

**Supporting Statement B  
For Revision of Currently Approved Collection:**

**Medicare Current Beneficiary Survey (MCBS)**

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## B. Statistical Methods

The revision to this OMB package includes the following modifications to the Community instrument sections:

- Revise Beneficiary Knowledge and Information Needs (KNQ) to add five questions on review of existing insurance coverage and comparison of available Medicare plans.
- Revise the Usual Source of Care Questionnaire (USQ) to add two care coordination and patient centered care items.
- Revise USQ to add one item on innovative provider health care initiatives.
- Revise USQ to add eleven electronic health records (EHR) items and remove one existing EHR item from KNQ.
- Revise Preventive Care Questionnaire (PVQ) to add one wellness benefit item.
- Add two oral health items to PVQ and one oral health item to Health Functioning and Status Questionnaire (HFQ).

### B1. Universe and Respondent Selection

The target universe is current Medicare beneficiaries entitled to hospital and/or supplementary medical insurance and living in the 50 states or the District of Columbia. Both institutionalized and non-institutionalized beneficiaries are represented. Table B.1 summarizes the number of beneficiaries in the target universe based on CMS administrative records through 2018 and projected estimates for 2019. The seven age groups shown in the table correspond to the primary sampling strata from which the samples for the MCBS are drawn. The age groups are defined by the beneficiaries' age as of July 1 of the given year for 2014 and 2015, and as of December 31 of the given year for 2016 and later.

**Table B.1: Universe Counts Broken Down by MCBS Age Groups (in thousands)**

Age Interval	2014	2015	2016	2017	2018	2019
Disabled <45	2,081.98	1,938.78	1,888.80	1,842.08	1,791.78	1,757.28
45 to 64	7,147.45	7,207.86	7,150.16	7,076.64	6,903.46	6,846.93
Total	9,229.42	9,146.64	9,038.96	8,918.72	8,695.24	8,604.20
Aged						
65 to 69	13,541.48	15,312.60	15,727.6	15,767.28	15,978.62	16,261.23
70-74	10,973.99	11,640.90	12,401.1	13,080.94	13,647.66	14,319.39
75-79	7,890.82	8,314.00	8,607.10	9,080.94	9,463.14	9,926.16
80-84	5,767.31	5,999.42	6,069.32	6,137.60	6,301.04	6,515.46
85+	6,626.77	7,045.62	6,976.84	7,021.14	7,001.80	7,015.27
Total	44,800.37	48,312.54	49,782.0	51,087.90	52,392.26	54,037.50
Total	54,029.80	57,459.18	58,821.0	60,006.62	61,087.50	62,641.71

**Source:** Historical counts for 2013-2014 are based on full Medicare administrative records. Historical counts for 2015-2018 are based on a 5-percent extract of the Medicare administrative records and are computed as 20 times the extract counts.

**Notes:** Puerto Rico beneficiaries are excluded from counts beginning in 2017 by sample design. Projections (2019) from the historical counts are based on the annual rate of change from 2016-2018.

Totals do not necessarily equal the sum of rounded components.

The target sample size of the MCBS has been designed to yield 9,467<sup>1</sup> completed cases providing 2018 Cost Supplement data per year (approximately 700-900 disabled enrollees under the age of 65 in each of two age strata, and 1,200-1,700 enrollees in each of five age strata for enrollees 65 and over).

To achieve the desired number of completed cases, the MCBS selects new sample beneficiaries each year (referred to as the incoming panel) to compensate for nonresponse, attrition, and retirement of sampled beneficiaries in the oldest panel (referred to as the exit panel) and to include the newly eligible population, while continuing to interview the non-retired portion of the continuing sample. The incoming panel is always added in the Fall round (also referred to as the baseline interview); the retiring or exit panel occurs in the winter round (and is the 11<sup>th</sup> and final interview for all respondents).

Each year, an analysis of non-response and attrition is conducted to determine the optimal sample size for the fall round incoming panel. Through 2009, approximately 6,500 beneficiaries were added to the sample in the fall (September – December) round each year to replace the exiting panel and to offset sample losses due to non-response and attrition. Beginning in the fall round of 2010, the number of beneficiaries included in the incoming panel was increased to approximately 7,400 to compensate for declining response rates. By 2018, the sample has increased further to approximately 11,500. The sample size results in about 35,000 interviews completed per year.

Proxy interviews are attempted for deceased sample persons. If data are collected through the date of death, then such cases are counted as completes. For sampled beneficiaries who reside in both a community and a facility setting, the round is considered complete if both community and facility interviews are completed. Sampled beneficiaries remain in the survey when they are unavailable for an interview in a given round; that is, they are carried forward into the next round. For these individuals, the reference period for their next interview is longer as it covers the period since their last interview; this ensures that there will not be a gap in coverage of utilization and expenditure data. If a sampled beneficiary is not interviewed for two consecutive rounds, they are not scheduled for any further interviews and are taken out of case management. Such cases are treated as nonresponding cases.

The methodology for drawing the samples is described later in this document. The number of cases to be selected each year for the incoming panel (designated sample sizes) are larger than the targeted number of completes to compensate for non-response, ineligibility, and attrition. To see an illustration of the extent of the compensation necessary in Fall 2018 Round 82 to achieve the desired number of cases providing annual data, see Table B.2.

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<sup>1</sup> Note that the historical target of 11,500 responding beneficiaries across all panels was not achievable in 2018; the target was reduced to 9,467, which was the maximum number of completed interviews achievable within budget.

