Telehealth Now a Permanent Fixture for U.S. Healthcare Delivery

Telehealth Adoption Trends 2 Years into the Pandemic & Implications for Provider Organizations

ANALYSIS SUMMARY

Examining telehealth adoption across more than 2 full years (data through June 2022) with the COVID-19 pandemic as a backdrop, we see several divergences in where and how telehealth services are used across the United States. Overall telehealth adoption has notably increased across all service lines compared to pre-pandemic levels. As COVID-19 shifts from a pandemic to an endemic stage, we’re now seeing that telehealth has established a prominent and lasting role in healthcare delivery across various geographies, patient demographics, and clinical service areas. This updated trend analysis is intended to equip provider organizations with useful benchmarks of adoption and better inform their ongoing planning efforts to capitalize on telehealth’s more prominent role in healthcare delivery.

This approach analyzed more than 400 million claims records to track telehealth adoption trends since the beginning of the pandemic and identify where we see the greatest geographic and clinical impact—and infer where it is likely to remain in the future. Previous iterations of this analysis focused primarily on clinical adoption trends, and while we take a refreshed look at those patterns, we also examine additional benchmarks of telehealth adoption trends to gain a more nuanced understanding of where it has been most transformative over the past few years.

Looking ahead, telehealth will continue to play an important role in how health systems maintain patient relationships and advance care models across service lines. While we don’t expect telehealth utilization patterns to repeat the same surge seen at the beginning of the pandemic, their stabilization at around 10% of all outpatient visits suggests that providers have found real value in the modality and are likely to uncover additional use cases and impact as programs become more deliberate in planning and less reflexive in meeting market demands.
We reviewed 5 key areas of telehealth adoption to identify emerging trends in the data:

<table>
<thead>
<tr>
<th></th>
<th>OVERALL ADOPTION TRENDS</th>
<th>More than 2 years since the start of the pandemic, telehealth has shown remarkable staying power, now accounting for roughly 10% of all outpatient clinic visits in the United States.</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>DEMOGRAPHIC ADOPTION TRENDS</td>
<td>Although all patient age groups are using telehealth much more than before the pandemic, younger adults are the most frequent utilizers. We also find that linguistically diverse metropolitan areas see high utilization rates.</td>
</tr>
<tr>
<td>03</td>
<td>GEOGRAPHIC ADOPTION TRENDS</td>
<td>Significant variation in telehealth utilization has emerged across regions of the U.S., which may be partially influenced by state-level regulations making telehealth adoption more favorable in those areas.</td>
</tr>
<tr>
<td>04</td>
<td>TELEHEALTH MODALITY ADOPTION TRENDS</td>
<td>While most telehealth visits occur through live video platforms, telephonic visits are notably common in many states, suggesting a clear role for audio-only visits in some regions and service lines.</td>
</tr>
<tr>
<td>05</td>
<td>CLINICAL ADOPTION TRENDS</td>
<td>Many medical and some surgical specialties have been transformed by telehealth adoption. Although variation in utilization persists, it remains substantially higher compared to pre-pandemic levels.</td>
</tr>
</tbody>
</table>
Telehealth Has Notable Staying Power, Now Hovering Around 10%

KEY OBSERVATIONS

- Compared to the first year of the pandemic, telehealth adoption rates have tailed off and are hovering around 10% across the United States, on average.
- There appears to be some seasonality to telehealth adoption rates, with spikes tending to appear during winter months, which may also correlate with holiday gatherings and higher risk of viral spread.

CONCLUSIONS & IMPLICATIONS

Two years into the pandemic, year-over-year trends show a downward trajectory of telehealth adoption. However, even as the national rate now hovers around 10%, this rate is much higher than the pre-pandemic levels of less than 1%.

All indications point toward telehealth having notable staying power.

