



Medicare Beneficiaries' Use of Telehealth in 2020: Trends by Beneficiary Characteristics and Location

Medicare telehealth flexibilities mitigated declines in in-person visits during the pandemic in 2020, but there is also evidence of disparities by race/ethnicity and for rural populations.

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KEY POINTS

- The number of Medicare fee-for-service (FFS) beneficiary telehealth visits increased 63-fold in 2020, from approximately 840,000 in 2019 to nearly 52.7 million in 2020.
- Despite the increase in telehealth visits during the pandemic, total utilization of all Medicare FFS Part B clinician visits declined about 11% in 2020 compared to levels in 2019.
- Most beneficiaries (92%) received telehealth visits from their homes, which was not permissible in Medicare prior to the pandemic.
- Prior to the pandemic, telehealth made up less than 1% of visits across all visit specialties but increased substantially in 2020. Telehealth increased to 8% of primary care visits, while specialty care had smallest shift towards telehealth (3% of specialist visits).
- Visits to behavioral health specialists showed the largest increase in telehealth in 2020. Telehealth comprised a third of total visits to behavioral health specialists. While data limitations preclude clear identification of audio-only telehealth services, up to 70% of these telehealth visits during 2020 were potentially reimbursable for audio-only services.
- Black and rural beneficiaries had lower use of telehealth compared with White and urban beneficiaries, respectively. Telehealth use varied by state, with higher use in the Northeast and West, and lower in the Midwest and South.

INTRODUCTION

In response to the COVID-19 pandemic, the Medicare program provided temporary waivers increasing telehealth flexibility for the duration of the public health emergency (PHE). There are numerous issues for policy makers to address as they consider permanent expansion of these Medicare waivers when the pandemic ends. The goal of this report is to provide information for these policy considerations by analyzing trends in Medicare fee-for-service (FFS) beneficiary use of telehealth compared to in-person visits in 2019 before the COVID-19 pandemic and in 2020 during the pandemic.

In earlier ASPE issue briefs on overall trends in Medicare FFS health care utilization, we found in-person primary care visits in early 2020 dropped precipitously at the start of the pandemic, but that drop was partially offset by an initial large increase in telehealth services.¹⁻³

In this report, we examine telehealth services for all of 2020, and compare findings by provider characteristics and beneficiary characteristics. Provider characteristics included provider specialty type, provider setting and participation in alternative payment models (APMs). In addition, we examined the types of rural provider settings include federally qualified health centers (FQHC) and rural health clinics (RHC) who may have more challenges in adopting telehealth, and previously could not serve as the distant site telehealth provider. Under Medicare rules, distant site refers to the provider delivering care via telehealth to the beneficiary who is located in an originating site, usually a health care facility.⁶ Providers in APMs have financial incentives to manage total costs of care and, due to existing telehealth waivers, may have been more prepared to implement telehealth. To assess whether telehealth may have helped maintain access to care during the pandemic, especially for vulnerable populations, we also examined potential disparities in telehealth use by beneficiary characteristics such as race/ethnicity, Medicaid dual enrollment, disability, beneficiary location (state and rurality), as well as telehealth modalities (video-enabled vs. audio-only eligible telehealth visits).

BACKGROUND

On January 31, 2020, the United States declared a public health emergency (PHE) in response to the novel coronavirus, SARS-CoV-2, that results in COVID-19 illness. Shortly afterwards, most states starting with New York and California⁴ began state-wide or local stay-at-home policies. These policies were intended to prevent transmission of COVID-19 to patients in health care settings as well as to prevent hospitals from being overwhelmed as many hospitals began to feel a strain on capacity due to the rapid influx of COVID-19 patients needing care. Some of these policies or guidance included directing health care providers to prioritize in-person care to the sickest and most vulnerable patients over routine or elective care. To protect Medicare beneficiaries from exposure to COVID-19, the Centers for Medicare & Medicaid Services (CMS) announced initial telehealth flexibilities on March 17, 2020, which were augmented through the passage of the Coronavirus Aid, Relief, and Economic Security (CARES) Act⁵ and other legislation that allowed, among other things, telehealth to be delivered at the same payment level as in-person visits for the duration of the pandemic. This set of Medicare telehealth flexibilities allowed broader use of telehealth during the pandemic and were intended to ensure beneficiaries had continued access to care despite the pandemic (see Box 1).⁶

Specifically, through the CARES Act provisions, Medicare telehealth restrictions that previously only allowed rural providers to offer telehealth were waived temporarily during the pandemic. These new flexibilities allowed many urban providers to offer telehealth services for the first time. In

BOX 1: PANDEMIC TELEHEALTH FLEXIBILITIES

The COVID-19 related waivers allowed for expansion of Medicare FFS telehealth services:

- in **urban areas** (previously only rural beneficiaries could receive telehealth services);
- in the **patient's home** (previously beneficiaries had to go to a health care facility for the telehealth visit);
- for **140 additional health care services**;
- for **additional types of providers**, who are also now allowed to serve as distant site providers, including **federally qualified health centers (FQHCs) and rural health clinics (RHCs)**;
- through **audio-only interactions** for some services; and- with **reduced or waived cost-sharing**.

addition, for the first time, audio-only telehealth services were allowed in FFS Medicare during the pandemic in recognition that not all beneficiaries had access to two-way interactive video communications, especially those in rural areas with limited broadband access or Medicare beneficiaries without Internet or video-enabled devices.

This report focuses on fee-for-service (FFS) Medicare and can help inform discussions around the continuation of Medicare telehealth flexibilities after the pandemic ends. Of note, Medicaid programs, Medicare Advantage (MA), and commercial payers had substantial discretion to implement telehealth even before the pandemic. MA plans offered contracted telehealth services to their enrollees prior to the pandemic. This study did not examine telehealth use among MA enrollees.

METHODS

This study includes all 34.9 million Medicare FFS beneficiaries who had Part A or B in 2020. We analyzed the use of in-person and telehealth visits billed by clinicians under Part B in 2019 and 2020, specifically Medicare FFS Part B outpatient and carrier (non-institutional providers) claims submitted by clinicians for health care services from January to December 2020, compared with the same period in 2019. Of note, when comparing the changes in the number of visits between 2019 and 2020, the total number of beneficiaries in this analysis reflects a small decline in Medicare FFS beneficiaries with Part B coverage from 33.08 million in 2019 to 32.25 million in 2020, resulting from growing enrollment in Medicare Advantage.

In this report we refer to Part B clinician-billed services as “visits,” as this mostly includes doctor’s offices, clinics, and hospital outpatient departments; however, Part B services also include physician consultations in inpatient settings and other facilities. Specific codes for telehealth visits provided by CMS,^{*} additional telehealth codes relevant for FQHC and RHCs, and telecommunications services for virtual check-ins and e-visits[†] were used to identify visits delivered via telehealth modalities.

In this study we classified telehealth visits broadly, including telecommunication services as well as telehealth as defined in the Medicare statute as two-way audio and video-based interactive health care visits (Box 2).

BOX 2: STUDY DEFINITION OF TELEHEALTH

- CMS defined list of telehealth services allowed during public health emergency
- Audio-only telehealth visits
- Additional telehealth codes for FQHC and RHCs
- Telecommunications services – virtual check-ins and e-visits

Telecommunications were introduced administratively by CMS in 2019 to allow brief virtual check-ins or e-services which do not meet the statutory definition of an interactive telehealth visit.⁶

We examined how total Part B health care utilization changed from 2019 to 2020 looking at both in-person services and telehealth visits, by beneficiary characteristics, visit specialty type, provider setting, telehealth modality, and geographic location of the beneficiary. Visit specialty type was based on the specialty code of the provider (see Appendix methodology)

grouped into visits with primary care, behavioral health specialists (general psychiatrists, neuropsychiatrists, psychologists, clinical psychologists, and licensed clinical social workers), and all other specialists. Since the

^{*} <https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes>

[†] <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>

analysis includes the universe of Medicare FFS beneficiaries, differences between subgroups are statistically significant at $p < 0.05$ unless noted otherwise.

We then examined if differences in telehealth use within urban/rural geographic areas varied by beneficiary characteristics and visit specialty. We identified the proportion of telehealth services that were potentially reimbursable for audio-only interaction and the proportion that were for a telecommunications service.

We did not separately identify nursing home residents in this study, but in our earlier study of COVID-19 using Medicare FFS claims data, about 1% of FFS beneficiaries were identified as long-stay residents in nursing homes. Nursing home residents may also have Part B visits and may use telehealth or have an in-person visit to see their doctor. We identified the setting where beneficiaries were located including skilled nursing facilities, inpatient hospital, hospice, transfers and the beneficiary's home.

Lastly, we identified beneficiaries attributed to one of the Medicare APMs where providers are incentivized to manage total costs of care and improve on quality and outcomes, and compare their overall health care and telehealth utilization with beneficiaries not in an APM. Detailed methods are in the Appendix.

RESULTS

The findings from our analyses are presented in 4 main areas:

- I. Trends in overall health care utilization - in-person and telehealth during 2019-2020
- II. Geographic variation in telehealth use, types of telehealth modalities in 2020 (audio vs. video), and telehealth by visit specialty type
- III. Patterns of telehealth use in 2020 by beneficiaries characteristics across urban/rural locations, race/ethnicity, dually-enrolled, and disability status
- IV. Use of telehealth among Alternative Payment Models (APMs)

I. Trends in Overall Healthcare Utilization during 2019-2020

First we examined how the pandemic affected overall health care utilization of Part B visits in 2020 compared with 2019, and how telehealth may have mitigated potential reductions in in-person visits to prevent transmission of COVID-19.

Change in Medicare FFS Part B Services: Total, by Telehealth, and In-Person Visits During 2020

Table 1 shows the net change in total Medicare FFS Part B health care visits between 2019 and 2020 based on both in-person and telehealth visits.

52.7 million visits, or 5% of Medicare FFS clinician visits, were provided via telehealth in 2020 – a 63-fold increase from 2019.

Overall total health care utilization in 2020 was 11.4% below levels from 2019, reflecting 179 million fewer visits, even after accounting for the increased use of telehealth services in 2020.

The share of Medicare Part B visits conducted via telehealth in 2020 increased 63-fold, from less than 1% of Medicare Part B visits in 2019 to 5.3% in 2020, approximately 840,000 in 2019 and 52.7 million clinician-patient interactions conducted via telehealth in 2020. The overall reduction was driven by a 16.1% decrease in in-person services, which was only partially offset by increased use of telehealth in 2020.

Table 1. Change in Medicare FFS Part B Visits (In-Person and Telehealth) from 2019 to 2020, by Beneficiary Characteristics

Beneficiary Characteristics	Change in Part B Visits - from 2019 to 2020, %			Telehealth Visits in 2020**	
	Total Change in Part B Visits (In-person & Telehealth)	Change in In-Person Visits	Change in Telehealth Visits (x times higher)	2020 Telehealth Visits as Proportion of Total Part B Visits**	2020 Telehealth Visits per 1,000 Medicare FFS Beneficiaries [§]
All	-11.4%	-16.1%	63x	6.5%	1,512
Beneficiary Residence*					
Urban	-11.3%	-16.3%	131x	5.7%	1,659
Rural	-11.6%	-15.3%	20x	4.3%	1,112
Dual-Enrollment					
Dual	-12.1%	-17.6%	31x	6.3%	2,482
Non Dual	-11.2%	-15.5%	118x	5.0%	1,278
Race/Ethnicity					
White	-11.7%	-16.3%	62x	5.3%	1,506
Black	-11.5%	-15.6%	60x	4.7%	1,572
Hispanic	-9.4%	-15.0%	68x	6.2%	1,682
Asian	-12.8%	-18.4%	12x	6.4%	1,429
American Indian and Alaskan Native	-11.0%	-15.8%	21x	5.6%	1,712
Other (non-Hispanic)	-10.9%	-16.2%	117x	6.0%	1,381

Note: Total Part B visits in 2019=1.1 billion, 2020=989.0 million; Telehealth visits in 2019=840,000, 2020=52.7 million; In-person services in 2019=1.1 billion, 2020=936.3 million. Numbers are rounded.

The change in Part B health care services between 2019 and 2020 was calculated for all Part B services and separately for in-person and telehealth services.

* Beneficiary residence is based on the location of the beneficiary's home in an urban area based on Metropolitan Statistical Area (MSA) or rural if not in a MSA.

**The number of Part B telehealth services in 2020 are reported as a percentage of total Part B services and per 1,000 Medicare beneficiaries in the subgroup in 2020.

[§]Telehealth services are per 1,000 Medicare beneficiaries in the subgroup in 2020. Numbers greater than 1,000 reflect some beneficiaries have more than 1 telehealth visit per year.

