

RESEARCH REPORT

# How Adults with Chronic Health Conditions Experience Telehealth

Insights from the First Year of the COVID-19 Pandemic

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# How Adults with Chronic Health Conditions Experience Telehealth

As the COVID-19 national emergency was declared in March 2020, policymakers and payers implemented changes to facilitate an abrupt increase in telehealth services. Medicare permitted patients to initiate telehealth visits from their homes, states removed geographic restrictions on providers' ability to use telehealth, and many insurers waived out-of-pocket costs for telehealth visits (Koma, Cubanski, and Neuman 2021; Mehrotra, Wang, and Snyder 2020).<sup>1</sup>

The use of telehealth soared during the initial outbreak, as providers and patients strove to avoid as much face-to-face contact as possible. Providers and patients alike came to appreciate telehealth's access, convenience, and relative low cost. An analysis of nationally representative survey data found over one-third of nonelderly adults and nearly half of elderly adults had at least one telehealth visit during the first year of the pandemic, and that adults with chronic conditions were especially likely to have used telehealth (Smith, Blavin, and O'Brien 2022). This study and others have reported relatively high levels of satisfaction among users of telehealth and that telehealth use was higher among certain providers (e.g., behavioral health specialists) and patients (e.g., those with health insurance, more intensive health care needs, and higher incomes) (Kyle et al. 2021; FAIR Health 2022; Mehrotra et al. 2021; Patel, Mehrotra, et al. 2021; Patel, Rose, et al. 2021; Smith and Blavin 2021; Zhang et al. 2021).

Moreover, results from a survey conducted by the American Medical Association suggest physicians have a continued interest in telehealth care: 85 percent of respondents indicated they currently use telehealth, 54 percent indicated that telehealth has improved work satisfaction, and over 80 percent indicated that telehealth has improved their patients' access to care (AMA 2022).

Our study builds on previous research in two ways. First, we use a nationally representative survey to provide targeted quantitative information on access to and use of telehealth services during the first 12 months of the pandemic among adults with chronic health conditions. We examine this patient population's perceptions of telehealth visits, such as whether they found them to be convenient, easy to schedule, and satisfactory. Second, we supplement survey findings with qualitative data collected from follow-up telephone interviews of survey respondents with chronic conditions to better assess respondents' health care needs, how they use telehealth, and how well telehealth meets their health care needs.

We find that over half of adults with chronic health conditions surveyed in April 2021 used telehealth in the previous year, the majority reporting satisfaction with their telehealth visits. Respondents used in-person health care and telehealth frequently during the first year of the pandemic, covering a range of conditions and types of care received. Overall, respondents were satisfied with and interested in continuing telehealth. Many, however, also wished for a future with a mix of in-person and virtual care, believing that some care must be provided in person to achieve optimal quality.

## Methods

We use the April 2021 round of the Urban Institute’s Health Reform Monitoring Survey (HRMS) to capture the pandemic-driven increase in use of telehealth visits. We conducted follow-up interviews with nonelderly adult respondents who have chronic health conditions to yield insight into perceptions about telehealth and how well it meets patients’ health care needs.

### Survey Analysis

Our study uses data from the April 2021 round of the HRMS, a nationally representative internet-based survey of nonelderly adults. In total, 9,067 adults ages 18 to 64 completed the HRMS in April 2021. Survey weights adjust for unequal selection probabilities from the probability-based internet panel from which HRMS samples are drawn and are poststratified to represent characteristics of the national nonelderly adult populations in accordance with benchmarks from the Current Population Survey and the American Community Survey.<sup>2</sup>

We identify individuals with chronic conditions as those who responded “yes” to the question, “Do you currently have a health condition that has lasted for a year or more or is expected to last for a year or more? This could be a physical health condition (such as arthritis, asthma, cancer, dementia, diabetes, heart disease, high cholesterol, hypertension, or stroke), a behavioral health or mental health condition, or a developmental disability.” This definition is based on previous studies (Hwang et al. 2001).

We then assess how the population with chronic conditions uses, experiences, and accesses telehealth. The HRMS defines telehealth visits as “phone or video visits with a doctor or other health care provider to talk about your health.” We create several variables to examine telehealth use by characteristics of adults with chronic conditions: family income as a percentage of the federal poverty level (FPL), race and ethnicity,<sup>3</sup> age, health insurance coverage, self-reported health status, residence in a metropolitan statistical area, presence of a usual source of care, in-person office visits and emergency

room visits in the past year, disability status, presence of diagnosed physical health conditions, and presence of diagnosed mental health or substance use conditions.

We test for differences across groups using two-tailed *t*-tests. To estimate telehealth use for each patient subgroup, we use recycled prediction methods, adjusting for other covariates in a regression model (box 1).

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## BOX 1

### Technical Note

To generate the regression-adjusted results, we use the following estimating equation:

$$Outcome_i = \beta_0 + \beta_1(chronic\_condition_i) + \beta_2(income_i) + \beta_3(race\_ethnicity_i) + \beta_4(age\_group_i) + \beta_5(health\_insurance_i) + \beta_6(health\_status_i) + \beta_7(urban\_rural_i)$$

In this specification, *Outcome<sub>i</sub>* denotes a dichotomous outcome variable (e.g., number of telehealth visits in the past 12 months) for individual *i*. We estimate this model using ordinary least squares linear regression with weighting based on benchmarks from the Current Population Survey and the American Community Survey, then test the statistical significance of the differences using two-tailed *t*-tests. We then use recycled prediction methods to generate regression-adjusted means and use two-tailed *t*-tests to test for statistical significance.

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## Qualitative Interviews

To supplement the data analysis, we interviewed 20 participants who completed the April 2021 HRMS and consented to follow-up telephone interviews. All individuals in our recruitment pool reported having had at least one telehealth visit during the first 12 months of the pandemic and having a chronic health condition. This sample is equally divided among males and females and composed of individuals in all nonelderly age groups (18 to 24, 25 to 34, 35 to 44, 45 to 54, and 55 to 64) and race/ethnicity categories (sample size permitting).<sup>4</sup>

## Results

We first compare the characteristics of nonelderly adults with and without chronic conditions then assess the differences in telehealth use among these two groups. Next, we focus on those with chronic conditions by further assessing results from the HRMS and findings from the qualitative interviews. We describe the characteristics or factors that are associated with telehealth use and availability among

this group. We also describe the types of health care those with chronic conditions seek, their experiences and satisfaction with telehealth visits, and their views on whether they would like to continue receiving telehealth care in the future.

## Characteristics of Adults With and Without Chronic Conditions

Table 1 highlights the differences in characteristics between nonelderly adults with chronic conditions and those without chronic conditions. Roughly half (45.5 percent) of nonelderly adults reported having at least one chronic health condition. Compared with their counterparts, individuals with chronic conditions are more likely to have incomes below 138 percent of the FPL, be white, be older, and be less likely to live in a metropolitan area. Those with chronic conditions are also more than twice as likely to have public insurance (24.1 percent versus 11.4 percent) and are less likely to have private insurance (67.2 percent versus 73.1 percent) or be uninsured (7.9 percent versus 13.9 percent).

