HERITAGE PROVIDER NETWORK
Your health in good hands

touchpoints

Connecting you to the Heritage Provider Network

Issue 17 | Mar / Apr 2014

The Digital Health Explosion

LATEST NEWS

Turn to Page 7 for the latest update on the Cal MediConnect Coordinated Care Initiative.

Announcement: *In order to deliver consistently fresh, useful content, TouchPoints is moving to a quarterly format. Look for the next issue in July 2014!*

WHAT'S INSIDE

FEATURED STORY: The Digital Health Explosion P2

BONUS CONTENT:

Five of the Most Popular Clinical Smartphone Apps P6

CHECKING IN: Affiliate Group Contacts P7

EDITORIAL

In the new era of Affordable Care, providers are being tasked with providing more services to a greater number of patients, a more positive service experience and improved outcomes – all for less money. This is the new reality, and it may seem insurmountable. But it also offers great opportunity for those willing and able to adapt.

Whether using advanced predictive modeling algorithms to improve the efficacy of preventive care or developing proprietary tools to bring fragmented ACO beneficiary encounter data into a useful, cohesive whole, Heritage Provider Network has always been active in leveraging technology to improve healthcare at the enterprise level. Similarly, advancements in smaller-scale, more personal health technology can be used to increase efficiencies and improve health at the practice level. In this issue of the Heritage TouchPoints we'll discuss emerging trends in the rapidly growing field of accessible health technology.

Richard Merkin, M.D.
President and CEO of HPN

TOUCHPOINTS AT THE CLICK OF YOUR FINGERTIPS:

Sign up to receive the email version of TouchPoints at **HeritageTouchPoints.com**

FEATURED STORY

The Digital Health Explosion

Digital health has caught fire. Consumer interest in health related gadgets and apps burned strong in 2011 and 2012, enticing tech prodigies and entrepreneurs from all industries and corners of the globe to flood the health technology arena.

The resulting consumer-facing digital health products run the gamut of ideas from the brilliant, like the stylish, wearable integrated health-tech offerings from Fitbit, to the bewildering, like an electronic fork that warns you when you're eating too fast. Though the usefulness of some digital health tech might be questionable, there is no doubt that as an industry, it's now big business.

Last year ABI Research estimated that the market for wearable digital health devices – including biosensors to monitor heart rate, body temperature, motion and more – will reach annual sales of over 100 million devices by 2016. Sports and fitness-geared wearable devices are also on the rise. ABI projects that these devices will be selling in the range of 80 million annually by 2016. Research and analysis firm GlobalData predicts this new market to grow to an estimated value of $8 billion by 2018 and to significantly revolutionize healthcare delivery.

Fueling the Digital Health Explosion

As an increasing number of digital health companies form, developing cash-generating business models and products, venture capitalists have taken notice. According to Rock Health, a digital health startup incubator, by the end of 2013 venture funding for the digital health category hit $1.97 billion. That figure encompasses about 195 deals providing around 186 firms at least $2 million each in startup funding.

2011 2012 2013

In 2013, digital health funding surpassed $1.9 billion, up 39% over the previous year and more than doubling since 2011.

At the start of 2013, the top categories for venture funding in digital health were: remote patient monitoring ($102M), hospital administrative software ($79M), big data/analytics ($78M), EHR systems ($69M) and mobile apps for wellness activity tracking ($62M). Remote patient monitoring captured the lion's share of funding in response to the rise in consumer popularity of mobile health apps and wearable health tech in 2011 and 2012.

The top categories of digital health venture capital funding – year's end 2013.

EHR and Clinical Workflow	$245 million
Analytics and Big Data	$161 million
Digital Medical Devices	$146 million
Wearables and Remote Biosensing Devices	$136 million
Population Health Management	$126 million
Healthcare for Consumer Engagement	$119 million

Consumer interest in personal health devices gradually fell as 2013 progressed and funding allocations shifted accordingly. However, it appears that the medical sector has taken note of the positive impact this kind of tech can have on efficiency, diagnoses and intentive, real-time preventive care. This might explain an uptick of funding for wearable medical devices geared toward professional medical use.

Fanning the Flames – Promising Digital Health Startups, Apps and Devices

Wearable and remote digital health systems and devices collect and output health related data in various ways. Some devices enable wearers to monitor and interpret their own readings using a smartphone app or website. Some of these platforms include a social aspect – allowing users to share readings and progress within an online community for advice and encouragement. Others gather data to be uploaded for use by third parties like physicians and care coordinators. These health professionals can then follow the data, looking for any trends that call for medical intervention and allowing them to deploy disruptive care as early as possible in order to improve prognoses and avoid complications.

