Telehealth for Medicare Beneficiaries With Chronic Conditions: No Panacea for **COVID-19 Pandemic Access Challenges**



Aditi Pathak, Karin Johnson, Tanvi Rao, Tracy Haidar, Sarah Mossburg, Taylor Melanson, Mona Kilany, Rouguia Barry, and Ilene Harris

Despite rapid growth spurred by the COVID-19 pandemic, telehealth visits offset less than half (40%) of the decline in inperson visits for elderly Medicare fee-for-service beneficiaries with hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease, according to a new study by the American Institutes for Research (AIR) using Medicare claims data. The five chronic conditions are a subset of ambulatory care sensitive conditions (ACSCs)—or conditions where hospitalizations can generally be avoided if patients have access to effective primary care. Care disruptions—like those during the early days of the pandemic—can be particularly harmful for people with ACSCs if they must delay or go without care. The study also found that compared to the peak during the pandemic's first wave, telehealth visits as a proportion of all Medicare ambulatory visits declined significantly for primary care and specialty care but remained high for behavioral health. As policymakers consider whether to extend the expanded Medicare fee-forservice telehealth coverage, the findings suggest that ending telehealth flexibilities for primary care and specialty care are unlikely to lead to large decreases in ambulatory care use for Medicare beneficiaries with ACSCs. However, additional research is needed to assess the impact of ending telehealth flexibilities on equitable healthcare access and quality.

Key Findings

- Telehealth visits for ambulatory care peaked in the second guarter of 2020 but only offset less than half of the decline in inperson visits for elderly Medicare beneficiaries with at least one of five ACSCs.
- Telehealth visits increased across primary, specialty, and especially behavioral health care at the start of the pandemic, but telehealth visits for primary and specialty care declined significantly by the third quarter of 2020.
- Comparing ambulatory care use during the pandemic to prepandemic levels indicates that disparities existed in delayed and forgone care by race and ethnicity, rural and urban residency, and Medicare-Medicaid dual eligibility status.

COVID-19 and Care Disruptions

The COVID-19 pandemic disrupted ambulatory care delivery in the United States with temporary closures of medical practices, public health measures such as stay-at-home orders, and cancellation of elective procedures. These disruptions, combined with public fear about contracting the virus in health care settings, led to substantial declines in health care use, including fewer visits to primary care providers and emergency departments. 1,2,3,4,5,6 Delaying or going without care can lead to negative health outcomes, especially for people with ACSCs. ^{7,8,9} Moreover, older adults with ACSCs are particularly vulnerable to care disruptions because they often live with multiple chronic conditions. 10 In response to the COVID-19 public health emergency declared in January 2020, Medicare waived certain regulatory requirements to increase access to telehealth services, leading to dramatic shifts from in-person care to telehealth for Medicare beneficiaries. This study focuses on Medicare beneficiaries aged 65 and over with ACSCs to examine the extent of delayed and foregone care and the potential role of telehealth in ambulatory care.

Ambulatory Care Visits Drop Sharply at the Beginning of the Pandemic

Between the pre-pandemic (2017 Q1-2020 Q1) and pandemic (2020 Q2-2021 Q4) periods, the average quarterly visits per 1,000 Medicare beneficiaries with a select ACSC declined by 3.7 percent for all ambulatory care visits, defined as the total of in-person and telehealth visits. Visits per 1,000 beneficiaries for primary care and specialty care decreased by 3.6 percent and 3.9 percent, respectively, while behavioral health visits decreased by 6.0 percent¹¹ (Exhibit 1).

Trends in average quarterly visits show that the decreases in ambulatory care were concentrated during the height of the pandemic in the second quarter of 2020 (Exhibit 2). But, by the end of 2020, overall visits rebounded to 97 percent of pre-pandemic average quarterly visits. Thereafter, ambulatory visits per 1,000 beneficiaries decreased slightly during the pandemic's second wave in the first quarter of 2021. Prior research has noted similar patterns in the larger Medicare population: significant decreases in overall ambulatory care among Medicare beneficiaries during the initial COVID-19 wave and a smaller decrease during the pandemic's second wave—January to February 2021.¹² These findings suggest that most delayed or forgone care for elderly Medicare beneficiaries with one or more of the five ACSCs likely was concentrated during the first wave of the pandemic in the second quarter of 2020.