Those with chronic conditions are nearly four times as likely to be in fair or poor health than those without any chronic conditions (23.9 percent versus 6.6 percent). Individuals with chronic conditions were also more likely to have a disability and specific diagnosed physical and mental health conditions. They are also more likely to have a usual source of care and to have received in-person care (measured by the number of outpatient visits and by the number of emergency room visits) during the first year of the pandemic.

**TABLE 1**  
**Characteristics of Adults Ages 18–64 With and Without Chronic Health Conditions, April 2021**  
*Percent*

|                              | With<br>chronic condition <sup>^</sup> | Without<br>chronic condition |
|------------------------------|--|------------------------------|
| <b>By income</b>             |  |                              |
| Below 138% FPL               | 24.3                                   | 18.4***                      |
| 138–399% FPL                 | 35.0                                   | 36.1                         |
| Above 400% FPL               | 40.7                                   | 45.5***                      |
| <b>By race/ethnicity</b>     |  |                              |
| White                        | 65.8                                   | 54.0***                      |
| Black                        | 12.8                                   | 12.4                         |
| Hispanic/Latinx              | 14.6                                   | 22.4***                      |
| Additional races/ethnicities | 6.8                                    | 11.3***                      |
| <b>By insurance status</b>   |  |                              |
| Private insurance            | 67.2                                   | 73.1***                      |
| Public insurance             | 24.1                                   | 11.4***                      |
| Uninsured                    | 7.9                                    | 13.9***                      |
| <b>By age</b>                |  |                              |
| 18–34                        | 29.4                                   | 44.3***                      |
| 35–49                        | 27.4                                   | 32.7***                      |
| 50–64                        | 43.2                                   | 23.0***                      |



|  | With<br>chronic condition <sup>^</sup> | Without<br>chronic condition |
|--|--|------------------------------|
| <b>Lives in MSA</b>  | 86.0                                   | 88.7***                      |
| <b>By health status</b>  |  |                              |
| Excellent/very good  | 33.4                                   | 62.3***                      |
| Good   | 42.3                                   | 31.0***                      |
| Fair/poor  | 23.9                                   | 6.6***                       |
| <b>Has a usual source of care</b>  | 87.3                                   | 72.0***                      |
| <b>By number of in-person visits</b>   |  |                              |
| None   | 15.3                                   | 35.0***                      |
| 1  | 20.1                                   | 26.9***                      |
| 2-3  | 40.5                                   | 28.2***                      |
| 4 or more  | 23.9                                   | 9.7***                       |
| <b>By number of chronic conditions</b>   |  |                              |
| 1  | 50.0                                   | 0.0***                       |
| More than 1  | 50.0                                   | 0.0***                       |
| <b>By disability status</b>  |  |                              |
| Has a disability   | 22.4                                   | 1.6***                       |
| Does not have a disability   | 77.5                                   | 98.2***                      |
| <b>By physical condition</b>   |  |                              |
| Hypertension   | 39.1                                   | 8.2***                       |
| High cholesterol   | 33.8                                   | 11.1***                      |
| Coronary heart disease, angina, heart attack, or other heart condition         | 8.1                                    | 1.0***                       |
| Stroke   | 2.3                                    | 0.5***                       |
| Cancer or malignancy of any kind   | 5.4                                    | 1.1***                       |
| Diabetes   | 15.8                                   | 1.3***                       |
| Asthma   | 20.7                                   | 5.5***                       |
| Chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis | 6.0                                    | 0.4***                       |
| Some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia     | 27.0                                   | 3.6***                       |
| Liver disease  | 2.3                                    | 0.2***                       |
| Kidney disease   | 2.9                                    | 0.3***                       |
| <b>By mental health condition</b>  |  |                              |
| Anxiety disorder   | 37.7                                   | 8.1***                       |
| Depression   | 32.1                                   | 5.7***                       |
| Other type of mental health condition  | 12.3                                   | 1.2***                       |
| Problem with alcohol or drug use   | 5.6                                    | 1.2***                       |
| <b>By number of ER visits</b>  |  |                              |
| None   | 80.5                                   | 91.2***                      |
| 1  | 12.2                                   | 6.8***                       |
| 2-3  | 5.7                                    | 1.7***                       |
| 4 or more  | 1.4                                    | 0.3***                       |
| <i>Sample size</i>   | 4,665                                  | 4,378                        |
| <i>Share of sample</i>   | 45.5%                                  | 54.5%                        |

**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Notes:** "Additional races/ethnicities" is adults who are not Hispanic/Latinx, Black, or white and adults identifying as more than one race. Black and white adults are not Hispanic/Latinx. For insurance status, we do not show estimates for those with unspecified coverage because of small sample size.

FPL = federal poverty level; MSA = metropolitan statistical area.

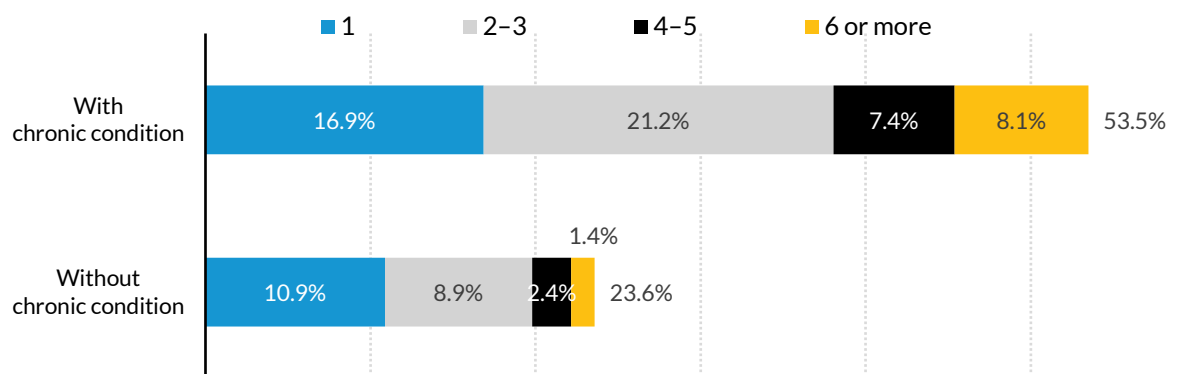
\*/\*\*/\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

The findings from the qualitative interviews provide additional insight into the health profile of nonelderly adults with chronic conditions. Among the 20 individuals with whom we conducted in-depth interviews for this study, 13 described having between one and three chronic conditions, 4 had between three and five, and 3 had five or more chronic conditions. The interviewees had a wide range of conditions, including heart disease, vision problems, HIV, asthma, migraine headaches, chronic bronchitis, blood disorders, traumatic brain injury, chronic pain/fibromyalgia, and mental health, metabolic, neurologic, orthopedic, and gastrointestinal disorders. Reflecting this diversity, interviewees reported pre-pandemic health care use rates varied considerably. About one-fifth said they had had three or fewer in-person visits in the previous year, while about one-quarter said they had 12 or more.

