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MEDICARE HEALTH OUTCOMES SURVEY

2020-2022 Cohort 23 Analytic Public Use File Data Users Guide

PREPARED BY HEALTH SERVICES ADVISORY GROUP

Table of Contents

Preface

Public Use File

The Centers for Medicare & Medicaid Services (CMS) is committed to monitoring the quality of care provided by Medicare Advantage Organizations (MAOs). The Medicare Health Outcomes Survey (HOS) is the first patient-reported health outcomes measure for the Medicare population in managed care settings. The HOS design is based on a randomly selected sample of individuals from each participating MAO and measures physical and mental health over a two-year period. General information about the HOS Program is available on the CMS website at www.cms.gov/Research-Statistics-Data-and-Systems/Research/HOS, and a full description of the program is available on the HOS website at www.HOSonline.org.

This 2020-2022 Cohort 23 Analytic **Public Use File (PUF) Data Users Guide (DUG)** is designed to assist users with the 2020-2022 Cohort 23 Analytic public use data. The DUG includes an overview of the file organization, an explanation of derived fields, and a table defining the attributes of all fields in the file. HOS PUFs contain the majority of the survey items collected on the baseline and follow up HOS instruments (excluding beneficiary identifying information) as well as selected additional administrative variables. HOS PUFs are constructed to prevent the identification of any single beneficiary or MAO and only respondents to the survey are included in the files. For instance, selected questions that appear in the HOS questionnaires, including homeownership, annual household income, Hispanic ethnicity, beneficiary's weight and height, the specific language spoken at home, and the name of the person who completed the survey, are not available in the PUF. Selected beneficiary-level demographic fields such as race, marital status, education, and Body Mass Index (BMI) are collapsed into fewer categories to maintain beneficiary confidentiality. The HOS PUF is available at no cost and can be downloaded from www.HOSonline.org.

Other Research Data Files Available

In addition to the PUFs, the Medicare HOS data are also available by request as a limited data set (LDS) and a research identifiable file (RIF). Both the LDS and RIF include the entire national sample for a given cohort (including both respondents and non-respondents) and contain all of the HOS survey items.

Limited Data Set

The HOS 2020-2022 Cohort 23 Merged Baseline and Follow Up LDS contains all records in the comprehensive RIF as well as most of the same fields. It contains protected beneficiary level health information such as date of birth, sex, race/ethnicity, and county of residence; however, specific direct person identifiers are removed, as outlined in the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Removed fields include the Medicare Beneficiary Identifier (MBI); CMS beneficiary link key; beneficiary name, phone number, and mailing address; and the name of the person who completed the survey. Additionally, the MAO contract number is blinded in the LDS and certain fields describing MAOs have been modified (e.g., categorical enrollment) or excluded (e.g., plan name) to prevent identification of specific MAO contracts. Despite these limitations, the LDS is adequate to address most research aims

and is the file most often requested by researchers. Since the information is still potentially identifiable, it is subject to the provisions of the Privacy Act of 1974, although LDS requests do not require approval from the CMS Privacy Board. To qualify for an LDS, data requestors must show that their proposed use of the data meets the disclosure provisions for research purposes as defined in the HIPAA and Privacy Acts. The research purpose must relate to projects that could ultimately improve the care provided to Medicare and Medicaid beneficiaries and policies that govern their care.

Research Identifiable File

The comprehensive HOS 2020-2022 Cohort 23 Merged Baseline and Follow Up RIF data file contains all sample and survey fields, including direct person identifiers, and plan-level identifiers that are excluded in the LDS. The scope and subject matter of studies requiring a RIF must assist CMS in monitoring, managing, and improving the Medicare and Medicaid program and the services provided to beneficiaries. Requests for RIF data files must be reviewed by the CMS Privacy Board to ensure that beneficiaries' privacy is protected and the need for identifiable data is justified. CMS must balance the potential risk to beneficiary confidentiality with the probable benefits gained from the completed research. Requestors must also demonstrate the expertise and experience to conduct and complete the proposed study using RIF data files.

Obtaining Research Files

A signed Data Use Agreement with CMS is required to obtain either LDS or RIF data files. The Research Data Assistance Center (ResDAC) at the University of Minnesota is the CMS contractor that provides assistance to academic, government, and non-profit researchers interested in using Medicare and/or Medicaid data. When requesting HOS RIFs, ResDAC is available to assist in the completion and/or review of data requisition forms prior to their submission to CMS. The ResDAC HOS page provides information and assistance with obtaining Medicare HOS RIFs. ResDAC may also be contacted by calling (888) 9-RESDAC (888-973-7322) or by emailing resdac@umn.edu. All requests for HOS LDS files must be submitted through the CMS Limited Data Set File Process. Instructions are available on the website at www.cms.gov/research-statistics-data-and-systems/files-for-order/limiteddatasets/hos. The Medicare HOS Information and Technical Support at hos@hsag.com is available to answer questions about the HOS research files.

Statutory Authority

Section 722 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) mandates collecting, analyzing, and reporting health outcomes information. This legislation also specifies that data collected on quality, outcomes, and beneficiary satisfaction to facilitate consumer choice and program administration must use the same types of data collected before November 1, 2003. Collected since 1998, the Medicare HOS is the first patient-reported outcomes measure in Medicare managed care, and therefore remains a critical part of assessing MAO quality. In addition, CMS includes HOS results as a component of the Medicare Plan Finder (www.medicare.gov/plan-compare), a web-based tool that helps inform beneficiaries about Medicare enrollment choices. CMS incorporates new survey components in the HOS, as appropriate, to provide outcome measures that MAOs can use in quality improvement initiatives.

Technical Assistance

The Medicare HOS Information and Technical Support at hos@hsag.com or (888) 880-0077 is available to assist with questions regarding the data file.

For more detailed discussions on the sampling, survey administration, data collection, and instruments, please refer to the *Healthcare Effectiveness Data and Information Set (HEDIS®)*[1] *2020* and *HEDIS Measurement Year (MY) 2021 Volume 6: Specifications for the Medicare Health Outcomes Survey* manuals. The most recent HEDIS Volume 6 manuals are available at no cost from the NCQA Store.[2,3] Copies of older HEDIS publications may be obtained by calling NCQA Customer Support at (888) 275-7585 Additionally, a glossary consisting of definitions relevant to the HOS may be accessed from the "Glossary" link at the bottom of each HOS webpage at www.HOSonline.org.

