WHITE PAPER

The evolution of the retail pharmacy in vaccinations

What's changed, what's coming and where the opportunities lie for manufacturers

By Adi Natu, Todd Burgess, Basil Hakmeh and Ana Singh

While clinics, hospitals and public health departments in the U.S. have long been the main sites of care for vaccine administration, retail pharmacies have evolved to play a crucial role in providing vaccines to the general public in the last decade. The urgency of COVID-19 vaccines helped accelerate this transformation and cemented the role of pharmacies as a trusted alternative site for patients, particularly adults and adolescents, to receive routine vaccines.

Although the role of retail pharmacies in vaccine administration has strengthened over time, vaccine manufacturers have not strategically evolved their approach to engaging with retail pharmacies and their now-supersized purchase of vaccines. So, we pressure tested three hypotheses via secondary research, (qualitative) interviews with executives of regional and national retail pharmacy chains, and (quantitative) surveying pharmacists employed by retail pharmacies. What we learned can shed light on the now, near and future opportunities for pharmacies and suggest ways manufacturers can innovate to support this evolving key customer.

Anticipating the evolution of retail pharmacies in 3 hypotheses

Leveraging collective thought leadership from subject matter experts within the ZS Vaccine Center of Excellence (COE), we sought to validate the following key hypotheses around the evolution of vaccine administration at pharmacies:

1. **During the next five to 10 years, the retail pharmacy will become the preferred administration site for all adult and adolescent vaccines** as compared to more traditional vaccination sites. The only vaccines we don't expect to follow this trend are the pediatric vaccines that tend to be administered to children ages 1-4.

2. **Retail pharmacies will leverage and broaden existing vaccine initiatives,** such as offering discounts on retail products to drive foot traffic into the pharmacy. Increased foot traffic leads to downstream utilization of acute care services and consumerism in the retail space.

3. **Retail pharmacies will continue to increase investments in technology for improved operational efficiencies,** allowing pharmacists to spend less time counting pills and filling prescriptions and more time counseling and vaccinating patients.

To gather insights, we conducted primary research in two ways:

- **Qualitative research via interviews** with 15 executives of large U.S. retail pharmacies, including CVS, Walgreens, Rite Aid, Walmart and Publix
- **Quantitative research via survey** of 51 U.S. pharmacists, a sample representing nearly every major pharmacy chain in the country

We supplemented this primarily with research from ZS's Vaccine COE and publicly available sources to better understand the current initiatives that major retail pharmacies were undertaking to increase vaccination rates.

How retail pharmacies evolved to become a vaccine administrator

To understand the future of retail pharmacies and vaccinations, it helps to understand their evolution.

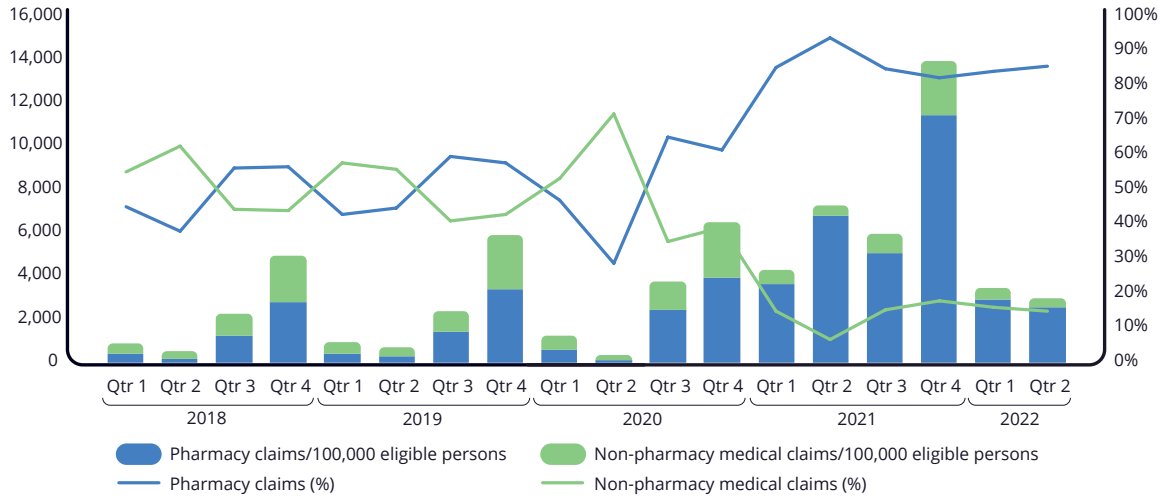
Shifting demand (and administration) from physician offices toward retail pharmacies

