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# HEAVY hITters

## Top companies riding the health IT gold rush

## Digital Report

# HEAVY hITters

*How 15 leading pharmacy services companies — traditionalists and start-ups alike — are riding the health IT gold rush and bringing a new wave of innovation to the HIT segment.*

BY TIM CRAIG

How many times have we heard it said that one day in America there will be a nationwide health information network that will link patients, providers and payers seamlessly, efficiently and securely, across a universal standardized system? It's been the dream of health information technology strategists and engineers for decades. And yet, when you take a look at the healthcare experience of the typical American consumer, you'd be hard-pressed to find evidence that we are any closer to achieving that dream today than we were in the days of the Carter administration.

Fortunately, what most American consumers are experiencing on the surface of the system is not an accurate reflection of the changes taking place at its core — changes that finally and genuinely can be characterized as revolutionary, not just evolutionary.

While most would agree that the U.S. healthcare system has a long way to go before anyone, anywhere should start claiming victory, the current generation of changes — spurred on most notably by provisions set forth in the American Recovery and Reinvestment Act of 2009, as well as in the Patient Protection and Affordable Care Act of 2010 — are anything but the shallow platitudes of the past.

Together, these two acts of Congress — despite what one thinks of their overall effect on the healthcare system — have created the funding mechanisms for the infusion of tens of billions of public dollars, through grants and incentives, into the health IT sector. This, in turn, has attracted hundreds of millions in venture capital investments, and together they have turned health IT into one of the standout success stories in an otherwise listless economy.

According to Dow Jones Venture-

# Digital Report

Source, healthcare services in particular have seen the strongest growth, with 54 healthcare services companies raising more than $1.2 billion in private investment in 2010, more than triple the capital raised by this sector in the previous 12 months. There's good reason for this sudden rush of activity, too. Not only is health IT at the crossroads of two of the fastest-growing, most important global industries, but much of the money tied to the influx of government grants and incentives — which represents the lion's share of the overall dollars being invested in health IT — will be paid out over the next fives years, with the largest amounts being paid out in 2011 and 2012, in line with the time lines spelled out in the PPACA and ARRA.

In addition to strictly defined time lines, the healthcare-reform acts that are driving change in today's market are doing so because they draw very clear distinctions about the areas of IT innovation the healthcare sector needs most, including secure infrastructure, electronic data exchange and electronic health records, to name just a few.

But the ARRA goes one step further; it identifies actual technologies — including a particularly heavy emphasis on e-prescribing — that physicians and providers must employ in order to demonstrate that their adoption of electronic records and networks is not a one-time passive investment. In short, before doling out billions in HIT grants, the government built in a proof-of-use clause to the ARRA (known as the "Meaningful Use" incentive) to ensure providers are both building and using new technologies.

The effect that this meaningful use clause has had on the pharmacy sector cannot be overstated. It has thrust e-prescribing into the forefront of health IT and has served as a galvanizing event for just about every company throughout the pharmacy services sector. Today, there are quite literally hundreds of companies vying for a piece of this market — many driven by the lure of the federal stimulus package. And, collectively, they are starting to move the needle. According to the National Progress Report on E-Prescribing and Interoperable Healthcare, the percentage of electronic prescriptions has risen in the United States from 4% in 2008 to more than 25% at the end of 2010.

But federal dollars aren't the only attraction in town — not by a long shot. The momentum in health IT has garnered serious attention from the private sector, too. Take Morgenthaler, a venture capital firm in Menlo Park, Calif. This past summer it held a nationwide contest to find the most promising health IT start-ups looking for seed and Series-A funding. By the time it was ready to announce its finalists, the Morgenthaler contest alone — a relatively small, invitation-only venue — had reviewed 117 candidates, each with its own application or service for a Web, mobile, social media or cloud-based solution designed to transform our healthcare system.

Now multiply the Morgenthaler example by the hundreds of like-minded initiatives taking place across the country, from private contests to state-run RFPs, and it's easy to see how health IT has moved to the forefront of innovation. It's no wonder Morgenthaler called health IT "as sexy an (investment) sector as social media and games."

From sexy to utilitarian, the innovators and innovations driving health IT — particularly pharmacy services — are anything but ordinary. Whether they have 25 years of experience in pharmacy services or 25 weeks, they're all driven by the same objective of creating a technology solution to help bring the industry to its long-held goal of creating an efficient and secure network that seamlessly will link patients, providers and payers.

# Emdeon honing e-Rx capabilities

BY TIM CRAIG

In the new paradigm of health information technology, where everyone and their brother is jockeying for the rights to be called a truly vital piece of the payer-provider-patient network, there are few companies who can back up the talk with as much bravado as Nashville, Tenn.-based Emdeon. Its self-described role as a "leading provider of revenue and payment cycle management and clinical information exchange solutions" may sound like the wishful ambitions of any of dozens of Emdeon's new breed of start-up competitors, but this company has the footprint, pedigree and vision to back it up.

Born from the DNA of WebMD (Emdeon was spun off from WebMD Health Corp. in 2006), Emdeon today processes close to 6 billion healthcare-related transactions annually, or half of all electronic commercial healthcare claims in the United States, through a health information network that includes roughly 1,200 payers, 500,000 providers, 5,000 hospitals, 81,000 dentists, 60,000 pharmacies and 150 labs.

When a market leader of this magnitude makes a strategic shift, it understandably draws the attention of the rest of the field. And with no fewer than 10 acquisitions to its name since early 2008, Emdeon has more than earned its reputation as a market mover. But the deal that has garnered the greatest attention was Emdeon's purchase of eRx Network in July 2009, a move that essentially thrust Emdeon into the forefront of e-prescribing — an area that Emdeon CEO George Lazenby referred to at the time as "one of the fastest-growing sectors in healthcare transaction processing."

Fast forward two years and Lazenby's words suddenly ring prophetic. At a time



The Emdeon Clinician is part of the Emdeon Office Suite and offers an EHR qualification tool that helps providers meet the standard for government grant money.

when efficiency, accountability and paperless transactions in the pharmacy solutions sector are being met with government grants and large infusions of venture capital, e-prescribing is at the forefront of healthcare reform. Not surprisingly, e-prescribing also is one of the fastest-growing segments of the Emdeon business. In the last two years, Emdeon's Pharmacy Services Segment, which includes its electronic prescribing services, has more than doubled its revenue to $82 million en route to becoming one of the fastest-growing divisions throughout Emdeon's billion-dollar corporate enterprise.

For now, pharmacy services may only represent a small percentage (8.2%) of overall Emdeon revenue, but it's growing. And all indications are that it will continue to grow. Among its many recent endeavors, Emdeon took an aggressive approach to the challenge presented by the U.S. Department of Health and Human Services requiring more stringent HIPAA-compliant electronic transaction standards, and last February, it began transmitting pharmacy claims in the NCPDP D.0 standard format, nearly 12 months before the mandated adoption takes effect. This proactive posturing not only helps to secure Emdeon's role as an innovator in the sector; it also may very well have been a contributing factor in the announcement this past May that the U.S. General Services Administra-

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| **HQ:** Nashville, Tenn. | **EMDEON** |
| **Annual revenue:** $1 billion* | |
| **CEO:** George Lazenby | |
| *Fiscal year ended Dec. 31 Source: Emdeon, SEC filings | |

tion had awarded Emdeon a five-year contract for a comprehensive array of healthcare information technology products, services and solutions to more than 90 government entities.

In addition to its e-prescribing initiatives, a noteworthy development this year in Emdeon's payer services sector was the agreement inked with Armada Health Care, a specialty pharmacy group purchasing organization based in Florham Park, N.J. As an enhancement to Armada's Reach Rx patient management business, Emdeon has added a level of prior-authorization management that Armada credits with giving its member pharmacies better access to automatic transfer of claims, status follow-up with prescribers and payers, co-pay assistance and full-HIPAA compliance.

But new contracts aren't the only thing this healthcare services company is attracting these days. No doubt compelled by Emdeon's rapid rate of growth and well-established market position, private equity giant Blackstone Capital Partners announced in August that it was purchasing the company for about $3 billion, or $19 a share, a 17% premium over the stock's closing price the day prior to the announcement. As of press time, approval of the merger was still pending.

# HealthSpot touts in-store kiosk-clinic

By Tim Craig

HealthSpot is a story about a man and a vision. The man is Steve Cashman, an entrepreneur and veteran software services executive. His vision is to bring interactive, multimedia healthcare kiosks to retail, backed by a network of "best of the best" healthcare professionals.

