

Policy Research Perspectives

Telehealth in 2020: Survey Data Show Widespread Use Across Most Physician Specialties and for a Variety of Functions

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Introduction

Research conducted over the past year illustrated telehealth's role in allowing patients to retain access to care during the COVID-19 pandemic. In turn, the use of telehealth and the expanded rules around coverage and payment for it allowed physician practices to keep their revenue streams positive rather than at or near zero and to remain open to serve their patients. Previous work by the AMA based on Medicare claims data has documented the differences across specialty in the provision of telehealth services to Medicare beneficiaries during the pandemic (Gillis, 2021). Research based on appointment data and on claims from privately insured populations has shown the same (Mehrotra, Chernew, Linetsky, Hatch, Cutler, Schneider, 2021; IQVIA Institute for Human Data Science, 2020). Using data from the AMA's Physician Practice Benchmark Survey (hereafter, Benchmark Survey), this report provides a complementary look at the use of telehealth across all patient populations six months into the pandemic and how that use differed across specialty. It also demonstrates the dramatic upswing in the use of telehealth between 2018 and 2020.

Data

The Benchmark Surveys are nationally representative surveys of post-residency physicians who provide at least 20 hours of patient care per week, are not employed by the federal government, and practice in one of the 50 states or the District of Columbia. The Benchmark Survey was first conducted in 2012 and since then has been fielded between early September and mid-October on a biennial basis. The 2018 and 2020 survey years had response rates of 36 percent and 38 percent, respectively, and sample sizes of 3500 (Kane, 2021).

Changes in the use of telehealth between 2018 and 2020

Consistent with other research, the Benchmark Surveys illustrate the large increase in telehealth between 2018 and 2020 (Exhibit 1). In 2020, 79.0 percent of physicians worked in a practice that used telehealth compared to only 25.1 percent in 2018. Much of this increase was driven by interactions with patients. Indeed, the measures of telehealth that are "patient-facing" increased by greater amounts than those that are not. The percentage of physicians whose practices used videoconferencing with patients increased from 14.3 percent to 70.3 percent between 2018 and

2020. Related, the percentage of physicians who used telehealth to manage patients with chronic disease or to diagnose or treat patients also increased by a large degree (9.9 percent to 59.2 percent and 15.6 to 58 percent, respectively). Twenty percent of physicians said their practice used remote patient monitoring up from 10.4 percent in 2018. Sixty-seven percent of physicians worked in a practice that used phone call visits with patients in 2020. Fifty percent of physicians were in a practice that used telehealth to provide care to patients with acute disease and 34.3 percent to provide preventative care.

The use of telehealth for interactions with other health care professionals also increased between 2018 and 2020 but those changes were generally smaller than those for patient interactions. In 2020, 26.2 percent of physicians worked in a practice that used videoconferencing with other health care professionals compared to 11.6 percent in 2018. Twelve percent and 17.2 percent worked in a practice that used telehealth to get a second opinion from or have a consultation with another health care professional, respectively, compared to 6.9 percent and 11.3 percent in 2018. The presence of store and forward of data at the practice level was similar in 2018 and 2020 (around 12 percent).

The relatively small increases for some modalities (e.g., remote patient monitoring and store and forward of data) may reflect their relatively limited applicability across specialties. Larger increases may be present in the specialties in which they are typically used.

In addition to the questions outlined in Exhibit 1 that ask about the use of telehealth at the practice level, the 2020 Benchmark Survey also included questions about the number of weekly visits that the individual physician provided through videoconferencing or by phone. The reference period for those questions was the week prior to the survey (as was that for a question on total number of weekly visits).

Practice availability of telehealth vs. personal use

The addition of questions to the 2020 Benchmark Survey on the number of weekly visits provided remotely allows for the measurement of telehealth's intensity of use at the individual physician level. Not all physicians who worked in a practice with the ability to provide remote visits had conducted one in the prior week. While 70.3 percent of physicians were in a practice that used videoconferencing with patients only 59.1 percent had personally conducted a videoconferencing visit in the prior week (Exhibit 2). Similarly, while 66.6 percent said their practice used telephone visits only 56.4 percent had a telephone visit in the prior week (Exhibit 3).