Traditionally, patients were vaccinated at medical sites such as hospitals, clinics or physician offices. These sites had trained personnel and cold storage facilities required for vaccine administration. But despite the widespread availability of vaccines, vaccination rates in the U.S. remained low for most adult vaccines, primarily due to lack of access, cost and inconvenience.

As retail pharmacies began to increase their vaccination services offered to patients, an increasing proportion of Americans were vaccinated at pharmacies instead of a physician's office. Figure 1 below illustrates this trend.

FIGURE 1:

Number of claims/100,000 eligible persons and % share of adult vaccines in pharmacy vs. non-pharmacy medical settings



Source: IQVIA LRx and Dx, August 2022; U.S. Census, December 2022.
Notes: Adult vaccines covered in this chart: COVID-19, flu, HPV, pneumococcal, shingles, Tdap. Data is based on pharmacy and medical claims. Vaccines administered without claims data were not captured. Population for 2022 was estimated.

In recent years, the importance of pharmacies as sites of vaccination has increased to the extent that—as we heard in one interview—physicians in certain regions do not carry routine adult vaccinations such as Shingrix. Instead, patients are routed to the nearest retail pharmacy, which has the capacity to store the vaccines, as well as the staff capacity to administer them in high volume.

COVID-19 significantly increased both origination and profitability of vaccinations for retail pharmacies. Origination increased due to the initial rush of mass vaccination events, where retail pharmacies were one of the few venues outside of local health departments patients could receive their second dose or booster dose. During the pandemic, most healthcare professionals recommended and referred patients to their local retail pharmacy due to delays in acquiring COVID-19 vaccines.

Vaccination became profitable as retail pharmacies received free COVID-19 vaccines from the federal government and were able to bill the government for vaccine administration. In December 2022, the Centers for Medicare & Medicaid Services (CMS) issued the final physician fee schedule for 2023 with updated vaccine payment information. The payment amount for flu, pneumococcal and hepatitis B vaccine administration is set to $31.14 and for COVID-19 to $41.52. In comparison, according to Medicaid.gov, a pharmacy is reimbursed a dispensing fee of $10-$12 for prescription medications—about 25% of the payment amount of administering a COVID-19 vaccine.

Downstream benefits to retail pharmacies include increased consumer foot traffic, likely resulting in increased retail consumerism. Increased vaccine administration at pharmacies is also convenient for healthcare providers in that they do not have to worry about complicated buy-and-bill models for adult vaccines or invest in additional vaccine storage for less common vaccines including pneumococcal, hepatitis B, travel vaccines and even rabies.

Sending patients for routine vaccines outside of the clinical setting frees up nursing staff and ensures that clinicians spend their time more effectively. The beauty of this arrangement lies in its mutual value—healthcare professionals enjoy improvements in operational efficiencies while pharmacies have more customers walking through their doors.

How have retail pharmacies prepared and adapted to meeting increased demand?

Understanding the goals of retail pharmacies for their vaccine business—beyond the goal of getting customers through the doors—was an important focus of our discussions with pharmacy executives. We identified the following organizational goals across the several executive interviews:

1. To be the primary administrator of all adult vaccinations
2. To improve identification of eligible patients for vaccines
3. To expand vaccine offerings beyond flu or COVID-19 vaccines
4. To increase direct pharmacist-patient engagement

While retail pharmacies navigate staffing and human capital challenges, initiatives to accomplish the aforementioned goals drive the shift in vaccine administration from physician offices to retail pharmacies as well as investments in pharmacies' technological capabilities and vaccine storage facilities.

