



The Digital Health Trends Poised to Transform Healthcare in 2015

The time to embrace digital health is now. Validic's CEO Ryan Beckland explains.

There is no question that 2014 was an exciting and eventful year for digital health. Even with all of the advancements and innovations in 2014, this year promises to be even better. The growth in business cases for new models of healthcare delivery and integration of digital health technology is reaching the point of convergence — creating powerful synergies where there was once only data silos and skepticism.

Maybe we have not quite achieved this synergy yet, but the trends emerging in 2015 will move the industry much closer to the long-awaited initiatives in connected, value-based care. To understand the convergence that is taking place in digital health, we need to examine the key emerging trends in technology, healthcare and business.

Technology

1. Connecting to Smart Clinical Devices

Technology has advanced to the point that we are constantly hyper-connected to a variety of networks and devices. We have handheld diagnostic tools on our person continuously generating an astounding amount of data.

The types of health devices that are connectable and disseminating data are rapidly changing. Tools are emerging like flash thermometers that do not require physical touch, which diminish contamination risks, and smart EpiPen casings that automatically alert medical professionals during an allergic reaction.

These devices are not only becoming less expensive, but they are also starting to be reimbursable by insurers. Thus, over time these devices will replace traditional, non-connected products. Clinical devices are increasingly designed as Bluetooth-enabled, allowing for the real time collection of patient data, and providing better access and outcomes for patients.

2. Wiser Wearables

Wearables will continue to enter the market, but their features and focus will go well beyond fitness. Even the devices entering the market now are more sophisticated than ever before.

Some are now equipped with tools like muscle activity tracking, EGG, breath monitoring, and UV light measurement.

It will be fascinating to watch how consumer electronics, wearables, and clinical devices continue to take new forms. Some particularly interesting examples will be in the categories of digital tattoos, implantable devices, and smart lenses. As the adoption of wearables continues to grow, we will see more value placed on accessing digital health data by healthcare organizations. This will be especially important as health organizations move to value-based models of care. The need to gain access to the actionable data on such devices will only grow as innovation creates more complex technologies in the market.

3. Incentivized Consumer Adoption & Data Sharing

As these new devices enter the market, consumer adoption will continue to flourish. Right now, nearly [70 percent](#) of U.S adults track their health or the health of a loved one in some way. And, more than half of US consumers have used some sort of fitness technology in the last year. It is projected that [112 million wearable devices](#) will be shipped by 2018, with most of that activity taking place in 2016. This means a huge ramp up for device sales and adoption in 2015.

The adoption of wearable devices has grown exponentially. The trend started with health enthusiasts, such as runners tracking steps, location, and heart rate. Today, there is widespread adoption by all types of consumers. People are even being incentivized to use wearables by outside groups, such as insurance companies, healthcare providers, and employers.

[Nine out of 10 employees](#) want their company to provide a wearable device for incentivized tracking, and more than half of those individuals believe fitness trackers will help them be more active. As a result, insurance companies are starting to undertake proactive approaches to the adoption of mobile. For example, [Oscar Health Insurance](#) recently partnered with Misfit to provide financial incentives for fitness activities logged with an activity tracker.

This year, new innovations in both clinical and consumer devices will generate different and relevant types of health data. These mobile health technologies are already crossing from the consumer sphere into the clinical sphere. Hospitals are using patient-generated data to monitor patients post-discharge and reduce the risk of re-admittance. Health systems are devising new ways to monitor and manage their populations through engagement portals and analytics programs.

Access to new types of actionable and applicable health data is making a substantial impact across all segments of healthcare. Pharmaceutical companies and clinical research organizations are using data to more accurately monitor clinical trials and conduct

research studies. Employers and payers are using data to develop more engaging incentives around physical activity and healthy lifestyles. The list goes on, and so does the potential.

Healthcare

4. Telehealth Extending the Point of Care

This is the year the promise of telehealth will be realized. It is projected that by 2018, [65 percent](#) of interactions with health organizations will take place via mobile devices. Those statistics speak to the need of satisfying the growing demands being placed on providers, along with the growing discernment among patients when it comes to selecting affordable and convenient medical services. The continued adoption of telehealth will extend the point of care for providers and provide ubiquitous access to medical professionals for patients.

