

Virtual Doctor's Visits: The Promises of Telemedicine



By Lila Abassi — January 18, 2016



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With the increasing popularity of consumer-driven medicine comes the increased popularity of telemedicine services. But what exactly is it, and what is the promise of real-time virtual consultations?

In a perspective piece in the [New England Journal of Medicine](#) [2], Traditionally defined, telemedicine is the provision of medical care remotely by means of audiovisual technology, clinicians can examine patients and make treatment recommendations across long distances, according to Jeremy M. Kahn, M.D.

Proponents of telemedicine claim it will produce the following benefits:

- increase access to healthcare to those who may, for whatever reason, be unable to visit with a physician
- cut healthcare costs
- generate revenue
- shift toward value-based care

[Oregon Health & Science University](#) [3] implemented telemedicine consultations to 970 state patients, who now have access to academic specialists. What OHSU found was 45 percent of the patients who were able to avert traveling to see a doctor, saved \$6.4 million in travel costs. OHSU's telemedicine service offers consultations in a variety of specialties.

According to OHSU's pediatric critical care physician and medical director of the OHSU Telemedicine Network, Miles Ellenby, MD, The visit itself might only last 20 to 30 minutes, but some patients would have to travel 10 hours round trip to have that visit.

Telemedicine has also allowed patients with chronic conditions, such as congestive heart failure to stay on top of their management by enabling them to upload their health data to a care manager.

These patients who need regular, frequent monitoring but also happen to be some of the sickest in the population, not only are not required to travel, but are still receiving regular care.

OHSU also provides clinician education, so for those rural providers that have difficult cases outside their area of expertise will have access to educational information to provide better care.

Healthcare has never been shy to embrace innovation and technology. Physicians on the other hand, have been more like the bulls of healthcare not to say stuck in their ways, but definitely a tougher crowd to convince. The first few [virtual visits] might be conducted a little bit hesitantly, but then physicians start to realize, Oh yeah, I m actually doing a better job here, according to Dr. Ellenby.

The American Medical Association, once widely regarded as fixated on the past and keeping medicine mired in "tradition" and opposing innovation, had this comment on the newly-proposed "[21st Century Cures](#) ^[4]" bill now being considered in the House Energy and Commerce Committee:

"The AMA strongly supports the Committee s efforts to remove restrictions on Medicare coverage of telemedicine services that limit beneficiary access to telehealth services with a strong clinical evidence base. Specifically, the AMA supports removing Medicare geographic restrictions on coverage of telemedicine services; allowing dual eligibles to benefit from such services where Medicaid programs cover telemedicine; and removing all Medicare telemedicine restrictions in the context of alternative payment models. The AMA opposes federal legislation that would preempt or waive licensure and medical practice laws for telemedicine encounters and strongly affirms that physicians must be licensed in the state where the patient receives services."

(Note: while that last point seems to be an obstacle towards making telemedicine more widely utilized, the [AMA strongly supports](#) ^[5] the Federation of State Medical Boards Interstate Medical Licensure Compact, which would ease the path for multiple states to mutually recognize medical licensure obtained in one state.)

Even in the event of wider (or even universal) licensure acceptance, state-by-state variations in medical board allowances for the practice will occur. Doctors who wish to take advantage of this exciting technology need to be well-versed in the applicable local medical and medico-legal strictures.

The University of Pittsburgh Medical Center site asserts that telehealth is the answer to provider shortages that have occurred as more patients have insurance coverage. It allows the system to better manage patients, and it will be a cost benefit because we are not going to have patients who end up unnecessarily being admitted to a hospital or showing up in an emergency department because they didn t have the ongoing maintenance and care that they needed, according to Natasa Sokolovich, UPMCs executive director for telemedicine.

At UPMC, on average, \$86.64 is saved every time a patient receives primary care or urgent care online versus going to an ER or urgent care clinic. Additionally, 40 percent of their patients admit that if they did not have access to a virtual visit they would have forgone care in lieu of traveling.

In rural Arkansas, a grant was provided to the University of Arkansas Medical Sciences Center for Distance Health, to build a fiberoptic network which allows any healthcare provider in the state to

provide telemedicine services. One example of their success is when it comes to stroke screening. Of the 600 patients screened for stroke, about 150 of them received a critical medication, tissue plasminogen activator (tPA), that allowed for 60 percent greater chance of survival. Before telemedicine was available only five patients were treated with tPA.

A [literature review](#) [6] of telemedicine's effect on the management of diabetes found that participants in the intervention arm of clinical trials had lower hemoglobin A1c levels (measure of long-term blood glucose control) and these studies showed that telemedicine interventions can be an effective means to control diabetes. A [randomized controlled study](#) [7] that involved 17,401 patients with uncontrolled hypertension found that remote telemonitoring of patient's blood pressures by a physician-nurse team resulted in significantly improved blood pressure management.

Telemedicine can deliver the right care at the right time in the right place for patients using real-time interaction through online portals, remote monitoring and store-and-forward practices. Data can be sent from patient to physician like a follow-up photo of a suspicious mole to their dermatologist. Or a physician can follow results of a patient's blood pressure or glucose readings. And, patients and physicians can interact through secure video services a two-way communication. Patients and doctors can use telemedicine to better manage chronic conditions, improves outcomes, reduce costs and expand access to care.

As more patients become familiarized with telemedicine, they are very likely to demand it of their providers. Physicians, payors, both private sector and the government (Medicare/Medicaid) will have to jump on board.

The government and private insurers have embraced and expanded telemedicine coverage as it gains more traction as well as allowing providers to be licensed across multiple states so that they have broader reach.

Here are some other aspects of telemedicine I think are beneficial:

- Increased patient/physician interaction having a camera present ensures eye contact with a provider; office visits often require a doctor to pay attention to their computer instead of the patient
- Real ability to make medicine more of a multidisciplinary process physicians can guide patient care by instructing nurse practitioners, PAs and nurses

Some of the [concerns](#) [2] about telemedicine include the lack of robust evidence showing cost savings. We don't know what areas expanded telemedicine access is the most effective, which risks wasting healthcare dollars on ineffective programs. Another argument is that the legal and regulatory aspect of telemedicine lack a well-developed infrastructure and is changing on a near daily basis. There are also great variations in medical boards state-by-state as well as licensure acceptance. Because it has not been around for long enough, we really don't know what unintended consequences of telemedicine there could be.

Change is scary. While we don't have a perfect healthcare system, we would be remiss if we did not take advantage of technology that allows for remote access to physicians. It may not be for

everyone, but like any good business, consumers like options. Sure, more studies are warranted to evaluate virtual healthcare delivery, but in the interim it is always better to have tried and failed than to not have tried at all.

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