Human capital

Despite increased demand, the retail pharmacy industry is not immune to the staffing challenges experienced across the country. Executives noted the biggest challenges are pharmacist and technician staffing, as availability and retention of those working in these roles has been strained by COVID-19 related burnout.

To reduce reliance on pharmacists while continuing to boost vaccination rates, many retail pharmacies have invested in upskilling their pharmacy technicians to administer vaccines. Although this move is largely state-dependent, as state laws determine whether technicians can vaccinate (and if so, which vaccines and populations), multiple executives we interviewed commented that the upskilling and increased utilization of pharmacy technicians has been fruitful.

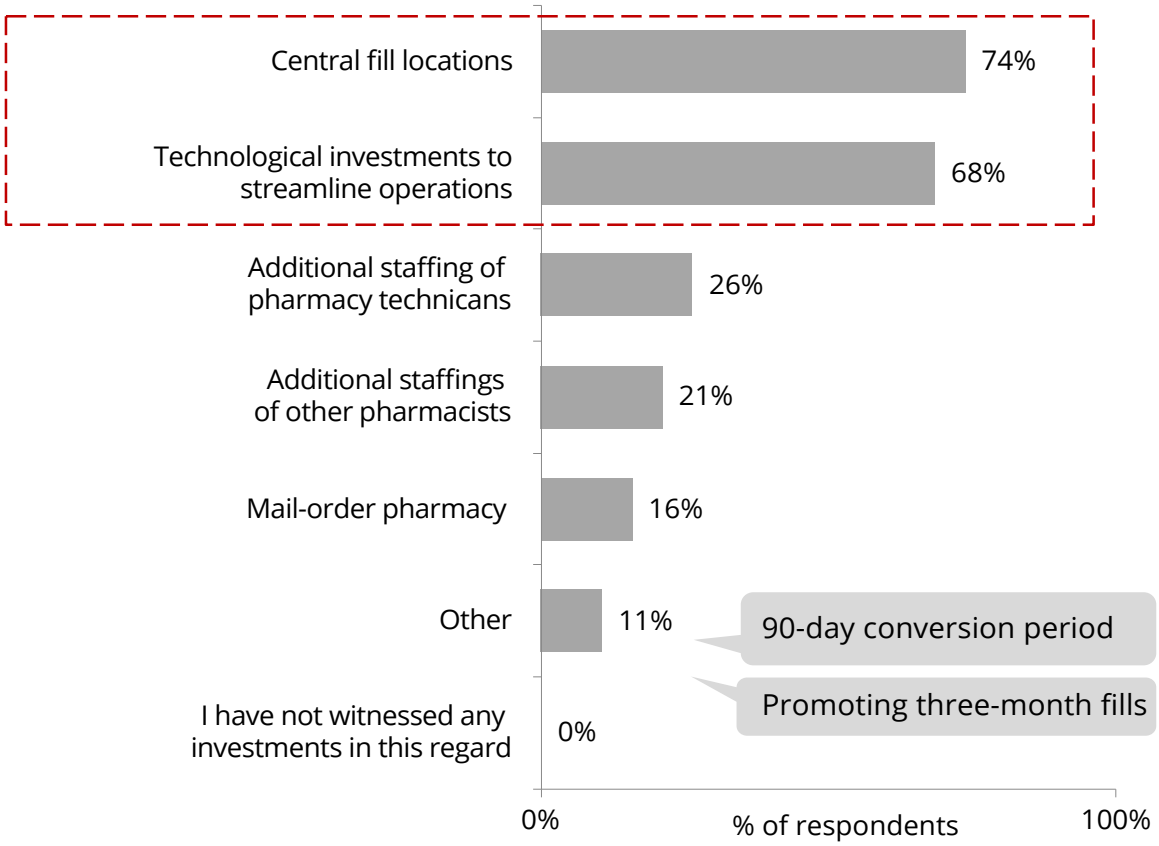
In fact, some pharmacies have gone a step further by offering additional financial incentives for technicians who successfully administer a flu vaccine. These investments in human capital are integrated with new and updated technologies to ensure smooth and efficient vaccine administration during an anticipated period of continued growth.

