

## Insight on the Issues

# Pandemic-Era Trends in Telehealth Use among Americans with Private Health Insurance

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## Key Takeaways

Among people in the United States with private, employer-based health insurance:

- ✓ Telehealth use soared in 2020, driven by pandemic-related factors. Adults ages 55 to 64 were more likely to use telehealth compared with younger individuals.
- ✓ The share of people using telehealth fell slightly in 2021. Use of telehealth among adults ages 55 to 64 dropped from 25 percent in 2020 to 18.4 percent in 2021.
- ✓ Individuals living in rural areas had lower telehealth use than did their urban counterparts in 2021 (10.5 percent versus 17.1 percent).
- ✓ Mental health care was the most common service accessed via telehealth, representing over half of claims in 2021.
- ✓ Factors associated with higher levels of telehealth use include median household income, mental health provider density, and broadband availability.

## Policy Brief

Telehealth has the potential to improve access to health care by helping consumers connect with providers remotely. Virtual appointments can be a convenient way to get needed care and are especially important for those with limited mobility or vulnerable immune systems, including many older adults and those living long distances from in-person care.

The COVID-19 public health emergency (PHE) was a catalyst for many changes to the US health care system, including the rapid expansion of telehealth. To maintain access to care while reducing the spread of the virus, congressional legislation provided for expanded telehealth use in Medicare, and many states

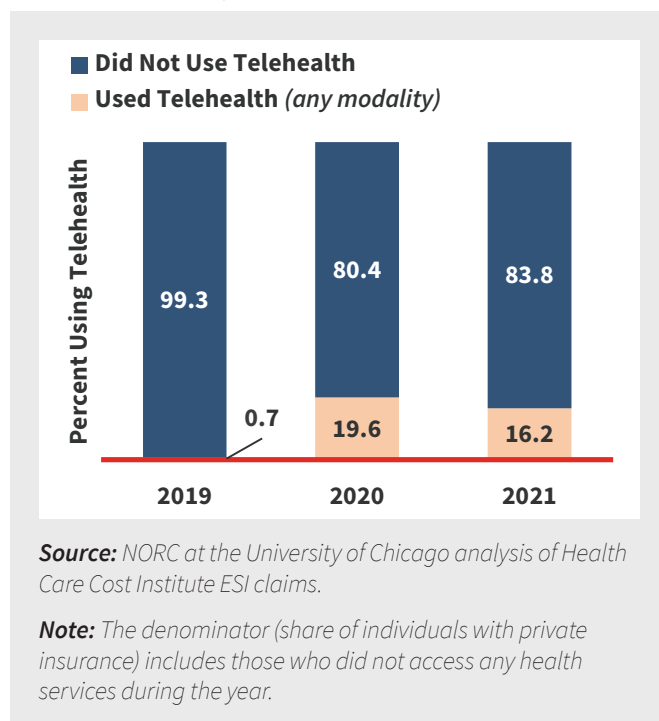
and private health insurers followed Medicare's lead.<sup>1</sup> Although the PHE expired in May 2023, telehealth use remains widespread compared with pre-pandemic levels.

This paper assesses changes in telehealth use from 2019 to 2021 among people younger than 65 who are enrolled in private, employer-sponsored insurance (ESI) plans, which insure nearly two-thirds of Americans under age 65.<sup>2</sup> We examine how Americans used telehealth in the first two years of the pandemic and how telehealth use differed by demographic factors such as age, urban versus rural residence, and income, as well as social determinants of health (SDOH) indicators.<sup>3,4</sup> The paper concludes with a discussion of policy implications based on the findings.

## Telehealth use boomed during the pandemic

Among those with private insurance, the use of telehealth was virtually nonexistent in 2019. However, nearly one in five used telehealth the following year, coinciding with the beginning of the COVID-19 PHE. Telehealth remained popular among people with private coverage in 2021. The share of those using telehealth fell only slightly, from 19.6 percent in 2020 to 16.2 percent in 2021 (figure 1).

**FIGURE 1**  
**Share of Individuals with Private Insurance Using Telehealth by Year, 2019–21**



## Adults ages 50 to 64 were most likely to use telehealth in 2020 but saw the largest drop in use in 2021

Telehealth use varied notably by age. In 2020, one in every four individuals with private insurance ages 55 to 64 used telehealth, the highest use of all age groups studied (figure 2). Between 2020 and 2021, telehealth use declined across all age groups, but the largest drop occurred among adults ages 55 to 64.

## What is Telehealth?

Telehealth is the use of communications technologies to deliver health care services remotely. Services can be accessed via video or audio only and can be offered in real time (synchronous) or not (asynchronous). A patient sending an image that is later reviewed by a provider is an example of asynchronous telehealth.<sup>5</sup>