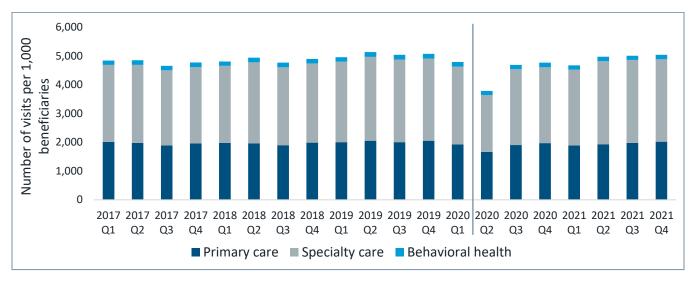
Exhibit 1. Ambulatory Care Visits for Medicare Beneficiaries With a Select Ambulatory Care Sensitive Condition, by Visit Type/Specialty, 2017-2021

	Average of quarterly visits per 1,000 beneficiaries		
Visit type/specialty	Pre-pandemic (2017 Q1–2020 Q1)	Pandemic (2020 Q2–2021 Q4)	% change
All ambulatory care	4,885	4,704	-3.8%
Primary care	1,977	1,908	-3.6%
Specialty care	2,749	2,646	-3.9%
Behavioral health	159	150	-6.0%

Note: Average of quarterly visits per 1,000 beneficiaries aged 65 and older with one or more of hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease.

Source: Medicare fee-for-service claims for a 5 percent simple random sample of beneficiaries enrolled in Part A and Part B between 2017 Q1 and 2021 Q4 or until date of death.

Exhibit 2. Trends in Ambulatory Care Visits for Medicare Beneficiaries With a Select Ambulatory Care Sensitive Condition, by Visit/Specialty Type, 2017–2021



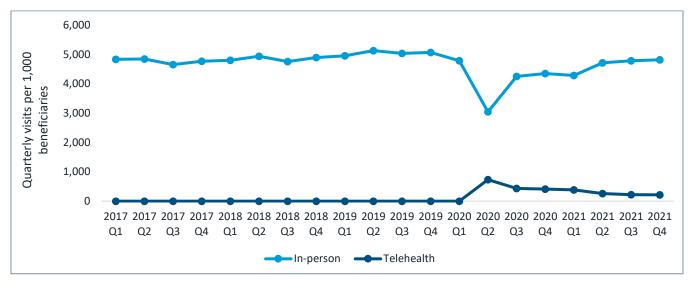
Note: Average number of quarterly visits per 1,000 beneficiaries aged 65 and older with one or more of hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease.

Source: Medicare fee-for-service claims for a 5 percent simple random sample of beneficiaries enrolled in Part A and Part B between 2017 Q1 and 2021 Q4 or until date of death.

Telehealth Offset Less Than Half of In-Person Visit Decline

Telehealth visits for ambulatory care peaked in the second quarter of 2020 but did not offset declines in in-person care. Between the first and second quarter of 2020, in-person visits per 1,000 beneficiaries with at least one of the five ACSCs decreased from 4,709 to 3,046 (35.3%) as telehealth visits per 1,000 beneficiaries increased from 77 to 734 (8.9%) (Exhibit 3). The increase in telehealth visits offset approximately 40 percent of the decline in in-person visits.