Investments

Retail pharmacy investments over the last few years have primarily been related to technological improvements and changes to the physical space, as evidenced by findings from our quantitative study on page 6. Both technology advancements and changes to the physical space are intended to reduce the amount of time pharmacists spend filling prescriptions and allow them to focus efforts on educating and vaccinating patients.

FIGURE 2:

Top measures taken



Note: n=19.

Investments: Technology

One of the goals of an updated pharmacy application or appointment scheduling tool is to encourage patients to schedule vaccinations in advance. According to our quantitative findings, 52% of the vaccination appointments at pharmacies today have been scheduled online in advance.

Scheduling appointments: While many retail pharmacies allow customers to walk in and receive vaccinations without an appointment, both executives and pharmacists identified unscheduled vaccines as a major pain point. Unscheduled vaccinations interrupt pharmacy workflow, thereby delaying turnaround time in filling prescriptions and providing less time for patient education. The pandemic pushed pharmacies to invest in tools like online scheduling apps to allow pharmacists to process and prepare the vaccine prior to a patient's arrival, ensuring minimal interruption to workflow and wait times for a seamless patient experience.

Patient communication: Recently implemented patient-facing tools include text and email notifications and reminders pertaining to prescriptions and vaccinations—for both patients with vaccine appointments and patients who need to schedule an appointment. Many large retail pharmacies have begun sending proactive text reminders to their consumer database to encourage them to use embedded links within the text to self-schedule their next vaccine administration.

Prescription refills: Technological investments include expanded efficiencies such as central prescription drug fill locations, scheduling tools and in-store kiosks that allow patients to scan a barcode on their phone or input a PIN to receive their medications. These efficiencies are intended to decrease low-value workload, such as counting pills, and increase the time available to pharmacy staff for high-value activities, such as medical therapy management or administering vaccines.

Investments: Physical changes

Investments in changes to the physical space mainly consist of central fill locations and storage units.

Central fill locations: Pharmacies have taken action to free up time for pharmacists and technicians by rerouting patients toward central fill locations. This allows for more prompt prescription dispensing and time saved for employees.

Storage units: The COVID-19 pandemic expedited the process of retail pharmacies making substantial investments in their storage units. To account for the increased volume of administered vaccines, many chains have invested in innovative storage units like deep freezers and devices that monitor and control vaccine temperature.

Change in this regard has been slow yet concentrated among a few retail pharmacies. While some pharmacies have the capacity to store the vaccines they distribute adequately, most pharmacists surveyed did not believe their pharmacy has adequate storage capacity or technology. Less than 40% of surveyed pharmacists believed their pharmacy has enough storage space to accommodate current vaccine needs, let alone the anticipated increased demand. Vaccine storage is an essential necessity of vaccine administration, and pharmacies have started to realize the importance of ensuring they have the physical capacity to meet current and anticipated demand.

How retail pharmacies are likely to evolve to meet future trends

Based on our research, publicly available data and learnings from retail pharmacy stakeholders, as well as thought leadership from our Vaccine COE, we believe the following trends define the future evolution of retail pharmacies:

- Retail pharmacies will become the primary site of all flu and routine adult vaccinations administered in the U.S. over the next 10 years.
- Certain large pharmacy chains will pivot from their primary focus from dispensing medications to providing services that take advantage of pharmacist training and expertise, including but not limited to vaccine administration.

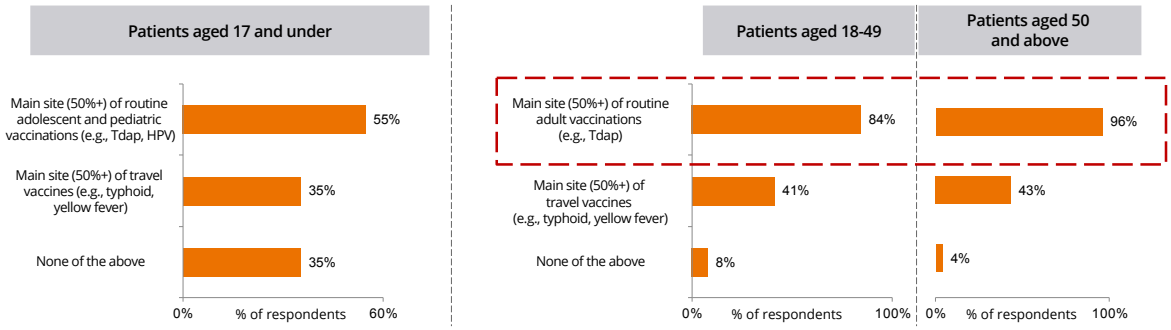
Flu and routine adult vaccinations

Pharmacists are more optimistic about retail pharmacies being the main site for adult vaccinations than for adolescent and pediatric vaccinations in the future.

