Virtual health: Extending the human touch in care delivery
Strategies to engage physicians and encourage adoption
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Overview

The health care industry is primed for expanded adoption of virtual health. Several key factors are elevating stakeholder interest, including continuing expected physician shortages, elevated customer expectations and increased demand, promising advancements in enabling technologies, and changes to federal and state policies favorable to virtual health. A 2016 report estimated that the US virtual health market will reach $3.5 billion in revenues by 2022.\(^1\)

Health plans and employers, both of which have strong incentives to supplement personal care with virtual options, are at the forefront of industry adoption. Hospitals and health systems, however, may face physicians’ hesitations, such as concerns about the potential loss of human touch in health care delivery and the impact on workload. This resistance may be overcome if physicians and other clinicians embrace virtual health as an integrated delivery approach for treating their patients, complementary to rather than a replacement for in-person care. Virtual health technologies now have the capacity to inform, personalize, accelerate, and augment humans’ ability to care for one another. For providers, committing to virtual health at a personal and organizational level can afford an opportunity to deliver more connected, coordinated care.

This paper examines the growing consumer and industry interest in virtual health, focusing on opportunities and challenges for provider organizations. Although health plans and employers also benefit from virtual health programs, this paper centers on providers by addressing physician concerns and hesitancies to virtual health’s adoption, making a case for how virtual health technologies can benefit current and future care delivery. Further, this paper offers strategies that health care organizations can pursue to engage physicians and other clinical staff when adopting virtual health.

Virtual health at a glance

Virtual health encompasses several asynchronous and synchronous modalities of digital and telecommunication technologies that may be used to deliver health care. It can act as a complement to in-person care, based on the needs of the patient population, capabilities of the organization, and availability of resources. The overall goal is to improve access to critical services and to reduce cost constraints across the continuum of care.\(^1\)
Virtual health has the potential to transform care delivery. There is a clear trend of demonstrating the effectiveness of clinical solutions such as telehealth and remote monitoring.¹

Hospitals, health systems, and health plans are each uniquely positioned in the virtual health market, because of their ability to impact care across the continuum.² Yet, while many provider organizations acknowledge the trend toward virtual health, some stop short of fully embracing this delivery model. Clinical leaders fear that human-centered health care may end where virtual health technology begins—that virtual health may discount or even replace their value. Additionally, providers are skeptical that virtual health actually decreases costs and are concerned about medical errors, access to technology, and data security.³ As a result, providers are showing less enthusiasm for virtual health than consumers, and demand continues to outpace adoption by health systems.

Virtual health is not about technology replacing humans in health care, but about augmenting and supplementing providers to improve the delivery of care—moving from a focus on bedside to “webside” manner. Virtual health may help relieve clinicians of mundane, administrative, or routine tasks, affording them more opportunities to practice at the top of their license (e.g., through AI-enabled virtual assistants). Further, virtual health can enhance patient-provider interactions and improve the overall patient experience. Studies and use cases demonstrate that providers can reduce costs, improve clinical outcomes, increase patient engagement, and expand access to care through virtual health programs.

Potential benefits include:

- Virtual visits could save an average of $126 per visit—a typical telehealth visit costs $40–$50, whereas a typical in-office visit costs $136–$176.⁷
- Streamlining annual patient visits by using virtual medical assistants for intake questions and data analysis could save an average of five minutes per encounter, freeing 47.8 million hours across the primary care provider (PCP) workforce.⁸
- An eICU can result in reduced patient length of stay (35 percent in one example).⁹
- Patient demand for virtual health is growing, with 77 percent of patients willing to conduct a virtual care encounter for various visit types.¹⁰
- Roughly 200 telemedicine networks in the United States provide connectivity to 3,000 clinics and community health centers in rural or suburban areas for specialty consultations, continuing medical education, and other services.¹¹

“Virtual health is not about technology replacing humans in health care, but about augmenting and supplementing providers to improve the delivery of care.”
Our take

Hospitals, health systems, and other provider organizations are in danger of losing out on the potential clinical, operational, and financial benefits of virtual health if they ignore the growing trends of increasing consumer demand, expanding payment opportunities, and enabling technologies. Indeed, consumers express strong interest in virtual health, according to results of Deloitte’s 2018 survey of US health care consumers.12

Nearly a quarter of the 4,530 consumers who participated in our survey said they have experienced a virtual visit with a doctor or nurse. Of consumers who reported they had never used virtual health, 57 percent said they are willing to try it. In addition, half of surveyed consumers said they use wearables and other technology to track their health information, and 53 percent share this information with their doctors.