Exhibit 3. Trends in Ambulatory Care Visits for Medicare Beneficiaries With a Select Ambulatory Care Sensitive Condition, by In-Person or Telehealth Visit Modality, 2017–2021

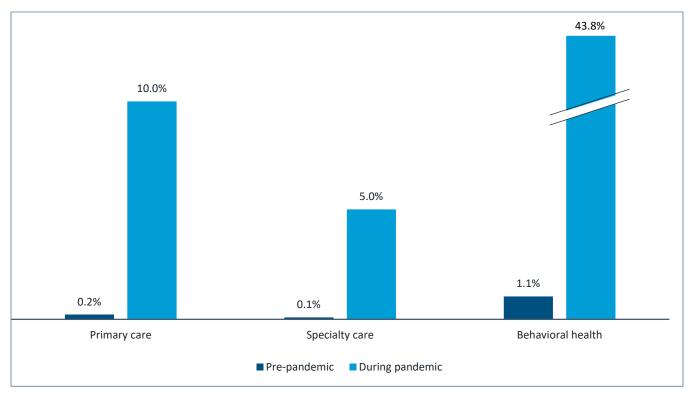


Note: Quarterly visits per 1,000 beneficiaries aged 65 and older with one or more of hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease.

Source: Medicare fee-for-service claims for a 5 percent simple random sample of beneficiaries enrolled in Part A and Part B between 2017 Q1 and 2021 Q4 or until date of death.

Telehealth utilization increased for all visit/specialty types, especially behavioral health care. In the pre-pandemic period, telehealth visits represented less than 1 percent of all visit/specialty types. During the pandemic, the proportion of telehealth visits for primary care and specialty care increased to 10.0 percent and 5.0 percent, respectively, while the proportion of behavioral health visits delivered via telehealth rose to 43.8 percent (Exhibit 4).



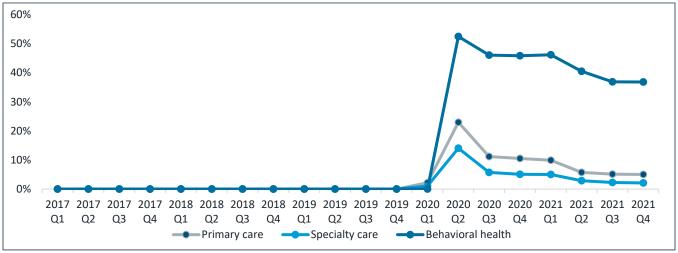


Note: Telehealth visits divided by the number of all ambulatory visits for beneficiaries aged 65 and older with one or more of hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease.

Source: Medicare fee-for-service claims for a 5 percent simple random sample of beneficiaries enrolled in Part A and Part B between 2017 Q1 and 2021 Q4 or until date of death.

Compared to the peak during the pandemic's first wave, telehealth visits as a proportion of all ambulatory visits declined significantly for primary care and specialty care but remained high for behavioral health. Between the second quarter of 2020 and the end of 2021, telehealth visits declined by 74 percent and 78 percent, respectively, for primary care and specialty care (Exhibit 5). However, for behavioral health, while telehealth visits declined by 24 percent, they continued to represent about 36 percent of all visits. This finding indicates that telehealth may play a more substantial ongoing role in ensuring access to mental health and substance use services.

Exhibit 5. Telehealth as a Proportion of All Ambulatory Care Visits for Medicare Beneficiaries With a Select Ambulatory Care Sensitive Condition, by Visit/Specialty Type, 2017–2021



Note: Telehealth visits divided by the number of all ambulatory visits for beneficiaries aged 65 and older with one or more of hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease.

Source: Medicare fee-for-service claims for a 5 percent simple random sample of beneficiaries enrolled in Part A and Part B between 2017 Q1 and 2021 Q4 or until date of death.

