Delayed Care Related to COVID-19 in a Nationally Representative Sample of Older Americans

KEY WORDS: delayed care; COVID-19; older adults.

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INTRODUCTION

COVID-19 continues to disrupt US health care, leading to care delays.¹ Older adults, who have higher levels of functional impairment and comorbidity, may be particularly sensitive to delayed or unmet care.² Analyses of pandemic-related delayed care have not focused on older adults nor examined factors associated with delays,^{3–6} critical information to plan for the future.

METHODS

The 2020 National Health and Aging Trends Study (NHATS; conducted May–October by phone, response rate=94.7%) is a nationally representative survey of Medicare beneficiaries ≥70 years. A COVID-19 supplement was also fielded from June–December 2020 (by mail, response rate=82.2%). This analysis includes all COVID-19 supplement respondents ($n=3257$).

Respondents were asked: “During the COVID-19 outbreak, has there ever been a time when you needed or had planned to see a doctor or other health care provider but put off getting care?” We examined type of and reason for delayed care among those who endorsed delay.

Other respondent characteristics included demographics (sex, age, race/ethnicity), socioeconomic status (marital status, education, Medicaid enrollment, living alone, residential setting), health and functional status, and self-reported comorbidities (heart disease, diabetes, lung disease, stroke, cancer, arthritis, hypertension, dementia, depression, anxiety).

COVID-19-related variables included whether the respondent or others in their household or facility had COVID-19 symptoms, diagnosis, or positive test; COVID-19 was still affecting daily life in the respondent’s state; respondents moved to another place or someone else moved in; and having family or friend caregiver during the pandemic.

We used adjusted logistic regression to examine factors associated with delayed care and calculated the mean predicted probability of delayed care for each characteristic, holding all others constant. We used NHATS analytic weights to generate nationally representative estimates. Statistical significance was set a two-tailed $p<.05$. Analyses were performed using STATA, version 15.1.

RESULTS

Among 3257 respondents ≥70 years (representing 32.7 million older adults), 38.0% reported delayed care (Fig. 1), including 20.2% from a dentist; 18.6%, usual doctor; 15.6%, specialist; 15.2%, vision or hearing; 2.8%, surgery; 1.4%, medications; 0.9%, emergency or urgent care; and 6.1%, other (including physical therapy, mental health, or test/lab). The most common reason for delayed care was “the provider cancelled, closed, or suggested rescheduling” (55.5%), followed by “I decided it could wait” or “a family member did not want me to go” (53.9%), “I was afraid to go” (28.1%), or “I could not get an appointment” (10.8%).

The probability of delayed care was higher among females (42.1% vs. 33.0%, $p<.001$; Table 1) and respondents with at least some college (42.8% vs. 30.6%, $p<.001$); it did not vary by race/ethnicity or Medicaid enrollment. Those with fair or poor general health reported a higher probability of delayed care (e.g., 41.5% vs. 34.7% [very good or excellent health], $p=.03$); the probability did not vary by functional status.

All COVID-19-related variables were associated with delayed care. The characteristic associated with the highest probability of delayed care was COVID-19 in a respondent’s household or facility (56.2% vs. 37.3%, $p=.006$), while those with a family or friend caregiver during the pandemic also had a higher probability of delayed care (41.3% vs. 33.9%, $p=.002$).

DISCUSSION

Nearly 40% of older Americans reported delaying health care during the COVID-19 pandemic, with supply (e.g., provider cancelled) and demand (e.g., respondent decided to delay) factors each reported by over half of respondents with delays. Dental and usual doctor care were most commonly delayed, consistent with findings from nonelderly adults⁵ and estimates from the Center for Medicare and Medicaid Services.⁶ Delays

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Figure 1. Prevalence of delayed care in a nationally representative sample of Americans aged 70 years or older during the COVID-19 pandemic. Data were weighted using the survey analytic weights. We calculated proportions of respondents who reported any delayed care and each type of care delayed among all Americans aged 70 years or older. Respondents may report more than one type of delayed care (e.g., usual doctor and specialist appointments). “Other” included services such as physical therapy, mental health, or test/lab.

Table 1. Factors Associated with Delayed Care Among Americans Aged 70 Years or Older During the COVID-19 Pandemic

