Our rapidly changing healthcare landscape is creating outsized impacts on the retail pharmacy industry. As fee-for-service gives way to outcomes-based medical reimbursement, retail pharmacy organizations are facing transformational challenges. Facing pressure from patients, payors, government agencies, and auditors, retail pharmacy companies are seeking new ways to enhance care, improve results, and reduce inefficiency and waste.

Forward-thinking industry leaders are using next-generation analytics to shine a light on insights that can inform new approaches and best practices. Yet choosing early use cases, understanding which data to analyze, and getting maximum return on an analytics investment requires the guidance of experts.

C. David Butler and Ronald Chomiuk, Senior Industry Consultants, in Teradata’s Retail National Consulting practice lend their expertise.

Q. Why is the retail pharmacy industry under such pressure to evolve from established business practices?

A. Chomiuk: In response to the Affordable Care Act, retail pharmacies in the United States are looking for ways to reduce healthcare costs, improve accessibility, and enhance outcomes. Instead of selling commodity products, they are moving toward managing patient health in collaboration with clinicians and hospitals. So we see pharmacies offering new services, such as immunization and patient medication therapy management. To ensure that products are in stock when needed, they are also forming new supply chain alliances with distribution and logistics companies. It all adds up to a renewed focus on patient well-being. In fact, the CEO of one leading pharmacy chain said that his company is on a path to dominate every aspect of “well.” When you combine these trends with the aging population around the world and include the anticipated shortage of physicians, retail pharmacy is facing unprecedented challenges. But the flip side is that these changes offer extraordinary new opportunities that retail pharmacy is well-positioned to address.

Q. Are there certain business issues that are especially well-suited to analytics-fueled insight?

A. Butler: Absolutely. Medication adherence is a significant concern. Experts say that one-third to one-half of patients never fill their prescription, take it incorrectly, or stop taking the drug prematurely. As a result, they get sicker and often end up in the hospital. Poor medication adherence creates an additional $100 to $300 billion in healthcare costs annually. Think about what’s possible: if the pharmacy can use data to evaluate the impact of patient age, medical conditions, therapies, ethnicity, insurance status,
and the like, they can predict which patients are likely to become non-adherent. They can contact a person using a patient-preferred communications channel and discuss why staying on the medication is so important, which may keep the patient healthier and out of the hospital. This type of data-informed consultation not only drives costs out of the healthcare system, it increases pharmacy revenue. Patient loyalty grows when people feel their pharmacist is looking out for them.

**Q.** To maximize medication adherence, pharmacies must have the right products available in stock. That can be difficult when there are 50,000 products on the market and most pharmacies can stock only 1,500 to 2,000 SKUs.

A. **Chomiuk:** It’s true that pharmacies must be prepared for any prescription that comes in. But even basing inventory on local prescriber patterns and medical issues, that’s not easy to do. Stocking too many high-priced products drives up inventory carrying costs. Some products have a limited shelf life. Order too much and you create waste. What’s more, patient demand is notoriously lumpy. A patient who fills a three-month supply of a drug may consume all of the pharmacy’s immediate inventory, creating an out-of-stock situation for the next customer. That’s where data can help pharmacies move beyond their current ordering systems. By understanding when a patient is likely to come in for a refill, factoring in local demand, and adding seasonal considerations such as the need for allergy or flu treatments, pharmacies can predict their inventory requirements at a more granular level. Taking it a step further, a pharmacy can use data to understand patient prescription fill patterns. If the pharmacist can coordinate multiple patient prescription refills into a single pickup, that makes life easier for the patient and streamlines inventory management for the pharmacy.

**Q.** Studies show that many pharmacies write off a significant portion of their reimbursements from insurers and other payors. How can data be used to increase reimbursements and boost profitability?