These trending devices provide our industry an unprecedented opportunity to apply new and developing technology to improve the way we deliver care. In the pages following, you will find a sampling of some digital health companies, devices and apps that are driving this evolution.

***Note:** HPN does not endorse any of the particular apps discussed.*

Philips Electronics IntelliVue

Hospital patients are frequently tethered to any number of monitors, pumps and other medical paraphernalia. The Philips IntelliVue aims to simplify this by constructing Philips telemetry into a monitor that is compact enough to be worn by the patient. Small but mighty, the MX40 can be used to monitor ambulatory patients and patients who are being transported. The unit allows patients to walk around the care setting and has a touchscreen display that enables clinicians to view ECG, oxygen saturation and other vital signs intuitively in real-time. Watertight to withstand patients showering, cleaning and accidental immersions, the devices also save nurses' time by letting them check ECG rhythms without having to phone a central station monitor.

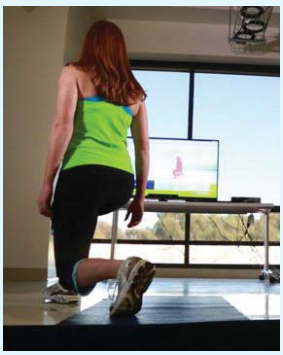
Fanning the Flames – Promising Digital Health Startups, Apps and Devices *continued...*

TeladocConnect

A telemedicine Consult System, TeladocConnect enables patients to communicate with clinicians 24 hours a day, seven days a week. By interacting using telephone or secure online video, physicians and care staff have the flexibility to offer higher-quality, personalized service to more patients. Patients can request a consultation with their physicians through TeladocConnect. The system then notifies the physician, and if the physician is unavailable, the consultation request is routed to a national network of U.S. board certified physicians. This network acts as a virtual urgent care of sorts, serving as an extension of the primary physician's practice. (While it is a national program, it matches patients and doctors from the same state in order to remain in compliance with state physician licensing regulations.)

Each patient's electronic health records are integrated into the system, so when a Teladoc network physician performs a consultation on the PCP's behalf, they have all the information they need for a comprehensive consult. The network physician's notes are also then entered to the patients EHR, and a notification is sent to the primary physician to ensure continuity of care.

The consultation service is convenient for patients, and also more economical than a trip to an Urgent Care or ER. On the flip side, it allows physicians the ability to increase access through their practice, manage a higher volume of patients and keep revenue that would normally go to an UC, ER or other provider.



Reflexion Health

Physical therapy is an important part of both prevention and recovery. Often, patients are prescribed a series of exercises or stretches to perform at home to supplement their therapy. Performing these exercises correctly without professional supervision is challenging – leading to poor compliance and even further injury. Reflexion Health has come up with an innovative solution by pairing Microsoft's Kinect gaming technology with clinical medicine. Physical therapists can provide a patient with pre-programmed exercises to do at home. Using a TV and a Kinect camera and software system, the patient can see themself as they move through the prescribed exercises. The system tracks the patient's joints, measuring angle and velocity and offers visual feedback and correction to ensure the exercises are being correctly executed. This system is currently in clinical trials, awaiting marketing clearance from the FDA.

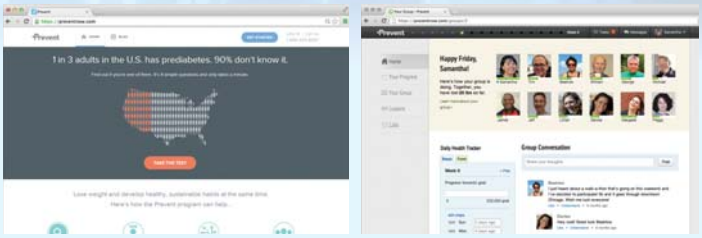
It's interesting to note that other digital health manufacturers are conscripting gaming and entertainment technology for useful medical applications as well. For instance, some hospitals and surgery centers now integrate Microsoft's Kinect motion sensing technology into their operating rooms to allow physicians to control cameras, computers, monitors and other electronic systems in the OR using hand gestures, rather than more traditional hands-on hardware interactions. In this way, the surgeon can alter monitor/camera views, call up reference records or change the volume on his preferred surgery jam without compromising sterility through hard-surface contact.

