

Characterizing Telehealth Use in the US: Analysis of the 2022 Health Information National Trends Survey

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ABSTRACT (ENGLISH)

Am J Manag Care. 2024;30(1):50-56. <https://doi.org/10.37765/ajmc.2024.89486> ____ Takeaway Points This study examines patient characteristics associated with the use of telehealth and reported motivations for utilizing telehealth visits using the nationally representative 2022 Health Information National Trends Survey. * Our analysis fills a gap in the literature on telehealth use during the later stages of the COVID-19 pandemic. * Telehealth availability may be particularly critical for adults seeking mental health care. * Common motivations for telehealth include clinician recommendation and convenience, but avoiding exposure to infections may be a particularly compelling factor for adults with depression and Hispanic patients. * Decision makers should consider variation in reasons for telehealth use when developing telehealth practice and payment policies. ____ Investments in telehealth to increase access to care came to fruition during the COVID-19 pandemic.1 Telehealth (audio or video synchronous visits) increased by an estimated 766% in the first 3 months of the pandemic among patients with private insurance.2-4 Waivers granted expanded access to telehealth for Medicare beneficiaries in March 2020, and more than one-third of behavioral health visits were delivered via telehealth in 2020.5 Older adults were particularly expected to benefit from telehealth visits, which would reduce their exposure to the virus. [...]considerable literature has identified salient barriers to telehealth, including limited digital literacy, access to technology, and access to family caregivers for support with the visit based on factors such as age, geographic area of residence (eg, rural vs urban), race, and ethnicity.6-11 These dramatic shifts in telehealth utilization have spurred ongoing discussions about payment for telehealth and whether it should be reimbursed at the same rate as in-person visits—a decision that has been left up to the states.12-16 After accounting for state modifications to telehealth payment policies through the pandemic, 17 states require parity in reimbursements for telehealth and in-person health care visits as of 2023.17 Considerable research examined patient perspectives on telehealth through the pandemic, revealing trends and disparities in telehealth utilization.18 However, evidence of patients' motivations for using telehealth has been overshadowed by comparisons between telehealth and in-person care.19 Moreover, prior studies have explored factors associated with telehealth use prior to and during early stages of the pandemic, but little is known about telehealth use during later stages.20-22 Developing appropriate payment policies and incentivizing insightful decisions about when to deliver care via telehealth vs in-person visits—especially now that the public health emergency has ended—require understanding patients' perceived value of telehealth, which can be fostered by understanding patients' motivations for using telehealth. METHODS Data Source We conducted a secondary data analysis of the National Cancer Institute's nationally representative 2022 Health Information National Trends Survey (HINTS 6), which was administered in English and Spanish between March and November 2022 to 6252 respondents both with and without cancer via the internet and paper.23 Study Sample We restricted our analysis to observations with complete information for our measures of interest. Analysis We applied population-level weights for nationally representative estimates.23 First, we summarized demographic and health characteristics for the full sample and compared the proportion of respondents within each demographic group who had vs who had not received a telehealth visit in the previous 12 months.

FULL TEXT

ABSTRACT

Objectives: Use of telehealth has been on the rise since the start of the COVID-19 pandemic. Although there has

been much investigation of telehealth use in the context of replacing in-person visits, there has been limited study of patients' motivations for using telehealth. The objectives of this study were to (1) evaluate patient characteristics associated with telehealth use and (2) evaluate patients' motivations for using telehealth.

Study Design: We conducted a cross-sectional secondary data analysis of the 2022 nationally representative Health Information National Trends Survey.

Methods: We conducted logistic regression models estimating the relationship between demographic and health characteristics and (1) use of telehealth services in the previous 12 months and (2) each of 5 motivations for using telehealth among telehealth users.

