

## **2021 Medicare Current Beneficiary Survey (MCBS) Financial Well-Being Public Use File (PUF) Technical Appendix**

### **DATA AND METHODS**

This Technical Appendix provides information about the production of the estimates and margins of error (MOEs) presented in the 2021 MCBS Financial Well-Being of Medicare Beneficiaries Public Use File (PUF).

These estimates are based on data from the 2021 MCBS, a nationally representative, longitudinal survey of Medicare beneficiaries sponsored by the Centers for Medicare & Medicaid Services (CMS) and directed by the Office of Enterprise Data and Analytics (OEDA). The MCBS is the most comprehensive and complete survey available on the Medicare population and is essential in capturing data not otherwise collected through operations and administration of the Medicare program.

MCBS Limited Data Sets (LDS) are available to researchers with a data use agreement. Information on ordering MCBS files from CMS can be obtained through the CMS LDS website at [https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/Data-Disclosures-Data-Agreements/DUA - NewLDS](https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/Data-Disclosures-Data-Agreements/DUA-NewLDS). MCBS Microdata PUFs are available to the public as free downloads and can be found through the CMS PUF website at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/MCBS-Public-Use-File/index>. The Financial Well-Being and other PUFs based on MCBS microdata are available here: <https://www.cms.gov/research-statistics-data-and-systems/research/mcbs/data-tables>.

For details about the MCBS sample design, survey operations, and data files, please see the most recent *MCBS Methodology Report* and *Data User's Guides* available on the CMS MCBS website at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/index>.

The universe for the 2021 MCBS Financial Well-Being PUF includes Medicare beneficiaries who were ever enrolled in Medicare in 2021 and completed a Community interview in Fall 2021, Winter 2022, or Summer 2022. Beneficiaries who received a Community interview answered questions themselves or by proxy. "Don't know" and "Refused" responses were treated as missing values and excluded from both the numerator and denominator in measure calculation.

The Survey File ever-enrolled weights were used to produce estimates that represent the population that was ever enrolled in Medicare for any period during 2021.<sup>1</sup> Estimates generated using data from Topical segments, which were fielded in the summer rounds following the data year, used the special non-response adjustment weights that are specific to each Topical

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<sup>1</sup> The Survey File ever-enrolled cross-sectional weights were used for the access to transportation estimates.

segment.<sup>2</sup> Balanced repeated replication survey weights were used to account for the complex sample design.

Estimate suppression is used to protect the confidentiality of Medicare beneficiaries by avoiding the release of information that can be used to identify individual beneficiaries. Estimates with a denominator of less than 50 sample persons or with a numerator of zero sample persons are suppressed. In addition, some estimates are suppressed because they do not meet minimum criteria for reliability. For the proportions in these tables, the Clopper-Pearson method was used to compute confidence intervals for each estimate. Estimates with a confidence interval whose absolute width is at least 0.30, with a confidence interval whose absolute width is no greater than 0.05, or with a relative confidence interval width of more than 130 percent of the estimate are suppressed.<sup>3</sup> For other estimates such as medians, relative standard errors (RSEs) are calculated as the standard error of the estimate divided by the estimate itself. Estimates with a relative standard error of greater than 30 percent are suppressed because they do not meet the standards of reliability or precision.

The MCBS is authorized by section 1875 (42 USC 139511) of the Social Security Act and is conducted by NORC at the University of Chicago for the U.S. Department of Health and Human Services. The OMB Number for this survey is 0938-0568.

Additional technical questions concerning the 2021 MCBS Financial Well-Being PUF may be directed to: [MCBS@cms.hhs.gov](mailto:MCBS@cms.hhs.gov).