### Telehealth Use and Modality

Figure 1 shows that those with chronic conditions used telehealth more frequently than those without chronic conditions. Overall, 53.5 percent of nonelderly adults with chronic conditions had at least one telehealth visit during the first year of the pandemic compared with only 23.6 percent of those without chronic conditions. Those with chronic conditions were also more likely to have had multiple telehealth visits (e.g., 8.1 percent of those with chronic conditions had six or more visits compared with 1.4 percent of those without any chronic conditions). These findings are consistent in the regression-adjusted estimates (figure 2).

**FIGURE 1**  
**Number of Telehealth Visits in Previous 12 Months among Adults Ages 18–64, by Presence of Chronic Health Conditions, April 2021**  
*Percent*



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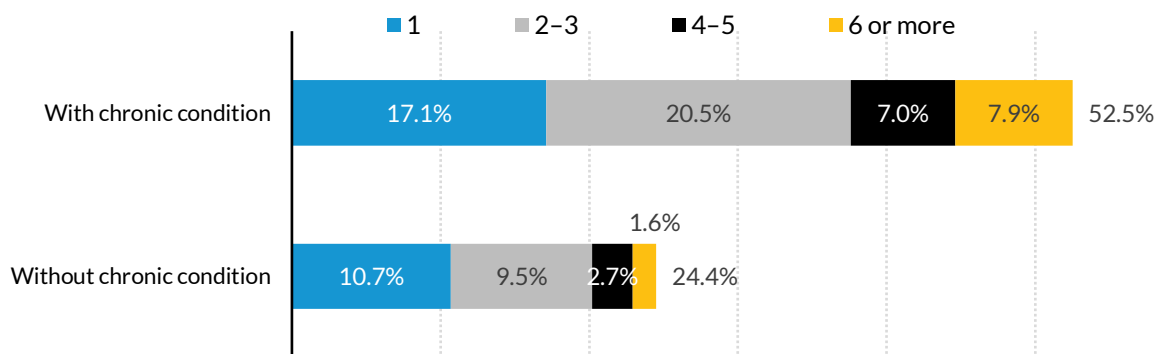
**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Note:** Respondents who said they had a telehealth visit but did not answer how many visits they had were excluded (5 respondents with a chronic condition and 4 respondents without a chronic condition).

FIGURE 2

Regression-Adjusted Number of Telehealth Visits in Previous 12 Months among Adults Ages 18–64, by Presence of Chronic Health Conditions, April 2021

Percent



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Source: Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

Notes: Estimates are regression adjusted on the basis of models that control for family income, race and ethnicity, age group, health insurance coverage, living in or outside a metropolitan statistical area, and health status. Respondents who said they had a telehealth visit but did not answer how many visits they had were excluded (5 respondents with a chronic condition and 4 respondents without a chronic condition).

Consistent with the low levels of telehealth use observed before the pandemic (MedPAC 2018; Yu et al. 2018), telehealth was new to most individuals with whom we spoke. Only one interviewee indicated having received virtual care before the pandemic, whereas all others said such care became available only after the onset of COVID-19. Indeed, fear of contracting COVID-19 caused most interviewees to avoid in-person care during the first year of the pandemic; some also reported that providers gave them no choice but to receive care virtually during the pandemic.

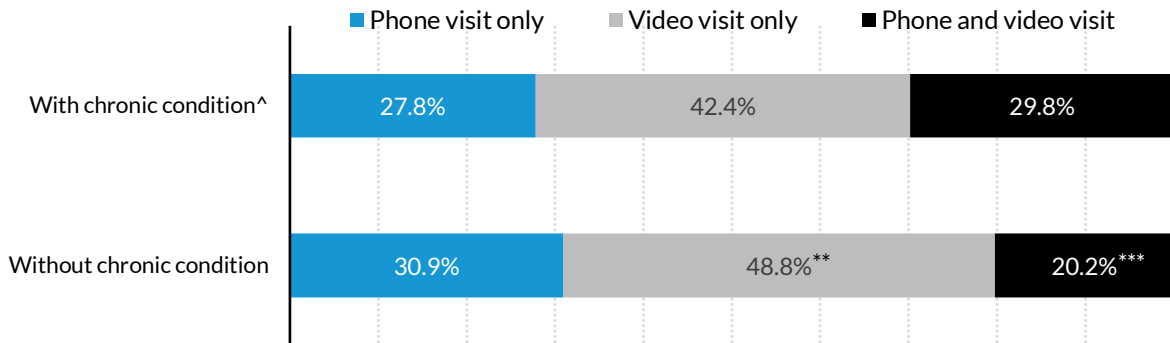
Our interviews found patterns of telehealth use among persons with chronic conditions consistent with patterns in our survey data. Nearly half had high levels of need and experienced 5 or more virtual visits during the first year of the pandemic, and three of those had more than 10 visits. The remaining interviewees had 4 or fewer telehealth visits during the previous year, and half of those had just 1 or 2.

Survey data reveal few differences in the modality of telehealth use among those with versus without chronic conditions (figure 3). Roughly 30 percent of both groups had only a phone visit and 70 percent had any video visit. However, those with chronic conditions were more likely to have had both a phone and a video visit (29.8 percent versus 20.2 percent), consistent with chronic condition status being highly correlated with more frequent health care use. This result is consistent in the regression-adjusted estimates (figure 4).

Among those we interviewed, however, many—roughly 40 percent—received their telehealth care only by phone, whereas few reported experiencing virtual care by video visits alone. Nearly half said they received care through a combination of telephone and video visits.

**FIGURE 3**  
**Modality of Telehealth Visits among Adults Ages 18–64 with a Telehealth Visit in the Previous 12 Months, by Presence of Chronic Health Condition, April 2021**

Percent



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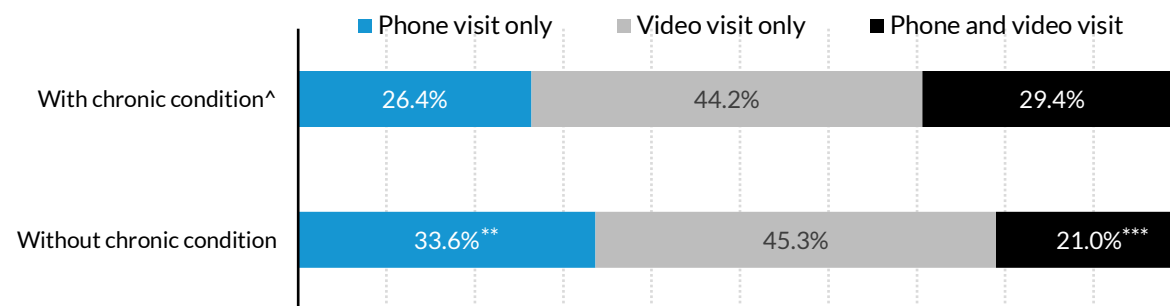
**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Notes:** Estimates are regression adjusted on the basis of models that control for family income, race and ethnicity, age group, health insurance coverage, living in or outside a metropolitan statistical area, and health status. Respondents who did not respond that they had a phone visit or a video visit were excluded (35 respondents with a chronic condition and 31 respondents without a chronic condition).