Results: The most common reason for using telehealth was recommendation or requirement by a clinician (73.6%). Respondents with depression were more likely to use telehealth than those without depression (OR, 2.73; $P < .001$) and were more likely to be motivated by convenience (OR, 1.80; $P < .01$), and Hispanic respondents were more likely to use telehealth to avoid exposure to infection (OR, 1.58; $P < .05$).

Conclusions: Identifying patients' motivations may help decision makers better understand the perceived value of telehealth among patients and may help policy makers and administrators create opportunities for increased patient choice around visit modality to maximize health care access, value, and quality. Consideration of patient motivations for telehealth use may support practitioners in making tailored and person-centered decisions when recommending telehealth vs in-person visits.

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Takeaway Points

This study examines patient characteristics associated with the use of telehealth and reported motivations for utilizing telehealth visits using the nationally representative 2022 Health Information National Trends Survey.

* Our analysis fills a gap in the literature on telehealth use during the later stages of the COVID-19 pandemic.

* Telehealth availability may be particularly critical for adults seeking mental health care.

* Common motivations for telehealth include clinician recommendation and convenience, but avoiding exposure to infections may be a particularly compelling factor for adults with depression and Hispanic patients.

* Decision makers should consider variation in reasons for telehealth use when developing telehealth practice and payment policies.

Investments in telehealth to increase access to care came to fruition during the COVID-19 pandemic.¹ Telehealth (audio or video synchronous visits) increased by an estimated 766% in the first 3 months of the pandemic among patients with private insurance.²⁻⁴ Waivers granted expanded access to telehealth for Medicare beneficiaries in March 2020, and more than one-third of behavioral health visits were delivered via telehealth in 2020.⁵ Older adults were particularly expected to benefit from telehealth visits, which would reduce their exposure to the virus. However, considerable literature has identified salient barriers to telehealth, including limited digital literacy, access to technology, and access to family caregivers for support with the visit based on factors such as age, geographic area of residence (eg, rural vs urban), race, and ethnicity.⁶⁻¹¹

These dramatic shifts in telehealth utilization have spurred ongoing discussions about payment for telehealth and whether it should be reimbursed at the same rate as in-person visits—a decision that has been left up to the states.¹²⁻¹⁶ After accounting for state modifications to telehealth payment policies through the pandemic, 17 states require parity in reimbursements for telehealth and in-person health care visits as of 2023.¹⁷ Considerable research examined patient perspectives on telehealth through the pandemic, revealing trends and disparities in telehealth utilization.¹⁸ However, evidence of patients' motivations for using telehealth has been overshadowed by comparisons between telehealth and in-person care.¹⁹ Moreover, prior studies have explored factors associated with telehealth use prior to and during early stages of the pandemic, but little is known about telehealth use during later stages.²⁰⁻²² Developing appropriate payment policies and incentivizing insightful decisions about when to deliver care via telehealth vs in-person visits—especially now that the public health emergency has ended—require

understanding patients' perceived value of telehealth, which can be fostered by understanding patients' motivations for using telehealth.

This study uses US nationally representative data from 2022 to (1) evaluate patient characteristics associated with telehealth use and (2) evaluate patients' motivations for using telehealth.

METHODS

Data Source

We conducted a secondary data analysis of the National Cancer Institute's nationally representative 2022 Health Information National Trends Survey (HINTS 6), which was administered in English and Spanish between March and November 2022 to 6252 respondents both with and without cancer via the internet and paper.²³

Study Sample

We restricted our analysis to observations with complete information for our measures of interest. We excluded participants who had not had any health care visit in the previous 12 months ($n = 540$), resulting in our final sample of 5317 respondents.

Measures

Our primary outcome was utilization of telehealth services measured through the question, "A telehealth visit is a telephone or video appointment with a doctor or health professional. In the past 12 months, did you receive care from a doctor or health professional using telehealth?" Respondents indicated yes via video, yes via phone, or yes via a mix of video and phone. From this, we created a binary variable (yes or no).

