

Can't Go In Person? Consider Survey Reminder Mailings

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Abstract

The Medicare Current Beneficiary Survey (MCBS) serves as the leading source of information on the Medicare program. As a longitudinal, nationally representative survey, a new panel of Medicare beneficiaries is selected to join the survey each fall. Due to the COVID-19 pandemic, outreach and interviewing for new sample shifted from in-person to phone, supplemented by expanded mailings. Based on experiences in the literature, we anticipated lower participation rates from phone surveys compared to in-person surveys which lent urgency to identifying alternate forms of respondent outreach, such as modified mailing strategies and encouraging beneficiary-initiated calls to the survey toll-free number.

In Fall 2021, we used an experiment to compare reminder mailing approaches for newly sampled beneficiaries. Cases still pending 4 to 5 weeks after data collection began were randomly assigned to receive either a FedEx reminder letter, a reminder postcard, or no reminder. The control group received a FedEx reminder letter after 12 weeks of data collection.

The impact of reminder mailing types on respondent inbound call rates, completion rates, timelines, and interviewer effort required to complete a case were analyzed, along with the implications of the tradeoffs between mailing costs, operational efficiency, and response rates.

Key Words: respondent recruitment, respondent outreach, telephone interviewing, reminder letter, experiment

1. Introduction

The Medicare Current Beneficiary Survey (MCBS) is a continuous, longitudinal survey sponsored by the Centers for Medicare and Medicaid Services (CMS) through a contract with NORC at the University of Chicago (NORC) that serves as the leading source of information on the Medicare program and health care costs for the Medicare population. The MCBS recruits a new panel of beneficiaries each fall. Historically, fall panel recruitment and interviewing has been done in person by trained field interviewers but in March 2020, the project transitioned to phone interviewing in response to the COVID-19 pandemic. The project remained fully phone-based throughout 2020 and into 2021, with in-person work gradually resuming at the end of 2021. This shift to phone outreach and interviewing brought concerns of lower response rates typically seen with phone surveys (Aneshensel et al. 1982; de Leeuw 1992; Groves 1977; Groves & Kahn 1979; Henson et al. 1977; Hinkle & King 1978; Hochstim 1962; Hox & de Leeuw 1994; Jordan et al. 1980; Mulry-Liggan 1983; Thornberry 1987; Weeks et al. 1983). A series of operational changes to the MCBS helped to maintain high response rates during the shift to phone interviewing.

One of these operational changes centered on expanding the use of a reminder mailing sent to pending cases at a pre-determined point after interviewers attempt to contact and interview newly sampled beneficiaries. In Fall 2021, we conducted an experiment to test the effect of options for a reminder mailing including (1) no mailing, (2) a postcard mailing sent via the United States Postal Service (USPS), or (3) a letter sent via a priority mailing service (FedEx). Pre-pandemic, the project had used targeted reminder or refusal mailings based on field recommendation to individual cases. We hypothesized that using a priority reminder mailing more broadly could boost response and increase interviewer efficiency relative to a postcard mailing or no mailing. The purpose of this paper is to summarize findings of this experiment.

2. Background

The MCBS was launched in 1991 and is a continuously fielded survey of a nationally representative sample of the Medicare population. The Medicare population includes all persons aged 65 and over, persons with certain disabilities, and persons with end-stage renal disease. Interviews are conducted with beneficiaries living in the community and in facilities such as nursing homes or long-term care facilities. Data are collected for the same beneficiary continuously up to three times a year over a four-year period for a total of 11 interviews. Every fall, new respondents are recruited into the survey and have their first interview. Subsequent interviews are conducted at four-month intervals. Each year there are three rounds of interviews identified seasonally – a Fall Round, a Winter Round, and a Summer Round.

The sample design uses a rotating panel, where one-quarter of the sample is retired each year in the Winter Round and a new sample is selected in the Fall Round. The MCBS Data Collection Life Cycle is shown in Figure 1, demonstrating the long-term impact of response in the initial fall round.

