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Medicare beneficiaries' plans for the COVID-19 vaccine in Fall 2020, and why some planned to decline

INTRODUCTION

Medicare beneficiaries are at increased risk of morbidity and mortality from COVID-19.[1] In the fall of 2020, vaccines had not yet been approved, but the public was forming opinions about them and deciding whether to undergo vaccination. We sought to determine whether the vaccination plans of Medicare beneficiaries in the fall mirror patterns in vaccine uptake observed in the first month of vaccination,[2] the reasons given by those who planned to decline, and whether sociodemographic differences exist among those who planned to decline and their reasons for saying so.

METHODS

We conducted a cross-sectional analysis using the Medicare Current Beneficiary Survey (MCBS) Fall COVID-19 Supplement, a nationally representative sample of the Medicare population involving telephone interviews in October or November of 2020 administered by NORC at the University of Chicago (formerly the National Opinion Research Center). Respondents were asked whether they would get a COVID-19 vaccine when it became available. Those who said "probably not" or "definitely not" were asked their reason(s) for planning to decline. Those responses were categorized by NORC into nine themes. We used chi-square tests to examine response differences by sociodemographic characteristics, including age, gender, and race/ethnicity. We performed analyses using Stata 16, and used MCBS sample weights to account for the complex survey weighting.

This study did not require IRB approval. We followed STROBE guidelines for cross-sectional studies.

RESULTS

Our analysis included 8,455 community-dwelling Medicare beneficiaries, representative of 50.2 million people,

TABLE 1 Whether respondent would get COVID-19 vaccine once available, by respondent characteristics

Characteristic	Beneficiaries included in sample, n (weighted %)[a]	Response to "If a vaccine that protected you from coronavirus was available to everyone who wanted it, would you get it?", n (weighted %)[a]		
		Yes[b]	No[c]	Not sure
All respondents	8455 (100)	5041 (58.7)	1281 (15.3)	2133 (26.1)
Age group				
<65 years	1740 (19.5)	887 (48.8) [d]	390 (21.8)	463 (29.4)
65–74 years	2978 (50.2)	1783 (59.6)	440 (14.7)	755 (25.8)
75+ years	3737 (30.3)	2371 (63.5)	451 (12.1)	915 (24.4)
Gender				
Female	4794 (56.5)	2601 (53.2) [d]	807 (16.6)	1386 (30.1)
Male	3661 (43.5)	2440 (65.7)	474 (13.5)	747 (20.8)
Race/Ethnicity				
Black, non-Hispanic	811 (9.7)	319 (36.2) [d]	193 (24.0)	299 (39.8)
Hispanic	763 (7.7)	391 (50.5)	155 (20.7)	217 (28.8)
Other/Unknown	423 (5.9)	263 (61.2)	63 (14.4)	97 (24.4)
White, non-Hispanic	6458 (76.7)	4068 (62.1)	870 (13.7)	1520 (24.2)

[a]Weighted percentages reflect Medicare Current Beneficiary Survey complex survey weighting and do not perfectly match the raw numbers.
[b]"Yes" responses include those who said both "probably" and "definitely."
[c]"No" responses include those who said both "probably not" and "definitely not."
[d]Chi-square p-value for difference between groups <0.001.

after excluding proxy-respondents ($n = 1218$), who were not asked about the vaccine, and those missing answers to the questions ($n = 13$). Overall, 58.7% said they would get a COVID-19 vaccine, 15.3% said they would not, and 26.1% were unsure. Responses differed among all sociodemographic groups (p-values all <0.001). Least likely to say they would get a vaccine were beneficiaries under 65 years old (48.8%, vs. 59.6% of 65 to 74-year-olds, and 63.5% of those 75 and older), women (53.2%, vs. 65.7% of men), Black beneficiaries (36.2%), and Hispanic beneficiaries (50.5%, vs. 62.1% of White beneficiaries) (Table 1).

Among those not planning to get vaccinated, 96% provided a reason; most common were: (1) the vaccine could have side effects or is not safe (42.4%), (2) do not trust what the government says about the vaccine (42.2%), (3) do not think the vaccine would prevent COVID-19 (12.4%), (4) the vaccine could cause COVID-19 (11.5%), and (5) do not like vaccines or needles (8.2%). Black (52.0%) and Hispanic (53.0%) beneficiaries were significantly more likely to say they planned to decline the vaccine because they did not trust the government than White beneficiaries (37.9%; $p = 0.016$), but not that they did not like vaccines (3.5% Black, 8.8% Hispanic, and 9.0% White). Younger Medicare beneficiaries were more likely to say the vaccine could cause

COVID-19 (15.3% of <65-year-olds, 11.5% of 65–74-year-olds, and 7.1% of those 75 and older; $p = 0.031$). Only 2% of respondents said they would decline the vaccine because COVID-19 is not serious. This group was disproportionately male (77.5%; $p < 0.001$) and White (94.5%; $p = 0.038$).