Telehealth has secured a role within the clinical domain that is not likely to recede to its pre-pandemic position as an outlier of clinical care model integration.
Telehealth Now a Permanent Fixture for U.S. Healthcare Delivery: Telehealth Adoption Trends 2 Years into the Pandemic & Implications for Provider Organizations

**Telehealth Is Much More Widely Adopted Than Pre-Pandemic Rates, and Tends to Experience Seasonal Utilization Spikes**

**KEY OBSERVATIONS**

- There have been 2 major spikes in telehealth utilization after the initial surge in the spring of 2020, with both spikes occurring around the end of the year or early into the following year. The post-holiday and February spike in 2022 was 17%, compared to the 21% spike experienced in January 2021.
- While the Omicron variant (early 2022) resulted in a higher number of COVID-19 cases than previous variants, telehealth utilization continued a long-term trend downward, likely impacted by greater vaccination rates in 2022 than early 2021.

**CONCLUSIONS & IMPLICATIONS**

Seasonal fluctuations in telehealth adoption are expected to continue, with spikes typically occurring in the winter, after end-of-year holidays.

The continued impact of COVID-19 variants will partially drive winter telehealth utilization, which is expected to remain significantly higher than its pre-pandemic levels.
Sustained Adoption Rates Reveal an Age Gap, Especially Between Adults Under 45 and Those Over 65

KEY OBSERVATIONS

- While all age bands adopted telehealth at a similar rate during the early stages of the pandemic and have followed a similar pattern of adoption since, a split is emerging, with those aged 18-44 having the highest steadying rate of adoption.
- Those aged 65 and older were the highest telehealth adopters early in the pandemic but now account for the lowest adoption rate. This could indicate that current telehealth user experiences do not adequately meet patient needs among the 65+ patient population.

CONCLUSIONS & IMPLICATIONS

Among commercially insured patient cohorts, there are sustained higher rates of adoption among middle aged patients who typically value telehealth convenience most.

Seniors (65+), by contrast, are relatively lower utilizers of telehealth, but significant gains have been maintained.

This signals that there is potentially a combination of stronger preference and clinical appropriateness for in-person care, and a less compelling telehealth experience among older patients.
Areas With High Concentrations of Multilingual Patients Have Higher Telehealth Utilization

**KEY OBSERVATIONS**

- An inverse relationship exists between the level of linguistically diverse households within a geographic region and the telehealth adoption in that same area. This trend is consistent across Core Based Statistical Areas (CBSAs) adjusted for population size.
- The geographic regions with the lowest percentages of English-only speakers (46%) have the highest telehealth utilization consistently over time compared to other regions with higher rates of English-only speakers.

**CONCLUSIONS & IMPLICATIONS**

Contrary to common perception, telehealth can be a viable and compelling care access point for patients who don’t speak English, and providers should be mindful to accommodate accessibility of those visits to patients with different language backgrounds (e.g., staffing telehealth visits with multi-lingual providers).

*Core-Based Statistical Areas (CBSA) are metro- and micropolitan statistical areas consisting of one or more counties anchored by an urban center with a population of at least 10,000. This designation is assigned by the Office of Management and Budget (OMB).*

1 This graph includes data from both Kythera Labs and the American Community Survey data from the US Census website.
Certain Regions Have Sustained High Levels of Adoption, While Others Lag in Delivering Telehealth

KEY OBSERVATIONS

- There are pockets of sustained adoption on both coasts and through parts of the Midwest. Contrastingly, adoption trends have been consistently low through most of the Gulf Coast up through the Great Plains.
- There's a significant spread in weekly adoption rates (3% to 25%) of outpatient visits between states with lowest and highest adoption.

CONCLUSIONS & IMPLICATIONS

Sustained telehealth adoption varies significantly across the U.S. Some regions, such as New England, are showing higher overall adoption of telehealth. This may foster greater regional agreements, reciprocal credentialing, licensure, and payment coverage.

However, such regional variation may leave an ever-increasing gap for low-adopting states to catch up to the digitally forward care models being adopted elsewhere in the U.S.
Payment Parity Policies Appear to Aid Greater Sustained Telehealth Adoption

**KEY OBSERVATIONS**

- 21 states currently have payment parity.¹ There appears to be a correlation between this law and telehealth utilization: The average 2022 telehealth utilization rate for states with payment parity is 11%, compared to 9% for states that do not have a payment parity law.
- While outliers like D.C. exist, the majority of states with high telehealth adoption tend to have a payment parity policy to help drive utilization.

