Case Study: Business Trends and Communications Strategies in the Pharmaceutical Third Party Logistics Industry

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Introduction

The pharmaceutical Third Party Logistics (3PL) market, faces significant challenges as new advancements in the industry are introduced. In the age of constant technological evolution, 3PL companies are devising new and more proficient strategies to engage with consumers. Pharmaceutical logistics companies must shift their attention to the patients, who expect timely delivery and greater influence in their healthcare decisions.

Furthermore, global crises like the COVID-19 pandemic call for changes and improvements to be made in the pharmaceutical supply chain. Business volatility created by the disruption demands that suppliers and distributors move inventory efficiently and favors companies that adapt quickly. As a result, evaluating future business strategies is a primary focus for business.
This paper examines the traditional role of pharmaceutical third party logistics providers, analyzes specific healthcare industry trends influencing their business practices and recommends solutions to align services to meet current and future requirements.

THE ROLE OF 3PL IN PHARMACEUTICAL SUPPLY CHAIN

Pharmaceutical third-party logistics (3PL) companies receive, store and fulfill orders from manufacturers for medications while adhering to strict regulatory compliance requirements from government and other authorities.

The current role of the 3PL within the supply chain includes integrated logistics for client companies such as pharmaceutical warehousing and distribution, as well as quality assurance, regulatory compliance and outsourcing functions. 3PL companies use their reliable network to transport goods. Data is securely stored with 3PL to enable users to track sales and other important analytics related to pharmaceutical distribution. Working with a skilled 3PL group can help save time and money on business transactions, especially in the field of pharmaceuticals and healthcare since there are such strict guidelines that must be followed in order to maintain regulatory compliance.

3PL companies take care of the work that would normally be too much for a single company to do alone, establishing themselves as a warehousing partner with outsourcing capabilities and other specialty services that help suppliers get their product efficiently to authorized trading partners.

GENERAL BUSINESS CHALLENGES

Pharmaceutical 3PL companies are part of the overall economy and therefore face the same challenges from general business trends affecting all industries. These challenges include data protection, staying innovative, the rise of automation and politics. It is important for businesses to consider these factors when developing successful strategies that anticipate future risk.

Data Protection

Cybersecurity is essential to maintaining privacy of confidential information regarding users and keeping a secure platform. Data breaches and cyber threats pose potentially catastrophic risk to the privacy and safety of consumer data. Companies must invest significant resources to ensure their platform is safe and secure.

Companies involved in the pharmaceutical supply chain are required by Federal and State regulatory authorities to regularly examine and improve data security procedures. Electronically-stored information must be continuously protected Options include creating regular back-ups of relevant digital files, mirroring all data on multiple servers, managing back-ups in the cloud and on hard drives and contracting for
duplication of data at off-site remote locations to be accessed when required.

**Continuous Innovation**

Progressive companies recognize trends and their potential impact on business fortunes. Business competition favors those who find new ways to get things done. Taking calculated risks helps expand knowledge in the industry. Risks include any present investment based on greater returns in future including personnel and capital expenditures for technology or real estate. The process of innovation won’t always end up benefiting business success. It can take extensive time and resources attempting to figure out a new method or practice that may or may not work in the end.

**Automation**

Many jobs that were once taken by humans are now being replaced with machines and robots that can get the job done more efficiently. Automation continues to replace previously manual tasks. One risk inherent in investment in automation is that Automated machinery may correlate to higher costs and is susceptible to errors that must be fixed by an engineering team. Automation might actually increase labor demands in the long term, since new jobs will be created as a result.

**BUSINESS TRENDS IMPACTING PHARMACEUTICAL LOGISTICS**

In addition to the common trends that companies face, pharmaceutical 3PL service providers must also deal with industry specific trends that have an impact on their business. Reliance on countries outside the U.S. for raw materials, new models for prescription drug delivery, patient-centric healthcare, telemedicine and the rise of specialty pharmaceutical products are challenging current 3PL operations. New strategies to increase efficiency and communicate effectively are required to address these issues and remain relevant within the changing supply chain.

**Pharmaceutical Logistics and National Security**
Business disruption from the Coronavirus pandemic exposes a weakness in the United States pharmaceutical supply chain. United States government officials are currently working on creating new proposals and finding potential solutions for post-pandemic resilience.

