The intersection of technology and management.

# The Art and Science of Inventory Management

#### **INVENTORY MANAGE-**

**MENT,** having a variety of medications on the shelf ready for the walk-in customer, is as much an art as it is a science. "I didn't want our service to suffer," says Chris Schiller, Pharm.D., who co-owns the four-store Economy Pharmacy with his wife, Becky. The goal is to eliminate surplus while still having a variety of medications on the shelf to handle any patient need. "It's really hard to do this and still keep your service level," Schiller says. "But our service level hasn't suffered," he continues. "It's just as good as it was before, and we have increased cash flow, which was really my goal — to operate more effectively."

The couple bought the business two years ago after working there for 20-plus years. Schiller says that he knew one of the first aspects of the business he wanted to change was inventory management. Although he used perpetual inventory through his Computer-Rx system and regularly reviewed reports to keep the shelves clear of unused inventory, Schiller wasn't seeing the results he needed.

The four stores, two in both Tulsa and Muskogee, Okla., fill about 37,000 prescriptions a month across a variety of practice settings: Three of the four stores are stand-alone pharmacies; one is in a medical building. Three stores offer compounding service, and Economy operates a robust adherence packaging



"There are so many things you need to worry about, and having inventory managed at this level means we don't have to worry about it. We can still offer a high level of service while keeping our inventory numbers lean."

- Chris Schiller, Pharm.D.

and delivery program. "We service every type of patient," says Schiller. "We deliver, we have a double drive-thru — we do just about everything."

A few months after purchasing Economy, Schiller compared third-party inventory management systems at a trade show. He knew he needed something that worked across the four stores, was easy to use, and would intelligently manage the inventory so he would have every-



by Maggie Lockwood

thing he needs without wasting money with unused stock. He chose Datarithm because he liked how it would tie the four stores together, and he liked the idea of working with a small company.

"What I liked about Datarithm is it's using our actual inventory to set order points," says Schiller. "It can tell us we have an item in stock but won't be dispensing it for a few months in that location, so we can transfer it to a location where it will be used sooner. This really helps us manage our inventory."

Datarithm is cloud-based software that forecasts usage based on each pharmacy's historical dispensing data. Pharmacists set order points and other metrics to fit their goals, and the software identifies surplus and advises on returns. This is a powerful tool, especially with expensive drugs that aren't fast movers.

Instead of purchasing an item again, the software shows Economy staff where a specific item is in stock at another store, and the quantity, says Schiller, significantly reducing unnecessary ordering. "We still have quite a bit of surplus, in my opinion, but it's obviously down significantly."

# LET THE SOFTWARE DO ITS WORK

At first the staff was hesitant to let the software make the inventory decisions, continued on next page

# feature: balancing costs and service

continued from previous page

says Schiller, due to the age-old pharmacist's dilemma: fear of change. "I told them this was change for the good, and just let the system do what it's supposed to do," Schiller recalls. "It's been doing a fantastic job. They make adjustments occasionally, but it has, in my opinion, made my staff's job easier and more fun."

Schiller and his staff still conduct audits to verify what's actually happening with inventory, but he says the software does pretty much everything when it comes to day-to-day inventory management. This means less time managing exceptions like the expensive drug for one patient, which used to require a manual order point set to have just-in-time fulfillment. Now the system predicts when that drug is needed, and indicates when staff should transfer between stores if it's already in stock.

"Without this intelligence you're just driving blind," Schiller says. "What's helped us a lot is knowing when we can return medications or should order more. With the software reviewing our dispensing history, it makes it a lot different from trying to do it by yourself through reports in your computer software."

The balance sheet tells a powerful story. Shortly after Economy implemented the Datarithm solution in the spring of 2017, Schiller says, he had \$1.6 million on the shelf. Today, he has decreased the inventory by 30%, or \$500,000. The returns went from 15% to 19%. Over the course of this time he has returned \$633,000 worth of medications and transferred, rather than buying again, \$150,000. The surplus is down \$215,000. Schiller thinks he's still carrying a little too much surplus, but overall the results are more than he had hoped for.

