

The healthcare supply chain is a complex system that manufactures, distributes and delivers medical products. Within this system, distributors ensure the safe, efficient and reliable delivery of medications, vaccines and other critical medical products.

Every day, distributors continuously and reliably connect [1,500 upstream manufacturers to 330,000 downstream sites of care](#)¹ — and ultimately patients — while maintaining a [0.4 percent net profit margin \(after taxes\)](#).² Pharmaceutical distributors, represented by the Healthcare Distribution Alliance (HDA), handle [95 percent of the medicines](#) sold in the United States³; accordingly, the industry is well positioned to understand the issues affecting supply chain resilience.

Despite the successful operation of the U.S. pharmaceutical supply chain, a percentage of medicines continue to experience shortages, posing threats to patients and healthcare providers. Given the distribution industry's unique position in the supply chain, HDA healthcare distributor members find the safest and most efficient ways to get medical products to providers and patients at the place and time they are needed. The following paper will explore how distributors work to mitigate and manage supply-driven and demand-driven shortages to ensure consistent and reliable access to prescription medicines.



Causes of Drug Shortages

Drug shortages occur when the available supply does not meet the current demand. However, demand drivers can differ.⁴ A supply-driven shortage is often the result of upstream challenges and is characterized by the unavailability of a drug due to manufacturing disruptions caused by myriad factors.⁵ In contrast, a demand-driven shortage is often the result of downstream drivers.⁶ There are two different types of downstream drivers, disaster-related and non-disaster-related medical surges. Disaster-related medical surges include increased patient need due to natural disasters and disease outbreaks, while non-disaster-related medical surges include increased patient demand, physician overprescribing or hoarding.

1. Healthcare Distribution Alliance. "Delivering Value Across Healthcare." 2023. <https://hda.org/getmedia/807f717-3a3a-4e8a-9011-2c8a91502dec/hda-factsheetdeliveringvalueacrosshealthcare-2023.pdf>.

2. HDA Foundation. *94th Edition HDA Factbook: The Facts, Figures and Trends in Healthcare*. 2023. <https://www.hda.org/publications/93rd-edition-hda-factbook-the-facts-figures-and-trends-inhealthcare/>.

3. Healthcare Distribution Alliance. "Delivering Pharmaceuticals and Value to Healthcare." Published 2023. https://www.hda.org/getmedia/4e490d25-762b-433a-aea4-9622e6b7d826/hda-factsheet_delivering-pharmaceuticals-and-value-to-healthcare-v7.pdf.

4. Healthcare Distribution Alliance. "Understanding Drug Shortages: An Overview and Recommendations." 2023. <https://www.hda.org/Accelerator/media/PDFs/Policy/Issue%20Briefs/Understanding-Drug-Shortages.pdf>.

5. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages." July 2023. <https://www.hda.org/getmedia/cc3658b0-cebe-47cd-a944-0af2504ece9a/HDA-RFI-Submission-Drug-Shortages.pdf>.

6. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages."

Mitigating Drug Shortages

Distributors consistently work to mitigate drug shortages by enhancing [supply chain resilience](#) (the capacity to prepare for, respond to and recover from planned and unplanned disruptions⁷) and maintaining [operational resilience](#) (an organization's ability to resist, adapt to and recover from system disruptions that have the potential to hinder its capabilities⁸). As leaders in the healthcare supply chain, HDA and its members recently [offered recommendations](#)⁹ to Congress on mitigating drug shortages, some that are described below.

Mitigating Supply-Driven Shortages

Distributors help reduce supply-driven shortages by building redundancy into their business practices.¹⁰ Building redundancy includes purchasing prescription medicines from multiple manufacturers whenever possible to ensure supplier diversification.¹¹ The practice of supplier diversification allows distributors to reduce the risk of disruption and ensure a steady supply of drugs, which supports overall supply chain resilience (including mitigating drug shortages).

When selecting manufacturers to contract with, it is of the utmost importance for distributors to consider the manufacturer's history of reliability, cost, quality, supply and business practices.¹²

Mitigating Demand-Driven Shortages

Distributors have several capabilities to mitigate demand-driven shortages. They will often use tools such as ongoing [public-private partnerships](#) (PPPs)¹³, [stockpiling](#)¹⁴ and [Vendor Managed Inventory](#) (VMI).¹⁵

Ongoing **PPPs** that involve stockpiling essential medications and supplies can also help mitigate disaster-related shortages. Distributors support hospital and government stockpiles as an additional tool.¹⁶

Using **VMI**, distributors can rotate and cycle stockpile inventory through commercial channels to significantly reduce the risk of products expiring in the Strategic National Stockpile (SNS). This process helps the SNS enhance its response capabilities during the disaster-related medical surge, such as the 2022 COVID-19, respiratory syncytial virus and flu *polycrisis* phenomenon.¹⁷ Expanding the use of VMI will help reduce supply chain disruptions, including drug shortages.