## WHAT'S NEW

The 2021 MCBS Financial Well-Being PUF now features median values for 10 measures: combined income last year, combined monthly earnings from work, home equity, combined assets at financial institutions, combined earnings from stocks/mutual funds, combined interest/dividends, combined amount received from retirement accounts, combined amount received from retirement accounts last year, combined monthly Social Security (or Railroad Retirement) payments, and combined monthly pension payments. All median values are conditional on ownership/non-zero earnings and combine amounts reported for the beneficiary and spouse (if applicable). A new measure was also added to show the percentage of households where either the beneficiary or their spouse/partner (if applicable) had non-zero monthly earnings from work. Each measure contains either a survey-reported value or an imputed value. This PUF also now features additional breakouts by beneficiary educational attainment and whether the beneficiary had difficulty obtaining care in the last year.

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<sup>2</sup> The Income and Assets Questionnaire (IAQ) Survey File ever-enrolled weights were used for estimates of financial well-being, asset ownership, and food insecurity.

<sup>3</sup> Parker, Jennifer D., Makram Talih, Donald J., Malec, et al. "National Center for Health Statistics Data Presentation Standards for Proportions." National Center for Health Statistics. *Vital Health Stat* 2, no. 175 (2017). Available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf).

Beginning in 2021, internet-related measures are no longer released as part of the MCBS Financial Well-Being PUF<sup>4</sup>; instead, these measures are released as part of the annual MCBS Preliminary Estimates: Internet Access and Use Among Medicare Beneficiaries. For a complete listing of measures and available products, please see the CMS MCBS website at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS>.

## GLOSSARY

This Glossary provides an explanation of key terms and defines the measures for which estimates are presented in the 2021 MCBS Financial Well-Being PUF.

**Age:** Age is obtained from administrative data sources.

**Area deprivation index (ADI):** ADI is an indicator of the socioeconomic disadvantage of geographic areas. National rankings are based on the Census block group for the beneficiary's primary residence address. ADI values in the first percentile are the least disadvantaged, and those in the hundredth are the most disadvantaged.<sup>5</sup>

**Assets:** Respondents were asked whether the beneficiary and/or their spouse (if applicable) has or receives the following assets: a checking account, a savings account, certificates of deposit, stocks or mutual funds, a retirement account, Social Security, Supplemental Security Income (SSI), and pension.

**Assets at financial institutions:** Assets at financial institutions comprise a group of three assets held by the beneficiary and their spouse (if married): a checking account, a savings account, or certificates of deposit.

**Beneficiary:** Beneficiary refers to a person receiving Medicare services who may or may not be participating in the MCBS. Beneficiary may also refer to an individual selected from the MCBS sample about whom the MCBS collects information.<sup>6</sup>

**Chronic conditions:** Chronic conditions comprises a group of 14 health conditions measures: heart disease, cancer (other than skin cancer), Alzheimer's disease, dementia other than Alzheimer's disease, depression, mental condition, hypertension, diabetes, arthritis, osteoporosis/broken hip, pulmonary disease, stroke, high cholesterol, and Parkinson's disease. It is possible for a beneficiary to have "ever" been diagnosed with both Alzheimer's disease and dementia (other than Alzheimer's disease) as previous survey responses are carried forward into subsequent data years. For the purposes of the number of chronic conditions measure, Alzheimer's disease and dementia (other than Alzheimer's disease) are counted as one chronic

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<sup>4</sup> The 2020 MCBS Financial Well-Being PUF included measures related to beneficiary internet access and use and can be found through the CMS MCBS website at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Tables>.

<sup>5</sup> "2020 Area Deprivation Index v3.2," University of Wisconsin School of Medicine and Public Health, <https://www.neighborhoodatlas.medicine.wisc.edu/>.

<sup>6</sup> <https://www.cms.gov/Medicare/Medicare-General-Information/MedicareGenInfo/index.html>

condition for beneficiaries diagnosed with both conditions. As the definition of mental condition encompasses depression, for the purposes of the number of chronic conditions measure, depression and mental condition are counted as one chronic condition for beneficiaries diagnosed with both conditions.

**Community interview:** Survey administered for beneficiaries living in the community (i.e., not in a long-term care facility such as a nursing home) during the reference period covered by the MCBS interview. An interview may be conducted with the beneficiary or a proxy.

**Delayed care due to cost:** Respondents were asked whether the beneficiary had delayed medical care due to costs in the fall MCBS Community interview. The reference period for this question is “since last year.”