At the center of Cashman's vision is the Care4Station, a kiosk-sized "mini clinic" equipped with video-enhanced telehealth technology and state-of-the-art medical instruments. Through a network of remote providers, the Care4Station takes the virtual consultation to a new level. Doctors and patients meet face-to-face like they always have, only in this case, the face-to-face is virtual: the doctor is in his home or office; the patient is seated in the kiosk; and the kiosk is located in a retail store.

HealthSpot is taking a page from the retail clinic model by positioning its kiosk clinics as a new approach to health care, with the tagline, "Real doctors. Real medicine. Really convenient." Only in this case, the concept, which still is in its infancy, plans to center its business around physicians versus the NP model currently in play at most retail clinics.

The other similarity to the current clinic model is that the kiosks are on site. Instead of the telehealth model that's gaining popularity elsewhere, in which a patient interfaces with his or her provider from, say, his or her home office computer, the Care4Station is the office — a point that does not get lost in HealthSpot's marketing literature, which emphasizes such benefits as "cleaning procedures [that] improve on the sanitization of a traditional doctor's office."

The scope of care that HealthSpot foresees for its Care4Stations is on par with

Start-up company HealthSpot is bringing its Care4Station to retail as a hybrid concept somewhere between a large kiosk and current in-store clinics. Using telemedicine and "virtual consultations," the concept is intended to lure patients seeking the convenience of an in-store doctor's appointment without the hassle of appointments and paper work.



**HEALTHSPOT**

**HQ:** Dublin, Ohio
**Annual revenue:** Start-up/NA
**CEO:** Steve Cashman

Source: *DSN* research

current clinics, including minor urgent care, primary care and other expanded services. But the patient experience is likely to be very different. Although HealthSpot foresees having an attendant on hand "with a personal greeting to offer help," there is sure to be a learning curve that consumers will face when it comes to virtual consultations — as will be the case for all early telehealth encounters. That said, HealthSpot is putting heavy emphasis on the convenience of the Care4Station. With the kiosk concept, doctors' office hours, or even in-store clinic hours, no longer define the hours of service. Since network physicians are remote, from virtually any location in any time zone, the concept of a kiosk-clinic very well could lead to the advent of the anytime visit to the doctor's office.

To bring that idea to fruition, HealthSpot — along with the telemedicine industry in general — has a long way to go. Fortunately, Cashman

has his company off to a good start. He formulated his business plan, in part, through a series of crafty grant and tax-incentive initiatives, according to published reports. These include a $50,000 grant from the state of Ohio and a 50%, six-year tax credit valued at up to $424,000 from the Ohio Department of Development. Private funding has come from Cardinal Health, which has made an undisclosed investment in the company. In addition, the Commercial Vehicle Group, a Columbus, Ohio-based manufacturer whose president and CEO Merv Dunn sits on the HealthSpot board, has signed on to produce the kiosks.

In exchange for the grants and tax incentives, Cashman has pledged to invest approximately $1.7 million in the project that includes locating its research-and-development operation, as well as its headquarters, in Dublin, Ohio.

The concept currently is being put to the test by HealthSpot through a pilot program with Ohio State University Medical Center and Central Ohio Primary Care, the latter of which has had practice with its own SameDay Center, which offers a core set of "immediate and routine" medical needs.
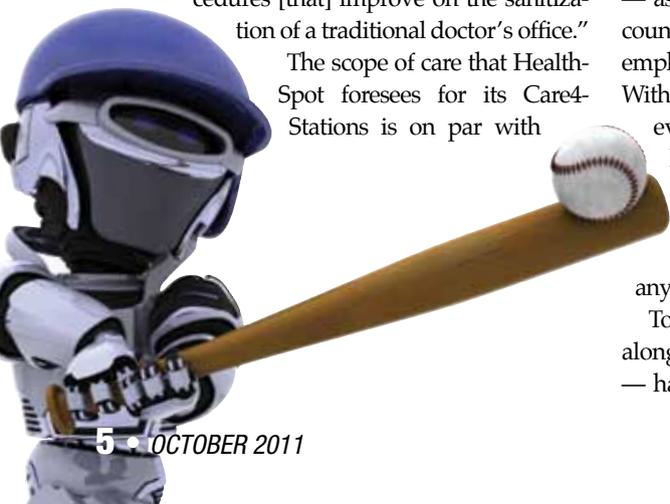
# Jiffpad offers 'elegant' solution

By Tim Craig

Every once in a while, a product comes along that sweeps people off their feet and gains instant recognition, adoption and fortune. For Jiff Inc. CEO Phil Carter and chairman James Currier, the hopes are very high that Jiffpad will be that product, and then some.

If will alone could propel the Jiffpad — a new iPad application and corresponding Web interface — into instant acceptance, there surely would be one in every physician's office in America by now. Backed by deep pockets and bounding enthusiasm, Carter and Currier are not just executives, they're also cheerleaders for the new company, whose main attraction launched in September at the annual Techcrunch Disrupt event in San Francisco.

Currier's lofty goal for the company is "to do for health care what SalesForce and Facebook did for their industries." And he's starting by addressing what he believes to be the single biggest problem in health care today, namely that the clinical conversation between patient and provider either does not exist or is woefully inefficient.

Enter the Jiffpad. Using the tablet technology popularized by Apple, the Jiffpad is an iPad app and a cloud-based platform (Jiff.com) designed to assist medical professionals to more efficiently communicate with patients and with each other in a "simple, elegant, delightful and actionable way."

Currier's enthusiasm is only outdone by his confidence — and for good reason. Among his many entrepreneurial endeavors in the tech space, Currier started Tickle.com in 1999 and grew it to become the world's largest self-assessment company with 100 million registrants and a rank-
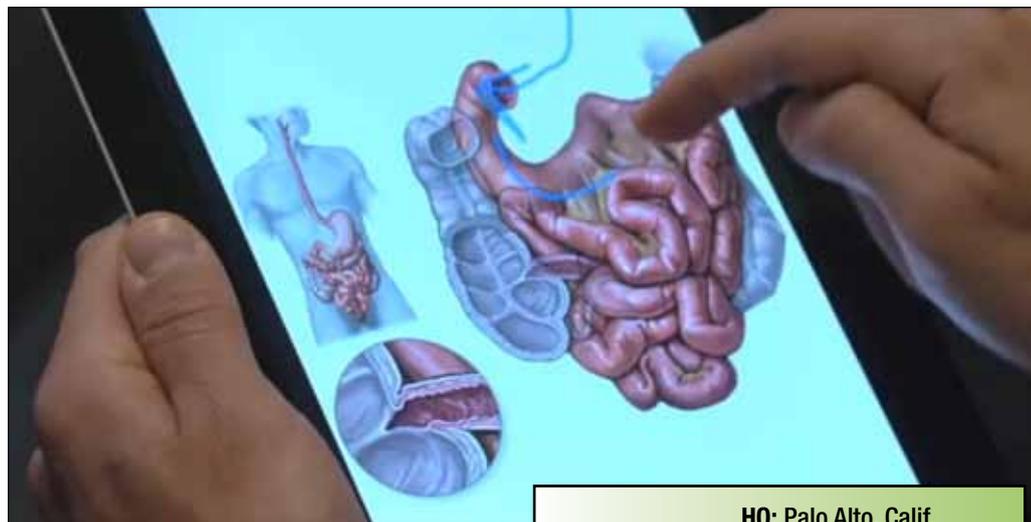


A physician uses the Jiffpad to provide a patient with a multimedia explanation of the intestinal tract. Designed to replace traditional in-office print pieces, the software doubles as a communications tool, allowing providers to route information, such as instructions, recaps or further readings, directly to a patient's email inbox.

**HQ:** Palo Alto, Calif.
**Annual revenue:** Start-up/NA
**CEO:** Phil Carter
**Chairman:** James Currier

JIFF

Source: Jiff, *DSN* research

ing of the 18th largest website in the world, before selling it to Monster in 2004. It's no wonder the Jiff folks are excited.

At the core of the Jiff experience is what the company calls a simple and intuitive interface. "If a person can watch a video on YouTube, they can use Jiff," Currier attested. The same applies to the physician. In fact, the user interface of the Jiffpad, and the Jiff site, is designed to be clean, simple and efficient. In its literature to physicians, Jiff promotes the ability to create "high-impact, personalized medical education moments right before your patients' eyes." Its online demo videos back this notion up with scenes of physicians talking a patient through a procedure, at the aid of the Jiffpad, of course, and sending a multimedia message directly to the patient at the time of the visit. Among other things, the Jiffpad is meant to make short work of the follow-up process.