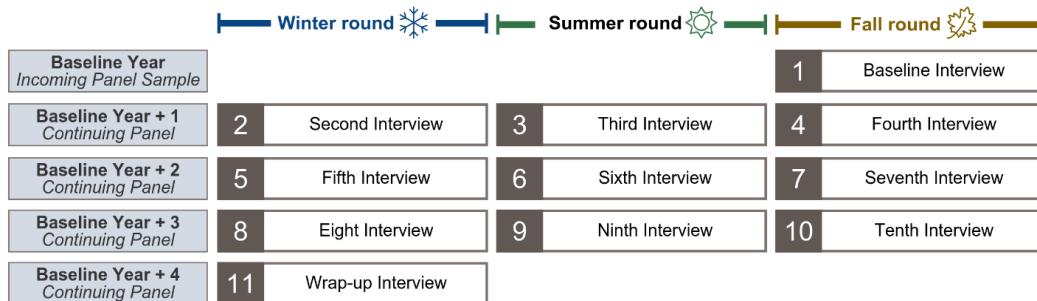


Figure 1: MCBS Data Collection Life Cycle

Although phone interviewing has been permitted for certain cases since the origin of the survey, the primary mode of data collection has been in-person. In the Baseline Year in particular, initial outreach and interviewing was always conducted in person by interviewers to gain cooperation and build rapport with the beneficiary. However, the emergence of the COVID-19 pandemic forced the project to adapt protocols to maintain respondent and interviewer engagement while keeping both populations safe. To ensure the health and safety of both respondents and field interviewers, the MCBS maintained a

predominantly phone-based approach through 2021. The Medicare population is at increased risk for contracting COVID-19 as well as for severe illness¹.

In 2021, the MCBS was approaching the second consecutive baseline round where a new panel of beneficiaries would be entirely by phone. We reviewed the MCBS protocol for new panelist outreach to identify areas of opportunity to maintain the high participation rates. Specifically, we tested the use of two different reminder mailing options: a postcard sent via USPS and a letter sent via priority mail (FedEx).

The literature on mailing methods for surveys is voluminous. Reminder mailings have been proven effective at increasing response rates for face-to-face and phone surveys (Dillman, 1991; Fox, Robinson, & Boardley, 1998; Bickman & Rog, 1998; Hager et al, 2003). Reminder mailings serve to underscore legitimacy of the survey and interviewer and communicate the value of the survey. Additionally, interviewers value a reminder mailing as it justifies additional follow-up with respondents.

Historically on the MCBS, reminder letters were used only when needed. Interviewers could request a mailing to be sent to individual cases when justified, such as for a refusal by a gatekeeper (e.g., a spouse or child) or when a beneficiary lived in an apartment complex where it was difficult to gain access. However, in Fall 2020, when in-person initial contact was not feasible, a priority FedEx reminder mailing was added to the outreach protocol for all cases. In Fall 2021, the MCBS chose to experiment with the reminder mailing to determine the cost effectiveness of different mailings: a lower-cost postcard option, a higher-cost priority letter option, and a no-cost no mailing option.

Both the priority letter and postcard invited beneficiaries to contact the project via the survey toll-free number. The MCBS has typically provided a survey toll-free number for sampled cases to call and request additional information about the survey, verify the legitimacy of their interviewer, or schedule a time in the future to complete the survey. We anticipated beneficiaries would be more likely to use this toll-free number than in prior years as the mailings prompted respondent-initiated contact to the number, and due to the absence of in person recruitment and survey fielding.

The remainder of this paper will summarize the methods and findings from our two research questions: 1) Will a postcard and/or priority FedEx reminder mailing increase cooperation among sampled Medicare beneficiaries; and 2) Will a reminder mailing improve interviewer efficiency by decreasing the number of contact attempts required or time in the field to complete an interview.