The 624 participants in the Deloitte 2018 Survey of US Physicians (see page 7 for background on this research) are less enthusiastic about virtual health. Just 14 percent of surveyed physicians said they have implemented the technology for virtual visits. Among those who do not have the capability, only 18 percent intend to add it within the next two years. Similarly, just 9 percent of physicians said they have implemented technology for remote monitoring and/or integration of data from wearables. Of the physicians who have not implemented this technology, 27 percent intend to incorporate it during the next one to two years. Thirty-six percent of surveyed physicians said they worry about medical errors if they are not physically interacting with a patient. They also cited concerns about access to virtual health technology (35 percent) and data security (33 percent).13

Figure 3. Key findings from the Deloitte 2018 Surveys of US Health Care Consumers and US Physicians

- 23% of consumers have had a virtual visit with a doctor or nurse.
- Of those consumers who have never used virtual health, 57% are willing to try it.
- 50% of consumers use wearables or other technology to track their health information.
- Of those consumers, 53% share this information with their physicians.

- 14% of physicians have implemented the technology for virtual visits.
- Of those physicians who do not have the capability, 18% intend to add it within the next two years.
- 9% of physicians have implemented technology for remote monitoring and/or integration of data from wearables.
- Of those physicians who have not implemented this technology, 27% intend to in the next 1–2 years.
Despite reservations, the vast majority of physicians surveyed (9 out of 10) said they understand the potential benefits of virtual health, especially when it comes to helping improve patient experience (e.g., access to care, patient satisfaction, and improved communication with the care team). Still, understanding virtual health’s benefits will not necessarily boost its adoption—as the industry saw in the gap between clinicians’ interest and adoption of electronic health records (EHR). Limited experience with new and evolving technologies, workflow changes, and shifting roles and responsibilities could prevent virtual health from being fully integrated into daily processes.

To help physicians and other clinical staff become comfortable with virtual health options, hospital and health system leaders should begin by clearly communicating the need for and advantages of its adoption. For example, our survey results indicate that physicians consider chronic-condition management to be the most promising use of virtual health technologies. Providing a compelling, data-driven business case supported by real-life examples of virtual health and its impact on patients with chronic conditions can be influential in getting frontline clinicians on board. Also, giving physicians hands-on experience will help. According to our survey, physicians who have implemented at least one type of virtual health technology are somewhat less likely to voice concerns about medical errors when compared to physicians who have not.

Executives should consider going live with one use case targeting a select group of physicians; ultimately, these physicians can serve as internal champions for virtual health, and the use case will provide supporting data to further garner buy-in. It is imperative for executives to anticipate and address skepticism from frontline staff through data, sample use cases, and real-life examples; otherwise, it will prove difficult to incorporate virtual health into daily routines.

At the system level, thoughtfully implementing a virtual health strategy through a scalable, enterprise approach is crucial to the long-term success of any virtual health program. This includes factoring in the people, process, and technology implications for each use case. And similar to EHR system implementations, executives need to address key success factors such as leadership and stakeholder buy-in and support, a holistic and integrated approach, and clinical staff training to overcome barriers to adoption. In fact, 51 percent of surveyed physicians say that training is necessary to support a new technology’s adoption.

Organizations interested in building or advancing a virtual health program should consider starting by:

- Identifying two to three priority virtual health use cases
- Initiating an enterprise-wide strategic planning process to build consistency in experience and to maximize investments
- Developing a business case for each use case
- Uncovering gaps in operations or technology infrastructure to support use case and long-term vision
- Defining the virtual health program’s governance structure to help accelerate progress and create a consistent experience
A path forward

Physicians, hospitals, and health systems that embrace, invest in, and commit to virtual health can strengthen their ability to enhance care coordination between providers and patients. As more organizations establish virtual health programs, the evidence supporting improved quality and impactful results across the continuum of care will continue to mount.