If there are aspects of the service that sound remarkably similar to existing social media platforms, such as a patient's ability to invite new providers or patients into his or her Circle of Care, it's more than a coincidence. It's

what Currier calls "the beginnings of the Facebook of health."

Before the Jiffpad grows to the heights of Facebook, it has to clear the very real challenge of the adoption rate of tablet-based hardware. By creating a cloud-based push technology that brings the clinical encounter to the point of patient contact, Jiff is putting a lot of stock in the belief that tablet-based computing is here to stay, and it's backing it up with the statistic that more than 60% of doctors in the United States will have an iPad by the end of 2011. Assuming the company is right and the Jiffpad takes off, the plan is to monetize the business by selling licenses to the professional community but keeping it free for patients. Fortunately for Jiff, tablets don't appear to be going away anytime soon, and neither does the company. In an address at the DC to VC health IT forum in September, Currier claimed that after the company's first eight weeks of closed alpha testing, Jiffpad amassed a $6 million sales pipeline. Published reports also have revealed that Jiff is operating with $1 million in funding from Aberdare Ventures, a specialist in health IT investing.

# Kony takes mobile expertise to health

By Tim Craig

Nowhere in health care can a relative outsider break into the market with as much instant credibility as they can in the mobile app sector. And few are doing it with as much confidence and certitude as Kony Solutions.

Answering the cry that currently is echoing across all industries — not just health care — for a reliable, scalable and user-friendly mobile solution, this 4-year-old start-up from Orlando, Fla., hangs its hat on its early successes — it currently has contracts with some of the nation's largest auto manufacturers, airlines and financial services companies, including the "largest financial institution in the world." The company also prides itself on its "open, standards-based, J2EE compliant architecture," a market position supported by a "Write Once, Run Everywhere" mantra that means the Kony platform is compatible with every device on the market.

"Our healthcare clients and our customers that are coming to us are really, truly interested in native applications first and then secondarily being able to use the same application," said Kony's VP healthcare division Aaron Kaufman, who came to Kony from the specialty division of Cardinal Health, where he was chief technology officer.

Given Kaufman's background, along with Kony's stated interest in large institutional players, it's little surprise that the primary offering within the company's Mobile Healthcare division is called Kony Mobile Health Plans. Designed with the health plan client in mind, Kony Mobile Health Plans is a consumer's one-stop mobile destination for interacting with and managing one's plan.

Based on a set of preconfigured modules, the available offerings in Mobile Health Plans include a core array of common actions, such as registration, finding providers, checking plan and member information, researching medications and prices, viewing healthcare and pharmacy claims, shopping for health plans and managing my health. However, in addition to self-administration of a plan — such as reviewing benefits and member information — there are certain modules that include the ability to track information about prescription drug usage, including prescription history, interactions with other drugs, drug co-pay history, prescription refills and refill reminders.

A multimedia demonstration of the Kony Mobile Health Plans also showed the app's ability to facilitate communications between the patient and the pharmacist. Lists of local or frequently used pharmacists can be saved within the app, and common or recurring prescriptions can be loaded into the user's My Prescriptions menu.

As with all Kony applications, Mobile Health Plans is built with open standards, which means it's built with universal compatibility in mind. This is a big selling point for Kony, whose marketing materials don't miss an opportunity to remind users that it can deploy mobile applications to more than 9,000 devices across seven operating systems, eight optimized Web browsers and essentially any mobile Web browser using languages from WML to HTML5. In short, one would be hard pressed to find a place where Kony apps wouldn't work.

For now, Kony's pharmacy management capabilities are wrapped into its health plan product. But eventually the company believes its healthcare business will evolve as demand grows from other sectors. After all, retail pharmacy has no shortage of touch points with the consumer, and consumers have no shortage of mobile products at their disposal.

"If HIT truly delivers its value and starts to open up the ability to place orders into EMRs remotely, and with proper audit logs and all the laws and security mechanisms in place, there could be a pretty interesting app created," Kaufman said.

Until then, Kony, at this nascent phase of its development, can use all of the positive press it can get, which is why it came as welcome news in August when Forrester Research honored it as a Best of Breed company within Mobile Commerce Solutions For Retail. Of course, it didn't hurt that several months earlier, Kony secured a $19 million investment from Insight Venture Partners, a firm whose long list of start-up investments includes names like 6Waves and Twitter.



Kony Solutions has made major inroads in the banking and airline industries, and is trying to break into health care with a platform that is format agnostic. Among its current healthcare products, Kony Mobile Health Plans includes such features as finding providers; checking plan and member information; researching medications and prices; viewing healthcare and pharmacy claims; shopping for health plans; and managing my health.

**KONY**

HQ: Orlando, Fla.
Annual revenue: Private/NA
CEO: Raj Koneru

Source: Kony, *DSN* research

# Network gives NowClinic staying power

By Tim Craig

Building on the promise of convenience — a cornerstone of telemedicine — dozens of companies across the healthcare landscape are trying to find just the right formula for the future of virtual care, from kiosks to mobile apps. But OptumHealth, a division of United Healthcare, would argue that nothing is quite as convenient as receiving provider care from the comfort of your home.

Fashioning its latest telemedicine offering, NowClinic, around that very concept, the company is putting its resources behind a formula that brings together patient and provider for a 10-minute online consultation for the treatment of anything from allergies to insomnia.

Once a patient logs on to NowClinic and explains his or her symptoms, a list of available physicians is generated based on area of expertise and availability. Consumers also may choose to search for other providers or make a scheduled appointment. The system is set up for the exchange of personal health records, as well as real-time exchange via webcam, text messaging, voice or any combination therein. Similar to a standard in-person consultation, physicians are given the option to diagnose and prescribe medicine, if and where legally permitted.

Despite similarities to other video-based telemedicine services, NowClinic benefits from being part of a corporation whose experience and relationship with providers runs deep. This gives OptumHealth a leg up in two areas when it comes to its position in the market. For one, it can offer NowClinic as a bona fide 24-hour service, and it can offer a provider base that includes clinicians, physicians and specialists.



Built on a platform by American Well, NowClinic focuses on brief encounters between patients and providers, during which communications include video conversations, text messaging and voice.

These are important distinctions when it comes to comparisons to the competition. For the most part, emergency rooms, urgent care centers and retail clinics — all identified by OptumHealth as being in the same market as NowClinic — have either limited hours, limited specialists or are overburdened by volume. With the right volume of providers supporting its service, NowClinic will not be faced with the same challenges. Instead, the challenges NowClinic faces are more about acceptance of the concept. Fortunately, OptumHealth has partnered with American Well, a leader in telemedicine services whose technology platform is among the cleanest and most user-friendly on the market. It is so popular, in fact, that despite teaming with OptumHealth in June 2009, American Well has its own set of clients that includes Blue Cross and Blue Shield of Minnesota, WellPoint and Ascension Health.

The partnership has yielded some pretty big catches all the same. For example, in June 2010 OptumHealth announced the deployment of NowClinic as an internal employee-wellness program for the Minnesota-based employees of Delta Airlines. This gave rise to a new arm of business for OptumHealth in which NowClinic is marketed to corporations as a means of reducing an employer's healthcare burden. OptumHealth supports this effort with marketing materials that tout "reduced costs," "reduced absenteeism" and "improved productivity."

Its core benefits are equally attractive to employees and consumers alike. Users can access providers when and where they like — as long as they have an Internet connection — and the cost for the service, at $45 for a core consultation, is on par with most out-of-pocket on-site co-pays. Furthermore, no one — neither patient nor provider — is left with juggling insurance claims. In fact, as OptumHealth is very clear to point out to users of the service, "NowClinic online care [is] NOT an insurance product, a UnitedHealthcare covered benefit, a healthcare provider nor a health plan."

Whatever you call it, NowClinic seems to be catching on. Last month, OptumHealth announced an agreement with Rite Aid for the creation of NowClinic Online Care centers to be installed inside private consultation rooms in pharmacies in the Detroit market — another first for NowClinic, and likely not its last.

**NOWCLINIC**

**HQ:** Golden Valley, Minn.
**Annual revenue:** NA
**CEO:** Rob Webb, OptumHealth Care Solutions

Source: NowClinic, *DSN* research

# Numera Social bolsters health planning

By Tim Craig

Numera Social is so new that if there is paint on the walls of its Seattle offices, you could rightfully wonder if it's had time to dry. Having launched its namesake product, the Numera Social platform, in late September, followed by its iPhone app in mid-October, this is a start-up business in the truest sense.