Before the outbreak of the virus, the United States relied heavily on other countries for manufacturing. Approximately 72% of all pharmaceutical ingredients were supplied overseas, specifically, 13% in China. This is problematic because the virus originated in China and now places the U.S. at risk by default due to their exports. Normally, the pharmaceutical supply chain begins in China, where active pharmaceutical ingredients are developed, then flows to India for manufacturing, then finally on to the U.S. for consumption. There are powerful incentives to produce these ingredients overseas, such as a direct cost advantage. For example, the production of goods in China costs seven times less than in the United States, making the switch that much more difficult.

Due to the global lockdown, the U.S. has since begun to look inward for manufacturing needs. As time progresses, there may be an increase in American production and domestic resourcing. Tax cuts are one way to help initiate American manufacturing at lower cost. The focus is on reducing dependency on international locations and starting to operate within U.S. borders. While the world may not ever be completely the same, there is still necessary action that needs to be taken in order to restore efficient pharmaceutical production and manufacturing capabilities moving forward.

For instance, the United States can expand opportunities by manufacturing Active Pharmaceutical Ingredients (API) in this country. This will give Americans greater control over medications and facilities of distribution. Pharmaceutical logistics companies including WDSrx are expanding capabilities to meet this
new business opportunity and respond to the crisis by supporting financial and economic recovery in the pharmaceutical industry.

**Prescription Drug Delivery**

Companies including Capsule increase efficiency and convenience by disrupting the traditional model for delivering prescription medications to patients.

The way in which patients receive their prescriptions is changing.

What was once a primarily place-based setting is shifting to a more virtual and technological based environment. This trend has implications for the pharmaceutical logistics industry.

The conventional channels that patients use to receive medications are expanding with new opportunities to increase efficiency and convenience. The business of filling prescriptions is lucrative. In 2019, 4.38 billion prescriptions will be filled from retail pharmacies in the U.S. valued at **$446.2 billion**. That number is a 6% increase from the previous year.

Traditionally, the method of prescribing and delivering medications involves human contact and some form of transportation to a local pharmacy. In order to obtain a prescription, patients must schedule an appointment with a physician. Once the physician writes a prescription, it is either sent electronically to the patient’s pharmacy or brought in hand to the pharmacist. The patient walks into their local pharmacy, waits in line, and then tells the pharmacist who they are so they know what prescription to fill.
This process can be time consuming as the pharmaceuticals cannot be handed over immediately. Patients usually have to wait additional time wandering around the store until the meds are picked. This is especially hard for elderly people or those who have mental impairments, making it difficult to leave their home.

**Disrupting the Model**

New companies such as Capsule have introduced free mobile pharmacy apps, making it easy and convenient to fill, refill, transfer and manage prescriptions. Mobile applications created by independent corporations or the pharmacies themselves focus on getting the right products to the right people in a timely and organized manner.

After downloading the Capsule application from an app store, patients make an account and enter their healthcare information. By doing so, patients can eliminate some of the monotonous paperwork that needs to be done in person. Once this information is confirmed by the software the patient selects a preferred address, date and time for drop-off. Once that order is submitted, the prescription is ready to begin packing and shipping. Within a brief window, patients will receive their prescriptions safely and securely as requested.

The entire process is much easier than the traditional method of waiting in a small corner of a pharmacy waiting to be called up. It is also a relatively inexpensive process if patients have the proper device to download the app, since delivery is free and only a copay is needed.

For apps with a pharmacy like Walgreens or CVS, patients will be asked if they prefer to pick up their medication curbside or have them delivered to their home. Then, the app will select the nearest available pharmacy to retrieve the prescription.

**Accelerating Change**

With the coronavirus spread through human contact, pharmaceuticals are now being delivered directly to the patient’s door. The company Capsule promises free delivery within two hours in their designated locations in New York City, Boston, Chicago, and Minneapolis, which is impressive for a business started in 2016.

While companies like Walgreens and CVS are long established and reputable, new players such as Capsule and PillPack aim to draw in customers similarly to industry giants. PillPack is an Amazon company that specializes in organizing multiple prescriptions for patients taking several medications. The difference is that Capsule and PillPack are strictly online, and can be used digitally through Amazon or their own website.

There has been an increasing demand for these services during the pandemic, opening the door for new players to grow. Covid-19 presents favorable opportunities for these emerging companies as they target patients that are isolating themselves at home during the virus.
Implications for Third Party Logistics

Third Party Logistics (3PL) companies are adapting capabilities to serve this new business channel. New industry entrants including Capsule are changing the way medications are moved within the supply chain.