Table B.2: Sample Size Needed to Compensate for Initial Non-Response and Ineligibility in the 2018 Fall Round

**Table B.2: Sample Size Needed to Compensate for Initial Non-Response and Ineligibility**

<b>Age on December 31 of <u>reference year</u></b>	<b>Desired average number of <u>cases providing annual data</u></b>	<b>Number sampled at <u>Round 82</u></b>
18-44	343	1,184
45-64	332	864
65-69	687	2,217
70-74	600	1,609
75-79	603	1,747
80-84	620	1,837
85+	648	2,090
Total	3,833	11,548

**Cross-sectional sample sizes for other domains.** There are multiple domains of interest in the MCBS, (for example, respondents with end-stage renal disease, persons residing in nursing homes, managed care enrollees, beneficiaries of various race and ethnic backgrounds, and Medicaid recipients). The MCBS will continue to maintain a minimum target of 9,000 completed responses in the annual Cost Supplement file to help ensure that analysis can be performed on MCBS data for many domains of interest.

**Sample sizes for longitudinal analyses.** Beginning in 2018, under the rotating panel design specified for the MCBS, respondents remain in the sample for up to eleven rounds of data collection over a four year period; prior to 2018, respondents remained in the sample for up to twelve rounds of data collection. The historical response rates and attrition rates observed in the MCBS are used to determine the rotational sample size and configuration of each new incoming panel. The rotational sample design attempts to achieve consistency in subgroup sample sizes across all panels comprising a particular calendar year.

Table B.3 (in section B2 below) presents the round-by-round conditional and unconditional response rates as of Round 76 (Fall round of 2016) for the samples (referred to in the table as “panels”) selected in 2009 through 2016. For example, from the bottom part of the table, it can be seen that by the 10th round of data collection for the 2013 panel, 28.6 percent of the 2013 panel were still in a formal responding status (that is, either the sampled beneficiary was alive and still participating in the study or had died but a cooperative proxy was found for the collection of data on the last months of life) or had participated in the survey until death, leaving enough data to estimate the last months of life. For the 2014 and 2015 panels, the unconditional response rates as of Round 76 were 28.4 percent (through the 7th round of data collection) and 32.9 percent (through the 4th round of data collection), respectively. The 2016 panel (the new panel selected in Round 76) had an initial response rate of 54.7 percent in its first round of data collection.

Round 76 (Fall 2016) is the latest round for which MCBS data have been fully processed. There were 1,965 interviews successfully completed at Round 76 with still-living members of the 2013 panel. For brevity, we refer to these 1,965 interviews as “live completes.” For the 2014 and 2015 panels there were 2,994 and 2,632 live Round 76 completes, respectively. For the first round of data collection for the 2016 panel, there were 6,334 completes at Round 76.

The MCBS has used a variety of techniques to maintain respondents in the survey and reduce attrition. These will be continued and adapted to comply with the time frames for initiating and implementing the continuing sample.

## **B2. Procedures for Collecting Information**

This section describes the procedures used to select the samples for the national survey. It includes a general discussion of the statistical methodology for stratification and rotational panel selection, estimation procedures, and the degree of accuracy needed. This is followed by a presentation of how instrument sections are used to enhance the analytic potential of the MCBS data. Finally, there is a discussion of rules for allowing proxy response.

### **a. Statistical Methodology for Stratification and Sample Selection**

This section opens with a description of the MCBS sample design. This is followed by a general discussion of the selection of the original and annual new incoming (historically referred to as supplemental) samples and the use of Medicare administrative enrollment data each year to reduce problems associated with duplication of samples across the years.

- 1) PSU and Census tract clustering. The MCBS employs a complex multistage probability sample design. At the first stage of selection, the sample consists of 104<sup>2</sup> primary sampling units (PSUs) defined to be metropolitan areas and clusters of nonmetropolitan counties. At the second stage of selection, samples of Census tracts are selected within the sampled PSUs. At the third and final stage of selection, stratified samples of beneficiaries within the selected Census tracts are sampled at rates that depend on age group and ethnicity.

The strata used for selection of the PSUs covers the 50 states and the District of Columbia. Since PSUs were selected randomly with probabilities proportionate to size, there are some states without any sample PSUs within their boundaries. Within major strata defined by region and metropolitan status, PSUs were sorted by percent of beneficiaries enrolled in HMOs and/or percent of beneficiaries who are minorities based on data in CMS administrative files. Substrata of roughly equal size were created from the ordered list for sample selection.

In 2014, within the PSUs, a sample of 703 second-stage units (SSUs) consisting of Census tracts or clusters of adjacent tracts was selected. There were several steps in the SSU sampling process. First, an extract of the entire Medicare administrative enrollment data was obtained, and all beneficiaries' addresses were geocoded to the tract level. A minimum measure of size was used to determine whether a Census tract was large enough (i.e., had enough Medicare beneficiaries) to stand on its own as an SSU or would need to be combined with one or more adjacent tracts. A frame of 24,212 SSUs was then constructed, and a sample of 703 SSUs was selected using systematic probability proportional to size. These SSUs have been used for sampling MCBS beneficiaries since

<sup>2</sup> Note that prior to 2017, 107 PSUs were used for sampling for the MCBS. These included three PSUs in Puerto Rico. Beginning in 2017, Puerto Rico was removed from the MCBS sampling frame.

2014<sup>3</sup> and were sized to be used for up to 20 years. An additional sample of 339 reserve SSUs was also selected to support an expansion of the sample or the study of special rare populations in future years. To date, these reserve SSUs have not yet been used for sampling for the MCBS.