"There are so many things you need to worry about, and having the inventory managed at this level means we don't have to worry about it," he concludes. "We can still offer a high level of service while keeping our inventory numbers lean."

#### A GOOD INVESTMENT

The integration between the pharmacy system and Datarithm is seamless and takes into account the demographics and needs at each store. An example of the benefit of a unified inventory system is with the expensive drug for one patient in an adherence program. Since the software is looking at the various locations and is able to see there is some on the shelf at another store, there is no need for the staff to manually change an order point or zero



Focused on inventory at his four stores, two in both Tulsa and Muskogee, Okla., pharmacist and co-owner Chris Schiller wanted better management that left less on the shelves, while maintaining the ability to fill prescriptions for walk-in customers.



out inventory to trigger a reorder.

"As long as we do our audit reports and follow the recommendations for returns, the software works great," says Schiller.

His staff at first wanted to override the system recommendations, but Schiller was adamant about letting it run and avoiding the desire to override its recommendations. "We're creatures of habit, and when you've done something for 20 years it's hard to imagine a better way to do something," he says. "If we're going to continue, we have to change and not be hesitant to invest in something. I think it's well worth the money." **CT** 

Maggie Lockwood is VP and senior editor at ComputerTalk. She can be reached at maggie@computertalk.com.

## **c**over story: manage inventory

# Manage Inventory to Grow Your Pharmacy

by Will Lockwood

#### **Analytics for All**

**Whether you run an independent pharmacy** or are charged with managing inventory at a chain, there's an important set of tools that have come to the market in recent years: inventory analytics. This is a suite of tools that use your historical inventory data to train algorithms that in turn provide data-driven insights into your inventory — offering forecasts and recommendations, as well as keeping an eye on unusual activity.



George Fotis, Pharm.D., became the new owner of Drug City Pharmacy in Baltimore, Md., in 2018, but with some real work to do. The business is hardly that small, even with just one location. It's been a cornerstone of the community since 1954, and Fotis reports very high prescription volumes and additional offerings that range from durable medical equipment to a post office to check cashing and a

**George Fotis** 

grocery and liquor department. "We're really an all-purpose general store," says Fotis.

But, Fotis realized, Drug City Pharmacy was also working with a very outdated inventory mindset. The standard practice before Fotis took over was to keep the shelves full of stock, buying based on the deals whole-salers were offering. That led to boxes of expired bottles on the shelves, sometimes with dust on them. "You may think you are buying right based on the specific deals," explains Fotis, "but that ends up being a recipe for buying just way more than you need."

Inventory analytics turned out to be just the remedy for this situation, and one of Fotis's first orders of business as the new owner was to reach out to Datarithm about getting inventory and purchasing under control. What he found out was that he should be looking for a target number of around \$600,000 for inventory. "I couldn't believe it, because we were carrying close to \$1.4 million in inventory at the time," says Fotis.

#### Perpetual Inventory: Hard Work, But Worth It

**Let's pause, though, and talk about** perpetual inventory a little more. Remember that one question you need to answer is, what do you actually have in stock? And the answer to this comes from the painstaking process of implementing and maintaining a perpetual inventory process.

#### **THOUGHT LEADERSHIP**

#### Non-perpetual Inventory Versus Perpetual Inventory

Either System Benefits from Datarithm



by Jennifer Wilcox,

Senior Account Executive, Datarithm

Non-perpetual inventory systems are inefficient, as inventory levels are not real time, dollars invested are inaccurate, and orders are not based on forecasted demand.

Non-perpetual with Datarithm results in cleaning data stored in the pharmacy management system, resulting in accurate on-hands with the suggested best order point and order quantity for each drug presented for manual update to the pharmacy management system.

A Perpetual inventory system updates inventory levels in real time, allowing for the accuracy of units on hand and the dollars invested in those units.

Perpetual with Datarithm results in accurate on-hand, best order point, and best order quantity for each drug in a given formulary, with those data points automatically updated in a given pharmacy management system via your customizable Datarithm Inventory Control Solution.