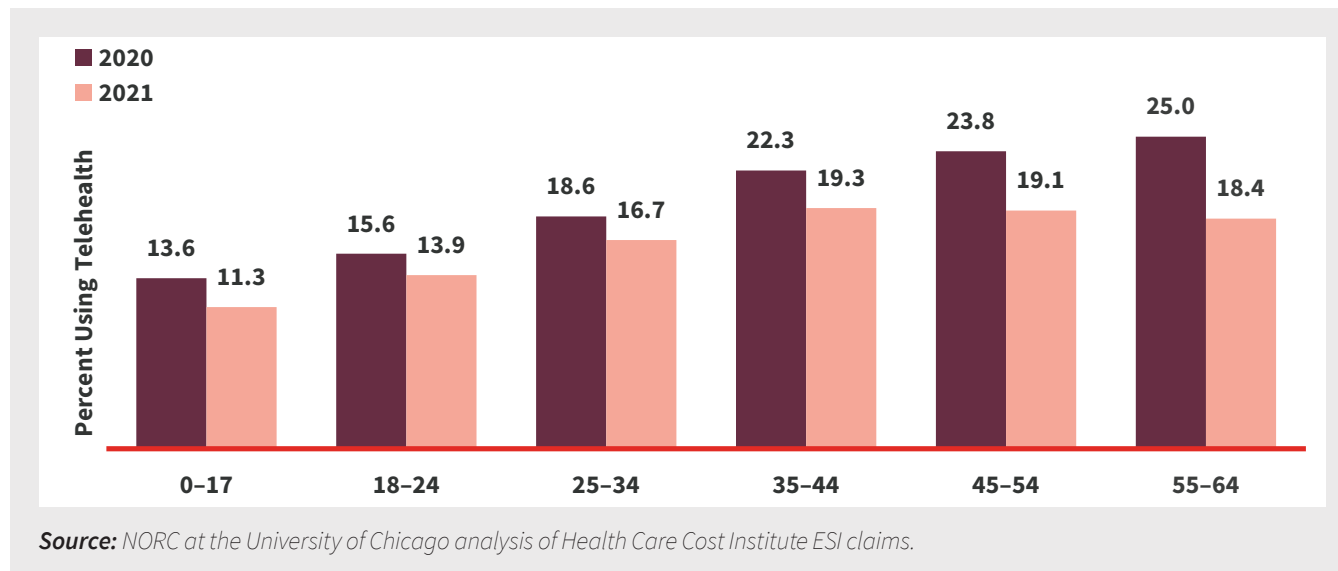
Among this group, telehealth use dropped by 6.6 percentage points, from 25 percent to 18.4 percent. In comparison, use among adults ages 35 to 44 and ages 18 to 24 declined by only 3 and 1.7 percentage points, respectively. This shifting pattern was also observed across states (Appendix B, figure B-1).

Although the number of telehealth users (people who used telehealth at least once) declined from 2020 to 2021, the average number of telehealth claims per user grew across all age groups. This could suggest that many individuals who continued to use telehealth in 2021 liked it and were comfortable using it. The largest growth was observed in the 18-to-24 age group, among which claims increased by 33 percent, from 4.3 telehealth claims per user in 2020 to 5.6 in 2021 (figure 3). Adults ages 55 to 64 had the smallest increase in utilization per user, from 2.8 telehealth claims per user in 2020 to 3.2 in 2021 (a 15 percent increase).

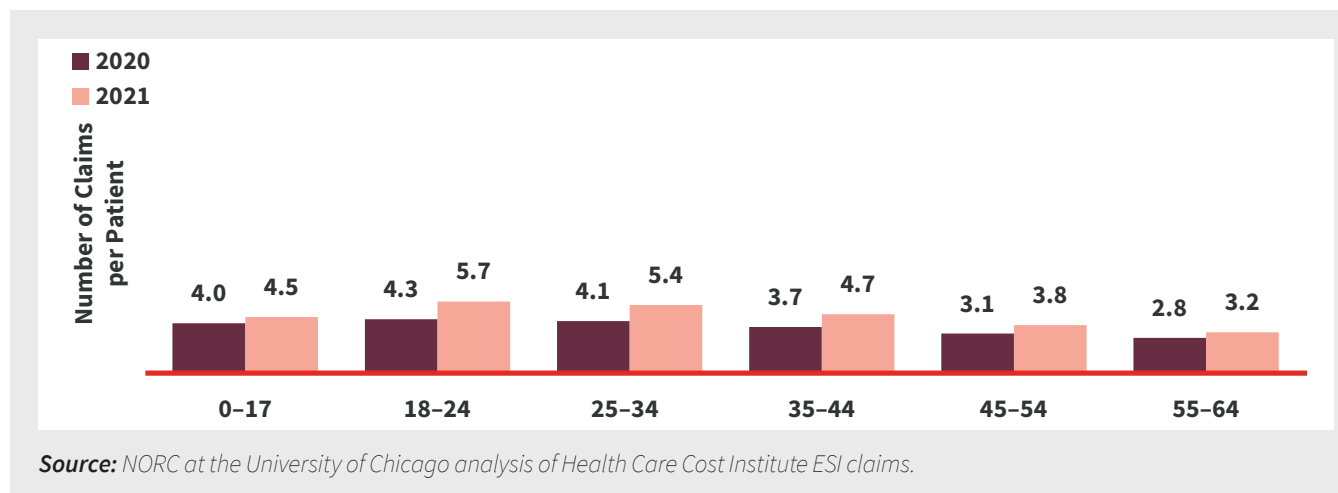
## Rural residents were less likely than urban residents to use telehealth

Before the COVID-19 pandemic, few individuals with private insurance used telehealth, and no difference existed in use between urban and rural enrollees (figure 4). However, notable disparities emerged after the start of the pandemic. In 2020, 20.6 percent of individuals with private insurance living in urban areas used