Table B.3: Conditional and Unconditional Response Rates as of the 2016 Panel for Medicare Current Beneficiary Survey by Interview Round

**Conditional Response Rates for Medicare Current Beneficiary Survey by Interview**

	2009 Panel (n=6915)	2010 Panel (n=7260)	2011 Panel (n=7365)	2012 Panel (n=7400)	2013 Panel (n=7400)	2014 Panel* (n=11398)	2015 Panel (n=8621)	2016 Panel (n=12145)
Round 1	77.5%	77.5%	77.4%	73.2%	72.8%	58.7%	53.3%	54.7%
Round 2	89.4%	89.0%	88.7%	87.6%	87.4%	***	83.2%	
Round 3	91.3%	92.7%	91.4%	92.4%	92.1%	82.1%	82.7%	
Round 4	93.9%	93.3%	91.9%	92.3%	78.5%	84.1%	80.0%	
Round 5	95.3%	94.8%	94.0%	94.3%	***	85.9%		
Round 6	96.3%	94.7%	95.4%	94.3%	86.9%	81.1%		
Round 7	96.0%	94.2%	94.8%	80.7%	87.6%	83.4%		
Round 8	96.8%	96.2%	96.2%	***	89.8%			
Round 9	96.4%	96.8%	96.3%	89.8%	82.2%			
Round 10	96.5%	97.1%	86.2%	90.1%	87.9%			
Round 11	99.1%	98.8%	***	93.1%				
Round 12	99.6%	99.6%	96.9%	96.0%				

**Unconditional Response Rate for Medicare Current Beneficiary Survey by Interview Round**

Round 1	77.5%	77.5%	77.4%	73.2%	72.8%	58.7%	53.3%	54.7%
Round 2	69.2%	68.8%	68.5%	63.9%	63.4%	***	44.2%	
Round 3	58.4%	60.4%	62.6%	58.6%	57.9%	48.1%	31.7%	
Round 4	59.4%	59.6%	57.2%	53.5%	44.8%	40.1%	32.9%	
Round 5	55.4%	55.8%	53.4%	50.1%	***	35.8%		
Round 6	48.7%	52.5%	50.1%	46.4%	42.1%	21.9%		
Round 7	50.7%	49.0%	47.3%	37.2%	36.6%	28.4%		
Round 8	48.3%	46.8%	45.1%	***	33.6%			
Round 9	46.3%	44.7%	42.5%	35.5%	20.2%			
Round 10	44.2%	43.0%	36.3%	31.8%	28.6%			
Round 11	43.4%	42.0%	***	30.5%				
Round 12	39.5%	38.3%	34.4%	27.4%				

\* The 2014 panel response rate was impacted by several operational design changes recognized during the transition between contractors in 2014, including an extensive CAPI instrument development effort originally considered out-of-scope for transition purposes, the initial need to release a larger 2014 incoming panel sample to account for a smaller continuing sample fielded in the fall of 2014, the hiring and training of 100 new interviewers for MCBS data collection, and the decision to extend the incoming panel data collection through the release of additional replicates in December 2014, resulting in a shorter data collection period and consequently lower response rate for 2,500 sample members.

<sup>3</sup> Beginning in 2017, the 18 SSUs selected from the three Puerto Rico PSUs were removed from the sampling frame, leaving 685 SSUs for sampling for the MCBS.

\*\* Not available because the 2015 winter and summer rounds (R71 and R72) were combined for data collection in this year only. Again, this was due to transition activities that started in 2014 and were completed in 2015.

- 2) Selection of beneficiaries. In the Fall 2018 Round 82, an incoming panel sample of 11,548 beneficiaries was selected from the Medicare administrative enrollment data. This sample was clustered within the selected PSUs and SSUs and was designed to achieve uniform sampling weights within each strata. Beginning in 2015, beneficiaries eligible *anytime* during the sampling year are also included in the Medicare administrative enrollment sampling frame (referred to as newly eligible beneficiaries). Their inclusion allows for the release of data files up to one year earlier than previously possible.<sup>4</sup> Also beginning in 2015, Hispanic beneficiaries living outside of Puerto Rico were oversampled. Nursing home residents are drawn into the sample in exactly the same manner as other beneficiaries residing in the community.

### **b. Estimation Procedure**

To date, sampling weights have been calculated for each Fall round (1, 4, 7..., and 76) in order to produce the Survey File limited data sets (previously referred to as the Access to Care files). Both cross-sectional and longitudinal weights have been calculated. These weights reflect differential probabilities of selection and were adjusted to account for overlapping coverage of the panels included in the Survey File and non-response. Replicate weights were also calculated so that users can calculate standard errors using replication methods. In addition to the replicate weights, stratum and unit codes exist on each weight file for users who prefer to use Taylor Series methods to estimate variances.

Besides standard weighting and replicate weighting, another part of the estimation program includes the full imputation of the data sets to compensate for item non-response. Imputation of charges for non-covered services and sources of payment for covered services in the Cost Supplement files have been developed. The weighting and imputation of data continue each year.

### **c. Degree of accuracy needed for the purpose described in the justification**

A broad range of statistics are produced from the MCBS. There is no single attribute of beneficiaries and their medical expenses that stands out as the primary goal of the survey. Thus, there can be no simple criterion for the degree of reliability that statistics for each analytic domain should satisfy. Even with a larger sample size of 14,000 to 15,000 persons, there would be many small domains of interest for which it will be necessary to use modeling techniques or to wait several years for sufficient data to accumulate.