II. Geographic Variation in Telehealth Use, Types of Telehealth Modalities, and Specialty Type

In-Person Visits and Telehealth Utilization by Visit Type

Table 2 shows the total change in health care utilization for in-person and telehealth visits between 2019 and 2020 by visit specialty. Differences in the number of visits between 2019 and 2020 are provided in Appendix Table 2. Prior to the pandemic in 2019, telehealth use was low across all specialties, comprising less than 1% of all Part B visits. Specialist had the lowest use of telehealth in 2019 (about 122,400 telehealth vs. 739 million in-person visits) followed by primary care (about 400,000 telehealth vs. 347.4 million in-person visits), and highest as a share of overall visits among behavioral health specialists (about 317,800 telehealth vs. 29.3 million in-person visits) In 2020, with the expanded Medicare telehealth flexibilities, telehealth visits increased to 16.6 million for specialists (38-fold), 10.1 million for behavioral health specialists (32-fold) and 26.0 million for primary care (24-fold). In-person visits declined across all specialties: the largest decline was for behavioral health specialists (-43.8%), followed by primary care (-17.2%) and all other specialists (-14.5%). This drove the 11.4% decrease in overall health care utilization in 2020.

Changes in overall healthcare utilization and telehealth varied by the type of service provided. Specialist visits had the largest decrease in total utilization (-12.2%), followed by visits with behavioral health specialists (-10.2%) and primary care providers (-9.8%). This suggests non-behavioral health specialists were less able to substitute visits via telehealth than other providers, but had the largest change relative to their prior low use of telehealth.

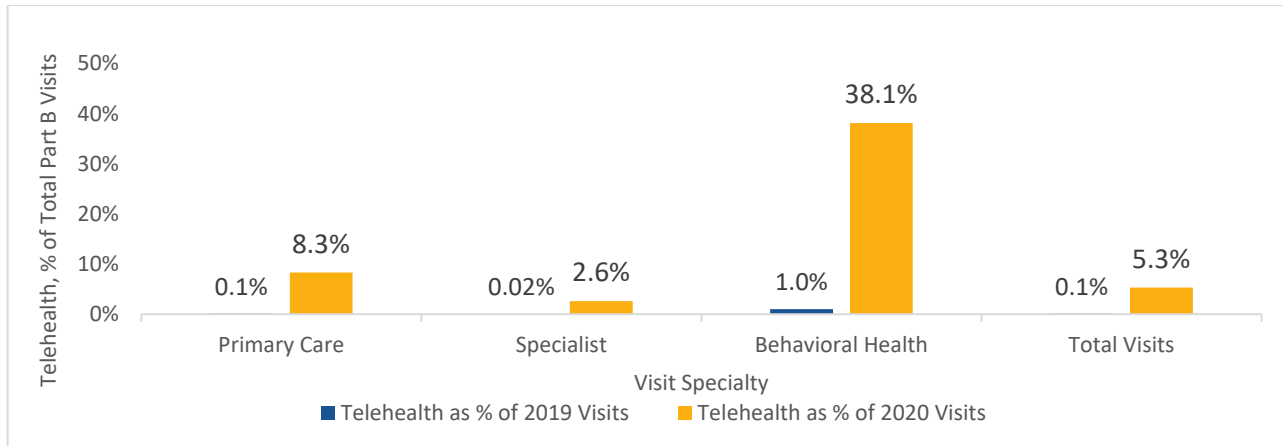
Table 2. Change in Medicare FFS Part B Visits (In-Person and Telehealth) from 2019 to 2020, by Visit Specialty

Part B Visit - By Provider Specialty	Total Change in Part B Visits (In-person & Telehealth)	Change in In-Person Visits	Change in Telehealth Visits	2020 Telehealth Visits as Proportion of Total Part B Visits
Primary Care	-9.8%	-17.2%	24x	8.3%
Specialty Care	-12.2%	-14.5%	38x	2.6%
Behavioral Health	-10.2%	-43.8%	32x	38.1%

For primary care, there were 34.1 million fewer visits in 2020 than in 2019 (Appendix table 2) even after accounting for 25.6 million primary care telehealth visits in 2020 compared to nearly 400,000 in 2019. This represents a 24-fold increase in primary care telehealth visits from pre-pandemic levels. Specialists had 90.3 million total fewer visits in 2020 than 2019, after accounting for an additional 16.6 million visits via telehealth. Even though telehealth was only 2.6% of total specialist visits in 2020, this represents 38 times higher use of telehealth among specialist visits than 2019. Visits with behavioral health specialists in 2020 saw only a small decline in total visits (about 3 million), despite 12.9 million fewer in-person visits than 2019, as this was offset by 9.8 million telehealth services in 2020, a 32-fold increase from 2019.

Figure 1 summarizes telehealth as a share of total visits by visit specialty type in 2019 and 2020.

Figure 1. Telehealth as % of Medicare FFS Part B Visits by Visit Specialty, 2019 and 2020



Compared with <1% telehealth use in 2019 across all categories, telehealth increased to 8.3% of all primary care visits and 2.6% of specialist visits in 2020. Visits to behavioral health specialists saw the largest increase in telehealth use during the pandemic, with 38.1% of all visits to these providers delivered by telehealth, compared with 1% in 2019. This suggests that behavioral health providers were able to leverage telehealth to mitigate reduced access to in-person care during the pandemic.

Weekly Trends in Medicare FFS In-Person and Telehealth Visits by Visit Specialty

Figures 2-4 show weekly trends in total Medicare FFS in-person and telehealth visits to primary care providers, behavioral health specialists, and all other specialists from January to December 2020. Note: these are weekly visit numbers whereas the numbers previously presented are the number of visits over the entire year.

Figure 2 shows for primary care, in-person visits dropped sharply at the beginning of the pandemic from nearly 7 million visits per week to 3 million in mid-April. This drop was only partially offset by an additional 1 million telehealth visits per week. In-person primary care visits gradually increased to about 6 million per week by the end of September through early December. Primary care telehealth visits peaked at about 1 million per week in April before declining to about 440,000 visits per week by the end of September, with a slight rebound up to 626,000 visits per week in early December.

For specialty care, Figure 3 shows in-person visits dropped sharply from about 14.5 million visits per week in early March to 6 million per week in mid-April. In-person specialty visits gradually increased to 13.5 million services per week to near pre-pandemic levels by the end of 2020. However, unlike primary care, specialty care did not see as large an increase in telehealth visits, with 669,000 telehealth visits per week at the peak of the pandemic, dropping to about 374,000 by early December.

For visits with behavioral health specialists, Figure 4 shows in-person visits dropped by more than half from about 550,000 visits per week at the beginning of the pandemic to just over 200,000 in April. More of this drop was offset by the increase in telehealth services compared to primary care and specialty care services. However, unlike other specialties, in-person visits to behavioral health specialists did not return to pre-pandemic levels and instead remained between 200,000 and 280,000 visits per week throughout 2020. Compared to approximately 8,000 telehealth visits per week in January 2020 before the pandemic, use of telehealth for visits to these providers declined slightly from the peak of 280,000 visits per week in May to a steady rate of about 250,000 visits per week by the end of the year.

Figure 2. Primary Care Medicare FFS Part B Visits per Week in 2020 - Telehealth versus In-Person

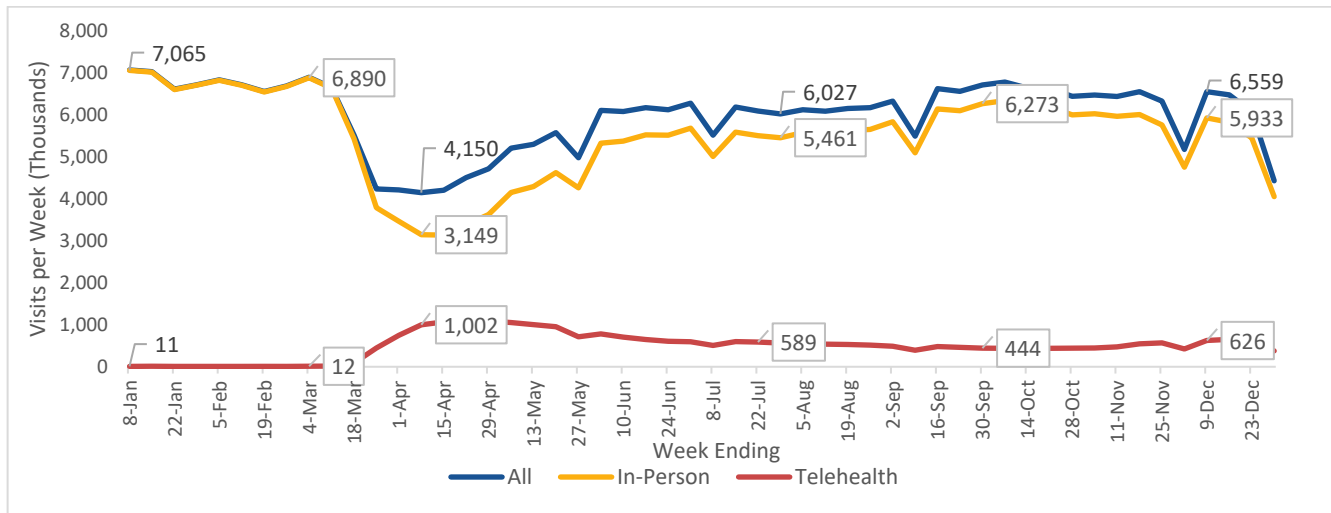


Figure 3. Specialty Care Medicare FFS Part B Visits per Week in 2020 – Telehealth versus In-Person

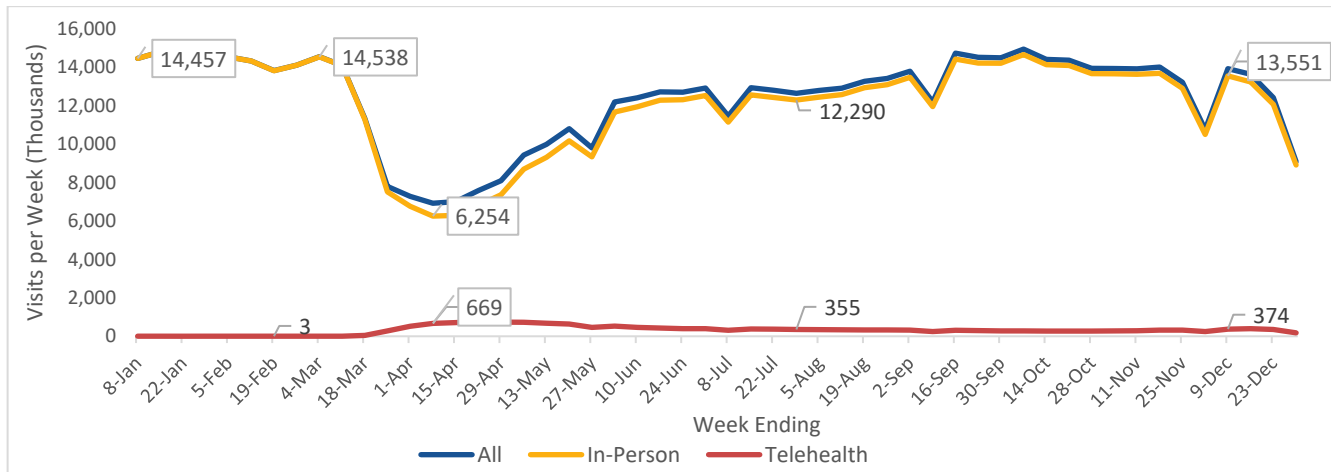
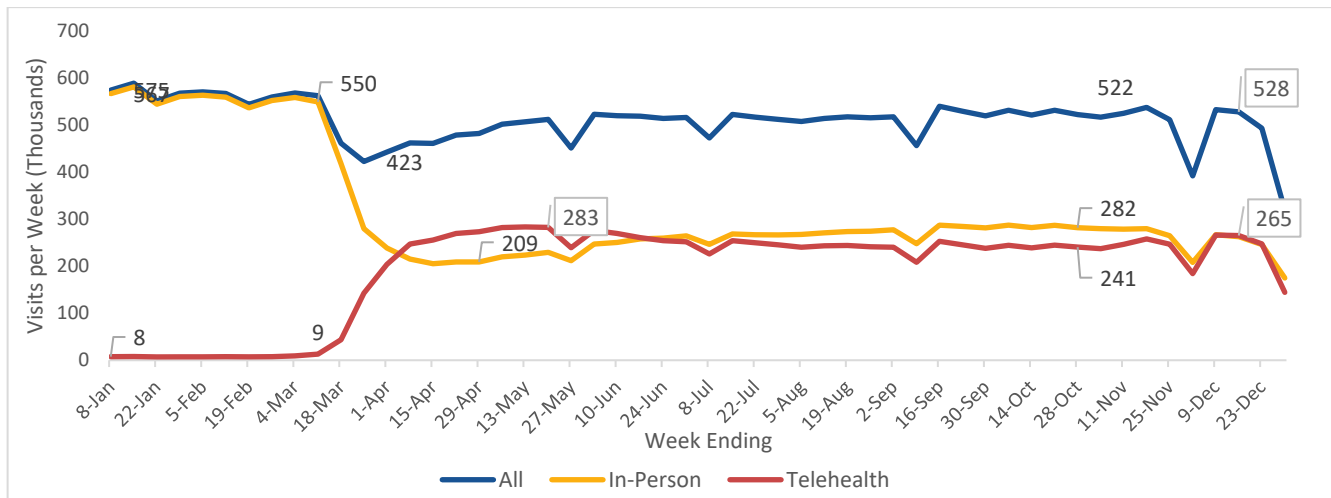


Figure 4. Behavioral Health Specialty Care Medicare FFS Part B Visits per Week in 2020 - Telehealth versus In-Person



Telehealth Modality, Overall and by Visit Specialty

Another telehealth flexibility offered by CMS during the pandemic was to allow telehealth visits to be reimbursed if they were potentially delivered via an audio-only interaction instead of a video-based interaction. This flexibility was offered to ensure access to care during the pandemic and to mitigate potential disparities in telehealth uptake due to the digital divide between urban/rural areas and for disadvantaged populations with less access to broadband and Internet-enabled devices. CMS identified specific telehealth service codes eligible for an audio-only interaction, but use of these codes may not necessarily indicate an audio-only interaction actually took place. For this reason, our estimates of the number of audio-only eligible visits are likely upper estimates of potential audio-only interactions in 2020.