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[1] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).
[2] National Committee for Quality Assurance. *HEDIS® 2020, Volume 6: Specifications for the Medicare Health Outcomes Survey*. Washington DC: NCQA Publication, 2020.
[3] National Committee for Quality Assurance. *HEDIS® MY 2021, Volume 6: Specifications for the Medicare Health Outcomes Survey*. Washington DC: NCQA Publication, 2022.

Program Background

This section provides a general description of the HOS background and methodology, including the sampling methodology, survey administration, and the survey instrument. In addition, information is provided about case-mix adjustment, additional survey questions, and field changes. For a more detailed discussion of these items, please refer to the *HEDIS 2020* and *HEDIS MY 2021, Volume 6, Specifications for the Medicare Health Outcomes Survey* manuals.[2,3]

Introduction to the Medicare Health Outcomes Survey

In 1998, outcomes measures were developed with the desire to capture performance across multiple aspects of care, in addition to the traditional HEDIS process measures that assess interventions. CMS, NCQA, Health Assessment Lab (HAL), and performance measurement experts developed an instrument that would assess the physical functioning and mental well-being of Medicare beneficiaries over time. The HOS 1.0 included a 36-item health survey to measure physical and mental health outcomes. Additional items included in the HOS 1.0 instrument permitted case-mix adjustment, to enhance meaningful and valid plan-to-plan comparisons of health outcomes. In 2003, Healthy Days Measures questions were added from the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS). Similarly between 2003 and 2006, questions were added for four NCQA HEDIS measures (see the NCQA HEDIS Measures section on page 9 for further details). Also in 2006, the HOS Version 2.0 was implemented using the Veterans RAND 12-Item Health Survey (VR-12)[4] with additional case-mix and health questions.

Medicare Health Outcomes Survey 2.5 and 3.0

In 2013, CMS implemented the Medicare HOS 2.5. Like the HOS 2.0, the HOS 2.5 used the VR-12 as the core physical and mental health outcomes measures and the four HEDIS Effectiveness of Care measures. The HOS 2.5 added questions on race, ethnicity, primary language, sex, and disability from Section 4302 of the Affordable Care Act.

In 2015, CMS implemented the Medicare HOS 3.0. The HOS 3.0 was used for the 2020 Cohort 23 Baseline and 2022 Cohort 23 Follow Up survey administrations. HOS 3.0 continues to use the VR-12 as the core physical and mental health outcomes measure and the HEDIS Effectiveness of Care measures. Changes from the previous version (HOS 2.5) included question wording and a formatting change to a two-column layout for each page. Specific changes in the HOS are detailed in the Survey Instrument section of this DUG. The HOS survey instruments can be downloaded from NCQA's website (www.ncqa.org/hedis/measures/hos).

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[4] Iqbal SU, Rogers W, Selim A, et al. The Veterans RAND 12 Item Health Survey (VR-12): What it is and How it is used. Available at: www.hosonline.org/globalassets/hos-online/publications/veterans_rand_12_item_health_survey_vr-12_2007.pdf. Accessed on: July 21, 2023.

Partners and Technical Advisors

CMS currently contracts with NCQA and Health Services Advisory Group (HSAG) to implement and operationalize all aspects of the HOS.

2020-2022 Medicare Advantage Organization Participation

MAOs with a minimum enrollment of 500 beneficiaries, and with Medicare contracts in effect on or before January 1, 2019, were required by CMS to administer the Baseline HOS survey in 2020:

- All MAOs, including all coordinated care plans, local and regional preferred provider organizations (PPO), Private Fee for Service (PFFS) contracts, and Medical Savings Account (MSA) contracts
- Section 1876 cost contracts even if closed for enrollment
- Employer /union only contracts
- Medicare-Medicaid Plans (MMP)

For MAOs that offered an Institutional Special Needs Plan (I-SNP) and had MA contracts in effect on or before January 1, 2019, the HOS reporting requirements were as follows. Contracts with only one PBP, or with multiple PBPs that were all I-SNPs, were excluded from the 2020 Baseline HOS. Contracts with at least one non-I-SNP PBP were required to administer 2020 Baseline HOS if 500 or more non-I-SNP members remained in the contract after I-SNP members were removed.

MAOs that administered the Baseline HOS in 2020 were required by CMS to administer the Follow Up HOS in 2022. In the event of a consolidation, merger, or novation, the surviving contract had to report Follow Up HOS for all members of all contracts involved. All eligible members of these contracts were resurveyed, and the results were reported under the surviving contract. Refer to the MAO Performance Measurement Contract List available from the Survey Results page of the HOS website www.HOSonline.org.

MAOs sponsoring Fully Integrated Dual Eligible (FIDE) Special Needs Plans (SNPs) within Medicare contracts in effect on or before January 1, 2021, and with a minimum enrollment of 50 beneficiaries could elect to report the 2022 HOS or HOS-M at the plan benefit package (PBP) level for a frailty assessment under the Affordable Care Act. The assessment determined eligibility for a frailty adjustment payment, similar to the payments provided to Program of All-Inclusive Care for the Elderly (PACE), for FIDE SNPs with a similar average level of frailty to PACE. The FIDE SNP sponsors were permitted to choose whether their assessments would be calculated based on activities of daily living (ADL) items reported in the HOS or on a separate sample of beneficiaries who completed the HOS-Modified (HOS-M). Voluntary reporting for frailty assessment at the FIDE SNP level is in addition to standard HOS requirements for quality reporting at the contract level.

Sampling Methodology

2020 Cohort 23 Baseline Sampling

CMS identified beneficiaries who were eligible for sampling as follows:

- MAOs with fewer than 500 beneficiaries enrolled were not required to report HOS.
- For MAOs with 500 to 1,200 beneficiaries, all eligible beneficiaries were included in the sample.
- For MAOs with more than 1,200 beneficiaries, a simple random sample of 1,200 beneficiaries was selected.
- Beneficiaries were defined as eligible if they were 18 years or older on the date the sample was drawn. The six months enrollment requirement was waived beginning in 2009 and beneficiaries with End Stage Renal Disease (ESRD) were no longer excluded from the sampling beginning in 2010. Since 2019, MAOs could request a survey sample larger than 1,200. Oversampling was expressed as a whole percentage of the standard sample size. Since 2020, I-SNPs were excluded at the PBP level from the HOS Baseline.