\*/\*\*/\*\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

**FIGURE 4**  
**Regression -Adjusted Modality of Telehealth Visits among Adults Ages 18–64 with a Telehealth Visit in the Previous 12 Months, by Presence of Chronic Health Condition, April 2021**

Percent



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**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Notes:** Estimates are regression adjusted on the basis of models that control for family income, race and ethnicity, age group, health insurance coverage, living in or outside a metropolitan statistical area, and health status. Respondents who did not respond that they had a phone visit or a video visit were excluded (35 respondents with a chronic condition and 31 respondents without a chronic condition).

\*/\*\*/\*\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

## Drivers of Telehealth Use among Those with Chronic Conditions

Table 2 shows the following (univariate) characteristics associated with an increased likelihood of having any telehealth visit among those with chronic conditions:

- having higher income (e.g., 42.5 percent of those who had a telehealth visit in the past 12 months had incomes above 400 percent of the FPL, compared with 38.9 percent of those who did not have a telehealth visit)
- being Black (13.8 percent versus 11.4 percent) or being Hispanic/Latinx (15.5 percent versus 13.6 percent)
- being covered with private (68.6 percent versus 65.8 percent) or public (26.0 percent versus 21.8 percent) health insurance
- being ages 35 to 49 (28.6 percent versus 25.0 percent)
- living in a metropolitan area (89.0 percent versus 82.6 percent)
- being in fair or poor health (25.4 percent versus 22.1 percent) and having more than one chronic condition (56.5 percent versus 42.7 percent)
- having a usual source of care (92.2 percent versus 81.8 percent)

Table 2 also shows that disability status, presence of specific physical and mental health conditions, and use of health care services are also associated with an increased likelihood of those with chronic conditions having any telehealth visit. The characteristics of nonelderly adults with chronic conditions who had only *phone* telehealth visits differed from those who had only *video* telehealth visits. Compared with phone-only telehealth users, video-only telehealth users were more likely to have incomes above 400 percent of the FPL; to be white; to be between ages 18 and 34; to have private health insurance coverage; to live in metropolitan areas; to be in excellent, very good, or good health; and to have only one chronic condition. Similarly, nonelderly adults who had both phone and video visits tended to have higher incomes, to be younger, and to have insurance than those with phone visits only. However, nonelderly adults with chronic conditions who had both phone and video visits were much more likely to have anxiety or depression and to have had multiple in-person and telehealth visits than those who had telehealth visits of only one modality.

Table 3 highlights how the multivariate regression results are generally consistent with these univariate findings.<sup>5</sup>

TABLE 2

**Characteristics of Adults 18–64 with Chronic Health Conditions, by Telehealth Visit in the Previous 12 Months and Modality, April 2021**

Percent

|  | With Chronic Condition        |                     | With Chronic Condition and Telehealth Visit |                  |                            |
|--|-------------------------------|---------------------|---|------------------|----------------------------|
|  | Telehealth visit <sup>^</sup> | No telehealth visit | Phone visit only <sup>^</sup>               | Video visit only | Both phone and video visit |
| <b>By income</b>                       |                               |                     |   |                  |                            |
| Below 138% FPL                         | 23.7                          | 24.7                | 32.5  | 16.1***          | 25.7**                     |
| 138–399% FPL                           | 33.8                          | 36.4                | 37.0  | 30.2**           | 36.0                       |
| Above 400% FPL                         | 42.5                          | 38.9*               | 30.6  | 53.6***          | 38.3***                    |
| <b>By race/ethnicity</b>               |                               |                     |   |                  |                            |
| White                                  | 63.7                          | 68.5***             | 56.0  | 71.4***          | 60.3                       |
| Black                                  | 13.8                          | 11.4**              | 17.5  | 9.9***           | 15.7                       |
| Hispanic/Latinx                        | 15.5                          | 13.6*               | 20.0  | 11.5**           | 16.3                       |
| Additional races/ethnicities           | 7.0                           | 6.6                 | 6.5   | 7.2              | 7.7                        |
| <b>By insurance status</b>             |                               |                     |   |                  |                            |
| Private insurance                      | 68.6                          | 65.8*               | 57.6  | 79.0***          | 64.8*                      |
| Public insurance                       | 26.0                          | 21.8**              | 35.0  | 16.8***          | 30.9                       |
| Uninsured                              | 4.5                           | 11.7***             | 6.8   | 3.6*             | 3.2***                     |
| <b>By age</b>                          |                               |                     |   |                  |                            |
| 18–34                                  | 28.8                          | 30.0                | 21.5  | 32.9***          | 30.3**                     |
| 35–49                                  | 28.6                          | 25.9**              | 26.0  | 29.3             | 30.6                       |
| 50–64                                  | 42.5                          | 44.1                | 52.5  | 37.8***          | 39.2***                    |
| Lives in MSA                           | 89.0                          | 82.6***             | 85.3  | 91.6**           | 89.0                       |
| <b>By health status</b>                |                               |                     |   |                  |                            |
| Excellent/very good                    | 32.6                          | 34.4                | 24.7  | 40.7***          | 28.4                       |
| Good                                   | 41.6                          | 43.1                | 45.4  | 39.6*            | 41.0                       |
| Fair/poor                              | 25.4                          | 22.1***             | 29.6  | 19.4***          | 29.8                       |
| Has a usual source of care             | 92.2                          | 81.8***             | 91.3  | 92.6             | 93.2                       |
| <b>By number of telehealth visits</b>  |                               |                     |   |                  |                            |
| None                                   | 0.0                           | 100.0               | 0.0   | 0.0              | 0.0                        |
| 1                                      | 31.5                          | 0.0***              | 40.6  | 39.2             | 10.8***                    |
| 2–3                                    | 39.5                          | 0.0***              | 38.7  | 38.2             | 42.7                       |
| 4–5                                    | 13.7                          | 0.0***              | 11.9  | 11.2             | 19.5***                    |
| 6 or more                              | 15.1                          | 0.0***              | 8.6   | 11.5             | 26.7***                    |
| <b>By number of in-person visits</b>   |                               |                     |   |                  |                            |
| None                                   | 12.8                          | 18.1***             | 14.9  | 13.4             | 42.7                       |
| 1                                      | 18.5                          | 21.9                | 21.7  | 18.7             | 19.5                       |
| 2–3                                    | 40.9                          | 40.0                | 38.0  | 41.6             | 26.7                       |
| 4 or more                              | 27.5                          | 19.6***             | 25.4  | 26.2             | 31.9***                    |
| <b>By number of chronic conditions</b> |                               |                     |   |                  |                            |
| 1                                      | 43.5                          | 57.3***             | 40.2  | 47.2***          | 40.6                       |
| More than 1                            | 56.5                          | 42.7***             | 59.8  | 52.8***          | 59.4                       |
| <b>By disability status</b>            |                               |                     |   |                  |                            |
| Has a disability                       | 27.0                          | 17.0***             | 27.6  | 18.9***          | 38.2***                    |
| Does not have a disability             | 72.9                          | 82.9***             | 72.3  | 81.1***          | 61.7***                    |