We estimated audio-only eligible telehealth visits increased from a quarter of all telehealth services in 2019 to one-third in 2020 (Appendix figure 4), similar to early estimates reported by CMS.⁹ This suggests that at least two-thirds of Medicare’s telehealth visits were via interactive video-based technology.

In 2020 about half of primary care telehealth visits were eligible for reimbursement via audio-only interactions, compared to only a quarter of specialist telehealth visits. Visits with a behavioral health specialist had the largest increase in billing of audio-only eligible telehealth services, from 27% in 2019 to 70% of telehealth visits in 2020.

We estimate potential audio-only eligible telehealth visits increased 100-fold from 2019 to 2020. At the same time, use of telecommunication services – virtual check-ins and e-visits – increased more than 200-fold from 14,000 in 2019 to 3.1 million in 2020 (or from 1.7% to 5.8% of telehealth visits, Appendix Table 3), although it comprised a small proportion of total telehealth visits. Use of telecommunications services increased most for rural beneficiaries, from 1% of telehealth visits in 2019 to 12% in 2020 (Appendix figure 2).

Weekly Trends in Medicare FFS In-Person and Telehealth Visits in Urban versus Rural Areas

We also assessed differences in telehealth use between beneficiaries living in urban and rural areas. Previously, only rural Medicare beneficiaries could receive telehealth services except for beneficiaries with ESRD, stroke and other specific conditions. This geographic restriction was temporarily waived during the pandemic.

Figure 5. Urban vs. Rural Rates of Telehealth and In-Person Medicare FFS Part B Visits per Week in 2020, per 1000 Beneficiaries

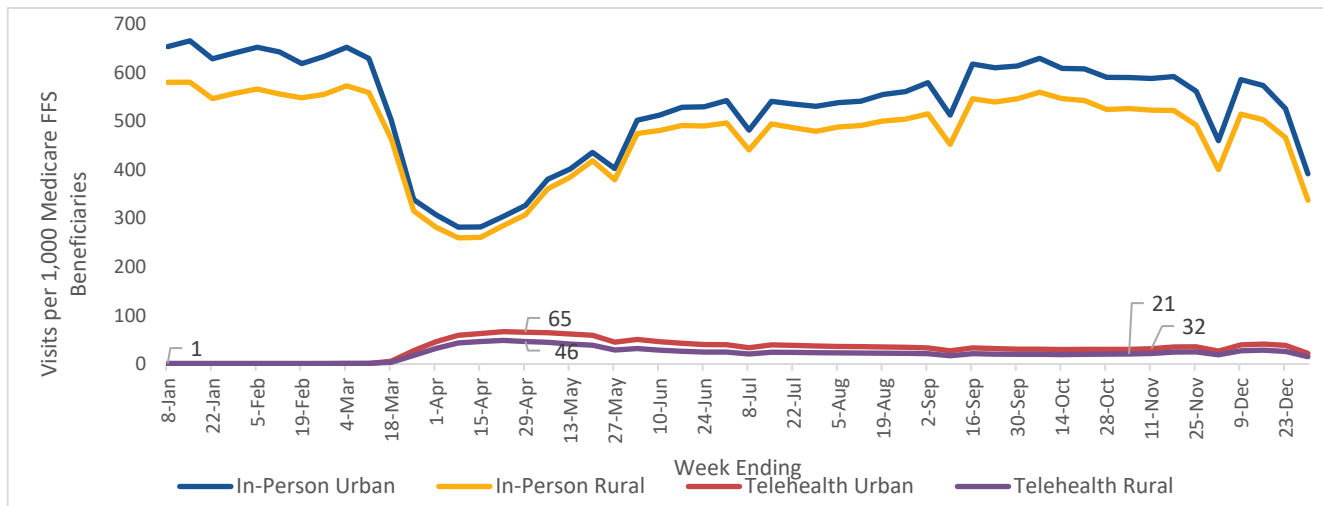


Figure 5 shows that the increase in telehealth utilization in 2020 was driven primarily by urban beneficiaries. In this figure, the number of services per week are scaled per 1,000 Medicare beneficiaries to account for different population sizes in rural and urban areas. Rural beneficiaries had lower per capita weekly rates of telehealth visits than urban beneficiaries, and a smaller increase in telehealth use from 2019-2020.

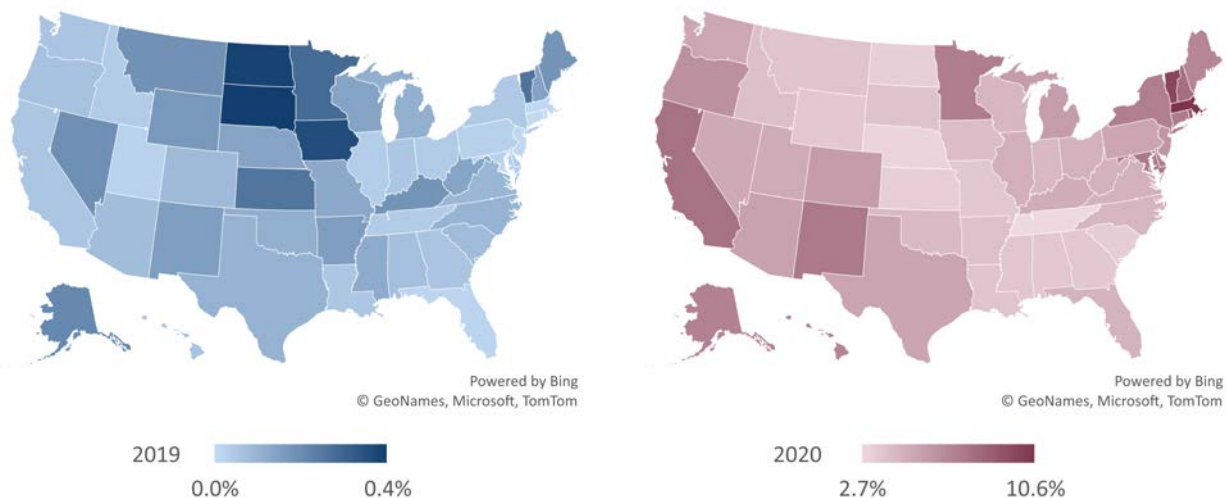
At the beginning of 2020, the rate of telehealth services increased from <1 per 1,000 Medicare beneficiaries among both urban and rural beneficiaries to 65 per 1,000 urban beneficiaries and 46 per 1,000 rural beneficiaries at the peak of the pandemic in April. It then declined to 32 and 21 per 1,000 urban and rural beneficiaries respectively by November.

Overall urban beneficiaries had about 50% higher use of telehealth than rural beneficiaries – 1,659 visits per 1,000 urban beneficiaries compared to 1,112 visits per 1,000 among rural beneficiaries (Appendix Table 2). Compared with pre-pandemic levels, this represents a 140 and 20-fold increase in telehealth use for urban and rural beneficiaries respectively.

Regional and State Variation in Telehealth Use

Maps in figure 6 show telehealth use as a proportion of total Part B visits in 2019 and 2020. Prior to the pandemic, levels of telehealth were highest in states with rural areas, as expected, due to Medicare’s geographic restrictions on telehealth in urban areas.

Figure 6. Medicare FFS Telehealth Use by State, 2019 and 2020, % of Total Medicare FFS Part B Visits



As a result of the Medicare telehealth flexibilities introduced during the pandemic, telehealth use in 2020 grew and shifted into more urban states, with the highest rates of telehealth in the Northeast and in the West (particularly California). Similar geographic patterns of telehealth have been observed in private claims data for commercial payers.¹⁴ This may be a reflection of a combination of factors, including different state telehealth policies during the pandemic,¹⁵ existing provider capacity and readiness for rapidly expanding telehealth, and high rates of COVID-19 case precipitating lock-downs, particularly in the early months of the pandemic.

The net change in health care utilization and proportion of Part B visits that were delivered via telehealth are shown for each state in Appendix Table 1.

States with the highest use of telehealth in 2020 included Massachusetts, Vermont, Rhode Island, New Hampshire and Connecticut. States with the lowest use of telehealth in 2020 included Tennessee, Nebraska, Kansas, North Dakota and Wyoming. Despite the highest uptake of telehealth in the Northeast, some of these states also had the highest net decrease in health care utilization since the start of the pandemic, such as Maine (-22.5%), Connecticut (-17.7%), New Jersey (-16.5%), Massachusetts (-16.3%), and New Hampshire (-16.1%). Both of these could be responses to the early surge of COVID-19 cases in the Northeast, resulting in lower health care use and higher uptake in telehealth.

The maps show large variation in states' use of telehealth that could reflect different state and local policies on telehealth, as well as differences in access to broadband and technology. A recent ASPE brief on Medicaid telehealth policies summarized states' telehealth policies during the pandemic.⁴³ Another ASPE brief found low-income seniors were less likely to have broadband access and geographic variation in the proportion of people in poverty with no Internet access in their household.⁴⁴ There is also variation in state policies on audio-only telehealth interactions that could explain variation in overall use of telehealth based on providers' readiness to conduct two-way interactive telehealth visits or phone-only. In New York, for instance, the state instituted a permanent policy for its Medicaid program to allow for audio-only interactions in 2020.¹⁷

Rural Providers' Uptake of Telehealth

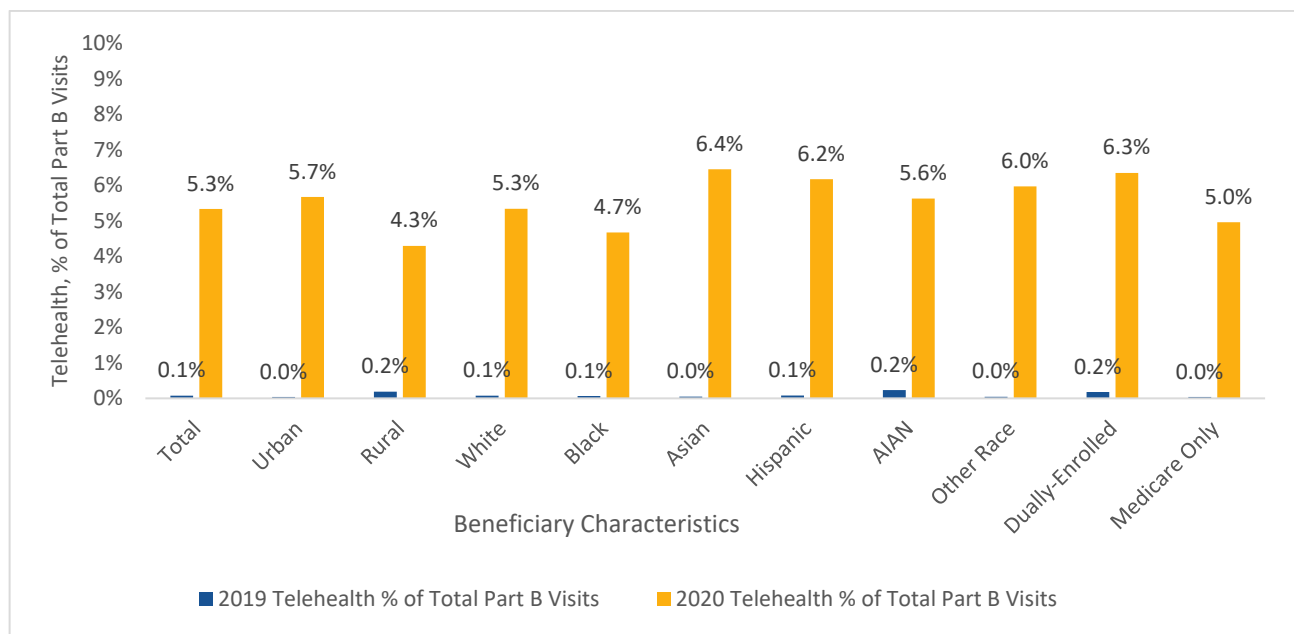
Medicare telehealth flexibilities during the pandemic allowed rural providers serving vulnerable patients – namely FQHC and RHCs – to temporarily serve as distant site telehealth providers to provide access to care for underserved and rural populations. Telehealth in these rural settings had a nearly 100-fold increase from a total of 9,000 telehealth visits in 2019 to more than 830,000 telehealth visits in 2020.

