

Valuation of Telemedicine: Competition

Introduction

The fourth installment in this five-part *Health Capital Topics* series on the valuation of telemedicine will focus on the competitive environment in which telemedicine providers operate.¹ The first installment in this series introduced telemedicine and its increasing importance to, and popularity among, providers and patients, as well as the current and future challenges related to telemedicine.² The second installment took a deeper dive into the reimbursement environment in which telemedicine providers operate, including before and during the COVID-19 pandemic,³ while the third installment examined telemedicine's regulatory environment, with a specific focus on fraud and abuse laws.⁴

The Rise of Telemedicine Supply and Demand

Although telemedicine utilization has been relatively low historically, in recent years, practitioners' use of telemedicine has grown considerably as the technology becomes more readily available and affordable.⁵ The use of telemedicine has become increasingly popular among both payors and providers, who have been adopting the technology at a rapid pace in an attempt to reduce avoidable hospitalizations and improve in-facility care.⁶ In fact, after slower growth in the early part of the decade, telemedicine utilization increased 53% between 2016 and 2017, but still only accounted for 0.11% of all national medical claim lines in 2017.7 Urban use of telemedicine grew much faster than rural use during that time, with growth rates of 55% and 29%, respectively.⁸ Further, 76% of hospitals had, by 2017, at least partially implemented a telemedicine system to connect with their patients through videoconferences, remote monitoring, online consultation, and other wireless communications.9

During this time, many health systems found that implementing telemedicine also provided them a competitive advantage. This technology allowed patients to receive ongoing care, particularly from specialists, and allowed those specialists to take on more patients and tap into new markets.¹⁰ One main competitive advantage reported by providers was that telemedicine allowed them to have a stronger presence in underserved markets.¹¹

This growing utilization of telemedicine among providers and patients in recent years is attributable to several factors. First, as healthcare reimbursement has shifted over the years from *volume-based* to *value-based* care, healthcare providers have increasingly looked to telemedicine to expand patient services and better support patients before and after their in-office visit.12 This care may lead to better patient outcomes and reduce costly and unnecessary hospitalizations.¹³ For patients who face multiple serious conditions, difficulty leaving their home, or other barriers to accessing traditional care, telemedicine can represent a more appealing option,¹⁴ as these services can be delivered either at a closer facility or in the comfort of the patient's home.¹⁵ Second, as mentioned briefly above, advancements in telemedicine technology itself, as well as in technology infrastructure such as broadband availability for patients, have allowed otherwise unserved or underserved patients to receive healthcare services.¹⁶ In fact, other than barriers to inperson visits such as paid parking, the ability to access high-speed internet is a main factor of patients to choose telemedicine over in-person visits.¹⁷ Third, using telemedicine as a healthcare service delivery method has great potential for cost savings, in large part by reducing unnecessary visits to emergency departments.¹⁸ While telemedicine utilization has been on the rise over the past decade due to these various reasons, it was not until the 2020 COVID-19 public health emergency (PHE) that telemedicine became widely adopted and utilized by a variety of patients and providers.

Changes to Telemedicine Supply and Demand during the COVID-19 PHE

Telemedicine has quickly become routine for Medicare beneficiaries since the start of the PHE. Only 14,000 Medicare beneficiaries per week used telemedicine at the start of 2020, but from March to early July 2020, the total number of beneficiaries who received care through telemedicine soared to over 10 million.¹⁹ Similarly, only 0.1% of Medicare primary care visits were conducted via telemedicine prior to February 2020, compared to 43.5% in April 2020.20 Both primary and specialty care physicians have experienced increases in the number of telemedicine visits from the start of the PHE.²¹ The growth and expansion of telemedicine has been slower in rural areas; however, even the state with the lowest rate of telemedicine use, Nebraska, saw increases in telemedicine primary care visits - up to 22% of all primary care visits.²² Several policy changes from the Centers for Medicare and Medicaid Services (CMS), which included relaxations of previous rules and stipulations; added services; and, increased flexibility for

providers and patients, launched this rapid expansion following the declaration of the COVID-19 national emergency.²³ Going forward, the continued success of telemedicine may again hinge on CMS and whether wider reimbursement is implemented.²⁴