3. Methods

To assess the impact of different reminder mailing delivery methods, we conducted an experiment to compare three methods for Community case reminders. This experiment was conducted with the full incoming sample of beneficiaries for 2021, thus we used a responsive experimental design. Our initial design included three delivery method groups. The first group was considered a control group and, thus, received no reminder mailing initially. The size of the control group was limited to reduce an expected impact on

¹ Centers of Disease Control and Prevention. "People at Increased Risk for COVID-19". Updated Nov. 30, 2020. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/index.html>

response rates. A power analysis was conducted and a sample of 2,386 cases was determined necessary to ensure adequate power for subgroup comparisons. The remaining sample was split evenly between two groups using random assignment (see Table 1). One group received a reminder mailing via priority FedEx delivery and the second group received a USPS postcard via standard mail delivery.

All sampled cases go through a telephone locating effort prior to data collection and identified telephone numbers are used by interviewers to contact respondents and attempt to complete the survey. A small number of cases had no telephone numbers located during this pre-fielding process. These cases were ineligible for the control group as they were unable to be contacted by field interviewers. They were automatically included for random assignment to receive the priority FedEx or USPS postcard mailings to encourage inbound calls to the survey toll-free number and are not included in the analyses presented in this paper.

The responsive aspect of our design focused on the control group. We monitored response rates in this group as the experiment progressed. At week 12 of our 24-week data collection period we determined that a reminder mailing was necessary to improve responses among this group to ensure a targeted number of completed surveys was met. At the time of the mailing (15 weeks into the data collection period), any Community case that had still not completed the survey was mailed a priority FedEx mailing. This decision provided an additional mechanism for investigation. Not only were we able to compare the priority FedEx delivery method with the USPS postcard, we could also compare those who received the earlier FedEx mailing to those who received the delayed FedEx mailing.

Table 1: Sample Sizes

	<i>Total Sample</i>	<i>Mailed Week 4</i>	<i>Mailed Week 5</i>	<i>Mailed Week 15</i>
Priority FedEx	5,340	2,749	2,591	
USPS postcard	5,335	2,750	2,585	
Control	2,386			
Delayed FedEx				1,773

Note: Week 4 and week 5 mailings may not sum to total sample since week 5 mailings were not sent to cases that completed since the time of sampling. Similarly, week 15 mailings were only sent to control cases who had not yet completed.

The priority FedEx mailings and USPS postcards were mailed to participants in the 4th and 5th weeks of the 24-week data collection period (Figure 2). The mailings were evenly split at random between the 4th and 5th week to accommodate the expected influx of calls to the survey toll-free number. This was an attempt to manage expected increases in interviewer staff effort to ensure adequate support for answering and responding to inbound calls.

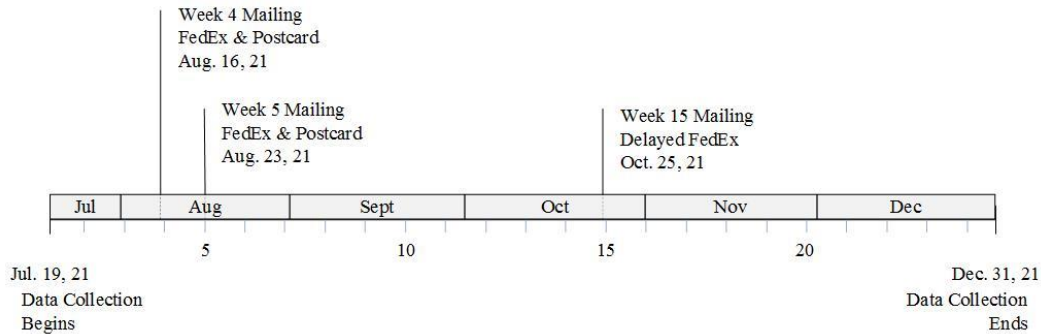


Figure 2. Timeline of Reminder Letter Mailings

The priority FedEx mailing (Figure 3) and the USPS postcard (Figure 4) contained the same information, providing the purpose and importance of the MCBS. Both also provided the survey toll-free number and encouraged participants to call in to complete the survey.

Recently you received a letter or phone call from our representatives to request your participation in the Medicare Current Beneficiary Survey (MCBS). Your response is needed now more than ever; the information you provide will be used to make Medicare work better, both now and in the future.

If you have already responded to the survey, thank you for your participation!