Our secondary outcome was responses (yes vs no) to each of 5 motivations: (1) clinician recommended or required telehealth; (2) to obtain advice about whether to seek in-person medical care; (3) to avoid possible infection (eg, COVID-19, influenza); (4) it was more convenient than going to the doctor (eg, less travel or wait time); and (5) to include family or other caregivers in their appointment.

Our covariates included demographic characteristics: age (18-29, 30-44, 45-59, ≥ 60 years), sex (male or female), education (less than high school, completed high school, some college, college graduate or higher), race and ethnicity (non-Hispanic Black, non-Hispanic Asian or other, non-Hispanic White, Hispanic), insurance status (insured or uninsured), and the US Department of Agriculture's 2010 primary rural-urban commuting area code (metropolitan vs micropolitan, small town, or rural). We developed a variable indicating whether respondents had 0, 1, or 2 or more physical health conditions (previous or current cancer, diabetes, high blood pressure, lung disease) and a variable indicating whether they had depression (yes or no).

To further contextualize our analysis, we assessed responses to the question, "What was the primary reason for your most recent telehealth visit?" Reasons included annual visit; minor illness/acute care (eg, fever, sinus infection); managing a chronic health condition/disease; medical emergency; mental health, behavioral, or substance abuse issues; or other. We also evaluated responses to a question presented to respondents who did not receive telehealth in the previous 12 months: "In the past 12 months, were you offered the option to have a telehealth visit for any medical care you tried to schedule (yes or no)."

Analysis

We applied population-level weights for nationally representative estimates.²³ First, we summarized demographic and health characteristics for the full sample and compared the proportion of respondents within each demographic group who had vs who had not received a telehealth visit in the previous 12 months. Next, we summarized frequencies of motivations for using telehealth. Among telehealth users, we estimated multivariable logistic regression models relating covariates to (1) use of telehealth and (2) each of the 5 motivations for telehealth care. All analyses were conducted with Stata version 18 (StataCorp LLC).

RESULTS

Characteristics of Telehealth Users vs Nonusers

Nearly one-third of respondents were 60 years or older (29.1%), and 50.8% identified as female (Table 1). Just slightly less than one-fifth (16.7%) of respondents were Hispanic, and 10.9% were non-Hispanic Black. More than one-third of respondents (39.1%) had received telehealth care via video (47.4%), phone (29.4%), or a combination

(23.2%). Among respondents who had not used telehealth in the prior 12 months, 78.5% had been offered telehealth.

Approximately one-third of respondents aged 18 to 29 years (32.9%) and 60 years or older (37.5%) had used telehealth. One-third of male respondents (33.8%) had received telehealth, and 35% to 40% of respondents within each racial and ethnic group had received telehealth. More than half (56.7%) of respondents with depression had received telehealth. A slightly greater proportion of non-Hispanic Asian and other respondents (39.9%) had used telehealth compared with other racial and ethnic groups. Telehealth users had received care for needs such as a minor or acute illness (eg, fever; 30.4%), chronic health condition management (21.5%), or mental health, behavioral health, or substance use management (16.9%) (Figure 1).

Respondents in the group aged 45 to 59 years were more likely to use telehealth than those in the group aged 18 to 29 years (OR, 1.45) (Table 2). Female respondents (OR, 1.39; $P < .01$) and respondents with at least a college degree (OR, 1.70; $P < .05$) were significantly more likely to use telehealth than male respondents and respondents with less than high school education, respectively. Hispanic respondents were also significantly more likely to use telehealth (OR, 1.44; $P < .05$) than non-Hispanic White respondents. Respondents with 1 (OR, 1.34; $P < .05$) or 2 (OR, 1.79; $P < .001$) physical conditions were significantly more likely to use telehealth than those without any physical health conditions. Respondents with depression were more likely to use telehealth than those without depression (OR, 2.73; $P < .001$). Marginal effects (percentage points) are summarized in eAppendix Table 1 (eAppendix available at ajmc.com) and suggest that, on average, the probability that respondents with depression will use telehealth is 23.0 percentage points higher than it is for those without depression after adjusting for other covariates.