Imec

With its wearable electroencephalography (EEG) headset and electrocardiogram (ECG) lanyard or patch, Imec helps doctors and patients keep track of brain and heart activity. The ECG module captures 3D accelerometer and heart rate data which is either streamed directly to a smartphone or stored within the module for later retrieval. The new wireless EEG headset is in prototype here in the U.S. and uses impedence monitoring and active electrodes to capture and record a quality EEG signal. This data is then transferred in real-time to a special receiver which functions up to 10 miles away from the headset.

Numera/BlueLibris

Telehealth vendor Numera recently acquired BlueLibris and launched a wearable mobile device that provides two-way, hands-free voice communication through a cellular network. The BlueLibris device will also provide GPS location tracking and automated fall detection algorithms for Personal Emergency Response Services. BlueLibris devices are also equipped with Numera's proprietary gateway technology, allowing users to upload biometric measurements from a variety of health devices, and to receive communications like personalized reminders for taking medications and uploading new health readings.



Omada

One in three Americans suffers from pre-diabetes and 90% of them don't know it. The Omada Prevent platform focuses on these individuals, helping them create better health and avoid the risk of developing Type 2 diabetes. Pre-diabetic patients are segmented into groups of 12 based on criteria like age, location, and body mass index. Each group is set up with a goal – lose 7% of body weight – and is provided with a cellular network enabled body weight scale. Every group of 12 also works with one dedicated health coach to help educate and motivate them to successfully attain their weight loss and health goals.

Body Tel

Body Tel offers a suite of home diagnostics for treatment or prevention of chronic illnesses. Available devices include a blood glucose meter, blood pressure meter and body weight scales. Every device has an integrated Bluetooth module that automatically transmits readings taken to either a home base station or cell phone app. The data is then forwarded securely to an online database. Physicians can then view this data and can use the system to alert patients when their readings fall outside pre-determined optimal levels. For instance, clinicians can quickly notify and advise diabetic patients in the event of hyperglycemia or hypoglycemia, initiating corrective treatment to avert serious complications.

Vocera

When being discharged from the hospital or released from an ER visit, most patients aren't in a particularly focused or receptive state of mind. How can we expect them to absorb instructions regarding medications or wound care? (According to the CDC, nine out of 10 patients in the US can't repeat the basic patient education they receive upon discharge.) Vocera provides an easy, intuitive fix for this problem through their discharge communication platform. Clinicians live-record the instructions they give at the time of discharge. That recording then becomes available to patients and caregivers for later review using any phone, mobile device or computer. Called "Good to Go," this system can also create and send appointment reminders, tasks, and care messages to patients via text or email.

AuthentiDate

AuthentiDate's telehealth platform aims to improve clinical outcomes and reduce hospital readmissions by helping care teams to remotely monitor patient health. Their platform includes a tablet application, kiosks for use in group homes and an interactive voice response service that allows patients to interact vocally, or with any touch-tone phone keypad.

The tablet app – InscrybeMD – connects with Bluetooth enabled or wired devices to help patients take and submit readings for blood pressure, pulse ox, spirometry and body temperature. It also offers video-based patient education on a variety of relevant topics, and even has a section in which the patient can submit photos relevant to their condition (of lesions or rashes, for instance) to send to the clinician monitor. The clinicians using the app see a dashboard of vital signs and patients' questions and are able to triage their patient panel and review their panel against clinical trends and other analytics within the application.

Visicu

Tele-ICUs represent one of the fastest growing categories of telemedicine applications. Also known as Electronic ICUs, they are both virtual and literal life-savers for hospitals and patients in areas where there may be a shortage of intensivist physicians or clinical ICU staff. Using remote monitoring technologies, fewer staff can provide round-the-clock critical care to more patients at more locations.

The Philips Visicu eICU technology is in use at many hospitals across the nation. This system transforms the approach to critical care through the use of an integrated, whole-enterprise solution that centralizes scarce critical-care resources, integrates clinical decision support and standardizes evidence-based care for the entire enterprise. Using secure two-way monitor systems that connect a central hub with multiple remote patient rooms, a single intensivist is able to interact with multiple in-room care support staff from one location where he or she can also electronically review charts, films, biometric readings and other important data necessary for each patient's care and treatment.