There are several reasons for these differences. First, because the weekly measures cover a narrower time frame, the prevalence of telehealth measured on a weekly basis is lower than that measured on a "any use at all" basis. Second, even where telehealth is available at the practice level it may not be used by all physicians in the practice. Disparate use within a practice may be especially common in multispecialty practices that include physicians with a diverse set of patient populations and needs.

The next two sections of this report examine the specialty variation in the use of patient-facing telehealth in 2020. The first examines telehealth use at the practice level and the second examines the weekly provision of videoconference and phone visits by individual physicians.

In these analyses, physicians are categorized into nine broad specialty groups (anesthesiology, emergency medicine, medical specialties, pathology, primary care, psychiatry, radiology, surgical specialties, and other specialties). In the practice-level analyses, three of those nine broad specialty groups are further broken down into seven (for medical specialties), three (primary care), and seven (surgical specialties) subspecialties. Subspecialties with fewer than 40 respondents to the survey are included in the “other specialty” groups (i.e., other medical specialties, other surgical subspecialties, and other specialties). Although those smaller specialties may be more frequent providers of telehealth than the specialties depicted in this report the survey sample size of 3500 physicians makes it impossible to present reliable estimates for them.

Practice-level use of telehealth in 2020

Based on almost every measure, psychiatry stood out as the specialty that had by far the highest use of telehealth in 2020 (Exhibit 4). This is consistent with the findings of other research conducted since the start of the pandemic. About 85 percent of psychiatrists said their practice provided visits to patients through videoconference and telephone. Eighty-three percent said it was used to diagnose or treat patients and to manage patients with chronic disease. Seventy-three percent said telehealth was used to treat patients with acute disease and 44.4 percent said it was used to provide preventative care.

Although primary care physicians were also frequent providers of telehealth, there were differences across the three primary care specialties that likely reflected underlying patient population characteristics. More than 76 percent of each primary care specialty said their practice provided visits through videoconference. Pediatricians, on the other hand, were less likely than family/general practice physicians and general internists to provide visits by telephone (64.7 percent compared to at least 74 percent). Similarly, they were also less likely to use telehealth to manage patients with chronic disease (61.7 percent compared to at least 70 percent) or to provide preventative care (29.4 percent compared to around 50 percent). In contrast, general internists were less likely than family/general practice physicians and pediatricians to work in a practice that used telehealth to diagnose or treat patients (64.9 percent compared to around 72 percent) or to provide acute care (61.9 percent compared to at least 70 percent).

The practices of many medical specialists were also highly likely to provide telehealth in 2020. The practice-level use of both videoconference and phone visits was over 75 percent (and often well over that percentage) in cardiology, endocrinology/diabetes, gastroenterology, nephrology, and neurology. Hematologists/oncologists had a high rate of practice-level use of videoconference visits (88.5 percent) but were less likely than other medical specialties to report the use of visits by phone (68.0 percent). Endocrinologists/diabetes physicians were the medical specialty most likely to report the practice-level use of telehealth to diagnose or treat patients (71.9 percent), manage patients with chronic disease (92.1 percent), and provide preventative care (52.6 percent). More than half of gastroenterologists, nephrologists, and neurologists said their practices used telehealth to provide acute care. Thirty-three percent of medical specialists said their practices used remote patient monitoring. This was driven by high rates of use among the practices of cardiologists (63.3 percent) and endocrinologists/diabetes physicians (41.6 percent).

Compared to medical specialists, primary care physicians, and psychiatrists, most surgeons were relatively unlikely to report that their practice used videoconference or telephone visits with patients. Urologists were an exception; around 87 percent worked in practices that used those two forms of telehealth, higher than in primary care and in most medical specialties. In addition, 87.3 percent of dermatologists said their practices used videoconferencing for patient visits. In those two specialties, the percentages of physicians who said their practices used telehealth to diagnose or treat patients or manage patients with chronic disease were also higher than in other surgical specialties and on par with those of several primary care and medical specialties.