Ambulatory Care Utilization and Disparities

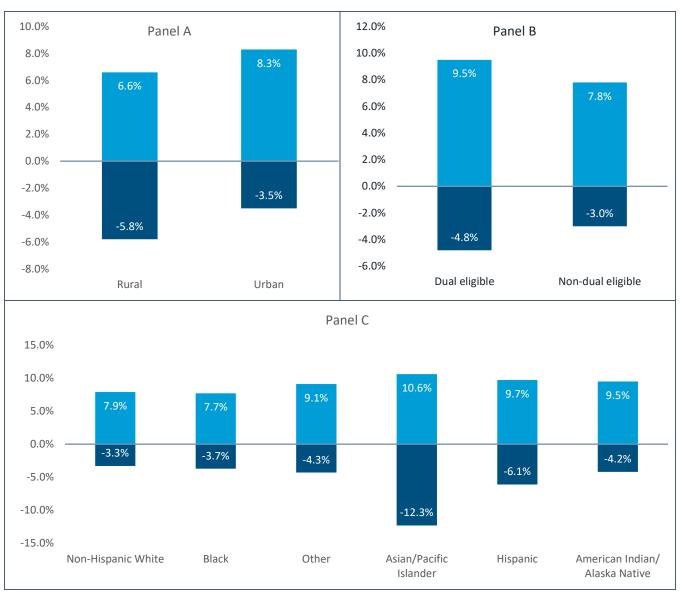
Rural Medicare beneficiaries with a select ACSC had a lower share of telehealth use (6.6%) compared with urban beneficiaries (8.3%) during the pandemic. Because of the public health emergency, Medicare waived restrictions limiting telehealth services to beneficiaries in rural areas, expanding telehealth services to urban areas for the first time. As a result, the increase in telehealth visits was driven primarily by urban beneficiaries. Overall, there was a 52-fold increase in telehealth ambulatory care utilization from 0.1 percent in the pre-pandemic period to 8.3 percent during the pandemic. Rural beneficiaries had a larger net decrease in ambulatory care utilization (5.8%) compared to urban beneficiaries (3.5%) (Exhibit 6, Panel A).

Although beneficiaries dually eligible for Medicare and Medicaid had a higher share of telehealth use, they saw a 4.8 percent net reduction in ambulatory care utilization compared to 3.0 percent for Medicare-only beneficiaries (Exhibit 6, Panel B). Telehealth use as a proportion of all visits was 9.5 percent for dually eligible beneficiaries, compared to 7.8 percent for non-dual eligible Medicare beneficiaries.

By race and ethnicity, Asian/Pacific Islanders had the largest declines in net ambulatory care utilization (12.3%) followed by Hispanics (6.1%). However, Asian/Pacific Islanders and Hispanics had the highest share of telehealth use during the pandemic—10.6 percent and 9.7 percent, respectively, of all visits (Exhibit 6, Panel C). These results suggest that Asian/Pacific Islanders and Hispanics may

have delayed or foregone care relative to their utilization in the pre-pandemic period, despite higher use of telehealth.

Exhibit 6. Changes in Ambulatory Care Utilization for Medicare Beneficiaries Aged 65 and Older With a Select Ambulatory Care Sensitive Condition, by Beneficiary Characteristics, 2017–2021



Telehealth as a proportion of all visits (during pandemic)

See Methods box for data notes.

[■] Total change in ambulatory care visits (pre-pandemic versus during pandemic)

Policy Implications

According to the study, the COVID-19 pandemic initially disrupted ambulatory care for many Medicare fee-for-service beneficiaries aged 65 and older with one or more of five ACSCs: hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease. However, overall ambulatory care utilization, as well as for all types of visits—primary, specialty, and behavioral health care—returned almost to pre-pandemic levels by the end of 2020, with small decreases during the second wave of the COVID-19 pandemic in January–February 2021. At the same time, telehealth visits offset declines in care utilization to some extent, but not enough to compensate for decreased in-person visits.

Similar to previous findings, ^{13,14} the largest increase in telehealth use was for behavioral health visits, with telehealth constituting close to 44 percent of all behavioral health visits during the pandemic and remaining high through the end of 2021. This finding suggests that telehealth may play an important role in maintaining access to mental health and substance use services, as reports of anxiety, difficulty sleeping, and alcohol and substance use continue to increase. 15 While Medicare telehealth flexibilities are set to expire 151 days after the COVID-19 public health emergency ends, Medicare has permanently allowed beneficiaries to receive mental health and substance use services at home. The findings suggest that the end of telehealth flexibilities for primary care and specialty care are unlikely to lead to large decreases in ambulatory care use for Medicare beneficiaries with common ACSCs.