Despite the increased utilization of telemedicine during the COVID-19 PHE, there is also evidence that overall primary care visits decreased significantly. Primary care visits in the second quarter of 2020 were more than 20% lower than the average of the previous two years' second quarter visit numbers.²⁵ Researchers also found that the contents of the visits that did occur in O2 2020 were different than for O2 2018 and O2 2019 - for example, the assessment of important risk factors such as blood pressure and cholesterol was significantly less common in 2020.26 Further, the demand for telemedicine has begun to decrease since the summer of 2020, after the first few months of the pandemic. In July, nationwide telemedicine visits were down to 21% of all visits, from 69% in April.²⁷ These dramatic changes in demand from pre-COVID-19 to later in the pandemic have reportedly left hospitals and other providers having to provide training in virtual care to their staff, only to switch many of these staff back to in-person visits.²⁸ After the financial tolls of the pandemic, many providers are looking to balance the most cost effective combination of these two visit types, which now seems to mean scaling back their telemedicine operations from those levels early into the COVID-19 PHE.²⁹

How Will Telemedicine Continue to Transform Competition?

Despite uncertainties, many experts continue to project growth over the next several years in the area of telemedicine. One market analysis projected that the global telemedicine market will be valued at nearly \$186 billion by 2026, an increase of \$152 billion from 2018.³⁰ The *compound annual growth rate* (CAGR) is projected to be approximately 25.3%, which highlighted the COVID-19 pandemic and investment in research and development as major reasons for this growth.³¹

Further, while telemedicine has undoubtedly already had an effect on competition and likely has been a useful tool for competing in the healthcare market for many years, some predict that it could have an even more profound effect in the future. One analysis likened telemedicine in healthcare to the rise of online shopping for other industries or online education in the higher education system.³² Similarly, by releasing some constraints typically put on patient choice, telemedicine may also lead to lower prices and greater availability of services.³³ As discussed above, providers have found themselves able to serve more patients with telemedicine. Since the start of the COVID-19 PHE, they are also able to serve new patients to their practice (in contrast to only established patients), as well as patients in different states. A continued relaxation of these restrictions may serve to at least partially ameliorate geographic and availability limitations through the use of telemedicine.

Where limited specialists and hospital consolidations have led to increased prices of care, telemedicine may be a powerful tool to foster competition and decrease those prices.³⁴

In addition to ameliorating access, telemedicine also has the potential to lessen the effects of growing primary care physician shortages. The Association of American Medical Colleges (AAMC) has predicted that there will be a shortfall of 21,000 to over 55,000 primary care physicians by 2033.³⁵ Physicians retiring, the aging population in the U.S. (and particularly the "Baby Boomer" cohort), and improved access to healthcare services are likely to all be strong contributors to this shortage.³⁶ Because telemedicine makes visits more efficient,³⁷ the potential effects from this shortage may be lessened through telemedicine, which allows one physician to see and monitor a greater number of patients. By contrast, the entrant of a new competitor into the market - the telemedicine companies themselves - may create more competition for physician talent.³⁸ Because telemedicine does not need to be conducted through a traditional health system or healthcare provider, many patients may be able to access symptom monitoring, educational materials, and referrals directly from a telemedicine company.³⁹ Especially if telemedicine continues to be commonly utilized by patients in the future, and the technology continues to develop and expand the limits of telemedicine, health systems may find themselves competing with the telemedicine providers directly, for patients, physicians, and nonphysician providers.

Barriers to Entry

In order to realize the full potential of telemedicine, providers will have to continue to supply telemedicine services in the long-term, not just during the current PHE, and patients will have to be willing to regularly utilize telemedicine in the course of their medical regimen. Recent decreases in both the supply and demand of telemedicine services may call both of these assumptions into question. On the demand side, rural patients, who have the greatest need for these services, still struggle to access telemedicine due to limited broadband availability, which may significantly affect their demand for these services.⁴⁰ On the supply side, the up-front costs of the hardware, software, and human resources needed to begin offering telemedicine may also be a steep barrier for providers, and particularly for smaller practices.⁴¹ These barriers will likely set limits on who can provide telemedicine, especially given the uncertainty of expanded reimbursement post-COVID-19.42

Despite these myriad issues, experts remain confident that telemedicine will continue to grow. Telemedicine's full effect on the healthcare industry may be yet unseen and will depend on the factors discussed in previous *Health Capital Topics* articles on telemedicine valuation as well as the subject of the final installment of this series – technology.