**FIGURE 2**  
**Share of Individuals with Private Insurance Using Telehealth by Year and Age Group, 2020–21**



**FIGURE 3**  
**Telehealth Claims per Telehealth User by Year and Age Group, 2020–21**

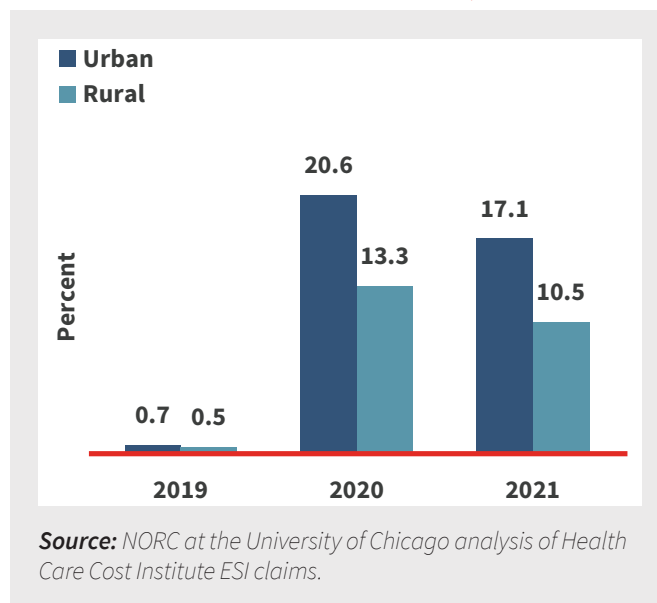


telehealth, compared with 13.3 percent of those living in rural areas. Telehealth use fell among both groups in 2021, with the difference between the groups narrowing slightly from 7 percentage points in 2020 to 6 percentage points in 2021.

Access to telehealth can be particularly important for individuals living in rural areas who may face limited provider choices, live far away from providers, or encounter transportation or mobility barriers. Lower

telehealth use among those in rural areas could point to issues like limited broadband availability, which makes accessing telehealth more difficult. Only 60 percent of rural residents have access to high-speed internet, compared with 95 percent of urban residents.<sup>6</sup> Average per capita income is also lower in rural areas,<sup>7</sup> and lower-income people may be less likely to afford devices for telehealth, internet services, and costs associated with telehealth visits.

**FIGURE 4**  
**Share of Individuals with Private Insurance Using Telehealth by Rural or Urban Residence, 2019–21**

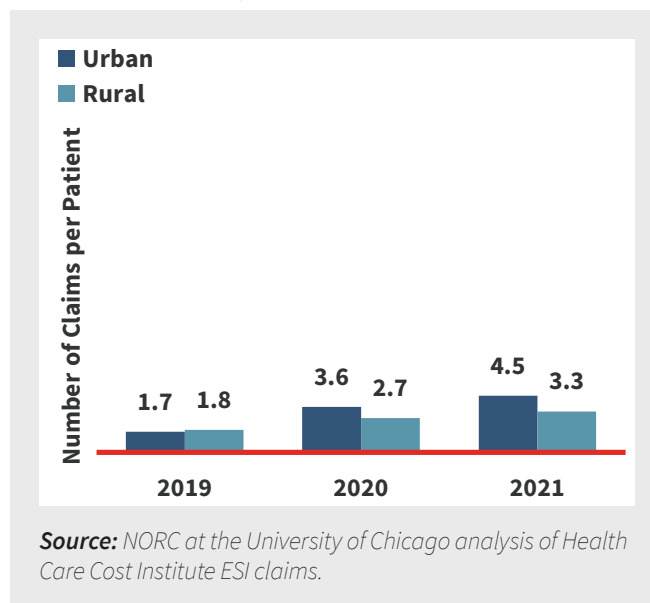


Similar to our overall findings, telehealth claims per user increased in 2021 in both rural and urban areas, despite a decline in the share of people with private insurance who used telehealth. This increase suggests that people in both rural and urban areas who used telehealth in 2020 were more likely to use it in 2021. Still, among those who used telehealth, urban residents used it more frequently; those living in urban and rural areas had an average of 4.5 and 3.3 telehealth encounters in 2021, respectively (figure 5). State-level disparities in telehealth use between urban and rural residents are presented in figure 6.

### **Mental health care was the most common service accessed via telehealth**

Mental health care was the most common service accessed through telehealth both before and during the PHE. Among those with private insurance, the share of telehealth claims for mental health concerns increased from 41.2 percent in 2020 to 52.3 percent in 2021 (figure 7).

**FIGURE 5**  
**Telehealth Claims per Telehealth User by Year and Rural or Urban Residence, 2019–21**



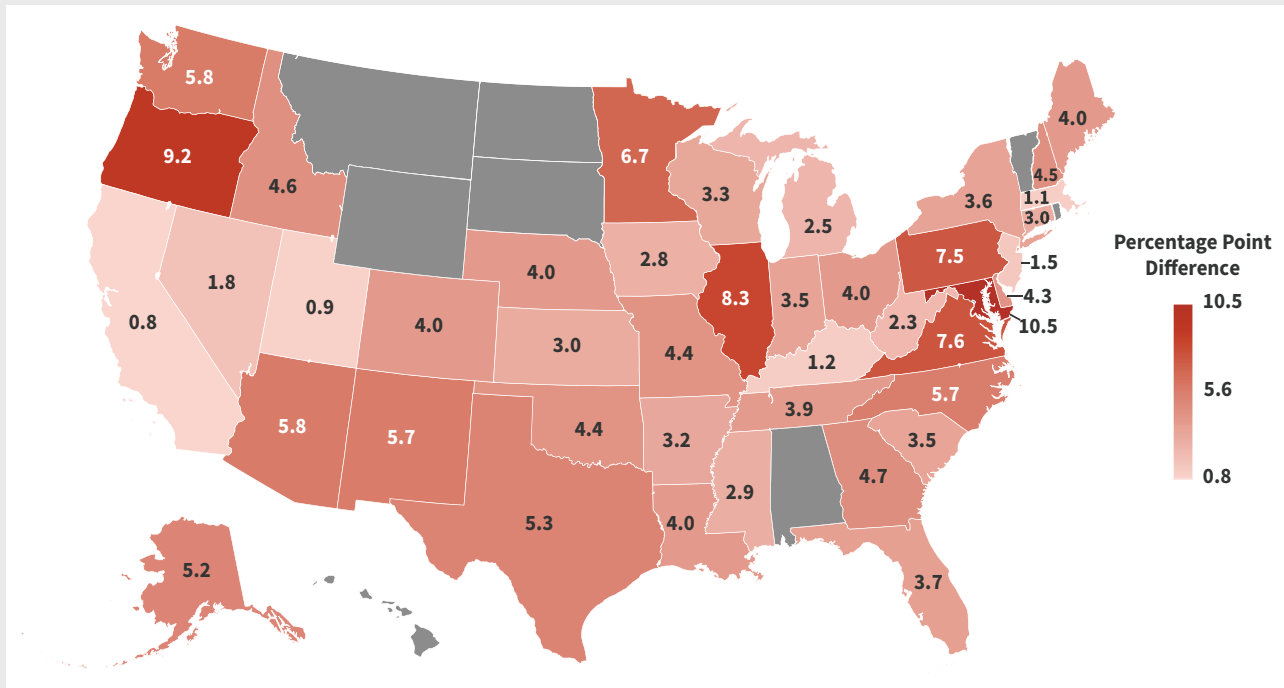
Our analyses also found that the average number of claims per enrollee in 2021 was much higher for mental health care (9.7 claims) compared with primary care (2.9 claims) and other specialties (1.7 claims; data not shown).