2022 Cohort 23 Follow Up Sampling

CMS identified beneficiaries from the 2020 Cohort 23 Baseline sample who were eligible for remeasurement as follows:

- Beneficiaries were eligible for remeasurement if they had sufficient data to derive physical health or mental health summary scores at baseline, were not deceased, and were enrolled in the same MAO at the time of the follow up sampling.
- Beneficiaries were excluded if they did not have summary scores at baseline, had disenrolled from their MAO at the time of the follow up sampling, or died subsequent to the baseline survey. Although deceased beneficiaries were excluded from the follow up sample, CMS includes deceased baseline respondents in the MAO files and when calculating the two-year death rate[5] for the HOS performance measurement results. Beneficiaries who were not enrolled in their original contract when the follow-up sample was drawn are not included in the MAO files; however, they are used in the calculation of the performance measurement results.

Survey Administration

- MAOs contracted with a CMS approved survey vendor to administer the surveys following the protocols specified in the *HEDIS 2020* and *HEDIS MY 2021*, *Volume 6, Specifications for the Medicare Health Outcomes Survey* manuals. The manuals detailed the methods for mail, telephone, and mixed modes of data collection.
- The mail component of the surveys uses pre-notification letters, a standardized questionnaire, survey letters, and reminder/thank you postcards. Sample respondents

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[5] For 2022 Cohort 23 Follow Up, the two-year death rate was calculated from the usual 730-day death interval, which had been extended to an 870-day interval, to account for the delay in fielding the 2020 Cohort 21 Follow Up and change to the fielding timeline for the 2021 Cohort 22 Follow Up.

complete the HOS in English, Spanish, Chinese, or Russian language versions of the mail survey. While no mail surveys were completed in Russian for the Cohort 23 Baseline or Cohort 23 Follow Up, the Russian language option became available in 2019.

- Survey vendors attempt telephone follow up in English, Spanish, or Chinese (with at least six attempts) in those instances when beneficiaries fail to respond after the second mail survey or return an incomplete mail survey in order to obtain responses for missing items. A standardized version of an Electronic Telephone Interviewing System script is used to collect telephone interview data for the survey. The Chinese language protocol was added to the HOS in 2020. Telephone follow up is not available for the Russian language survey.
- Survey vendors perform initial data cleaning and follow up with survey respondents as necessary.

Survey Instrument

The HOS 3.0 was administered for the 2020 and 2022 Cohort 23 surveys. This version of the HOS includes: changes to questions about urine leakage, sleep duration and quality, and primary language spoken in the home. Formatting in the HOS 3.0 was changed to the two-column layout currently used for each page. The HOS survey instruments can be downloaded from NCQA's website (www.ncqa.org/hedis/measures/hos).

Veterans RAND 12-Item Health Survey (VR-12)

The key component of the HOS for assessment of physical and mental health functioning is the VR-12 Health Survey.[6] The VR-12 consists of 14 items, 12 of which are used in the calculation of the eight health domains and the two summary measures: the physical component summary (PCS) and mental component summary (MCS) scores. The VR-12 measures the same eight health domains as the previously used 36-item health survey in HOS version 1.0. Each domain aggregates one or two items and all eight domains are used to calculate the two summary measures. Two of the 14 items, which ask about change in physical health and emotional health compared to one year ago, are not used in the calculation of the PCS and MCS scores.

Physical and Mental Component Summary Scores

The baseline and follow up PCS and MCS scores were calculated from the VR-12, using the Modified Regression Estimate (MRE) for scoring and for imputation of missing data.[4] These unadjusted scores are used to create the final adjusted change scores that are discussed in the Case-Mix Adjustment section. The MRE is a general method for obtaining scale scores in the context of missing data, where a different set of regression weights is applied depending on the pattern of missing item responses.

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[6] Information about the VR-36, VR-12, and VR-6D instruments is available on the Boston University School of Public Health website. The website offers details on development, applications, and references for the VR-12, which is the core health outcomes measure in the Medicare HOS and HOS-M. For information about the instruments and to request permission to use the documentation and scoring algorithms, go to: www.bu.edu/sph/about/departments/health-law-policy-and-management/research/vr-36-vr-12-and-vr-6d. Accessed on: July 21, 2023.

The MRE uses complete cases to estimate a regression equation where only those items that are present are used.[7] PCS and MCS scores are standardized using normative values from a 1990 U.S. general population so that scores have a direct interpretation in relation to the distribution of scores in the U.S. population, which have a mean of 50 and a standard deviation of 10. PCS and MCS results are then adjusted for the impact of telephone administration since studies have shown that health status scores tend to be more favorable with interviewer administered surveys. For telephone surveys, 1.9 points are subtracted from the PCS score and 4.5 points are subtracted from the MCS score.

On a scale of 0-100, a higher PCS or MCS score reflects better health status. For the physical health summary measure, very high scores indicate no physical limitations, disabilities, or decline in well-being; high energy level; and a rating of health as "excellent." For the mental health summary measure, very high scores indicate frequent positive affect, absence of psychological distress, and no limitations in usual social and role activities due to emotional problems.

Case-Mix Adjustment

Case-mix adjustment may be used by researchers to adjust the survey response data for beneficiary characteristics that are known to be related to systematic biases in the way people respond to survey questions. The HOS instrument includes several items that are available for case-mix adjustment. These items include: sociodemographic characteristics (e.g., age, sex, race, education, and marital status); chronic medical conditions; and HOS study design variables (e.g., the CMS region).

The 2020-2022 Cohort 23 Analytic PUF data do not include any case-mix adjusted scores. However, there are examples of case-mix adjustments with VR-12 scores from the HOS data in the *Sample Baseline* and the *Sample Performance Measurement Reports*, which are available from the Resources page on the HOS website (www.HOSonline.org).

Additional Questions

The HOS instruments also included questions on demographics, chronic medical conditions, ADLs, depression, smoking, physical health symptoms, height, and weight, as well as other questions.

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[7] Spiro A, Rogers WH, Qian S, Kazis LE. *Imputing physical and mental summary scores (PCS and MCS) for the Veterans SF-12 Health Survey in the context of missing data.* Technical Report prepared by: The Health Outcomes Technologies Program, Health Services Department, Boston University School of Public Health, Boston, MA and The Institute for Health Outcomes and Policy, Center for Health Quality, Outcomes and Economic Research, Veterans Affairs Medical Center, Bedford, MA. 2004. Available at: www.hosonline.org/globalassets/hos-online/publications/hos_veterans_12_imputation.pdf. Accessed on: July 21, 2023.