But the launch is hardly the only thing new about Numera Social. Its concept is novel, and the sheer intrigue it is generating has lots of healthcare marketers talking. Actually, they're texting, friending, sharing and liking.

For one, Numera Social, a division of Numera Health, is the antithesis of a proprietary, ground-up enterprise platform. It has no giant data silos, no army of sales associates and no platform exclusivity. Instead, the business is leveraging the strength of Facebook, the single-largest online network, and in the process is using the power of viral content exchange to fashion a healthcare platform unlike any other.

Specifically, Numera Social's healthcare platform resembles a fitness and wellness program more than it does a medical one. Built through the Facebook application programming interface, the core elements of the company's health mission are centered around diet and exercise, using the terms "goals, actions and results" for both motivation and marketing. For example, the Numera Social app, which embeds into a user's Facebook homepage, is designed for setting personal health goals, such as "lose 10 lbs. in time for cousin Renee's wedding," "run a minimum of 15 miles every seven days" or "maintain a total daily calorie intake of fewer than 2,000 calories."

To reach these goals, users follow diet, exercise and other plans, which are either created by the user or picked up from a searchable database of plans submitted by other Facebook users. For example, a user whose goals include weight loss and exercise might choose the South Beach diet plan for weight loss and a simple 5K walk/run plan for exercise that was submitted by another Facebook user — preliminary plan partners include RealAge, the American College of Sports Medicine, HealthLens, GAIN Fitness, Vivity Labs, Dan's Plan and Steve Speirs, among others. The Numera Social app marries one's goals and plans and gives users a simple overview window to help track scheduling, updates and progress.

What makes the app different from many other stand-alone software programs is its connection to the Facebook network. With Numera Social, users can share their goals and plans with their Facebook feed, the general public, family only or whomever they like. This is the part that Numera Social refers to as the "social support" of its platform. Friends, families and followers, in essence, support one another over the Facebook network in their pursuit of their personal and/or group health goals. "We are tapping the influential power of family, friends and peers with similar conditions in a thoughtful way," said Numera Social CEO Tim Smokoff. "By focusing on how to help individuals make good daily decisions for better health, we can keep them engaged and even extend the impact to their friends. It ignites a chain reaction of good will and good health."

These sentiments also are the words Smokoff uses to attract corporate clients. In addition to its Numera-branded apps, the company is pursuing a business plan that foresees the development and support of a suite of white-labeled Facebook and mobile platform solutions that healthcare organizations can use to establish their own interactive experience with consumers, employees, clients or any combination therein. In essence, the Numera Social Facebook platform would be customized with a client's own branding and content so that the online experience correlates with its existing website and social presence.

To date, Numera Social has not announced any client-branded platform rollouts; yet at the time of its launch, it listed providers, insurers, employers and wellness organizations among its potential audience.



Start-up health information technology company Numera Social is building its business around the personal health planner, which is embedded into the Facebook application programming interface, as well as mobile apps. A main theme to Numera Social's positioning is to allow for network connections to provide "social support" as a means of helping one achieve personal health goals.

**HQ:** Seattle
**Annual revenue:** Private/NA
**CEO:** Tim Smokoff

Source: Numera Social, *DSN* research

**NUMERA SOCIAL**

# PDX has the Rx to put PHR on the map

By Tim Craig

Founded as National Health Systems in 1978, Fort Worth, Texas-based PDX Inc. can trace its origins to the early pioneers of a national pharmacy network. The brainchild of Ken Hill Sr., a pharmacy school graduate from the University of Texas, the "pc I Pharmacy System" of 1983 was arguably one of the very first seeds to give rise to today's connected pharmacy. Launched as a means of providing basic prescription filling and clinical tasks, it also served the purpose of "solving chain pharmacies' communication dilemma."

Nearly 30 years later, the industry is still working out its communications issues, but it's come a long way. And the chain pharmacy sector can attribute many of its advances to the creation in 1985 of PDX Inc., a then pharmacy software start-up whose mission it was to address the requirements of "high-volume prescription filling" and the pressing demands of third-party processing.

Along with its sister division — the National Health Information Network, launched in 1991 — PDX has pioneered many firsts in pharmacy information technology, particularly for its chain pharmacy partners. It's credited with having designed and laid the groundwork in 1995 for Script Version 1; it introduced in 1999 a Web engine for online prescriptions, later adopted by Wegman's, Winn-Dixie, Longs, Giant Eagle and others; and it launched the eRX Network in 2001, one of the first "closed loop" systems to allow prescription information to move electronically from physicians to pharmacies, and back.

The same year that PDX launched the eRx Net-work, the company acquired the rights to the domain name Rx.com, a defunct consumer-facing website. Although only a footnote to company history at the time, the acquisition of the Rx.com assets laid the groundwork that would allow PDX to offer store-based mail-order service and fulfillment through Rx.com.

After one decade, Rx.com is now evolving into a centerpiece of the business — and its sweet spot is retail pharmacy. From regional chains to independents, Rx.com offers a suite of technology solutions built around its portable, interoperable Electronic Pharmacy Record, a centralized database designed to get pharmacies in compliance with the health information technology requirements of the American Recovery and Reinvestment Act before the 2014 electronic health record mandate. When used in conjunction with the PDX ePharmacy Web engine, a consumer-facing Web service for prescription refills and transfers, Rx.com can layer on an additional piece of the EHR puzzle, namely the personal healthcare record.

Long considered the missing link of the nationwide health information network, the PHR has proven more elusive than the Loch Ness monster. But many prominent IT names are trying to change that. And Rx.com has embraced the movement through a partnership with Microsoft HealthVault. The result is that pharmacies that use the Rx.com electronic pharmacy record have the ability to offer their patients the importation of their prescription history, which creates a more complete profile that includes clinical pharmacy records from a variety of pharmacies and healthcare providers. PDX has had similar arrangements with Google Health in the past.

Data integration at PDX is by no means limited to EPRs, EHRs or PHRs. In recent months, PDX has had its eye on data partnerships across many disciplines, including two deals signed within the last 12 months. Last November, PDX teamed up with Lake Forest, Calif.-based Healthcare Data Solutions, whose sizeable database of prescribing physicians will give users of the
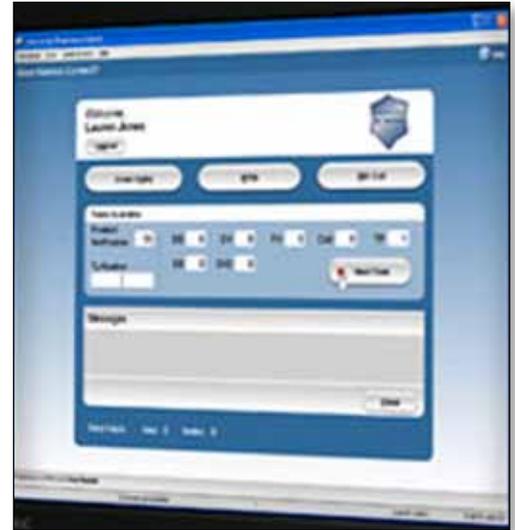


At the heart of the PDX business is its Enterprise Pharmacy System, a Java-based platform using Oracle database technology. The system uses a centralized Electronic Pharmacy Record, a fully cleansed and merged central patient record with real-time chainwide drug utilization review screening.

**HQ:** Fort Worth, Texas
**Annual revenue:** Private/NA
**President and CEO:** Jeff Farris

**PDX**

Source: PDX, Rx.com and *DSN* research

PDX Pharmacy System a real-time prescriber verification process. The service matches and cleans up pharmacy data at the store level, delivers updates on prescribers' licensure to the pharmacist, matches prescriptions with providers and allows pharmacies to acquire detailed prescriber profiles and synchronize prescriber databases.

