Connected Health: An Important Tool for Improving Outcomes

▶ The digital age has put more data and insights into the hands of healthcare professionals and patients.

Digital technologies — wireless, electronic, mobile, telehealth — have made connected health possible, with the objective of enhancing patient engagement and ultimately health outcomes.

To determine what connected health means to the overall goal of improving health outcomes, it helps to have a broader understanding of what the term "connected health" means.

In a 2013 International Journal of Medicine paper, connected health was defined as "a conceptual model for health management where devices, services, or interventions are designed around the patient's needs, and health-related data is shared, in such a way that the patient can receive care in the most proactive and efficient manner possible."

The objective of connected health is to achieve a holistic view of the patient by achieving bringing together data and information about the patient from multiple sources, to improve decision making about the patient's care. The intention is also to enable patients to access the care they need as and when they require it.

Implementing Connected Health

Increasingly, healthcare organizations are setting up connected health departments and are investing in connected health tools. For example, Partners HealthCare, which was founded by Brigham and Women's Hospital and Massachusetts General Hospital, created a connected health center that is pioneering research in the field and is using remote-monitoring, wireless, and online communications and intelligence to improve patient adherence, engagement, and clinical outcomes.

According to a 2016 survey from the Healthcare Information and Management Systems Society (HIMSS), 52% of hospitals are using three or more connected health technologies and 47% are looking to expand their use of such technologies.

The growing demand for connected health is resulting in new innovations. Various connected health solutions were showcased during the 2019 HIMSS annual meeting in Orlando. For example, Philips presented solutions such as advanced wireless biosensors, COPD pathway management to help monitor patients at home, and remote monitoring programs.

A dedicated connected health conference is now held annually to bring together innovators across healthcare, health IT, consumer technology, public policy, the investment community, and academia.

Understanding the Benefits

There's growing understanding among healthcare organizations that connected health has the potential to change how health information is accessed, monitored, discussed, and how care of the patient is managed.

Many organizations are using advanced sensors to monitor health parameters and vital signs at all times. That data is then transmitted to healthcare stakeholders to help empower patients to get and stay well. Connected health also makes it easier for patients to connect with their healthcare providers quickly and easily. Tools such as telehealth allow patients to speak to their HCPs using a video conference, after which the doctor can suggest a diagnosis and treatment plan.

Connected health tools also enable providers to share information and expertise with one another to assist with patient care.

Because connected health takes advantage of remote monitoring and telehealth, it has the potential to deliver cost savings. In fact, a Deloitte analysis found connected health strategies can result in cost savings for congestive heart failure patients of between $1,054 and $1,956 per patient per year.

Remote patient monitoring (RPM), which depends on connected health digital tools, is important for long-term care of patients and allows patients to stay independent for longer. RPM also allows specialists to stay on top of their patients. For example, connected health devices for cardiac care can be used to collect data on pulse, blood pressure, weight, and other vital signs. This data can be sent to healthcare systems and cardiologists to monitor patients and provide education on managing their care.

One estimate suggests RPM could result in $200 billion in savings across all conditions over the next 25 years.

Connected health tools can be used as reminders to prompt patients to take their med-

Key Objectives of Connected Health

- Improve digital connectivity among consumers, providers, health plans, and life-sciences companies.
- Facilitate self-managed care, with the help of technology-enabled solutions, in a secure environment that protects consumer privacy.
- Deliver care outside the traditional clinical setting.
- Assist chronic care management and improve population health outcomes.

Source: Deloitte

ication, analysts say. According to a Deloitte report, more than half of medication users have indicated they would be interested in using technology to remind them to take their meds.

For busy hospitals, connected health solutions can help to reduce the number of people being rushed to the emergency room or patients with chronic conditions returning to the hospital by encouraging self-care, improving adherence, and reducing adverse reactions from drug interactions.

Barriers to Adoption

Connected health depends on good data integration, a continued issue across the healthcare industry. In addition, privacy and security concerns make some organizations hesitant to embrace connected health.

From the point of view of the patient, confusion over health apps and not knowing what options are most suitable can be barriers to adoption. This uncertainty is highest among seniors, those from lower socioeconomic backgrounds, those with a lower education level, and, at least in the United States, non-English speakers.

The huge number of apps available can add to the confusion. If trusted health providers were to screen apps for usefulness, trustworthiness, and usability it could help to encourage uncertain users to adopt connected health solutions.

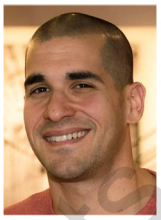
Another issue is the reliability of information, which is particularly true of apps that offer peer-to-peer support with user-generated content. Efforts to deal with this are being addressed as trusted sources — government bodies, associations, etc. — work to develop trusted, high-quality content.

From a security and safety perspective, Europe's GDPR legislation works to protect personal data, ensuring it is only gathered under strict conditions and for legitimate purposes. Blockchain technologies are also being implemented to protect against security breaches through tamper-evident logs, which show who requested data, when, and what they accessed.

Despite some uncertainty, demand for connected health and telehealth is growing. According to an Advisory Board survey, 77% of patients are willing to conduct a virtual care encounter and 2017 research from HIMSS Analytics found adoption of telemedicine had risen to a rate of 71%.

As patients become more engaged in their own health, the opportunity to empower them to adopt trusted connected health apps to take greater control over their wellbeing grows. PV

EXECUTIVE VIEWPOINT



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Two-Way Dialogue Leads to Stronger Relationships

If your connected health marketing is still relying exclusively on one-way channels like display advertisements, you are missing opportunities to grow a stronger relationship with your customers. Display advertisements flow in one direction. With connected health, you can both talk and listen.

Getting Personal

Personalized information collected through connected health conversations enables us to remain above the customer marketing noise. When fighting for customer mindshare, it's easy for messages to get lost in the shuffle. A key to breaking through the clutter is with personalization and relevance.

Connected Health: A Glossary

- Connected health: Healthcare delivery that leverages the systematic application of healthcare IT to facilitate the accessing and sharing of information, as well as subsequent analysis of health data across healthcare systems. Connected health encourages communication and collaboration among all of the various stakeholders involved in a patient's health. It uses knowledge and technology in new ways for more effective, efficient and affordable healthcare.
- Healthcare IT: The umbrella framework to describe the comprehensive management of health information across computerized systems and its secure exchange between consumers, providers, government and quality entities, and insurers.
- Electronic Medical Record (EMR): A computerized medical record created in an organization that delivers care, such as a hospital or physician's office, usually part of a local standalone health information system that allows storage, retrieval and modification of records.
- Electronic Health Record (EHR): A systematic collection of electronic health information about individual patients or populations in digital format and capable of being shared across different healthcare settings.
- Health Information Exchange (HIE): The mobilization of healthcare information electronically across organizations within a region, community or hospital system.

Source: Accenture