Motivations for Receiving Telehealth Care

Telehealth users reported being motivated by their clinician (73.6%), convenience (65.7%), the opportunity to avoid exposure to infections (49.5%), wanting medical advice (29.0%), and the ability to include others (23.1%) (Figure 2). Respondents older than 60 years were significantly less likely to use telehealth because of clinician requirement or recommendation (OR, 0.47; $P < .05$) than respondents aged 18 to 29 years (Table 3). Marginal effects (percentage points) are summarized in eAppendix Table 2. Respondents with depression were significantly more likely to use telehealth because of convenience (OR, 1.80; $P < .01$) and to avoid exposure to infections (OR, 1.57; $P < .001$) than those without depression. Hispanic respondents were more likely to use telehealth to avoid exposures (OR, 1.58; $P < .05$) compared with non-Hispanic White respondents. Although female respondents and respondents with a college degree or higher were more likely to use telehealth, they were less likely to be motivated by the ability to include others in the telehealth visit (OR, 0.61; $P < .05$ vs male respondents and OR, 0.45; $P < .05$ vs less than high school education, respectively).

DISCUSSION

This study analyzes characteristics of a nationally representative sample of US adults in terms of their use of telehealth and motivations for using telehealth. Being female; having health insurance, multiple physical health conditions, depression, and more education; and residing in a metropolitan area were associated with a greater likelihood of using telehealth. These findings are consistent with those of analyses examining telehealth use during the COVID-19 pandemic using claims data, which found associations between presence of anxiety or depression, urban geographic region, and presence of multiple chronic conditions and greater use of telehealth but lower utilization among older adults.^{24,25} These findings suggest that broadband and internet connectivity issues may present persisting barriers to telehealth use, particularly among patients not residing in metropolitan areas.³ However, Hispanic respondents in our analysis were more likely to use telehealth, which is a stark contrast to results from prior studies finding significantly lower telehealth utilization rates for Hispanic adults.^{11,26} Our findings are also consistent with results from previous prepandemic studies finding lower telehealth uptake among older adults. However, these studies attributed lower telehealth use to limited self-efficacy and lack of interest in receiving care through telehealth^{27,28}; our study adds to the literature by examining a specific, distinct set of motivating factors including convenience, minimizing exposure to infection, and self-triaging purposes.

Although older adults were more likely to use telehealth than respondents aged 18 to 29 years, only 37% of older adults used telehealth in the previous year. They were also the least likely to be motivated by their clinician, suggesting that barriers to telehealth use may surpass even clinicians' requirement for telehealth visits or that patients—especially older adults—may require further explanation of potential value of receiving care via telehealth.²⁹ These older adults may also benefit from proactive efforts by clinicians to include caregivers in telehealth visits to minimize barriers such as technology proficiency, internet connectivity, and language. Adults seeking mental health support may be most motivated to use telehealth. In our analysis, respondents with depression were significantly more likely to use telehealth than those without depression and were also significantly more likely to be motivated by their clinician's requirement or recommendation, convenience, opportunity to include others in the visit, and potential to avoid exposure to infections. Adults with depression may especially benefit from continued access to telehealth mental health care that is reimbursed at the same rate as in-person care.^{21,30} Prior to and early in the pandemic, presumed benefits of telehealth centered around convenience (ie, no travel or transport to health care facilities), avoidance of exposure to infections such as influenza or COVID-19, triaging patients to identify who requires an in-person visit, and the ability to include others (eg, family caregivers) in telehealth visits.^{9,31-38} However, even groups who are significantly more likely to use telehealth (eg, women compared with men) may be less likely to be motivated by some of these features of telehealth. Avoiding exposure to infections may be particularly motivating for adults with depression and those in non-White racial and ethnic groups. Continuing to offer telehealth may be critical to reducing disparities in access to care attributed to concerns about safety and risk within health care environments.³⁹ Policies that enable choice in mode of visit may be important for supporting patient autonomy and comfort with receiving health services during a public health emergency and other phases of higher risk (eg, influenza season).