Number of weekly telehealth visits provided in 2020

Exhibit 5 shows the average numbers of videoconference and phone visits provided in the week prior to the 2020 Benchmark Survey. It also includes the share of visits that were provided through each of those two modalities. Across specialties, the average weekly number of videoconference and telephone visits were 9.9 and 7.6 respectively. These remote visits accounted for 10.6 percent and 8.1 percent of all weekly visits, including those made either in-person or remotely. It should be noted that there was a great deal of variation within specialty, with large shares of physicians who didn't provide any remote visits in the prior week as well as some who relied much more heavily on remote care. This is not surprising given the rapid and large uptick in telehealth during the pandemic and that COVID-19 infections rates across the country (and the state or local restrictions in place) in September 2020 were varied. Because of the wide variation within specialty, estimates of the weekly use of telehealth by physicians are provided only at the broad specialty group level.

As with the measures of telehealth at the practice level, psychiatrists clearly had the highest weekly use of remote visits with patients. The average psychiatrist conducted 26.6 videoconference visits and 20.9 phone visits in the week prior to the survey. Within this specialty, 36.9 percent of visits were provided via videoconference and 29.0 percent via phone.

In the primary care specialties, physicians provided an average of 12.2 and 9.2 visits per week via videoconference and phone. With roughly 100 visits per week on average the shares of visits provided through those two modalities were 12.5 percent and 9.4 percent.

Physicians in the medical specialties provided similar numbers of remote visits as primary care physicians, 11.5 videoconference visits per week and 8.3 phone visits per week on average. These remote visits accounted for 12.9 percent and 9.3 percent of total weekly visits.

Surgeons provided telehealth relatively less frequently than medical specialists, primary care physicians, and psychiatrists. In this specialty group, videoconference and phone visits were provided 5.2 and 4.7 times per week, on average, and accounted for 5.3 percent and 4.8 percent of total weekly visits, respectively. There was a much wider variation across surgical subspecialties than there was across medical subspecialties (data not shown).

Conclusion

The data from the Physician Practice Benchmark Surveys demonstrate the rapid uptick in the use of telehealth to provide care to patients between September 2018 and September 2020. While only 14.3 percent of physicians worked in practices that use videoconferencing to provide patient visits in 2018 this share was at 70.3 percent in 2020. Not only was that share high in psychiatry (85.8 percent) it was also above 76 percent for each of the primary care specialties and near or above 80 percent for many medical specialties. The use of telephone visits was also widespread although its prevalence was a bit lower than that of videoconference visits in most specialties.

The practice-level results suggest that telehealth was used to treat a diverse set of patients with a variety of needs. In 2020 58.0 percent of physicians said their practices used telehealth to diagnose or treat patients, 59.2 percent to manage patients with chronic disease, and 50.4 percent to provide care to patients with acute disease. Fewer physicians (only 34.3 percent) said it was used to provide preventative care. In some specialties, however, these percentages were much higher.

The practices of psychiatrists had the among highest rates of using telehealth to diagnose or treat patients (82.7 percent), manage the care of patients with chronic disease (83.3 percent), and treat patients with acute disease (72.7 percent). Physicians in family/general practice and pediatricians also had relatively high rates of using telehealth to diagnose or treat patients (around 72 percent) and to treat patients with acute disease (73.2 percent and 70.0 percent). General internists and physicians in family/general practice had high rates of using telehealth to manage the care of patients with chronic disease (70.2 percent and 76.9 percent) and to provide preventative care (around 49 percent).

Endocrinologists/diabetes physicians were the medical specialty most likely to report the practice-level use of telehealth to diagnose or treat patients (71.9 percent), manage patients with chronic disease (92.1 percent), and provide preventative care (52.6 percent). More than half of gastroenterologists, nephrologists, and neurologists said their practices used telehealth to provide acute care.