Third Party Logistics companies including WDSrx ship large quantities of medications to large regional distribution centers of major retail pharmacies including Walgreens and CVS, where orders are divided and distributed further into brick and mortar retail stores.

Capsule has a different distribution model that skips over the large distribution center. Logistics companies ship smaller quantities of medications directly to local pharmacy warehouses in major cities. New services do not rely on large regional warehouses and instead receive medications much closer to their customers. This saves time and reduces cost because medications are received and delivered within a limited geographic area. As a result, prescriptions can be moved from one point to another at reduced costs and with less steps.

In terms of changing the current business model, companies will have to adjust themselves accordingly to market toward an online and delivery based operation. This could include introducing a mobile application and home delivery system to an already pre-existing pharmacy or create a separate entity all by itself.

Scott Cohon, the current Director of Sales and Trade Relations for Woodfield Distribution, LLC (WDSrx), states, “With patients wanting convenient, quick and cost effective medication alternatives, services like PillPack and their competitors will continue to eat away at the way we are/were used to getting our prescription drugs. The advent of these services will help to continue to increase demand for quick, out of the box thinking pharmaceutical logistics services providers.”

Rapid increases in technology present new ways for patients to receive their prescriptions in a more efficient and convenient way. Prescriptions are now being transported directly to the patient’s door, completely changing the pharmaceutical landscape for the future. Companies that fail to adapt will find themselves struggling to keep up with the fast paced services performed by mobile pharmacies in a post-pandemic society.

Patient-Centric Healthcare

The healthcare system is witnessing a significant shift in the way physicians interact with patients. Many patients today consider healthcare consumption as a consumer product and apply similar behavior to selecting a new doctor as they do to purchasing a new television or other consumer good.
The traditional relationship between physicians and patients has evolved into a patient-centric model geared toward greater patient satisfaction with implications for the logistics industry.

**A World of Healthcare Information**

An estimated seven percent of Google’s daily searches are health-related, according to Google Health Vice President David Feinberg, MD from a report in a health IT newsletter. Total health-related searches on Google amount to 14 billion each year.

Patient knowledge today is far greater than it was in the past. The internet/social media has allowed patients to educate themselves in the healthcare field. The abundance of knowledge found on the internet is helping patients conduct research and find answers to their healthcare problems on their own. Patients are taking charge of their own health by searching online resources for answers about health concerns or issues.

Armed with this material, informed consumers desire a dialog with their physicians to discuss their findings. This new development shifts the dynamic between doctors and patients.

**Doctor as Ruler**

The traditional treatment model that companies abide by doesn’t necessarily value the customer’s perspective. Physicians historically play the role of an authoritative figure with the final say on how and where a patient is treated. Patients have had little influence in how medicine is practiced. Before the internet, there was simply not enough accessible information for patients to develop enough knowledge pertaining to making their own healthcare decisions.

**Doctor as Guide**

Empowering patients to express their knowledge and be involved in the decision-making process gives them a level of ownership when it comes to their healthcare. Now, a quick internet search can provide the patient with a considerable number of results. Based on the symptoms the patient is experiencing, sites such as WebMD and other medical databases help self-diagnose and guide the patient in the right direction.

For example, patients used to rely on referrals from other physicians to find new doctors. They can see physician ratings and reviews to make the decision easier. Another popular feature that helps people find what they need is patient testimonials. The best way to evaluate professionals is by shared customer experiences and anecdotes. Doctors and patients discuss a treatment plan that is a result of a joint effort based on two-way conversation and evaluation. Physicians who used to tell the patient about necessary care now explain treatment options to the patient and involve them in the process.

**Patient-Centric Healthcare and Pharmaceutical Logistics**
Patients are becoming active participants with physicians in their healthcare decisions.

As consumers become more comfortable navigating and relying on the internet, they are more accepting of ordering and purchasing medications and related products online.

“WDSrx makes significant investments in upgrading our technologies to facilitate ecommerce transactions,” states Rob Gerstein, Vice President of Woodfield Distribution, LLC. “Constant technological upgrades are done to keep up with new healthcare services found exclusively online. This new distribution channel may expand in future to include direct-to-patient orders for devices, health and wellness products.”

More informed consumers provide another potential source of business growth for pharmaceutical logistics services providers that also serve animal health and dietary supplement industries.

