The Modern Retail Pharmacy and mHealth

By Jason Dombi

If we ask 10 people, “What does mHealth mean?” we will likely get at least five, maybe even 10 different answers involving various versions of mobile and health. A simple Web search for “mHealth definition” yields over 100,000 unique results — highlighting the difficulty in identifying a single, agreed-upon definition.

This widely discussed topic. The National Institutes of Health (NIH) defines mHealth in its broadest form as “the use of mobile and wireless devices to improve health outcomes, health care services and health research.” Whatever the definition, the typical pharmacist can expect to hear customers increasingly ask about various applications or products that they are considering.

Using the NIH definition, many items are heart monitors, blood pressure meters, glucometers — can be classified as mHealth devices. But it also means a smartphone can become an mHealth device. A tablet. The devices we carry with us every day can easily track, store and interpret data for little or no cost. These devices are rapidly changing the way health care is delivered and received, and they require all health care professionals to adapt to this changing environment. How will mHealth impact the evolving role of pharmacists? How can pharmacists incorporate mHealth into their daily toolboxes to promote patient health and support chronic disease management? And what does the emerging segment of prescribable mHealth apps mean for today’s pharmacists?

Sizing the mHealth market

The broad definition of mHealth makes it extremely difficult to estimate the size of the market. For example, should mHealth market sizing include telehealth? Telemonitoring? eHealth? A quick search on the Google Android app market alone finds over 2,000 (paid and free combined) apps classified as either Medical or Health & Fitness. Should every one of these apps be considered when sizing the market? Ultimately, any assessment of the potential of mHealth is subject to a degree of variability in comparison to other markets. However, one of the most reliable predictors, GroupSpecie Mobile Association (GSMA), estimates that global sales of mHealth services will reach $23 billion in 2017. GSMA also expects the U.S. mHealth market to reach $5.9 billion in 2017, about 25% of the global market. Due to the broad definition of mHealth, other research reports cite higher or lower figures, depending on what aspects are included.

Regardless, everyone reaches the same conclusion — mHealth is a fast-growing segment of the market that will continue to impact how we deliver and receive health care services.

The ABCs of mHealth products

The products included in mHealth cover a wide spectrum. At one end of the spectrum there are apps that can be downloaded onto a smartphone that perform any number of simple tasks — reminding a patient to take his or her medication, for example. On the other hand, there are fully integrat- ed solutions that collect and track data and provide user-specific consultation, usually from a Health Care Professional (HCP) or other specialist. This spectrum of mHealth products can be broken down to A, B, C:

Action: The simplest mHealth products consist of apps and/or devices that perform specific actions or tasks. They might remind patients to take medication or send refill requests to pharmacies. Or they might track and store blood glucose levels or blood pressure information from daily assessments. Many of these are free or low in cost. The limitation is that while these products perform a useful action, they don’t attempt to provide any guidance to users.

Basic Guidance: The next level of product provides basic guidance to the user by leveraging the real-time data collected. For example, based on a diabetes patient’s blood glucose levels, the app might suggest drinking some apple juice to bring up blood sugar levels. Generally relying on macro-level demographic data (age, sex, weight, etc.), the guidance provided should be considered directionally accurate. While these products do provide more feedback than simple Action products, they still do not give users the specific, personal feedback that may be necessary to drive individual health outcomes.

• Consultation: Fully integrated mHealth tools build upon Action and Basic Guidance with one-on-one personal consultation. These consultations are usually with an HCP or other specialist, focused on the single goal of interpreting the user’s data and providing actionable, user-specific feedback. In many cases, these are disease-specific tools designed to manage chronic conditions. Under the current and emerging commercial models, solutions in this category usually require upfront fees.

While the majority of apps and devices today only provide Action and/or Basic Guidance functionality, there are exceptions that offer additional functionality.

CVS Caremark Uses Technology to Combat Prescription Drug Abuse

WOONSOCKET, R.I. — CVS Caremark Corp. is tapping its data- base to identify and halt inappropriate prescribing of such high-risk drugs as opioid painkillers.

By evaluating data on prescriptions filled at CVS/pharmacy, the company identified providers with extreme patterns of prescribing such high-risk drugs and suspended controlled substance dispensing for those who could not justify their prescribing habits.

