

Validic Bridges the Mobile Interoperability Gap

The direction is clear. Patients are taking a greater interest in their health, whether it is by paying closer attention to their diet, tracking their vital signs or self-managing a chronic disease. A Pew Research Study found that seven out of 10 U.S. adults now track their health in some way.

Health professionals have been encouraging these new behaviors, and when the information can be acted on, the changes are positive for both the patient and clinician. But too often, valuable patient-generated data does not reach healthcare providers because disparate systems are not communicating with one another.

This challenge was the focus of a workshop at the December 2014 mHealth Summit, where more than 3,000 healthcare professionals gathered to discuss opportunities for advancing the use of mobile health technologies in healthcare settings. The workshop, titled “Platforms & Open Approaches to mHealth Innovation: A Call to Action,” explored the difficulties faced by healthcare providers in gaining access to data that could improve the quality of decisions and, in some cases, prove life-saving.

Drew Schiller, Co-Founder and Chief Technology Officer at Validic, the leading digital health platform, gave a compelling example of a situation where the routine use of an application led to a breakthrough because the right system was in place to capture the data from that technology. “An 11-year-old girl from Cincinnati with Crohn’s Disease named Sara was waking almost hourly with severe gastrointestinal pain,” he explained. To learn more about the condition, Sara’s physician at Cincinnati Children’s Hospital asked Sara to use an app that would track every time she got up to use the bathroom in the middle of the night.

After the first month, the physician reviewed the data and noticed a seven-day period with no incidents. An examination of Sara’s health records revealed that a different physician had prescribed a seven-day course of antibiotics for an infection, which led

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FIGURE 1

The Digital Health Divide



On the left, the growing ecosystem of digital health apps, wearables, and in-home medical devices. On the right, traditional healthcare: physicians, nurses, care providers.

to a new study that is investigating if a non-digestible antibiotic can be used to treat the symptoms of Crohn's Disease. "This could alter treatment and improve lives for millions of Saras with Crohn's disease around the world," Schiller said. The breakthrough came about because the data collected by a young girl was made available to a physician who was involved with the case. Essentially, data captured outside of the physician's office was able to work with data in the health record to provide a clearer picture of the patient's overall health and routine. A better outcome for the girl was achieved, and a new study affecting millions was launched. This is the true impact of mobile health data.

Successes like this are the primary reason why so many professionals are paying close attention to new mobile health strategies and systems. Today's current healthcare system relies heavily on tracking a limited number of readings taken within a healthcare facility. The opportunity to monitor a patient's condition remotely opens vast new horizons for advancing medical knowledge and improving patient outcomes.

The Digital Health Divide

Much work remains to be done. Too often, patient-collected data fails to reach clinicians when it can be put to good use. Pew Research found that only one out of 10 patients who gather personal health data are sharing it with their physician. Schiller asked the attendees, "Now, why is this? Do we have a sharing problem?" Answering his own question, he said, "No, we have an access problem. Physicians and other healthcare professionals simply do not have a systematic way to access patient-recorded data."

The problem can be described as a "Digital Health Divide." Schiller illustrates the current health eco-system with a diagram (Figure 1) showing how digital health apps, wearables and in-home medical devices are separated from traditional healthcare providers including physicians, nurses and care providers. "For physicians to gain access to the data to make more informed decisions and new medical breakthroughs, we must close this gap," he said.

Validic is addressing this challenge by connecting to digital health apps and devices in order to deliver actionable data into the healthcare system through one simple API (Application Programming Interface) connection. Validic can connect directly with a manufacturer's API. Or, if the device does not have an API, the data can be captured by

Best Value in mHealth Interoperability

*Frost & Sullivan recognized Validic as the winner of the **Best Practices Global Healthcare Information Interoperability Customer Value Leadership Award**.*

Frost & Sullivan: "On analysis of the market landscape for healthcare interoperability solutions, Validic clearly stood out as generating the best value... Furthermore, its mHealth interoperability platform is a unique technological solution with a quick deployment time of a few hours, and is 90 percent cheaper than a healthcare company trying to build a comparable mHealth solution internally. Validic is a great value to healthcare companies looking to accelerate their digital health business strategies." To download a complimentary version of the Frost & Sullivan mHealth industry report, visit validic.com.

building directly to the Validic platform or through an SDK (Software Development Kit) connection, utilizing Validic's VitalUp application.

To make the devices interoperable, Validic standardizes and normalizes the data, operating entirely behind the scenes as a white-label solution. The system is fully HIPAA compliant and follows the "Safe Harbor" de-identification standard. It is also an FDA Class I Medical Device Data System (MDDS).