Demographics

Demographics included questions on beneficiary age, sex, race/ethnicity, education, marital status, and annual household income. The income question was removed from the HOS in 2022.

Chronic Medical Conditions

Fifteen chronic medical conditions are included in the 2020 questionnaire. These conditions are: hypertension; angina pectoris or coronary artery disease; congestive heart failure; myocardial infarction or heart attack; other heart conditions, such as heart valve defects or arrhythmias; stroke; emphysema, asthma, or chronic obstructive pulmonary disease (COPD); inflammatory bowel disease, including Crohn's disease and ulcerative colitis; arthritis of the hip or knee; arthritis of the hand or wrist; osteoporosis; sciatica; diabetes, hyperglycemia, or glycosuria; depression; and any cancer (other than skin cancer). In 2022, arthritis of the hip or knee, arthritis of the hand or wrist, and sciatica were removed from the questionnaire.

Activities of Daily Living

Six ADLs are included in the baseline and follow up HOS surveys to determine self-reported difficulty with performance of daily tasks. ADLs include bathing, dressing, eating, getting in or out of chairs, walking, and using the toilet. Three Instrumental Activities of Daily Living (IADLs) were included to assess independent living skills that are more complex than ADLs. IADL questions asked about preparing meals, managing money, and taking medications.

Depression Screening

The HOS 3.0 includes two questions that screen for depression. Each question is assigned points depending on the response given, from 0 ("Not at all") to 3 ("Nearly every day"). The depression screen is considered positive when a respondent scores 3 points or greater on the combined total points from the two depression questions, when both questions are answered. Please note, due to the change in questions, estimates of the proportion with positive depression screens using the HOS 3.0 or the HOS 2.5 are not comparable to estimates produced using prior versions of the HOS.

Healthy Days Measures

In 2003, three Healthy Days questions from the CDC's BRFSS were added to the HOS. They ask the number of days in the past thirty days that physical health was not good, mental health was not good, and activities were limited due to poor physical or mental health.

NCQA HEDIS Measures

The following measures are a part of the Effectiveness of Care domain of HEDIS and were included in the HOS instruments:

- In 2003, four questions were added to support the *Management of Urinary Incontinence in Older Adults* (*MUI*) measure.
- In 2005, two questions were added to support the *Physical Activity in Older Adults* (*PAO*) measure.

- In 2006, four questions were added to support the *Fall Risk Management* (*FRM*) measure and one question was added to support the *Osteoporosis Testing in Older Women* (*OTO*) measure. As of the 2021 HOS survey administration year, the OTO measure has been retired by the measure steward, NCQA. OTO data are no longer available, and all the references to the measure have been removed.

New and Revised Fields

There were no **new** fields in the **Baseline Survey** in the 2020-2022 Cohort 23 Analytic PUF compared with the 2019-2021 Cohort 22 Analytic PUF.

There was one **revised** field in the **Baseline Survey** in the 2020-2022 Cohort 23 Analytic PUF compared with the 2019-2021- Cohort 22 Analytic PUF.

- SPEAKLNG - Language mainly spoken at home was revised to add Russian language as category (4) and Some other language, formerly category 4, as category (7).

There were no **new** fields in the **Follow Up Survey** in the 2020-2022 Cohort 23 Analytic PUF compared with the 2019-2021 Cohort 22 Analytic PUF.

There were no **revised** fields in the **Follow Up Survey** in the 2020-2022 Cohort 23 Analytic PUF compared with the 2019-2021 Cohort 22 Analytic PUF.

Selected field attributes (i.e., field name, type, length, or label) may have been modified for some fields included in the 2020-2022 Cohort 23 Analytic PUF when compared to the same fields in previous HOS PUFs. Refer to the Field Index with Field Descriptions section, for detailed information regarding all field attributes contained in the Cohort 23 Analytic PUF.

Excluded Fields

There were no **excluded** fields in the **Baseline Survey** and there were four excluded fields in the **Follow Up Survey** for the 2020-2022 Cohort 23 Analytic PUF compared to the 2019-2021 Cohort 22 Analytic PUF.

- CCARTHIP - Arthritis of hip or knee (Q28).
- CCARTHND - Arthritis of hand or wrist (Q29).
- CCSCIATI - Sciatica, or pain/numbness traveling down the leg (Q31).
- SMOKE - Smoking frequency question (Q41).

Data Field Utilization Notes

- The HOS questionnaire contains multiple skip patterns. Exercise caution when interpreting responses from questions that involve skip patterns, as not every beneficiary was asked the question. Please refer to the Field Index with Field Descriptions section for additional information.

- When the sampled beneficiary was unable to complete the survey, the HOS protocol allows for the utilization of a proxy respondent. Surveys completed either by the respondents themselves or by proxy respondents are included in this data file and are indicated in Fields #80 and #152.

- For the Cohort 23 Analytic PUF, beneficiaries were considered deceased if they died within two years of completing the baseline survey and did not complete a follow up survey. The analytic sample distribution indicator (Field #160) can be used to identify the status of each beneficiary in this file.

- Some question numbers from the follow up survey may differ from the baseline survey, as well as from previous analytic data files. Exercise caution when examining the data across multiple cohorts.

- Beginning with the 2012-2014 Cohort 15 Analytic PUF, the survey responses for the beneficiary's weight and height were obtained from open-ended questions at both baseline and follow up, instead of from categorical responses, as was the case in earlier versions of the survey.