**CONCLUSIONS & IMPLICATIONS**

While not altogether determinative, payment parity policies appear to positively influence the adoption of telehealth in states with these laws. Providers in states without payment parity may look to places like D.C. for examples of high adoption despite lack of payment parity, while those with such policies should expect wider adoption and more competitive alternatives, as a result of that favorable payment policy.

¹ Payment parity information gathered from CCHP [https://www.cchpca.org/policy-trends/]: Data reflects legal status as of June 2022. Please note that certain states have since changed their payment parity laws.

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### Top & Bottom States for 2022 Telehealth Adoption Rate & Payment Parity Status

<table>
<thead>
<tr>
<th>State</th>
<th>Payment Parity</th>
<th>% Telehealth Adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii</td>
<td>Yes</td>
<td>22%</td>
</tr>
<tr>
<td>California</td>
<td>Yes</td>
<td>20%</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>No</td>
<td>19%</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Yes</td>
<td>17%</td>
</tr>
<tr>
<td>Oregon</td>
<td>No</td>
<td>14%</td>
</tr>
<tr>
<td>Maryland</td>
<td>Yes</td>
<td>13%</td>
</tr>
<tr>
<td>Delaware</td>
<td>Yes</td>
<td>12%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Yes</td>
<td>12%</td>
</tr>
<tr>
<td>Vermont</td>
<td>Yes</td>
<td>12%</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Yes</td>
<td>12%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>No</td>
<td>7%</td>
</tr>
<tr>
<td>Missouri</td>
<td>No</td>
<td>6%</td>
</tr>
<tr>
<td>Alaska</td>
<td>No</td>
<td>6%</td>
</tr>
<tr>
<td>Alabama</td>
<td>No</td>
<td>6%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>No</td>
<td>6%</td>
</tr>
<tr>
<td>Montana</td>
<td>No</td>
<td>6%</td>
</tr>
<tr>
<td>South Dakota</td>
<td>No</td>
<td>5%</td>
</tr>
<tr>
<td>North Dakota</td>
<td>No</td>
<td>5%</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Yes</td>
<td>5%</td>
</tr>
<tr>
<td>Iowa</td>
<td>Yes</td>
<td>4%</td>
</tr>
</tbody>
</table>
State Adoption of Telehealth Varies Between Video and Telephonic Platforms

KEY OBSERVATIONS

- The 5 states with the lowest percentages of audio and video visits include several rural states that historically have been slow to adopt telehealth (i.e., Montana, Wyoming). But these same states have the highest utilization for telephone telehealth utilization.
- Telehealth adoption tends to gravitate toward one modality (video or telephone) versus another. No state has widely adopted both platforms concurrently.

CONCLUSIONS & IMPLICATIONS

Telehealth programs should consider not just video visit offerings but also telephonic access options for patients, which have become quite common in several states across the country.

While asynchronous use cases are still comparatively slow to catch on, they are beginning to gain traction in some states as a supplement to real-time modalities like phone and video.

*CMS categorizes different medical codes under “interactive telecommunications technology,” which we understand to mean video- and audio-based outpatient visits.
**Certain Clinical Specialties Lean Heavily into Telephone-Based Telehealth**

**KEY OBSERVATIONS**
- Similar to geographic trends, the 5 specialties with highest telephone utilization are the least likely specialties to utilize regular telehealth visits (e.g., “Video & Audio”)—this may also show differences in how certain specialties are billing for telehealth.
- The 5 specialties utilizing telephone the most are cardiology-based and oncology-based, potentially showing evidence of those patients selecting this as their preferred visit type.

**CONCLUSIONS & IMPLICATIONS**

Although there is significant adoption of telehealth across clinical service lines and specialties, those that are lower overall adopters tend to gravitate toward telephonic visits, which may reflect a combination of provider and patient preference, as well as clinical appropriateness.

Moreover, these trends suggest that offering multiple virtual visit types is important to maximize telehealth’s role in transforming care models to suit patient needs.

