An Ocean of Opportunity

5 Themes from the Shifting Telehealth Landscape

June 2021
The explosion of telehealth adoption brought on by the pandemic is set to transform the future of healthcare.

To learn more, we spoke with thought leaders in government, healthcare, and industry. Our conversations hit on many widely-covered topics, as well as some opportunities and innovations that have received less limelight. In this summary, we’ll focus on five themes that piqued our interest.

1. Addressing healthcare inequities through a new lens on old technology
2. The challenge of fostering human connection in telehealth
3. Human nature and the impact on provider product adoption
4. Fractionalization of care and the rise of capitation
5. The sci-fi-esque future of telehealth
Addressing healthcare inequities through a new lens on old technology

Joe DeVivo, Hospitals and Health Systems President at Teledoc, told us, “Our dream is to democratize healthcare by bringing the highest quality of care to every location.” DeVivo pointed out that people may see their health care provider 2 or 3 times a year, but they'll go to their pharmacy a few dozen times a year. If Teledoc wants to bring care to the places where it is most convenient, a shift to retail environments seems inevitable, as does the expansion of home health care. In the home, many face technology barriers due to a lack of know-how, confidence, or availability of high-speed internet. Those who fall in this category are often already in underserved populations, including older members of our society, those living below the poverty line, and people in extremely rural parts of our country.

We spoke with Dr. Megan Ranney, Director at Brown-Lifespan Center for Digital Health, who praised telehealth for its value in spaces like palliative care, behavioral health, and post-op visits, while emphasizing the threat of access imbalance. Dr. Ranney sees the risk of worsening inequities in health care as telehealth’s greatest drawback. Similarly, Dr. Anna Marie Chang at Thomas Jefferson University Hospital in Philadelphia told us, “I think the big focus that has come out during this pandemic is the disparity of access.” She went on to point out that not everyone knows how to use a patient portal, but everyone can FaceTime with their grandkids.

This raises the question of what familiar household devices could be recruited to help overcome barriers to care: could telehealth appointments happen through a smart mirror in between shaving and brushing your teeth? Alexa devices can already order a prescription refill: will we soon be asking Alexa to connect us to our primary care provider? If we think of where people spend most of their time at home, the television looms large. This is especially true for older adults. In a future world, Grandma’s television may pop in at the end of her show with an appointment reminder. When it is time for her appointment, the TV might pause Netflix and set up a live stream with her physician. Placing telehealth in familiar devices is a step towards dissolving the technology barrier.
The challenge of fostering human connection in telehealth

Dr. Ranney spoke of another drawback: the challenge of establishing a provider-patient relationship in a virtual environment. She refers to a “sacred space” between the patient and physician and laments the loss of that spiritual aspect of healing—even prior to the pandemic. Adding the technology layer has diminished that space further. The diagram below reflects our prediction that, out of necessity, future telehealth innovations will be human-centered in nature. In fact, Dr. Chang told us she sees the challenge of creating a human connection as the primary weakness of the telehealth experience saying, “Telehealth is a tool to help us deliver care, but I don’t want to focus on the tool. It’s about the other part—the human side.” She explained that there are adjunct devices to help physicians gather the data they need remotely, but she sees a lack of tools to bridge the human-to-human gap.

When we asked Dr. Chang what has been done at Jefferson to address this, she told us about the reality that a physician with many years of experience may not easily glide into telehealth. Telehealth breaks the schema for a typical provider-patient interaction and dealing with this shift is not necessarily intuitive. As such, training at Jefferson covers topics like not being backlit, maintaining eye contact, and establishing rapport in a virtual environment—all with the goal of ensuring that the technology does not obstruct the provider-patient relationship. Jefferson also created videos to educate providers on doing a physical exam virtually, covering topics like neuro exams, GI exams, and how to guide a patient through making a homemade splint for an injured ankle.

### Human

<table>
<thead>
<tr>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increased Awareness</strong></td>
<td><strong>Concentration of Innovation</strong></td>
</tr>
<tr>
<td>Thought leaders have been, and continue to be, concerned by the lack of tools to foster human connection in telehealth.</td>
<td>Moving forward, more companies will put an emphasis on creating human-centered products and features, instrumenting the home for telehealth.</td>
</tr>
</tbody>
</table>

### Technology

<table>
<thead>
<tr>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rapid Acceleration</strong></td>
<td><strong>Shift Towards Human Lens</strong></td>
</tr>
<tr>
<td>From tele-ultrasound devices for expectant mothers to cameras that can read your heartbeat from 20 feet away, technology has been the focus of telehealth innovation.</td>
<td>Future technology will bring human connection to telehealth, empowering doctors to cultivate deep relationships with patients.</td>
</tr>
</tbody>
</table>
In the hospital, Jefferson employs a virtual triage system allowing one physician to triage patients in two separate emergency departments. Patients are generally quite receptive to this experience, but only if medical techs are trained to prepare them properly. If expectations have not been set, the patient can be taken aback when a doctor's voice suddenly sounds in the room, so there is training to cover this as well. Jefferson extends the training beyond the provider by offering one of the only Telehealth Facilitator Certificate programs in the country. The 5-week program was on offer before the pandemic and provides instruction on everything from troubleshooting technology issues to helping the patient and/or provider set up their room prior to the call. It is not uncommon for facilitators to set up a test call with the patient a few days before their appointment to be sure they are ready and comfortable. When the time comes for the actual appointment, the facilitator joins the call with the patient and the provider and handles everything from technology hiccups to the patient's comfort with the experience. From here, it's easy to imagine a future where most medical interactions are remote and everyone has a telehealth kit at home to access their real-time vitals—a future where a corner of your kitchen is set up with quality lighting for appointments with your child's pediatrician. If telehealth becomes the dominant form of care from childhood on, what does this mean for pediatricians as they strive to build relationships with their young patients?