Timely adoption of virtual health offers physicians an opportunity to retain and grow their patient base. Responding to consumer demand for virtual health can be a step toward delivering patient-centered care. Many nontraditional providers are already offering virtual health services and could pose a potential competitive threat unless hospitals and health systems quickly move into this space. However, a number of barriers need to be overcome before more physicians get on board. For one thing, virtual health technology is expensive for physicians: Some sources cite a $60,000 price point for a telemedicine device. And although progress is being made, reimbursement and licensing can still be complicated and unfavorable for physicians. Fatigue from large health information technology (HIT) implementations and time-consuming training requirements also present challenges.

The success of a virtual health program in provider organizations depends in great part on how effectively leadership engages physicians and partnering clinicians—both in preparing them for change and in managing their response. Despite the current low rates of adoption and plans for adoption in our physician survey results, answers to other questions suggest that gaining frontline physician support may not be as difficult as it appears. Physicians who have experience with virtual health technologies feel positive about them: For each of the seven virtual health technologies available to them, large proportions of surveyed physicians (58–69 percent) expect to increase their use.

As organizations move from planning to executing a virtual health program, executives should prioritize communication, change management, and ample staff training to help promote adoption. Strategic enablers include:

- **Enterprise approach**—Virtual health advocates may aid adoption efforts by encouraging clinical staff to think of this new care model as more than just interactions between patients and physicians facilitated by technology. A comprehensive, enterprise approach can enable hospitals and health systems to engage with patients and customers virtually throughout their journey of health. This encompasses virtual health interactions (such as video visits, remote monitoring, or virtual consultations with peers); wellness, preventive services, and care coordination with patients; and encounters with prospective customers.

- **Staff alignment and engagement**—Aligning physicians, other clinicians, and operations staff across the organization can support and advance virtual health offerings, especially if efforts focus on improving quality, patient experience, and cost-effectiveness. In particular, clinical champions can play a key role and serve as liaisons between frontline clinicians and business and clinical leaders.

- **Inclusive design, development, and integration**—Inviting clinical staff input in virtual health program design, development, and integration can boost adoption rates and reduce barriers to usage. In addition, employing lessons learned from earlier EHR implementations (e.g., open source, interoperability, data sharing, stakeholder adoption, governance) may save time and reduce technology costs.

- **Strong financial backing**—Physicians employed or affiliated with hospitals or health systems (62 percent) are more likely than independent physicians (49 percent) to have implemented at least one of the seven virtual health technologies, according to survey results. Several factors may explain this difference: capital requirements, different strategic priorities, and a greater number of independents being exempt from Meaningful Use requirements.

- **Physician activation**—Organizations should explore creative financial incentives for clinicians, looking at relative value unit, productive outcomes, and engagement metrics within differentiated payment models (incentives separated from base salary).

- **Formal and informal training**—Providing formal training to teams and departments can help them to get comfortable with new technologies and a modified workflow; teach them to build rapport with patients in virtual interactions; and improve risk mitigation with regard to diagnosing, prescribing, and handling of patient data. Some early adopters also recommend less formal approaches such as having technologically sophisticated physicians provide hands-on training and mentoring to their hesitant colleagues or having super users available at each location.
Virtual health in action

Case study: Using tablet-enabled telehealth to reduce unnecessary ED visits in Houston

An ambulance-based teleconsultation strategy in Houston, Texas, has helped reduce unnecessary emergency department (ED) visits by nearly 7 percent. Launched in 2014, the Emergency Telehealth and Navigation (ETHAN) program established a system of ambulance-based teleconsultations that decreased ED use and freed emergency medical services (EMS) teams to respond to other calls.

Under the program, patients requesting ambulance services receive on-the-spot referrals to the most appropriate site of care—ED, hospital, home, or urgent-care clinic. When EMS teams are unsure whether a patient needs emergency transport to the hospital, ETHAN uses tablet-based video chat and other technology to enable emergency physicians to conduct real-time patient assessment. For patients deemed in need of ED care (or refusing proposed alternatives), EMS provides transportation to the ED by ambulance or taxi. For patients not requiring ED care, EMS teams use an app to schedule appointments at partner clinics, refer patients to their primary care providers, or facilitate self-care at home. Local partner organizations help with follow-up monitoring and connecting patients to community-based resources that address social health-related needs. Follow-up monitoring played a key role in reducing ED utilization.