The Benchmark Survey data also illustrate that while the availability of remote visits in September 2020 was widespread, not all physicians had provided one in the prior week. Seventy percent of physicians were in a practice that used videoconferencing but only 59.1 percent had personally conducted a videoconferencing visit in the prior week. Similarly, while 66.6 percent said their practice used telephone visits only 56.4 percent had a telephone visit in the prior week. Eleven percent of visits were conducted via videoconferencing and 8.1 percent were conducted via phone. The largest share of visits conducted on a remote basis were by psychiatrists, 36.9 percent via videoconferencing and 29.0 percent via phone.

References

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Exhibit 1. Percentage of physicians whose practices have the following modalities and telehealth functions

| | 2018 | 2020 |
|---|-------|-------|
| Any use of telehealth | 25.1% | 79.0% |
| Modalities used in the practice | | |
| Videoconferencing with patients | 14.3% | 70.3% |
| Videoconferencing with another HCP | 11.6% | 26.2% |
| Store and forward of data | 11.9% | 13.1% |
| Remote patient monitoring (RPM) | 10.4% | 19.9% |
| Phone calls for patient visits | n/a | 66.6% |
| Function of telehealth in the practice | | |
| Second opinion from another HCP | 6.9% | 12.1% |
| Consultation with another HCP | 11.3% | 17.2% |
| Manage patients with chronic disease | 9.9% | 59.2% |
| Provide care to patients with acute disease | n/a | 50.4% |
| Provide preventative care | n/a | 34.3% |
| Diagnose or treat patients | 15.6% | 58.0% |
| After hours care or night calls | 9.9% | 22.4% |

Source: Author's analysis of the AMA 2018 and 2020 Physician Practice Benchmark Surveys. Notes: Some questions were not added until the 2020 survey. HCP = health care professional.

Exhibit 2. Difference between practice availability and weekly physician use of patient videoconferencing (2020)

| Practice uses telehealth | | Practice does not use patient videoconferencing | Practice does not use telehealth |
|---|---|---|----------------------------------|
| Practice uses patient videoconferencing | Practice does not use patient videoconferencing | | |
| Physician had a video visit last week | Physician did not have a video visit last week | | |
| 59.1% | 11.3% | 8.7% | 21.0% |

Source: Author's analysis of the AMA 2020 Physician Practice Benchmark Survey. Note: "Practice does not use telehealth" includes a handful of physicians who did not know if their practice used telehealth. "Practice does not use patient videoconferencing" includes a handful of physicians who did not know if their practice used videoconferencing.

Exhibit 3. Difference between practice availability and weekly physician use of phone call visits with patients (2020)

| Practice uses telehealth | | Practice does not use patient phone calls | Practice does not use telehealth |
|---------------------------------------|--|---|----------------------------------|
| Practice uses patient phone calls | Practice does not use patient phone calls | | |
| Physician had a phone visit last week | Physician did not have a phone visit last week | | |
| 56.4% | 10.2% | 12.4% | 21.0% |

Source: Author's analysis of the AMA 2020 Physician Practice Benchmark Survey. Note: "Practice does not use telehealth" includes a handful of physicians who did not know if their practice used telehealth. "Practice does not use patient phone calls" includes a handful of physicians who did not know if their practice used phone calls.

Exhibit 4. Percentage of physicians whose practices have the following modalities and telehealth functions (2020)