A number of entities are already putting this into practice: Walgreens, in partnership with MDLIVE, recently expanded their mobile platform to offer virtual doctors visits for acutely-ill patients; Google is testing a HIPAA-compliant medicine platform for video chats with doctors; and, digital urgent care solutions like Doctors on Demand are growing in popularity due to their convenience and low cost.

Combating Chronic Disease via Telemedicine

Managing chronic health conditions will become the focus of many healthcare providers, as models of reimbursement and population health management (PHM) continue to replace fee-for-service models. An issue with chronic disease management is that it is difficult to monitor at-risk patients outside of the hospital. That is where telemedicine comes in.

Solutions like remote monitoring and virtual visits will increase in pervasiveness to manage chronic conditions. As patients adopt these new models of care, hospitals will need to utilize mobile health devices and applications to monitor patients at risk for conditions, such as type 2 diabetes and heart disease.

Additionally, we are seeing new developments to help manage chronic conditions. For example, prescribed devices for obesity like fitness trackers, remote blood pressure cuffs, and connected scales can automatically transmit data back to the physician, rather than relying on manual entry from patients. Automatic transmission and access to pertinent

patient data is enabling the movement to managing patient populations via sophisticated remote technology and tools that offers verifiable, accurate data.

5. Increasing Emphasis on Interoperability & Data Integration

As telehealth and telemedicine trends continue to develop, the need to capture those recurrent patient data points is increasingly important. The major hurdle for most providers is capturing and consolidating any data that is collected outside of the hospital.

The obvious next step for healthcare IT is to incorporate patient-generated mobile health data back into the clinical story for use in the provision of care. In a value-based healthcare system, the key to better outcomes lies in data, and specifically, obtaining access to data generated outside of the provider setting.

Platform services will continue to be vital partnerships as healthcare systems are expected to quickly execute on all these initiatives simultaneously and successfully. Bottom line: If you have not started talking about how to connect to those external data sources, then you need to start.

Business

6. Capital Investment & Funding

According to [Rock Health](#), 2014 yielded more than \$4 billion dollars in investment capital for digital health startups, nearing the total of the three previous years combined. We are likely to see another record year as investors continue to take interest in healthcare, and especially as healthcare and wellness become more integrated with technology. Healthcare is a hot investment market right now, and that new investment will help drive innovation.

7. Legislation

Naturally, one of the forces driving investments in digital health is new reimbursement models in telehealth and mobile health. CMS recently announced telehealth reimbursement for Medicare, and I anticipate that private insurers will quickly follow suit. For example, United announced this year it will allocate [20 percent](#) of reimbursements (\$43 Billion) to value-based care.

The paradigm shift from fee-for-service to value-based care will continue to place urgency on health providers to find affordable means of managing and monitoring their populations. Incentives from reimbursement models will lead that charge.

Now that CMS has charted the course, hospital systems are incentivized to adopt telemedicine in a way they never could before. CMS codes will do for mobile health what meaningful use did for EHRs. Those who have not budgeted for data-driven strategies around patient-management are already at risk for falling behind.

8. Partnerships Powering Digital Health

Consumers will continue incorporating digital health seamlessly into their routine and personal style, thus partnerships will continue to form in the market as a means of capitalizing on that trend. We are already starting to see technology companies partnering with fashion designers to create lifestyle wearables. Google and Warby Parker, Fitbit and Tory Burch, Misfit and Swarovski, and Intel and Oakley are just a few.

Of course, it is not all about fashion. Partnerships are also emerging to create a more interoperable healthcare landscape. Universities and healthcare organizations are partnering with digital health companies to study the potential for new health solutions. For example, our client UCSF uses devices like step trackers, sleep trackers, scales and blood pressure monitors to track patients post discharge from heart surgery for signals related to readmissions. Another client, UNC is creating a Gastro-Intestinal tracking application (GI Buddy) that leverages fitness devices and scales to monitor Chron's disease. There are thousands of studies pioneering innovations to improve the efficiency and effectiveness of healthcare. And, they are making serious strides.

These emerging trends will continue to bind the landscapes of technology, healthcare, and business. The road set upon long ago by medical professionals and legislators is finally coming to fruition. The walls of interoperability are beginning to come down, investments are growing, partnerships are forming, and consumers are starting to take notice. We are moving towards a digital health revolution. We have the opportunity, the responsibility, and dare I say, the honor, to align innovation, legislation, and investment to exponentially improve our healthcare system. It is a tall task, but we are off to a promising start.