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Telehealth Availability and Usage Among Medicare Beneficiaries During the COVID-19 Pandemic, October and November 2020

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Abstract

Context: During the COVID-19 pandemic, demand for telehealth services increased to reduce disease exposure for patients and providers and to meet preexisting demand for physician services in health resource shortage areas.

Objective: To estimate self-reported telehealth availability, equipment for accessing telehealth, and telehealth usage among Medicare beneficiaries during the COVID-19 pandemic.

Design: We used data from the 2020 Medicare Current Beneficiary Survey (MCBS) COVID-19 Fall Supplement Public Use File to estimate the weighted percentages of beneficiaries who had (*a*) access to telehealth before or during COVID-19; (*b*) equipment for accessing telehealth; and (*c*) telehealth visits during COVID-19. We used logistic regression to examine sociodemographic factors associated with telehealth usage.

Participants: Beneficiaries who participated in the MCBS COVID-19 Fall Supplements.

Results: During October and November 2020, telehealth appointments offered by providers were available to 63.8% (95% confidence interval [CI], 61.8–65.9) of Medicare beneficiaries who had accessed medical care by telephone or video. Among those, only 18.0% (95% CI, 16.1–19.9) had been offered telehealth before the pandemic. The majority of beneficiaries (92.2%; 95% CI, 91.2–93.1) had 1 or more types of equipment available for accessing telehealth, but only 44.9% (95% CI, 43.0–46.9) had had a telehealth visit since July 1, 2020. Older adults, minorities, those with a lower income, and non-English speakers had less availability of telehealth equipment. Patient characteristics were significantly ($P < .05$) associated with telehealth use, including age, sex, race/ethnicity, and equipment availability.

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Conclusion: Telehealth availability for Medicare beneficiaries increased substantially during the COVID-19 pandemic. Even with the improvement in telehealth offerings and use hastened by the pandemic, gaps in access and use still exist. Effectiveness and implementation research can find ways to close gaps in telehealth services between vulnerable and underrepresented populations and counterparts.

Keywords

coronavirus; health care disparities; Medicare; socioeconomic factors; telehealth

During the COVID-19 pandemic, telehealth usage has been rapidly increasing in the United States.[1–3] The Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, estimated that telehealth visits increased 154% in surveillance week 13 in 2020 compared with the same period in 2019, and the proportion of COVID-19-related visits significantly increased from 5.5% to 16.2% during the last 3 weeks of March 2020 (surveillance weeks 11–13).[2] A prior study also reported that a 20-fold increase in telehealth visits occurred during March 2020, and the incidence of office-based encounters decreased approximately 50%.[3] During a pandemic, telehealth can expand access to high-quality and affordable health care services, reduce disease exposure for both patients and providers, and mitigate the physician-health resource shortage in rural areas.[4–6] Nevertheless, telehealth also limits the patient-provider relationship, examination quality, and health care delivery efficiency and can increase technical difficulties, security breaches, and regulatory barriers.[5,7]

Although US telehealth usage has gradually increased and the COVID-19 pandemic has driven exponential growth, telehealth usage for COVID-19 care has been associated with socioeconomic and demographic characteristics.[8–11] Inequalities in accessing telehealth were present during the pandemic, and older patients, Asian patients, and non–English-speaking patients had lower rates of telehealth use.[12,13] Racial/ethnic disparities have widened in telehealth use for COVID-19-related care during the pandemic.[14–17] One key factor in reducing telehealth usage disparities is increasing capacity and equipment ownership for virtually accessing health care services, particularly among vulnerable and underrepresented populations.[18–20] Although more than 1 million US patients have used telehealth,[21] 4.4% of the US population and 82.7% of the population in rural areas are still without Internet access in their homes in 2019.[22]

The pandemic disproportionately affects vulnerable and underrepresented populations who are older, are African American/Black, reside in a low-income area, or have certain underlying medical conditions.[23,24] Medicare populations include older adults, and those with a disability or with end-stage renal disease (ESRD) and are likely to have a higher prevalence of certain chronic conditions. Medicare populations are at a higher risk for COVID-19-associated illnesses, hospitalizations, and death in the United States.[25] However, information is limited regarding Medicare populations and whether telehealth is offered by their health care providers, whether equipment is available for accessing telehealth, and how telehealth has been used during the pandemic. Moreover, few previous studies regarding telehealth usage have included information about the patient's ability to access equipment needed for having a telehealth visit.[8,13,26] To fill the knowledge gap, we assessed these

factors among Medicare beneficiaries during October and November 2020. In addition, we assessed these disparities among sociodemographic groups and examined sociodemographic factors associated with telehealth usage among Medicare beneficiaries during COVID-19.

