The Big Three of Telehealth

Three Benefits, Three Obstacles, Three Delivery Systems

By Traci L. Hughes

With artificial intelligence on the rise, it's no surprise that telehealth utilization grew 53 percent in 2017.[1] This is compared to the 14 percent growth for urgent care centers, 7 percent growth for retail health clinics, 6 percent growth for ambulatory surgical centers and 2 percent growth for emergency departments. Telehealth is the use of digital information and communication technologies to access health care services. These technologies may be used by the patient to access services or by the provider to coordinate care, improve efficiency or receive training.

TELEHEALTH BENEFITS

Telehealth benefits include improved patient health, increased patient satisfaction and cost savings. Improved patient health stems from easier access to care, especially in rural areas; efficient care management; and more informed care providers. Because care is more available to patients, they are more likely to seek treatment before their condition gets worse—and possibly more costly to treat—or before it progresses into an emergency situation. With the use of technology within care management, providers can monitor patients and communicate with other providers more efficiently.

Increased patient satisfaction is also due to easier access, as well as less costly care. A study published in the *Journal of General Internal Medicine*[2] stated that 95 percent of survey respondents reported being "very satisfied" with all telehealth attributes. Some of the characteristics that increased the odds of liking or preferring telehealth were: convenience of care, overall understanding of telehealth services, no medical insurance and female patients.

The idea behind telehealth cost savings is that a telehealth visit is cheaper than an in-person physician office, urgent care, retail health or most notably, emergency department visit. Those questioning the cost savings generated by telehealth argue that while more costly services may be avoided, ease of access also causes an increase in utilization. Therefore, the increase in frequency counteracts the decrease in severity. Another concern is that diagnosis and treatment may not be as accurate without an in-person examination, and follow-up care may be needed. Therefore, not only does the increase in frequency counteract the decrease in severity, but the decrease in severity is not as impactful as it may seem initially. Published cohesive and comprehensive studies on telehealth cost savings are limited at best.

However, one recent study in the *American Journal of Emergency Medicine*[3] accounted for both of these concerns. Researchers conducted a survey immediately following the telehealth visit, asking patients what care they would have sought if telehealth had not been an option. The team then conducted a follow-up survey one to two weeks after each patient's visit to see if any follow-up care had been pursued. The survey found that 16 percent would have "done nothing" if the telehealth visit had not been an option and that 75 percent did not seek any follow-up care. After accounting for increased utilization and follow-up care, the overall net cost savings was calculated as being between

$19 and $121 per visit,[4] with most of the savings generated from avoided emergency department visits.

Many states have telehealth policies that address reimbursement requirements. These requirements can hinder the opportunity for cost savings, especially if the policy requires that telehealth be reimbursed at the same level as an otherwise equal in-person service.

TELEHEALTH OBSTACLES

Telehealth obstacles include cost investment, security and privacy concerns and implementation. Setting up equipment, IT systems, operational procedures and staff to implement telehealth comes at a cost. Even though there is structure for and evidence of cost savings, these savings do not always equal return on investment. One option for overcoming the initial cost investment is through state and federal grant funding. For example, the U.S. Health Resources and Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services (HHS), offers grant funding for telehealth programs.

Technological security is a major concern these days for everyone, businesses and individuals alike. Many people, especially those who are less healthy or chronically ill, believe that the benefits of using telehealth outweigh the risks.[5] A California Health Care Foundation survey found that, although 66 percent of adults thought there was a need to address concerns about the privacy of their personal medical information, they agreed with the statement that "we should not let privacy concerns stop us from learning how technology can improve our health care."[6] There are ways to help mitigate security breaches, such as device and data encryption or file authentication, which providers should consider when choosing a telehealth vendor.

Implementation of telehealth services can be a massive task, including building the infrastructure, establishing protocols, training staff, setting up billing procedures and so on. It is recommended that providers start small and expand over time to help alleviate hardships during implementation.

TELEHEALTH DELIVERY SYSTEMS

Three types of telehealth most often used today are live video, remote patient monitoring and store and forward.[7]

Live Video

Live video telehealth is used for virtual visits, case collaboration and distance learning. Virtual visits range from primary care to specialty care. Reasons for virtual visits include injury and respiratory, digestive, mental health, joint, skin and pregnancy-related issues.[8] Case collaboration is handy for specialized cases in which highly specialized or extremely experienced physicians are needed. This can be used in areas such as intensive care, emergency care, neurology, psychiatry, orthopedics, pediatrics and so on. Live video also equips physicians and other health care providers with easier, direct access to continuing education opportunities around the world.