The MCBS will maintain a stratified approach to the selection of the sample. The sample will continue to be clustered by PSU and Census tract-based SSU and stratified by age domain and race/ethnicity; the tract-based SSU approach was an innovation first begun in 2014 which has resulted in greater efficiencies and increased analytic opportunities. We anticipate maintaining a total of 700-900 annual cases allocated to the two younger age categories for disabled beneficiaries who are not yet 65. The two age categories were selected because they indirectly reflect the means by which the disabled person becomes eligible for Medicare. Since the number of disabled sample persons per PSU and Census tract will be small, the effects of clustering on

<sup>4</sup> Persons who became eligible for Medicare during 2015 could have incurred health care costs in 2015. By including such persons in the sampling process up to a year earlier than was done previously, they can be appropriately represented in the 2015 Cost Supplement File up to a year earlier.

statistical precision should be mild for this subgroup. For example, depending on the prevalence of the characteristic being estimated, the MCBS has achieved standard errors for estimates of percentages ranging from 2-3% or lower for subgroup estimates based on 1,000 respondents.

Since many of the cost and reimbursement statistics derived from the MCBS may be heavily right-skewed (i.e., reflecting the higher end of the cost/reimbursement spectrum to a disproportionate degree), the accuracy may be lower in relative terms but still acceptable. For example, the relative standard error of the mean total Medicare reimbursements derived from the MCBS has generally ranged from 2.0-2.5% for the total sample, and 4.0-8.0% for subgroups.

Each of the age strata for the Medicare sample age 65 and over will be allocated 1,200-1,700 cases, with the oldest stratum (age 85 and over) being allocated about 1,600 cases with oversampling. A major reason for over sampling the very old is to obtain an adequate sample of nursing home stays. Variations in sampling weights across the age strata and clustering within PSU and Census tract will inflate sampling errors, but the resulting effective sample sizes should be adequate for most analyses.

#### **d. Interview content for periodic data collection cycles to reduce burden.**

##### 1) Content and timing of instrument sections.

The primary variables of interest for the MCBS are the use and cost of health care services and associated sources and amounts of payment. While Medicare claims files supply information on billed amounts and Medicare payments for covered services, the survey provides important self-reported information on use of services not covered by Medicare and on payment sources and amounts for costs not reimbursed by Medicare. For both the Community and Facility components, the primary focus of the data collection is on use of services (dental, hospital, physician, medical providers, prescription medication and other medical services), sources and amounts of payment, and health insurance coverage. The MCBS interview collects continuous information on these items through thrice-yearly interviews; that is, once a new respondent completes their baseline interview, they are asked utilization and cost questions each round.

Continuous data on utilization and expenditures are required for a number of reasons. First, several of the distinct expenditure categories involve relatively rare medical events (inpatient hospital stays, use of home health care, purchase of durable medical equipment, and so forth), so limiting the reference period would mean insufficient observations for annual estimates.

Second, episodes of medical care often consist of a series of services over weeks or months; data collected several times a year allow examination of the grouping of services and costs around particular episodes of care. Third, payment for medical services often occurs considerably later than the utilization, so collection of complete information about a particular event can often only be obtained sometime after the event occurs.

The administration of the instruments will continue to follow the established pattern of data collection. Baseline information will be collected in the initial interview with new incoming panel respondents. This will be followed with 10 interviews to collect utilization, cost and other important topics. Since the initial interview always occurs in the last four months of a calendar year, collection of utilization and expenditure data in the second interview means the reference period will always begin prior to January 1st. This creates use and expenditure estimates on a calendar year basis.

The literature (initially reported by Neter and Waksberg in 1964, and confirmed in subsequent research by other analysts) indicates that collection of behavioral information in an unbounded recall period can result in large recall errors. The incoming panel interviews covered in this clearance request - Fall 2020 (Round 88), Fall 2021 (Round 91), and Fall 2022 (Round 94) -prepares the respondent for the collection of utilization and expenditure information in subsequent rounds, thus “bounding” the recall period for the next interview. During the baseline interview, the respondent is provided with a calendar and interviewers emphasize the importance of this tool for use in future interviews. This calendar marks the recall period for the respondent and serves as the means to record utilization as well as a prompt to retain statements and bills.

## 2) Content of the instruments, Rounds 86-94.

Nearly all of the instruments sections as currently approved by OMB are unchanged. Table B.4 presents the core and topical sections that comprise the MCBS Community instrument. As shown in the table, the content and order of administration varies based on season of data collection (Fall, Winter, Summer) and the type of interview (Baseline, Continuing). Those sections with an asterisk (\*) include a revision contained in this clearance request (either adding or deleting questions). Occasionally an item may be moved from one questionnaire section to another to improve the flow and use of the data, or for other operational or analytic purposes.

**Table B.4: Community Instrument Sections and Order of Administration**

<b>Section</b> Listed in the order in which the section is administered.	<b>Type of Section</b> (Core	<b>Season of Administration</b> (Rounds Administered)	<b>Interview Type</b> (Baseline, Continuing Both)
Introduction (INQ)	Core	All (Round 86-94)	Both
Enumeration (ENS)	Core	All (Round 86-94)	Both
Housing Characteristics (HAQ)	Topical	Fall (Rounds 88, 91, 94)	Both
Health Insurance (HIQ)	Core	All (Round 86-94)	Both
Dental, Vision, and Hearing Care Utilization (DVH)	Core	All (Round 86-94)	Continuing
Emergency Room Utilization (ERQ)	Core	All (Round 86-94)	Continuing
Inpatient Utilization (IPQ)	Core	All (Round 86-94)	Continuing
Outpatient Utilization (OPQ)	Core	All (Round 86-94)	Continuing
Institutional Utilization (IUQ)	Core	All (Round 86-94)	Continuing
Home Health Summary (HHS)	Core	All (Round 86-94)	Continuing
Home Health Utilization (HHQ)	Core	All (Round 86-94)	Continuing
Medical Provider Utilization (MPQ)	Core	All (Round 86-94)	Continuing
Access to Care (ACQ)	Core	Winter (Rounds 86, 89, 92)	Continuing
Prescribed Medicine Utilization (PMQ)	Core	All (Round 86-94)	Continuing
Other Medical Expenses (OMQ)	Core	All (Round 86-94)	Continuing
Statement Cost Series (STQ)	Core	All (Round 86-94)	Continuing
Post-Statement Cost (PSQ)	Core	All (Round 86-94)	Continuing
No Statement Cost Series (NSQ)	Core	All (Round 86-94)	Continuing