Characteristics of the Public Use File

This section provides an overview of the Medicare HOS 2020-2022 Cohort 23 Analytic PUF (C23A_PUF.CSV), including the general characteristics of the data and descriptions of the fields contained within it. This file contains beneficiary records from the merged 2020 Cohort 23 Baseline and 2022 Cohort 23 Follow Up data. For a more detailed discussion of these items, please refer to the HEDIS 2020 and HEDIS MY 2021, Volume 6 manuals.[2,3]

Derivation of the File

The 2020 Cohort 23 Baseline Medicare HOS included a random sample of 783,388 beneficiaries, including both the aged and disabled, from 510 MAOs. Of the 783,388 individuals sampled, 36.7% (287,475) completed at least one question item of the survey. During the two years between the 2020 Cohort 23 Baseline survey and the 2022 Cohort 23 Follow Up survey, a number of MAOs discontinued offering managed care to Medicare beneficiaries or consolidated with other health plans. The 2020-2022 Cohort 23 Analytic PUF sample is comprised of respondents with a valid survey disposition code at baseline (please refer to Field #81 for a description of the valid baseline survey disposition codes) who remained enrolled in their same MAO at the time of the follow up sampling. This resulted in 489 reporting units (MAOs) and 281,791 respondents in the 2020-2022 Cohort 23 Analytic PUF sample.[8]

Of the 281,791 beneficiaries in the 2020-2022 Cohort 23 Analytic PUF sample,19,357 died after baseline and before the two-year follow up survey administration. Another 81,047 beneficiaries voluntarily disenrolled from their MAOs between baseline and the start of the two-year follow up survey administration. This resulted in 181,387 beneficiaries remaining eligible at the time of follow up.

Of the 181,387 individuals sampled at the time of follow up, 55.0% (99,823) completed the follow up survey. For the purposes of this data file, a completed survey at follow up was defined as a survey with at least one question item completed. Of the 81,564 beneficiaries who did not complete a follow up survey, 3,190 were determined to have died after the follow up sample was selected but before the end of the survey administration. Additionally, 492 beneficiaries were determined to be ineligible for the follow up survey sample.[9] The remaining 77,882 beneficiaries who did not complete the follow up survey were classified as non-respondents. Figure 2 below depicts the distribution and response rate for the 2020-20221 Cohort 23 Analytic PUF sample.

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[8] The inclusion criteria for the PUF differ from those used for quality reporting. Therefore, the 2020-2022 Cohort 23 Public Use File analytic sample differs from the 2020-2022 Cohort 23 Performance Measurement analytic sample, which is used to derive plan-level HOS Performance Measurement results.

[9] Ineligible beneficiaries at follow up met one of the following criteria: ; bad address and phone number; bad address and mail only protocol (*Russian only*); or language barrier.

Figure 1. Distribution and Response Rate for 2020-2022 Cohort 23 Analytic PUF Sample
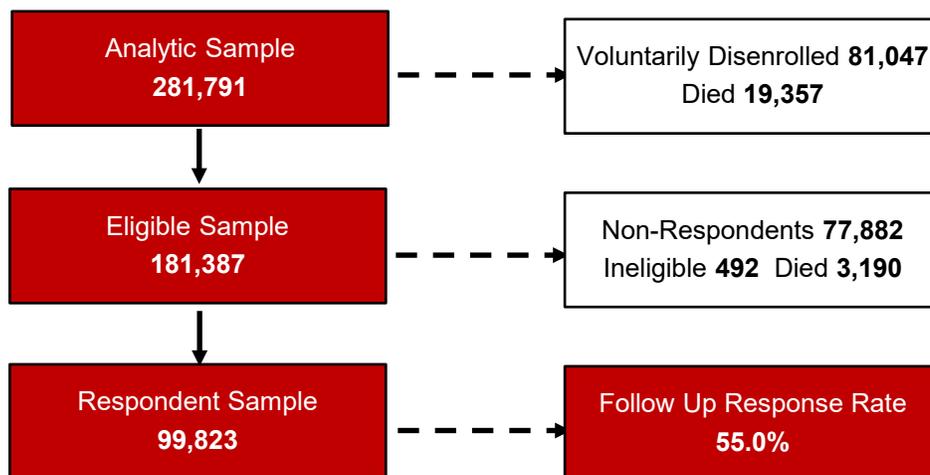
Field Overview

The C23A_PUF.CSV data file is a Comma Separated Values (CSV) file (77.7 megabytes in size). There are 160 fields and 281,791 beneficiary records in the file. Each row in the C23A_PUF.CSV data file represents an individual's merged baseline and follow up HOS survey responses, also referred to as a beneficiary record.

This public use file has been modified from the original merged 2020 Cohort 23 Baseline and 2022 Cohort 23 Follow Up data file in order to preserve confidentiality at the beneficiary and plan levels. Many demographic and plan-level fields have been omitted from this file or have been collapsed into fewer categories (see Limitations of the Data section). The MBI number, which is a sensitive beneficiary identifying field, has been replaced with a unique nine digit, randomly assigned identifier (Field #1). Other identifying fields, such as beneficiary's name and address, etc., have been removed.

The 160 fields in the C23A_PUF.CSV data file are organized into five different groups in the descriptions which follow:
- Identification and baseline demographics
- Baseline survey questions
- Baseline survey administration
- Follow up survey questions
- Follow up survey administration

Field Description

The following content provides details for interpreting the specific fields contained within the data file.

Identification and Baseline Demographics

Unique Identifier, Field: 1
This is a unique nine-character alphanumeric identifier that is randomly assigned for each beneficiary record. Positions 1 through 3 identify the analytic cohort of the public use file. Positions 4 through 9 contain a randomly assigned sequence number. For the baseline PUFs, beneficiaries who were measured in multiple baseline cohorts retained the initially assigned blinded identifier in all subsequent surveys. However, due to confidentiality issues, the identifier assigned to a beneficiary in an analytic PUF does **not** correspond to any identifiers that may be assigned to the same beneficiary in either a baseline PUF or other analytic PUF. The data file is sorted by the unique identifier.
Example: A23000001
Source*:* Field created during production of the C23A_PUF.CSV data file

Age Group, Field: 2
Age group of the beneficiary at the time of the baseline survey
Source*:* CMS databases

Race, Field: 3
Self-reported race of the beneficiary
Source: Q59 from the baseline survey

Sex, Field: 4
Self-reported sex of the beneficiary
Source: Q57 from the baseline survey

Marital Status, Field: 5
Self-reported marital status of the beneficiary
Source: Q61 from the baseline survey

Education Level, Field: 6
Self-reported educational attainment of the beneficiary
Source: Q62 from the baseline survey

Body Mass Index Category, Field 7
Calculated from the beneficiary's self-reported weight in pounds and height in feet and inches
Source: Q55 and Q56 from the baseline survey

Baseline Survey Questions

VR-12 Questions, Fields: 8 through 21
These fields represent the VR-12-item health survey questions, which can be found in Appendix 1 in the HEDIS 2020, Volume 6 manual. The VR-12 questions are included in Q1

through Q9 in the HOS questionnaire. Please refer to the Program Background section in this Data Users Guide for a more detailed description of the VR-12.