“Prescription drug abuse in this country is an epidemic, but it doesn’t have to be,” said executive vice president and chief medical officer Troyen Brennan. “CVS Caremark is committed to mitigating prescription drug abuse by advancing legislation, promoting technology and creating safer communities.”

In a recent effort, the company identified problem prescribers by studying their volume and share of high-risk drugs compared with other providers in the same specialty and geographic region as well as the ages of patients and their payment methods. The program identified 42 outlying prescribers who were then asked to provide additional information about their prescribing habits. Of these, only six identified legitimate reasons for their unusual prescribing practices.

As a result of the analysis and outreach, CVS Caremark suspended controlled substance dispensing through the company’s CVS/pharmacy locations and the CVS Caremark mail service pharmacies for prescriptions written by the other 36 providers.

Target Teams Up With Metro

MONTREAL — Metro Inc. will become the exclusive operator of Target Corp.’s pharmacies in Quebec as it continues to adjust to intense competition and dramatic changes in the Canadian supermarket and pharmacy businesses.

Target will partner with Metro’s Brunet subsidiary under an agreement that will see Brunet operate 18 pharmacies that Target will open next summer in Quebec. The deal will raise Brunet’s store count to 168 and nearly double its presence on the land of Montreal.

“This strategic partnership will enable us to significantly increase the presence of Brunet in Quebec and represent a solid growth platform for our pharmacy business,” Metro chief executive officer Eric La Flèche told analysts.

Metro has said it is interested in growing its pharmacy division, especially in Quebec. La Flèche said that it will consider other expansion opportunities should they become available.

Minneapolis-based Target, which has acquired much of the space formerly occupied by Zellers, plans to open its first 25 stores in Quebec this fall.

Only 18 will have pharmacies. However, ever, Metro will have the exclusive right to add other Brunet locations as Target expands its presence in the province.

Under Quebec law, pharmacies must be owned by individual pharmacists. The Brunet locations inside Target stores will be run by independent pharmacists.

The problem is at epidemic levels

“While this program is not a comprehensive solution to prescription drug abuse, it is an important first step that is in line with the ethical duties pharmacists have to ensure that a prescription for a controlled substance is appropriate,” said Mitch Bettes, senior vice president of pharmacy services for CVS/pharmacy.

“We know there are many ways to fight prescription drug abuse, and we are always looking for ways to continue to identify solutions to stop the improper use of controlled substances.”

The use of controlled substances has increased dramatically, with prescriptions for opioids jumping more than 300% between 1999 and 2010. Overdose deaths increased from 4,000 annually to 16,600 during the same period. Such overdoses are now the second-leading cause of accidental death in the United States, and more than 2.4 million people were considered to be opioid abusers in 2010.

CVS Caremark also is working at the federal and state levels to implement policy changes to curb prescription drug abuse, including its support of mandatory electronic prescribing for controlled substances. The company is urging federal regulators to require e-prescribing for these classes of drugs to reduce “doctor shopping.” Drug diversion and fraudulent prescriptions also support improved prescription drug monitoring programs (PDMPs): These state-run databases are operating in 46 states to help providers and pharmacists identify patients at risk of overdose and drug abuse. But, says the company, improvements are needed to encourage interoperability between the states and to make PDMP data directly available to prescribers and dispensers.

Proper prescription drug disposal is also advocated. CVS Caremark is committed to working with the Drug Enforcement Administration and state agencies to ensure that pharmacies today only provide Action and/or Basic Guidance functionality, there are exceptions that offer additional functionality.

CHPA Asks FDA to Weigh In on Pediatric Dosing

WASHINGTON — The Consumer Healthcare Products Association (CHPA) wants the Food and Drug Administration to take action to ensure that caregivers who use acetaminophen products in young children have access to convenient and accurate dosing information.

CHPA has submitted a citizen petition requesting that the FDA publish a “statement of enforcement policy” permitting manufacturers of over-the-counter single-ingredient liquid pediatric acetaminophen products to include dosing information for children that are ages 6 months to 2 years old on the “Drug Facts” label of these medicines.

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Prescribing an mHealth app?
In June 2013, Digitas Health surveyed 1,200 U.S. patients managing chronic diseases within one of five categories — respiratory, cardiology, CNS, gastroenterology or diabetes — giving them pre-scribed medication or mobile app from their doctor. Of those surveyed, 66% of patients reported they would accept a prescription from their doctor, whereas 90% reported they would take up the offer of a mobile app. Many patients are looking for ways to better manage their chronic conditions on a day-to-day basis rather than just using medications, and mHealth products can help address this need.