III. Patterns of Telehealth Use in 2020 by Beneficiaries Characteristics

In-Person Visits and Telehealth Utilization by Beneficiary Characteristics

Figure 7 shows the proportion of all Part B visits delivered via telehealth in 2019 and 2020, stratified by beneficiary characteristics.

Figure 7. Telehealth as % of Medicare FFS Part B Visits by Beneficiary Characteristics, 2019 and 2020



Rural beneficiaries had a lower share of telehealth use (4.3%) compared with urban beneficiaries (5.7%) in 2020. However they had similar decrease in net health care utilization (-11.3 vs. -11.6%) from 2019-2020 (Table 1).

Overall, in 2020 a lower share of Black beneficiaries had a visit via telehealth (4.7%) compared to White beneficiaries (5.3%), while a higher share of Hispanics (6.2%) and Asians (6.4%) beneficiaries had a visit via telehealth compared to Whites. Table 1 showed Asian, White and Other race beneficiaries had larger reductions of in-person services between 2019 and 2020 (-18.4%, -16.3%, and -16.2%, respectively) compared with Hispanics and Blacks (-15.0%, -15.6%). However, these racial differences were partly offset by increased use of telehealth. As a result, the overall net reduction in health care visits (in-person and telehealth combined) was similar across most race/ethnic groups, with a range of reductions from -9.4% to -12.8%.

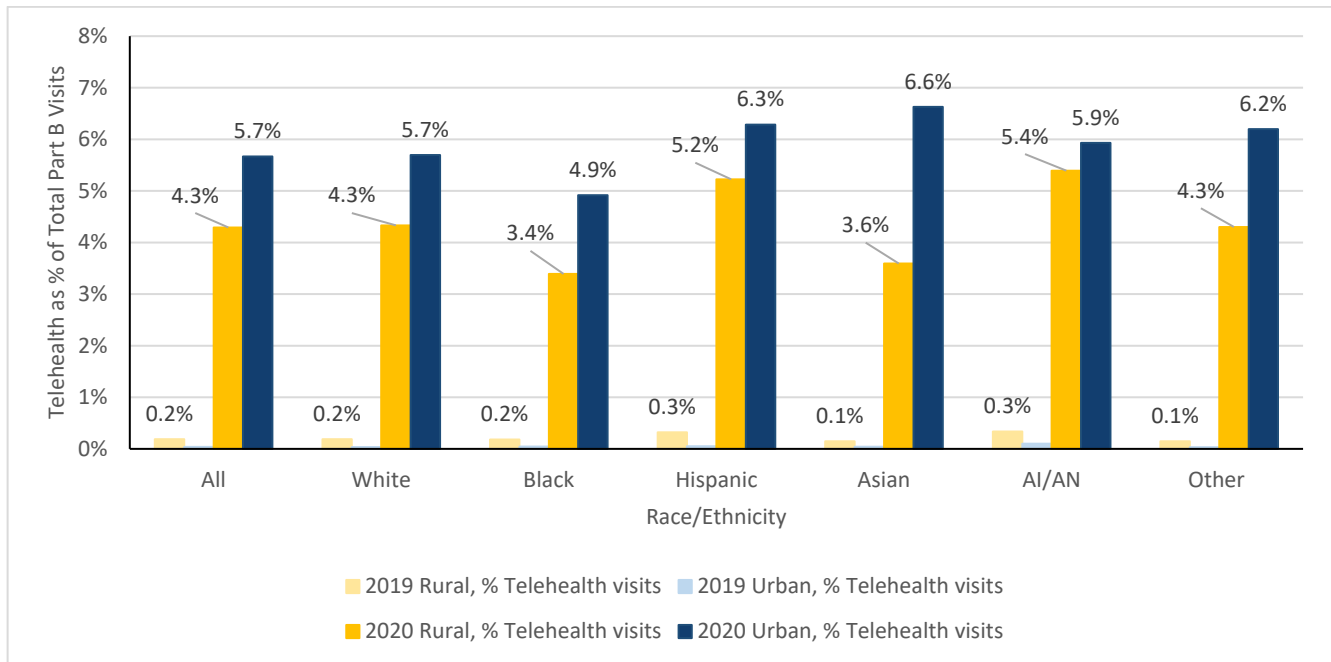
Telehealth use for low-income beneficiaries dually-enrolled in Medicare and Medicaid was higher compared with beneficiaries with Medicare only (6.3% vs. 5.0%), but they also experienced a larger decrease in net health care utilization in 2020 (-12.1% versus -11.2%, Table 1). This suggests that compared to their health care usage in 2019, despite higher use of telehealth in 2020, dually-enrolled beneficiaries may have delayed or deferred care more than beneficiaries with Medicare only.

Medicare FFS Telehealth Use by Race/Ethnicity and Urban/Rural Locations

To examine potential disparities in telehealth use, we assessed how telehealth use varied by race/ethnicity, while continuing to stratify the sample by urban versus rural residence of beneficiaries. Access to interactive video-enabled technology may differ among racial/ethnic groups in urban and rural areas, as cities may have more diverse populations and better broadband access.⁴⁰ Providers in rural areas may also face challenges with telehealth adoption due to limited broadband access and access to technologies.⁴¹

Figure 8 presents 2019 and 2020 telehealth visits as a proportion of total Part B visits by race/ethnicity and rural/urban location.

Figure 8. Telehealth as % of Part B Visits by Race/Ethnic Group and Urban/Rural Location



We found the share of overall visits that were telehealth was higher in urban areas than in rural areas for all racial/ethnic groups in 2020, reversing the pattern from 2019, when rural telehealth use was higher than urban beneficiaries) due to the Medicare geographic restrictions.

In both urban and rural areas, there is evidence of racial/ethnic disparities in uptake of telehealth in 2020. Compared with Whites, Blacks had lower telehealth use in both urban and rural areas. However, Hispanic and American Indian/Alaska Native beneficiaries had higher telehealth use than Whites in both urban and rural areas. This trend is different from studies examining telehealth disparities in younger populations⁴² as non-English speakers and recent immigrants are under-represented in the Medicare population.

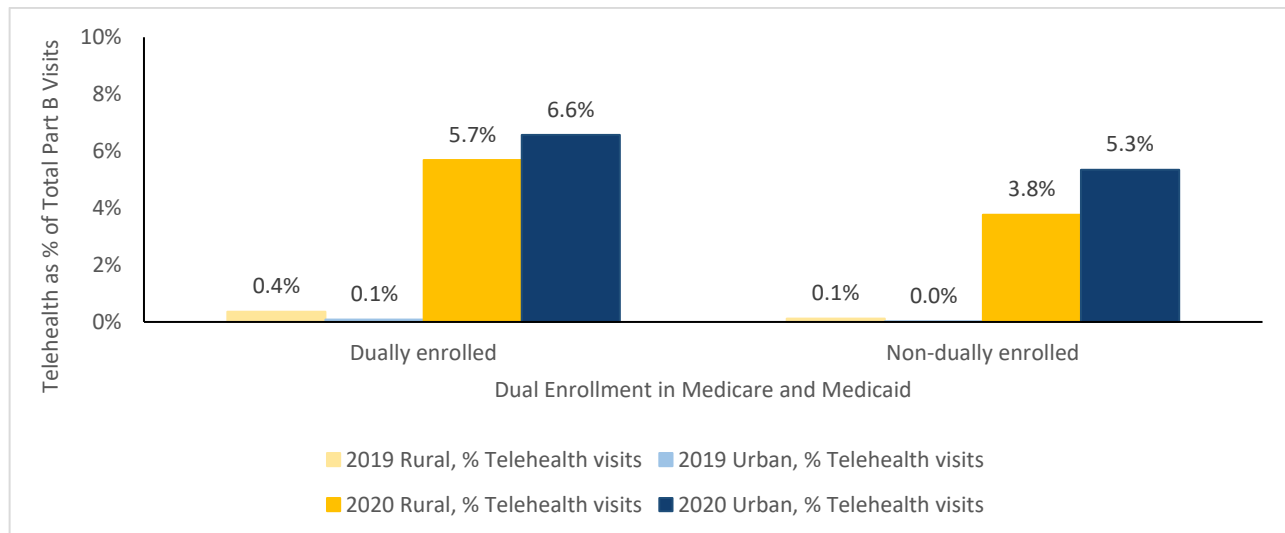
Findings were more mixed for the other racial/ethnic groups, which may partly reflect different demographics in urban versus rural areas. Asians and Other race groups in urban areas had higher rates of telehealth services than Whites, but lower or same rates in rural areas compared to Whites.

Medicare FFS Telehealth Use among Low-Income Dually-Enrolled and Urban/Rural Locations

Telehealth use among beneficiaries dually enrolled in Medicare and Medicaid was higher than telehealth use among Medicare-only beneficiaries. However we continue to find evidence that rural beneficiaries had lower uptake than urban beneficiaries across all patient sub-groups.

Figure 9 shows the telehealth visits as a share of total Part B visits by dual enrollment and urban/rural residence of the beneficiary. Beneficiaries both dual and non-dually enrolled who lived in urban areas had higher use of telehealth than those in rural areas in 2020. Dually-enrolled beneficiaries had higher use of telehealth than those not dually-enrolled.

Figure 9. Telehealth as % of Part B Visits by Dual Enrollment Status and Urban/Rural Location



Similar patterns were observed for beneficiaries where disability was the original reason for Medicare eligibility (Appendix Figure 1).

IV. Telehealth Use Among Alternative Payment Models

We examined trends in the use of telehealth by Medicare FFS beneficiaries in APMs compared to beneficiaries not in APMs. Overall telehealth use was only slightly higher for beneficiaries in APMs compared to those not in an APM; however use varied across population-based models (Appendix Figure 5).

The exception was Medicare beneficiaries in all-payer, total cost of care state-based APMs, who had higher use of telehealth compared to FFS-only beneficiaries in 2020 after Medicare telehealth flexibilities were introduced during the pandemic. Rates of telehealth for Medicare beneficiaries in 2020 was 1,762 and 2,042 telehealth visits per 1,000 Medicare beneficiaries in Vermont’s all-payer model and Maryland’s total cost of care primary care model⁵⁴, respectively, compared with 1,362 telehealth visits per 1,000 Medicare FFS beneficiaries not in an APM (Appendix Figure 6). The Medicare telehealth flexibilities were the same for both APM and FFS providers during the pandemic; few APM providers used telehealth waivers prior to the pandemic. However the difference was that both of these states implemented extensive provider education on using telehealth to support timely access to care that may have helped providers to manage total costs of care. Since providers may be unlikely to target telehealth to specific patients in their practice, the aligned incentives across all payers in these state-based models may also have encouraged APM providers to adopt and offer telehealth to reduce unnecessary in-person visits, as evidenced by the larger reductions of in-person visits among APMs.

Specialty models such as those focused on dually-enrolled beneficiaries, those with end-stage renal disease, and who need home care (not shown) had much higher rates of in-person visits in 2019 than the general FFS population, as well as higher telehealth use per beneficiary in 2020 than the general FFS population, and as compared to other broad population-based or primary care focused models. This likely reflects the greater underlying care needs of these medically-complex beneficiaries. Beneficiaries in Accountable Care Organizations (ACOs) such as the Medicare Shared Savings Program and Next Generation ACOs also appear to

reflect patients with more underlying care needs as seen in higher rates of in-person visits than FFS-only beneficiaries in the months prior to the start of the pandemic (Appendix Figure 5).

STUDY LIMITATIONS

This analysis provides a comprehensive overview of use of telehealth in Medicare FFS beneficiaries in 2020 identified from telehealth codes billed by providers. These findings are not generalizable to MA enrollees who may have different care seeking behaviors and report higher use of telehealth than FFS beneficiaries during the pandemic.⁴⁸

There are also significant data limitations in the measurement of telehealth. When the pandemic first started, there was considerable confusion among providers about use of telehealth and coding, even after CMS issued initial guidance describing telehealth flexibilities available to providers. For example, FQHC and RHCs were initially instructed to include modifier 95 appended to the claim for a telehealth visit, which was subsequently revised to be optional.⁴⁹ All other providers were generally instructed to include the modifier along with Part B service codes included in the CMS list of telehealth codes. For these reasons, the study may err in counting visits as telehealth that may have been in-person, as well as missed telehealth visits that did not include the relevant codes or modifier.