Two months later, PDX entered into a similar arrangement with Health Market Science of King of Prussia, Pa. HMS produces most notably the HMS Masterfile, a national census that actively captures the universe of practitioners and organizations from more than 2,500 unique data sources. Such deals, according to PDX president and CEO Jeff Farris, are a direct result of "the intense regulatory scrutiny at the state and federal level."
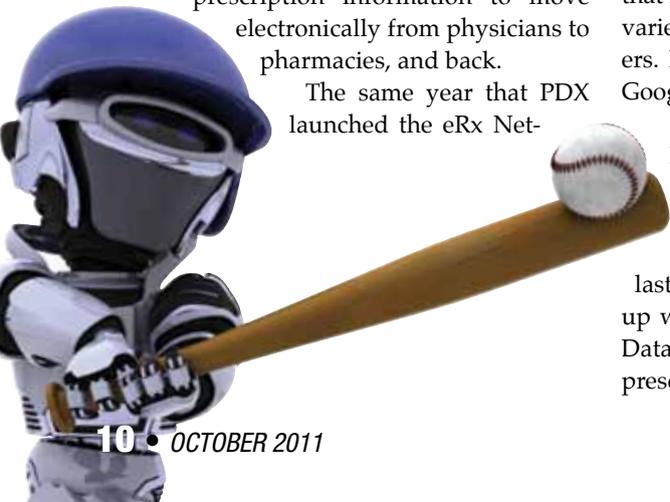
# PharmaSmart manages hypertension

By Tim Craig

With the need for wellness and prevention playing a greater role in the U.S. healthcare system, thanks to the reform acts of 2009 and 2010, traditional health IT companies are readjusting their go-to-market strategies and are re-emphasizing their fundamental benefits. In the case of PharmaSmart of Rochester, N.Y., that task is simple.

With more than 20 years as a provider of in-store blood-pressure monitoring equipment, PharmaSmart did not need anyone — or any act of Congress — to tell it just how important it is for people to monitor their circulatory system. The company has been preaching heart health for years, and now is ratcheting up its efforts in both education and connectivity to meet the needs of a patient base that is more knowledgeable and tech-savvy than ever.

As this leading provider of healthcare kiosks is quick to point out, the average American needs to monitor his or her blood pressure often. According to PharmaSmart, one-third of all Americans have hypertension; one-third of those who have it don't know it; and only half of those with hypertension take their medication as prescribed. When those statistics are coupled with the fact that some of the leading health issues today stem from poor heart and circulatory health — including obesity, diabetes and stroke — it's easy to understand why many feel that a commitment to preventive health should include regular blood-pressure monitoring.

It's no coincidence that the current generation of PharmaSmart kiosks is built around frequent monitoring and the dissemination of networked results data. Its newest model is the "PS-2000 With Connec-

As part of a concerted effort on the part of blood-pressure monitor maker PharmaSmart to link in-store BP readings with pharmacist databases and EHRs, the company has initiated a Smart Card program that works in conjunction with an online patient portal. Upon accessing the portal, patients can track, analyze and share data with providers.

**PHARMA SMART**
**HQ:** Rochester, N.Y.
**Annual revenue:** Private/NA
**President and CEO:** Fred Sarkis

Source: PharmaSmart and *DSN* research

tivity," a small-footprint, 22-in.-by-25-in. kiosk with many of the same features of past models; only this time it has a renewed emphasis on tracking and sharing results, a holistic approach to monitoring that the company calls its "hypertension management program."

As part of the program, the PS-2000 integrates with two other products from PharmaSmart, including the Smart Card and Blood Pressure Tracker website. The card, which doubles as a loyalty program, uses a microchip to store a user's personal information and blood-pressure readings. When used with the Smart Card, the PS-2000 kiosk prints the cardholder's last 10 readings with dates and averages of systolic, diastolic and pulse. Patients can use their Smart Cards, which are equipped with unique user codes, to access their readings via PharmaSmart's Blood Pressure Tracker patient portal. The information from the portal can in turn be shared via "live link," allowing either a family member or healthcare provider to view and interpret the patient's blood-pressure readings on an ongoing basis.

The next generation of the company's connected technology was announced this past August at the National Association of Chain Drug Stores Pharmacy and Technology conference in Boston. Tapping into the continual rise of medication therapy management, PharmaSmart introduced its BPT-Rx software that integrates into a pharmacy's system and links blood-pressure results collected from PharmaSmart kiosks directly to an enrolled patient's elec-

tronic profile. Pharmacists using the software can receive qualified payer reimbursement by submitting outcome-based reports.

"As pharmacy looks to MTM reimbursement as a core [return on investment] objective, our technology is designed to specifically meet the challenges of patient recruitment, pharmacist workflow and payer reimbursement," CEO and president Fred Sarkis said at the time of the announcement.

"For more than 10 years, the industry has observed attempts to deploy multibiometric, media-focused devices into retail pharmacy," Sarkis continued. "Such deployments have not been effective in driving clinical programs or pharmacy services revenue. We have demonstrated that program success hinges on a high-validity, low-complexity kiosk and a high degree of workflow integration to sustain pharmacist execution and program scalability."

To that end, PharmaSmart also demonstrated at NACDS Pharmacy and Technology its PS DataSmart database and analytics engine, designed to provide pharmacists access to program metrics and allow them to track by-store and by-day usage, program enrollment rates, hypertension rates and other metrics, such as cholesterol, diabetes and body mass index. The database houses more than 12 million patient blood-pressure readings from across North America.
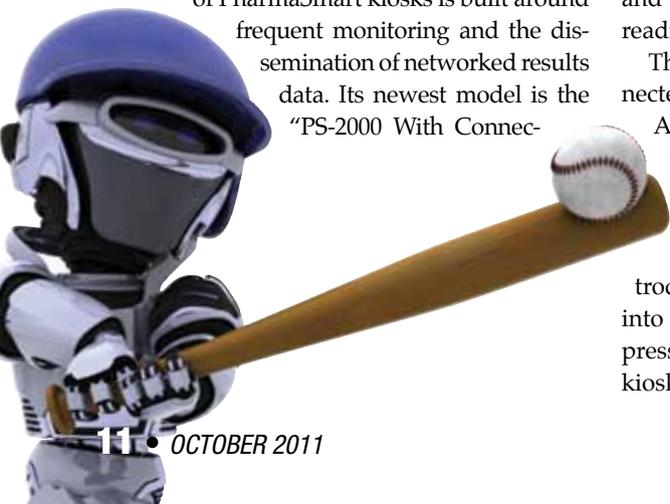
# PolyGlot software speaks volumes

By Tim Craig

As PolyGlot founder and president Charles Lee, a Korean-born physician, found out the hard way, the U.S. healthcare system can be difficult to navigate. And the difficulty goes well beyond bureaucracy. Having emigrated to the United States at an early age with no knowledge of English, Lee has witnessed the system's communications deficiencies from both ends of the spectrum, as a Limited English-Proficient user and now as a physician to LEP patients.

Increasingly frustrated by the language barriers that precluded even the most basic communication between non-English speakers and their healthcare providers, this board-certified physician in internal medicine launched PolyGlot Systems in 2001.

The objective was simple: to enable medical encounters that treat all patients effectively and with dignity, while empowering the medical practitioner to do what he or she loves. The tools Lee created were even simpler. At the heart of PolyGlot is ProLingua, a systemic software solution designed to be used by a provider at any point of patient interface, from registration to diagnosis to discharge.

Using a cloud-based data feed, ProLingua streams real-time content that providers can use in their communications exchanges with patients and families. The intuitive scalable interface, which takes into consideration a patient's background and gender — as well as the gender of the provider — provides accurate in-situation language solutions for everything from how to fill out a form to detailed clinical diagnoses. Languages covered by ProLingua include English, Spanish, Korean, Arabic, Mandarin, Cantonese, Russian, French and Italian.

Equipped with a robust image- and video-based content library, PolyGlot provides a full range of text and multimedia treatment descriptions as well. For example, in the MedPix module of ProLingua, a provider can pull up an image of a male chest cavity while streaming an audio description in Spanish of gastroesophageal reflux disease. In the process of creating this intuitive, image-based educational product, PolyGlot's software suite — there are three software modules in all — has ended up addressing a lot more than LEP challenges. In fact, a large portion the target patients are not foreign born at all. Rather, they're the large percentage of Americans that fall under the threshold of health literacy — a group for whom a simple, descriptive, image-based health education tool is every bit as useful as it is for the ESL population. According to PolyGlot, the number of Americans with low health literacy outpaces LEP patients 3-to-1 (90 million versus 27 million, respectively).

This realization has, in essence, opened the company to markets well outside the realm of foreign language. In fact, PolyGlot is discovering that the potential application for an intuitive multimedia health education tool is far and wide, and its marketing reflects that shift. Initiated as a LEP solution, Polyglot now positions itself as a provider of "language, low-health literacy and age-related issues for medication instructions."