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You may have heard of virtual providers like Teledoc, MDLIVE, American Well or Doctor on Demand. But these providers are just a small sample of the vastly growing number of virtual care providers. The telehealth virtual visit market is projected to grow at a compound annual growth rate (CAGR) of more than 25 percent from 2018 to 2027.[9]

Connecting with providers via live video involves picking up your smartphone or logging into your computer and requesting an appointment either by schedule or "as soon as possible." While you wait, you may be required to fill out some medical history questions to inform the doctor of any history that wouldn't be at hand if he or she isn't your normal physician. You then connect to video when the doctor calls you and proceed with the visit; if medication is necessary, the prescription will be sent to your pharmacy. Some providers even offer an audio-only or chat option if the patient prefers not to be on camera.

Remote Patient Monitoring

Remote patient monitoring (RPM) is used to manage chronic care, acute care and high-risk patients. For managing chronic care conditions, providers can use RPM to get Bluetooth health measurements such as blood sugar readings for monitoring patients with diabetes or blood pressure readings for monitoring patients with hypertension. For these same types of patients, providers can send out reminders to take medication, exercise or eat healthy. Acute care management includes follow-up care for minor or even major surgeries, monitoring rehabilitation or follow-up to an initial acute care visit. High-risk patient RPM is similar to chronic care RPM and can be used for patients at high risk of developing a chronic disease or those who have multiple chronic diseases.

One RPM vendor, Connected Home Living (CHL), improves patient care after discharge with remote monitoring technology and remote care coordinators. The company's remote telehealth monitoring kits are personalized to each patient via a preloaded tablet that, with provided devices, can monitor vitals such as blood pressure, temperature and glucose levels. The tablet can also provide medication reminders and video calling. CHL

reports its three-year average readmission rate to be 5.8 percent, which can be compared to the U.S. average of 14 percent.[10]

A more specialized RPM vendor, InfoBionic, has created a wearable cardiac monitor that continuously streams real-time ECG and motion data to physicians monitoring patients with heart conditions. Other specialized RPM includes wearable insulin pumps or respiratory monitoring.

Store and Forward

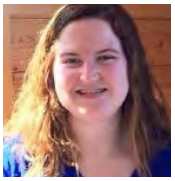
Store and forward telehealth technologies are used for digital images—such as x-rays, health records and training videos—and provides a means of gathering, storing and sharing patient information. This is particularly helpful in practices where images or lab results, without physical examination, can be used for diagnoses; such practices include dermatology, radiology or pathology.

Store and forward vendor iClickCare (ICC) provides HIPAA-secure collaboration for all health care providers by securely storing and forwarding pictures, video or patient information. With the use of this technology, consulting with a specialist is more efficient since the patient, physician and specialist do not need to be available at the exact same time; this allows for fewer delays in getting the best care and treatment plan to the patient in need.

AN ACTUARY'S ROLE

With health care costs on the rise and providers taking on more and more risk, actuaries are often being asked to weigh in on cost-reduction strategies. Additionally, a lot of emphasis is being put on value-based health care in the United States. If we are paying so much more than other countries for health care, are we at least getting better quality care? Telehealth presents the opportunity to both save on costs and increase quality of care. Actuaries should do their due diligence to investigate the potential risks and rewards of telehealth to inform stakeholders of this important option for improving the delivery and consumption of health care. If telehealth is determined to be a valuable pursuit for a particular stakeholder, actuaries will also need to be informed on the potential outcomes resulting from the introduction and implementation of telehealth and its effect on any assumptions used in financial projections.

In April 2019, the Centers for Medicare and Medicaid Services (CMS) finalized policies that will allow additional telehealth benefits for Medicare Advantage (MA) plans starting in plan year 2020. Benefits of this type were previously limited to certain services in rural areas. This is one specific product type for which actuaries should be aware of the potential new benefits and pricing reasonableness since many actuaries are involved in the pricing and bid review processes for MA plans. ■



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ENDNOTES

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