Of note, the audio-only eligible telehealth visits only indicate the telehealth service was *eligible* to be reimbursed if delivered via a phone interaction instead of a video-based interaction. The quality of a phone vs. a video-based telehealth visit also could not be assessed using claims data, and whether providers could appropriately diagnose or assess patients without a visual. The actual share of visits provided via audio-only services is likely much lower than the share eligible for audio-only reimbursement. Outside data sources indicate at least a third and up to a half of Medicare FFS telehealth visits could have been via phone during the pandemic based on data from other sources. For instance, self-reported telehealth use based on the Medicare Current Beneficiary Survey COVID-19 supplement from the fall of 2020 indicated Medicare FFS beneficiaries used audio-only telehealth for half of telehealth visits and up to 60% of telehealth visits for Medicare Advantage enrollees.⁴⁸ Further qualitative study may be needed to gauge patient and provider satisfaction with audio-only telehealth visits across a range of conditions and services to determine in what circumstances audio-only interactions may be appropriate.

While our analysis presents visits stratified by provider type – primary care, behavioral health specialists, and other specialists – it does not specifically identify those visits for behavioral health that may have occurred in primary care settings, which is an important area for future research.

Finally, we note this analysis reports the total number of Part B visits in 2019 and 2020. As some Medicare FFS beneficiaries may have had multiple visits, telehealth visit numbers reported in this study do not mean all 34.9 million FFS beneficiaries had a telehealth or in-person visit in for 2020. A new data brief by CMS reports that about half of all Medicare (FFS and MA) beneficiaries who had a Part B visit in 2020 were telehealth users, or about 28.3 million unique Medicare telehealth users, with a higher proportion among those whose original reason for Medicare entitlement was a disability, ESRD or dual enrollment in Medicaid, and lower for beneficiaries living in rural areas.⁵³ Those findings underscore that while telehealth expanded and grew, not all beneficiaries used telehealth during the pandemic.

SUMMARY & DISCUSSION

In summary, our study has several major findings demonstrating increased use of telehealth by Medicare beneficiaries and providers during the pandemic that helped maintain beneficiaries' access to care when in-person care was reduced. It also showed some evidence of disparities in use of interactive video-based telehealth among vulnerable populations, but were still able to access care remotely by higher use of audio-only and telecommunications services. Finally, telehealth was not able to replace all in-person visits, especially for specialist care.

Here are several key findings and discussion of the implications for Medicare telehealth policies.

- **Despite the substantial increase in telehealth use in 2020 compared to 2019, net health care utilization declined over the course of the pandemic in 2020 relative to 2019, driven by declines in in-person services.**

The early months of the pandemic in 2020 showed for a dramatic increase in telehealth use, especially for visits to behavioral health providers. With some return to in-person visits by the end of 2020, telehealth use declined from its peak by half, from 60 per 1,000 beneficiaries to about 30 per 1,000 beneficiaries (i.e. from 6% to 3% of Part B services). Allowing Medicare beneficiaries to receive telehealth services from their home helped maintain beneficiary access to care during the pandemic and significantly increased use of telehealth, which was previously quite low (under 1%). Sustained telehealth use across visit specialties at the start of the pandemic and throughout 2020 underscores the role of telehealth in mitigating the large declines in health care utilization across visit specialties due to the pandemic, especially to behavioral health specialists. Future analyses may examine to what extent telehealth use may return to pre-pandemic levels or substitute for in-person visits after the pandemic ends, as well as to what extent telehealth may have helped mitigate delays in preventive care services during the pandemic.

- **The largest increase in telehealth use in 2020 was for visits to behavioral health specialists.**

Telehealth comprised a third of all visits to behavioral health specialists for the year as a whole, and by the end of 2020, telehealth visits to these providers were equally common as in-person visits. Thus, the shift to telehealth was both larger and more durable for behavioral health specialists than for primary care or other specialists. About 70% of telehealth visits to behavioral health specialists were eligible for reimbursement for via audio-only telehealth, far higher than for other types of medical care.

These findings on telehealth services in the realm of behavioral health are in line with previous studies,^{23, 24} which found an increase in virtual behavioral health services during the pandemic across all age groups. CDC reported a surge in mental health-related diagnoses, substance use, and suicidal ideation during the pandemic.²⁵ The need for behavioral health could be related to several factors such as stress, loneliness, unemployment, and economic uncertainty during the pandemic. Behavioral health services could also be well-suited to telehealth as physical exams or in-person diagnostic tests may be less frequently required.

- **There was generally higher telehealth use in urban areas compared to rural areas in 2020, as well as substantial variation across states.**

Removal of the broad urban geographic restrictions on Medicare telehealth policies reversed the slightly higher use of telehealth among rural Medicare beneficiaries before the pandemic, resulting in higher use of telehealth among urban beneficiaries during the pandemic.

Lower telehealth use by rural beneficiaries may be due to limitations in broadband access and challenges with Internet availability and affordability.²⁸ This is supported by our analysis showing lower rates of overall telehealth use among rural beneficiaries. Telehealth also provides an opportunity to leverage technology platforms to support patients with hearing and vision needs as well as allow third-party interpreters for non-English speaking patients; however this opportunity has not yet been realized.⁴⁶ This underscores the need for policy-makers to address the digital divide, by increasing broadband access and supporting individuals' access to and comfort with using Internet-enabled technology and integrating telehealth with interpreter services.

We also found wide variation in telehealth use across states, with higher usage in more urban states in the Northeast and West Coast than in rural states. Geographic variation in telehealth adoption and access may also reflect differences in state telehealth policies affecting providers' readiness to implement telehealth.³³ Another reason for the differences in telehealth use between states may be in response to COVID-19 affecting areas at different times, reflecting both patients' perception of risk from COVID-19 and providers' readiness to adopt telehealth.⁴⁷

- **Black people had slightly lower telehealth use than White people, while Asian people and Hispanic people had higher use. However all groups had a similar overall decrease in health care services in 2020.**

Differences among Medicare beneficiaries by racial/ethnic group and urban/rural location may reflect impaired access to the Internet or smartphones to support interactive two-way video-based communications. These differences in telehealth use by rurality and race/ethnicity may also reflect, among other things, different patient preferences and comfort with using digital technology. Disparities in telehealth use warrant more research to better understand the underlying drivers. This analysis did not account for other factors that may explain lower telehealth use among Black people, such as individual access to an Internet-enabled device, Internet affordability, and age. One study found Black and Latino patients were also less likely to use an electronic personal health record,²⁷ which is one way patients can initiate an e-visit to communicate with providers. A survey of Medicare beneficiaries during the pandemic found older adults, minorities, those with a lower income, and non-English speakers had less availability of telehealth equipment and were less likely to use telehealth.⁵⁵ These results highlight a potential continued role for audio-only telecommunications modalities for those with limited access to the Internet or technology. Higher use of telehealth in urban areas also suggests the potential for telehealth to perpetuate health care disparities in rural areas.

- **Dually-enrolled beneficiaries had higher telehealth use in 2020 than other Medicare beneficiaries, but this was not enough to offset particularly large reductions in in-person care for this group.**

Even though our study found dually-enrolled and disabled beneficiaries had higher telehealth use in 2020 compared to Medicare-only or non-disabled beneficiaries, this was in the context of a larger net decrease in health care services for this population; telehealth only partly mitigated declines in their net health care utilization between 2019 and 2020. While in-person visits decreased and telehealth use increased across all patient subgroups including in analyses by race and ethnicity, dually-enrolled and disabled beneficiaries were the key patient groups who had higher telehealth use than others but also a larger decrease in overall health care utilization. This suggests these groups had underlying care needs that could not be completely addressed by telehealth.²⁸

Medicare beneficiaries dually-enrolled in Medicare as well as those with a disability are a high-need population with multiple comorbidities, functional limitations and disabilities that may not be completely addressed via a telehealth visit.³¹ For example, frail, homebound patients may require remote monitoring in conjunction with

telehealth visits as well as in-person home visits and in-home health care support.³² Continued attention to overall health care accessibility for vulnerable populations is needed.

- **More research is needed on the impact of telehealth on health outcomes and costs, as well as the role of value-based purchasing in supporting telehealth**

Additional research will be needed to evaluate whether increased access to telehealth during the pandemic helped to mitigate potential negative impacts on health as well as potentially improve quality or outcomes, especially in APMs where there may be greater financial incentives to use telehealth to control total costs of care.

The finding that overall health care utilization was lower in 2020 than 2019 should be interpreted cautiously, since health care demand was dampened in 2020 due to general concerns with seeking care during the pandemic, with patients foregoing or deferring less urgent care to later.³⁵ During the pandemic, telehealth visits were mostly replacing the consultative aspects of in-person care. Extending telehealth flexibilities in a post-pandemic world could lead to higher health care utilization, especially if providers are paid the same rates for telehealth as in-person visits. One study prior to the pandemic found evidence of additional in-person services following an initial telehealth visit for acute respiratory infections.³⁴

For these reasons, it is difficult to extrapolate from these data whether net health care utilization post-pandemic would be higher, lower, or the same if telehealth flexibilities are extended. For example in March 2020, the Congressional Budget Office (CBO) had originally estimated telehealth during the pandemic would cost \$490 million for 3 years 2020-2022, \$110 million in 2020, \$160 million in 2021 and \$220 million in 2022.³⁶ However CBO did not take into account lower in-person visits during the pandemic and has not updated its estimates based on actual health care utilization in 2020.

If telehealth flexibilities are temporarily extended post-pandemic, as suggested by MedPAC,¹⁶ this would allow evaluations of whether telehealth use during non-pandemic times may increase overall health care utilization as suggested by some studies,³⁴ or simply substitute for in-person services, as well as whether telehealth use is impacted by participation in APMs.³⁷

Telehealth, coupled with value-based payment arrangements, could allow providers to interact more proactively with patients to impact health care outcomes and spending. In September 2020, the Physician Focused Technical Advisory Committee, staffed by the Office of the Assistant Secretary for Planning and Evaluation (ASPE), discussed lessons from providers' use of telehealth during the pandemic in APMs and from an environmental scan of telehealth.³⁸ These lessons spanned four themes around telehealth: infrastructure, barriers and enablers, payment issues, and areas where more research is needed, especially among APMs. Further evaluation is also needed to understand if and how higher use of telehealth in CMS's state-based, all-payer total cost of care models may have mitigated the impacts of the pandemic on total costs and health outcomes due to aligned providers incentives across payers.

Conclusion

This report outlines several key areas of interest and policy relevance to the question of whether to extend telehealth flexibilities, for which services, and how to address disparities in the use of telehealth services. The findings from this Report highlights the role of telehealth for delivering care to beneficiaries in their home

especially for those seeing behavioral health specialists, and raises important questions about how to prevent telehealth from exacerbating existing disparities by race/ethnicity and rurality. The differences in telehealth adoption by visit specialty also has policy implications for the types of services which can be substituted by a telehealth visit, and where an in-person visit or service may still be needed. Our findings showing net decline in health care utilization in 2020 – despite large increase in telehealth – underscore the need to carefully consider the extension of Medicare telehealth flexibilities after the pandemic ends and evaluate the impacts of telehealth on patient access, health care quality, and health outcomes.

APPENDIX: DETAILED METHODOLOGY AND ASSUMPTIONS

Definition of Telehealth

We used a broad definition of telehealth for this study that includes codes for telecommunications services in addition to codes for CMS-defined telehealth services and telehealth services in safety-net providers. We first used the CMS list of telehealth services which uses CPT/HCPCS codes to categorize services as in-person or telehealth, supplemented with additional telehealth codes and modifiers used by safety-net providers - FQHC and RHCs. This list identifies three categories of telehealth services, (1) health care services that were eligible for telehealth before the pandemic, (2) services added only for the PHE, and (3) specific telehealth services allowed during the PHE to be delivered via an audio-only interaction (which we describe as “audio-only eligible” services, which means they could be delivered audio-only, but in practice we cannot distinguish between telehealth services delivered with video or via audio-only). In addition to the CMS list of telehealth service codes and modifiers, we identified additional CPT and HCPCS codes used for phone or Internet-based interactions and telehealth in FQHC and RHCs. We also examined the use of telecommunications such as virtual check-ins and e-visits in 2019 and 2020; these codes were first introduced by CMS in 2019.

Part B Clinician Services

This analysis identifies all Part-B billed health care services from different clinicians, even if they occurred on the same day. Clinicians bill Medicare Part B for their professional services including specialist consultations in inpatient facility settings, as well as ambulatory visits. Each visit is a unique combination of an individual beneficiary, visit date, visit clinician (identified using their NPI), and zip code where the beneficiary resides. The NPI information is used to categorize the type of service provided (primary care versus mental health versus specialty care) and the provider setting including safety-net providers such as FQHCs, RHCs, and critical access hospitals.

For all Part B services, we identified three visit specialty types based on the specialty of clinician - primary care, specialists and specialty mental and behavioral health providers. The latter include general psychiatrists, neuropsychiatrists, psychologists, clinical psychologists, and licensed clinical social workers.

We also identified the originating site location of the telehealth visit – the beneficiary’s home, hospital, skilled nursing facility, transfers and hospice (Appendix figure 3).

Beneficiary Characteristics

Beneficiary characteristics were identified from the Medicare enrollment database, which includes information on race/ethnicity from the Social Security Administration and the RTI recoded race variable that uses surname analysis to improve identification of Hispanic ethnicity; dual-enrollment in Medicaid; and original reason for Medicare entitlement including disability, old age or ESRD.