|  | With Chronic Condition        |                     | With Chronic Condition and Telehealth Visit |                  |                            |
|--|-------------------------------|---------------------|---|------------------|----------------------------|
|  | Telehealth visit <sup>^</sup> | No telehealth visit | Phone visit only <sup>^</sup>               | Video visit only | Both phone and video visit |
| <b>By physical condition</b>   |                               |                     |   |                  |                            |
| Hypertension   | 39.7                          | 38.4                | 45.3  | 36.4***          | 39.2*                      |
| High cholesterol   | 36.7                          | 30.4***             | 41.2  | 33.1***          | 37.6                       |
| Coronary heart disease, angina, heart attack, or other heart condition         | 8.6                           | 7.6                 | 10.4  | 5.7***           | 11.0                       |
| Stroke   | 2.9                           | 1.5***              | 3.0   | 2.0*             | 4.2                        |
| Cancer or malignancy of any kind   | 6.6                           | 4.1***              | 5.7   | 6.6              | 7.7                        |
| Diabetes   | 18.2                          | 12.8***             | 22.5  | 14.6***          | 19.6                       |
| Asthma   | 22.9                          | 18.2***             | 23.5  | 21.8             | 24.4                       |
| Chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis | 6.9                           | 4.9**               | 10.0  | 3.9***           | 8.1                        |
| Some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia     | 30.7                          | 23.0***             | 34.3  | 24.8***          | 35.0                       |
| Liver disease  | 2.5                           | 2.0                 | 2.0   | 2.0              | 3.8*                       |
| Kidney disease   | 3.8                           | 1.9***              | 3.5   | 2.5              | 6.1**                      |
| <b>By mental health condition</b>  |                               |                     |   |                  |                            |
| Anxiety disorder   | 44.4                          | 30.1***             | 40.8  | 40.6             | 53.8***                    |
| Depression   | 38.3                          | 25.1***             | 33.4  | 36.6             | 46.2***                    |
| Other type of mental health condition  | 16.0                          | 8.1***              | 16.9  | 12.1**           | 21.2                       |
| Problem with alcohol or drug use   | 6.1                           | 5.0                 | 7.9   | 4.2**            | 7.3                        |
| <b>By number of ER visits</b>  |                               |                     |   |                  |                            |
| None   | 78.3                          | 83.3***             | 78.2  | 82.2*            | 73.0                       |
| 1  | 13.0                          | 11.1**              | 13.0  | 10.8             | 16.3                       |
| 2-3  | 6.9                           | 4.3***              | 7.6   | 5.6              | 7.8                        |
| 4 or more  | 1.6                           | 1.1                 | 1.1   | 1.3              | 2.4                        |
| <i>Sample size</i>   | 2,524                         | 2,126               | 749   | 988              | 752                        |

**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Notes:** "Additional races/ethnicities" is adults who are not Hispanic/Latinx, Black, or white and adults identifying as more than one race. Black and white adults are not Hispanic/Latinx.

FPL = federal poverty level; MSA = metropolitan statistical area.

\*/\*\*/\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

TABLE 3

## Telehealth Use among Adults Ages 18–64 with a Chronic Health Condition, April 2021

Regression coefficients

|  | Had a telehealth visit |
|--|------------------------|
| 138–399% FPL   | 0.040                  |
| Above 400% FPL   | 0.085***               |
| Black  | 0.060**                |
| Hispanic/Latinx  | 0.066***               |
| Additional races/ethnicities   | 0.026                  |
| Ages 18–34   | –0.027                 |
| Ages 35–49   | –0.036**               |
| Public insurance   | –0.004                 |
| Nonspecified insurance   | 0.034                  |
| Uninsured  | –0.175***              |
| Lives in MSA   | 0.138***               |
| Health status good   | –0.008                 |
| Health status fair/poor  | 0.001                  |
| Has a usual source of care   | 0.190***               |
| Has a disability   | 0.077***               |
| Hypertension   | –0.015                 |
| High cholesterol   | 0.039***               |
| Coronary heart disease, angina, heart attack, or other heart condition         | –0.028                 |
| Stroke   | 0.064**                |
| Cancer or malignancy of any kind   | 0.077**                |
| Diabetes   | 0.080***               |
| Asthma   | 0.034*                 |
| Chronic obstructive pulmonary disease (COPD), emphysema, or chronic bronchitis | –0.003                 |
| Some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia     | 0.059***               |
| Liver disease  | –0.021                 |
| Kidney disease   | 0.096***               |
| Anxiety disorder   | 0.096***               |
| Depression   | 0.082***               |
| Other type of mental health condition  | 0.091***               |
| Problem with alcohol or drug use   | –0.011                 |
| <i>Constant</i>  | 0.085*                 |
| <i>N</i>   | 4,665                  |

**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Notes:** "Additional races/ethnicities" is adults who are not Hispanic/Latinx, Black, or white and adults identifying as more than one race. Black and white adults are not Hispanic/Latinx.

FPL = federal poverty level; MSA = metropolitan statistical area.

\*/\*\*/\*\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

## Access and Barriers to Telehealth

Nonelderly adults with chronic conditions were more likely to use telehealth than those without chronic conditions. However, they were also more likely to report wanting a telehealth visit but not getting one (table 4). We find that 8.6 percent of nonelderly adults with any chronic condition reported



wanting a telehealth visit but not getting one in the past 12 months versus 3.7 percent of those without any chronic condition. This access barrier emerged for various reasons,<sup>6</sup> the four most common being

- the provider was not taking visits by phone or video (35.7 percent);
- the respondent needed a test, treatment, or medication that could only be provided in person (33.8 percent);
- the appointment took too long to get (32.6 percent); and
- the respondent could not afford out-of-pocket costs (28.9 percent).