Demanding consumers expect premium brands of pet food and dietary supplements they purchase to store and ship their orders from warehouses complying with strict requirements for handling pharmaceutical products. Consumers communicating their expectations to their preferred brands support increased business with pharmaceutical logistics services providers.

Pandemic Effects

The Coronavirus pandemic saw hospitals and doctor’s offices hit overcapacity. People turned to the internet to answer health-related questions and give self-diagnosis. This type of behavior has been going on long before the outbreak of the virus, however, COVID-19 has accelerated the number of people seeking online answers to healthcare questions.

As technology advances, people are given more reasons why they shouldn’t have to see a doctor. There is
an opportunity for companies to learn from the effects of the pandemic and what it means to the healthcare industry moving forward.

Vast amounts of knowledge dispersed throughout the web have led to increased patient knowledge and the formation of a new relationship model. The patient-centric dynamic focuses on informed patients having increased input with medical professionals about their treatment options and the consequences for the healthcare supply chain.

**Telemedicine**

*The market for telehealth services in the United States is expected to grow by 80 percent.*

Several trends in the pharmaceutical healthcare industry are changing the way treatments are delivered to patients. Easier and more affordable options to communicate with healthcare professionals are becoming available with telemedicine and telehealth services.

Patients are engaging with their physicians and other practitioners electronically while also maintaining proper social distance and reducing the risk of unnecessary hospitalization. Professional advice and treatment options from virtual sources are increasing accessibility for patients and enabling doctors to increase efficiency.

Consumers are searching for a superior route to fulfill their healthcare needs with options that are faster, more convenient and less costly than traditional methods. Most services in the healthcare industry and business in general are migrating online as customers seek an opportunity for a better overall experience. Telemedicine allows for remote monitoring of a patient’s health, reduced time spent inside a clinic and lower cost. The online platform enables the healthcare professional to work with more patients in the same time
period compared with a clinic environment.

**Busy Waiting Rooms, Old Magazines**

Normally, patients arrive at their physician’s office prior to their appointment time and check in. There is additional wait time after the patient sits down in a waiting room because doctors tend to run behind schedule. A survey by Vitals’ 9th Annual Physician Wait Time Report reveals wait times in physicians’ offices range between 13 minutes 18 seconds to 34 minutes 11 seconds.

Once the patient’s name is called, they enter an evaluation room to be seen by a professional. Very little time is spent face to face with an actual doctor. The whole process is time consuming and doesn’t provide a smooth customer experience. The result of the interaction is a diagnosis that may include a prescription for medication or for further medical services.

**Home vs. Office**

Telemedicine is becoming an efficient method of care from physician to patient. The current state of technological advancement allows for seamless communication from remote locations via the internet. Telehealth and telemedicine have advantages over traditional walk-in appointments as well. It is easier, faster, and can be done remotely from just about anywhere.

Now, medical transactions can be completed without being physically present. The DEA allows both non-Controlled and Controlled substances to be prescribed through telemedicine. Generally, doctors will use virtual appointments via phone calls and web conferencing, or, they will set up a patient portal where patients can login and message a doctor/nurse on standby. The patient portal is designed to generate both quick and informative responses.

Most importantly, patients will eliminate any risk of getting sick from others in a doctor’s office. Elderly patients or those who visit the doctor frequently experience less difficulty with virtual appointments. For most people in the United States, taking time off of work or having a day of flexibility is not an option. Telemedicine eliminates the need for patients to leave their home or place of work.
Several telehealth providers are gaining prominence in the healthcare marketplace. Zocdoc is an online medical care appointment booking service. With just a few clicks, patients can locate nearby doctors, psychiatrists, dermatologists, dentists, etc., browse through reviews, and book appointments immediately. To begin, users fill out a search bar on Zocdoc.com that specifies either the condition, procedure, or doctor name. Next, users put a zip code or city closest to them and can look at different dates and times for an appointment. Lastly, users enter their insurance carrier and plan, if applicable. From there users may select the option to book an online video visit to speak with a professional and if necessary, get prescribed medication.

Pager is another service that aims to deliver the patient with quick and strong answers for their healthcare needs. It works through a virtual chat that combines text, voice, video, and photo into one communication system. Pager is made up of a team of specialists such as registered physicians, nurses, pharmacists, case managers, care coordinators and customer service experts. The average first response time of this service is fifteen seconds, which can be life changing for certain patients.

Pager promises to assess and diagnose a person’s condition in a single chat, known as the Care Team Chat. Upon completing a teleconsult the practitioner connects the patient to a local pharmacist to dispense prescriptions if necessary.