| | Modalities | | | Functions | | | |
|-----------------------------|--------------------|-------------|-------------|-------------------|-----------------|-------------------|-------------|
| | Video-conferencing | Phone calls | RPM | Diagnose or treat | Chronic disease | Preventative care | Acute care |
| Anesthesiology | 31.6 | 33.5 | 10.3 | 21.8 | 21.5 | 16.5 | 12.2 |
| Emergency medicine | 35.6 | 32.5 | 13.7 | 32.0 | 15.7 | 9.3 | 31.8 |
| Medical specialties | 82.1 | 79.2 | 32.9 | 59.4 | 79.0 | 41.9 | 48.3 |
| Cardiology | 82.0 | 84.6 | 63.3 | 61.6 | 81.0 | 47.4 | 34.7 |
| Endocrinology & diabetes | 77.5 | 78.4 | 41.6 | 71.9 | 92.1 | 52.6 | 33.8 |
| Gastroenterology | 83.7 | 84.0 | 19.2 | 63.6 | 84.0 | 49.3 | 52.6 |
| Hematology & oncology | 88.5 | 68.0 | 28.8 | 35.9 | 72.8 | 31.6 | 31.7 |
| Nephrology | 91.5 | 92.0 | 29.1 | 62.6 | 88.6 | 44.5 | 54.2 |
| Neurology | 89.7 | 80.7 | 26.5 | 67.9 | 82.2 | 40.0 | 53.3 |
| Other medical specialties | 75.1 | 74.2 | 21.9 | 56.9 | 71.1 | 36.7 | 60.7 |
| Pathology | 35.8 | 27.6 | 9.7 | 28.0 | 22.4 | 18.5 | 5.2 |
| Primary care | 79.7 | 74.3 | 21.1 | 69.2 | 71.1 | 45.2 | 68.3 |
| Family & general practice | 80.9 | 78.8 | 23.6 | 71.3 | 76.9 | 48.9 | 73.2 |
| General internal medicine | 76.6 | 74.7 | 25.0 | 64.9 | 70.2 | 50.0 | 61.9 |
| Pediatrics | 82.9 | 64.7 | 9.0 | 72.7 | 61.7 | 29.4 | 70.0 |
| Psychiatry | 85.8 | 84.6 | 17.5 | 82.7 | 83.3 | 44.4 | 72.7 |
| Radiology | 37.2 | 45.9 | 17.1 | 51.1 | 32.4 | 17.2 | 28.1 |
| Surgical specialties | 70.8 | 64.9 | 14.7 | 53.7 | 48.2 | 23.9 | 41.6 |
| Dermatology | 87.3 | 65.6 | 14.3 | 67.6 | 65.8 | 15.9 | 53.5 |
| General surgery | 61.2 | 59.2 | 10.9 | 41.9 | 39.8 | 17.5 | 36.7 |
| Obstetrics & gynecology | 66.2 | 68.8 | 15.5 | 56.7 | 48.0 | 39.4 | 42.0 |
| Ophthalmology | 56.3 | 51.1 | 10.2 | 42.1 | 29.9 | 16.7 | 36.2 |
| Orthopedic surgery | 73.7 | 62.6 | 16.7 | 58.6 | 46.3 | 17.0 | 41.2 |
| Urology | 87.2 | 86.8 | 23.7 | 70.4 | 77.1 | 32.1 | 52.0 |
| Other surgical specialties | 79.8 | 67.7 | 15.4 | 52.2 | 51.3 | 19.7 | 40.6 |
| Other specialties | 73.7 | 67.0 | 17.3 | 58.5 | 61.7 | 37.9 | 53.1 |
| All | 70.3 | 66.6 | 19.9 | 58.0 | 59.2 | 34.3 | 50.4 |

Source: Author's analysis of the AMA 2020 Physician Practice Benchmark Survey. Note: See Exhibit 1 for more detailed question wording.

Exhibit 5. Average number of weekly visits and percentage of weekly visits conducted by videoconferencing and phone (2020)

| | Average # weekly visits | | % of weekly visits | |
|----------------------|-------------------------|-------|--------------------|-------|
| | Videoconferencing | Phone | Videoconferencing | Phone |
| Anesthesiology | 3.0 | 3.6 | 4.8% | 5.8% |
| Emergency medicine | 3.5 | 3.6 | 3.9% | 4.0% |
| Medical specialties | 11.5 | 8.3 | 12.9% | 9.3% |
| Pathology | 4.4 | 1.5 | 4.5% | 1.5% |
| Primary care | 12.2 | 9.2 | 12.5% | 9.4% |
| Psychiatry | 26.6 | 20.9 | 36.9% | 29.0% |
| Radiology | 3.6 | 5.0 | 2.7% | 3.8% |
| Surgical specialties | 5.2 | 4.7 | 5.3% | 4.8% |
| Other specialties | 13.5 | 7.1 | 15.6% | 8.2% |
| All | 9.9 | 7.6 | 10.6% | 8.1% |

Source: Author's analysis of the AMA 2020 Physician Practice Benchmark Survey.