The notion of telehealth as a mode of triage has been examined from the clinician perspective, including in the context of asynchronous portal messaging that increased dramatically during the COVID-19 pandemic, but requires further inquiry from the patient perspective (including among uninsured patients).^{37,40} Payment parity for triaging purposes may disincentivize patients from seeking care when needed, but a lack of parity could result in overuse of unnecessary care.⁴¹ Although a smaller proportion of respondents reported being motivated by the ability to include another individual in telehealth visits, this requires further exploration. We suspect that some respondents may not have considered including caregivers in telehealth visits at the time of care, which could explain why less than 30% of respondents indicated this as a motivating factor.⁹ Study findings suggest that involvement of family and other unpaid caregivers in telehealth visits could be important for supporting caregivers—especially of patient subgroups such as older adults and those with limited English proficiency—but policies are required to enable their inclusion in telehealth visits.^{9,42} For instance, expanding policies to designate a caregiver who can be included in telehealth visits could also increase acceptance of and access to telehealth among these patient subgroups.

Limitations

Our study has some limitations. First, because it has a cross-sectional design, we cannot infer causality in the relationship between motivating factors explored and reported use of telehealth. Second, our data rely on self-reported recollection of telehealth use; respondents may not remember all visits, and the data do not provide specific information on when responses were captured (eg, the month), which could be related to telehealth use based on pandemic surges and related telehealth policies. Third, our analysis does not distinguish between micropolitan, small town, and rural respondents because of the small sample size of rural respondents; this group should be studied in greater depth in future analyses. Additionally, our analysis cannot account for state-level variation in telehealth reimbursements, which could be related to telehealth use, due to limitations in the data set. Similarly, the HINTS 6 data set does not provide information on other factors such as respondents' distance from source of care or visit types that may be related to greater use of telehealth (eg, preoperative visits).

Future research should examine reasons for not using telehealth given that nearly two-thirds of respondents had not used telehealth. This type of analysis might also inform analyses of barriers and facilitators to telehealth among subgroups—for instance, telehealth might improve access to care among respondents with limited English

proficiency; however, some study findings suggest that patients with limited English proficiency are less likely to use telehealth.¹⁰ There is also a need to better understand experiences with telehealth visits among those using telehealth, for instance, based on modality of visit (eg, audio vs video visit) or type or clinical context of care. Notably, because our analysis reports recalled telehealth use in the 12 months prior to data collection, which occurred between March and November 2022, future research should also examine longitudinal trends in telehealth use, including comparisons before and during the pandemic as well as shifts over the course of the pandemic. Studies of patient portal use have garnered specific insights into facilitators of portal use (eg, patient-provider communication, customization of medical information, recordkeeping, disease severity, and provider encouragement),⁴³⁻⁴⁵ and future studies should similarly solicit motivations for telehealth use in greater depth.

CONCLUSIONS

As states develop telehealth payment and provision policies, it is critical to account for how patients—and different types of patients—perceive value in telehealth and to consider that patients may not homogeneously perceive convenience in telehealth options.^{46,47} Some adults (eg, those seeking mental health treatment) may especially value telehealth options, but others may be discouraged or even frustrated when telehealth is required, reducing patient autonomy in selecting the type of health care visit they prefer.⁴⁸ Understanding other perceived benefits and motivations for telehealth use from patient and clinician perspectives (eg, perceived quality) can also help clinicians when discussing and explaining options to patients to support informed decision-making about the type of care they receive, depending on the purpose and their individual circumstances.⁴⁷ Given that nearly two-thirds of respondents in this study did not have a telehealth visit in the previous 12 months, it is possible that further study of telehealth's value—distinct from its utility through the pandemic—is required.

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