One of the best examples of a "noncore" market to date is PolyGlot's solution for the pharmacy services sector, where up to one-third of all prescriptions are written for an elderly patient. Under the banner Meducation, the software that serves physicians and pharmacists adds a variety of features to the basic LEP module, particularly user-friendly information on how and when to take one's medication, such as large-print descriptive cards, icon-based dosing schedules and text-free videos for the explanation of complex procedures.

In February 2010, Meducation caught the attention of Costco pharmacies, which licensed the product for use in select markets in New York and North Carolina. At the time, Costco assistant VP pharmacy Rick Duffy said, "For both our English-speaking patients and for those who do not speak English, we view Meducation as one in a series of steps ... to improve overall satisfaction with our pharmacy services."

Further affirmation of Meducation came this past June when PolyGlot was honored with the SMART app of the year by the Office of the National Coordinator for Health Information Technology.



PolyGlot's Meducation software helps physicians and pharmacists serve audiences beyond those that are Limited English-Proficient. Examples include modules for information on how and when to take one's medication, such as large-print descriptive cards (pictured), icon-based dosing schedules and text-free videos for the explanation of complex procedures.

## POLYGLOT

**HQ:** Morrisville, N.C.
**Annual revenue:** Private/NA
**President and founder:** Charles Lee
**CEO:** R.J. Sims Preston

Source: PolyGlot, *DSN* research

# QS/1 keeps pace with online pharmacies

By Tim Craig

For venture capitalists from Wall Street to Silicon Valley who are dreaming of gaining a foothold in the pharmacy management software sector, here's a reality check: The market has some very formidable players in place.

Of all the software Goliaths in the pharmacy sector, few are as entrenched as QS/1. Since its founding by Jim Smith in 1977 with a vision of helping pharmacists manage their practices with computerized systems, QS/1 has grown into a pharmacy management software superpower serving community pharmacies, chain pharmacies, long-term care pharmacies and home medical equipment providers. In addition to its 35 years of experience developing and honing pharmacy management software, the company, which is a division of the J M Smith Corp., can trace its heritage back to the 1920s, when James M. Smith Sr. launched a regional chain of drug stores that eventually gave rise to the Smith Drug Company of Spartanburg, S.C.

Today, the J M Smith Corp. counts no fewer than six subsidiary businesses, from wholesale drug distribution to medical device development. But QS/1 is the division with the most superlatives; it's the largest, fastest-growing and most established. And with healthcare reform placing considerable emphasis on everything electronic, from health records to prescribing methods, QS/1 is arguably the most important, too.

Therefore, when QS/1 announced in May that Bill Cobb, its president of 21 years, was assuming the role of CEO of J M Smith, it was met with little surprise. This, in turn, paved the way for another long-standing insider, Tammy Devine, to take over as president of QS/1. Devine, a company vet-



QS/1's CornerDrugstore.com is a software package provided to community pharmacies in need of a turnkey online solution. The site for Hope Street Pharmacy of Stamford, Conn., (pictured) exemplifies the services available, including directions and hours, health information and pharmacy refill.

**QS/1**
HQ: Spartanburg, S.C.
Annual revenue: $2 billion*
President: Tammy Devine

*Total revenue for J M Smith Corp. as of May
Source: QS/1, *DSN* research

eran who started her career at QS/1 as a developer in the early 1980s, has run many of QS/1's strategic subdivisions over the years. She also is the first woman to oversee any of the divisions within the J M Smith corporate family.

Plenty of innovations have risen to the forefront of QS/1's business during Devine's rise to power, not least of which is NRx, the company's cornerstone pharmacy management offering designed around facilitating the processing of new prescriptions and refills. More recently, though, Devine and QS/1 have been advocating a new generation of offerings, including such innovations as CornerDrugstore.com, a turnkey pharmacy management solution that brings a full suite of Web development capabilities to community pharmacies whose greatest obstacle in adopting advanced software in the first place is the fact that they don't have a well-developed, commerce-compatible website.

CornerDrugstore.com, which was originally founded by the National Community Pharmacy Association and subsequently purchased by QS/1 in 2001, resolves this dilemma by providing pharmacies with the necessary website template required for both the informational needs of the business (e.g., hours, directions, health ency-

clopedia and symptom checker), as well as the pharmacy fulfillment needs (e.g., prescription refills and pharmacist Q&A), all of which are powered by QS/1's pharmacy software system. With more than 500 local pharmacies now using CornerDrugstore.com, it has proven to be an effective means of expanding QS/1's software services within community pharmacy, and has earned the company the distinction of "the No. 1 supplier of turnkey pharmacy websites."

More recently, QS/1 has expanded its Web refill services capabilities. Building on the success of its WebRx platform, a pharmacy-hosted application designed for high-volume pharmacies that was launched in 2005, the company upped the ante in late 2010 with the launch of MobileRx, a refill-ordering platform compatible via browser-enabled smartphones. At the time of the announcement, QS/1 marker analyst Charles Garner summarized the company inroads in mobile refills like this: "Pharmacy customers are already used to automated filling solutions, such as interactive voice response, and the pharmacy's website. And most customers are already using their smartphones to browse the Web. [The QS/1 mobile app] gives them another avenue to request refills."

# ScriptPro offers efficiency with robotics

By Tim Craig

Efficiency in the pharmacy services sector comes in all shapes and sizes, but when you're ScriptPro, it boils down to one word: robotics.

Despite the image this may conjure, you're not likely to find talking androids roaming the halls of this Mission, Kan.-based company. Instead, ScriptPro, a world leader in state-of-the-art pharmacy management, workflow and telepharmacy systems, owes its reputation as a leader in lowering pharmacy operating costs and reducing dispensing errors to its relentless pursuit of the automated pharmacy.

ScriptPro visions for an automated pharmacy started back in 1994, when founder and CEO Mike Coughlin conceived of and brought to fruition the SP 200 Robotic Prescription Dispensing System, a self-contained drug-dispensing machine designed to pay for itself over time through the reduction of labor and the near elimination of dispensing errors. Seventeen years and 150 products later, ScriptPro now counts among its client base a wide range of organizations, including chain, institutional, government and community pharmacies, from the Department of Defense to one-unit independents looking for a leg-up in today's increasingly competitive pharmacy market. This latter group in particular is ScriptPro's sweet spot, a fact supported by the steady stream of news releases issued by independents touting the benefits of their ScriptPro 200.

One of the most recent success stories in the ScriptPro brag book is eRxCity, an independent one-unit pharmacy in New York's Chinatown neighborhood that opened its doors in May 2011 with a marketing focus on "next-generation pharmacy." The modern, 4,000-sq.-ft. store boasts



The ScriptPro SP 200 is an automated prescription dispensing system that interfaces with a pharmacy's computer system to fill, label and collate up to 150 prescriptions per hour using 200 universal dispensing cells.

a "fully automated pharmacy management system" that integrates with a "state- of-the-art dispensing robot" and incorporates local language requirements, state-specific compliance and New York State Medicaid regulations. The founders of eRxCity, both American-born Chinese professionals with corporate backgrounds, claim to have spent a year planning the eRxCity concept and have cited trends in healthcare reform under the Obama administration, particularly with regard to "the push toward electronic prescribing," as the impetus for their heavy reliance on technology.

The example of eRxCity is one of the latest in the ScriptPro public relations annals and represents the type of implementation Coughlin has been advocating for years. By layering a pharmacy management system on top of robotic dispensing, Coughlin believes he has the key to what he calls "perfect integration."

"Community pharmacies face serious challenges that threaten profitability and operational stability," Coughlin said. "[We provide] powerful systems to help community pharmacies meet operational challenges and capitalize on the many opportunities for growth and profit."

Local pharmacies aren't the only ones buying into the concept, however. Last September, the National Institutes of Health awarded a contract to ScriptPro for the implementation

**HQ:** Mission, Kan.
**Annual revenue:** Private/NA
**CEO:** Mike Coughlin
Source: ScriptPro, *DSN* research

**SCRIPTPRO**

of robotic dispensing, pharmacy management and drug information systems, collectively referred to by the NIH as pharmacy automation systems. Specifically, ScriptPro was contracted to help NIH facilitate take-home medication orders for day patients in hospitals and clinics run by the NIH. The deal represents an expansion of ScriptPro's well-established government contracts, which already include the Veterans Health Administration, the U.S. Food and Drug Administration, all branches of the Department of Defense, U.S. public health services (e.g., Indian Health Services) and federal prisons.