<b>Section</b> Listed in the order in which the section is administered.	<b>Type of Section</b> (Core or Topical)	<b>Season of Administration</b> (Rounds Administered)	<b>Interview Type</b> (Baseline, Continuing, Both)
Cost Payment Summary (CPS)	Core	All (Round 86-94)	Continuing
Mobility of Beneficiaries (MBQ)	Topical	All (Round 86-94)	Both
Preventive Care (PVQ)*	Topical	All (Round 86-94)	Both
Health Status and Functioning (HFQ)*	Core	Fall (Rounds 88, 91, 94)	Both
Chronic Pain (CPQ)	Topical	Summer (Rounds 87, 90,	Continuing
Nicotine and Alcohol Use (NAQ)	Topical	Fall (Rounds 88, 91, 94)	Both
Satisfaction with Care (SCQ)	Core	Fall (Rounds 88, 91, 94)	Both
Demographics and Income (DIQ)	Core	Fall (Rounds 88, 91, 94)	Baseline
Beneficiary Knowledge and Information Needs (KNQ)*	Topical	Winter (Rounds 86, 89, 92)	Continuing
Usual Source of Care (USQ)*	Core	Winter (Rounds 86, 89, 92)	Continuing
Income and Assets (IAQ)	Core	Summer (Rounds 87, 90,	Continuing
Drug Coverage	Topical	Summer (Rounds 87, 90,	Continuing
End Section	Core	All (Round 86-94)	Both

The Facility instrument collects information that is similar in content to the Community instrument. Table B.5 presents the sections that comprise the MCBS Facility instrument; all sections are considered core. As with the Community instrument, the content and order of administration varies based on season of data collection (Fall, Winter, Summer) and the type of interview (baseline, continuing).

<b>Section</b>	<b>Season of Administration</b> (Rounds Administered)	<b>Interview Type</b> (Baseline, Continuing,
Facility Questionnaire (FQ)	All (Round 86-94)	Both
Residence History (RH)	All (Round 86-94)	Both
Background Questionnaire (BQ)	Fall (Rounds 88, 91, 94)	Baseline
Health Insurance (IN)	All (Round 86-94)	Both
Use of Health Services (US)	All (Round 86-94)	Continuing
Expenditures (EX)	All (Round 86-94)	Continuing
Health Status (HS)	Fall (Rounds 88, 91, 94)	Both
Facility Questionnaire Missing Data <sup>^</sup>	All (Round 86-94)	Both
Residence History Missing Data <sup>^</sup>	All (Round 86-94)	Both
Background Questionnaire Missing Data <sup>^</sup>	Fall (Rounds 88, 91, 94)	Baseline

<sup>^</sup>Section only activated and available for administration when critical data points from the FQ, RH, or BQ sections are marked as missing, Don't Know, or Refused.

The revision to this OMB package includes the following content changes to the Community instrument.

### **Summary of instrument changes beginning in Winter 2020 Round 86 through Fall 2022 Round 94:**

- Revise Beneficiary Knowledge and Information Needs (KNQ) to add five questions on review of existing insurance coverage and comparison of available Medicare plans.
- Revise the Usual Source of Care Questionnaire (USQ) to add two care coordination and patient centered care items.
- Revise USQ to add one item on innovative provider health care initiatives.
- Revise USQ to add eleven electronic health records (EHR) items and remove one existing EHR item from KNQ.
- Revise Preventive Care Questionnaire (PVQ) to add one wellness benefit item.
- Add two oral health items to PVQ and one oral health item to Health Functioning and Status (HFQ).

### **Additions to Beneficiary Knowledge and Information Needs (KNQ)**

Beginning in Round 86, the MCBS will add five items to KNQ as part of the Winter round interview to assess whether respondents reviewed their existing insurance coverage and/or compared Medicare plans during the last open enrollment period. The items ask whether the respondent reviewed their insurance coverage during the last open enrollment period to see if there were any expected changes in monthly premiums, deductibles, and other expenses; whether they reviewed their insurance to see if the treatment and services covered their needs; whether they compared their plan with other plans that are available; and the different types of Medicare plans they may have compared. These items are being added to obtain information on cost transparency for the administrator's initiative, and were developed by the CMS Office of Communications. CMS has used the items on insurance review and plan comparisons on the CMS Open Enrollment Survey.

### **Revise Usual Source of Care (USQ) to Include Items on Care Coordination and Patient Centered Care**

The Center for Medicare and Medicaid Innovation (CMMI) has a number of models in operation and in planning stages that could benefit from knowing how many beneficiaries are currently receiving coordinated care and to be able to track these trends overtime. CMMI models incentivize care coordination, patient centered care, and team-based care. While CMMI collects information on these efforts through focus groups with beneficiaries and patient experience surveys, there are no figures on the overall receipt of coordinated care across Medicare beneficiaries (those within and outside of CMMI models) with which to compare to. As these concepts get picked up by providers, health systems, and other payers beyond CMMI/Medicare, CMS thinks it would be useful to understand the frequency of encountering this type of care model among the general Medicare population. Similarly, we do not have global estimates of the number of beneficiaries already receiving care from providers participating in alternative payment models or other value-based care delivery program. As the number of alternative payment models being tested by CMMI continues to increase (as well as among other payers), CMS believes it would be useful to measure beneficiary awareness within one of these models and track this information over time for operational and model planning purposes.