FIGURE 3:

Perception of retail pharmacies in the next 5 years within vaccine space

(Split by age groups)



Note: n=51.

Both pharmacy executives and pharmacists expect vaccines to be almost entirely administered at pharmacies over the next decade. We anticipate that over the next 10 years, more than 75% of flu and routine adolescent vaccinations will be administered at the retail pharmacy level. Pharmacies will likely also expand their portfolios; several executives explained that their pharmacies' strategy is to provide all the vaccines they can over the next five years, while other respondents mentioned the RSV vaccine as a specific vaccine they anticipate will be administered at their pharmacies in the future.

Retail pharmacies are likely to grow as sites of vaccine administration thanks to greater consumer familiarity and trust of vaccine administration at pharmacies versus a doctor's office. More than half of surveyed pharmacists stated that patients trust pharmacies as sites of vaccine administration. Pharmacies also are better technologically equipped than ever to administer large volumes of vaccines and are motivated to do so, especially due to declining drug reimbursement rates. Legislation such as the Inflation Reduction Act, which eliminates co-pays for vaccines under Medicare Part D, will also likely expand vaccine administration at pharmacies.

Shift from primarily filling prescriptions

Currently, retail pharmacists spend a great deal of time filling prescriptions. But from a bottom-line perspective, this is not the best use of their time—administering a vaccine or clinically treating a patient would yield more value and return on investment. Retail pharmacies are pivoting from primarily dispensing medications to providing services that take advantage of pharmacist expertise and training, such as immunizations and disease testing. Pharmacists informed us their pharmacy now offers (or plans to offer in the coming few years) services like diabetes screening, medication therapy management, BMI monitoring, weight loss programs and cholesterol monitoring. Further ZS research has found retail pharmacies intending to expand clinical offerings for patients.

Having successfully absorbed the extremely high demand for COVID-19 vaccines, retail pharmacies have demonstrated that they can handle large-scale vaccinations, and executives spoke at length about their intention to increase the vaccine offerings at their pharmacies. Some have invested a great deal in customer acquisition for vaccinations. Giant Eagle, for example, provides grocery discounts for patients who receive flu vaccines from the same Giant Eagle location. Others have chosen the technological route, investing in text message software to activate patients based on their demographic characteristics, such as an informational message and reminder text about the pneumococcal vaccine for patients aged 65-plus.