A. **Butler:** The reimbursement process is incredibly complex. The contract between payor and pharmacy specifies the process and conditions for reimbursement. The pharmacy must be able to track each product sold—back to the specific number of tablets and any consulting services offered—and submit an accurate invoice. Bills are submitted per prescription or encounter, but payors often reimburse them in batch. When a reimbursement check arrives, the pharmacy must be able to correlate it with prescriptions that may have been dispensed 30 to 90 days earlier. Large pharmacy companies may bill as many as 800 million transactions per year, so it’s a huge problem. With the right data and powerful analytics tools, though, companies can accurately correlate claims and reimbursements. They can also gain insight into which payors are reimbursing according to contract and which are withholding reimbursements. Pharmacy companies can use that information to explore strategies for improving payment rates and take steps to reduce write-offs.

Adding to the complexity, many patients have multiple insurers. Pharmacies must be able to track primary, secondary, and tertiary payors. They also must meet the contractual requirements of both commercial insurers and government plans such as Medicare and Medicaid. Using the data, pharmacies can ensure that they bill each payor correctly and that patients are not overcharged, in order to avoid fines and penalties.

**Q.** How are pharmacies using data to handle fraud, waste, and abuse?

A. **Chomiuk:** Because insurance is covering a larger population, the risk of fraud, waste, and abuse (FWA) is growing. The government is working more proactively to identify practitioners, prescribers, patients, distributors, and pharmacies that are involved. And many pharmacy companies have a benefits management division responsible for ensuring that prescriptions and payments go to the patient efficiently and without abuse. On the financial side, data can help identify when people or companies are cheating the system—such as drug switching or shorting by the pharmacy or true out-of-pocket (TrOOP) cost manipulation by the patient. In addition, the data can help detect substance abuse, showing when a patient requests too many pain relievers, a pharmacist dispenses more pain controlled substances than normal, or a store purchases more medications than it sells—indicating possible illegal sales activity. The permutations of fraud and abuse are extensive, and the penalties can be severe. Pharmacist responsibilities are growing in complexity. And the right data and analytics tools can help them work more effectively.

**Q.** Which data should retail pharmacy companies collect to deliver valuable analytics insight?

A. **Butler:** In short, collect it all. We are rapidly moving toward needing a lifetime health information record in order to satisfy patient, payor, and government expectations. The required data will include not only patient medical records, but also the operational activities of healthcare services. Any data that helps keep patients healthy and achieve better outcomes from their therapies...
is important, as long as pharmacies ensure the data is used without violating patient privacy regulations. Analytics can be enhanced by a variety of data, such as information on over-the-counter drugs purchased by the patient, diagnostic details, health plan data from payors, formulary information, call center records, emails, and text messages. The more data that can be captured and analyzed, the clearer the picture that emerges. The only caveat is that companies must protect patient information, limiting access to those employees responsible for patient payment, treatment, or operations (PTO). A relational database that creates role-based views can help pharmacy companies push information to the right workers without violating privacy regulations.

Q. How can retail pharmacy companies realize a healthy return on investment for their analytics initiatives?

A. Butler: It's not enough to just collect data and plug it into a computer. To efficiently target the areas that will deliver the best ROI, we advise consultation with experts who understand the retail pharmacy industry and all of its complex rules. By conducting a business value assessment (BVA), companies can quickly identify the areas with the strongest ROI potential and build a strategic roadmap to achieve identified benefits. By pursuing the "low-hanging fruit" first, companies can gain business value as well as use savings to fund the next analytics focus area. Experienced consultants can also conduct discovery sessions to assess whether the company has the right information architecture, data architecture, and governance programs in place to effectively support an analytics initiative. Further, consultants can help executives with the change management required to incorporate and utilize newly found analytical information into the enterprise.

Chomiuk: A retail pharmacy that operates inside a parent organization is an enterprise in itself, and it's very complex. It is not enough for a provider to come in, sell software and hardware, and move on. Only when that provider has consultants with industry expertise, who are willing to take the time to understand core issues, performance indicators, and pains, can it build applications that create an end-to-end data and analytics solution that will deliver maximum ROI.

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