Learn more at www.datarithm.co

"That's the foundation," says Fotis. "Without it you're up the creek."

At Drug City Pharmacy, Fotis started with completely zeroing inventory and then going back and loading everything in again. It was a lot of work, but a clean "on-hand" inventory in his pharmacy management system was a solid starting point. From there, Fotis has leveraged Datarithm's analytics, specifically best order points and order quantities. Datarithm updates those quantities automatically in his pharmacy system monthly. Fotis' last step was to utilize EDI (electronic data interchange) ordering through his pharmacy system.

"If anything is below the reorder point Datarithm algorithms set, it goes on an order," says Fotis. "Then I get an EDI transaction from the wholesaler directly back into the pharmacy system that updates my stock numbers

continued on next page

# over story: manage inventory continued from previous page

based on what's actually being delivered. So I don't have to do any sort of manual receiving whatsoever."

With this process, inventory is never going to be off — in a perfect world. Of course, any pharmacist will tell you that things happen, and so keeping a perpetual inventory requires ongoing effort.

This is where Datarithm's cycle counts come in, according to Fotis. This means that you physically count around 30 products every day to ensure that the actual stock on hand matches the inventory numbers in your systems. Every couple of months you'll have counted through your entire inventory. Fotis is using Eyecon tabletop counters to make this cycle count process quick and accurate.

#### What You Have and What You Need

In fact, it's important to start any dive into inventory with two questions: What do you have right now, and what you need to order? Packed into this simple one-two is a pile of data reflecting shifting demand based on seasonality, generic rollouts, payer preferences, and more. And the closer you can keep inventory to a just-in-time ordering model, the better for your pharmacy's cash flow. As George Fotis notes, you fill a prescription and you don't get paid for it for four to six weeks. So if you've paid for that inventory and it's been sitting on the shelf for weeks already, well, it's easy to see how you can end up with hundreds of thousands of dollars tied up.

### **Getting Smart About Inventory**

**George Fotis makes minimizing out-of-stocks** a major goal at Drug City Pharmacy. It goes back to that desire to provide the best service to patients. But you can't fall into a better-safe-than-sorry mentality, Fotis notes, and this is where he's found that Datarithm's analytics is making him much more intelligent about his inventory.

"Software algorithms take the guesswork out of deciding on-hand numbers for your stock," he says. "We can set, for example, a 30-day look back and a goal of maintaining a day's supply in stock. This data is then what sets the ordering parameters within our pharmacy system. These algorithms do the hard work of weeding through your inventory for things like that bottle that was used once in the last 30 days, but was never used before. It keeps us from making the very natural mistake of reordering it based on that recent but unusual usage." Likewise, it's easy to train algorithms to look for the dispensing of certain medications that's ramping up or down — for example, when a new generic comes out. Overall, Fotis finds that Datarithm's analytics is keeping him from being caught off guard by demand.

#### Managing Cash, Managing Risk

**Using software analytics to run inventory** management frees up cash. Healthy cash flow is the lifeblood of a business. The cash that George Fotis was able to free up from inventory was incredibly valuable to him as a new owner. He reports seeing his cash flow improve immediately, and subsequently reinvested in his pharmacy by purchasing a lot of needed technology. "I bought an RxSafe, a few Eyecons, and we brought in PioneerRx as our new pharmacy management system," he says. "Essentially, all that extra inventory turned out to be the cash we really needed to put back into the pharmacy to bring it up to date." That's an example for any pharmacist on an ownership path and any pharmacy looking for the resources to make its strategic goals possible and/or improve working capital.

### Tallying Up

**Getting your inventory rightsized** and under control is not an impossible task. It just takes the right tools, and the payoff is impressive when you tally it up. "Inventory is down 41% since I started using Datarithm in February of 2017," says George Fotis. "Our turns improved by 51%. So to me there's no question that you have to bring analytics in if you want results. People will say, 'I can do this on my own,' but you just can't achieve the same level of sophistication and keep up with the ongoing effort required." **CT** 

Will Lockwood is VP and senior editor at ComputerTalk. He can be reached at will@computertalk.com.