Starting in Winter 2020, the USQ will include two items asking whether the respondent needed help from anyone in their healthcare provider's office to manage their care among their different

providers and services, and whether they received the help they needed. These items were tested and are used by CMS on the Medicare Fee-For-Service Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey and Medicare Advantage and Prescription Drug Plan (MA & PDP) CAHPS Survey, which are administered annually. In addition, a previous iteration of these items were cognitively tested and included on the 2016 Community Mental Health Survey.

### **Revise USQ to Include Item on Innovative Provider Health Care Initiatives**

Beginning in Winter 2020, the USQ will add one item on provider participation in a health care initiative. Respondents will be asked whether their healthcare provider is associated with an innovative health care initiative such as an accountable care organization or a patient centered medical home. The goal of the item is to measure provider communication about innovative model participation, i.e., whether the provider told the respondent that they are part of an innovative model at a visit, or to measure beneficiary knowledge of providers' innovative model participation, i.e., whether the respondent knows if their provider participates, irrespective of where they got the information. These items will provide a baseline of beneficiaries' knowledge about innovative health care initiatives, as we expect these initiatives to increase in prevalence and familiarity over time. We do not expect the majority of beneficiaries to know if their provider participates in an innovative health care initiative; however we expect beneficiary knowledge to increase substantially over time as innovative initiatives expand. The question text introduces and explains the concept of innovative health care initiatives, including examples of innovative health care initiatives that may be familiar and recognizable to beneficiaries. MCBS interviewers will also have access to help text containing a definition of innovative initiatives to further help beneficiaries understand this concept if needed. The burden estimate for this item as described in Supporting Statement A takes into account the interviewer potentially providing more information to assist the respondent in answering the question. CMS will use this item to track awareness of Medicare beneficiaries about their participation in an innovative health care initiative over time.

### **Revise USQ to Add Items on Electronic Health Records (EHR)**

CMS is executing an agency-wide initiative to reduce clinician burden, with a goal of improving the processes and experiences of care for clinicians and beneficiaries. An identified source of clinician burden is attributed to the use of the Electronic Health Record (EHR). Feedback from clinician and beneficiary stakeholders asserts that the clinician's task-driven attention to the EHR during the patient visit impairs the quality and therefore the effectiveness of clinician-patient engagement. Starting in Winter 2020, the MCBS will add eleven items to USQ to measure provider use of computers and EHRs. The items are currently being used in a Porter Novelli Consumer Survey conducted by the CMS Centers for Clinical Standards and Quality (CCSQ). The items are designed to capture critical feedback from Medicare beneficiaries on their experience and perception of the use of the EHR during their office visits. Specifically, we seek to understand where there is beneficiary-identified value attributed to the clinician's use of the EHR, and where there is a perception of lack or loss of value. This information will allow CMS to design interventions to use the EHR more effectively to improve the beneficiary experience of care and improve clinical outcomes.

Respondents who report having a usual source of care will receive up to eleven items as part of USQ, asking about their provider's use of computers and access to their electronic medical record. The items ask whether the respondent's healthcare provider at their usual place of care uses a computer during their office visit and whether the provider can easily show the respondent information on the computer screen, as well as the type of information they are able to show.

They also ask whether the healthcare provider uses the computer to show the respondent recommendations for preventive health screenings or other services, reads information from their patient records to the respondent, sends them health information electronically, or gives them access to their electronic medical record. Respondents will also be asked whether they feel their healthcare provider’s use of the computer is helpful, whether they feel it distracts their provider from paying attention to them, and if they think the amount of time their provider spends on the computer is appropriate. Based on skip patterns for these items, respondents with a usual source of care will receive between four and eleven EHR-related items.

One item on the use of EHR records in KNQ was found to be duplicative with the new EHR items and has been removed.

### **Revision of Preventive Care (PVQ) to Add Wellness Benefit Item**

In 2006, Medicare introduced the “Welcome to Medicare” preventive visit as a one-time service for newly-enrolled beneficiaries, as well as the “Annual Wellness Visit”, a yearly office visit focused on preventive health. Both services are provided at no cost to patients. However, these Medicare prevention and wellness benefits are not as widely used by older Americans as they could be; in 2013, only 6.8% of new Medicare enrollees took advantage of the Welcome to Medicare visit<sup>5</sup>, and in 2014, approximately 16% of Medicare recipients had an Annual Wellness Visit; only an estimated 7% of Medicare beneficiaries receive all recommended preventive services<sup>6,7</sup>.

The U.S. Department of Health and Human Services established improving the rates of the Welcome to Medicare visits as an important *Healthy People 2020* objective. To monitor utilization of this benefit, the MCBS will add one question to the Fall round interview, beginning in Fall 2020, to ask respondents whether they received either the Welcome to Medicare or Annual Wellness Visit in the past 12 months. Results from this item will be used by CMS to compare the uptake of this benefit and identify messaging strategies needed to encourage beneficiaries to use the benefit.

### **Addition of Oral Health Items to PVQ and HFQ**

Poor oral health is often a source of chronic pain and can lead to depression and other social and emotional conditions. It also leads to other health complications including heart and lung disease and stroke. Tooth loss can lead to issues with nutrition, digestion, communication, additional oral bone loss and can be a determinant of overall health status. Beginning in Fall 2020, the MCBS will address this health concern by including three new items on oral health. The items will be asked annually as part of the Fall round interview. The first item asking respondents whether they have lost all their upper and lower permanent teeth will be asked as part of HFQ. This item

<sup>5</sup> U.S. Department of Health and Human Services. *Healthy people 2020: older adults*. Washington, DC: US Department of Health and Human Services; 2016. <https://www.cdc.gov/nchs/data/hpdata2020/HP2020MCR-C31-OA.pdf>.