Demographic information including race/ethnicity from SSA records is available for most beneficiaries, although the accuracy of some race/ethnic groups is lower. These data also include the zip-code of the beneficiary’s residence, which was used to determine urban location (defined here as being located in a metropolitan statistical area (MSA)), or rural location (defined here as non-MSA). In these data, the racial/ethnic groups available are non-Hispanic White (referred to here as White), non-Hispanic Black (referred to here as Black), Hispanic, non-Hispanic Asian (referred to here as Asian), non-Hispanic American Indian/Alaska Native (referred to here as AI/AN), and non-Hispanic Other (referred to here as Other).

APPENDIX: SUPPLEMENTAL ANALYSES

Table 1: Total Medicare FFS Part B Visits and Telehealth Visits, by State (*excludes services added only for PHE & telecommunications)

	Total Medicare Part B Health Visits			Telehealth as % of Total Part B Visits	
	2019	2020	% change	All telehealth visits	CMS-defined telehealth*
Alabama	17,217,890	15,109,419	-12.2%	3.5%	3.1%
Alaska	2,052,907	1,889,097	-8.0%	6.9%	6.2%
Arizona	21,593,251	19,776,499	-8.4%	5.4%	5.0%
Arkansas	12,872,847	11,490,496	-10.7%	3.8%	3.3%
California	92,301,841	83,334,378	-9.7%	7.7%	6.2%
Colorado	12,750,198	11,608,792	-9.0%	5.6%	4.7%
Connecticut	13,026,744	11,170,307	-14.3%	7.2%	5.8%
Delaware	5,802,797	5,186,409	-10.6%	7.0%	5.9%
District of Columbia	2,083,663	1,795,866	-13.8%	6.9%	5.9%
Florida	85,529,436	77,235,156	-9.7%	4.5%	4.2%
Georgia	30,879,781	27,527,271	-10.9%	3.5%	3.2%
Hawaii	2,918,646	2,659,218	-8.9%	6.7%	5.8%
Idaho	5,305,430	4,744,452	-10.6%	3.9%	3.2%
Illinois	50,829,325	44,902,257	-11.7%	4.7%	4.0%
Indiana	26,208,178	22,874,383	-12.7%	4.2%	3.7%
Iowa	13,192,077	11,822,267	-10.4%	4.0%	3.1%
Kansas	12,551,351	11,410,033	-9.1%	3.2%	2.8%
Kentucky	18,330,648	15,662,512	-14.6%	4.8%	3.8%
Louisiana	17,122,273	15,127,417	-11.7%	3.7%	3.3%
Maine	5,880,099	4,705,462	-20.0%	6.7%	5.4%
Maryland	26,155,479	23,402,830	-10.5%	7.3%	6.9%
Massachusetts	31,111,388	27,101,623	-12.9%	10.6%	9.4%
Michigan	37,921,377	30,545,677	-19.4%	5.6%	4.7%
Minnesota	14,614,839	12,720,985	-13.0%	7.1%	6.1%
Mississippi	15,275,134	13,585,365	-11.1%	3.6%	3.1%
Missouri	22,470,986	19,975,174	-11.1%	3.5%	2.9%
Montana	4,089,612	3,773,331	-7.7%	3.7%	3.0%
Nebraska	7,945,504	7,080,605	-10.9%	2.9%	2.4%
Nevada	8,735,912	8,095,233	-7.3%	4.9%	4.4%
New Hampshire	6,404,857	5,581,017	-12.9%	7.8%	6.5%
New Jersey	38,661,060	33,523,975	-13.3%	5.9%	5.6%
New Mexico	6,120,544	5,390,216	-11.9%	7.3%	5.7%
New York	69,233,106	61,245,041	-11.5%	7.1%	6.3%
North Carolina	36,909,801	32,961,832	-10.7%	4.4%	3.9%
North Dakota	2,867,179	2,649,676	-7.6%	3.2%	2.2%
Ohio	39,714,891	34,632,489	-12.8%	4.5%	3.9%
Oklahoma	16,344,327	14,677,102	-10.2%	4.2%	3.7%
Oregon	10,275,518	9,201,329	-10.5%	6.2%	4.9%
Pennsylvania	48,660,353	42,647,843	-12.4%	5.1%	4.7%
Rhode Island	3,233,586	2,817,932	-12.9%	8.9%	7.8%
South Carolina	22,737,639	20,619,294	-9.3%	3.2%	2.9%
South Dakota	3,465,661	3,196,191	-7.8%	3.8%	2.7%
Tennessee	23,811,792	21,321,324	-10.5%	2.7%	2.4%
Texas	76,448,580	68,680,175	-10.2%	5.2%	4.7%
Utah	5,645,263	5,182,013	-8.2%	4.9%	4.1%
Vermont	3,043,159	2,700,711	-11.3%	9.8%	7.5%
Virginia	33,269,088	29,262,531	-12.0%	4.6%	4.2%
Washington	20,910,384	18,545,344	-11.3%	5.1%	4.1%
West Virginia	8,223,867	7,018,633	-14.7%	4.6%	3.2%
Wisconsin	17,997,361	15,763,726	-12.4%	4.4%	3.6%
Wyoming	2,526,016	2,364,184	-6.4%	3.5%	2.7%

Table 2. Total Part B Visits by In-Person vs. Telehealth in 2019 and 2020, by Beneficiary Characteristics and Visit Specialty

Beneficiary Characteristic	2019 In-Person Visits	2019 Telehealth Visits	2020 In-Person Visits	2020 Telehealth Visits	Change in Part B Visits (2020-2019)
Total	1,115,665,060	840,055	936,286,481	52,725,505	-127,493,129
Residence*					
Urban	841,902,410	322,777	704,347,350	42,323,356	-95,554,481
Rural	273,762,650	517,278	231,939,131	10,402,149	-31,938,648
Dual-Enrollment					
Dual	301,007,727	535,197	248,172,460	16,815,745	-36,554,719
Non Dual	814,656,503	304,858	688,113,768	35,909,746	-90,937,847
Race/Ethnicity					
White	909,062,458	695,140	760,846,813	42,874,865	-106,035,920
Black	121,339,330	83,072	102,431,874	5,017,831	-13,972,697
Hispanic	24,950,790	20,430	21,219,432	1,394,808	-2,356,980
Asian	19,359,284	9,044	15,801,523	1,088,931	-2,477,874
AIAN**	6,497,566	15,297	5,472,008	326,094	-714,761
Other	15,661,892	7,114	13,126,628	832,714	-1,709,664
Beneficiary Characteristic	2019 In-Person Visits	2019 Telehealth Visits	2020 In-Person Visits	2020 Telehealth Visits	Change in Part B Visits (2020-2019)
Visit Specialty					
Primary Care	347,396,955	399,883	287,656,556	25,993,801	-34,146,481
Specialty Care	738,928,330	122,366	632,149,325	16,591,944	-90,309,427
Behavioral Health	29,339,775	317,806	16,480,600	10,139,760	-3,037,221

* Beneficiary residence is based on the location of the beneficiary's home in an urban area based on Metropolitan Statistical Area (MSA) or rural if not in a MSA.

**AIAN: American Indian/Alaskan Native

Figure 1. % Telehealth Visits by Disability Status and Rural/Urban Location

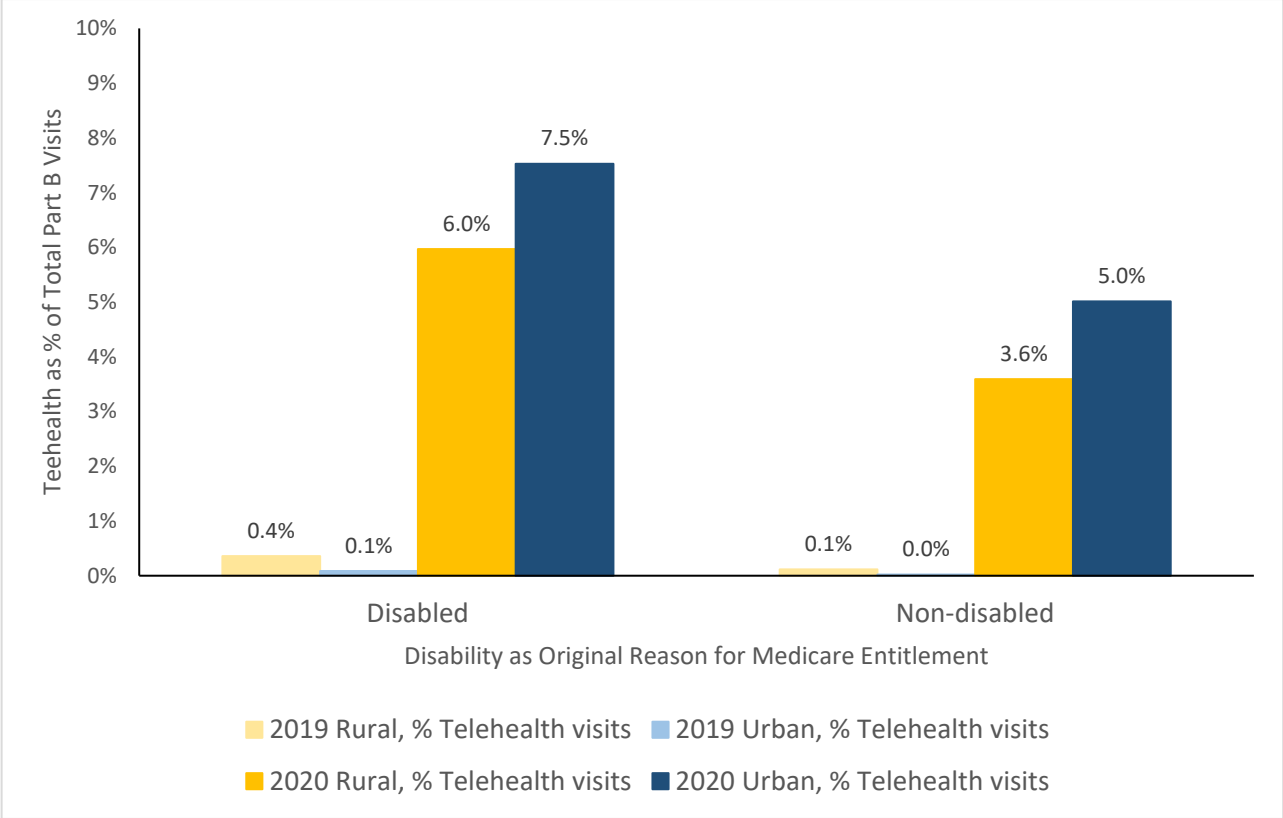
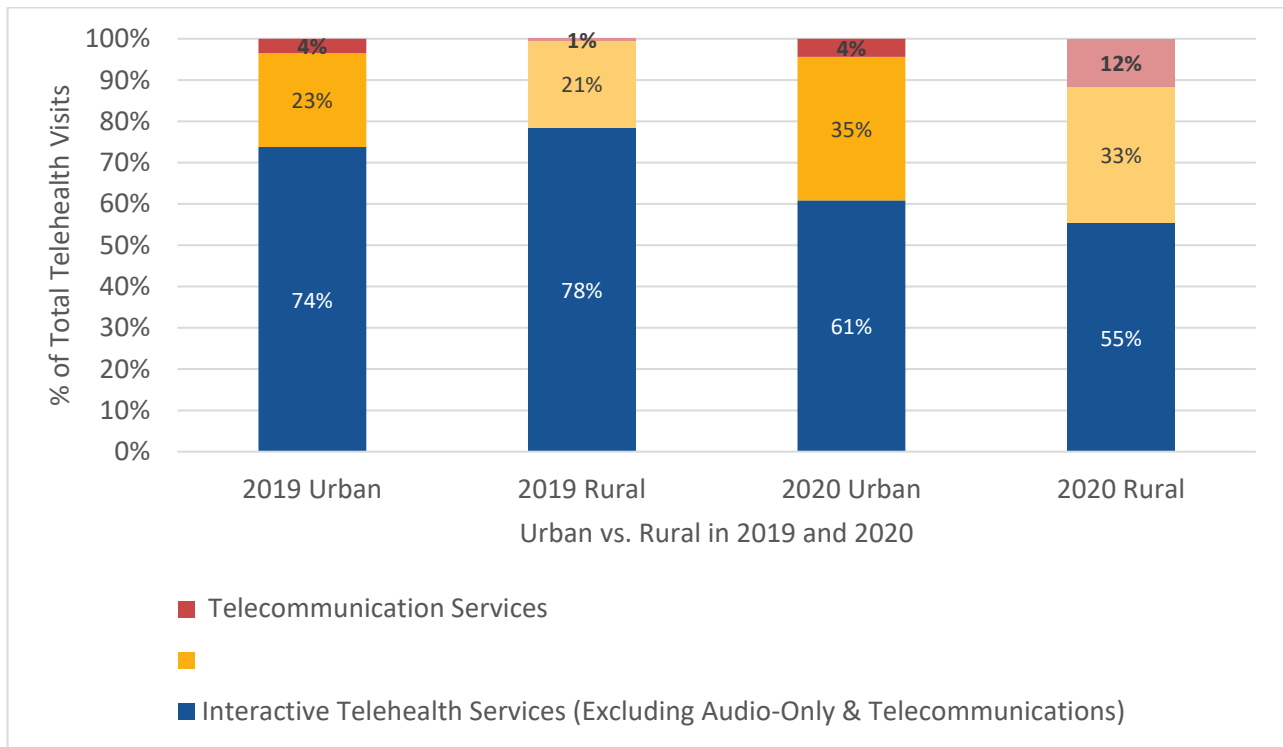


Figure 2. Telehealth Visits by Modality - Urban/Rural Location in 2019 and 2020



Note: "Audio-only eligible" refers to telehealth services that could be delivered via an audio-only modality, but coding and data limitations preclude determining whether those services in fact were delivered with video or via audio-only.