Training was a key factor in getting EMS staff to buy in to the program: Organizers spent more than a year on educational outreach to ensure EMS staff understood the system. A program evaluation found that ETHAN reduced unnecessary visits to the ED by 6.7 percent. As each avoidable, inappropriate ED visit saves about $2,500, the program cost savings are estimated to amount to almost $1 million annually for private and public health insurers. The program also reduced back-in-service times for ambulances by 44 minutes.

Case study: Quantifying the impact of telehealth in pediatric sports medicine at Nemours Children’s Health System

Nemours’ pediatric sports medicine group recognized the time and financial strain families faced when their child was in need of care and was interested in exploring a mechanism to keep costs and resource utilization low to comply with payer requirements.

Nemours turned to telehealth as a means to combat the pain points its sports medicine practice and patients were facing. The practice conducted doctors’ visits via telehealth for 120 of its pediatric patients. The health system tracked a number of variables throughout the telehealth study, including patient satisfaction, time spent between physicians and patients, cost of transportation, cost of care to the health system, and cost of care to the patient.

Telehealth enabled Nemours to reduce costs and improve the patient experience. Patients saved an average of $50 in transportation costs per visit, and travel time was cut by an average of 51 minutes per visit. Additionally, Nemours saved an average of $24 per patient. Further, Nemours found that telehealth patients spent 88 percent of their visit time with the surgeon, compared to just 15 percent of their in-person visits. Patient satisfaction scores were also positive, with 98 percent of patients expressing interest in future telemedicine visits and 99 percent likely to recommend telemedicine to others.
The bottom line

Virtual health is on the rise and can become a standard in care delivery in the future, enhancing clinical care and improving the patient experience. Providers thus far have been hesitant to embrace virtual health amid concerns about it replacing in-person care. However, the human-centered element of care delivery will endure, with technology acting as a complement to the current model of hands-on care delivery to help providers extend their patient interactions.

Our view is that with the changing reimbursement models, growing consumer demand, and advances in digital technologies, virtual health is a must-have for hospitals and health systems, and these organizations will need to help physicians adopt associated technologies, capabilities, and processes. As providers recognize the value of virtual health as an integral part of the care delivery spectrum, we expect that virtual health programs will be established more systemically at an enterprise level.

About the Deloitte 2018 Survey of US Physicians

The Deloitte 2018 Survey of US Physicians is a national survey of 624 US primary care and specialty physicians. The survey is representative of the American Medical Association Masterfile with respect to years in practice, gender, geography, practice type, and specialty, so as to reflect the national distribution of US physicians.

The survey asked physicians about seven virtual care technologies:
- Email/patient portal consultations with patients
- Virtual/video visits, defined as live physician visits conducted via video technology
- Remote patient monitoring at home
- Remote patient monitoring at other facilities, such as ICUs (intensive care units) or SNFs (skilled nursing facilities)
- Remote care management and coaching, defined as regular contact with patients by phone or video technologies to discuss health status and lifestyle behaviors
- Integration of data from patient wearables into patients’ medical records (wearables data might include fitness, sleep quality, basic heart rate activity, and other consumer health tracking devices)
- Physician-to-physician electronic consultations, defined as virtual communication tools or portals for physicians to consult with each other about a patient
Endnotes


5. Ibid.


13. Ibid.


15. Ibid.


20. Ibid.

21. Ibid.

22. Ibid.


27. Cooper, Allen, Balan-Cohen, and Carter, “The right health care the right way.”


30. Cooper, Allen, Balan-Cohen, and Carter, “The right health care the right way.”


32. Ibid.

Contacts

Deloitte has been active in the virtual health arena for years, working with our private- and public-sector clients and our technology alliances to develop and implement solutions designed to provide accessible, high-quality care and help work toward a competitive advantage. To learn more about virtual health and its applications, please reach out to one of our professionals:

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