“Telehealth is a tool to help us deliver care, but I don’t want to focus on the tool. It’s about the other part—the human side.”

- Dr. Chang
Human nature and the impact on provider product adoption

The challenges of establishing human connection in virtual care also play out between health care providers and can negatively impact product adoption. DeVivo told us of a region in Mexico with a high mortality rate and regional hospitals that did not have hospitalists. Five hospitalists agreed to provide remote care to these facilities and telepresence robots were sent to each remote hospital, but the approach was not working. When a team visited the hospitals, they found everything from sticky notes to buckets covering the telepresence cameras. After spending time with the rural providers and getting to know them on a personal level, the remote care began to function more smoothly. The hospitalist driving the robot could stop and ask the providers about their children and their weekend. DeVivo explained that, “All of a sudden the technology melted into the background, and in it was a human being. The best demonstrations of care are when trusting relationships are established.”

“...helping people understand its value, its relevance, and when it should fit within the broader referral strategy.” Part of the challenge is staff turnover and training, but there is also the innate need to feel like you are doing enough for the patient, and that the response matches the level of concern. In Hudak’s words, “If you just wheel over an iPad and say, ‘Here, talk to this person,’ it probably doesn’t feel like you’re doing as much as you could, and you’re responsible for this person.” Anecdotes like this beg the question of how we might help providers build trust in new systems and what role education will play. Telemedicine courses are currently offered in just over half of all medical schools in the US: will they soon be required in all medical schools, complete with remote health care simulations and tutorials on best practice approaches to driving telepresence robots?
Fractionalization of care and the rise of capitation

In addition to the barriers of technology access and the challenges related to human connection, there is also the lack of continuity in care that is often a byproduct of telehealth. Ironically, this exact issue triggered a fortuitous series of events in the state of Rhode Island in the months preceding the pandemic. Marie Ganim was the Health Insurance Commissioner of Rhode Island at the time, and she told us this story. A group of pediatricians approached her office to discuss changes to the state’s telehealth regulations, because their patients were seeing health care providers over telehealth and they, as the children’s primary care provider, had no access to that history. The pediatricians wanted Rhode Island to modify its regulations so they could also provide telehealth services and ensure continuity of care. Actions resulting from this initial request meant that when the pandemic hit, Rhode Island was ahead of other states in changing their telehealth regulations and, in fact, released their modifications before the federal government. In spite of loosened regulations, the topic of health care fractionalization as a result of telehealth is still a thorn in the industry’s side, leading many to speculate that the stage may be set for a shift towards capitation.

“I think that we are going down the rapid pace of evolution, moving away from fee-for-service toward capitation.”

- Marc Hudak

Hudak believes that telehealth is going to trigger a change towards flat-fee healthcare offerings where a small group of people are responsible for the patient’s overall care and told us, “I think that we are going down the rapid pace of evolution, moving away from fee-for-service toward capitation.” Hudak is not alone in this thinking, as evidenced by numerous articles over the past year, some of which point to a world where traditional insurance may be far less prevalent as health care providers offer more competitive packages of their own. In response, insurance companies may have to shift their strategy. For example, as we continue to see positive outcomes for digital therapeutics, will insurance companies begin bundling these treatments in with their offerings?
Looking towards the future, Dr. Ranney talks about the true potential for telehealth as an experience that is both multimodal and longitudinal. This could include subscription-based programs that drive greater continuity of care, as well as elements like remote monitoring and digital therapeutics.

“When we asked Aidan Petrie, Managing Partner at the New England Medical Innovation Center, about future potential, he quickly rattled off an array of technologies at play including machine learning, voice technology like Alexa, voice flags to detect chronic diseases, and cameras that can read your heartbeat from 20 feet away. Similarly, healthcare journals are touting a range of tools that fit into this future vision, including sci-fi-esque contactless remote monitoring chips embedded in living room furniture.

Remote monitoring, whether in furniture or a heartbeat-monitoring camera, comes with a suite of challenges, one of which is the volume of data produced. DeVivo recognized this when he spoke to us about television, smartphones, and diagnostic devices working in an ecosystem that supports patient care without overwhelming physicians with data. Moreover, remote monitoring comes with another challenge, as DeVivo pointed out saying, “… patients don’t want to be remote, and they don’t want to be monitored. They want to be human beings; they want to be cared for.” This brings us full circle to that sacred space Dr. Ranny spoke of—a space that may well harbor the greatest opportunity for innovation in telehealth. Perhaps in that future, physicians with excellent television-side manners will appear in your living room during the commercial breaks.

The true potential for telehealth is about making it a much more multimodal and longitudinal experience.

- Dr. Ranney
Want to join us in this ocean of opportunity?

Sproutel is an innovation partner that helps companies research, design, and launch products that improve health outcomes.

Contact us to co-create products and experiences for the future of healthcare.

partner@sproutel.com