Figure 3. Location of Medicare Telehealth Visits in 2020 (originating site where beneficiary is located)

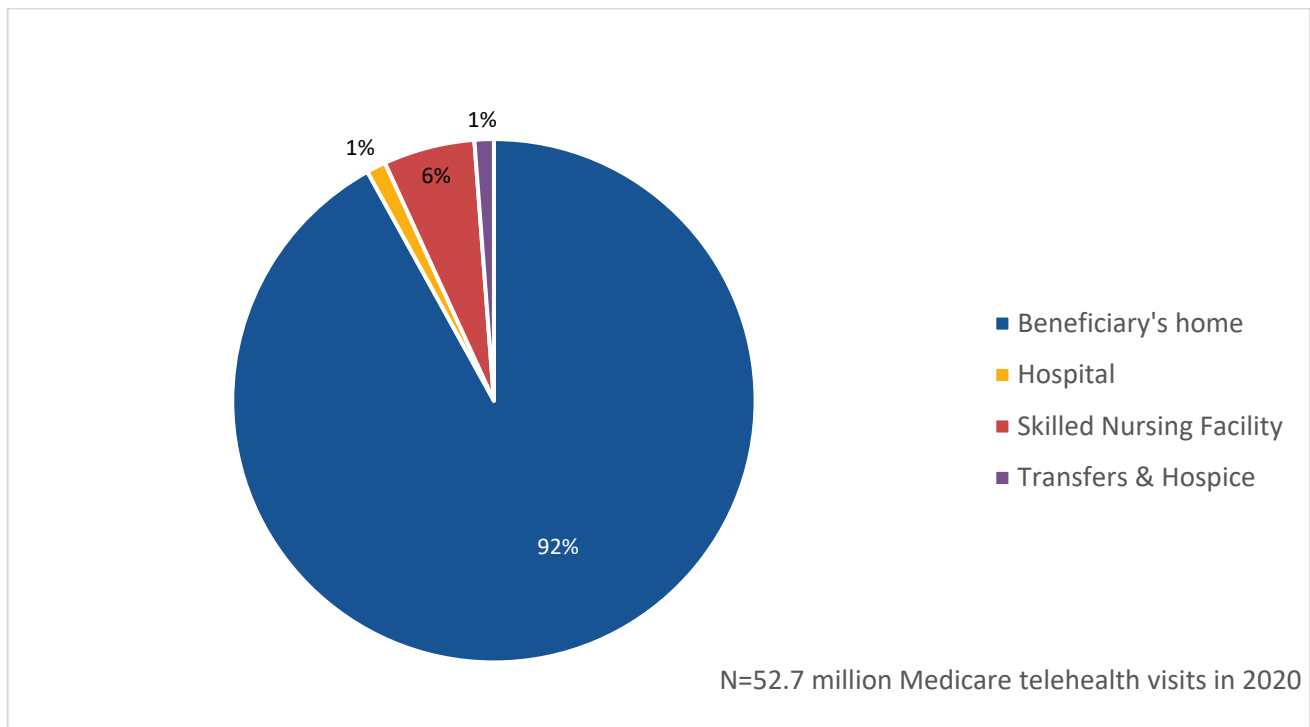
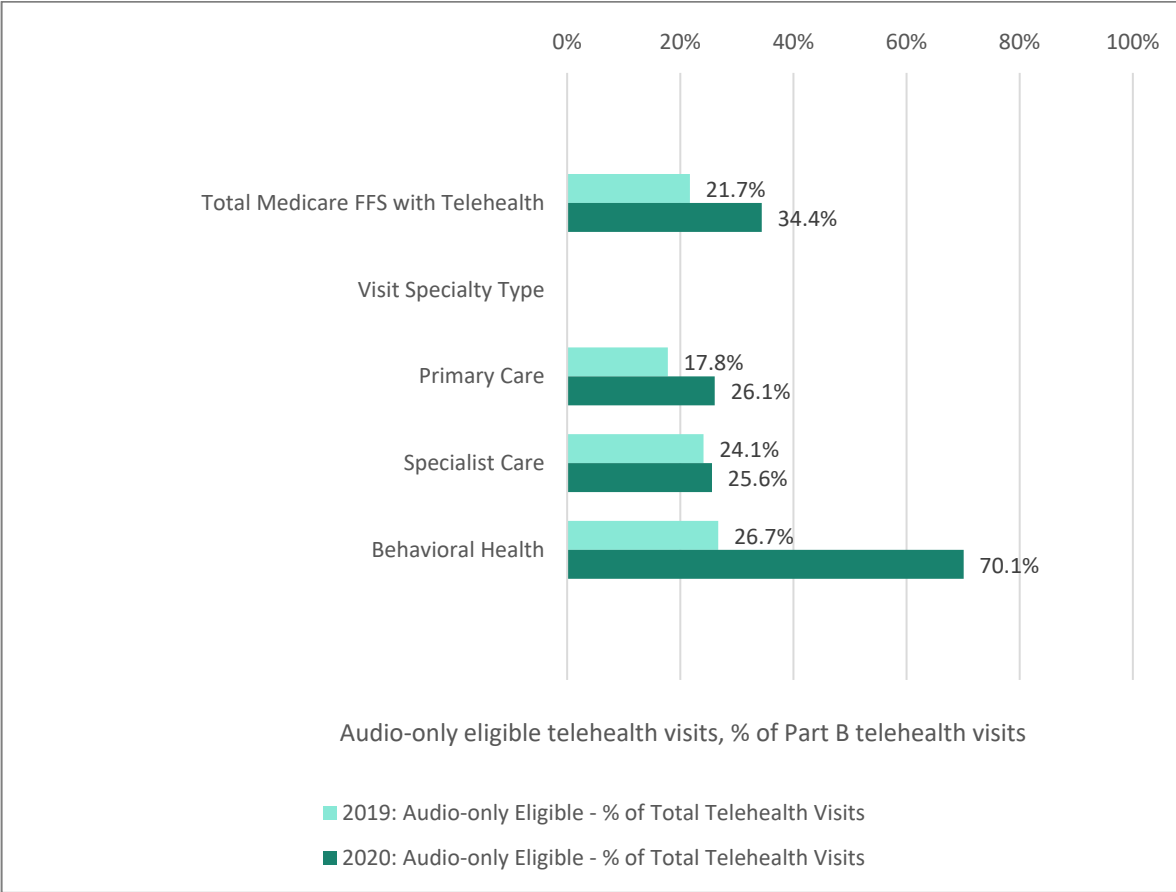


Figure 4: Audio-Only Eligible Telehealth Visits, % of Medicare FFS Telehealth Visits by Visit Type in 2019 and 2020



Note: “Audio-only eligible” refers to telehealth services that could be delivered via an audio-only modality, but coding and data limitations preclude determining whether those telehealth services in fact were delivered with video or via audio-only.

Table 3. Audio-Only Eligible Telehealth Visits and Telecommunications in 2019 and 2020 in 2019 and 2020, Total and per 1,000 Medicare FFS Beneficiaries

Beneficiary Characteristic	2019				2020			
	Audio-Only Eligible Telehealth Visits	2019 Telecomm. Services	Telecomm. % of Total Telehealth	Telecomm. per 1,000 Medicare FFS benes	Audio-Only Eligible Telehealth Visits	Telecomm. Services	Telecomm as % of Total Telehealth Visits	Telecomm. per 1,000 Medicare FFS beneficiaries
Total	181,860	14,053	1.7%	0.4	18,135,072	3,063,893	5.8%	88
Residence								
Urban	73,269	11,349	3.5%	0.4	14,699,297	1,860,725	4.4%	73
Rural	108,591	2,704	0.5%	0.3	3,435,775	1,203,168	11.6%	129
Dual-Enrollment								
Dual	107,096	3,845	0.7%	0.5	5,625,200	1,771,314	10.5%	261
Non Dual	74,764	10,208	3.3%	0.4	12,509,871	1,292,577	3.6%	46
Race/Ethnicity								
White	153,969	11,999	1.7%	0.2	15,081,118	2,261,213	5.3%	79
Black	17,128	1,381	1.7%	0.4	1,631,168	338,972	6.8%	106
Hispanic	4,483	180	0.9%	0.2	357,702	212,606	15.2%	256
Asian	1,169	104	1.1%	1.1	260,431	102,944	9.5%	135
AIAN*	2,178	52	0.3%	0.3	140,541	37,137	11.4%	195
Other	1,168	149	2.1%	0.3	251,454	46,553	5.6%	77
Visit Specialty								
Primary Care	70,671	11,801	8.9%	0.3	6,776,802	2,307,976	8.9%	66
Specialty Care	29,536	1,223	1.7%	0.0	4,246,020	280,244	1.7%	8
Behavioral Health	81,653	1,029	4.7%	0.0	7,112,250	475,673	4.7%	14

Note:

*AIAN: American Indian/Alaskan Native

“Audio-only eligible” refers to telehealth services that could be delivered via an audio-only modality, but data limitations preclude determining whether those telehealth services in fact were delivered with video or via audio-only.

Table 4. Visit Specialty and Characteristics of Medicare FFS Beneficiaries in Alternative Payment Models (APM) vs. Not in APMs: In-person and Telehealth Visits

Beneficiary Characteristics	2020 In-Person Visits % of Total Part B Visits		2020 Telehealth Visits % of Total Part B Visits			
	2020 FFS (Non-APM)	2020 APM	2020 FFS (Non-APM)	2020 APM	2020 FFS (non-APM) Per 1,000 [§]	2020 APM Per 1,000 [§]
Total Visits	514,701,022	421,585,459	28,962,194	23,763,311	1,365	1,740
Rural Residence	26.5%	22.6%	21.2%	17.9%	1,507	1,880
Dual Eligible	31.9%	19.9%	37.6%	24.9%	2,271	2,992
Race/Ethnicity*						
Unknown	1.9%	1.8%	2.3%	2.2%	1,284	1,730
White	79.2%	83.8%	79.0%	84.1%	1,365	1,708
Black	11.8%	9.9%	10.2%	8.6%	1,376	1,981
Other	1.5%	1.3%	1.7%	1.4%	1,224	1,699
Asian	2.0%	1.3%	2.4%	1.6%	1,297	1,767
Hispanic	2.9%	1.5%	3.4%	1.8%	1,480	2,461
AIAN	0.8%	0.3%	0.9%	0.3%	1,651	1,955
Visit Specialty*						
Primary Care	31.7%	29.5%	49.8%	48.7%	679	848
Behavioral Health	2.1%	1.4%	19.7%	18.7%	269	325
Specialty Care	66.2%	69.1%	30.6%	32.6%	417	567

*Sum to 100% of total visits within each FFS or APM category for in-person and telehealth visits, with rounding error

§Telehealth services are per 1,000 Medicare beneficiaries in the subgroup in 2020. Numbers greater than 1,000 reflect some beneficiaries have more than 1 telehealth visit per year.

