Will the Internet of Things Change the Future of the Healthcare Industry?

Despite adoption of electronic healthcare records, consumers still finds it difficult to transfer their medical records to a new healthcare provider. Read more!

AUSTIN, TX, UNITED STATES, September 18, 2018 / EINPresswire.com/ -- As the 30th annual [Healthcare Facilities](#) Symposium & Expo gets underway here in Austin, Texas, we take a look at the intersection of technology and healthcare to ask some tough questions: Are digital health solutions reaching their full potential? Is virtual reality in healthcare just hype? Will the Internet of Things (IoT) advance the delivery of quality care?

In an era when the Internet is upending industries, from hotel accommodations to grocery sales and transportation services, many healthcare industry analysts and entrepreneurs have been championing a similar revolution in digital healthcare.

Let's take a survey of the progress that's been made in advancing technology and healthcare since the enactment of the Affordable Care Act (ACA) in 2010.

Technology and Healthcare Provider
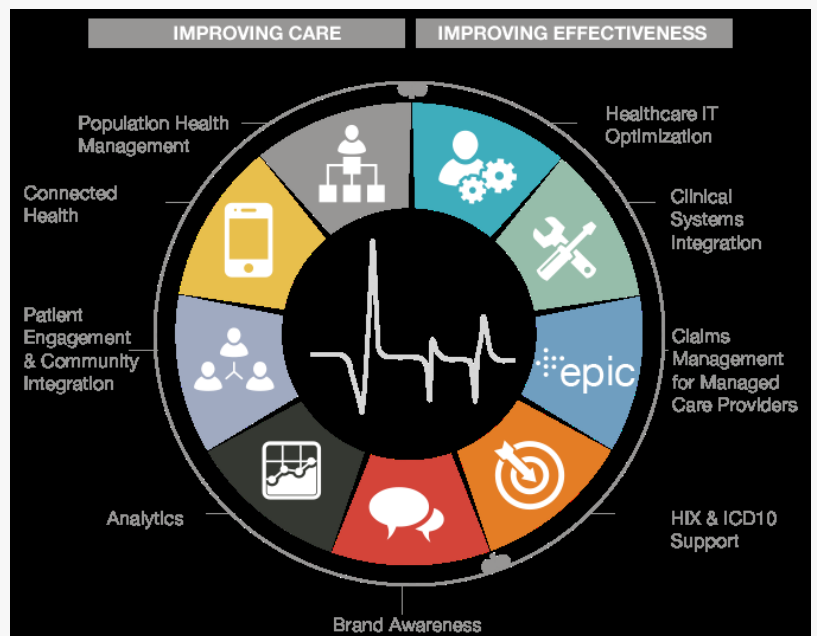
Outsourcing Healthcare

ARE MORE STREAMLINED IT APPS FOR HEALTHCARE PROVIDERS AND PAYERS COMING?

Whether you are a supporter or detractor of the ACA legislation, some of its lesser-known provisions (lesser-known outside the healthcare world that is) have tried to steer the big ship of healthcare away from the traditional "fee for service" model by offering healthcare providers new financial incentives (such as those offered by Accountable Care Organizations, known as ACOs)

to focus on the quality of patient outcomes. (There have also been major reimbursement penalties for obvious care lapses, such as re-admitting patients within a few days after a hospital discharge.)

The ACA has also incented providers (by tweaking reimbursement rates) to adopt electronic healthcare record (EHR) systems — as long as they can provide a paper trail demonstrating what is known as "meaningful use." This comes at a time when new coding standards for categorizing treatments, known as ICD-10, have been rolled out — much to the delight of "big data" evidence-based medical researchers but to the chagrin of care providers who have had to scramble to train personnel to learn the new coding procedures.

From a digital health perspective, these changes have been a golden opportunity for EHR software vendors (particularly for Minneapolis-based EPIC, the 800-pound gorilla of EHR systems), but those hoping that electronic healthcare records would be a springboard for consumer convenience and choice have generally been disappointed.

