VCJ

Finding digital health's new business model

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Digital-health investing has seen little impact from the recent venture-capital slowdown. First-quarter fundings were the largest on record, up almost 50 percent from a year ago to $981 million, according to **Rock Health**.

Why is money flooding into the space? Healthcare is undergoing a dramatic transformation that will leave it looking quite a bit different in 10 years, maybe even five.

This is because technology is seeping into the field like never before. Smartphones, cheap sensors, digital records, big data analytics and cloud computing are finally being embraced by an industry that up to now had resisted information technology.

Much of this is linked to mounting pressures on costs and reimbursements. Providers and insurers need to shave expenses, improve care and transition to a system that favors value-based care over volume-based, or fee-for-service, payments.

The new push for efficiency is likely to result in fewer hospital beds, more telemedicine services and greater transparency for patients. It should grant technology a big role remaking back office workflow, monitoring patients in real time and crunching massive repositories of data for disease insights.

It also will lead to a period of business-model uncertainty for startups as new value-based payment procedures evolve.

“We’re undergoing a generational change in healthcare,” said **Stephen Krupa**, a managing partner at **Psilos Group**. At its core is an expanding sphere of concepts and ideas combining software and mobility.

The result will be a decade of steady growth in digital health funding, even if troughs appear from time to time in the capital stream, Krupa said.

Stephen Krupa, managing partner, Psilos Group

“It seems to me the private market will continue to finance these companies until they have a faster path to a profitable level,” he added.

Investing, so far, is following several key themes. First is a focus on the consumer. Among the strongest sectors for venture deal making over the past seven quarters has been wearables, consumer engagement and telemedicine. Companies such as**Pager**, **Lantern**, **Glooko** and **AliveCor** have received funding. Many bring a services model.

Investing also is motivated by the concept of the data-driven enterprise, where companies bring analytics to data sets to create value and improve care. No longer is this just about digitalizing documents, such as medical records. The aim is to find value in information, as **Flatiron Health** intends to do in oncology.

Money also has gone to insurers, with big rounds for **Oscar Health Insurance** and**Clover Health**.

The challenge is in finding the right business model at a time when payment procedures in the industry are changing. Placing too much emphasis on optimizing for today’s healthcare system could prove a mistake years from now when reimbursement procedures are different.

Yet aligning a business model with the way reimbursements might look in the future is a big challenge. Scores of companies will fail at it.

Adding to the pressures is a rising tide of competition tied to the aggressive funding.

Even if venture capital was to dry up, a massive amount of money has already gone into the space, including a record $4.5 billion last year, or more than double the level of two years earlier, Rock Health says.

With the massive move toward digital health, "we're seeing a corresponding increase in digital health entrepreneurs and startups," said **Paul Wallace**, a managing director at the **Heritage Group**, which closed a $220 million second Healthcare Innovation Fund in May. "It reminds me of the 1999-2000 bubble. I feel it's a treacherous environment for investors and entrepreneurs."

Business models with the greatest traction so far are those that focus on reducing costs, automating processes and simplifying care delivery. Looking ahead, a focus on patient outcomes may be the key that unlocks value. This means startups need to show not just that a drug works, but that a patient is using it in the right way and at the right dose.

It will require tracking patient data outside the doctor's office, developing algorithms to make sense of the information and interacting with patents to keep them on track.

The true north of digital health is patient outcome with a shared responsibility for that outcome, said **Julie Papanek**, a principal at **Canaan Partners**. "That's where everything in my mind is going," she said. "Whoever drives the outcome will capture the value."

Achieving this entails finding a way to intervene in a patient's life at just the right moment. "These devices and services are a means to collect data," Papanek said. "Data that is actionable."

Monitoring the success of the present generation of companies will be instructive. As value-based care begins to find its way into healthcare and changes the reimbursement system, "it's just beginning to unfold what the business models will look like," said **Ian Shakil**, chief executive of **Augmedix**, which raised $17 million in April from **Emergence Capital**, **DCM Ventures** and others.

Ian Shakil, chief executive, Augmedix

Shakil said startups may need to change their messaging. Instead of pitching a digital service as a way to treat more patients, a successful pitch may have to stress a product's ability to bring more patients under the banner of value-based care. This doesn't mean ordering more tests, but increasing a provider's patient responsibilities.

Startups also need to emphasize analytics that can drive decision-making and figure out how to reach consumers in places they frequent, such as Facebook.

Augmedix is an example of a new-era startup relying on a services model and the wearable technology of Google Glass.

"It's new for health systems to allow cloud based solutions," Shakil said. "All these forces are shaking things up and creating a lot of startups."

Young companies also appear to have a role as technology enablers.

Envera Health, which raised $14 million in May from **Harbert Venture Partners**,**Noro-Moseley Partners** and **New Richmond Ventures**, provides an outsourced call center, analytical tools and a health information exchange for permitting data sharing among providers.

"There is a white space in helping health systems use technology in a meaningful way," said chief executive **Dan Neuwirth**. "The health system really needs a lot of help transitioning their care delivery models."

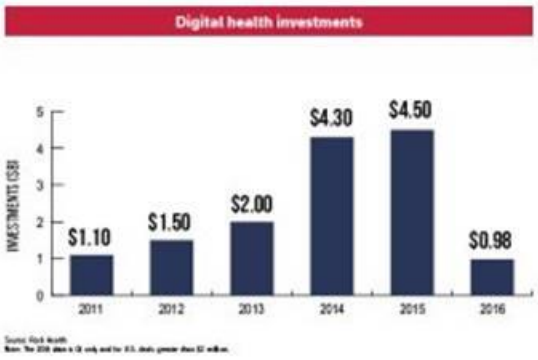
Despite this, uncertainties remain. Digital business models will catch on more readily once payment paths are clearer, noted **Casper de Clercq**, a general partner at **Norwest Venture Partners**.

Casper de Clercq, general partner, Norwest Venture Partners

There is ample evidence new digital health business models have led to a significant improvement in clinical outcomes, de Clercq said. Yet how they ultimately get paid is unclear.

"Because provider systems are slow to deploy new technology, companies typically need to start by providing technology enabled services," he said. "Startups have to show the way by demonstrating a technology-enable service can improve outcomes and improve efficiency."

After that, they can try to anticipate the future.



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