### **Telehealth use was higher among those living in areas with higher median income, mental health provider availability, and broadband availability**

Individuals with private insurance living in areas with higher median household incomes had higher rates of telehealth use (figure 8). Among those living in zip codes in the lowest income quartile, 12 percent used telehealth in 2021, compared with 20 percent of those in the highest income quartile. Research shows that people with higher incomes are more likely to have broadband at home,<sup>8</sup> which can be important for using telehealth. Copayments and other costs associated with telehealth visits may also pose a barrier to those with lower incomes, as it does for access to in-person visits.

Living in an area with more mental health providers was also associated with higher

**FIGURE 6**  
**Disparity in Share of Urban and Rural Individuals with Private Insurance Using Telehealth, 2021**



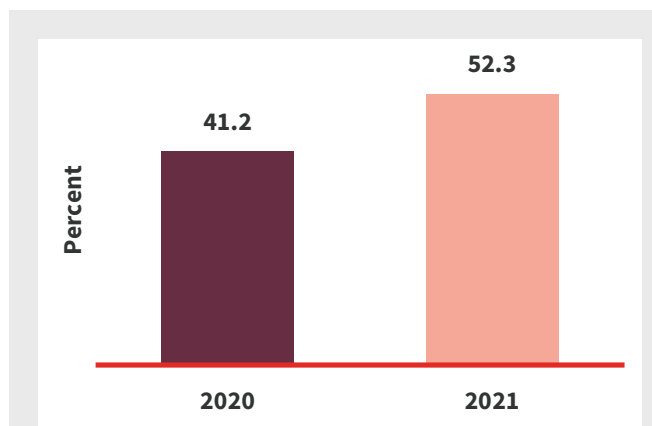
*Source:* NORC at the University of Chicago analysis of Health Care Cost Institute ESI claims.

*Notes:* The disparity refers to the share of private insurance enrollees using telehealth in urban areas minus the share using telehealth in rural areas. Data are unavailable for Alabama, Hawaii, Montana, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming. Washington, DC, does not have rural populations. More detailed data are available in Appendix B, table 1.

telehealth use (figure 9). Individuals with private insurance living in counties with the most mental health providers per 100,000 population had the highest prevalence of telehealth use in 2021 (17.8 percent). One reason for this higher rate could be that patients were able to transition from in-person to virtual appointments with their same mental health providers. More mental health providers could also mean greater mental health appointment availability.

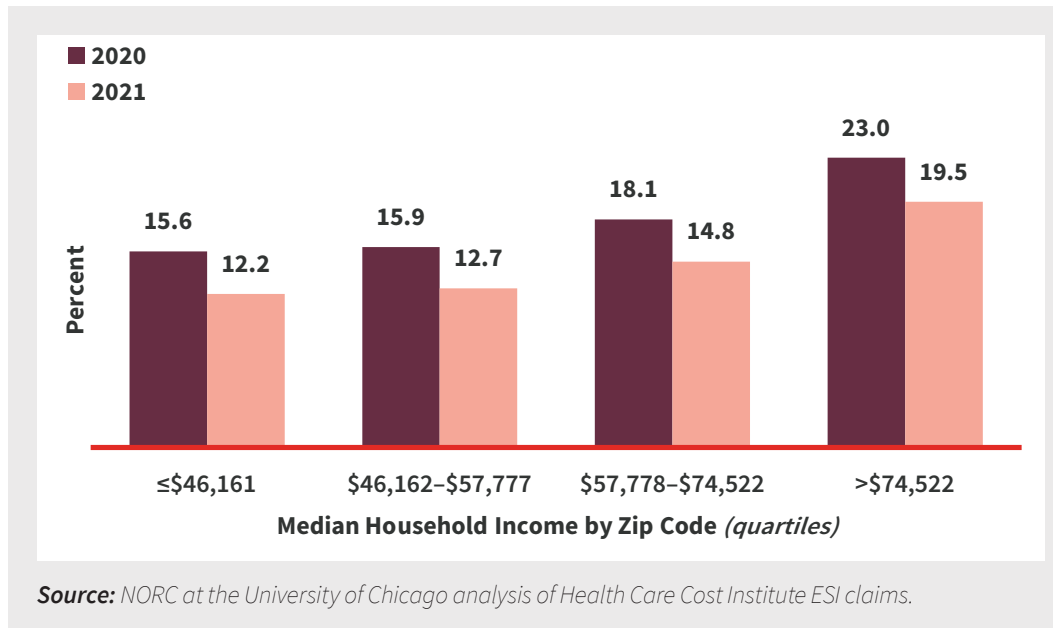
Access to high-speed internet (broadband) is important for high-quality video visits, although audio-only telehealth can still be helpful for those who do not have access to broadband or experience other technical challenges. Individuals with private insurance who live in areas with better availability of broadband are more likely to use telehealth, presumably