If not, **please call 1-844-777-2151** to schedule your telephone appointment. For more information about this survey, please visit mcbs.norc.org.

Thank you for your help with this important survey to improve your Medicare services!

Figure 3. Example Text of USPS Postcard Reminder Mailing

Recently we attempted to contact you regarding the Medicare Current Beneficiary Survey (MCBS). NORC is contracted by the Centers for Medicare & Medicaid Services to conduct the MCBS. We mailed you a letter in late July and we have included another copy of this letter for your reference. In addition, one of our professional NORC interviewers has tried to reach you by telephone.

First, if you have already completed the survey we thank you for taking time to speak with us. If you have not yet completed the survey, I am writing to request your permission to schedule a phone call with one of our interviewers to discuss this important study. The survey can be completed by phone at a time that is convenient for you.

To complete the interview, call us at 1-844-777-2151.

Figure 4. Example Text of Priority FedEx Reminder Mailing

Demographic characteristics for each case including age, race/ethnicity, and gender were provided in administrative data from CMS through the Medicare program. Additional characteristics related to survey fielding including the final survey disposition and characteristics of the interviewer were obtained through operational data collected during survey fielding. Telephone locating characteristics including the number of telephone

numbers located and their source were provided through pre-fielding locating efforts. These three data sources were combined at the case-level to form a final analytic file.

Univariate analyses were used to assess practical and operational outcomes between the different delivery method groups. Bivariate analyses provided comparisons between the FedEx and USPS delivery methods as well as comparisons between the initial and delayed FedEx mailing dates. Chi-Squared tests for significance were used to determine if measures such as the rate of completed interviews and the rate of calls to the survey toll-free number were significantly different among delivery method groups. Wilcoxon-Mann-Whitney tests for significance were used to determine if the number of interviewer contact attempts or the number of days a case was in the field differed by delivery method group. All analyses were unweighted since they included cases that did not complete the survey and therefore did not have a final survey weight.

4. Results

The rate of beneficiary-initiated calls to the toll-free number as well as the rate of scheduled appointments to speak with an interviewer were analyzed to assess whether the delivery method had an effect on interviewer efficiency and effort (Table 2). Cases receiving the initial priority FedEx mailing were significantly more likely to call in to the survey toll-free number (17 percent) when compared to cases receiving the USPS postcard (5 percent). Similarly, these cases were significantly more likely to call the survey toll-free number than those who received the delayed priority FedEx mailing (10 percent). However, no significant differences were found among the rate of scheduled appointments across the three delivery method groups.

Table 2. Rate of Calls to the Toll-Free Number and Scheduled Appointments

	<i>Priority FedEx</i>	<i>USPS Postcard</i>	<i>Delayed FedEx</i>	<i>Absolute Difference</i>	
				<i>USPS Postcard – Priority FedEx</i>	<i>Priority FedEx – Delayed FedEx</i>
Calls to the Toll-Free Number	16.7	4.6	9.5	12.1*	7.2†
Scheduled Appointments	23.9	22.8	23.9	1.1	0.0

* indicates a statistically significant difference ($p < 0.05$) between the initial priority FedEx mailing and the USPS postcard at the 95 percent level.

† indicates a statistically significant difference ($p < 0.05$) between the initial priority FedEx mailing and the delayed FedEx mailing at the 95 percent level.

Interviewers attempted to contact cases via phone throughout the data collection period to complete the survey. The experimental groups were compared to determine if any of the reminder letter delivery methods were associated with a reduction in interviewer contact attempts. This comparison was done using a multivariate model controlling for demographic characteristics of the case including race/ethnicity, age, and gender, obtained through Medicare administrative data within the sample frame. The model also controlled for interviewer characteristics including the interviewer’s years of experience and whether

the interviewer was permitted to conduct in-person gaining cooperation contacts². The differences in the number of contacts made both in total and only after reminder mailings were received were small practically, see Table 3. However, the initial priority FedEx mailing required significantly fewer contacts than the USPS postcard and the delayed priority FedEx mailing.