- For the purposes of this series, the terms "telemedicine" and "telehealth" will be considered to be synonymous, with the former used exclusively for the sake of consistency.
- 2 See the September 2020 Health Capital Topics article entitled, "Valuation of Telemedicine: Introduction" Vol. 13, Issue 9 (September 2020), https://www.healthcapital.com/hcc/newsletter/09_20/HTML/TELEMEDI CINE/convert_introduction_to_telemedicine_9.22.20a.php (Accessed 10/12/20).
- 3 See the October 2020 Health Capital Topics article entitled, "Valuation of Telemedicine: Reimbursement" Vol. 13, Issue 10 (October 2020), https://www.healthcapital.com/hcc/newsletter/10_20/HTML/TELE/conve rt_telemedicine_reimbursement_10.26.20.php (Accessed 11/2/20).
- 4 See the November 2020 Health Capital Topics article entitled, "Valuation of Telemedicine: Regulatory" Vol. 13, Issue 11 (November 2020), https://www.healthcapital.com/hcc/newsletter/11_20/HTML/TELE/convert_telemedicine_regulatory_11.21.20.php (Accessed 11/30/20).
- 5 "Family Physicians and Telehealth: Findings from a National Survey" By Kathleen Klink et al., Robert Graham Center, October 30, 2015, http://www.graham-center.org/content/dam/rgc/documents/publicationsreports/reports/RGC%202015%20Telehealth%20Report.pdf (Accessed 9/11/20), p. 3-4.
- 6 "What Are the Advantages of Telehealth Nursing" AMD Global Telemedicine, October 1, 2019, http://www.amdtelemedicine.com/blog/article/telemedicine-skillednursing-facilities-benefits (Accessed 9/11/20).
- 7 "FH Healthcare Indicators and FH Medical Price Index 2019: An Annual View of Place of Service Trends and Medical Pricing" FAIR Health, April 2019, https://s3.amazonaws.com/media2.fairhealth.org/whitepaper/asset/FH%20

Healthcare%20Indicators%20and%20FH%20Medical%20Price%20Index %202019%20-%20A%20FAIR%20Health%20White%20Paper.pdf, p. 25-26 (Accessed 9/15/20).

- 8 Ibid.
- 9 "Fact Sheet: Telehealth" American Hospital Association, February 2019, https://www.aha.org/system/files/2019-02/fact-sheet-telehealth-2-4-19.pdf (Accessed 11/30/20), p. 1.
- 10 "In a Competitive Market, Telehealth Can Be a Valuable Commodity" By Eric Wicklund, mHealth Intelligence, May 18, 2018, https://mhealthintelligence.com/news/in-a-competitive-market-telehealthcan-be-a-valuable-commodity (Accessed 12/2/20).
- 11 Ibid.
- 12 "Telehealth 2018: Vendor Assessment and Market Outlook" Chilmark Research, https://go.chilmarkresearch.com/hubfs/Telehealth%202018%20-%20Vendor%20Assessment%20and%20Market%20Outlook.pdf, p. 15-17 (Accessed: 9/11/20).
- 13 Ibid.
- 14 Ibid.
- 15 "Telemedicine and prostate cancer survivorship: a narrative review" By Nnenaya Q. Agochukwu, Ted A. Skolarus, and Daniela Wittmann, Mhealth, Vol. 4, No. 45 (October 2018), p. 1, 7-8.
- 16 "Crossing the Telemedicine Chasm: Have the U.S. Barriers to Widespread Adoption of Telemedicine Been Significantly Reduced?" By Cynthia LeRouge and Monice J. Garfield, International Journal of Environmental Research and Public Health, Vol. 10, No. 12, p. 6473, 6475-6476.
- 17 "Patient Characteristics Associated With Choosing a Telemedicine Visit vs Office Visit With the Same Primary Care Clinicians" By Mary Reed, Jie Huang, Ilana Graetz, Catherine Lee, Emilie Muelly, Chris Kennedy, and Eileen Kim, Journal of the American Medical Association, June 17, 2020,

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2767244 (Accessed 9/11/20).

- 18 "On-demand synchronous audio video telemedicine visits are cost effective" By Garrison Nord, Kristin Rising, Roger Band, Brendan Carr, and Judd Hollander, The American Journal of Emergency Medicine, Vol. 37, No. 5 (August 2018), p. 890; "Telemedicine and prostate cancer survivorship: a narrative review" By Nnenaya Q. Agochukwu, Ted A. Skolarus, and Daniela Wittmann, Mhealth, Vol. 4, No. 45 (October 2018), p. 1, 7-8.
- 19 "Trump Administration Proposes to Expand Telehealth Benefits Permanently for Medicare Beneficiaries Beyond the COVID-19 Public Health Emergency and Advances Access to Care in Rural Areas" Centers for Medicare & Medicaid Services, August 3, 2020,

https://www.cms.gov/newsroom/press-releases/trump-administrationproposes-expand-telehealth-benefits-permanently-medicare-beneficiariesbeyond (Accessed 9/11/20).