TABLE 4

**Adults Ages 18–64 Reporting They Could Not Get a Telehealth Visit in the Previous 12 Months, by Presence of Chronic Health Condition, April 2021**

Percent

|   | With chronic condition <sup>^</sup> | Without chronic condition |
|---|-------------------------------------|---------------------------|
| Wanted a telehealth visit but did not get one in the past 12 months   | 8.6                                 | 3.7***                    |
| <b>Reasons for not getting telehealth visit among those who wanted a telehealth visit but did not get one<sup>a</sup></b> |                                     |                           |
| Provider was not taking visits by phone or video  | 35.7                                | —                         |
| Needed test, treatment, or medication that could only be provided in person   | 33.8                                | —                         |
| Took too long to get appointment  | 32.6                                | —                         |
| Could not afford out-of-pocket costs  | 28.9                                | —                         |
| Visit would not be covered by insurance   | 23.4                                | —                         |
| Did not have technology needed for this type of visit   | 13.7                                | —                         |
| Did not want to use too much data under cellular data plan  | 12.2                                | —                         |
| Other reason  | 15.4                                | —                         |
| <i>Sample size</i>  | 4,665                               | 4,378                     |

**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

— = not applicable.

**Notes:** Estimates are not shown for reasons for not getting a telehealth appointment among those without a chronic condition because of small sample size. Respondents could select more than one reason for not getting a visit.

<sup>a</sup> n = 405 for those with a chronic condition.

\*/\*\*/\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

Our qualitative analysis also found that health care systems' reliance on telehealth during the pandemic did not appear to result in much missed or forgone care. Only three interviewees identified care they needed but could not receive, including dental, gynecological, and cardiac care, during the first year of the pandemic. But twice as many individuals said they did not forgo needed care because of COVID-19 and the necessity of using telehealth methods. Further, all but one respondent said they had no problems getting medications prescribed, filled, or refilled using virtual methods and delivery by mail. Several, in fact, said it was much easier than going into a doctor's office or pharmacy. Only a few

people said they received equipment (e.g., IV stand and supplies) to support their chronic care at home while avoiding in-person visits.

For roughly one-third of interviewees, telehealth visits did result in the need for in-person follow-up care. Follow-up care addressed diverse needs and conditions, including skin cancer; an ear infection; a CT scan, urinalysis, and other diagnostic tests; back pain; rheumatoid arthritis; and emergency infections. One interviewee, however, noted that telehealth cannot address all types of care: “[I had] lots of tooth pain, can’t get dental care through telehealth.”

## Reasons for Telehealth Visits

Based on the survey data, the most common types of care addressed during telehealth visits were general preventative or routine care (58.7 percent); care for chronic or ongoing conditions (46.2 percent); mental health care or counseling (33.6 percent); and a new injury, illness, or health problem other than COVID-19 (24.6 percent) (table 5). General preventive or routine care was more common among those with phone visits, whereas visits for chronic conditions, mental health care or counseling, and new injuries or illnesses (besides COVID-19) were generally more common among those with any video visits.

**TABLE 5**

**Types of Health Care Addressed and Providers Seen during Telehealth Visits among Adults Ages 18–64 with Chronic Conditions Who Had Telehealth Visits in the Previous 12 Months, by Modality, April 2021**  
Percent

|  | With Chronic Condition and Telehealth Visit |                               |                  |                            |
|--|---|-------------------------------|------------------|----------------------------|
|  | All   | Phone visit only <sup>^</sup> | Video visit only | Both phone and video visit |
| <b>Types of health care addressed</b>                      |   |                               |                  |                            |
| General preventive care or routine care                    | 58.7  | 63.2                          | 51.1***          | 65.7                       |
| Chronic or ongoing condition                               | 46.2  | 42.4                          | 41.8             | 57.4***                    |
| Mental health care or counseling                           | 33.6  | 26.1                          | 30.8*            | 46.0***                    |
| New injury, illness, or health problem other than COVID-19 | 24.6  | 17.1                          | 25.1***          | 31.2***                    |
| COVID-19 screening   | 14.8  | 14.7                          | 11.8             | 19.1*                      |
| Treatment or counseling for alcohol or drug use            | 3.9   | 4.4                           | 1.7**            | 6.9                        |
| Other type of care   | 4.5   | 4.6                           | 3.7              | 5.7                        |
| <i>Sample size</i>   | 2,524                                       | 749                           | 988              | 752                        |

**Source:** Authors’ analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

\*/\*\*/\*\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

The qualitative interview results were consistent with these survey findings. The virtual care interviewees received included both primary and specialty care in roughly equal measure. Half of our respondents' telehealth visits were with general practitioners and other primary care physicians, and most focused on routine preventive check-ups. The other half involved specialists who addressed an array of needs. Participants mentioned seeing cardiologists, orthopedists, rheumatologists, mental health providers, pediatricians, and specialists in managing chronic pain.

Most interviewees received telehealth care from providers with whom they had established relationships, either exclusively or in combination with new providers they were referred to by their established physicians. Two interviewees saw only new providers. That so many individuals obtained virtual care from familiar providers likely helps explain why satisfaction with telehealth was high, as will be discussed in the following section.

## Perceptions of and Satisfaction with Telehealth

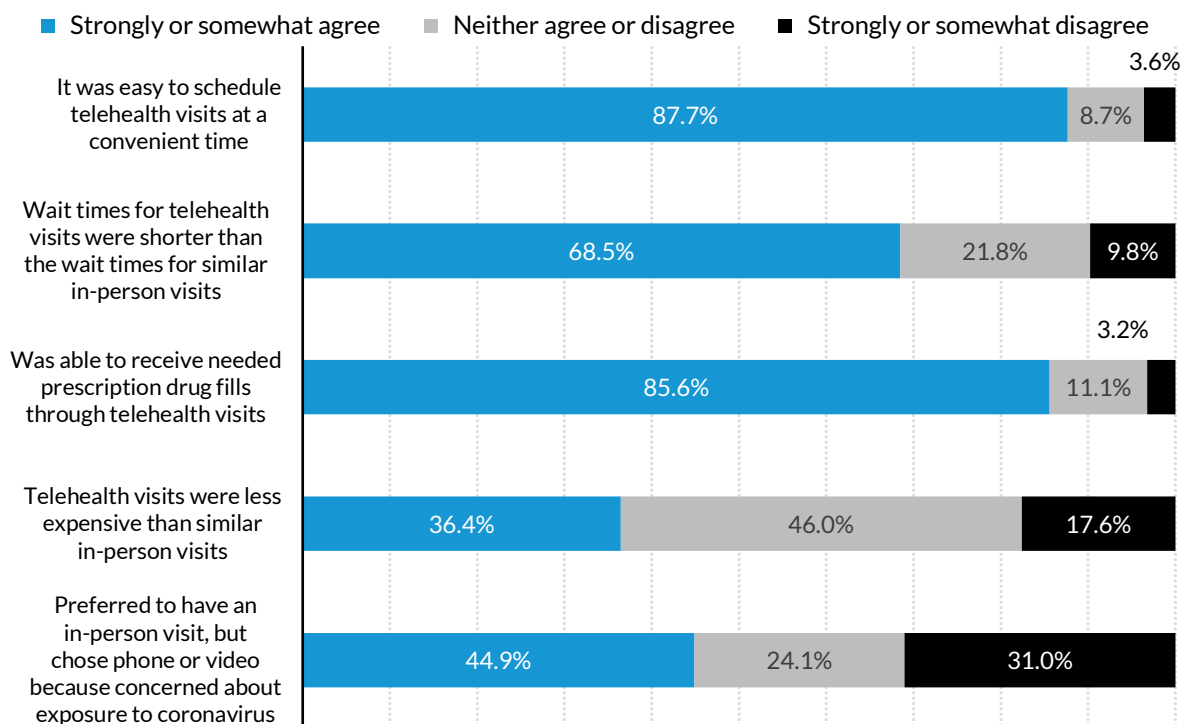
Most HRMS respondents with chronic conditions who had at least one telehealth visit during the first year of the pandemic reported positive experiences (figure 5). The vast majority (87.7 percent) of these telehealth users agreed that it was easy to schedule telehealth visits at a convenient time. Over two-thirds (68.5 percent) indicated their wait time for a telehealth visit was shorter than that for similar in-person visits. Among applicable respondents, more than 80 percent agreed that they were able to receive needed prescription drug refills during their telehealth visits.