**FIGURE 7**  
**Share of Telehealth Claims for Mental Health Care, 2020-21**

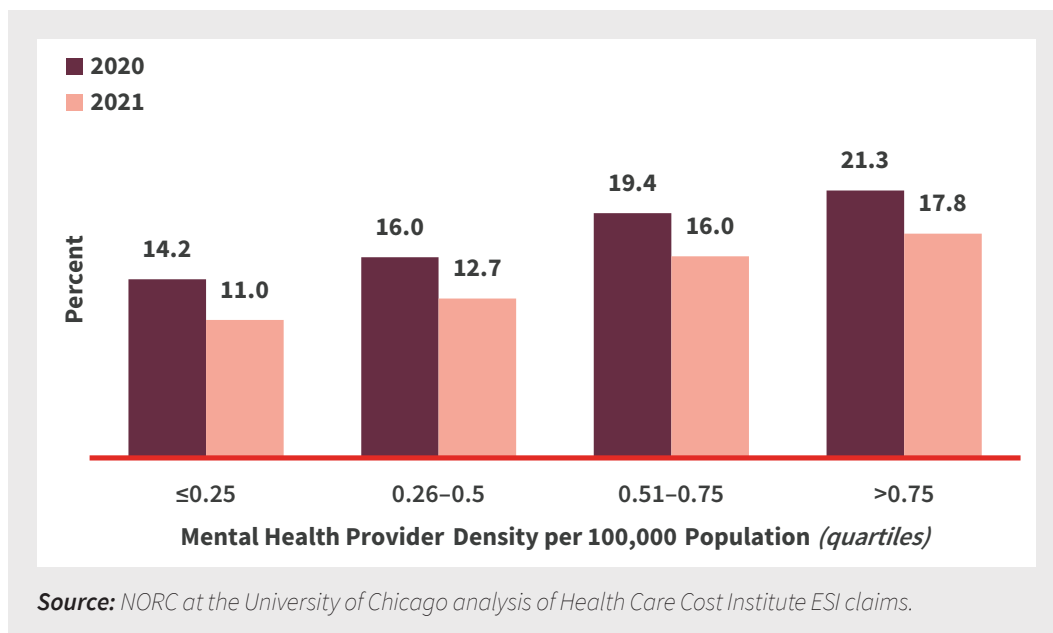


*Source:* NORC at the University of Chicago analysis of Health Care Cost Institute ESI claims.

**FIGURE 8**  
**Telehealth Use by Median Household Income at the Zip Code Level, 2020-21**



**FIGURE 9**  
**Telehealth Use by Mental Health Provider Density, 2020-21**



because they have higher broadband adoption, which allows them to use telehealth services easily. In 2021, among those living in zip codes in which 75 percent or less of households had broadband access, 15 percent used telehealth. Among those living in zip codes in which nearly all households had broadband, 21 percent used telehealth (figure 10).

**Policy implications**

Telehealth has the potential to improve access to health care and can be an especially important tool for those with limited access to in-person providers. However, policymakers will need to address the digital divide and ensure that telehealth helps reduce—rather than perpetuate—health inequities.