The analysis also showed some evidence of disparities by race and ethnicity and Medicare-Medicaid dual eligibility status. Specifically, Asian/Pacific Islander and Hispanic beneficiaries with ACSCs experienced the largest net decrease in ambulatory care utilization, despite having higher telehealth use. Similarly, beneficiaries dually eligible for Medicare and Medicaid had greater reductions in care utilization but a higher share of telehealth visits compared to Medicare-only beneficiaries. A likely reason for this finding is that dual-eligible beneficiaries are a medically complex subpopulation and may have more intensive care needs that cannot be met through telehealth.

In closing, additional research could examine how the growth of telehealth for behavioral health affects the quality of care and health outcomes. Similarly, a better understanding of the full consequences of disparities in delayed and foregone care for subpopulations of vulnerable Medicare beneficiaries who experienced disproportionate decreases in ambulatory care during the pandemic could help clinicians, payers, and policymakers intervene to reduce care disruptions.

METHODS

This analysis used fee-for-service (FFS) claims data from a 5-percent simple random sample of Medicare beneficiaries who were enrolled in Medicare Part A and Part B for the entire study period between 2017 and 2021 or until date of death. The study sample included Medicare 1,248,982 beneficiaries ages 65 and over who had at least one of five ACSCs—hypertension, congestive heart failure, diabetes, asthma, or chronic obstructive pulmonary disease (COPD). ACSCs were identified based on annual chronic condition flags in Medicare FFS data between 2017 and 2019, which was before the initial cases of COVID-19 were detected in the U.S. Demographic information was based on the Master Beneficiary Summary File, with rural/urban status imputed from beneficiary county metropolitan/nonmetropolitan classification. The data were analyzed quarterly.

Provider specialty codes were used to identify three visit types/specialty: (1) primary care, (2) behavioral health (general psychiatrists, neuropsychiatrists, psychologists, clinical psychologists, and licensed clinical social workers), and (3) specialty care that includes all other specialists.

Telehealth visit counts were based on place of service (POS) code = "02" and/or a combination of HCPCS Modifier Codes ("95," "GT," "GQ," or "GO") and HCPCS/CPT Codes included in the CMS list of covered codes for telehealth visits; telecommunications service codes for virtual check-ins and e-visits, effective between January 2017 and 2022 were used to identify telehealth visits. These include all codes eligible for telehealth in the pre-pandemic period and codes added to the list of eligible telehealth services during the pandemic.

Endnotes

- ¹ Garcia, S., Albaghdadi, M. S., Meraj, P. M., Schmidt, C., Garbeich, R., Jaffer, F. A., Dixon, S., Rade, J. J., Tannenbaum, M., Chambers, J., Huang, P. P., & Henry, T. D. (2020). Reduction in ST-segment elevation cardiac catheterization laboratory activations in the United States during COVID-19 Pandemic. *Journal of the American College of Cardiology 75*(22), 2871–72. https://doi.org/10.1016/j.jacc.2020.04.011
- ² Gonzalez, D., Karpman, M., Kenney, G. M., & Zuckerman, S. (2021). *Delayed and forgone health care for children during the COVID-19 pandemic*. Urban Institute.
- ³ Hartnett, K. P., Kite-Powell, A., DeVies, J., Coletta, M. A., Boehmer, T. K., Adjemian, J., & Gundlapalli, A. V. (2020). Impact of the COVID-19 pandemic on emergency department visits—United States, January 1, 2019–May 30, 2020. *Morbidity and Mortality Weekly Report*, 69(23), 699–704. http://dx.doi.org/10.15585/mmwr.mm6923e1
- ⁴ Park, S., & Stimpson, J. P. (2021). Trends in self-reported forgone medical care among Medicare beneficiaries during the COVID-19 pandemic. *JAMA Health Forum*, *2*(12), e214299. https://doi.org/10.1001/jamahealthforum.2021.4299
- ⁵ Anderson, K. E., McGinty, E. E., Presskreischer, R., & Barry, C. L. (2021). Reports of forgone medical care among US adults during the initial phase of the COVID-19 pandemic. *JAMA Network Open, 4*(1), e2034882. https://doi.org/10.1001/jamanetworkopen.2020.34882
- ⁶ Centers for Medicare & Medicaid Services. (2020). *COVID-19 experiences among the Medicare population*. https://www.cms.gov/files/document/medicare-current-beneficiary-survey-summer-2020-covid-19-data-snapshot.pdf