Even if we assume that the 90% positive response Digitas Health received regarding taking an app was high and only 50% were willing to do so, that would amount to over 65 million of the 135 million people in the United States currently battling at least one chronic illness. Combined with the rising incidence of chronic diseases overall, it becomes increasingly clear why the demand for mHealth products is expected to grow so rapidly and why pharmacists must develop the skills and knowledge to help patients use them effectively.

The future of mHealth
What does the future hold for mHealth products and services? Will more Action-based apps and devices that remind patients to take their medication and refill their prescriptions appear on the market? Absolutely — they’re easy to use, usually free and perform a distinct and useful task. Will pharmacists develop the skills and knowledge to help patients use their devices effectively?

The Quest to Find a Moore’s Law for Health Care

By Mike Coughlin

I participated in the National Association of Chain Drug Stores Leadership Roundtable at the recent NACDS Total Store Expo in Las Vegas. The discussion was led by Jim Collins, researcher and author of Good to Great, a well-known book on business leadership. Collins gave the group a number of topics to think about. Near the end of the meeting he threw out a question: “Is there a Moore’s law applicable to health care?’ We had very little time to discuss it, but here are some thoughts on the issue.

Moore’s law was named for Gordon Moore, cofounder of Intel. In 1965 Moore observed that there had been a systematic increase in the computing power of integrated circuits since their invention seven years earlier, with the number of transistors per square inch doubling every year. He predicted that this trend would continue for at least 10 years and double the power of computing each year. Moore’s prediction was uncannily close to what actually occurred. The exponential growth of computing power has been driving technological and social change ever since. His model (in various forms) has been incorporated into the business plans of leading companies. Why not apply some variation of it in health care?

The problems in health care seem far greater than those faced by the integrated circuit pioneers. My early career years were spent in solid state physics research, and I certainly don’t expect to see the precision of the laws of physics in the health care space. For one thing, these laws don’t change every time Congress goes into session or at the whim of regulators. In this environment we can find consensus for a model to govern health care.

The parameters of such a model would include such factors as quality of life, longevity, advancements in medical technologies and cost. Here is a possible approach:

• The primary objective of health and medical care is to keep people healthy and active for a long, productive life.

• Changes and technological advancements related to health and medical care should, for the most part, be focused on this objective. Of course there are also cost considerations.

• The total cost of health and medical care for the population from birth through the end of the ambulatory phase needs to be determined and an annual average cost per person computed.

• A target for the above parameter must be set. Should it be held constant? Should it decrease? Must it increase?

• Health and medical care changes and advancements in terms of their effects on this parameter need to be evaluated.

The above parameter could be calculated from economic and demographic data that is readily available. This could be done as follows:

• Pick a time period. An annual measurement would be best, so the trend can easily be seen.

• Calculate the numerator from available economic data. First we must define what is included as health and medical care expenditures. This would be subject to debate. For example, should the amount spent on cosmetic surgeries, alternative medicine, acupuncture, fitness clubs and massage therapy be included? Where do we draw the line?

• Determine the denominator for a model to govern health care

The next step involves adding up the expenditures for the year for the categories included. Finally, a base cost/benefit measurement would be developed, with the annual cost adjusted to a base-period Consumer Price Index level.

• Calculate the denominator from available economic data. Doing this would involve adding up the number of people-days alive during the year, deducting the people-days alive in such non-ambulatory settings as hospital inpatient and nursing homes (which could also be subject to debate) and dividing the denominator into the numerator — and that’s the parameter.

We could then perform some what-if modeling and do some testing in selected areas. This might include:

• Spending more on outpatient medications and testing projecting and measuring the effect on the parameter.

• Spending more on new medical treatments and projecting and measuring the effect.

This parameter could be tracked forward and backward using generally available economic and demographic data. The goal is to come up with a cost/benefit measurement that could be perceived to be fair by a large segment of society.

If we apply the above concepts to the health care of the elderly, where are the services we can provide, we will undoubtedly see a positive impact on the parameter. Products and services that improve people’s health and quality of life can reduce the overall cost of the health and medical care spend and help patients maintain healthy, active, ambulatory lifestyles.

Mike Coughlin is president and chief executive officer of ScriptPro.