Fewer than one in five respondents (17.6 percent) strongly or somewhat *disagreed* that telehealth visits were less expensive than similar in-person visits, while 36.4 percent agreed and 46.0 percent neither agreed nor disagreed. Despite high satisfaction with telehealth, nearly half (44.9 percent) would have chosen in-person care if not for concerns about exposure to COVID-19. Unlike nonelderly adults with chronic conditions who had phone visits only, those who had video visits only and both video and phone visits were generally more satisfied with their telehealth visits (table 6).

**FIGURE 5**

**Adults Ages 18–64 with Chronic Conditions Who Had Telehealth Visits in the Previous 12 Months, by Perceptions of Telehealth Visit, April 2021**

Percent



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**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Notes:** For each measure, those who did not respond to the corresponding question are excluded, as are those who responded "not applicable" when asked about prescription drug fills through telehealth (371 respondents). Sample sizes, from top to bottom, are 2,516, 2,511, 2,140, 2,500, and 2,503, respectively.

**TABLE 6**

**Perceptions of Telehealth Visit among Adults Ages 18–64 with Chronic Health Conditions Who Had Telehealth Visits in the Previous 12 Months, by Modality, April 2021**

Percent

|   | Phone visit only <sup>^</sup> | Video visit only | Both phone and video visit |
|---|-------------------------------|------------------|----------------------------|
| <b>It was easy to schedule telehealth visits at a convenient time</b> |                               |                  |                            |
| Strongly or somewhat agree  | 84.4                          | 90.1**           | 88.1                       |
| Neither agree nor disagree  | 12.0                          | 7.7**            | 6.7***                     |
| Strongly or somewhat disagree   | 3.6                           | 2.2              | 5.2                        |
| <i>Sample size</i>  | 745                           | 986              | 752                        |

|   | Phone visit only <sup>^</sup> | Video visit only | Both phone and video visit |
|---|-------------------------------|------------------|----------------------------|
| <b>Wait times for telehealth visits were shorter than the wait times for similar in-person visits</b>                 |                               |                  |                            |
| Strongly or somewhat agree  | 64.9                          | 69.2             | 71.0**                     |
| Neither agree nor disagree  | 25.8                          | 20.2**           | 19.8*                      |
| Strongly or somewhat disagree   | 9.4                           | 10.6             | 9.2                        |
| <i>Sample size</i>  | 742                           | 984              | 752                        |
| <b>Was able to receive needed prescription drug fills through telehealth visits</b>                                   |                               |                  |                            |
| Strongly or somewhat agree  | 84.1                          | 86.6             | 86.5*                      |
| Neither agree nor disagree  | 12.2                          | 10.9             | 9.9                        |
| Strongly or somewhat disagree   | 3.7                           | 2.6              | 3.5                        |
| <i>Sample size</i>  | 649                           | 790              | 669                        |
| <b>Telehealth visits were less expensive than similar in-person visits</b>  |                               |                  |                            |
| Strongly or somewhat agree  | 36.4                          | 32.5*            | 41.8*                      |
| Neither agree nor disagree  | 49.0                          | 47.7             | 41.1**                     |
| Strongly or somewhat disagree   | 14.6                          | 19.9**           | 17.0                       |
| <i>Sample size</i>  | 741                           | 978              | 749                        |
| <b>Preferred to have an in-person visit, but chose phone or video because concerned about exposure to coronavirus</b> |                               |                  |                            |
| Strongly or somewhat agree  | 43.1                          | 42.3             | 49.6**                     |
| Neither agree nor disagree  | 26.1                          | 23.5             | 23.4                       |
| Strongly or somewhat disagree   | 30.8                          | 34.2             | 27.0                       |
| <i>Sample size</i>  | 740                           | 982              | 748                        |

**Source:** Authors' analysis of data from the Urban Institute Health Reform Monitoring Survey, April 2021.

**Notes:** For each measure, those who did not respond to the corresponding question are excluded, as are those who responded “not applicable” when asked about prescription drug fills through telehealth (96 respondents with a phone visit only, 191 respondents with a video visit only, and 82 respondents with both a phone and video visit) are also excluded from the corresponding measure.

\*/\*\*/\*\*\* Estimate differs significantly from reference group (^) at the 0.10/0.05/0.01 level, using two-tailed t-tests.

Our qualitative interviews provided more nuanced insight into patients' experiences with telehealth. Just over one-half of interviewees said they were generally satisfied with the care they received via telehealth, while only one person reported being unsatisfied. The remainder—roughly 40 percent—described having mixed feelings about their experiences with telehealth.

Among those reporting overall satisfaction, interviewees described telehealth as “easy,” “convenient,” and “simpler than in-person care,” often saying they experienced “no challenges” with technology or accessibility. For example, interviewees made the following comments:

“The convenience was really nice, to be able to work then hop on a call instead of taking half a day off for an appointment.”

“Yeah, [telehealth] works better. A lot of times, [as a quadriplegic], I can't get to my doctor due to the weather. If it's raining...I can't take my [electric] chair.”

Some interviewees praised the quality of telehealth care, often expressing surprise at how well it worked:

[It] turned out...much better than I thought. Before the first televisit, I was really nervous...and didn't feel it would be as good as a doctor's visit. But now I've just done a complete change.

It made me feel different about the health profession. I felt like they were more caring than I realized.

Reasons for dissatisfaction sometimes surrounded challenges with technology, including poor broadband internet access in rural areas, equipment glitches or failures (either at home or at providers' offices), and variable phone signal coverage. These barriers can be a major concern, particularly when sensitive health care topics are discussed. As one interviewee described,

The only challenge that we had was in the beginning with the mental health provider. It was a connection issue and kept freezing up. When you try to talk about a sensitive subject, it aggravates you.

Other individuals expressed dissatisfaction with the quality of virtual care or said they missed the experience of obtaining care in person. For example, one respondent indicated that "[telemedicine] made all of the visits seem really hurried." When comparing telehealth with in-person care, interviewees also shared the following insights:

I prefer in person. I just find it easier to converse and to ask questions and also if there's something I want to point out. Like, my skin [cancer].