Among its recent innovative endeavors, ScriptPro rolled out this fall its newest robotic dispensing systems, the Compact Robotic System. Released in September, the CRS, with a total footprint of 7 sq. ft., is the smallest in ScriptPro's robotics lineup. With 75 dispensing cells (versus 100 or more in larger units) ScriptPro is targeting it to lower-volume pharmacies. It's what Coughlin calls a "full robotic solution [for] the middle and lower end of the pharmacy volume bell curve."

# SoloHealth shifts focus to whole health

By Tim Craig

For anyone seeking evidence that self-administered health care is gaining ground in America, Duluth, Ga.-based SoloHealth stands as a beacon of proof.

The SoloHealth concept, as its name would suggest, is a self-serve health assessment kiosk with the bells and whistles of a mini modern-day doctor's office. Complete with vision screening, blood-pressure monitoring and measurements for weight and body mass index, SoloHealth is taking a decades-old concept of in-store health assessment, revitalizing it and repackaging it in line with present-day healthcare expectations.

Despite the simplicity of the concept, SoloHealth, which was founded in 2007 with a mission of making the vision-screening kiosk ubiquitous, has its share of complex challenges. These include a new generation of in-home telemedicine offerings and competition from in-store retail clinics.

None of this seems to be daunting to the company, however, and perhaps for good reason. SoloHealth has had considerable success with its EyeSite vision-screening kiosk, which currently is installed at dozens of retail locations from Schnucks to Walmart in eight major markets, including Atlanta, Houston and Salt Lake City. And thanks in part to a $1.2 million grant by the National Institutes of Health in June 2010 to advance EyeSite into a more comprehensive self-service health-and-wellness station, the company currently is rolling out its newest name to the market: SoloHealth Station.

To call the SoloHealth Station an instant, runaway hit might be an exaggeration, but



The SoloHealth Station, a screenings and wellness kiosk, addresses three primary health issues: vision, blood pressure and body mass index. Launched in mid-2010, the station currently is being rolled out at food, drug and mass in major metro markets.

**SOLO HEALTH**
**HQ:** Duluth, Ga.
**Annual revenue:** Private/NA
**CEO and founder:** Bart Foster
Source: SoloHealth, *DSN* research

then again the numbers speak for themselves. In 2010, total company revenue was five times that of the previous year, the company doubled its staff in the first half of 2011, the total number of kiosks grew ten-fold in 2011 and the company has more than doubled its metro market presence in the last 12 months.

What makes the SoloHealth Station meaningful to the market is not so much what it is, but what it's not. Instead of trying to resolve every health ailment and answer every wellness question, the SoloHealth Station keeps its focus on the screenings that are tied to the nation's most pressing health pandemics, including hypertension, obesity, poor nutrition and diabetes. According to SoloHealth data, these ailments cover a large swath of the U.S. population: 65 million people have hypertension, 24 million are diabetic and 122 million are overweight or obese.

The features of the SoloHealth Station address these issues, and then some. Upon engagement with the kiosk, a consumer can interact in several ways, either by action (i.e., taking a test or screening, watching a wellness video or finding a doctor) or by area of interest (i.e., vision; blood pres-

sure, weight and BMI; and general health). Users also have the option of establishing an account with an email address, for use with future visits or at other locations; contacting or sending results to a physician; or simply having results sent to an email address.

The kiosk's screening capabilities revolve around three core functions. Vision is evaluated using on-screen prompts as well as a "distance viewer," blood pressure is evaluated using a built-in monitor, and weight and BMI are evaluated using a scale built into the kiosk's chair.

Despite its public launch less than 18 months ago, the SoloHealth Station has propagated rapidly in 2011. According to published reports, the company expects to have 500 units in the market by the end of the year, including many in the Tampa, Fla., market.

This growth and market promise has attracted prominent names to the SoloHealth business, including the addition in May of 18-year Walmart veteran Charles Leehan to the position of director of national accounts. SoloHealth also secured an undisclosed investment in March from Coinstar, an established leader in automated retail.

# Surescripts eyes 'interoperability'

By Tim Craig

There's no shortage of companies who pay lip service to the influence they wield in their market segments, but few can back it up with as much substance as Surescripts. With a footprint that covers nearly every pharmacy in America, Surescripts has secured its role of influence not by gobbling up competitors, but by pursuing a clear and concise mission: to help perpetuate the adoption of electronic prescription fulfillment.

If that sounds like an altruistic endeavor, it's for good reason. Surescripts is not your average healthcare information company. Instead of developing or selling e-prescribing software, Surescripts works with existing vendors to certify their technologies and ensure their systems work in accordance with industry-accepted standards for the electronic exchange of prescription data between physicians and pharmacies.

This mission-based objective is no coincidence either. Under the joint ownership of the nation's three largest pharmacy benefit managers (i.e., CVS/Caremark, Express Scripts and Medco) and the nation's two most influential pharmacy advocacy groups (i.e., the National Association of Chain Drug Stores and the National Community Pharmacists Association), Surescripts has a long heritage of advancing the cause of pharmacy technology. In 2001, NACDS and NCPA founded the original Virginia-based Surescripts, an electronic prescribing network that laid the groundwork for the Pharmacy Health Information Exchange, an open, neutral and secure information system compatible with all major physician and pharmacy software systems. That same year, RxHub, a similar organization with a similar mission, was formed in St. Paul, Minn., by



Surescripts CEO Harry Totonis announced in February 2011 the company's expansion of its network beyond e-prescribing to include clinical information, such as CCRs and CCDs; patient summaries; and lab values.

Express Scripts, Medco and AdvancePCS, which was later purchased by CVS/Caremark. In 2008, the two companies merged to form present-day Surescripts, a group with equal board representation from the chain pharmacy and PBM industries and an unwavering commitment to its mission of advancing the adoption of electronic prescribing technology.

Case in point is the statement issued in July 2010 to the Ways and Means Committee of the U.S. House of Representatives in which NACDS lobbied for federal grant or incentive funding for initiatives that foster adoption of health information technology. "NACDS and NCPA created Surescripts in 2001 as the foundation for an electronic prescribing network," the association wrote. "We believe that widespread adoption of electronic prescribing is the most critical prerequisite for the adoption and use of electronic health records and other forms of HIT."

Earlier this year — exactly six months after addressing the Ways and Means Committee — the Centers for Disease Control and Prevention awarded a two-year, $4.9 million grant to Surescripts, the American Hospital Association and the College of American Pathologists for the creation of the "lab interoperability cooperative," with the objective of connecting a minimum of 500 hospital labs to the appropriate public health agencies. Taken to-

**SURESCRIPTS**

**HQ:** Arlington, Va.
**Annual revenue:** Private/NA
**President and CEO:** Harry Totonis
**Co-chairman:** John Driscoll, president of new markets for Medco Health Solutions
**Co-chairman:** Don Huonker, SVP healthcare innovation for Walgreens

Source: Surescripts, *DSN* research

gether with Surescripts' announcement in February of an agreement with the American Academy of Family Physicians for the secure exchange of clinical data, the CDC news is one of the most recent demonstrations of Surescripts' expanded service offerings beyond electronic prescription fulfillment. In fact, in October 2010, Surescripts announced the creation of a new business line, the Network for Clinical Interoperability, an initiative to "support and enable the electronic exchange of all types of clinical information." The announcement came after a successful two-year pilot with CVS MinuteClinic in which Surescripts helped facilitate, among other things, the exchange of patient summaries between MinuteClinic nurse practitioners and patient physicians.

Commenting on the creation of the Network of Clinical Interoperability, Surescript president and CEO Harry Totonis said at the time, "[This] is consistent with our mission of improving how health care is delivered in our country. And while there is still more work to be done in e-prescribing, we have the expertise and capability to do so much more."
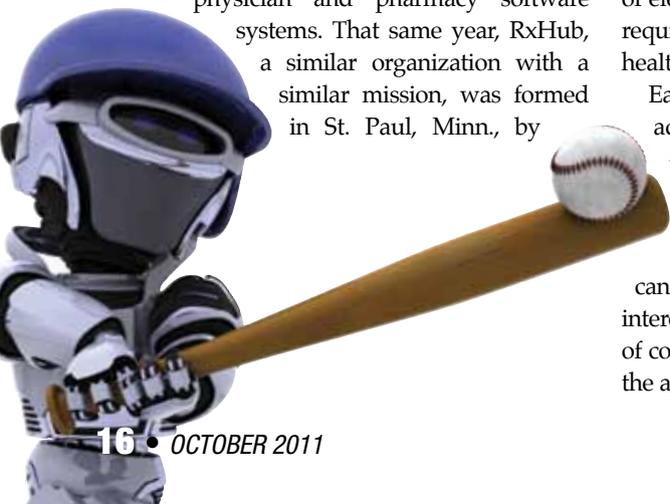
# Surveyor Health mitigates meds' risks

BY TIM CRAIG

Wouldn't every pharmacist love a tool that quickly and accurately could assess the drug interactions and contraindications of every medicine ever given to a patient? The answer is obvious, and yet there still are tens of thousands of deaths each year in the United States that can be traced back to adverse side effects and accidental interactions.