7. Healthcare Distribution Alliance. "Healthcare Supply Chain Resilience and Data Illumination." 2023.

<https://www.hda.org/getmedia/38b4ad3e-1164-4ef5-9516-963f7dbfb048/HDA-Data-Illumination-Report.pdf>.

8. Healthcare Distribution Alliance. "Bolstering Disaster Preparedness and Operational Resilience in the Healthcare Supply Chain." 2023.

<https://www.hda.org/getmedia/f13bb354-88eb-494e-81ca2456ea4d795c/Bolstering-Disaster-Preparedness-and-Operational-Resilience-in-the-Healthcare-SupplyChain.pdf>.

9. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages."

10. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages."

11. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages."

12. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages."

13. Healthcare Distribution Alliance. "The Importance of Public-Private Partnerships." 2023.

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14. Healthcare Distribution Alliance. "Drug and Medical Product Availability: Distributors Promote a Resilient Supply Chain."

<https://www.hda.org/getmedia/45f48c39-69e6-4ff8-8919-af1c4cfb7432/Drugand-Medical-Supply-Shortages.pdf>.

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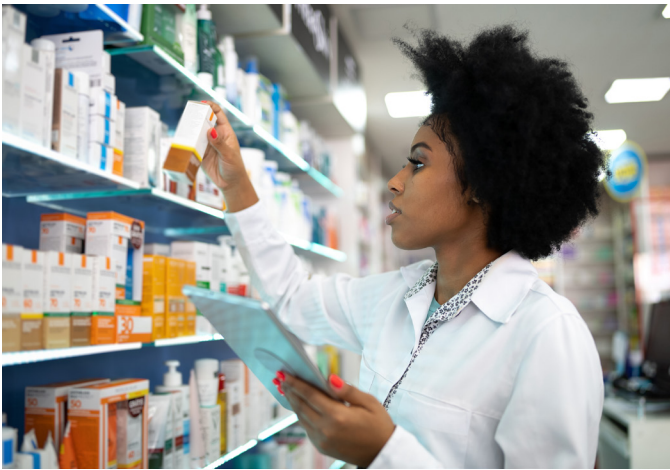
<https://www.hda.org/getmedia/c77c0197-674d-46cf-a870-8017ac070ae0/PAHPA-Background-andOpportunities-to-Enhance-Resilience.pdf>.

16. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages."

17. Healthcare Distribution Alliance. "HDA RFI Submission on Drug Shortages."

Managing Drug Shortages

When drug shortages occur, distributors take actions to minimize the impact of the drug shortage on patients and healthcare providers to preserve continuity of care. Distributors use strategies such as [fair-share allocation](#) programs,¹⁸ supporting stockpile expansion, leveraging national distribution networks¹⁹ and [just-in-time inventory management systems](#)²⁰ to manage drug shortages.



Fair-share allocation programs limit the amount that a single customer can purchase of a single product to ensure products are available to as many customers as possible. For example, under fair-share allocation, a customer (a healthcare system) may receive a partial fulfillment of a requested order. These types of programs account for the available supply and customer needs, which makes it a helpful tool when a drug is near or in shortage.

To supplement disruptions, distributors support stockpile expansion by using VMI to cycle and manage commercially available products through commercial channels to prevent products from expiring in stockpiles.

Another tool is [leveraging the national distribution network](#)²¹ to offer product alternatives, when appropriate. Expanding product availability minimizes both long-standing disruptions in addition to acute emergencies.

To expand supply chain capacity, distributors use just-in-time inventory management systems to streamline the delivery of pharmaceuticals while maximizing efficiency and cost savings. **Just-in-time inventory management systems** are essential for healthcare facilities that do not have the physical capabilities to hold large amounts of products. They also reduce a facility's security risk by decreasing the amount of expensive (high risk of diversion) products on hand at any one time.

Conclusion

It is impossible for one supply chain stakeholder to solve drug shortages alone. For their part, distributors, as logistics experts help manage drug shortages' effects on healthcare providers and patients using a range of strategies. The industry recognizes that drug shortages are caused by myriad factors and regularly work to tackle them, ensuring the availability of safe and effective medicines where and when they are needed.

There is no one-size-fits-all strategy to mitigating this challenging issue. Ultimately, HDA and its members believe any policy solutions addressing drug shortages should aim to increase overall supply chain resilience and maintain operational resilience of the pharmaceutical supply chain to benefit the health and well-being of all Americans.

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About the Healthcare Distribution Alliance

The Healthcare Distribution Alliance (HDA) represents primary pharmaceutical distributors — the vital link between the nation's pharmaceutical manufacturers and pharmacies, hospitals, long-term care facilities, clinics and others nationwide. Since 1876, HDA has helped members navigate regulations and innovations to get the right medicines to the right patients at the right time, safely and efficiently. The HDA Research Foundation, HDA's nonprofit charitable foundation, serves the healthcare industry by providing research and education focused on priority healthcare supply chain issues.