**COVID-19 and Telehealth**

In the midst of a global pandemic, telemedicine services are experiencing a surge in business. Specifically, lockdown rules are making it quite challenging for patients to occupy medical offices or partake in normal activities. These challenges are solved by telemedicine.

According to a recent study from Pharmacy & Therapeutics, an online resource for health care industry decision makers, the U.S. telehealth market will grow by 80% in 2020. The same article forecasts that telehealth use will continue to grow for primary care, urgent care and chronic care management and that virtual care will continue to increase as a percentage of overall doctor visits.

Telemedicine is proving itself as being highly efficient and effective in treating patients’ problems. It focuses on fixing patient’s health problems with no contact and no worries. As more people adapt and try telehealth services for the first time, acceptance of the new technology increases and becomes a mainstream trend. Soon the average citizen will possess the ability to self-monitor their health and relay medical information to their healthcare providers.

**Telehealth and Pharmaceutical Logistics**

Telehealth and telemedicine services are being implemented into the prescription drug industry, which can
have a significant impact on logistics services. These new and expanding technologies present an opportunity to increase business.

Remote monitoring devices such as smart continuous glucose monitoring (CGM) and insulin pens measure health data such as blood pressure, oxygen and heart rate levels. These devices will become more commonly owned and used by patients as they become readily available. The demand to stock and distribute this inventory will increase as telemedicine becomes more widespread. Pharmaceutical 3PL companies including WDSrx capitalize on this emerging market for prescription medical devices by facilitating packaging, warehousing, kitting, storage, fulfillment, and logistics services for these medical device manufacturers.

Adam Runsdorf, President of WDSrx, states “We are currently working with Senseonics, a manufacturer of prescription medical devices such as blood glucose monitors, to prepare, package and ship individualized orders directly to practitioners. Each device is then implanted into the patient as part of their treatment. The Direct-to-Practitioner model is a growing distribution channel among our logistics services.”

The potential for these devices to be integrated into patient-physician interaction is significant. Doctors will be able to evaluate patients based on their self-monitoring systems and administer the appropriate medication accordingly. These devices will connect directly to either a mobile device or physician in order for patients to maintain good health.

Some emerging technology in this field includes connected inhalers, ingestible sensors, connected contact lenses and similar applications that can be downloaded to a smart watch. One of the new technological innovations is a Bluetooth enabled monitor to detect blood coagulation levels when this condition is a concern. These devices will also keep the patient and doctor informed and up to date on medical information to take action when necessary.

Innovative communication methods such as telemedicine make it possible for patients to reach qualified professionals from remote locations via the internet.

The concept of leaving home and sitting in an office waiting room is slowly being phased out. This new patient/physician interaction model adds convenience for the consumer and increases effectiveness of the practitioner. Of course there are certain medical procedures that aren’t possible virtually like surgery, however, surgeons can use telemedicine to follow up and check on their patient’s recovery.

Third Party Logistics companies including WDSrx are preparing for the influx of telemedicine appointments by collaborating with manufacturers to fulfill orders for medications and devices directly to healthcare consumers.
New Types of Drugs Pose Logistics Challenges

*Cell and gene therapies create a new supply chain model for one-to-one specialty treatments.*

New types of drugs with special handling and distribution requirements are creating new opportunities in the pharmaceutical supply chain. Biopharmaceuticals incorporate human material into drug manufacturing to effectively treat patients. The opportunities that biopharmaceuticals present to the pharmaceutical supply chain are significant.

Most drugs are developed by manipulating chemicals to create a desired reaction with a therapeutic benefit. These ‘small molecule’ drugs were joined in 1982 with the first biologic drug marketed in the United States. Biologics are generally more complex compared with small molecule formulations because they are manufactured through biological means and could contain extractions of human blood, genes, cells, and other bodily tissue.

Cell and gene therapies are a new class of medications personalized for the patient, meaning manufacturing and distribution is for a market of one person. First marketed in 2017, they work by altering one’s DNA in order to regulate genetic functions. These drugs are used to treat a variety of conditions such as autoimmune diseases and cancer.

Most biopharmaceuticals and cell and gene therapies require special storage and handling to maintain potency as they move within the supply chain.
The market for non-cold-chain medications was $959 billion globally in 2019. Products requiring cold chain logistics totaled $15.7 billion the same year. Although both segments are growing, the share of cold chain products is rising faster compared with non-cold chain products.

