

Solving the Complex Logistics of Seasonal Cold Chain Pharmaceutical Products Case Study



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Every year an [estimated](#) 5 to 20 percent of Americans contract influenza, resulting in approximately 200,000 hospitalizations. While several factors impact who comes down with the illness, a seasonal vaccine is the most effective defense.

Reformulated every year in response to the most common strains, the seasonal flu vaccine is recommended by the U.S. Centers of Disease Control and Prevention (CDC) for people six months of age and older. However, developing, transporting, storing and distributing the estimated 135 million [doses](#) of seasonal flu vaccine on an accelerated and fluctuating schedule presents a myriad of logistical challenges for pharmaceutical manufacturers. To overcome these hurdles, some partner with third-party logistics (3PL) providers that specialize in customized supply chain solutions, and support seasonal pharmaceutical product forecasts.

Background

For a number of years, MD Logistics has worked with one of the world's largest flu vaccine manufacturing companies.

Preparation starts a year before, when the manufacturer develops the vaccine by forecasting which strains will be the most common in the coming year.

Once the U.S. Food and Drug Administration (FDA) approves the vaccine formulation, the customer manufactures and prepares large quantities for distribution six months prior to the expected start of the flu season. This builds a substantial on-hand supply that's ready to ship once the FDA grants final approval.

Once the approval is given, typically in late summer, MD Logistics begins filling orders from distributors, wholesalers and retailers around the country. Through this seamless process, the vaccine can be readily available to millions of Americans before the onset of the flu season.

Challenge

Remaining successful in this unique model requires excellence in demand forecasting, logistical planning and product positioning.

Due to the hyper-competitive nature of the marketplace, being first to market following FDA approval is crucial. However, the work does not stop with the initial product push. Many downstream retailers such as pharmacies, hospitals and clinics lack the space to safely store the vaccines. Therefore, many are forced to limit on-hand inventory, increasing the risk of costly stock-outs.

Therefore, MD Logistics must also be prepared to sustain a fast-paced order fulfillment rate as well as seamless reverse logistics solutions throughout the entire flu season.

Why MD Logistics is the Solution

As a leading 3PL provider, MD Logistics has the infrastructure and expertise necessary to handle the high-volume cold chain pharmaceutical operations required by seasonal flu vaccine distribution.

Furthermore, as a trusted supply chain partner, MD Logistics continuously monitors operations and offers customized solutions for preparing and positioning the product for success.

Results

By partnering with MD Logistics, the vaccine manufacturer is able to quickly bring the product to market. After receiving the go-ahead, MD Logistics immediately begins distributing the large quantities of product safely stored in its temperature-controlled, fully-licensed and accredited cold chain pharmaceutical facility.

Following the initial push, MD Logistics helps the manufacturer mitigate stock-outs by continuously examining projected supply and demand scenarios. Based on that analysis, MD Logistics utilizes its flexible infrastructure in order to direct workflow and allocate workers needed to accommodate spikes in order volume.

Benefits to the Client

Flexibility

Customers unable to carry substantial overstock typically place small orders that must be quickly filled in order to avoid stock-outs. Inversely, customers with ample storage space place large orders. MD Logistics' flexible infrastructure and ability to assign its workforce as needed offer flexibility when handling these fluctuations in order volume.

Seamless solutions

Partnering with a well-connected 3PL provider with extensive expertise allowed the manufacturer to circumvent time constraints others encounter, such as inflexible infrastructure, politics, budgets and bureaucracy.

Quick action

Together, MD Logistics and the company developed a comprehensive plan prior to the final approval. This proactive approach allowed MD Logistics to immediately pick up operations and fulfill orders.

Peace of mind

If a company's vaccine supply is compromised, the subsequent delays caused by manufacturing and distributing replacement product can cripple that company's success during the flu season. By partnering with MD Logistics, a Board of Pharmacy-licensed 3PL with VAWD, cGMP and FDA compliant facilities, the customer can rest assured its product is properly handled and stored throughout the long flu season.

Time-saving solutions

MD Logistics is licensed by the FDA for pharmaceutical kitting and packaging. Therefore, MD

Logistics can address potential problems, such as incorrect product packaging or missing product inserts. Offering these value-added services in house, rather than shipping product to an outside vendor, mitigates adverse effects on seasonal operations.

Constant communication and personalized response

Constant communication with key stakeholders is essential when handling a high-volume cold chain pharmaceutical that requires careful attention to supply and demand. During this turbulent time, MD Logistics' hands-on executive team kept open lines of communication to ensure any problems were quickly identified and addressed.

If you are looking for cold chain pharmaceutical warehousing, [please tell us a little about your needs](#).