Methods

With the emergence of the COVID-19 pandemic in the United States, the Centers for Medicare & Medicaid Services (CMS, https://www.cms.gov) conducted COVID-19 Special Surveys in 2020 to collect information on how the pandemic was impacting access to care (including telehealth) among the Medicare population as a supplement to the main Medicare Current Beneficiary Survey (MCBS). We used the MCBS COVID-19 Fall Supplement Public Use File (PUF) to estimate self-reported telehealth availability, ability, and usage during the COVID-19 pandemic among Medicare beneficiaries in October and November 2020 (n = 9686).[27] CMS surveyed the existing MCBS sampled beneficiaries about Medicare beneficiaries' experiences during the COVID-19 pandemic. The data are self-reported, categorized, de-identified for public use, and exempt from institutional review board review.

Survey participants who responded *Yes* to the question, "Ever go to a particular place for medical care," in the MCBS COVID-19 Fall Supplement PUF were included in this analysis. *Availability* was defined as *Yes/No* responses among survey participants whose primary care providers offered telehealth appointments. Among those who responded *Yes* to that question were asked the following questions: "Primary care providers offered telehealth before COVID-19" (*Yes/No*); type of telehealth offered (*Telephone/Video/Both*). We defined *ability* as survey participants who responded *Yes* to having 1 or more of the following equipment, including "Own computer, smartphone, or tablet; have access to the Internet; and use video or voice calls." We also defined *used telehealth during COVID-19* as survey participants who responded *Yes* to "Sampled person had telehealth visit since July 1, 2020."

We calculated frequencies with 95% confidence intervals (CIs) of the following 3 estimated percentages of beneficiaries with (*a*) available telehealth before or during the COVID-19 pandemic; (*b*) 1 or more pieces of equipment for accessing telehealth; and (*c*) 1 or more telehealth visits during the pandemic in 2020.

Survey participants who responded *Yes* to the question, "Ever go to a particular place for medical care," and responded *Yes* to the question, "Primary care provider offers telehealth appointments," were included in examining the demographic distribution of beneficiaries with or without equipment and who had or did not have a telehealth visit during the pandemic, by age (≤64, 65–74, or ≥75 years), sex (male/female), race/ethnicity (non-Hispanic White [NHW], non-Hispanic Black [NHB], Hispanic, or other/unknown), metropolitan residence (metropolitan or nonmetropolitan),US Census region (Northeast, West, Midwest, or South), annual income (<$24999/≥$25000), language other than English spoken at home (*Yes/No*), and Medicare-Medicaid dual eligibility (dual/nondual). We calculated the weighted percentage of beneficiaries who had 1 or more pieces of equipment among each demographic group by socioeconomic status and geographic area. Moreover, we estimated the weighted frequencies of beneficiaries in telehealth usage among each demographic group whose care providers offered telehealth appointments and who had

access to equipment. Finally, we examined socioeconomic factors associated with telehealth usage among beneficiaries who ever went to a particular place for medical care and whose care providers offered telehealth appointments during the COVID-19 pandemic.

We used the MCBS sampling weights to ensure that the analytic sample remained representative of the Medicare populations in terms of demographic groups who were enrolled at any point during 2019 and who were still alive, enrolled, and living in the community during fall 2020.[28] We used the SAS Surveylogistic procedure to test the association between telehealth use and the selected sociodemographic factors, as well as availability of equipment for accessing telehealth. We used a 2-tailed Rao-Scott chi-square test for significance at $P < .05$. Census region was not included in the regression model because of low statistical power caused by small sample size (<45) for telehealth use in the Northeast and Midwest regions among NHB and Hispanic survey participants.