 ⁷ Gonzalez D. Karnman M. Kenney G. M. & Zuckerman S. (2021). Delayed and forgone health care for nonelderly adult
- ⁷ Gonzalez, D., Karpman, M., Kenney, G. M., & Zuckerman, S. (2021). *Delayed and forgone health care for nonelderly adults during the COVID-19 pandemic.* Urban Institute. https://www.urban.org/sites/default/files/publication/103651/delayed-and-forgone-health-care-for-nonelderly-adults-during-the-covid-19-pandemic 1.pdf
- ⁸ Chen, J., & McGeorge, R. (2020, October 23). Spillover effects of the COVID-19 pandemic could drive long-term health consequences for non-COVID-19 patients. *Health Affairs Forefront*. https://www.healthaffairs.org/do/10.1377/hblog20201020.566558/full/
- ⁹ Findling, M. G., Blendon, R. J., & Benson, J. M. (2020). Delayed care with harmful health consequences—reported experiences from national surveys during coronavirus disease 2019. *JAMA Health Forum, 1*(12), e201463. doi:10.1001/jamahealthforum.2020.1463
- ¹⁰ Woolf, S. H., Chapman, D. A., Sabo, R. T., Weinberger, D. M., & Hill, L. (2020). Excess deaths from COVID-19 and other causes, March–April 2020. *JAMA*, *324*(5), 510–513. https://doi.org/10.1001/jama.2020.11787
- ¹¹ Using provider specialty codes, we defined three visit specialty types: (1) primary care, (2) behavioral health (general psychiatrists, neuropsychiatrists, psychologists, clinical psychologists, and licensed clinical social workers), and (3) specialty care that includes all other specialists.
- ¹² Mafi, J. N., Craff, M., Vangala, S., Pu, T., Skinner, D., Tabatabai-Yazdi, C., Nelson, A., Reid, R., Agniel, D., Tseng, C., Sarkisian, C., Damberg, C. L., & Kahn, K. L. (2022). Trends in US ambulatory care patterns during the COVID-19 pandemic, 2019–2021. *JAMA*, 327(3), 237–247. https://doi.org/10.1001/jama.2021.24294
- ¹³ Weiner, J. P., Bandeian, S., Hatef, E., Lans, D., Liu, A., & Lemke, K. W. (2021). In-person and telehealth ambulatory contacts and costs in a large US insured cohort before and during the COVID-19 pandemic. *JAMA Network Open, 4*(3), e212618. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2777779
- ¹⁴ Davenport, S., Malek, S., Gray, T. J. (2021). *Behavioral healthcare utilization changes during the COVID-19 pandemic.* Milliman White Paper. https://wellbeingtrust.org/wp-content/uploads/2021/03/Milliman-COVID-BH-Impact-2021-02-17.pdf
- ¹⁵ Panchal, N., Kamal, R., Cox, C., & Garfield, R. (2021). *The implications of COVID-19 for mental health and substance use*. Issue Brief. Kaiser Family Foundation.



1400 Crystal Drive, 10th Floor Arlington, VA 22202-3289 +1.202.403.5000 | AIR.ORG Established in 1946, with headquarters in Arlington, Virginia, the American Institutes for Research® (AIR®) is a nonpartisan, not-for-profit organization that conducts behavioral and social science research and delivers technical assistance to solve some of the most urgent challenges in the U.S. and around the world. We advance evidence in the areas of education, health, the workforce, human services, and international development to create a better, more equitable world. The AIR family of organizations now includes IMPAQ, Maher & Maher, and Kimetrica. For more information, visit AIR.ORG.

Copyright © 2022 American Institutes for Research®. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, website display, or other electronic or mechanical methods, without the prior written permission of the American Institutes for Research. For permission requests, please use the Contact Us form on AIR.ORG.