

# **2024 Medicare Current Beneficiary Survey (MCBS) Use of Preventive Care Services Among Medicare Beneficiaries Early Release 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 *2024 Medicare Current Beneficiary Survey (MCBS) Use of Preventive Care Services Among Medicare Beneficiaries* Early Release Public Use File (PUF).

These estimates are based on data from the 2024 MCBS Survey File - Early Release Limited Data Set (LDS).<sup>1</sup> The MCBS is 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 Public Use Files (PUF) are also available to the public as free downloads and can be found through the CMS PUF website at <https://data.cms.gov/medicare-current-beneficiary-survey-mcbs>. This PUF 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 this PUF includes Medicare beneficiaries who were ever enrolled in Medicare during 2024 and completed a Community interview in Fall 2024. Beneficiaries who received a Community interview answered questions themselves or by proxy.

Some measures are constructed from survey questions that involve questionnaire skip logic. For these items, unless otherwise noted, if the respondent provided a "No" response and subsequently skipped the follow-up question, the response was still included in the denominator

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<sup>1</sup> For the 2015 through 2022 data years, CMS released two MCBS LDS files annually, the Survey File and the Cost Supplement File. Beginning with the 2023 data year, CMS releases a third file, the Survey File - Early Release LDS. The Survey File LDS and Cost Supplement File LDS continue to be released annually. The Survey File - Early Release is a subset of the Survey File LDS segments released to improve the timeliness of MCBS data. Estimates from the 2024 Survey File - Early Release may differ slightly from the 2024 Survey File since the Survey File - Early Release does not include finalized enrollment data.

and the follow-up question that was skipped was treated as a "No" response for measure calculation. "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 - Early Release ever enrolled weights were used to produce estimates that represent the population that was ever enrolled in Medicare and still alive, entitled, and living in the community at the time of their Fall 2024 interview. 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>2</sup> MOEs are presented for each estimate.

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 these estimates may be directed to:

[MCBS@cms.hhs.gov](mailto:MCBS@cms.hhs.gov).

## GLOSSARY

This Glossary provides an explanation of key terms and defines the measures for which estimates are presented in the *2024 MCBS Use of Preventive Care Services Among Medicare Beneficiaries* Early Release PUF. This Glossary also provides relevant preventive care screening guidelines from the U.S. Preventive Services Task Force (USPSTF), if available.<sup>3</sup>

**Activities of daily living (ADLs):** Activities of daily living are activities related to personal care. They include bathing or showering; dressing; getting in and out of bed or a chair; walking; using the toilet; and eating. If a beneficiary had any difficulty performing an activity by themselves and without special equipment or did not perform the activity at all because of health problems, the person was deemed to have a limitation in that activity. The limitation may have been temporary or chronic at the time of the survey.

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<sup>2</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).

<sup>3</sup> <https://uspreventiveservicestaskforce.org/uspstf/home>

**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>4</sup>

**Arthritis:** Respondents were asked whether a doctor or other health professional ever told them that they had rheumatoid arthritis, osteoarthritis, or any other form of arthritis. The arthritis measure counts the presence of at least one of these conditions. Beneficiaries who have more than one condition are only counted once for the purposes of calculating the proportion of beneficiaries with arthritis.

**Cancer, other than skin cancer:** Respondents were asked whether a doctor or other health professional had ever told them that they had any kind of cancer, malignancy, or tumor other than skin cancer.

**Blood cholesterol screening:** Respondents were asked when was the most recent time they had their blood cholesterol checked. Beneficiaries were coded as "yes" for blood cholesterol screening if they had their blood cholesterol checked at least once in the last 12 months.

**Blood pressure screening:** Respondents were asked when was the most recent time they had a blood pressure screening taken by a doctor or other health professional. Beneficiaries were coded as "yes" for blood pressure screening if they received at least one screening in the last 12 months. The USPSTF "recommends screening for hypertension in adults aged 18 and over with office blood pressure measurement (OBPM)."<sup>5</sup>

**Chronic conditions:** Chronic conditions comprise a group of 15 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, Parkinson's disease, and chronic kidney 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 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.