Additional Questions, Fields: 22 through 80
These fields comprise the balance of the survey questions found in the HEDIS 2020, Volume 6 manual, including most of the remaining questions Q10 through Q68 in the HOS questionnaire. The Program Background section provides more details about these questions. Selected demographic questions contained in the survey are not available in this PUF due to confidentiality issues. Please refer to the Limitations of the Data section for more details.

Baseline Survey Administration

Baseline Survey Disposition, Field: 81
Identifies completion status and mode by which the survey was completed
Source: CMS approved HOS Survey Vendor

Baseline Survey Round, Field: 82
Mail or telephone stage in which the survey was completed or when survey completion was last attempted by the vendor
Source: CMS approved HOS Survey Vendor

Percent of Baseline Survey Completed, Field: 83
Percentage of the baseline survey completed by the respondent
Source: Field created during the processing of the Baseline data file

Baseline Survey Language, Field: 84
Language in which the baseline survey was completed
Source: CMS approved HOS Survey Vendor

Follow Up Survey Questions

VR-12 Questions, Fields: 85 through 98
These fields represent the VR-12 questions, which can be found in Appendix 1 in the HEDIS MY 2021, Volume 6 manual. The VR-12 questions include Q1 through Q9 in the HOS questionnaire. Please refer to the Program Background section in this Data Users Guide for a more detailed description of the VR-12.

Additional Questions, Fields: 99 through 152
These fields comprise the balance of the survey questions found in the HEDIS MY 2021, Volume 6 manual, including most of the remaining questions Q10 through Q62 in the HOS questionnaire. The Program Background section provides more details about these questions. Selected demographic questions contained in the survey are not available in this PUF due to confidentiality issues. Please refer to the Limitations of the Data section for more details.

Follow Up Survey Administration

Follow Up Survey Disposition, Field: 153
Identifies completion status and mode by which the survey was completed
Source: CMS approved HOS Survey Vendor

Follow Up Survey Round, Field: 154
Mail or telephone stage in which the survey was completed or when survey completion was last attempted by the survey vendor Source: CMS approved HOS Survey Vendor

Percent of Follow Up Survey Completed, Field: 155
Percentage of the follow up survey completed by the respondent
Source: Field created during the processing of the Follow Up data file

Follow Up Survey Language, Field: 156
Language in which the follow up survey was completed
Source: CMS approved HOS Survey Vendor

Cohort Identifier, Field: 157
Cohort in which the HOS surveys contained in this data file were submitted
NOTE: Value for each record is "A23"
Source: Field created during production of the C23A_PUF.CSV data file

Analytic CMS Region, Field: 158
CMS Regional Office to which the plan belongs
Source: August 2022 HPMS Plan Contract List

Follow Up Sample Indicator, Field: 159
This field indicates if the beneficiary was included in the follow up sample
Source: Field created during the production of the C23A_PUF.CSV data file

Analytic Sample Indicator, Field: 160
This field indicates the status of the beneficiary in the analytic file. Categories include the following: respondent to the follow up survey, non-respondent to the follow up survey, ineligible as determined at the time of follow up, disenrolled, and dead.
Source: Field created during the production of the C23A_PUF.CSV data file

Further details of the contents of the data file are available in the Field Index with Field Descriptions section of this Data Users Guide.

Limitations of the Data

This section illustrates the limitations of the data, including issues relative to the categorization of selected fields and the identification of Medicare beneficiaries.

Selected questions that appear in the 2020 and 2022 HOS Questionnaires are not available in the C23A_PUF.CSV data file due to confidentiality issues. Demographic fields that are omitted include homeownership, annual household income, Hispanic ethnicity, beneficiary's height and weight, the specific language spoken at home (if not English, Spanish, Chinese, or Russian) and the name of the person who completed the survey. Many plan-related fields are also omitted to ensure confidentiality of the plan.

Categorization of Selected Fields

Selected demographic fields are collapsed into fewer categories to maintain beneficiary confidentiality. Collapsed categories include:

Field	Scale in C23A_PUF.CSV	Scale in HOS Questionnaire[10]
Race	1 = White 2 = Black or African American 3 = Other	The survey race question allowed one or more response choices from the following categories: 1 = White 2 = Black or African American 3 = American Indian or Alaska Native 4 = Asian Indian 5 = Chinese 6 = Filipino 7 = Japanese 8 = Korean 9 = Vietnamese 10 = Other Asian 11 = Native Hawaiian 12 = Guamanian or Chamorro 13 = Samoan 14 = Other Pacific Islander
Marital Status	1 = Married 2 = Non-Married	1 = Married 2 = Divorced 3 = Separated 4 = Widowed 5 = Never married
Education Level	1 = Less than a high school education or GED 2 = High school education or GED 3 = Greater than a high school education or GED	1 = 8th grade or less 2 = Some high school, but did not graduate 3 = High school graduate or GED 4 = Some college or 2 year degree 5 = 4 year college graduate 6 = More than a 4 year college degree

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[10] Scale as it is represented in the 2020 HOS Questionnaire for beneficiary's race, marital status, and education level at baseline.

Field	Scale in C23A_PUF.CSV	Scale in HOS Questionnaire[10]
Body Mass Index (BMI) Category	1 = Not obese (BMI < 30) 2 = Obese (BMI ≥ 30)	BMI Category[11] 1 = Underweight (BMI < 18.5) 2 = Normal (BMI 18.5 – < 25) 3 = Overweight (BMI 25 – < 30) 4 = Obese (BMI ≥ 30)

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[11] BMI categories are calculated from the beneficiary's self-reported weight in pounds (Q55) and height in feet and inches (Q56) obtained from the 2020 HOS Questionnaire at baseline.

Field Index with Field Descriptions

This section provides detailed information regarding the structure and fields of the C23A_PUF.CSV data file. The following tables include the order, position, valid values, and any additional information for each field in the data file. Fields are presented in the same order as they exist in the data file. More information about the PUFs from prior cohorts may be downloaded from www.HOSonline.org. Additional information on field position and contents of PUFs from prior cohorts may be found in their respective PUF DUG.