<sup>6</sup> Agency for Healthcare Research and Quality. *Physician practices use software-facilitated system to complete Medicare Annual Wellness Visit, improving preventive care and generating high satisfaction*. Rockville, MD: US Department of Health and Human Services, Agency for Healthcare Research and Quality. 2012. <https://innovations.ahrq.gov/profiles/physician-practices-use-software-facilitated-system-complete-medicare-annual-wellness-visit>

<sup>7</sup> Ganguli I, Souza J, McWilliams JM, Mehrotra A. Trends in use of the US Medicare Annual Wellness Visit, 2011–2014. *JAMA* 2017;317:2233–5. [CrossRef](#) [PubMed](#)

is asked as part of the adult National Health Interview Survey (NHIS). Respondents who report having lost all their teeth will not receive the question in subsequent Fall rounds.

The second item, asking respondents whether they have ever had an exam for oral cancer in which the doctor or dentist pulls on their tongue, will be asked of all Baseline and Continuing respondents as part of PVQ in Fall 2020. If they answer “yes”, they will be asked if the oral exam took place within the past year, 1 to 3 years ago, or more than 3 years ago. In subsequent Fall rounds, Baseline respondents will be asked if they “ever” had an exam for oral cancer while Continuing respondents will be asked if they had an exam for oral cancer since the date of the last Fall round interview. Only Baseline respondents will be asked the follow-up item on when the oral exam took place, since the time period for the exam for Continuing respondents will be assumed to have taken place since the last Fall round interview. These items are asked as part of the CDC’s National Health and Nutrition Examination Survey (NHANES) Oral Health Questionnaire.

### **Rounds 86 through 94 Data Collection Procedures**

- 1) Interviews with incoming panel sample persons in community. In the Fall rounds (Round 88, 91, 94), all newly selected beneficiaries will be sent a Community Advance Letter (Attachment 2) from the Centers for Medicare and Medicaid Services. Field interviewers will carry copies of the advance letter for respondents who do not recall receiving one in the mail, as well as a copy of the MCBS Community Brochure and At the Door Sheet (Attachment 2).

The Community interviews (Rounds 86-94) will be administered to the respondent or a designated proxy using a CAPI program on a laptop computer. Attachment 3 includes a copy of all questionnaire sections administered in the baseline interview, the continuing interview, and the Showcards used by the interviewer to assist in the interviewing process.

At the completion of the baseline interview (Rounds 88, 91, 94), each new respondent is provided with a MCBS calendar (Attachment 2), on which he or she is encouraged to record health care events. The same calendar is provided to all Continuing Community respondents on a calendar year basis.

- 2) Interviews with sample persons in institutions. All Facility interviews are administered to facility staff using a CAPI program on a laptop computer. For all facility residents, the Facility Eligibility Screener is administered each time a respondent is found to have entered a facility, or in the case of baseline respondents, is currently in a facility (Attachment 4). The Facility instrument to be used in Rounds 86-94 is shown in Attachment 5.

Some facility administrators will require consent of the sample person or a next of kin before releasing any information. The data collection contractor will offer to obtain such written consent, using the Resident Consent Form, and Next of Kin Consent Form. These forms as well as a HIPAA letter are included in Attachment 6.

#### **e. Proxy rules.**

For Community respondents, the preferred mode is self-response. Respondents are asked to designate proxy respondents. These are individuals who are knowledgeable about the respondent’s health care. In the MCBS, only those individuals who are designated by the respondents can serve as proxy respondents.

Upon screening a facility where a facility resident is residing, the interviewers determine the appropriate staff at the facility best able to respond. MCBS interviewers do not interview residents in a facility. Instead, interviewers are trained to determine and seek out the appropriate staff for the interview. When appropriate, interviewers abstract information from available facility records. If a respondent is incarcerated, we do not seek self-response within a prison, but rather monitor the respondent's incarceration status should the person be released. Other institutions will be treated on a case-by-case basis.

### **B3. Methods for Maximizing Response Rates and Dealing with Issues of Non-Response**

The sample for the MCBS is a heterogeneous population that presents a unique challenge for maximizing response rates. The survey selects respondents from two Medicare groups—those age 65 and over and those younger than 65 who have disabilities. Both of these groups have characteristics that often lead to refusals on surveys. Increasing age, poor health or poor health of a family member are prevalent reasons for refusal. On the other hand, older persons are the least mobile segment of the population and thus, for a longitudinal survey, less likely to be lost due to failure to locate. Recent data on the MCBS indicate that the population aged under 65 tends to have a slightly higher response rate than the aged population.

Because this is a longitudinal survey, it is essential that we maximize the response rates. In order to do so, data collection staff undertakes an extensive outreach effort each round. This includes the notification of government entities about the survey including CMS regional offices and hotline, carriers and fiscal intermediaries, and Social Security Offices, national organizations including the AARP and various community groups (e.g., social service and health departments, home health agencies, state advocates for the elderly and area agencies on aging). These efforts are undertaken to answer questions or concerns that respondents may have in order to increase the likelihood that respondents would participate in the MCBS and remain in the survey panel.

Specifically, efforts to maximize response rates include: 1) informing authoritative sources to whom respondents are likely to turn if they question the legitimacy of the MCBS; 2) giving interviewers resources to which they can refer to reassure respondents of the legitimacy/importance of the survey; and 3) generally making information about MCBS available through senior centers and other networks to which respondents are likely to belong or reach out to (such as the 1-800-Medicare hotline).