3 opportunities for vaccine makers in the new ecosystem

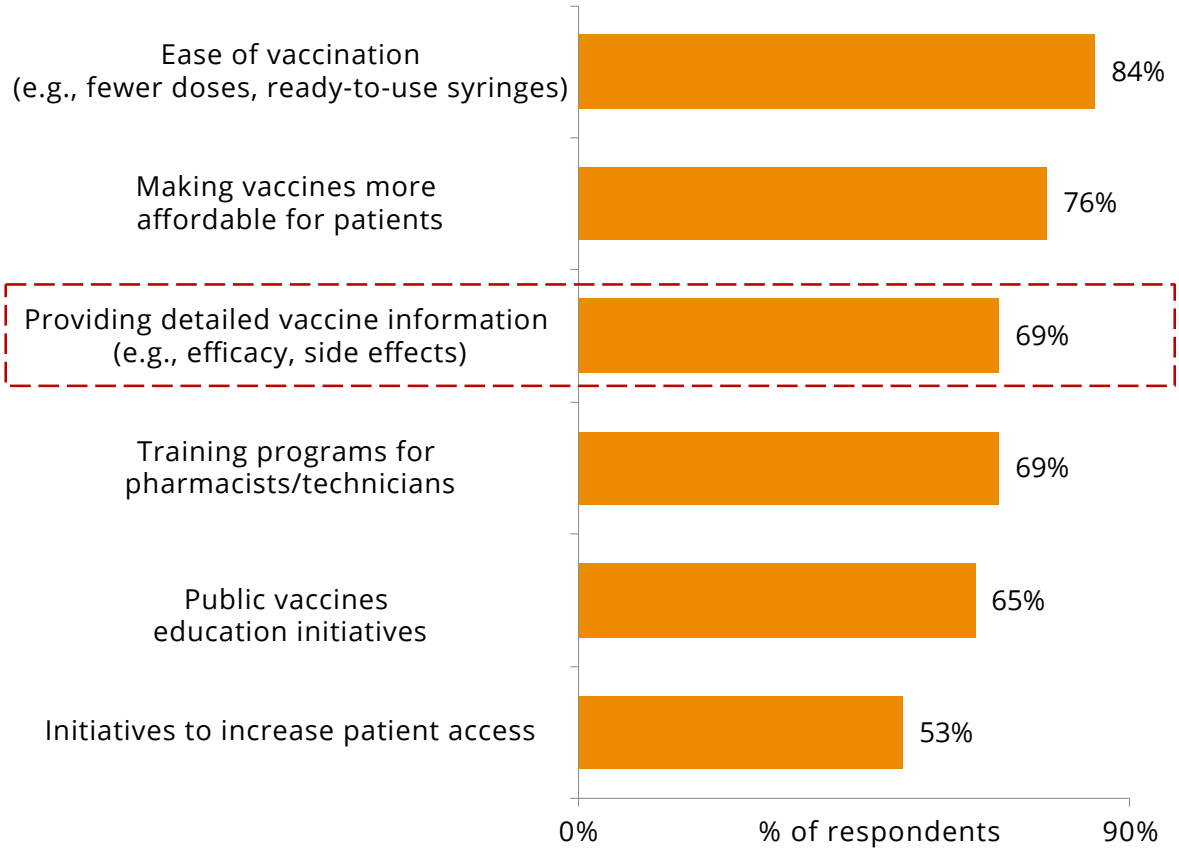
Given the changes anticipated to the retail pharmacy vaccine space, vaccine manufacturers must take steps to ensure pharmacy needs are being met. We have identified three major opportunities for manufacturers.

1. Making vaccinations easier to administer

Given the growing responsibilities pharmacists have, any measures reducing the amount of time needed to prepare and dispense a vaccine would undoubtedly trim time and cost. Our findings highlight the importance of manufacturers making the vaccination process easier and faster. Since pharmacists and technicians are currently facing higher volumes of unscheduled walk-in vaccine appointments, an efficient administration method, such as pre-filled syringes, is likely to be preferred; executives consistently echoed this sentiment.

FIGURE 4:

How manufacturers can support retail pharmacies



Note: n=51.

2. Public education: The importance of vaccines

Pharmacists identified interactions with patients as one of the most difficult parts of vaccine administration. Over two-thirds of those surveyed stated that manufacturer-provided information on what the vaccine is, what diseases or conditions it protects against, who is eligible and how safe the vaccine is would be extremely important in convincing patients to get vaccinated. Manufacturers could also provide valuable broader education about vaccines, such as what they are and what they contain.