Results

Availability, ability, and telehealth usage

The overall response rate for 2020 MCBS COVID-19 Fall survey was 72.6%. A total of 9686 survey participants (among an estimated 55 327 472 community Medicare beneficiaries) from approximately 14 000 community and long-term care facility settings participated in the survey. Among those, 9216 (95.1%) survey participants had accessed medical care. Among beneficiaries who had visited a place for medical care, 63.8% (95% CI, 61.8–65.9) were offered telehealth appointments by their primary care providers during the COVID-19 pandemic, and 70.0% (95% CI, 68.0-71.9) of beneficiaries' providers offered telehealth by both telephone and video (Table 1). However, among those who had telehealth appointments offered by their providers, only 18.0% (95% CI, 16.1–19.9) had been offered telehealth before the COVID-19 pandemic; 52.4% (95% CI, 50.2–54.6) had not been offered telehealth; and 29.6% (95% CI, 27.9–31.3) did not know whether telehealth had been offered before the pandemic.

Among those beneficiaries with providers who offered telehealth appointments, 92.2% (95% CI, 91.2–93.1) had 1 or more types of equipment available for accessing telehealth. Although 63.8% of beneficiaries with providers who offered telehealth appointments during the pandemic, only 44.9% (95% CI, 43.0–46.9) had had a telehealth visit since July 1. The majority of telehealth visits (56.0%; 95% CI, 52.9–59.1) were by telephone.

Demographic characteristics of beneficiaries with available telehealth appointments

Of 33 614 755 beneficiaries (5644 survey participants), those being offered telehealth appointments during the pandemic were more likely to be 65 years or older (80.5%), female (55.5%), and NHW (75.4%); reside in a metropolitan area (83.9%) and in the South (36.6%); have an annual income of $25000 or more (71.7%); speak English at home (88.1%); and to be a nondual participant in Medicare-Medicaid programs (85.9%) (see Supplemental Digital Content Table 1, available at http://links.lww.com/JPHMP/A871). Distributions of similar characteristics were observed among those who had equipment for accessing telehealth (see Supplemental Digital Content Table 2, available at http://

links.lww.com/JPHMP/A872). However, different patterns of characteristics were identified for beneficiaries who did not have telehealth equipment during the pandemic. Those beneficiaries who needed to conduct a telehealth visit were older, NHB, or Hispanic; resided in a nonmetropolitan area; had an annual income of $24 999 or less, speak a language other than English at home; and had dual eligibility, compared with those who had telehealth equipment. Demographic characteristics among those who had equipment were significantly different ($P < .05$) from those who did not have equipment by age, race/ethnicity, metropolitan residence, income, and language spoken at home. Moreover, significant differences ($P < .05$) in characteristics between participants who had and who did not have 1 or more telehealth visits were observed by age, race/ethnicity, region, income, and dual eligibility (see Supplemental Digital Content Table 3, available at http://links.lww.com/JPHMP/A873).

Frequencies of beneficiaries with telehealth equipment, by demographic characteristic

Inequities in ability to access telehealth were observed among demographic and socioeconomic groups. Beneficiaries 75 years or older were less likely to have telehealth equipment than other age groups (Table 2). NHB and Hispanic beneficiaries were less likely to have equipment than NHW beneficiaries. Older adults, minorities, those with a lower income, nonmetropolitan residents, and non-English speakers had less ability to have equipment during the pandemic.

Telehealth usage during COVID-19 in October and November 2020

Approximately 40% to 55% of beneficiaries among each demographic group used telehealth during the pandemic (see Supplemental Digital Content Table 4, available at http://links.lww.com/JPHMP/A874). Among beneficiaries who had equipment for accessing telehealth, the percentages of beneficiaries using telehealth services were higher among beneficiaries 64 years or younger (53.7%; 95% CI,49.1–58.2), NHB (54.8%; 95% CI, 49.0–60.5) and Hispanic participants (53.4%; 95% CI, 47.3–59.5), residing in the South (48.2%; 95% CI, 45.0–51.5) and West (49.8%; 95% CI, 46.2–53.4), with an annual income of $24999 or less (52.3%; 95% CI, 48.9–55.7), and with dual eligibility (56.1%; 95% CI, 51.1–61.1).