**Difficulty obtaining care:** Respondents were asked whether the beneficiary had any trouble getting health care that they wanted or needed in the fall MCBS Community interview. The reference period for this question is “since last year.”

**Disability status:** Respondents were asked whether they have serious difficulty hearing; seeing; concentrating, remembering, or making decisions; walking or climbing stairs; dressing or bathing; or with errands. Beneficiaries who had no serious difficulties with these activities were included in the category “No disability.” Beneficiaries who had a serious difficulty in one area were categorized as “One disability” and those who had a serious difficulty in more than one area were categorized as “Two or more disabilities.”

**Dual eligibility status:** Annual Medicare-Medicaid dual eligibility was based on the state Medicare Modernization Act (MMA) files. Beneficiaries were considered “dually eligible” and assigned a dual eligibility status if they were enrolled in Medicaid for at least one month. This information was obtained from administrative data sources.

**Earnings from work:** Information on earnings is self-reported by the respondent from the past month. Respondents were asked to report the total income the beneficiary and their spouse (if applicable) received from work before any taxes or deductions. Only respondents who reported earnings greater than zero dollars are included in the median combined monthly earnings from work.

**Education:** Education refers to the highest level of education that a beneficiary has completed, as reported by the respondent. Beneficiaries were categorized as “Less than a high school diploma,” “High school graduate,” “Some college/vocational school,” “Bachelor’s degree” (e.g., BA, BS), or “Graduate or professional degree” (e.g., MA, MS, MD, DDS, DVM, LLB, JD, PhD).

**Ever enrolled:** A Medicare beneficiary who was enrolled at any time during the calendar year including people who dis-enrolled or died prior to their fall interview. Excluded from this population are residents of foreign countries and of U.S. possessions and territories.

**Fee-for-Service (FFS):** FFS Medicare encompasses beneficiaries eligible for Part A and/or Part B Medicare benefits at any time during the data collection year, and who were not enrolled in a Medicare Advantage plan at any time during the year. However, beneficiaries may have had Medicaid coverage or other public insurance coverage, such as a state-sponsored prescription drug plan, or may have been eligible for Department of Veterans Affairs health care benefits. Beneficiaries enrolled in FFS coverage may also have supplemental private insurance coverage. Coverage status is indicated for records for which administrative data are available.

**Food insecure:** Beneficiaries are categorized as food insecure if respondents reported any of the following five food insecurity measures: Food didn't last and no money to buy more, cut size of meals or skip meals, eat less because not enough money for food, didn't eat because not enough money for food, and couldn't afford balanced meals. The reference period for these measures is "in the last 12 months."

**Home equity:** Respondents who reported owning their home were asked about the present value of their home as well as the amount remaining on their mortgage. Home equity is calculated as the difference between these values.

**Home ownership:** Respondents who reported owning their home. Respondents who do not own their homes (e.g., they rent their homes) or have other living arrangements are classified as "not owning their home."

**Income:** Information on income is self-reported by the respondent for the calendar year. Respondents are asked to report the total income the beneficiary and their spouse (if applicable) received from all sources during the year, including Social Security, Railroad Retirement, Supplemental Security Income (SSI), the Veteran's Administration, pensions, retirement accounts, interest, banking accounts, businesses, real estate, and jobs, before any taxes or deductions. Income represents the best source or estimate of income received during the year based on the most recent information reported.

**Income to poverty ratio (IPR):** IPR is calculated only for household sizes of one (beneficiary living alone) or two (beneficiary living with a spouse only) as the income and asset information is collected only from the beneficiary and the beneficiary's spouse. Medicare beneficiaries have slightly different poverty level indices used for program eligibility. The IPR uses the Medicare poverty thresholds for calculation.

**Language spoken at home:** Respondents were asked if they speak a language other than English at home.

**Limited driving to daytime:** Respondents were asked if they gave up driving all together or have limited driving to daytime in the last year. The limited driving to daytime measure is applicable to respondents who were asked if they have limited driving to daytime but have not given up driving all together.