Despite widespread adoption of electronic healthcare records, the average consumer still finds it difficult to transfer their medical records to a new healthcare provider. While regional Healthcare Information Exchanges (HIEs) try to badger the healthcare systems to participate in record sharing, they're often reluctant to let go of their captive markets. Interoperability is also a low priority for many EHR vendors as well (and from their perspective, why not?) — many of them use lowest-common-denominator methods, e.g. dumb data "screen scrapes," to transmit records between their systems and those of their competitors.

Given all this complexity, it's been difficult for entrepreneurs to enter the healthcare market and create apps that are the "UBER of healthcare." And this is before talking about the Federal government's stringent patient privacy regulations, collectively known as HIPAA (the Health Insurance Portability and Accountability Act of 1996). HIPAA has been a final nail in the coffin for many digital health entrepreneurs contemplating entering the healthcare market, as the penalties for data breaches are quite onerous. (Consequently, as we'll see below, most consumer product companies, such as Apple and FitBit, have focused their efforts on fitness apps, which operate outside the reach of HIPAA regulations.)

Entrepreneurs and marketing-types who move into the healthcare realm are also surprised to learn how much sway the reimbursement rules from the Federal government's CMS (Centers for Medicare & Medicaid Services) have over what can or cannot be offered to healthcare patients. You can't offer free toasters for changing doctors in the CMS world – nor can you offer incentives for seemingly benign items either, such as tokens to pay for garage parking.

Low CMS reimbursements are also causing structural changes in the primary care segment. More and more physicians, frustrated by low reimbursement rates, are electing to convert their practices to what is known as "concierge care." Concierge practices require patients to make hefty annual upfront cash payments — typically ranging from $1,000 to as much as $3,000 annually. Those who can't afford it (which includes most Medicare/Medicaid patients or those

with insurance plans) are left behind to find care elsewhere.

In light of all these complexities, is anyone even trying to bring an "UBER"-like digital health experience to healthcare delivery? One bright spot is Oscar, the healthcare insurance company that is trying to brand itself as a digital health community.

PHYSICIAN EXTENDER TECHNOLOGY AND HEALTHCARE DELIVERY OUTSOURCING AND AUTOMATION

Given all these barriers to entry in the healthcare market, are there any other opportunities for digital health innovation?

With primary care providers stretched thin by low reimbursement rates, most have ramped up the number of patients they see each day by using what is euphemistically known in the industry as "physician extenders."

In many cases, physician extenders are real live human beings, with job titles such as Nurse Practitioners (NPs) and Physician Assistants (PAs) who can take patient histories, make diagnoses and, in the case of NPs, prescribe medications (under the doctor's supervision).

A new job category has also emerged, the medical Scribe. Scribes, who are trained in medical terminology, shadow the physician, NP or PA to capture and enter patient information (and survey data mandated by the ACA) into the EHR systems.

In time, it's likely that advances in artificial intelligence (AI) and natural language systems will assist or even replace the role of the human scribe. Other resource-intensive tasks that are mandated by ACA regs, such as providing diabetes counseling, could also be handed off to robotic counselors.

What about apps to extend the reach of the physician?

Telemedicine is a great example. Why should you even come into the office when you could Skype or Facetime the doctor instead?

It turns out the widespread adoption of telemedicine is held up by regulations to some extent. For example, patients must have an established relationship with a doctor before they can use telemedicine (e.g. they must have already had at least one in-person visit). Another requirement:

Communication software and hardware vendors have to assume responsibility for maintaining HIPAA patient privacy — yet major software companies (Microsoft with Skype) and (Apple with Facetime) have declined to do so, despite the fact that their apps are sufficiently encrypted for the task. Without a clear industry leader, telemedicine adoption rates have been slow to take off.

Interestingly there have been more advances in first responder systems that connect a remote physician to EMT personnel at the scene of an incident.

Houston's Project ETHAN leads the way for telemedicine solutions that allow emergency responders to focus their resources more efficiently.

What about AI systems interpreting x-rays or providing differential diagnoses for patient illnesses? We'll talk about that in the "Big Data" section below.

ADVANCES IN DELIVERING ON THE PROMISE OF PERSONALIZED MEDICINE AND GENOMICS

Many analysts believe the future of healthcare lies in personalized medicine.

And why not?

Brooke Turner
Formaspace
8002511505
email us here