Sociodemographic factors associated with telehealth usage

During the pandemic, telehealth usage was significantly ($P < .05$) associated with age, sex, race/ethnicity, and equipment availability (Table 3). Compared with beneficiaries 64 years or younger, older age was associated with less telehealth usage (65–74 years: weighted adjusted odds ratio [aOR] = 0.72 [95% CI, 0.59–0.88]; ≥75 years: weighted aOR = 0.77 [95% CI, 0.65–0.92]). Male beneficiaries had greater odds (aOR = 1.15; 95% CI,1.00–1.33) of telehealth usage than female beneficiaries. Compared with NHW beneficiaries, NHB (aOR = 1.34; 95% CI, 1.06–1.70) and Hispanic (aOR = 1.44; 95% CI, 1.03–2.02) beneficiaries had more telehealth usage. Beneficiaries with available equipment had greater odds (aOR = 1.40; 95% CI, 1.09–1.79) of telehealth usage than those without equipment. However, no difference occurred in telehealth usage by metropolitan residence, income, English spoken at home, and dual eligibility.

Discussion

Our study revealed that the majority of primary care providers offered telehealth appointments to Medicare beneficiaries during the COVID-19 pandemic in October and November 2020.During 2019,CMS expanded Medicare telehealth service coverage, which resulted in beneficiaries receiving a wider range of health care services from their doctors without having to travel to a facility.[30,31] This expansion coupled with legislation passed in March 2020 provided increased telehealth capabilities and played an essential role in fighting COVID-19.[32] The dramatic increase in telehealth service availability before and during the pandemic observed in our study might be attributable to the effects of this Medicare policy change temporarily expanding telemedicine coverage.

Our study indicates that the majority of Medicare beneficiaries had 1 or more pieces of equipment for accessing telehealth during the pandemic and that the majority used a telephone to access telehealth. However, beneficiaries with equipment were different by demographic group and socioeconomic status. Beneficiaries in older age groups, NHB and Hispanic minorities, those with a lower income, and non-English speakers were more likely to lack equipment for engaging in remote care. Similar to our results,a prior study reported that a telephone was the most used tool for telehealth during the pandemic.[12] Vulnerable populations also were disproportionately affected in accessing telehealth because of a lack of technology, reliable Internet coverage, reimbursement of telemedicine services, and lack of institutional commitment to equity in telemedicine.[33,34] Approximately 14.46 million US residents, mostly in rural areas (11.26 millions), do not have access to the Internet in their homes at the end of 2019.[22] COVID-19 has resulted in a dramatic increase in telehealth usage, but lack of telehealth usage might negatively affect rural health disparities among those without the necessary equipment or access.[35]

Limited studies have assessed telehealth use by adjusting for patients' availability of equipment.[8,13,26] Our study assessed sociodemographic factors associated with telehealth use by accounting for beneficiaries' equipment. Our results indicate that the majority of beneficiaries had been offered a telehealth appointment by their health care provider and had a high prevalence of available equipment during the pandemic. However, telehealth usage was considerably lower (~45%) among beneficiaries across demographic groups, even among those who had equipment. Health inequalities in telehealth usage exist among beneficiaries with available equipment across demographic groups.

Consistent with several prior study findings,[20,36] our results also indicate that with available equipment, telehealth usage was more likely to be higher among NHB and Hispanic beneficiaries than among NHW beneficiaries. However, the majority of the previous published findings differ from ours in that they reported that older adults, racial/ethnic minorities (Black, Latino, Asian), those with lower household incomes, non-English language speakers, Medicaid beneficiaries, and those with rural residence were associated with less telehealth usage.[12,13,37,38] Telehealth has been used broadly in the COVID-19 pandemic and has the potential to improve health care access globally,[6,39,40] but this massive growth in telehealth usage might affect and worsen health disparities in health care services.[13,38,41]