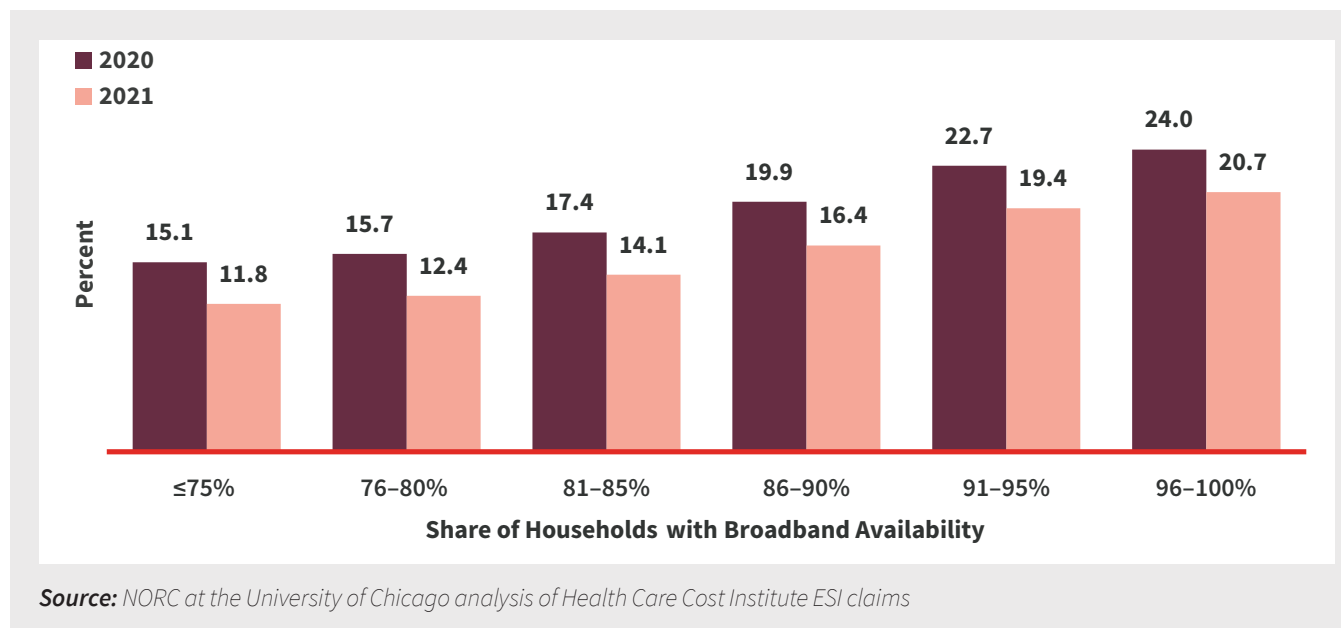
*Increasing access to broadband*

Millions of Americans still lack access to broadband. Our analysis found that higher area-level broadband availability corresponded with higher telehealth use among individuals with private insurance, showing the importance of broadband access for facilitating telehealth use.

We also found that telehealth use was lower among those living in rural versus urban areas, which could be driven by difficulties accessing broadband. In fact, 22.3 percent of Americans in rural areas lacked access to broadband in 2020, compared with only 1.5 percent of Americans in urban areas.<sup>9</sup> Among the Medicare population, as the share of households with broadband access increases, so does the number of telehealth encounters per beneficiary.<sup>10</sup>

Increasing access to broadband requires addressing both broadband availability and affordability. Although the PHE helped make broadband access a priority for the federal government and many state governments in recent years, there is still a long way to go in ensuring everyone—regardless of age, race, ethnicity, geography, and other factors—has access to affordable and reliable broadband services. The Affordable Connectivity Program (ACP), created by the Infrastructure Investment and Jobs Act in 2021, helped more than 22 million households access high-speed, affordable internet services.<sup>11</sup> April 2024 was the last fully funded month of the ACP program.<sup>12</sup> Federal and state policymakers and the private

**FIGURE 10**  
**Telehealth Use by Area Broadband Availability, 2020–21**



sector should continue to work together to improve availability of broadband infrastructure and affordability of internet services.

### *Supporting access to health care providers via telehealth*

Provider shortages, especially in mental health care, can limit access to health care services. Americans seeking mental health care often report difficulty in finding providers who accept new patients.<sup>13</sup> Although telehealth alone will not solve provider shortages, it could improve access to care by allowing existing providers to expand their reach.

Interstate licensure barriers prevent patients from getting care from out-of-state providers via telehealth. Although some states have interstate licensure compacts, many do not. Policymakers could consider policy improvements that facilitate multistate licensure arrangements for telehealth; these could benefit those living in rural areas and other areas with provider shortages.

Broader efforts to increase the number of and capacity of health care providers will also be necessary, as providers who are already stretched thin will not be able to take on additional telehealth patients. Such efforts would include reducing financial barriers to entering health care careers and providing economic incentives for health care providers to practice in rural and other underserved areas.

### *Expanding coverage and affordability of telehealth*

Although many state policies have addressed telehealth, it was the federal government's guidance and legislation during the PHE that broadly enabled telehealth use across different types of coverage. For example, the Coronavirus Aid, Relief, and Economic Security Act broadly expanded telehealth regulations for Medicare providers and released guidance that encouraged private health insurance plans to promote the use of telehealth services.<sup>14</sup>

Beyond the federal level, many states enacted parity laws requiring insurance coverage for behavioral health services to be no more restrictive than coverage for other medical conditions.<sup>15</sup> As of November 2023, 43 states and the District of Columbia had laws that addressed telehealth reimbursement in private insurance, with 24 including the requirement for payment parity.<sup>16</sup> Many of these laws were enacted as part of a state response to the COVID PHE, but most states have moved to make these laws permanent.<sup>17</sup>

### *Maintaining in-person health care access*

Importantly, telehealth should complement, not supplant, in-person care. An AARP survey found that one-third of those who have experience with telehealth still expressed concern that the quality of care is not as good as it is with in-person care.<sup>18</sup> Individuals should have access to comprehensive coverage that includes both in-person and telehealth care. Proposals that would allow employers to offer telehealth-only plans excepted from federal group health regulations, and offered without other coverage, pose risks to consumers. These plans would not be subject to key consumer protections of the Affordable Care Act and other federal laws, which means they could deny coverage for preexisting conditions, put caps on benefits, impose cost sharing for preventive services, and more. Proposals to allow insurers to count telehealth services toward meeting network adequacy requirements also pose potential risk for reduced investment in in-person services.

### *Ensuring equity in telehealth and broadband access*

It is important to ensure that telehealth access is equitable. Barriers to telehealth use such as lack of technology, expensive or unreliable internet, and digital literacy barriers disproportionately affect older adults, people of color, and those with low incomes, for example.

Our analysis found that higher area-level household income was associated with higher



telehealth use among people with private coverage, which may point to income-related barriers to telehealth like affordability of broadband or equipment for telehealth services. Federal and state policymakers and the private sector should ensure that low- and moderate-income households can afford the services and technologies that enable telehealth. The mode of care provided should align with the preferences of the person receiving care (and family caregiver if applicable).

