



Three ways supply chain can boost immunization rates this season

Protecting patients through infection prevention



This respiratory season, many healthcare organizations are turning to their supply chain teams for help with vaccination strategies. As the experts in supply forecasting, contracting, ordering and distribution, supply chain professionals can help to ensure that vaccinations and ancillary items (e.g., syringes, gloves, other PPE) are available where they are needed. This includes not only acute care hospitals, but also non-acute settings (e.g., physician offices, clinics, long-term care facilities). As supply chain leaders look to deliver value, they can assist facilities with communicating the benefits of vaccinations to patients and allaying concerns regarding the safety of care sites during the pandemic.

There are numerous respiratory diseases that we can protect against now through immunization (e.g., flu, pneumonia, bronchitis, RSV). Vaccinations are a potent tool to help prevent the spread of dangerous illnesses. Globally, immunizations help prevent 2 million to 3 million deaths each year.¹ Yet, there are many individuals who do not take advantage of this infection prevention measure.



Historically, minority populations and lower-income families are less likely to receive immunizations.² Layer on the COVID-19 pandemic and vaccination rates have significantly dropped in 2020, as much as 95 percent for certain vaccines.³ These declines have occurred among the most vulnerable patients, newborn babies and older adults, who have failed to stay up-to-date on all recommended immunizations, such as hepatitis B, Hib, rotavirus and measles vaccines for babies, and flu, shingles and pneumococcal for adults.⁴

“Anything you can do to help boost your immune system, especially as we get into flu and respiratory season, is a necessity right now,” said Heather Youngblood, Senior Category Manager, Pharmaceuticals for McKesson. “With the so-called ‘twindemic’ of flu and COVID-19, our respiratory systems may be under attack like never before. If we can help alleviate at least one of those diseases with a vaccine – like flu – then we are strengthening our bodies immune system which may fight off or diminish the effects of a viral attack.”

Here are three ways that supply chain can play an important role in immunizing the community.

1. Operational and inventory plan for vaccines

When developing an operational and inventory plan for vaccines this season, Trevor Keeler, Director of Pharmaceutical Field Sales at McKesson Medical-Surgical, urges healthcare organizations to collaborate with all of their business partners in the planning process: Group purchasing

organizations (GPO), distributors and manufacturers. That way they can understand up-front critical factors such as supply availability, pricing, payment terms and return policies. Because supply chain serves as the liaison for these relationships, they can help bridge the gap between internal clinical stakeholders and these external collaborators.

Supply chain should start by reviewing last year’s trends and seasonality for the health system’s acute and non-acute facilities. Next, they should look ahead to anticipate potential swings in vaccine demand, such as a bad flu season, back to school immunizations or patients catching up on doctors’ appointments during holiday breaks.

“It’s really important to help ensure the parties involved in this planning process are working together,” said Keeler. “It’s not effective when a facility is working directly with a manufacturer to plan contracts or utilization if they don’t alert their distributor. Supply chain can help bring teams together and keep them involved during the planning process to streamline operations, supply facilities with what they need, and reduce unnecessary cost and waste.”

Just-in-time (JIT) distribution

In non-acute settings, a just-in-time (JIT) strategy can help reduce vaccine expiration, product waste and obsolescence, says Keeler. This

model is especially beneficial for running vaccination clinics. With next day delivery of vaccines and related supplies, a facility can enhance limited storage and refrigeration space, and reduce carrying costs to free up revenue.

“JIT works great but only if your distributor is aware of your increased utilization at an item level. With this

knowledge the company can plan its distribution center capabilities accordingly to help meet your needs,” said Keeler. “Be sure to alert your distributor 30-60 days ahead of your planned vaccination clinic so they can increase the required stock of vaccines and ancillary supplies.”

Pre-booking plan

Many health systems use pre-booking with their distributor to plan and acquire flu shots. This same approach can be used to plan for the administration of other vaccines. Supply chain should start by reviewing last year’s trends and seasonality for the health system’s acute and non-acute facilities. Next, they should look ahead



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to anticipate potential swings in vaccine demand, such as a bad flu season, back to school immunizations or patients catching up on doctors' appointments during holiday breaks.

In the case of flu or other vaccines, supply chain should collaborate with the distributor early in the planning process to help ensure facilities have access to a broad portfolio of vaccinations to cover children, adults and seniors in the community. Consolidating purchases under a single distributor that has a broad portfolio of vaccine products can help the healthcare organization standardize its ordering, align on the number of deliveries and take advantage of a flexible return policy.

When communicating with patients, remind them of the efficiency of having vaccines administered at the same time as a physical, follow-up appointment or other doctor's visit. Advise them that different vaccinations can be safely administered during a single appointment in accordance with manufacturers' guidelines to help reduce the number of times they have to enter a facility.