Multiple factors might be attributable to differences between our study and previous ones. First, NHB and Hispanic beneficiaries might be more likely to live in Black or minority communities with a greater risk for COVID-19 infection, and their providers might be more likely to substitute an in-person visit with a telehealth visit during the pandemic. Second, the characteristics of Medicare beneficiaries were older adults or with ESRD or disability in all ages who might be more vulnerable to contracting the virus and using telehealth for care services. Third, racial/ethnic minorities might suffer more health conditions than NHW beneficiaries and require continuing health care services during the pandemic.[36] Fourth, NHB and Hispanic beneficiaries might face the concerns of racism and discrimination that lead to health care-seeking behavior more favorable to telehealth than in-person visits. Cultural differences and language barriers might prevent immigrants from accessing office-based visits and patient-provider interactions. Fifth, transportation barriers might hinder patients' travel for in-person health care, particularly for those minorities with lower incomes or the under- or uninsured.[42] The expansion of telehealth coverage by Medicare[30] during the pandemic might have promoted access to virtual care services for NHB and Hispanic beneficiaries. Moreover, other factors might influence racial/ethnic disparities in telehealth usage (eg, varied speed and timing of virus spread among communities with minorities, varied state social distancing and restriction policies, and different types of equipment or technology in measuring disparities).

Limitations

Our findings are subject to several limitations. The telehealth estimates in this survey are self-reported and therefore subject to recall bias; however, the recall bias is minimal, given the short period between the telehealth usage and the survey period. Second, we did not adjust for participants with health conditions. Patients with minor health conditions might be more likely to avoid or postpone an in-person visit and to access health care remotely, whereas those who had major conditions might have required an in-person visit and were less likely to use telehealth. Third, our estimates may be affected by including a small proportion of participants (4.46%) who did not own equipment at home but still accessed telehealth remotely. Fourth, telehealth-related measures during the prepandemic period are not available in prior surveys; thus, we are not able to measure telehealth changes over time. Our analysis represents estimates for the Medicare population of those who were 65 years or older or with a disability or ESRD; thus,the availability, ability, and usage of telehealth estimated in our study might not be directly comparable with the general population. We cannot distinguish the purpose of telehealth use for care related to COVID-19 symptoms or any concerns for other medical conditions or for what type of specialty services being used. Finally, this study did not account for other risk factors that contributed to health care usage during the pandemic (eg, cultural behaviors, perception of health and demand for health4 care services, or local policies in social distancing rules).

Conclusions

Our study demonstrates that further expansion of telehealth coverage and increased availability of equipment might benefit older patients, Black and Hispanic beneficiaries, and patients with lower socioeconomic status in seeking health care services. Telehealth

availability for Medicare beneficiaries increased substantially during the pandemic. Even with the improvement in telehealth offerings and use hastened by the pandemic, gaps in access and use still exist. Although our study indicates that the prevalence of telehealth use in older age groups was less than in younger age groups, the high prevalence of available equipment and telehealth use among beneficiaries of all ages would enable delivery of essential medical care when in-person care is unsafe. Future research is warranted that evaluates the differences in racial/ethnic disparities in telehealth usage and to further evaluate the impact of policy changes on Medicare expansion of telehealth coverage for access to care from prepandemic periods versus the pandemic. Continued efforts and strategies are needed for finding ways to close health care gaps among vulnerable and underrepresented populations.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Implications for Policy & Practice

- Although our study indicates that the prevalence of telehealth use in older age groups was less than in younger age groups, the high prevalence of available equipment and telehealth use among beneficiaries of all ages would enable delivery of essential medical care when in-person care is unsafe. Expansion of telehealth service coverage is essential to close preexisting and new gaps in supply-demand for telehealth services in the Medicare population.
- Policymakers and practitioners can focus implementation effort and resources on Medicare beneficiaries in older age groups, NHB and Hispanic minorities, those with a lower income, and non-English speakerswho were more likely to lack equipment for engaging in remote care.
- Researchers, policy makers, and practitioners can use these findings to explore more effective and cost-effective ways of reducing racial/ethnic and geographic disparities in telehealth access and usage and to further evaluate the impact of policy and practice changes in Medicare telehealth.