**Margin of error (MOE):** MOE is a measure of an estimate's variability. The larger the MOE in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. MOEs are based on standard errors calculated using replicate weights.

**Median:** Median reflects the center of the data. Exactly half of the data points lie above the median, and half lie below the median. The median is more reliable than an average since it is less influenced by extreme values.

**Medicare Advantage (MA):** Medicare Advantage Plans, sometimes called "Part C" or "MA Plans," are offered by private companies under contracts with Medicare. In addition, other managed care plans are offered by private companies under contracts with Medicare under different parts of the Medicare statute. These Medicare managed care plans generally cover Medicare Part A and/or Part B benefits and are paid on either a risk-based capitated basis (MA plans) or on a reasonable cost basis (cost plans and healthcare prepayment plans). Beneficiaries were coded as having Medicare Advantage coverage if they had coverage for one or more months out of the calendar year. This information is obtained from administrative data sources.

**Metropolitan/micropolitan area resident:** Metropolitan/micropolitan area residence was obtained from administrative data sources and verified in the survey. This classification is based on Core Based Statistical Area (CBSA) designations.<sup>7</sup>

**Problem paying medical bills:** Respondents were asked whether the beneficiary had problems paying or was unable to pay medical bills in the fall MCBS Community interview. The reference period for this question is "since last year."

**Proxy:** Beneficiaries who were too ill, or who could not complete the interview for other reasons, were asked to designate a proxy, someone very knowledgeable about the beneficiary's health and living habits. In most cases, the proxy was a close relative such as the spouse or a son or daughter. In a few cases, the proxy was a non-relative like a close friend or caregiver. In addition, a proxy was utilized if a beneficiary had been reported as deceased during the current round's reference period or if a beneficiary who was living in the community in the previous round had since entered into a long-term care facility.

**Race/ethnicity:** Hispanic origin and race are two separate and distinct categories. Persons of Hispanic origin may be of any race or combination of races. Hispanic origin includes persons of Mexican, Puerto Rican, Cuban, Central and South American, or Spanish origin. For the MCBS, responses to beneficiary race and ethnicity questions are reported by the respondent. More

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<sup>7</sup> [https://www.federalreserve.gov/apps/mdrm/data-dictionary/search/item?keyword=9153%20&show\\_short\\_title=False&show\\_conf=False&rep\\_status=All&rep\\_state=Opened&rep\\_period=Before&date\\_start=99991231&date\\_end=99991231#:~:text=The%20term%20%22Core%20Based%20Statistical,but%20less%20than%2050%2C000\)%20population](https://www.federalreserve.gov/apps/mdrm/data-dictionary/search/item?keyword=9153%20&show_short_title=False&show_conf=False&rep_status=All&rep_state=Opened&rep_period=Before&date_start=99991231&date_end=99991231#:~:text=The%20term%20%22Core%20Based%20Statistical,but%20less%20than%2050%2C000)%20population)

than one race may be reported. For conciseness, the text, tables, and figures in this document use shorter versions of the terms for race and Hispanic or Latino origin specified in the Office of Management and Budget 1997 Standards for Data on Race and Ethnicity. Beneficiaries reported as White and not of Hispanic origin were coded as White non-Hispanic; beneficiaries reported as Black/African-American and not of Hispanic origin were coded as Black non-Hispanic; beneficiaries reported as Hispanic, Latino/Latina, or of Spanish origin, regardless of their race, were coded as Hispanic. The "Other Race/Ethnicity" category includes other single races not of Hispanic origin (including American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander), or Two or More Races.

**Reference period:** The timeframe to which a questionnaire item refers.

**Respondent:** Respondent refers to a person who answers questions for the MCBS; for Community interviews, this person can be the beneficiary or a proxy.

**Self-reported health status:** Respondents were asked to rate their general health compared to other people of the same age. Beneficiaries answered health status questions themselves, unless they were unable to do so.

**Sex:** Respondents were asked to self-report the beneficiary's sex.

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