Telehealth is impersonal; I like being able to talk with my primary care doctor because I can read his cues and know what he's thinking about, and he's doing the same thing [with me].

As far as mental health, something is really missing [from telehealth]. This is what's missing: Preparing myself mentally to go, getting on the bus to go, and I would really enjoy that bus ride and that was kind of my uptown day...I would very much look forward to the other people in the waiting room because they were pleasant.

[I] don't get out of the house much, it's nice to be able to leave even if it is for a doctor's visit.

When asked if they would continue to use telehealth after the pandemic, only two interviewees said no, stating their preference for in-person care even while acknowledging the convenience of telehealth. The remaining respondents were evenly split between those who were unequivocal in their desire to continue with telehealth and those who hoped for a "hybrid" approach that would mix in-person with virtual care.

This was the first time I ever did telehealth and it was a great experience. [But] in some cases you need to have a one-to-one with a doctor, especially for treatments for some injuries.

There are certain types of care where you just need to go in...like [for my] ear infections or back pain.

I feel like [telehealth] should also be an option if I'm ill. But generally speaking, everything is more clear in person, it's so much easier and I feel so much more relief and like I accomplished something.

Okay, for convenience's sake, you can't beat it. But the personal contact [is] really more important than I realized even. And that [is] missing an important ingredient to feeling well. So, there's a lot of good and a lot of bad, but generally I would prefer in person.

Hands-on visits have their place...I want [my internist] to listen to my heart and look at specific things.

## Discussion

Almost three years since the start of the pandemic, many temporary policy changes to facilitate telehealth enacted under the public health emergency by Medicare, Medicaid, states, and other payers remain in place. The Consolidated Appropriations Act of 2023 extended various Medicare telehealth flexibilities through December 31, 2024, including lifting geographic and site of service requirements, postponing in-person requirements for mental telehealth visits, and extending coverage for audio-only services. Similarly, many states have made or plan to make Medicaid expansions to telehealth permanent (Cubanski et al. 2023).

However, the Biden administration recently announced intentions to end the public health emergency in May 2023 and as a result, many policy and regulatory provisions that have expanded access to telehealth—such as waiving cross-state licensure requirements for providers, potential privacy violations, and temporary reimbursement changes<sup>7</sup>—will expire unless federal lawmakers make permanent changes. As policymakers face these consequential decisions about the permanence of pandemic-era changes to telehealth regulation, findings from our analysis can demonstrate the benefits of telehealth for the population who uses it most—those with chronic health conditions.

Over half of nonelderly adults with chronic conditions used telehealth services during the pandemic, most of whom reported positive experiences with their visits. Findings from the survey and interview data indicate that telehealth was appropriate for diverse chronic conditions across a spectrum of providers. These results suggest that demand for telehealth will remain high even after the pandemic subsides, especially if telehealth visits continue to be convenient, easy to schedule, and free at the point of service for most insured people.

Our results also highlight that telehealth cannot substitute for certain types of in-person care. The vast majority (84.5 percent) of nonelderly adults with chronic conditions had at least one in-person visit during the first year of the pandemic. Our interviews indicated that many of these in-person services covered various issues that cannot be well treated by telehealth, including cancer, diagnostic tests and procedures, and emergency infections.

Interviewees reiterated the importance of at least some in-person care for those with mental health conditions, for the therapy itself as well as to counteract isolation by motivating people to get out of their homes and engage socially. These findings demonstrate that health systems and providers must not default to virtual care too quickly. From these patients' perspective, the ideal future of health care will be a hybrid whereby patients can access care both virtually and in person.

Despite the widespread use of and satisfaction with telehealth, concerns related to both access and equity remain. Access to telehealth services is still a concern for those with chronic health conditions: nearly one out of 10 (8.6 percent of) nonelderly adults with any chronic condition reported that in the past 12 months they wanted a telehealth visit but did not get one. Around one-quarter of nonelderly adults with chronic conditions used phone visits alone—and an additional 30 percent used phone visits and video visits—for their modality of telehealth. Those who used telehealth via phone were more likely to have low incomes, not be white, be older, live in rural areas, and be in worse health than those who had video visits, suggesting a potential digital divide in access.

Moving forward, policymakers must carefully consider trade-offs in cost, access, and equity when determining payment and regulatory policies for telehealth. Persistently high rates of telehealth use would likely lead to long-term increases in health care utilization and spending (Ashwood et al. 2017), and telehealth is not always an adequate substitute for in-person care. To promote health equity for populations with chronic health conditions, policymakers should continue to prioritize access to telehealth, especially video technology, while continuing to address other barriers to accessing in-person health care as well.



# Notes

- <sup>1</sup> “US States and Territories Modifying Requirements for Telehealth in Response to COVID-19,” Federation of State Medical Boards, <https://www.fsmb.org/advocacy/covid-19/>, accessed October 20, 2021.
- <sup>2</sup> Additional methodological information about the HRMS can be found at “Health Reform Monitoring Survey,” Urban Institute, <https://www.urban.org/policy-centers/health-policy-center/projects/health-reform-monitoring-survey>.
- <sup>3</sup> We use “Hispanic/Latinx” throughout this brief to reflect the different ways people self-identify. The white adults and Black adults in our HRMS sample did not identify as Hispanic/Latinx.
- <sup>4</sup> Our interviewees included at least one person in the following groups: white non-Hispanic/non-Latinx, Black non-Hispanic/non-Latinx, other or multiple races, and Hispanic/Latinx.
- <sup>5</sup> The only noteworthy differences between the univariate and multivariate models are that public insurance and fair or poor health status coefficients are not statistically significant in the multivariate model. Fair or poor self-reported health is likely not significant because the multivariate model also controls for all chronic conditions, disability status, and usual source of care.
- <sup>6</sup> Estimates of the reasons for telehealth access problems are not available for those without chronic conditions because of small sample size limitations.
- <sup>7</sup> Susan Morse, “Telehealth Payment Parity Only Good through 2023,” *Healthcare Finance*, January 27, 2023, <https://www.healthcarefinancenews.com/news/telehealth-payment-parity-only-good-through-2023>, accessed March 7, 2023.

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**Claire O'Brien** is a quantitative research analyst in the Health Policy Center. She leverages Medicaid claims to study the relationship between racialized economic segregation and health outcomes and to evaluate integrated care plans for beneficiaries dually eligible for Medicare and Medicaid. She participates in the implementation and analysis of the Urban Institute's Health Reform Monitoring Survey, which she has used to study telehealth, unfair treatment, patient-provider racial concordance, and knowledge of insurance Marketplaces. She uses other national survey data to study family coverage and prescription drug affordability. Finally, she monitors changes in the Affordable Care Act's Marketplaces. She has a bachelor's degree in economics and applied math with a minor in poverty studies from the University of Notre Dame and is currently pursuing a master of public policy degree at the George Washington University.

## STATEMENT OF INDEPENDENCE

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