TABLE 1

Frequency of Availability of Telehealth Before and During COVID-19, Availability of Equipment for Accessing and Using Telehealth During COVID-19, Medicare Current Beneficiary Survey COVID-19 Fall Community Supplement Public Use File, October-November 2020

Availability Question	Unweighted Sample	Weighted Sample	Weighted % (95% CI)[a]
During the COVID-19 pandemic			
Primary care provider offers telehealth appointments[b,c]			
Yes	5644	33 614 755	63.8 (61.8–65.9)
No	1393	7 054 160	13.4 (12.3–14.5)
Don't know	2179	11 994 242	22.8 (21.2–24.4)
Total	9216	52 663 158	...
Type of telehealth offered[c,d]			
Telephone	1265	6 744 535	23.2 (21.2–25.1)
Video	313	1 996 307	6.9 (5.9–7.8)
Both	3286	20 359 340	70.0 (68.0–71.9)
Total	4864	2 910 018	...
Pre-COVID-19 pandemic			
Primary care provider offered telehealth[c,d]			
Yes	1035	6 058 396	18.0 (16.1–19.9)
No	3014	17 614 026	52.4 (50.2–54.6)
Don't know	1595	9 942 333	29.6 (27.9–31.3)
Total	5644	33 614 755	...
Type of telehealth offered before COVID-19[c,e]			
Telephone	422	2 383 381	45.1 (40.8–49.5)
Video	29	162 251	3.1 (1.8–4.4)
Both	452	2 733 354	51.8 (47.8–55.8)
Total	903	5 278 986	...
Availability of equipment to access telehealth[c,d,f]			
Yes	5026	30 975 274	92.2 (91.2–93.1)
No	617	2 638 299	7.8 (6.9–8.8)
Total	5643	33 613 573	...

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Availability Question	Unweighted Sample	Weighted Sample	Weighted % (95% CI)[a]
Used telehealth during COVID-19			
Sampled person had telehealth visit since Jul 1, 2020[c,d]			
Yes	2515	14 968 262	44.9 (43.0–46.9)
No	3074	18 350 908	55.1 (53.1–57.0)
Total	5589	33 319 170	...
Type of telehealth visit had Jul 1, 2020[c,g]			
Telephone	1460	8 357 602	56.0 (52.9–59.1)
Video	653	4 178 149	28.0 (25.5–30.5)
Both	393	2 389 070	16.0 (14.1–17.9)
Total	2506	14 924 821	...

Abbreviation: CI, confidence interval.

[a] We used the replicate weight approach of balanced repeated replication with Fay's adjustment of 0.3 for the variance estimation.

[b] Applies only if sampled person ever went to a particular place for medical care.

[c] *Significant at* P < *.05 in the Rao-Scott chi-square test.*

[d] Applies only if primary care provider offered telehealth appointments.

[e] Primary care provider offered telehealth before the COVID-19 pandemic.

[f] Has 1 or more pieces of equipment, including a computer, smartphone, or tablet and access to the Internet, and used video or voice calls.

[g] Applies only if sampled person offered telehealth after July 1, 2020.

TABLE 2

Percentage of Equipment Available for Accessing Telehealth Services, by Demographic Characteristics of Beneficiaries During the COVID-19 Pandemic, Medicare Current Beneficiary Survey COVID-19 Fall Community Supplement Public Use File, October-November 2020

