

# DIGITAL HEALTH TOOLS COLLECT DATA BUT CONNECT PEOPLE

E. GAYE WOODS, MBA

Carl has diabetes. Diagnosed two years ago, he still is learning how to manage the disease and to live a healthier lifestyle. Diabetes is a disease that is very prevalent in his family, and he is fearful of experiencing some of the complications that he has witnessed, such as blindness and amputations.

Two of the areas that Carl's doctor has stressed to him are the importance of controlling his A1C levels (blood sugar) and caring for his feet. Diabetic foot ulcers are a common and costly complication of poorly controlled diabetes. Everyone with diabetes is susceptible to foot ulcers, but regular foot care can prevent them and avoid the adverse outcome, namely, amputation.

Podimetrics is a digital health company that has developed a wireless, foot-temperature-monitoring pad to detect the onset of foot ulcers. Carl steps on the "smart pad" in his home for 20 seconds a day, and the pad sends the temperature scans to Podimetrics and Carl's care team for analysis and review. Research in 2017 funded by the company said that over a 60-day study interval, the smart pad detected foot temperature changes indicating as many as 97 percent of developing foot ulcers weeks before the test subjects' clinical symptoms emerged. That finding, plus the study participants' good rate of using the pad, indicates that such technology would allow physicians an opportunity for better monitoring and earlier intervention for patients at risk for foot ulcers.<sup>1</sup>

## HEALTH TECH

Enter health care's newest area of disruption — digital health or health tech, which is an umbrella term that encompasses health-related applications and technologies such as telemedicine, mobile health, electronic health records, wellness apps and wearable devices. These tools are disrupting the location of care (for instance, moving care out of the hospital and

closer to home) and the type of care (from "diagnose and treat" to "prevent and manage").<sup>2</sup>

If that sounds like a broad mix of tools, it absolutely is. Passage of the Affordable Care Act ushered in a new era of patient-centered health care and a boom of development in ideas that support the value-based care model. Within the digital health sector, investment activities have exploded, as demonstrated by more than \$150 billion in funding deals executed during the first quarter of 2017.<sup>3</sup> The digital health transformation will have an impact, and if only half of the ideas prevail as sustainable businesses, the health care system of the future will look quite different from its current state.

We all suffer from information overload while living at a societal pace that can make yesterday seem like years ago. It's helpful to review the advancement and consumer adoption of health-related technologies over the past years. You might

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be tempted initially to think this digital revolution began with the wearable devices such as the Fitbit or Jawbone fitness trackers, but it actually started before then— thanks to cellular telephones and the internet.

I often challenge leaders of community health

improvement to think of the smartphone as the front door of engagement to the communities they want to serve. It's not the only point of access, but it is certainly one that provides incredible possibilities. Roughly three-quarters of Americans (77 percent) now own a smartphone, with lower-income Americans and those ages 50 and older exhibiting a sharp uptick in ownership, according to a Pew Research Center survey conducted in November 2016.<sup>4</sup> Smartphone adoption has more than doubled since Pew began surveying on the topic in 2011: That year, 35 percent of Americans reported that they owned a smartphone of some kind.<sup>5</sup>

Society's consumption of health information expanded greatly with the ability to use internet search engines to gather insights about a particular disease, symptoms or health improvement. Then smartphone apps offered us another level of solutions such as tracking our fitness and improving our health, not to mention collecting personal health information and connecting us directly to physicians and health insurers.

#### TELEHEALTH AND DATA POINTS

Consumer drivers such as convenience, ease and portability have opened additional virtual health technology such as video telemedicine. Many Catholic health systems such as Mercy, based in Chesterfield, Missouri, operate extensive telehealth services, and private companies like Doctor on Demand, headquartered in San Francisco, give consumers fee-based access to teleconnect with a board-certified physician for medical or behavioral health care.

Technology offers significant access possibilities for rural, underserved and limited mobility populations, and many large tech and health care companies are aggressively working on digital product solutions. But innovating for health care is not without challenges related to privacy, reimbursement and regulations. Health care is a difficult market in which to make change happen on a wide scale, and one of the present challenges is around data management. There is a plethora of patient data points available now from apps and other virtual tools that are not connected to a traditional electronic medical record. Secure infor-

mation integration is a key challenge that must be addressed in order to fully leverage the potential of digital health innovation.

Many health systems are working to integrate virtual health tools into the care continuum. Peter Kung, senior vice president of innovation and virtual health at SCL Health in Broomfield, Colorado, sees the future of digital health as an opportunity to bring value to patients by meeting

### **Technology offers significant access possibilities for rural, underserved and limited mobility populations, and many large tech and health care companies are aggressively working on digital product solutions.**

them where they are. Although some of this value will be delivered via technology, an equal amount of focus will be geared towards deploying innovative solutions that combine services, products and business models in new ways.

"Community benefit is a vital part of developing innovative platforms," Kung said. "Through our joint efforts, we can better understand the overall socioeconomic factors at play in our community and create solutions that work in tandem with community resources to contribute to better health across the continuum."

One such innovation partnership is with Lantern, a digital mental health company that offers web and mobile programs using cognitive behavioral therapy for anxiety and stress management. The Lantern app began as a program augmenting wellness offerings for SCL Health employees. Hospital community health needs assessments led to the idea of piloting the Lantern tool within various community settings. Although the pilot programs are just beginning, there has been strong engagement from community partners and clinical providers to use the tool as support for patients' self-management between visits and as a supplement to the shortage of behavioral health providers.

As a nonprofit health system, SCL Health's mission is to improve the health of communities we serve, and our ability to leverage the advances

of digital health tools provides a promising solution to reduce disparities that exist in serving poor and vulnerable populations. The burden of ever-increasing costs related to chronic disease, health care expenditures and pharmacy needs strikes an urgent chord for innovation.

### LOOK BEYOND BASICS

The caution, however, is that hospitals must look beyond the basics of operational digitization — such as patient registrations — and move toward data monitoring, from providing lab test basics to empowering the patient with ways to better utilize their test results. The goal is to keep the digital health value proposition pointed toward the patient. Such tools can be the extender for the health care relationship to build trust and improve health outcomes.

For mission integration and community benefit leaders, I believe that we can be essential partners in this innovation revolution. Community benefit isn't generally a revenue-producing department for hospitals, but it can be a highly revenue-influencing area for population health correlated to patient engagement and health improvement.

Health systems should place a priority on investing in multisector community health collaborations and programs that focus on solving our chronic public health issues. Virtual technology can be the area we all have been looking for to cut time and distance in addressing health literacy, cultural barriers and a lack of local resources. However, we must gain a tolerance for what technology companies know well about change and development — that is, in order to achieve success, failing is a part of the learning process. And we need a healthy dose of patience.

What's more, "daring" is an activation strategy.

Some of the challenges that burden health care need to be tackled with a "daring to do it differently" mentality. Solutions are possible if we don't give up on the process.

Finally, technology can tell us so much, and it has tremendous value in the new health care frontier, but we must never forget the benefits of the human-to-human connection. If strengthening the patient relationship is our goal, as faith-based health systems we must be active participants in the digital health construct to ensure that we never lose sight of what expands the relationship bond the most: love.

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### NOTES

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