In addition to outreach, the following efforts remain in place to maintain a sense of validity and relevance among the survey participants.

- a. An advance letter is sent to both sampled beneficiaries and facility administrators from CMS with the CMS Survey Director's signature. This includes an informational brochure answering anticipated questions (Attachment 2).
- b. A handout with Privacy Act information and an appeal to participate is given to the respondent at the door by the interviewer.
- c. Interviewer training emphasizes techniques and approaches effective in communicating with the older and disabled population and ways to overcome difficulties respondents may have in participating.
- d. Individualized non-response letters are sent to respondents who refuse to participate (example included in Attachment 2). These letters are used when deemed appropriate by the field management staff.

- e. NORC field management staff are specialized to follow up with respondents who express concerns about participating due to privacy or confidentiality questions.
- f. Proxy respondents are sought for respondents unable to participate for themselves in order to keep respondents in the survey over the life of the panel.
- g. Non-respondents are re-contacted by a refusal conversion specialist.
- h. A dedicated project email address ([mcbs@norc.org](mailto:mcbs@norc.org)) and toll-free number (1-877-389-3429) is available to answer respondent's questions. This information is contained on various materials provided to the respondent.
- i. An MCBS website ([mcbs.norc.org](http://mcbs.norc.org)) contains information for respondents on the project. Respondents are also informed about the CMS MCBS Project Page - [www.cms.gov/mcbs](http://www.cms.gov/mcbs)
- j. Respondents receive an annual MCBS newsletter, which includes information about the survey as well as seasonal topics such as winter safety tips for seniors. Attachment 2 contains an example of a recent newsletter.
- k. Whenever possible, the respondent is paired with the same interviewer throughout the survey. This maintains rapport and establishes continuity of process in the interview.
- l. Interviewers are trained to utilize personal touches such as thank you notes and birthday cards to maintain contact with respondents.

A non-response bias analysis for the MCBS was conducted in 2017. Fall 2015 respondents and non-respondents were compared on various measures, including frame characteristics, Medicare claims payments, and chronic conditions, in order to identify areas of potential bias. The only statistically significant differences were found among frame characteristics. For the 2015 Panel, non-respondents appear more likely to be female and older, and slightly less likely to be non-Hispanic black. Among the continuing panels, however, non-respondents tend to skew younger. None of the differences is large in a practical sense. The weighting procedure includes a raking step that accounts for all of the frame characteristics for which differences were found. Thus, the small potential bias identified via these analyses is expected to be minimized by the weighting procedures. In contrast to most surveys, the MCBS has a large amount of information to characterize non-respondents. This information, including Medicare claims data, can be used for imputation if necessary.

Over the rounds, the following patterns of nonresponse have been observed, which have or have not changed over time. In the most recent three rounds for which a full analysis of response rates have been completed, the round-level response rates for continuing panels remains high, ranging from 80.0% for the 2015 panel in Round 76 to 96.0% for the 2012 panel in Round 75. Despite these high rates, each year continuing panels are subjected to a nonresponse adjustment based on new response propensity models by panel. Incoming panels at the first interview (e.g., the 2015 panel at Round 73) show a larger propensity for nonresponse due to having never been reached prior to the first interview. In Round 76 the response rate for the 2016 Incoming panel was 54.7%. Once again we rely on cells derived from response propensity models to account for differential effects of demographic and geographic characteristics on the resulting data. In 2016 the most closely related covariates to response propensity in the incoming panel were: the mean response rate over the previous 5 years in the same county; entitlement for Part B (2-level: yes, no); age category (7-level: under 45, 45 to 64, 65 to 69, 70 to 74, 75 to 79, 80 to 84, and 85 years or older); and tract-level median household income for households where the householder is at least 65 years of age (4-level: quartiles of median household income in the past 12 months, in

2015 inflation-adjusted dollars). By accounting for these characteristics in constructing the adjustment cells, we reduce the potential for nonresponse bias that could arise due to these differential factors.

Adaptive design methods have also been applied to measure the representativeness of the MCBS incoming sample. In 2017, CMS conducted a review of the Representativity Indicators (R-indicators) or metrics for the Fall 2017 Baseline interview to monitor the representativeness of the achieved sample. The R-indicators provided a quantitative assessment of which segments of the sample were over/under producing and causing the achieved sample to be imbalanced in terms of sample representativeness. In Fall 2016 and Fall 2017, R-indicators were not observed outside these thresholds; consequently, no data collection interventions were needed to improve the representativeness of the achieved sample.

#### **B4. Tests of Procedures or Methods**

MCBS' generic clearance for Questionnaire Testing and Methodological Research for the MCBS was approved by OMB in May 2015 (OMB No. 0938-1275, expiration 05/31/2021). The generic clearance encompasses development and testing of MCBS questionnaires, instrumentation, and methodological experiments. It contains approval for seven types of potential research activities:

1) cognitive interviewing, 2) focus groups, 3) usability testing, 4) field testing, 5) respondent debriefing questionnaire, 6) split ballot and other methodological experiments, and 7) research about incentives. Any future changes to the MCBS instrumentation, data collection methods, or procedures that require testing will be submitted as individual collection requests under the generic clearance.

CMS has not conducted cognitive testing on the proposed new items under the MCBS generic clearance for questionnaire testing. The majority of new items included in this submission all come from surveys that have been fielded. Due to the resources required for cognitive testing, CMS uses this generic clearance to test the development of new questions not found on other surveys when necessary.

#### **B5. Individuals Consulted on Statistical Aspects of Design**

The person responsible for statistical aspects of design is:

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The contractor collecting the information is NORC at the University of Chicago.