Validic's solution has already been deployed by hospitals, insurance companies, pharmaceutical companies and corporate wellness companies, and has a potential reach of more than 100 million covered lives. As one example, Sutter Health, a 30-hospital system in California with 12 million patients, is using Validic in its innovations group at the Palo Alto Medical Foundation (PAMF). The health system is developing a new preventive model of care centered on a team of physicians who monitor patients remotely. The goal is to identify changes in conditions that indicate the need for examination at a Sutter facility before hospital re-admission is necessary.

One of the first projects Palo Alto Medical Foundation (PAMF) developed using Validic was managing the data flow from activity trackers and blood pressure cuffs on patients at risk for hypertension. During the rollout period, two of the blood pressure cuffs PAMF had were found to be not clinically viable. This had the potential to bring the project to a halt as the software was re-written to handle new equipment.

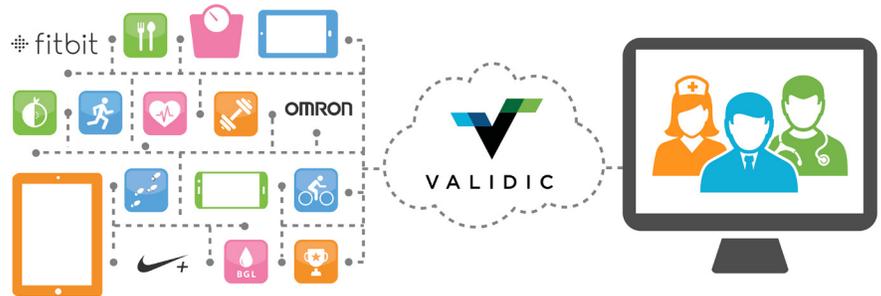
Because Validic provides a one-to-many connection, Sutter simply switched to a more reliable blood pressure cuff with no further integration challenges or required development time. For the clinicians, the impact was minimal. They were able to read data from these new blood pressure cuffs without a change in their methodology, or a delay.

Interoperability between medical devices and EHR (electronic health record) systems is a significant challenge within healthcare, whether in day-to-day operations or in medical trials. Mobile technology represents a special challenge, since many healthcare professionals carry their own devices and are cautious with adopting new technology – and with good reason. Doctors may be tied to a secure messaging application that is a lifeline to their patient's care. They cannot be expected to change to a new phone or tablet without affecting clinical workflows.

By remaining device- and platform-agnostic, Validic is able to provide healthcare teams with a future-proof solution that can continuously connect to all varieties of devices and applications as they come to market (Figure 2). The technical underpinning of Validic's service is an API, which, by design, is capable of scaling its services to work with new devices and software specifications, as the new need arises.

FIGURE 2

Validic: The Digital Health Connector



Validic is platform-independent and device-agnostic, providing the connection between patients' remote data and the healthcare providers' centralized systems.

Leveraging Validic Across the Healthcare Industry

Co-founder and Chief Executive Officer Ryan Beckland stated, "The range of Validic's solution is making a significant impact on the healthcare industry as a whole." Validic is being used in a growing number of applications, platforms, portals and systems within the healthcare community. The Validic platform is:

- Enabling hospitals and health systems to accelerate access to clinical and fitness patient data for better insights driving improved outcomes and more efficient patient population management;
- Helping wellness companies leverage comprehensive data to drive incentivized engagement and robust wellness programs;
- Providing payers with the ability to connect individuals and communities with proactive wellness strategies to achieve improved health and cost management;
- And, improving pharmaceutical companies' ability to collect remote-validated patient data for thorough and efficient clinical trials, testing and analysis.

Beckland reiterated, "Our customers use that data to gain better insights into care treatment plans, monitor patient engagement behavior, improve financial management of their patient populations and provide better connectivity across the entire continuum of care."

"There are so many standards in healthcare currently, and understandably, doctors do not know which to adopt," he explained. "At Validic, we want to be able to collect any data that is meaningful in a way that insulates our clients. That is practical interoperability."

With new devices coming on the market every day, the need to provide interoperability is a continual process with no end in sight. "Using a digital health app or device isn't enough," Schiller concluded. "The data must be accessible by healthcare professionals to make a difference. We at Validic are working every day to solve this accessibility challenge."



About Validic:

Validic is the healthcare industry's leading digital health platform for accessing patient data from mobile health and clinical devices, wearables and applications. By connecting its growing base of customers — that includes health IT vendors, health information systems, wellness companies, providers, pharmaceutical companies and CROs — to the continuously expanding list of digital health technologies, Validic enables healthcare companies to better coordinate care, improve engagement strategies and more efficiently manage their populations. With a leading global mobile health ecosystem that reaches over 100 million lives, Validic's innovative, scalable technology delivers actionable, standardized and HIPAA-compliant health data from the best in-class mobile health devices and applications.