"I can't emphasize enough the importance of understanding vaccine return policies because it's something that is often overlooked," said Keeler. "When purchasing top vaccine items there is a risk of overestimating the need. Ask the appropriate questions: What is your availability to return

products? Are products refundable if unused? What are the stipulations related to expiration dates and other provisions around the percentage of returnable products based on the total product purchase? It's really important to get the answers to these types of questions from your distributor."

They should also be sure to ask their distributor about special payment terms, such as flexible and extended payment options, that may be available for flu and other vaccine types.

A health system's GPO is another essential resource when planning for vaccines. Working with GPO's, supply chain leaders can determine which vaccines are on the health system's GPO contract(s) to help

ensure facilities have what they need for various populations (e.g., children, adults, seniors).

Ancillary item availability

During the current pandemic environment with shortages of personal protective equipment

(PPE) and other supplies impacting healthcare organizations, it is more important than ever for supply chain to create an in-depth plan for vaccine administration products, such as PPE, needles, alcohol prep pads, and cleaning and disinfecting supplies. To help ensure an adequate supply to meet vaccine demand, supply chain should place an order for these products at the same time as it orders vaccines.

"Work with your distributor to understand your facility's current allocation on high usage items such as PPE," said Keeler. "Understand how that allocation of products could affect your ability to maintain patient vaccination goals. Determine if your distributor is able to support increased utilization of the products you need to effectively administer vaccines to your patient populations."

2. Patient engagement through communication

With patients reluctant to enter healthcare facilities in fear of contracting COVID-19, healthcare organizations face a major challenge this season in vaccinating their populations. A recent Harris Poll found more than two-thirds (68%) of American adults said that they or someone they know has put off care due to the pandemic.⁵ Supply chain professionals can help support infection preventionists (IP) in developing and operationalizing a plan to support patient concerns. One way is to share infection prevention and COVID-19 protocols, including temperature checks prior to entering the facility's lobby, separate waiting rooms for healthy and sick patients,



and redirected patient flows to help reduce healthy patient contact with sick individuals.

“This has been a very prominent focus over the last 6-9 months,” said Youngblood. “We’ve found our customers’ patients feel more at ease to return to their provider’s office when the office explains what additional safety protocols have been put in place.”

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“While pediatric patients follow regimented immunization schedules, adult patients tend not to make time for their own well visits and vaccinations,” Youngblood added. “Therefore, when a patient is seen by a provider it’s critical they get the appropriate immunizations, including routine vaccinations and seasonal ones such as the flu.”

3. Protection for extended care residents

During the COVID-19 pandemic, extended care residents have been among those patients hit hardest by the virus because of underlying conditions and the close proximity of staff and patients in these settings. As of November 20, 2020, at least 94,000 COVID-19 deaths were reported among residents and employees of nursing homes and other long-term



care facilities for older adults in the United States. This represents nearly 40 percent of all deaths and 6 percent of all cases in the U.S.⁶

It is a similar situation with the flu and pneumonia. Individuals living in extended care facilities tend to be older (over age

65) and/or living with long-term medical conditions, both of which put them at greater risk for hospitalization and complications from these respiratory illnesses.^{7,8} The difference is that flu and pneumococcal vaccinations are widely available and effective.



Supply chain can help protect vulnerable extended care residents through shared best practices around the handling of pharmaceuticals in acute and post-acute care facilities. It starts with creating a standard of excellence for vaccine administration that is repeatable across multiple sites, explains Youngblood. She states:

“The goal of these facilities is to keep their patients out of the hospital and support improved quality of life. This starts with administering vaccines for preventable diseases. Establishing protocols helps reduce the guess work for incoming staff and patients with regards to vaccine administration.”

– Heather Youngblood, Senior Category Manager, Pharmaceuticals for McKesson

“Many of these long-term care or skilled nursing facilities have sister sites so it’s vital to establish a set of simple yet effective protocols that can be used across sites. Right now, there are penalties for facilities sending patients back into the hospital for preventable diseases, which is reactionary care. Healthcare organizations should be proactive when it comes to care and vaccinate their patient populations to help prevent harmful and costly complications.”

Youngblood says a standard of excellence for vaccine administration should include the following four components;

Regulatory compliance

When developing an approach to vaccinating extended care residents and other vulnerable populations in non-acute settings, be sure to comply with state and federal regulations, most notably the Centers for Medicare & Medicaid Services (CMS) F-883 tag for influenza

and pneumonia immunizations. CMS requires all long-term care facilities participating in Medicare and Medicaid programs to educate residents and staff on influenza and pneumonia vaccines, offer residents these immunizations and keep documentation of their administration.

Staff and resident education

Work with extended care facility administrators to help educate both staff and residents on the different vaccine options available. For example, there are three different flu vaccine modalities: Intranasal sprays (preservative free), multi-dose vials

(contains preservatives) and pre-filled syringes (preservative free and do not need to acquire separate needles).