Table 3. Mean and Median Number of Interviewer Contacts

	<i>Contacts Post-Mailing</i>		<i>Total Contacts</i>	
	<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>
Priority FedEx	8.8	7	13.5	11
USPS Postcard	9.5	8	14.1	12
Delayed FedEx	10.1	8	14.9	13

Completion rates were analyzed at two different points in data collection. In week 12, the project team reviewed completion rates to assess differences among the delivery method groups while those in the control group received no reminder mailing. This intermediate assessment assisted the decision to send a priority FedEx mailing to pending control cases. At that time, 25 percent of cases receiving the initial FedEx mailing had completed the survey compared to 18 percent of cases receiving a USPS postcard and 17 percent of cases in the control group receiving no reminder mailing. Based on the lagging response rates for the control group, a priority FedEx reminder mailing was sent to pending cases in week 15.

Completion rates were analyzed again at the end of data collection to assess differences between the priority FedEx mailing and the USPS postcard as well as differences between the initial priority FedEx mailing and the delayed priority FedEx mailing (Table 4). At the end of data collection, 33 percent of cases who received the initial priority FedEx mailing completed the survey, which was significantly more than the 28 percent of cases who received the USPS postcard and completed the survey. However, this was not significantly different from the 32 percent of cases who received the delayed priority FedEx mailer.

A similar pattern was seen according among demographics groups with a statistically significantly higher proportion of females (32 percent compared to 27 percent) and males (33 percent compared to 28 percent) completing the survey after receiving the initial priority FedEx mailing when compared to those who received the USPS postcard. Significant increases in completion rates were also seen among Hispanics (34 percent compared to 26 percent), Non-Hispanic Whites (32 percent compared to 28 percent) and Non-Hispanic Blacks (37 percent compared to 27 percent). Though increased completion rates were seen among those receiving the initial priority FedEx mailing across all age groups, only differences among those 65-69 (5 percent), 70-74 (5 percent), and 74-79 (9 percent) were statistically significant. None of the differences in completion rates by the demographic characteristics assessed were statistically significant when comparing the initial priority FedEx mailing to the delayed FedEx mailing.

² In-person efforts began in mid-October, 2021, about halfway through data collection. These efforts were limited in the Fall 2021 due to COVID-19 requirements and protocols and therefore were a minor component of overall outreach protocols.

Table 4. End of Round Completion Rates

	<i>Priority FedEx</i>	<i>USPS Postcard</i>	<i>Delayed FedEx</i>
<i>Total</i>	32.5	27.5*	31.5
<i>Gender</i>			
Female	32.3	27.2*	31.4
Male	32.9	27.7*	31.5
<i>Race/Ethnicity</i>			
Hispanic	34.0	26.3*	34.8
Non-Hispanic White	32.1	27.9*	31.0
Non-Hispanic Black	37.1	27.2*	32.9
Asian, Native Hawaiian, Other Pacific Islander	21.8	18.1	19.0
American Indian, Alaska Native	24.1	22.7	22.2
Other	25.0	27.5	31.3
Unknown/Missing	36.6	33.1	42.6
<i>Age</i>			
Under 45	30.1	24.9	34.0
45-64	33.6	28.0	35.0
65-69	34.7	30.0*	33.6
70-74	31.6	26.8*	29.2
75-79	35.1	25.8*	31.9
80-84	32.2	28.4	29.7
85 and over	29.1	26.9	29.2

* indicates a statistically significant difference ($p < 0.05$) between the initial priority FedEx mailing and the USPS postcard at the 95 percent level.

† indicates a statistically significant difference ($p < 0.05$) between the initial priority FedEx mailing and the delayed FedEx mailing at the 95 percent level.

Figure 5 shows the cumulative rate of completed surveys by each of the three delivery method groups by week. An increase in the rate of completed surveys occurs around the weeks just after the priority FedEx and USPS postcard mailings were received. A similar increase in the rate of completed surveys occurs among the control group who received the delayed FedEx mailing in week 15. Using a Wilcoxon-Mann-Whitney test, it was found that a priority FedEx mailing significantly reduced the numbers of days a case was in the field as compared to a USPS postcard.