Recognizing the need for such a tool was the "Aha!" moment for husband and wife team Linda and Erick Von Schweber. In 2006, this couple, whose expertise in knowledge surveying had served them well in the defense sector, was looking for a new challenge. Against the backdrop of an ailing parent whose deteriorating health was due, it turns out, to nothing more than drug interactions, the couple decided to channel their efforts in a way that could "[reduce] the negative impact of pharmaceutical prescription drugs on the quality of life and incidence of death."

Today, after several years of in-field experience and a recent name change, Surveyor Health (formerly Pharmacy Surveyor) is a leading name in interaction and contraindication tools.

The core of Surveyor Health revolves around Medication Risk Maps, an award-winning tool that allows consumers and professionals to enter the names of prescription and nonprescription drugs, as well as medicinal herbs and supplements, into a robust database from First DataBank's National Drug Data File Plus, which returns to the user a wealth of information about side effects — for everything from dizziness to blurred vision — interactions and general medicinal safety. When medications are entered into the module, an auto-fill pairs them with various like



The Medication Risk Maps module from Surveyor Health is an advanced medication risk management platform that highlights side effects and interactions. The MRM can be used as a stand-alone product or embedded into an existing platform, as is the case here with the SMART API created by the ONC.

options. For example, when "aspirin" is keyed in, the system asks for clarification from among more than 100 listings for aspirin, from "adult aspirin oral" to "tri-buffered aspirin."

It's when a second medication is keyed in the system that it really goes to work. For example, if a patient is taking the antidepressant tranylcypromine prescribed by his or her psychiatrist along with the oxycodone pain medication prescribed by his or her orthopedist, the user can look at a map of risks — for both side effects and interactions — that provides a clear, intuitive view of the potential dangers using red-colored warning labels that scale from light to dark, or low to high. The combination of tranylcypromine and oxycodone ranks relatively high for the side effects of dizziness, drowsiness and feeling weak, but in general the risk is low. If, however, tranylcypromine is replaced by the antidepressant nefazodone, the system significantly would increase the number of red warnings, and orthostatic hypotension would spring to the top of the list as "critical" for the risk of side effects.

In the last 18 months, Surveyor Health has taken the functionality of the MRM beyond the stand-alone Web app and has developed a model that integrates and embeds MRM into a provider's or pharmacist's software for EMR, EHR, PHR or e-prescribing. It's what the company calls "cloud-based biomedical informatics." Embedded as a software widget,

**HQ:** Foster City, Calif.
**Annual revenue:** Private/NA
**CEO, CTO and co-founder:** Erick Von Schweber
**President and co-founder:** Linda Von Schweber

SURVEYOR HEALTH

Source: Surveyor Health, *DSN* research

MRM pulls demographics, medications and conditions from an existing health record, which can be used to assess the risks of side effects, interactions or contraindications; generate scenarios of alternative multimedicine treatments; and produce and exchange individualized reports.

Its foray into this area began in 2009 when Surveyor Health partnered with Microsoft to allow for platform compatibility so that users of Microsoft's HealthVault could import medications stored in their EHR into Surveyor Health's MRM to assess the risks of combined side effects and interactions. Earlier this year, Surveyor Health was recognized for its efforts when it won an honorable mention for an app it submitted for integration into SMART API, the platform funded by the Office of the National Coordinator for Health Information Technology.

Speed of processing has been a big selling point for the company. During its demo of the SMART API integration for the ONC contest, Erick Von Schweber referred to the MRM tool as seamless and time-saving. "It takes the clinician on the order of about 10 seconds to spot the problems and the likely causes, and about a minute to consider alternates."
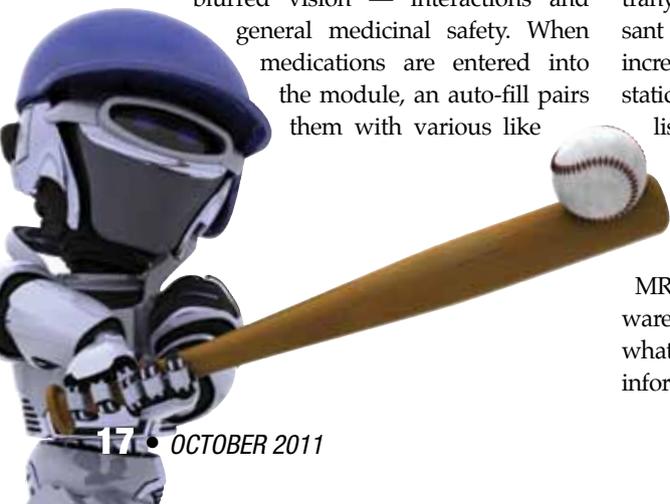
# VoicePort takes adherence mobile

By Tim Craig

Reminding patients to take their meds is big business, and VoicePort is betting it's going to get even bigger. Through a proprietary, HIPAA-compliant automated calling service, VoicePort reaches out to pharmacy customers to remind them of refills and even help them fulfill reorders.

Yet unlike the early days of scratchy audio and clunky push-button interfaces, VoicePort is part of a new generation of Interactive Voice Response companies taking the art to new levels. Through VoiceXML, a markup language for creating voice user interfaces that employs automatic speech recognition and text-to-speech synthesis, Voice-Port is turning the IVR experience into a productive, proactive means of interfacing with consumers. That's welcome news to the pharmaceuticals business, where studies have shown that patient noncompliance and failure to adhere to treatment regimens may be responsible for as much as $8 billion in annual revenue loss for pharmacies due to unfilled prescriptions.

But it took on a whole new set of challenges in 2008, when it rolled out PharmaPhonetics, a suite of solutions for the pharmacy sector whose scope now covers market research, brand positioning, patient adherence, registration, retention and education.

At the heart of VoicePort's healthcare business is the PharmaPhonetics Prescription Reminder program, an IVR tool designed to call a store's pharmacy patients several days before their prescriptions are due to run out. Using a secure, hosted application, the service is designed to integrate collected data into existing enterprise workflow, databases and other applications.

When VoicePort partnered in August with OPUS Health, a division of co-pay assistance company Cegedim Relationship Management, OPUS VP/GM Mark Calabrese summarized his view of the benefits: "Pharmacies have direct and regular contact with patients, so they are in a position to promote adherence. Our joint solution builds on our IVR pharmacy network and enables this, and in so doing benefits the pharmacy as well by helping them increase customer satisfaction and therefore market share."

VoicePort's own pursuit of market share has kept the company busy with line extensions, too. In addition to its core IVR offering, the PharmaPhonetics suite also includes PharmaPhonetics Adherence. Billed as a patient retention enabler, the adherence concept is built around a "direct high-touch relationship" with patients. Through permission-based, interactive calls, pharmacists and other providers can encourage patients to practice safe medicine, such as getting a flu shot or complying with medication regimens. VoicePort also operates PharmaPhonetics Speech Enabled Market Research, an IVR-based physician survey tool.

In July, VoicePort made its first foray into mobile through a partnership with Unwired Nation, a company whose origins also trace back to automated calling services. The agreement calls for the two companies to work together for joint clients and strategic mobile needs across an enterprise using the Kinita platform.

"We know our clients need to communicate with their customers — their patients — simply, clearly and via whatever smartphone or tablet that customer is using," VoicePort CEO Chris Mann said at the time the deal was announced. "[This deal] helps us deliver this to our pharmacy and pharmaceutical clients today, and we see opportunities to leverage this mobile technology in the near future, augmented and accelerated by our own integration expertise."



**VOICE PORT**

**HQ:** Rochester, N.Y.
**Annual revenue:** Private/NA
**President and CEO:** Christopher Mann
Source: VoicePort, *DSN* research

VoicePort's solution for the pharmacy industry revolves around the PharmaPhonetics Prescription Reminder program, an IVR tool that reminds patients before their prescriptions are due to run out. Using a secure, hosted application, the service is designed to integrate collected data into existing enterprise workflow, databases and other applications, as illustrated above.