 "HHS Issues New Report Highlighting Dramatic Trends in Medicare Beneficiary Telehealth Utilization amid COVID-19" Department of Health and Human Services, July 28, 2020, https://www.hhs.gov/about/news/2020/07/28/hhs-issues-new-reporthighlighting-dramatic-trends-in-medicare-beneficiary-telehealthutilization-amid-covid-19.html (Accessed 9/11/20).
 Ibid.

23 For more detail on these policies, see the September 2020 Health Capital Topics article entitled, "Valuation of Telemedicine: Introduction" Vol. 13, Issue 9,

https://www.healthcapital.com/hcc/newsletter/09_20/HTML/TELEMEDI CINE/convert_introduction_to_telemedicine_9.22.20a.php (Accessed 10/12/20).

24 For more detail on reimbursement, see the October 2020 Health Capital Topics article entitled, "Valuation of Telemedicine: Reimbursement" Vol. 13, Issue 10,

https://www.healthcapital.com/hcc/newsletter/10_20/HTML/TELE/conve rt_telemedicine_reimbursement_10.26.20.php (Accessed 11/2/20).

25 "Use and Content of Primary Care Office-Based vs Telemedicine Care Visits During the COVID-19 Pandemic in the US" By G. Caleb Alexander, Matthew Tajanlangit, James Heyward, Omar Mansour, Dima M. Qato, and Randall S. Stafford, JAMA Network Open, Vol. 3, No. 10 (October 2, 2020),

https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2771191 (Accessed 12/2/20).

- 26 Ibid.
- 27 "Telehealth grew wildly popular amid Covid-19. Now visits are plunging, forcing providers to recalibrate" By Casey Ross, STAT News, September 1, 2020, https://www.statnews.com/2020/09/01/telehealth-visits-declinecovid19-hospitals/ (Accessed 11/30/20).

30 "Telemedicine Market: 2020 COVID-19 Impact Industry Analysis By Size Estimation, Growth Rate, Share, Trends, Merger, New Developments, Competitive Landscape, Regional Analysis With Global Forecast To 2026" MarketWatch, September 7, 2020, https://www.marketwatch.com/press-release/telemedicine-market-2020covid-19-impact-industry-analysis-by-size-estimation-growth-rate-share-

covid-19-impact-industry-analysis-oy-size-estimation-growth-rate-snaretrends-merger-new-developments-competitive-landscape-regionalanalysis-with-global-forecast-to-2026-2020-09-07 (Accessed 12/2/20).

32 "Will telemedicine create perfect competition?" By Adam E. Block and Michael S. Adelberg, Medical Economics, September 22, 2020, https://www.medicaleconomics.com/view/will-telemedicine-createperfect-competition (Accessed 12/2/20).

- 34 *Ibid*.
- 35 "The Complexities of Physician Supply and Demand: Projections From 2018 to 2033" Association of American Medical Colleges, June 2020, p. vii
- 36 Ibid.
- 37 "Telehealth: Technology meets health care" Mayo Clinic, May 15, 2020, https://www.mayoclinic.org/healthy-lifestyle/consumer-health/indepth/telehealth/art-20044878 (Accessed 12/16/20); "Using Telehealth to Make Patient Rounding More Efficient and Effective" By Eric Wicklund, mHealth Intelligence, September 28, 2020, https://mhealthintelligence.com/news/using-telehealth-to-make-patientrounding-more-efficient-and-effective (Accessed 12/16/20).

 "Will There Be Competition for Doc Talent Because of Telehealth?" By John Lynn, Healthcare IT Today, August 14, 2020, https://www.healthcareittoday.com/2020/08/14/will-there-be-competition-

https://www.neatthcareittoday.com/2020/08/14/will-there-be-competitionfor-doc-talent-because-of-telehealth/ (Accessed 12/16/20). *Ibid.*

- 39 II 40 S
- See the October 2020 Health Capital Topics article entitled, "Valuation of Telemedicine: Reimbursement" Vol. 13, Issue 10 (October 2020), https://www.healthcapital.com/hcc/newsletter/10_20/HTML/TELE/conve rt_telemedicine_reimbursement_10.26.20.php (Accessed 11/2/20).
 Ibid.
- 42 *Ibid.*

²¹ *Ibid.*22 *Ibid.*

²⁸ Ibid.

²⁹ Ibid.

³¹ *Ibid.*

³³ Ibid.



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