*Other visit types include: physician-to-physician consultation, online digital evaluation and management services, online assessments, etc.*
Behavioral Health Remains the Leading Specialty in Telehealth Adoption, but all Specialties Have Made it a Permanent Fixture

KEY OBSERVATIONS
- The last 2 years have shown separation and staying power for many different service lines adopting telehealth.
- Behavioral health remains the clear highest adopter, with no indication of drop-off or significant impact from COVID surges.
- Primary care and medical specialties are consistently integrating telehealth into their care models more significantly than they did pre-pandemic.

CONCLUSIONS & IMPLICATIONS
Given the longitudinal trends of telehealth adoption over the last 2+ years, we are gaining clarity on what is likely to be a new normal across clinical service lines. Behavioral health shows no signs of receding from the majority of its visits being delivered virtually, and primary and medical specialties have established telehealth as permanent components of their care models.

Over the coming years, expect these baseline adoption rates to be driven higher as providers continue to experiment with additional use cases, and patients gain increased comfort and familiarity with telehealth utilization.
Beyond Psychiatry’s Lead in Telehealth Adoption, Several Medical Specialties Have Transformed Their Care Models to Be More Digitally Forward

KEY OBSERVATIONS

- Psychiatry is by far the most digitally forward clinical service line, with a steady two-thirds of visits delivered via telehealth.
- With over 2 years of adoption trends to examine, there’s an emerging separation across clinical services on which ones are maintaining telehealth as permanent fixtures of their respective care models.

CONCLUSIONS & IMPLICATIONATIONS

Acknowledging that psychiatry is the clear leader in clinical services adopting telehealth, several medical specialties like neurology, cardiology, and gastroenterology have also demonstrated sustained adoption in recent months, likely spurred by innovations across the care continuum that integrate telehealth into both diagnostic and follow-up care visit pathways.

Other service lines, however, likely perceive the diagnostic limitations and possible technical and logistical challenges of telehealth as significant compared to the streamlined and more familiar capabilities and workflow of in-person visits.
Certain Surgical Specialties Are Integrating Telehealth into Care Paths at Higher Rates

**KEY OBSERVATIONS**
- Surgical specialties are reverting back to mostly in-person clinical visits compared to medical specialties. This is likely to allow for pre- and post-procedure physical exams.
- Neurosurgery follows the relatively higher trend set by neurology among their respective specialty groupings.
- OB/GYN didn’t spike as much as other surgical specialties in the early months of the pandemic, but it is now showing notable sustainability of telehealth adoption.

**CONCLUSIONS & IMPLICATIONS**
Surgical specialties, though still reliant on in-person physical exams for a substantial part of the care continuum, are adopting telehealth to varying degrees.

Some surgical specialties are demonstrating greater integration of telehealth into care paths. This reflects a broadening range of use cases for telehealth, particularly for post-procedure follow-up visits.
Telehealth Has Become an Established Component of Many Clinical Service Lines

**KEY OBSERVATIONS**

- Looking at pre-pandemic utilization, behavioral health used telehealth at 3%, with family medicine following at 2%. Both of these specialties, along with neurology, internal medicine, and gastroenterology, pulmonology, and pediatrics, had above 10% telehealth utilization in the spring of 2022.
- Even among many specialty areas, there is significantly higher adoption of telehealth now than before the pandemic.

**CONCLUSIONS & IMPLICATIONS**

Adoption trends from 2021 to 2022 confirm that telehealth has become an established component of many clinical service lines and care models.

Although there may be continued ebbs and flows of these adoption rates, the current plateau is likely to reflect the new normal baseline.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Utilization</th>
<th>Change</th>
<th>Greater by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatry</td>
<td>3.0%</td>
<td>57.4%</td>
<td>19 X</td>
</tr>
<tr>
<td>Neurology</td>
<td>0.4%</td>
<td>14.7%</td>
<td>39 X</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>0.8%</td>
<td>12.8%</td>
<td>16 X</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>0.1%</td>
<td>13.1%</td>
<td>95 X</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>1.3%</td>
<td>10.9%</td>
<td>9 X</td>
</tr>
</tbody>
</table>

Telehealth Staying Power: Top 5 Clinical Specialties
Certain Specialties Should Plan to Flex for Increased Telehealth During COVID-19 Surges

KEY OBSERVATIONS

- While some specialties appear to adopt telehealth at a higher and more consistent rate than others, some specialties appear to have a greater sensitivity to telehealth volume fluctuations during spikes in COVID-19 cases.
- Notably, the medical specialties of neurology, pulmonology, and (to some extent) cardiology tend to see greater relative spikes during overall upward trends in telehealth usage.
- Primary care-related specialties (internal medicine, family medicine, and pediatrics) also show greater tendencies to spike during surges in telehealth demand.