Small Molecule Drugs Dominate the Marketplace

Small molecule drugs make up 90% of global drug sales in today’s pharmaceutical market. Most traditional drugs are composed of small molecules that have been chemically synthesized, being absorbed through oral consumption. These conventional pharmaceutical drugs are designed to treat a broad variety of illnesses like cold and flu, often sacrificing effectiveness for versatility.

Many of these products require no cold chain handling. But newer types of medications are changing the nature of the supply chain.

Biopharmaceuticals and Cell and Gene Therapies Gain Market Share

The future looks bright for patients requiring these high-value products. The FDA approved 35 biopharmaceutical drugs in 2019 and received 500 active investigational new drug applications involving gene therapy products in 2018.

In the past decade, newly emerging classes of drugs, including biologics and biosimilars, are increasingly gaining traction.

The cost to develop biopharmaceuticals is more expensive compared with small molecule drugs and they generally require the patient to administer the medication through injection. When biopharmaceutical compounds come in contact with the body, chemical reactions occur with more interaction than generic drugs. As a result, biopharmaceuticals are more effective in treating complex illnesses.

Cell and gene therapy is a growing market for one-to-one patient treatment. By modifying the DNA coding sequence, the genes are rewritten in a way that eliminates the problem at the source. Examples of conditions that would benefit from gene therapy are lactose intolerance, cancer, heart disease and diabetes.

Specialty Pharma and Logistics Services

Biopharmaceuticals usually require temperature-controlled storage and must be handled differently than conventional small-molecule medications. The delivery system designed for small molecule drugs needs to be re-engineered to accommodate biologics and cell and gene therapies.
The pharmaceutical logistics industry is generally geared towards moving large amounts of medications including small molecule drugs to dispensing points where the order is distributed for treatment. The market for biopharmaceuticals and cell and gene therapy is growing relative to overall pharmaceutical sales.

Special handling, storage and fulfillment is an opportunity for WDSrx to increase service offerings based on these new therapies. In 2020, drugs requiring 2-8 C storage and shipping will constitute $341 billion worth of products, and will show 48% growth between 2018 and 2024. Non-cold-chain products are currently $959 billion, rising by 27% in value by 2024.

Expanding cold chain capabilities across four locations in Pompano, Boca, Houston, and New Jersey is an opportunity to increase business in biopharmaceuticals. There are detrimental effects to leaving drugs out in uncontrolled conditions such as decreased product effectiveness. Increasing space to store temperature regulated biopharmaceuticals will ensure the products remain secure. Developing informational materials to distribute in person and online focusing on cold chain services and distribution capabilities also promote awareness with target groups.

Meeting with representatives of pharmaceutical companies who work with biopharmaceuticals is a good way to inform them on existing cold chain capabilities for new drugs. For example, attending biopharmaceutical related conferences such as the one hosted by the Bio Supply Management Alliance (BSMA) committee allows companies to gain insight into specialized services for biopharmaceuticals at WDSrx.

“Future business success for Third Party Logistics providers depends on the availability of cold chain capabilities in multiple environments and locations to satisfy manufacturers developing biopharmaceuticals,” according to Adam Runsdorf, President of pharmaceutical logistics services provider WDSrx. “Specialized supply chains for cell and gene therapies are a small but important component to deliver treatments in a one-to-one loop between patient and manufacturer.”

**Expanding Options For New Drug Classes**

As production methods and technology improve, specialized pharmaceuticals including biopharmaceuticals and cell and gene therapies fit patient needs more effectively.

Tailoring pharmaceutical drugs to these specific individuals allows for better outcomes. These innovations increase the opportunities for pharmaceutical companies to manage patient health. Pharmaceutical 3PL companies that address the need to strengthen storage and distribution capabilities will capitalize on this emerging supply chain challenge.

**PHARMACEUTICAL LOGISTICS INSIGHTS ADDRESS INDUSTRY TRENDS**

In order to be viable, certain changes in logistics must be taken into account. The United States is heavily
reliant on other countries for their fulfilment needs. As a result, the supply chain suffered immensely during the COVID-19 pandemic. A potential solution is to vertically-integrate the supply chain in the US. The process of moving the supply chain within U.S. borders for products in the national security interest are being explored with Federal initiatives administered by the Biomedical Advanced Research and Development Authority (BARDA), an office within the U.S. Department of Health and Human Services (HHS).