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<sup>4</sup> University of Wisconsin School of Medicine Public Health. 2018 and 2019 Area Deprivation Index v2.0. <https://www.neighborhoodatlas.medicine.wisc.edu/>.

<sup>5</sup> <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hypertension-in-adults-screening>

**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.

**Depression:** Respondents were asked whether a doctor or other health professional had ever told them that they had depression.

**Diabetes:** Respondents were asked whether a doctor or other health professional had ever told them that they had any type of diabetes. In this PUF, diabetes encompasses Type I, Type II, borderline diabetes, prediabetes, gestational diabetes, and high blood sugar.

**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.

**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).

**Heart disease:** Respondents were asked whether a doctor or other health professional had ever told them that they had myocardial infarction (heart attack), angina pectoris, or coronary heart disease, congestive heart failure, or any other heart condition. The heart disease measure counts the presence of at least one of these conditions. Beneficiaries who have more than one condition are only counted once for the purposes of calculating the proportion of beneficiaries with heart disease.

**Hypertension:** Respondents were asked whether a doctor or other health professional has ever told them that they had hypertension or high blood pressure.

**Instrumental activities of daily living (IADLs):** Instrumental activities of daily living are activities related to independent living. They include preparing meals; managing money; shopping for groceries or personal items; performing light or heavy housework; and using a telephone. If a beneficiary had any difficulty performing an activity by themselves or did not perform the activity at all because of health problems, the person was deemed to have a limitation in that activity. The limitation may have been temporary or chronic at the time of the survey.

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

**Mammogram:** Female respondents were asked if they received a mammogram or breast X-ray in the past year. The USPSTF “recommends biennial screening mammography for women aged 50 to 74 years.”<sup>6</sup>

**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.

**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>

**Oral cancer exam:** Respondents were asked whether they received an exam for oral cancer in the past year during which the doctor or dentist pulled on their tongue and felt under the tongue and inside the cheeks. The USPSTF “concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for oral cancer in asymptomatic adults.”<sup>8</sup>

**Prostate exam:** Male respondents who had never reported receiving prostate surgery were asked if they received two different types of prostate exams in the past year. These exams may be used to detect prostate cancer or to determine whether cancer has spread beyond the prostate.

- Digital rectal examination of the prostate
- Blood test for detection of prostate cancer, known as a prostate-specific antigen or PSA. The USPSTF notes “for men aged 55 to 69 years, the decision to undergo PSA-based screening for prostate cancer should be an individual one.” The USPSTF “recommends against PSA-based screening for prostate cancer in men aged 70 and over.”<sup>9</sup>

**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.

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<sup>6</sup> <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/breast-cancer-screening>

<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)

<sup>8</sup> <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/oral-cancer-screening>

<sup>9</sup> <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prostate-cancer-screening>

**Sexual orientation:** Respondents were asked to self-report their sexual orientation. This question was only asked of beneficiaries (i.e., not proxy respondents). Responses of “Lesbian or gay” and “Bisexual” were collapsed as “Lesbian, gay, or bisexual.”

**Stroke:** Respondents were asked whether a doctor or other health professional had ever told them that they had a stroke, brain hemorrhage, or cerebrovascular accident, including transient ischemic attack. The stroke measure counts the presence of at least one of these diagnoses. Beneficiaries who have more than one diagnosis are only counted once for the purposes of calculating the proportion of beneficiaries with history of stroke.

**Wellness visit:** Respondents were asked whether they had a “Welcome to Medicare” or an “Annual Wellness” visit within the past year. Within the first 12 months of a beneficiary’s Medicare enrollment, Medicare offers a one-time “Welcome to Medicare” visit with their primary care provider to assess their current health. After a beneficiary has been enrolled in Medicare for 12 months, Medicare offers yearly “Annual Wellness” visits with their primary care provider to update their personalized prevention plan.

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