Telehealth functionality and content should also be designed with and for underserved groups. Features should include accessibility options for people with visual or hearing impairments or other disabilities, as well as language access needs. People need to know of telehealth options available to them and be comfortable using them. Educational interventions, such as local trainings on using telehealth services, have

shown to be an effective method in promoting telehealth use among older adults.<sup>19</sup>

### **Conclusion**

In the pandemic-affected years of 2020 and 2021, telehealth was a popular mode of health care delivery—particularly for mental health care—and an important complement to in-person care. Telehealth use soared among people under age 65 with private coverage in 2020, with the highest use among adults ages 55 to 64. Overall use dropped slightly in 2021, but the volume of telehealth claims per user rose across all age groups. Those living in areas that were rural or in areas that had lower median household income, fewer mental health providers, or less broadband access were less likely to use telehealth. Further policy efforts to expand access to telehealth should ensure equitable access to high-quality, affordable services.

## Appendix A: Methodology

Our analyses are based on a national sample of commercial insurance claims from individuals with private health insurance through their employer or employer-sponsored insurance (ESI). Total enrollment, telehealth claim counts, and unique telehealth users were calculated for the calendar year analyses from 2019 to 2021. Telehealth claims were identified by use of place of service codes, claim line modifiers, and/or Current Procedural Terminology (CPT) codes indicating the service was provided via telehealth.<sup>20</sup> ESI claims data were made available by the Health Care Cost Institute. Data were aggregated at the national and state levels by enrollee demographics, provider specialty, and social determinants of health (SDOH) characteristics, as allowed by sample size.

Enrollee demographic characteristics for age and rural status were observable for individual insurance subscribers. Age bands encompassed enrollees ages 0 to 64; enrollees ages 65 and older were excluded to avoid confounding with the mix of Medicare, Medigap, and other coverage among this age group. Rural status was based on rural-urban commuting area codes (RUCA) at the zip code level for the enrollee address matching the US Department of Agriculture 2010 decennial update, the most current version available at the time of the analysis.<sup>21</sup> Provider specialties, primary care, mental health, and other were identified using the National Provider Identifier listed on ESI claims and the National Plan and Provider Enumeration System, which contains provider specialty information.<sup>22</sup> Although other specialty codes were examined and used in national-level descriptive analysis, primary care and mental health represented most service providers. Other provider types lacked sufficient samples to be included in geographic area crosstabulations.

SDOH characteristics were representative at the area level (zip or county) and were obtained from the Agency for Healthcare and Quality's SDOH database.<sup>23</sup> Area-level measures were attributed to the individuals residing in those areas for subsequent aggregation and analysis. SDOH measures included the number of mental health providers per 100,000 population available as of 2019, the percentage of households with broadband access, and the median household income, which were available as of 2020.<sup>24</sup>

Because the sample of ESI claims data used for this analysis covered about one-third of the national population, all data were weighted to make the estimates representative of the ESI population nationally. Weighting was based on year, age, sex, and zip code data from the American Community Survey. Small sample sizes impeded multiple crosstabulations, for example, age by rural status and SDOH factors by provider specialty. Data were suppressed for states where sample size was small.

## Appendix B: State-Specific Findings

FIGURE B-1  
State Distribution of Individuals with Private Insurance Who Used Telehealth, by Age, 2020–21