	All respondents, % (n=3257)	Delayed care		Adjusted probability, % (95% CI)†	p-value
		Unadjusted proportion, %* (n=1187)	p-value		
National estimate	32,686,642	12,433,906			
Sex					
Male	44.1	34.1	<.001	33.0 (29.8–36.2)	[Reference]
Female	55.9	41.2		42.1 (39.2–45.0)	<.001
Age					
70–74	35.4	41.8	.03	41.0 (36.4–45.6)	[Reference]
75–84	46.9	36.4		36.8 (34.2–39.3)	.09
85+	17.7	34.8		35.4 (30.7–40.1)	.09
Race/ethnicity					
Non-Hispanic White	78.6	38.9	.48	38.3 (35.6–40.9)	[Reference]
Non-Hispanic Black	7.8	32.1		35.5 (30.8–40.1)	.30
Hispanic	7.4	35.9		37.7 (28.2–47.2)	.91
Other	6.2	36.9		38.5 (26.1–50.8)	.98
Married					
No	45.8	36.9	.43	35.9 (31.6–40.3)	[Reference]
Yes	54.2	39.0		39.9 (36.3–43.4)	.22
Some college or above					
No	39.2	29.9	<.001	30.6 (26.8–34.4)	[Reference]
Yes	60.8	43.3		42.8 (39.6–46.0)	<.001
Medicaid enrolled					
No	87.8	38.8	.08	37.9 (35.5–40.4)	[Reference]
Yes	12.2	32.8		38.8 (30.8–46.8)	.84
Living alone					
No	68.4	38.1	.99	36.8 (33.5–40.1)	[Reference]
Yes	31.6	38.0		40.9 (36.3–45.4)	.21
Residential setting					
Community	93.6	37.9	.12	38.4 (36.1–40.7)	[Reference]
Independent living	3.0	50.2		42.8 (30.7–54.8)	.46
Assisted living	2.0	28.6		24.9 (11.0–38.9)	.06
Nursing home	1.4	35.4		24.2 (8.7–39.7)	.07
General health status					
Very good or excellent	44.6	35.8	.21	34.7 (31.8–37.6)	[Reference]
Good	36.3	39.9		40.4 (36.3–44.6)	.03
Fair or poor	19.1	39.8		41.5 (36.2–46.9)	.03
Any activities of daily living impairment‡					
No	64.7	37.9	.82	38.3 (34.9–41.6)	[Reference]
Yes	35.3	38.4		37.6 (33.6–41.6)	.82
Any instrumental activities of daily living impairment§					
No	60.6	37.3	.39	37.7 (34.7–40.7)	[Reference]
Yes	39.4	39.2		38.6 (34.5–42.7)	.73

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Table 1.. (continued)

	All respondents, % (n=3257)	Delayed care		Adjusted probability, % (95% CI)†	p-value
		Unadjusted proportion, %* (n=1187)	p-value		
COVID-19 symptoms, diagnosis, or positive test of respondent					
No	94.4	37.4		37.7 (35.3–40.2)	[Reference]
Yes	5.6	48.8	.03	43.4 (33.5–53.3)	.28
COVID-19 symptoms, diagnosis, or positive test of other persons in the household or facility					
No	95.8	37.2		37.3 (34.9–39.6)	[Reference]
Yes	4.2	56.9	<.001	56.2 (43.4–69.1)	.006
COVID-19 still affecting daily life in the state					
No	7.3	24.9		28.6 (21.0–36.3)	[Reference]
Yes	92.7	39.1	.003	38.7 (36.2–41.3)	.02
Moved to another place during COVID-19					
No	93.9	37.3		37.5 (35.1–40.0)	[Reference]
Yes	6.1	50.0	.005	46.0 (38.6–53.4)	.03
Someone else moved in during COVID-19					
No	93.7	37.1		37.3 (35.0–39.6)	[Reference]
Yes	6.3	52.8	.003	49.1 (39.1–59.2)	.02
Having family or friend caregiver during COVID-19					
No	44.2	32.5		33.9 (30.2–37.5)	[Reference]
Yes	55.8	42.4	<.001	41.3 (38.5–44.1)	.002

Data from the 2020 National Health and Aging Trends Study and associated COVID-19 supplement. Data were weighted using the survey analytic weights, which accounted for differential probabilities of selection and non-response; and standard errors were adjusted to account for the complex survey design.

*Unadjusted proportions of delayed care in each stratum of categorical characteristics were reported. Rao-Scott chi-square tests were performed to compare whether unadjusted proportions of delayed care were different for categorical characteristics. For example, overall 44.1% of respondents were male and 55.9% were female. Among males, the unadjusted proportion that reported delayed care was 34.1% versus 41.2% among females ($p < .001$). From the logistic regression, the adjusted probability of delayed care was 33.0% among males versus 42.1% among females ($p < .001$).

†We performed a logistic regression model to examine factors associated with delayed care among older adults, and then calculated the mean adjusted predicted probability of delayed care for each characteristic while holding constant all other characteristics. We compared whether the predicted probabilities of delayed care were different between strata of the characteristic by calculating the marginal effect of that characteristic using estimates from the logistic regression. The model included all characteristics included in the table rows, in addition to self-reported clinical conditions (heart disease, diabetes, lung disease, stroke, cancer, arthritis, hypertension, dementia, depression, anxiety). The adjusted probability of delayed care did not differ across clinical conditions except that respondents with anxiety were more likely to report delayed care (45.0% vs. 37.4%, $p = .04$).

‡Activities of daily living included getting out of bed, getting around one's home or building, bathing, dressing, eating, and toileting

§Instrumental activities of daily living included doing laundry, going shopping, preparing meals, handling banking, and managing medications

of such services highlight the contribution of both demand- (e.g., respondents perceive routine services as delayable) and supply-related (e.g., state orders to postpone elective care, potentially including dental and usual doctor visits) factors.

These findings also underscore the impact of COVID-19-related household disruptions, with household COVID increasing the likelihood of delayed care by the largest margin of all characteristics. Other pandemic household changes (e.g., respondent moving or someone moving in with the respondent) were also associated with delay. Finally, caregiving dyads appeared to be at particular risk: While a prior analysis demonstrated unpaid caregivers delayed their own care due to COVID,⁴ respondents in this analysis with family or friend caregivers also reported delayed care. In other words, during this pandemic, both members of caregiving dyads have experienced delayed health care.

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Declarations:

This study was approved by the Institutional Review Board of the University of Michigan Medical School.

Conflict of interest: The authors declare that they do not have a conflict of interest.

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