

# How the Healthcare Cloud is Revolutionizing Patient Care

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There have been countless ideas about how the cloud could transform the healthcare space and patient care. As healthcare cloud adoption has grown, however, the initial focus has largely been on its ability to store massive amounts of data and expedite the exchange of patient health information.

These two capabilities have primarily been harnessed through medical research and electronic medical records (EMRs). The big data analysis and storage capacity that cloud computing provides has made new forms of medical research possible, while EMRs have streamlined patient records and simplified sharing between physicians. While these advances are beneficial to patient care on a broad level, cloud adoption in healthcare has not had the same effect on people's day-to-day lives that it has had in other industries.

That's starting to change, however, as patients are beginning to force the same consumer-focused approach to healthcare as they have to retail.

## Patient Care Before the Cloud

Historically, a visit to a physician or hospital was somewhat opaque. While notes were taken by doctors and nurses and filed away, they were seldom if ever seen by the patient. In addition, there was no streamlined way for patients and doctors to communicate about or monitor follow up care. But now, people are taking ownership of their health. They are willing to spend time "shopping" to get the best patient care experience they can for their money. This new form of medical consumerism is facilitated and maintained through such things as digital medicine and healthcare cloud use, allowing healthcare providers to deliver value driven, consumer-centric patient care.

## Patients Are Taking an Active Role in Their Care

As consumers do more research about their healthcare plans and treatment options, providers that offer cloud-based solutions and technology will be more competitive. Research shows that consumers prefer healthcare services that provide visibility into their care. For example, 62 percent of baby boomers use healthcare tools to access medical records, while millennials are twice as likely as other age groups to switch to healthcare providers that give them access to a patient portal.

This is more than just providing patients with access to their medical history online. A healthcare cloud can facilitate communication between patients, their medical devices, and their physicians through patient empowerment tools. Data shows that 73 percent of industry professionals are now using the cloud to host such tools.

In addition, patients with chronic conditions such as diabetes or high blood pressure can monitor their own health with minimally-invasive wearable devices that are connected to the healthcare cloud. Personal health information can be continuously collected and automatically sent back to a physician, who can then monitor and adjust the treatment plan seamlessly as needed.

## Increased Communication Improves Patient Outcomes

Streamlined communication between patients and caregivers provides clear benefits at the individual level, But it also poses an opportunity to improve patient outcomes and experience to a much broader base. Patient reported outcomes, for example, often distributed electronically through a patient portal, allow patients to give feedback on how treatment plans worked for them so that meaningful improvements can be made, and new patients can see and assess whether a new treatment plan is right for them.

In addition, as patient data is collected and integrated with EMRs, analysis of outcomes from large amounts of collected and correlated patient data gives doctors insight into how to best treat specific conditions in the future. These surveys, impossible without electronic distribution, demonstrate another way the cloud is being used to increase overall patient care.

## Security in the Cloud Moving Forward

Of course, the idea of storing such personal health information in the cloud always brings up the issue of cloud security. HIPAA regulations have been a key barrier between the healthcare industry and cloud adoption, as protected health information (PHI) must be kept confidential, and there have been questions in the past about the security of patient data stored, accessed, or analyzed in the cloud.

Healthcare cloud security has been made especially complicated due to the rise in sophisticated attacks, such as ransomware, which accounted for 72 percent of healthcare malware attacks in 2016. And that's just the start. In addition to simply securing PHI, healthcare providers must now also consider security from a new, more public perspective. Because as consumers get more selective about their healthcare plans, due diligence that reveals that a hospital suffered a major data breach could result in reputational damage that steers patients to other providers.

The healthcare cloud has facilitated a shift in the medical industry, where patients are taking accountability for their own care. Moving forward, providers must harness patient empowerment solutions and open communication to promote transparency with patients and improve overall patient experience and outcomes, while providing the essential security services necessary to protect critical patient data and resources and instill consumer confidence.