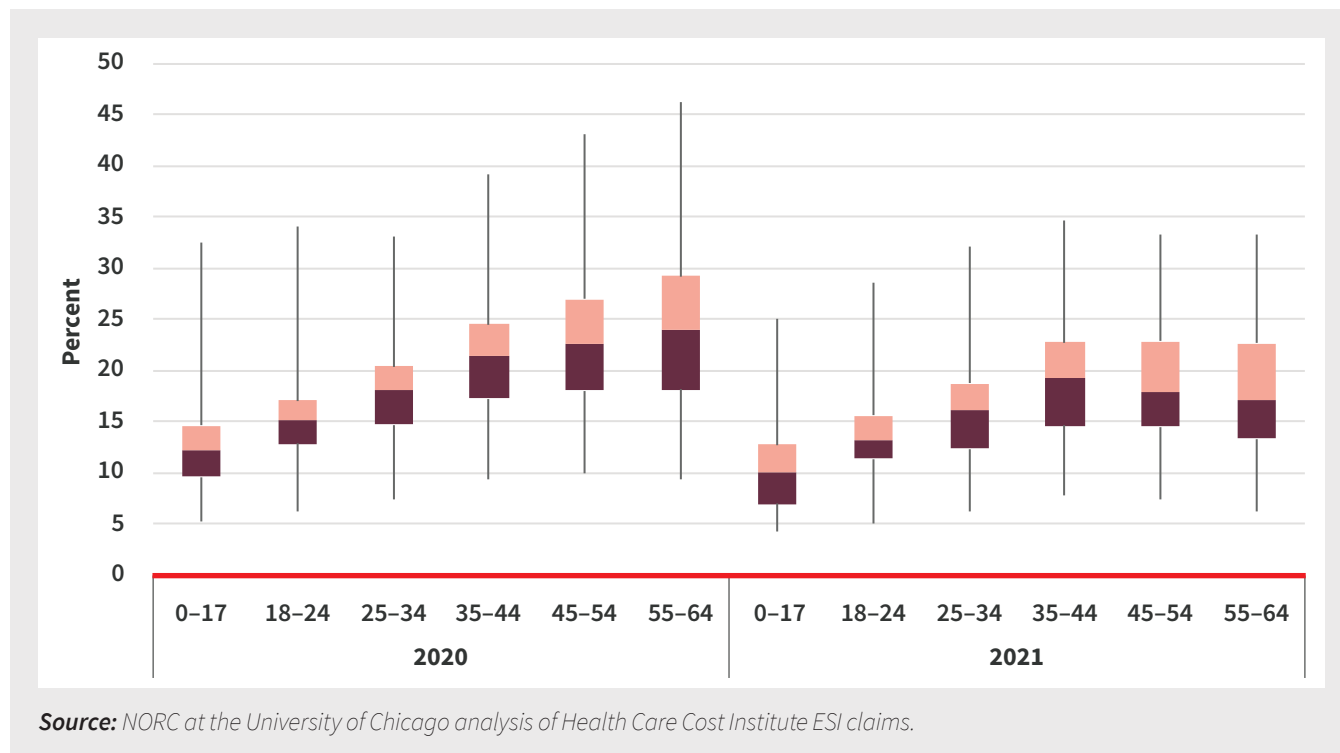


TABLE 1  
State-Level Data for Figure 7

State	Urban	Rural	Disparity	State	Urban	Rural	Disparity	State	Urban	Rural	Disparity
Alaska	19.9	14.7	5.2	Maine	16.8	12.8	4.0	Oregon	22.1	13.0	9.2
Arizona	17.0	11.2	5.8	Maryland	21.2	10.7	10.5	Pennsylvania	14.8	7.4	7.5
Arkansas	19.5	16.4	3.2	Massachusetts	30.0	28.9	1.1	Rhode Island	29.9	0.0	
California	17.3	16.6	0.8	Michigan	12.5	10.0	2.5	South Carolina	14.6	11.1	3.5
Colorado	16.9	12.9	4.0	Minnesota	10.3	3.6	6.7	Tennessee	9.5	5.6	3.9
Connecticut	20.4	17.4	3.0	Mississippi	8.8	5.9	2.9	Texas	18.6	13.3	5.3
Delaware	19.5	15.2	4.3	Missouri	11.5	7.1	4.4	Utah	12.7	11.7	0.9
Florida	18.0	14.3	3.7	Nebraska	11.4	7.4	4.0	Virginia	18.2	10.7	7.6
Georgia	15.2	10.5	4.7	Nevada	13.2	11.4	1.8	Washington	20.1	14.3	5.8
Idaho	12.7	8.1	4.6	New Hampshire	23.6	19.1	4.5	Washington, DC*	30.1	0.0	
Illinois	18.2	9.9	8.3	New Jersey	23.1	21.6	1.5	West Virginia	7.2	4.9	2.3
Indiana	10.8	7.3	3.5	New Mexico	20.2	14.5	5.7	Wisconsin	10.3	7.0	3.3
Iowa	7.6	4.9	2.8	New York	22.5	18.9	3.6				
Kansas	12.3	9.3	3.0	North Carolina	17.1	11.5	5.7				
Kentucky	13.0	11.9	1.2	Ohio	13.9	9.9	4.0				
Louisiana	12.6	8.6	4.0	Oklahoma	15.4	11.0	4.4				

\*Does not have a rural population.

Data are unavailable for Alabama, Hawaii, Montana, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming.

- 1 J. Shaver, “The State of Telehealth Before and After the COVID-19 Pandemic,” *Primary Care* 49, no. 4 (2022): 51730, <https://doi.org/10.1016/j.pop.2022.04.002>.
- 2 “Health Insurance Coverage,” Centers for Disease Control and Prevention, January 16, 2024, <https://www.cdc.gov/nchs/hus/topics/health-insurance-coverage.htm>.
- 3 Social determinants of health are the nonmedical factors that influence health outcomes, including the conditions in which people are born, grow, work, live, and age. Source: “Social Determinants of Health at CDC,” Centers for Disease Control and Prevention, <https://www.cdc.gov/about/sdoh/index.html>.
- 4 Telehealth data by rural or urban residence, type of service delivered, and social determinants of health variables are reported among ESI enrollees overall and are not broken down by age group due to insufficient sample size.
- 5 Most claims included in our sample were synchronous. About 10 percent were of unknown modality but were still included.
- 6 “Telehealth in Rural Communities,” Centers for Disease Control and Prevention, September 8, 2022, <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/telehealth-in-rural-communities.htm>.
- 7 “Rural Health Information Hub,” <https://www.ruralhealthinfo.org/states/united-states>.
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- 15 “Federal Telehealth Flexibilities.”
- 16 “Policy Trend Maps,” Center for Connected Health Policy, <https://www.cchpca.org/policy-trends/>.
- 17 “State Telehealth Policy Trends,” American Medical Association, November 30, 2023, <https://www.ama-assn.org/system/files/ama-state-telehealth-policy-trends-2023.pdf>.
- 18 Teresa A. Keenan, “Interest in Telehealth Services Is Holding Steady,” May 6, 2022, <https://www.aarp.org/pri/topics/health/prevention-wellness/telehealth-use-update/>.
- 19 A. M. Lai, D. R. Kaufman, and J. Starren, “Training Digital Divide Seniors to Use a Telehealth System: A Remote Training Approach.” AMIA Annual Symposium Proceedings, 2006, 459–63.
- 20 Place of Service code 02; claim modifiers 95, GT, G0, and GQ; and CPT codes 99422-3, G2061-3, and 98970-2 were used to identify telehealth claims.
- 21 RUCA codes <4 were considered urban, and those ≥4 were considered rural. See <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/>.
- 22 Mental health specialty includes substance abuse and behavioral health.
- 23 “Social Determinants of Health Database,” Agency for Healthcare Research and Quality, June 2023, <https://www.ahrq.gov/sdoh/data-analytics/sdoh-data.html>.
- 24 Household income was obtained from the Agency for Healthcare Research and Quality Social Determinants of Health database, and is based on data from the American Community Survey.

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