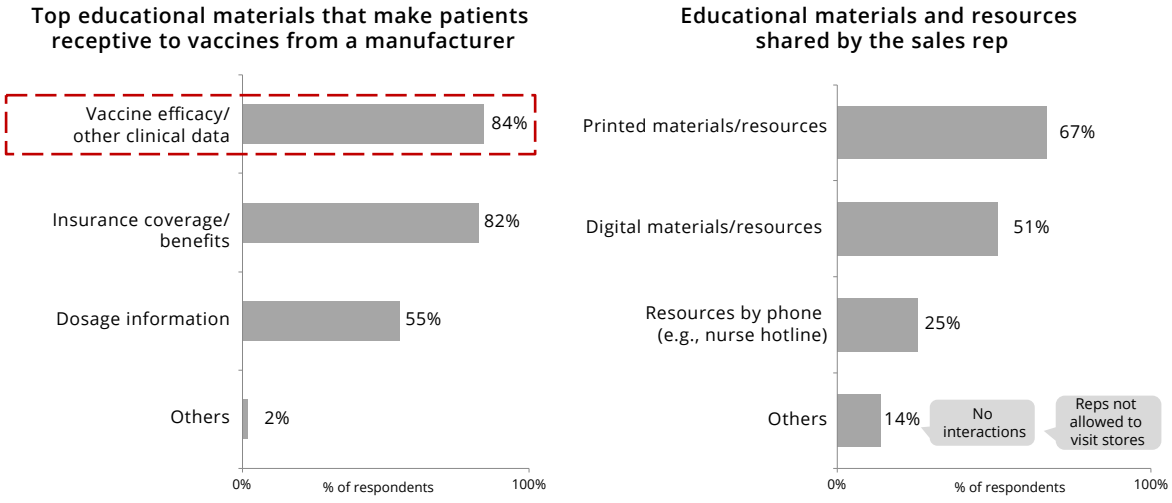
3. Sales representatives: Available during vaccine rollout to answer FAQs

Having dedicated sales personnel focusing on retail pharmacies as a channel to optimize engagement through a combination of in-person and virtual approaches may offer an opportunity for manufacturers to cultivate strong relationships with pharmacists and technicians.

We found a correlation between a high number of sales representative interactions and pharmacist satisfaction with their sales representatives. Pharmacists find even virtual interactions with representatives to be helpful, as they can ask questions and learn more about specific vaccines. Pharmacists have noted the importance and value of representatives providing educational resources on best practices to address patient hesitancy.

FIGURE 5:

The value of educational materials



Note: n=51.

The manufacturer's role in the changing vaccine administration landscape

Retail pharmacies will continue to have a critical role in vaccine administration. In a post-pandemic healthcare ecosystem, patients are increasingly likely to seek general medical advice and specifically, vaccinations. As a result, retail pharmacies are actively implementing measures and enablers to increase operational efficiencies to vaccinate more patients and drive overall store revenue growth. Consequently, initiatives to expand clinical services are a common priority across major retail pharmacies.

Heightened vaccination administration rates will undoubtedly create demand for manufacturers to help pharmacies improve operational efficiency and patient adherence via public education efforts and increased engagement from manufacturer sales representatives.

Given the landscape shift in recent years and forecasted growth for retail pharmacies, manufacturers must evaluate their current partnerships and how they can provide support. This includes support in the form of educational materials, marketing resources and value strategy to drive continued growth in vaccine administration at retail pharmacies. A sound partnership for manufacturers with retail pharmacies offers the potential for numerous improvements, creating win-win opportunities for both parties.

About the authors

Adi Natu is a principal within ZS's value and access practice area. He leads global market access and pricing initiatives with several large and small biopharmaceutical clients and has deep global experience in multiple markets across North America, Europe, APAC, Latin America and Africa. Adi also leads ZS's Vaccine Center of Excellence where, in collaboration with colleagues globally, he is focused on driving innovations around addressing evolving vaccine ecosystem needs, such as vaccines confidence, new technology platforms, clinical trial designs and more.

Todd Burgess is a manager of ZS's global healthcare ecosystems solutions practice, focusing on supporting key account teams to become trusted advisors to their most important healthcare organizations' customers. Todd is a key account enablement expert within the life sciences industry and has more than 20 years of experience; his focus is on developing the strategic alignment between manufacturers and key accounts.

Basil Hakmeh is a consultant within ZS's healthcare ecosystems solutions practice. He supports clients in value strategy and key account management. Basil has over six years of experience in both inpatient and outpatient settings within large health systems driving operational efficiency, strategic growth, quality improvement and improved patient experience and outcomes.

Ana Singh is an associate working within ZS's value and access and healthcare ecosystem practice areas. She primarily conducts and supports qualitative market research for large biopharmaceutical clients in North America, Europe and Asia. Ana also has worked on strategic key account management initiatives for multiple companies as well.

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