Five of the Most Popular Clinical Smartphone Apps

Smartphones are increasingly ubiquitous so it's not surprising to see them becoming primary tools in a clinician's arsenal.

The open and accessible programming platforms offered to developers by Apple and Android have also inspired clinicians to create many new and useful mobile tools for themselves and their peers. This has lead to a wealth of free apps that are useful in the clinical setting.

We've compiled a Top 5 List of some apps that are most popular with clinicians. All apps are currently available for free on both iTunes and Google Play. >>>

1. Micromedex: This is a useful app for looking up drug reference information. Although there are many similar apps available, many physicians find the Micromedex interface to be the easiest to use.

2. Evernote: Though not strictly a clinical app, Evernote is being used by more and more physicians to collect notes, content and articles in a central location for future reference. One of the best features of Evernote is that it syncs seamlessly with other devices across multiple platforms.

3. Dropbox: This app provides an easy way to store PDFs and other documents and to share them amongst colleagues. Like Evernote, Dropbox works smoothly across multiple platforms, making any files you add on your computer available on your smartphone.

4. Calculate by QxMD: Every clinician needs a medical calculator. QxMD is one of the more popular versions available for free on both iTunes and Google Play.

5. Figure 1: Often referred to as the "Instagram of medical pictures," this app allows clinicians to upload medical pictures of all kinds – slides, physical exam pictures, ECGs, radiographs – and share them with colleagues.

Cal MediConnect Update

In February 2014, the California Department of Health Care Services (DHCS) announced new changes to the planned rollout schedule for the Cal MediConnect Coordinated Care Initiative. As discussed in past issues of this newsletter, the Coordinated Care Initiative (CCI) represents a historic effort by the state to integrate medical, social and mental health services for those individuals who are jointly eligible for both Medicare and Medi-Cal benefits.

Because DHCS is highly mindful of beneficiary protections, they are working deliberately to ensure as successful an implementation as possible. Therefore, according to the latest updates, the CCI will launch in April of 2014 and phase in over time based upon the readiness of each participating county.

As of February 4, 2014 the basic timeline is:

- **In San Bernardino and Riverside Counties, passive enrollment will begin no sooner than May 1, 2014.**
- **In Los Angeles County, passive enrollment will begin no sooner than July 1, 2014.**
- **In Orange County, passive enrollment is currently on hold and will begin no sooner than November 1, 2014.**

For additional information on Cal MediConnect and the Coordinated Care Initiative, please visit **www.calduals.org**.

Heritage Provider Network Affiliated Medical Groups

Bakersfield Family Medical Center
www.bfmc.com | Phone: 661.327.4411
Counties Served: Serving all of Kern County.
Total Number of Contracted Physicians: 400+

Coastal Communities Physician Network
www.ccpnhpn.com | Phone: 800.604.8752
Counties Served:
San Luis Obispo and Tulare.
Total Number of Contracted Physicians: 600+

Affiliated Doctors of Orange County
www.adoc.us | Phone: 800.747.2362
Counties Served:
Central and North Orange County.
Total Number of Contracted Physicians: 1,000+

Desert Oasis Healthcare
www.mydohc.com | Phone: 760.320.5134
Counties Served:
Imperial, Riverside and San Bernardino.
Total Number of Contracted Physicians: 500+

Arizona Priority Care Plus
www.az-pcp.com | Phone: 480.499.8750
Counties Served: Maricopa and Pinal.
Total Number of Contracted Physicians: 1,500+

Heritage Victor Valley Medical Group
www.hvvmg.com | Phone: 760.245.4747
Counties Served: Los Angeles and San Bernardino.
Total Number of Contracted Physicians: 200+

High Desert Medical Group
www.hdmg.net | Phone: 661.945.5984
Counties Served: Los Angeles and Kern.
Total Number of Contracted Physicians: 275+

Lakeside Community Healthcare
www.lakesidemed.com | Phone: 818.637.2000
Counties Served: Los Angeles, Ventura, Riverside and San Bernardino.
Total Number of Contracted Physicians: 2,350+

Regal Medical Group, Inc.
www.regalmed.com | Phone: 866.654.3471
Counties Served: Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura.
Total Number of Contracted Physicians: 12,100+

Sierra Medical Group
www.sierramedicalgoup.com | Phone: 661.945.9411
Counties Served: Kern, Los Angeles and San Bernardino.
Total Number of Contracted Physicians: 100+