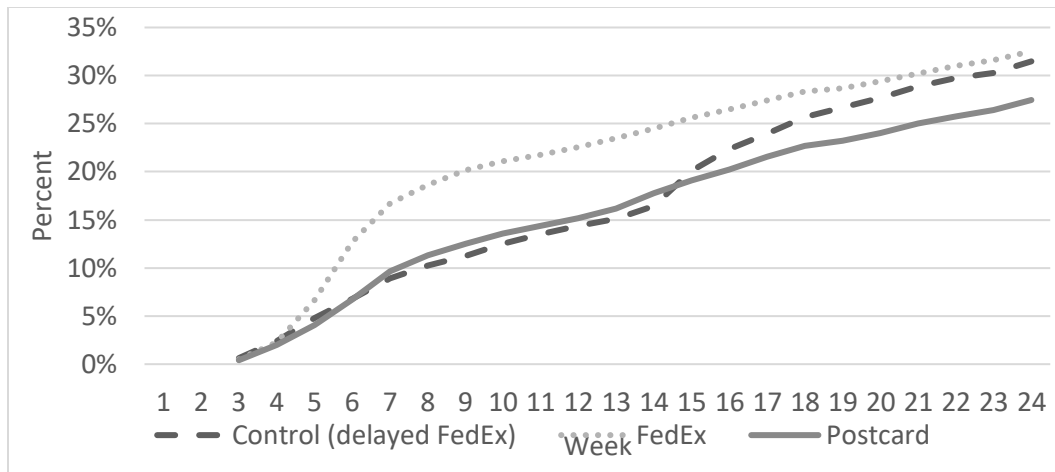


Figure 5. Cumulative Rate of Completes by Week

5. Discussion and Summary

This experiment found that using a priority method of delivery for a reminder mailing increases the response rate and lowers the interviewer contact attempts required to finalize or complete a case. In addition, due to an adaptive experimental design, we learned that the priority mailing was equally beneficial at boosting response when we sent the mailing later in the data collection period as when we sent it relatively early in the period. The priority mailing may have led to a higher cooperation rate due to the legitimacy conferred by the use of a mail source that people associate with important mail. The project's use of a FedEx mailing conveys importance and timeliness of the survey. Consistent with Dillman's notion of social exchange, respondents reciprocate by treating the project seriously and completing the survey (1990).

The experiment also found that the priority mailing significantly decreased interviewer effort via two metrics: decreased number of days a case was in the field and number of contacts required. When comparing an earlier priority mailing to a later priority mailing, the earlier mailing showed a similar pattern as far as number of days in the field, but more interviewer contacts were required among the later mailing group. This is possibly due to the type of case that was not yet completed or finalized by the point in the data collection period when the later reminder mailing was sent. It is the most difficult cases that are still pending toward the end of the data collection period, which typically require more contacts to complete. Without a true control group for comparison, we are unable to determine whether the later mailing reduced the number of contacts and, if so, to what extent.

It is important to discuss the tradeoff between the additional cost of a priority mailing and the cost of additional interviewer labor. Project decisions to use a priority mailing leave less funding for interviewer staff, who are critical to an interviewer-administered survey's success. Projects must determine the appropriate balance between funding for outreach strategies like priority mailings and interviewer staffing levels to meaningfully contact and interview the maximum number of respondents. During a pandemic, when in-person contacting and interviewing was not feasible, we found that priority mailings were well suited to help fill the strategy gap left by in-person effort.

While there are some limitations to the findings from this experiment, the benefits of a priority mailing are likely applicable broadly across survey lengths, design, and target population. This experiment was designed for initial recruitment for a longitudinal survey with a relatively long survey field period of four years, but may have implications for cross-sectional survey recruitment as well. We did not evaluate the effect of the mailing on long-term survey participation, if any. Further, the experiment identified an effect on the study population for the MCBS, which is defined by Medicare eligibility. Finally, this experiment tested the value of a priority mailing with a reminder letter; for other surveys with a shorter field period and no reminder mailing, priority mailings could be considered for other survey mailings such as advance letters.

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