More importantly, the healthcare organization should educate staff members on how to safely administer vaccinations to patients, explains Youngblood. She states:

“Educating staff is a huge component of creating a vaccine protocol because there is incredibly high employee turnover in the skilled nursing space. The healthcare organization should have in place a protocol that any staff member, whether new or seasoned, can pick up at any time and understand immediately where that patient is with regards to past immunizations and what he/she needs. Keeping caregivers up to date and educating them on facility protocols for immunizations may have a huge impact on patient safety.”

Vaccine storage protocol

Developing a storage protocol that can be deployed across acute and non-acute settings is a significant challenge as different vaccine types require different storage conditions, and each facility has its own storage space and limitations. Best practices in this area include working with the distributor to determine vaccine delivery times and places; designating one individual who will handle the delivery and put away of vaccines in each location; and keeping vaccines in a separate refrigerator, or if that option is unavailable, storing the vaccines in a separate bin within the shared refrigerator.

“Inventory management for vaccines is a challenge in any setting.”



said Youngblood. “Rotating vaccines according to dating, maintaining stock levels and removing expired vaccines, when performed manually, can be a full-time job if there is no protocol to follow. It’s crucial to maintain the integrity of the vaccines at proper temperatures because it helps the facility control product waste. In some cases, they may return vaccine products for credit to help support revenue growth, which is critical in any extended care setting

Vaccine administration protocol

Documentation and monitoring are key components of safe and effective vaccine administration. Prior to administering a vaccine to an extended care resident, staff should review his/her vaccination history, screen for contraindications and precautions, and provide vaccine information to the resident so that he/she understands the immunization and can ask questions. When administering the vaccine, staff should follow the recommended guidelines set forth by the manufacturer, record the vaccine in the medical record and monitor the resident for potential side effects.

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and support improved quality of life,” said Youngblood. “This starts with administering vaccines for preventable diseases. Establishing protocols helps reduce the guess work for incoming staff and patients with regards to vaccine administration.”

Conclusion

There is plenty of evidence to suggest that vaccines save lives. The challenge this season is educating patients on the importance of keeping up with immunizations and helping to ensure vaccines are available when and where they are needed. Supply chain professionals play a central support role in helping clinicians administer vaccinations with their knowledge of manufacturers, products and contracting, as well as their relationships with key business partners, including distributors and GPOs.

In summary, supply chain can help in the following ways:

- » **Establishing a vaccine inventory plan:** Leverage your distributor to access the vaccine portfolio. Utilize just-in-time (JIT) delivery benefits to help reduce costs, save space and get what you need when you need it. Ensure that your distributor has a

good return policy that includes the handling of expired vaccines.

- » **Communicating to patients:**

Work with your clinicians to help communicate the importance of vaccinations, that vaccines are available, and that your healthcare facilities have precautions in place to keep them safe.

- » **Protecting the most vulnerable:**

Extend your supply chain best practices across your non-acute continuum, including the most vulnerable patients. Establish immunization protocols in extended care settings that are easy for staff members to understand and follow.

“The relationship between the distributor and practice will become increasingly critical as we anticipate the arrival of a COVID-19 vaccine, especially in the early days once it goes into distribution and we understand the demands,” said Youngblood. “Cultivate and maintain a strong working relationship with your distributors’ account manager or whoever is managing your business so that your communication and actions are in step as we move forward into this new environment.”

¹ Global Immunization: Worldwide Disease Incidence, <https://www.chop.edu/centers-programs/vaccine-education-center/global-immunization/diseases-and-vaccines-world-view>

² Issue Brief: The impact of COVID-19 on US Vaccination Rates, <https://www.nfid.org/keep-up-the-rates/issue-brief-the-impact-of-covid-19-on-us-vaccination-rates>

³ Issue Brief: The impact of COVID-19 on US Vaccination Rates, <https://www.nfid.org/keep-up-the-rates/issue-brief-the-impact-of-covid-19-on-us-vaccination-rates>

⁴ Retail scripts of vaccines, acute drugs decline sharply amid COVID-19 pandemic, <https://www.fiercepharma.com/marketing/retail-scripts-vaccines-and-acute-drugs-decline-sharply-amid-covid-19>

⁵ J&J wants everyone to know that taking care of their health can’t wait—even during a pandemic, <https://www.fiercepharma.com/marketing/j-j-wants-everyone-to-know-taking-care-their-health-can-t-wait-even-a-pandemic>

⁶ About 37% of U.S. Coronavirus Deaths Are Linked to Nursing Homes, New York Times, November 20, 2020 <https://www.nytimes.com/interactive/2020/us/coronavirus-nursing-homes.html>

⁷ Havers F, Sokolow L, Shay DK, et al. Case-control study of vaccine effectiveness in preventing laboratory-confirmed influenza hospitalizations in older adults, United States, 2010-2011. *Clin Infect Dis* 2016; 63(10): 1304-11.

⁸ Marrie TJ. Pneumonia in the long-term-care facility. *Infect Control Hosp Epidemiol*. 2002 Mar;23(3):159-64. doi: 10.1086/502030. PMID: 11918125.