CONCLUSIONS & IMPLICATIONS

Certain clinical specialties are more likely to require deliberate bolstering of staff resources during surges of telehealth utilization, and health systems should be prepared to flex their staffing models to support these services when needed. Maintaining care continuity during surges will require deliberate planning to meet expected patient demand and ongoing needs.

Average Telehealth Adoption During Spikes in Transmission Rates & Percentage Point Increases

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatry</td>
<td>28%</td>
<td>66%</td>
</tr>
<tr>
<td>Neurology</td>
<td>26%</td>
<td>18%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>23%</td>
<td>15%</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>23%</td>
<td>15%</td>
</tr>
<tr>
<td>Pulmonology</td>
<td>20%</td>
<td>12%</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Radiation Oncology</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Hematology/Oncology</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynecology</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Cardiology</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Urology</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>General Surgery</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Cardiovascular Surgery</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

- >5% pts
- <5% pts
Telehealth Provides an Opportunity for Onboarding New Low-Acuity Patients and Managing Higher-Acuity Patients with Established Provider Relationships

KEY OBSERVATIONS

- A greater range of patient acuity is managed via telehealth among patients with established provider relationships.
- New patients generally present as low acuity, with telehealth serving as a screening tool for triage.
- However, providers may have a reluctance to onboard higher-acuity new patients via telehealth than an in-person clinic visit.

CONCLUSIONS & IMPLICATIONS

A clear pattern is emerging that suggests higher-acuity care needs can be managed via telehealth, but only after a patient-provider relationship has already been established. Recent policy changes permitting those relationships to be established virtually has enabled a significant number of new patient virtual visits. Another key adoption trend for telehealth has been the onboarding of low-acuity new patients. Virtual triage has been a necessity throughout the pandemic and will continue to be an important access point for new patients seeking care.

*Higher visit levels reflect higher acuities.
Patients with Established Provider Relationships Represent Vast Majority of Telehealth Visit Volumes

**KEY OBSERVATIONS**
- Established patients accounted for significantly more telehealth visit types than new patients.
- Established patients have a wider range of acuity levels being served through telehealth than patients who are new to a care practice.

**CONCLUSIONS & IMPLICATIONS**
Once a medical history has been established and the patient can be appropriately triaged for follow-up care, higher-acuity patient needs can often be managed via telehealth. These established patient visits dominate total telehealth volumes. A new baseline care delivery model is clearly emerging. Developing business cases and tying them to strategic planning priorities with intention and specificity is important to adopt these trends in a sustainable way as the pandemic recedes.
Kythera Claims Database

SCOPE OF SOURCE DATA
Underlying data provided by Kythera Labs are sourced from clearinghouse claims vendors to create a national representation of submitted professional medical claims. These claims include self-insured and fully insured health plans across most major commercial payers and Medicare Advantage.

The level of claims coverage varies by geography. Geographic and specialty utilization patterns may change over time based upon timing and mix of claims reporting by clearinghouse vendors. Data excludes providers billing from U.S. territories: Puerto Rico, Guam, and the Virgin Islands. Telehealth adoption rates for multi-state CBSAs will aggregate into the respective telehealth adoption rate calculation, identified and assigned by the respective provider state.

Physician specialties are determined based upon the specialty assigned to the rendering provider NPI. Certain physician specialties are combined or excluded to form the 20 specialties reported in the analysis. APP-defined practitioners have been excluded from this analysis. Percentage telehealth rate is calculated as the ratio of unique telehealth visits as a proportion of total physician visits.

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