Another major takeaway is that the manufacture and distribution of medications are now being personalized, creating a new supply chain model directly between manufacturer and patient and eliminating handling from traditional wholesalers and other trading partners. Cell and gene therapy require a one-to-one circular supply chain, where pharmaceuticals go from patient to manufacturer and then back to the patient. Pharmaceutical logistics providers possess the expertise to facilitate the movement of these high value, low volume specialty pharmaceuticals. One and two-day delivery guarantees from Amazon.com and other online retailers are accelerating developments in fulfillment for fast, accurate, safe on-time delivery of medications. Online businesses specializing in prescription ordering and delivery are potential new sources of income for third party logistics providers that embrace these new business models that stress fulfillment from small urban facilities instead of large suburban distribution centers.

Patient-Centric models are becoming more prevalent, and require upgrades in technology. This distribution model features a direct connection with the end consumer. Opening up a new distribution channel will allow for direct-to-patient orders for a variety of health and wellness products. A more informed customer also means a wider range of capabilities must be offered by third party logistics companies. Increasing consumer demand for supply chain transparency favors veterinary products manufacturers that utilize pharmaceutical logistics services providers to fulfil orders to customers because of their compliance with Good Distribution Practices (GDP) to assure strict safety guidelines.

Telehealth creates a new link between patients and manufacturers. When a physician directs a patient during a virtual office visit to purchase a medical device, the order may be routed directly to a third party logistics provider and delivered to the patient home. This advancement in fulfillment streamlines the movement of therapies and increases efficiency.

Biopharmaceuticals contain living matter in their manufacture that generally require storage in refrigerated environments to maintain potency. With the market for refrigerated storage and handling expected to increase 48% for the period between 2018 and 2024, third party logistics firms taking calculated risks to expand cold chain capabilities may improve their business fortunes.

COMMUNICATIONS INSIGHTS
Real-time communication between third party logistics providers and manufacturers is required to meet demands of connected physicians and well-informed patients.

Current trends affecting the pharmaceutical supply chain dictate how third party logistics companies promote their services to embrace new opportunities. Trends can determine the direction companies take to market themselves to consumers. Extensive planning and attention to detail is necessary for adapting businesses to promote programs that reach new customers.

On the demand side, logistics services providers must enhance relationships with manufacturers about the direct path of distribution they offer to healthcare practitioners and patients. With the emphasis on digital communication through telemedicine, medical devices can be ordered and monitored over the internet. Logistics providers properly registered for medical devices by the U.S. Food and Drug Administration (FDA) can receive the order in real time as it is placed during the doctor/patient interaction and ship the product directly to the patient.

As technology continues to streamline business processes and disrupt legacy supply chain behavior, progressive pharmaceutical logistics providers are in a position to educate manufacturers about more direct distribution methods for their medications to supply the newly established business model for prescription drug delivery. Conventional wisdom involves shipping large quantities of medications to regional distribution centers. Newly established companies focused on small local distribution hubs in urban areas require multiple orders of smaller quantities. Experienced third party logistics providers can develop programs that contain transportation costs and increase efficiency for new business models.

On the supply side, 3PL service providers need to focus on communication with the pharmaceutical manufacturers to make them aware of expanding capabilities for storage and distribution of new drug
classes. Keeping manufacturers updated with capabilities helps inform them about services that they can receive. Transparency about real-time information concerning capacities for cold chain inventory and also about one-to-one pick-up and delivery tracking are critical to the success of new therapies. Investments by third party logistics companies in refrigerated and frozen infrastructure as well as transportation software for custom routing and timing of critical medications support this growing component of the pharmaceutical industry.

Conclusion

Business in general and third party logistics companies in particular face many challenges brought on by unanticipated and established risks and by advances in technology requiring high levels of competency and openness to adapt. There are several areas where 3PL service providers can capitalize on rising trends in order to increase business opportunities. Building and maintaining stronger bonds with customers, patients, practitioners and manufacturers will support new business models.

Companies that act now in preparation for the future and the challenges it presents will help to establish their success. The traditional role of pharmaceutical third party logistics providers is changing and the impact of new industry trends spark evolution in conventional business practices and common solutions.

WDSrx continues to work towards their goal of recognizing trends in the pharmaceutical 3PL industry and capitalizing on them. Sustaining effective business strategies and communication methods will lead to more opportunities with potential clients. By understanding how the pharmaceutical 3PL market changes over time, WDSrx can benefit and succeed in the future.

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