Note: Medicare APMs include both broad population-based models and specialty-focused models – Medicare Shared Savings Program, Next Generation ACO, Comprehensive Primary Care Plus, Maryland Total Cost of Care, Vermont All-Payer, Comprehensive ESRD Care, Financial Alignment Demonstration, Independence at Home Practice Demonstration

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Figure 5. Medicare FFS Part B Visits among Beneficiaries in Alternative Payment Models (APMs) – Weekly Visits by Modality for Population-based Models – Medicare Shared Savings Program (SSP), Next Generation ACO

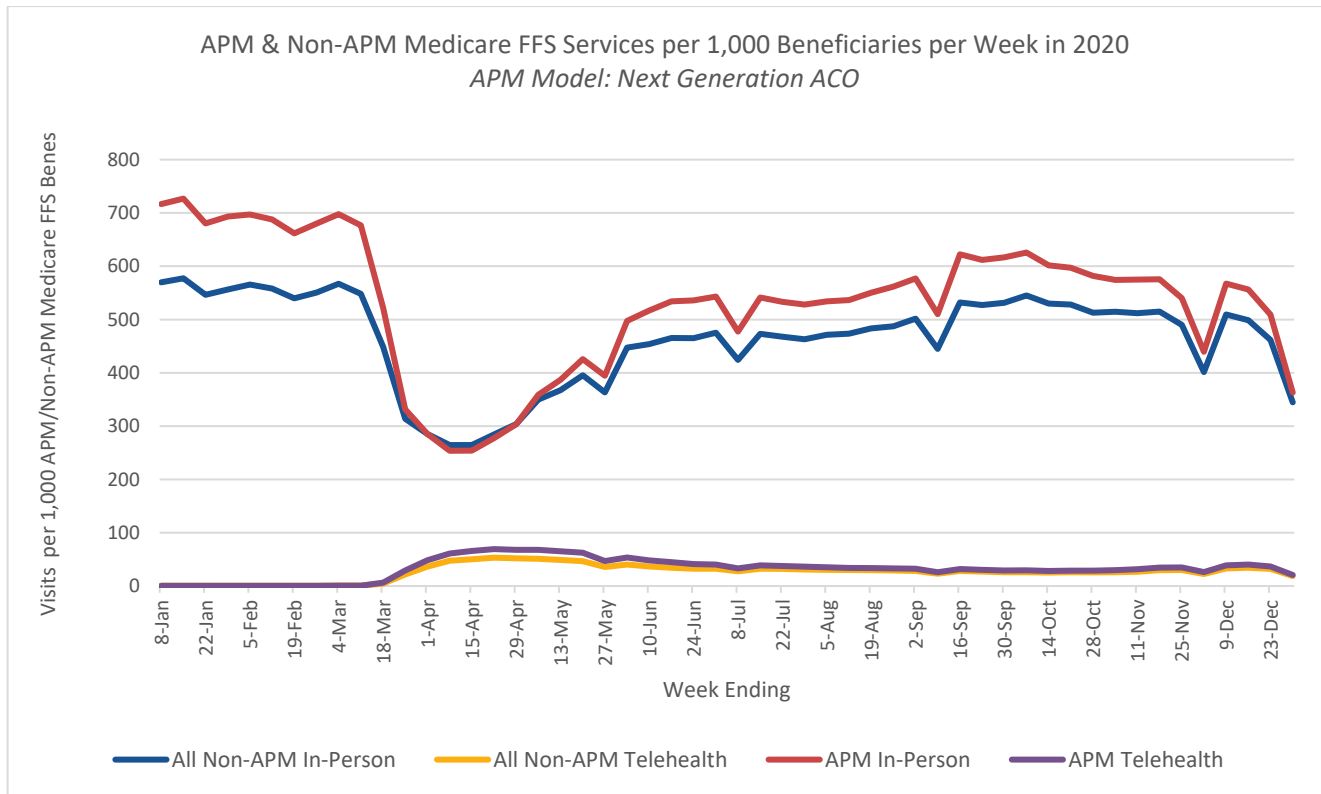
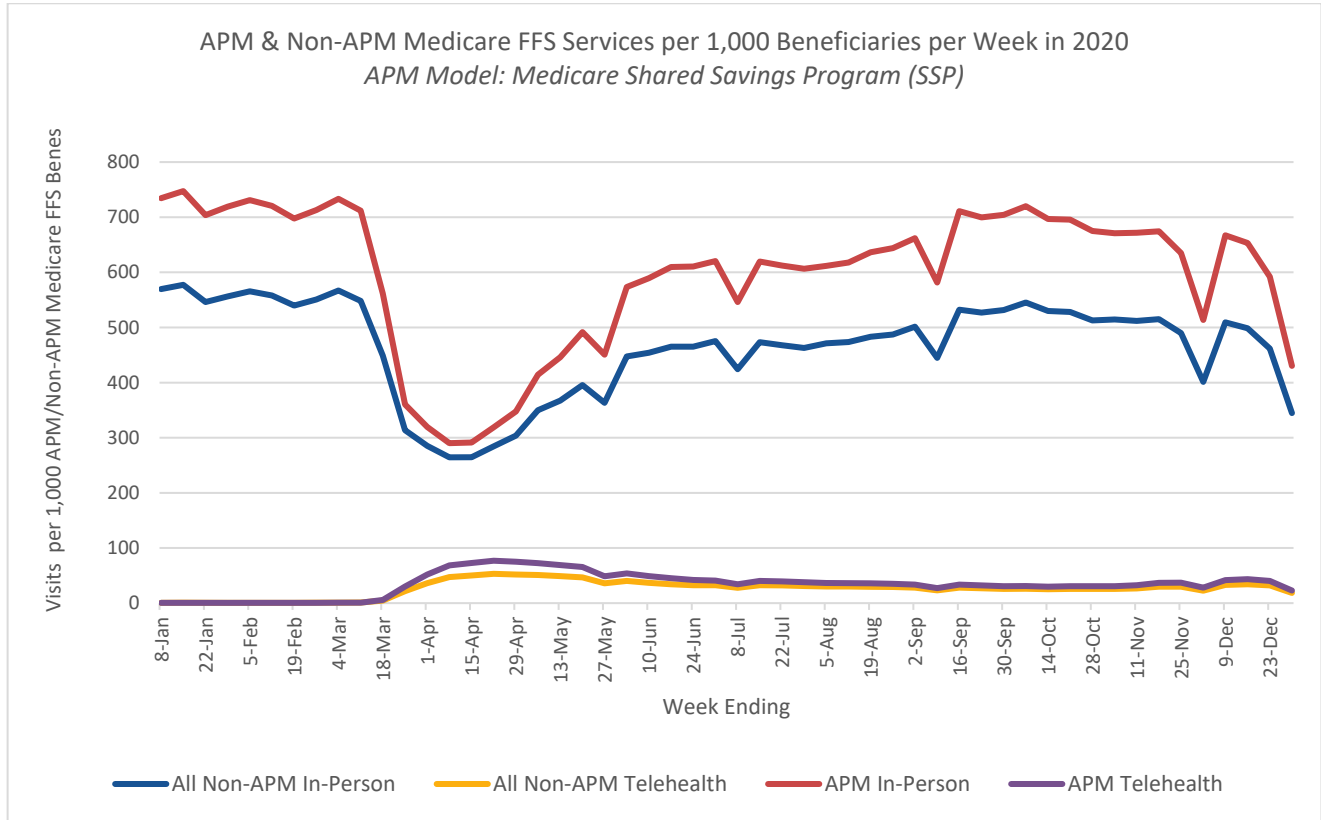
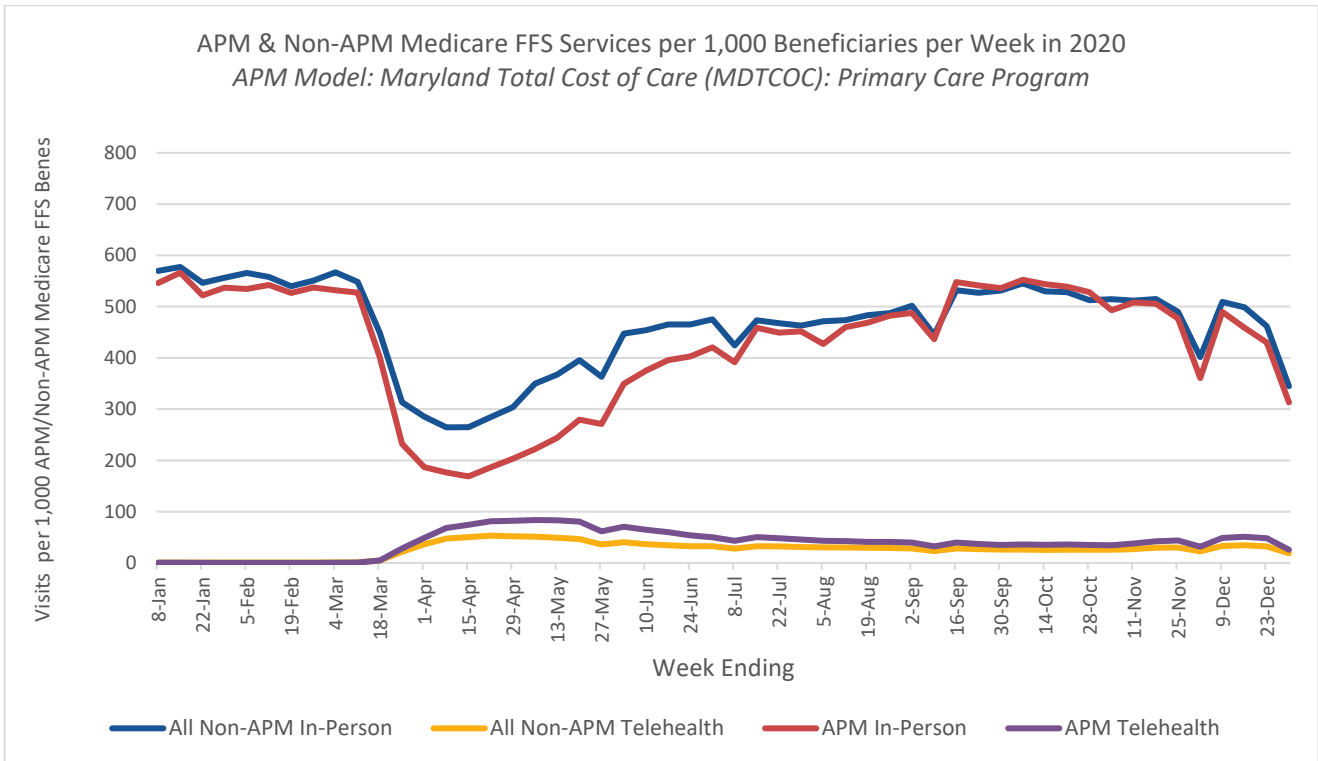
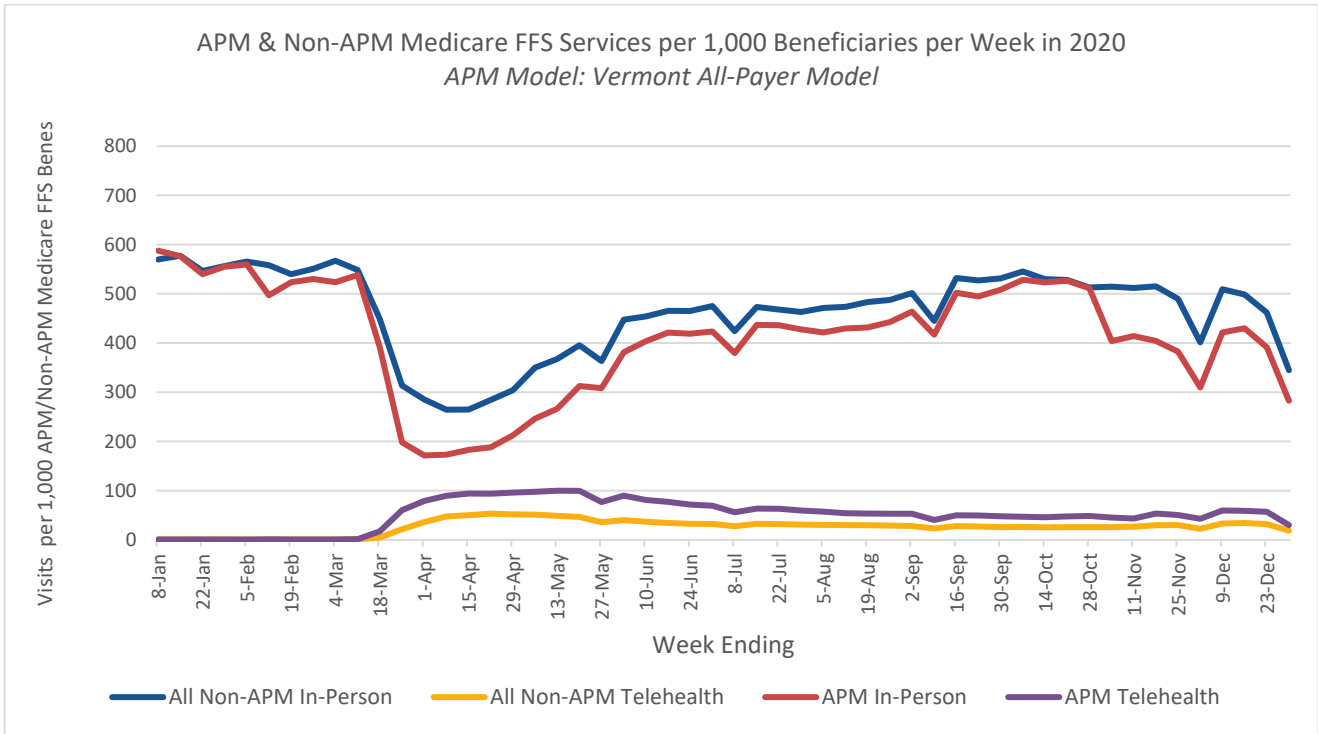


Figure 6. State-based Models & Medicare FFS (Non-APM) Part B In-Person and Telehealth Visits per 1,000 Beneficiaries per Week in 2020 by Modality



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