	Had Equipment		No Equipment			
Characteristic	**Unweighted Sample**	**Weighted Sample**	**Unweighted Sample**	**Weighted Sample**	**% Equipment: Weighted % (95% CI)[a]**	***P***
Age, y						<.001[b]
≤64	1114	6 048 067	94	429 845	93.4 (91.5–95.2)	
65–74	1882	16 245 225	107	774 117	95.5 (94.4–96.5)	
≥75	1982	8 413 605	409	1 407 128	85.7 (84.1–87.3)	
Sex						.32
Male	2242	13 707 170	234	1 108 926	92.5 (91.3–93.8)	
Female	2736	16 999 727	376	1 502 165	91.9 (90.8–92.9)	
Race/ethnicity						<.001[b]
White non-Hispanic	3816	23 650 858	353	1 480 024	94.1 (93.3–94.9)	
Black non-Hispanic	422	2 650 797	81	458 058	85.3 (80.1–90.4)	
Hispanic	461	2 402 953	152	565 081	81.0 (77.3–84.6)	
Other/unknown	279	2 002 289	24	107 928	94.9 (92.6–97.2)	
Metropolitan residence as designated by the core-based statistical area[c]						<.001[b]
Metropolitan	4052	25 930 534	445	1 972 456	92.9 (92.0–93.9)	
Nonmetropolitan	922	4 755 194	165	638 635	88.2 (85.5–90.8)	
US Census region						.08
Northeast	933	5 606 058	130	562 238	90.9 (88.2–93.6)	
Midwest	1127	6 486 009	123	513 701	92.7 (90.8–94.5)	
South	1757	11 124 987	252	1 066 156	91.3 (89.4–93.1)	
West	610	2 611 091	105	468 995	94.1 (92.8–95.4)	
Annual income						<.001[b]
≤$24 999	1500	7 482 806	379	1 657 688	81.9 (79.8–83.9)	
≥$25 000	3303	22 325 187	182	761 666	96.7 (96.0–97.4)	
Language other than English spoken at home						<.001[b]
Yes	566	3 307 899	169	631 916	84.0 (81.4–86.5)	

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Characteristic	Had Equipment		No Equipment		% Equipment: Weighted % (95% CI)[a]	*P*
	Unweighted Sample	Weighted Sample	Unweighted Sample	Weighted Sample		
No	4408	27 385 314	440	1 978 303	93.3 (92.3–94.2)	
Medicare-Medicaid dual eligibility						<.001[b]
Yes	890	3 790 505	225	904 883	80.7 (77.6–83.9)	
No	4088	26 916 393	385	1 706 208	94.0 (93.2–94.9)	

Abbreviation: CI, confidence interval.

[a]We used the replicate weight approach of balanced repeated replication with Fay's adjustment of 0.3 for the variance estimation.

[b]*Significant at* P < *.05 in the Rao-Scott chi-square test.*

[c]From US Census Bureau.[29]

TABLE 3

Sociodemographic Factors Associated With Telehealth Usage Among Beneficiaries Who Had Had Telehealth Appointments Offered by Primary Care Providers During the COVID-19 Pandemic, Medicare Current Beneficiary Survey COVID-19 Fall Community Supplement Public Use File, October-November 2020

	Telehealth Usage	
Characteristic	**Weighted aOR (95% CI)[a,b]**	***P***
Age, y		
≤64	Ref	...
65–74	0.72 (0.59–0.88)	.002[c]
≥75	0.77 (0.65–0.92)	.004[c]
Sex		
Male	1.15 (1.00–1.33)	.05[c]
Female	Ref	...
Race/ethnicity		
White non-Hispanic	Ref	
Black non-Hispanic	1.34 (1.06–1.70)	.015[c]
Hispanic	1.44 (1.03–2.02)	.03[c]
Other/unknown	1.00 (0.75–1.35)	.99
Metropolitan residence as designated by the core-based statistical area[d]		
Metropolitan	Ref	...
Nonmetropolitan	0.94 (0.74–1.20)	.62
Annual income		
≤$24 999	1.14 (0.97–1.35)	.12
≥$25 000	Ref	...
Language other than English spoken at home		
Yes	0.86 (0.64–1.15)	.30
No	Ref	...
Medicare-Medicaid dual eligibility		
Yes	1.22 (0.94–1.60)	.14
No	Ref	...
Had equipment for accessing telehealth services		
Yes	1.40 (1.09–1.79)	.008[c]
No	Ref	...

Abbreviations: aOR, adjusted odds ratio; CI, confidence interval.

[a] We used the replicate weight approach of balanced repeated replication with Fay's adjustment of 0.3 for the variance estimation.

[b] Adjusted for age, sex, race/ethnicity, metropolitan residence, income, English language spoken at home, and had equipment to access telehealth.

[c] *Significant at* P < *.05 in the Rao-Scott chi-square test.*

[d] *From US Census Bureau.* 29