DISCUSSION

In the fall of 2020, just before COVID-19 vaccines became available in the United States, only 59% of Medicare beneficiaries planned to get the vaccine, despite being at the highest risk of morbidity and mortality.[1] To our knowledge, this is the first report specifically on the plans of Medicare recipients.

Demographic differences in vaccine intentions mirrored real-world uptake, as women and Black and Hispanic people were disproportionately less likely to be vaccinated in the first month.[2] While limited to Medicare beneficiaries, our findings suggest that disparities in vaccination are not driven by a dislike of vaccines. Instead, we need to acknowledge and address factors that erode trust in government, including racism,[3] and promote and support community-led efforts to deliver information about vaccines.[4–6]

CONFLICT OF INTEREST

In the past 36 months, Joseph S. Ross has received research support through Yale University from Johnson and Johnson to develop methods of clinical trial data sharing, from Medtronic, Inc. and the Food and Drug Administration (FDA) to develop methods for postmarket surveillance of medical devices (U01FD004585), from the Food and Drug Administration to establish Yale-Mayo Clinic Center for Excellence in Regulatory Science and Innovation (CERSI) program (U01FD005938), from the Blue Cross Blue Shield Association to better understand medical technology evaluation, from the Centers of Medicare and Medicaid Services (CMS) to develop and maintain performance measures that are used for public reporting (HHSM-500-2013-13018I), from the Agency for Healthcare Research and Quality (R01HS022882), from the National Heart, Lung and Blood Institute of the National Institutes of Health (NIH) (R01HS025164), and from the Laura and John Arnold Foundation to establish the Good Pharma Scorecard at Bioethics International and to establish the Collaboration for Research Integrity and Transparency (CRIT) at Yale.

AUTHOR CONTRIBUTIONS

Dr. Holaday had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. Concept and design: Holaday, Oladele. Acquisition, analysis, or interpretation of data: Holaday. Drafting of the manuscript: Holaday. Critical revision of the manuscript for important intellectual content: All authors. Statistical analysis: Holaday. Supervision: Oladele.

SPONSOR'S ROLE

None.

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Discharge processes in a skilled nursing facility affected by COVID-19

INTRODUCTION

Transitions across acute and post-acute settings are complex processes that became more challenging during the COVID-19 pandemic. Prolonged hospital stays may result in deconditioning, necessitating patient discharge to skilled nursing facilities (SNFs)[1] for rehabilitation when discharge home is deemed unsafe. Although return home from SNF is the goal for these patients, a safe SNF discharge often requires additional support from home health care (HHC) or from patients' families.[2] Prior work has examined hospital discharge practices for COVID-19 patients,[3] but has not investigated post-acute SNF discharge patterns. Understanding the challenges to safe discharge at every healthcare transition is necessary for systems planning. To understand how post-acute SNF discharge was affected by the COVID-19 pandemic, we studied discharge processes for SNF patients with COVID-19.

METHODS

This was a retrospective cohort study of consecutive individuals discharged from hospital to a large urban SNF who developed COVID-19 symptoms with a positive COVID-19 PCR or antibody test between March 1, 2020 and June 1, 2020. To focus on the impact post-acute COVID-19 had on discharge planning of short-term SNF residents, we excluded patients whose COVID-19 onset was more than 30 days before or more than 100 days after SNF admission.

Using the facility's electronic medical record (EMR), we reviewed all medical, nursing, social work, and other notes to examine discharge planning processes. Charts were abstracted on average 186 days after the day of COVID-19 symptom onset. Specifically, we identified whether discharge planning was initiated, whether discharge was successful, and whether there was evidence that discharge was complicated by COVID-19-related challenges. The relationship between COVID-19-related-barriers and successful discharge was examined with a chi-square test.

Directed content analysis[4] was used to analyze EMR notes to identify COVID-19-related factors impacting discharge planning. The analysis was started deductively to develop the initial coding structure. Multiple codes could be applied to each case. The team then met collaboratively to discuss preliminary perceptions and refine coding definitions. Analysis then became inductive to identify emerging themes.

RESULTS

Of 122 included patients, the median age was 79 (interquartile range [IQR], 69–86), 60 (49%) were female, 16 (13%) Black, 8 (7%) White, and 9 (7%) Hispanic, and for 85 (71%) race was not recorded.

Discharge planning was initiated in 99 (81%) post-acute patients, of which 82 were successfully discharged. Median length of stay for those discharged was 37.5 days (IQR 23–64). Discharge sites included home (68 [83%]), assisted living facilities (9 [11%]), relatives' homes (3 [4%]), and hotels (2 [2%]).