The C23A_PUF.CSV data file:

- Is a CSV file of 77.7 megabytes
- Consists of merged Cohort 23 Baseline HOS surveys completed in 2020 and Cohort 23 Follow Up HOS surveys completed in 2022
- Contains a total of 160 fields and beneficiary records
- Contains numeric values with the exception of field numbers 1, 81, 82, 153, 154, 157, ,
- Is sorted by the unique identifier (Field #1)

Identification and Cohort 23 Baseline Demographics

Field #	Field Description	Field Position	Valid Values and Notes
1	Unique Identifier	1-9	A unique nine digit randomly assigned code for each beneficiary **NOTE:** This field contains a character string. Example: A23000001
2	Cohort 23 Baseline: Age Group	10	Age was calculated from the birth date, obtained from the CMS Medicare Enrollment Database, and the survey date. 1 = Less than 65 2 = 65 to 74 3 = 75 and older
3	Cohort 23 Baseline Survey: Race (Q59)	11	**Note: The original codes (a-n) have been collapsed into the three groups shown below.** How would you describe your race? 1 = White 2 = Black or African American 3 = Other
4	Cohort 23 Baseline Survey: Sex (Q57)	12	Are you male or female? 1 = Male 2 = Female
5	Cohort 23 Baseline Survey: Marital Status (Q61)	13	**Note: The original codes (1-5) have been collapsed into the two groups shown below.** What is your current marital status? 1 = Married 2 = Non-Married
6	Cohort 23 Baseline Survey: Education Level (Q62)	14	**Note: The original codes (1-6) have been collapsed into the three groups shown below.** 1 = Less than a high school education or GED 2 = High school education or GED 3 = Greater than a high school education or GED
7	Cohort 23 Baseline Survey: Body Mass Index (BMI) Category	15	BMI Category was calculated from the BMI derived from self-reported weight in pounds (Q55) and height in feet and inches (Q56). BMI = (weight / height^2) * 703 BMI Category 1 = Not obese (BMI < 30) 2 = Obese (BMI ≥ 30)

Cohort 23 Baseline Survey Questions

Field #	Field Description	Field Position	Valid Values and Notes
8	Cohort 23 Baseline Survey: General Health Question (Q1)	16	In general, would you say your health is: 1 = Excellent 2 = Very good 3 = Good 4 = Fair 5 = Poor
9	Cohort 23 Baseline Survey: Moderate Activities Question (Q2a)	17	The following items are about activities you might do during a typical day. Does **your health <u>now</u> limit you** in these activities? If so, how much? **Moderate activities**, such as moving <u>a table, pushing a vacuum cleaner, bowling, or playing golf</u> 1 = Yes, limited a lot 2 = Yes, limited a little 3 = No, not limited at all
10	Cohort 23 Baseline Survey: Climbing Several Flights of Stairs Question (Q2b)	18	The following items are about activities you might do during a typical day. Does **your health <u>now</u> limit you** in these activities? If so, how much? Climbing **several** <u>flights of stairs</u> 1 = Yes, limited a lot 2 = Yes, limited a little 3 = No, not limited at all
11	Cohort 23 Baseline Survey: Physical Health Limiting Amount Accomplished Question (Q3a)	19	During the **<u>past 4 weeks</u>**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health?** **<u>Accomplished less</u>** than you would like 1 = No, none of the time 2 = Yes, a little of the time 3 = Yes, some of the time 4 = Yes, most of the time 5 = Yes, all of the time
12	Cohort 23 Baseline Survey: Physical Health Limiting the Kind of Activities Question (Q3b)	20	During the **<u>past 4 weeks</u>**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health?** <u>Were limited in the **kind** of work or other activities</u> 1. = No, none of the time 2. = Yes, a little of the time 3. = Yes, some of the time 4. = Yes, most of the time 5. = Yes, all of the time

Field #	Field Description	Field Position	Valid Values and Notes
13	Cohort 23 Baseline Survey: Emotional Problems Limiting Amount Accomplished Question (Q4a)	21	During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)? <u>**Accomplished less** than you would like</u> 1 = No, none of the time 2 = Yes, a little of the time 3 = Yes, some of the time 4 = Yes, most of the time 5 = Yes, all of the time
14	Cohort 23 Baseline Survey: Emotional Problems Limiting Carefulness Question (Q4b)	22	During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)? <u>Didn't do work or other activities as **carefully** as usual</u> 1 = No, none of the time 2 = Yes, a little of the time 3 = Yes, some of the time 4 = Yes, most of the time 5 = Yes, all of the time
15	Cohort 23 Baseline Survey: Pain Interfering with Work Question (Q5)	23	During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)? 1 = Not at all 2 = A little bit 3 = Moderately 4 = Quite a bit 5 = Extremely
16	Cohort 23 Baseline Survey: Calm and Peaceful Question (Q6a)	24	How much of the time during the **past 4 weeks:** <u>Have you felt calm and peaceful</u>? 1 = All of the time 2 = Most of the time 3 = A good bit of the time 4 = Some of the time 5 = A little of the time 6 = None of the time
17	Cohort 23 Baseline Survey: Lots of Energy Question (Q6b)	25	How much of the time during the **past 4 weeks:** <u>Did you have a lot of energy</u>? 1 = All of the time 2 = Most of the time 3 = A good bit of the time 4 = Some of the time 5 = A little of the time 6 = None of the time

Field #	Field Description	Field Position	Valid Values and Notes
18	Cohort 23 Baseline Survey: Downhearted and Blue Question (Q6c)	26	How much of the time during the **past 4 weeks:** <u>Have you felt downhearted and blue?</u> 1 = All of the time 2 = Most of the time 3 = A good bit of the time 4 = Some of the time 5 = A little of the time 6 = None of the time
19	Cohort 23 Baseline Survey: Amount of Time Health Interfering with Social Activities Question (Q7)	27	During the **past 4 weeks**, how much of the time has your **physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc.)? 1 = All of the time 2 = Most of the time 3 = Some of the time 4 = A little of the time 5 = None of the time
20	Cohort 23 Baseline Survey: Physical Health Compared to One Year Ago Question (Q8)	28	**Compared to one year ago**, how would you rate your **physical health** in general **now**? 1 = Much better 2 = Slightly better 3 = About the same 4 = Slightly worse 5 = Much worse
21	Cohort 23 Baseline Survey: Emotional Problems Compared to One Year Ago Question (Q9)	29	**Compared to one year ago**, how would you rate your **emotional problems** (such as feeling anxious, depressed, or irritable) in general **now**? 1 = Much better 2 = Slightly better 3 = About the same 4 = Slightly worse 5 = Much worse
22	Cohort 23 Baseline Survey: Bathing Question (Q10a)	30	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? <u>Bathing</u> 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
23	Cohort 23 Baseline Survey: Dressing Question (Q10b)	31	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? <u>Dressing</u> 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity

Field #	Field Description	Field Position	Valid Values and Notes
24	Cohort 23 Baseline Survey: Eating Question (Q10c)	32	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? Eating 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
25	Cohort 23 Baseline Survey: Getting In or Out of Chairs Question (Q10d)	33	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? Getting in or out of chairs 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
26	Cohort 23Baseline Survey: Walking Question (Q10e)	34	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? Walking 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
27	Cohort 23 Baseline Survey: Using the Toilet Question (Q10f)	35	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? Using the toilet 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
28	Cohort 23 Baseline Survey: Difficulty Preparing Meals Question (Q11a)	36	Because of a health or physical problem, do you have any difficulty doing the following activities**?** Preparing Meals 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I don't do this activity
29	Cohort 23 Baseline Survey: Difficulty Managing Money Question (Q11b)	37	Because of a health or physical problem, do you have any difficulty doing the following activities**?** Managing Money 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I don't do this activity
30	Cohort 23 Baseline Survey: Difficulty Taking Medication as Prescribed Question (Q11c)	38	Because of a health or physical problem, do you have any difficulty doing the following activities**?** Taking Medication as prescribed 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I don't do this activity

Field #	Field Description	Field Position	Valid Values and Notes
31	Cohort 23 Baseline Survey: Number of Days Physical Health Not Good Question (Q12)	39-40	Now, thinking about your physical health, which includes physical illness and injury, for how many days during the **past 30 days** was your physical health **not** good? (Please enter a number between "0" and "30" days. Your best estimate would be fine.) Note: A value of "88" indicates ≥ 100 days.
32	Cohort 23 Baseline Survey: Number of Days Mental Health Not Good Question (Q13)	41-42	Now, thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the **past 30 days** was your mental health **not** good? (Please enter a number between "0" and "30" days. Your best estimate would be fine.) Note: A value of "88" indicates ≥ 100 days.
33	Cohort 23 Baseline Survey: Number of Days Health Interfered with Daily Activities Question (Q14)	43-44	During the **past 30 days**, for about how many days did **poor** physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? (Please enter a number between "0" and "30" days. Your best estimate would be fine.) Note: A value of "88" indicates ≥ 100 days.
34	Cohort 23 Baseline Survey: Blind or Serious Difficulty Seeing Question (Q15)	45	Are you blind or do you have serious difficulty seeing, even when wearing glasses? 1 = Yes 2 = No
35	Cohort 23 Baseline Survey: Deaf or Serious Difficulty Hearing Question (Q16)	46	Are you deaf or do you have serious difficulty hearing, even with a hearing aid? 1 = Yes 2 = No
36	Cohort 23 Baseline Survey: Difficulty Concentrating, Remembering, or Making Decisions Question (Q17)	47	**Because of a physical, mental, or emotional condition**, do you have **serious** difficulty concentrating, remembering, or making decisions? 1 = Yes 2 = No
37	Cohort 23 Baseline Survey: Difficulty Doing Errands Question (Q18)	48	**Because of a physical, mental, or emotional condition**, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? 1 = Yes 2 = No
38	Cohort 23 Baseline Survey: Memory Problems Interfered with Activities in Past Month Question (Q19)	49	In the past month, how often did memory problems interfere with your daily activities? 1 = Every day (7 days a week) 2 = Most days (5-6 days a week) 3 = Some days (2-4 days a week) 4 = Rarely (once a week or less) 5 = Never
39	Cohort 23 Baseline Survey: Hypertension Question (Q20)	50	**Has a doctor ever told you that you had:** Hypertension or high blood pressure 1 = Yes 2 = No

Field #	Field Description	Field Position	Valid Values and Notes
40	Cohort 23 Baseline Survey: Angina or Coronary Artery Disease Question (Q21)	51	**Has a doctor ever told you that you had:** Angina pectoris or coronary artery disease 1 = Yes 2 = No
41	Cohort 23 Baseline Survey: Congestive Heart Failure Question (Q22)	52	**Has a doctor ever told you that you had:** Congestive heart failure 1 = Yes 2 = No
42	Cohort 23 Baseline Survey: Myocardial Infarction Question (Q23)	53	**Has a doctor ever told you that you had:** A myocardial infarction or heart attack 1 = Yes 2 = No
43	Cohort 23 Baseline Survey: Other Heart Conditions Question (Q24)	54	**Has a doctor ever told you that you had:** Other heart conditions, such as problems with heart valves or the rhythm of your heartbeat 1 = Yes 2 = No
44	Cohort 23 Baseline Survey: Stroke Question (Q25)	55	**Has a doctor ever told you that you had:** A stroke 1 = Yes 2 = No
45	Cohort 23 Baseline Survey: COPD Question (Q26)	56	**Has a doctor ever told you that you had:** Emphysema, or asthma, or COPD (chronic obstructive pulmonary disease) 1 = Yes 2 = No
46	Cohort 23 Baseline Survey: Inflammatory Bowel Disease Question (Q27)	57	**Has a doctor ever told you that you had:** Crohn's disease, ulcerative colitis, or inflammatory bowel disease 1 = Yes 2 = No
47	Cohort 23 Baseline Survey: Arthritis of Hip or Knee Question (Q28)	58	**Has a doctor ever told you that you had:** Arthritis of the hip or knee 1 = Yes 2 = No
48	Cohort 23 Baseline Survey: Arthritis of Hand or Wrist Question (Q29)	59	**Has a doctor ever told you that you had:** Arthritis of the hand or wrist 1 = Yes 2 = No
49	Cohort 23 Baseline Survey: Osteoporosis Question (Q30)	60	**Has a doctor ever told you that you had:** Osteoporosis, sometimes called thin or brittle bones 1 = Yes 2 = No
50	Cohort 23 Baseline Survey: Sciatica Question (Q31)	61	**Has a doctor ever told you that you had:** Sciatica (pain or numbness that travels down your leg to below your knee) 1 = Yes 2 = No

Field #	Field Description	Field Position	Valid Values and Notes
51	Cohort 23 Baseline Survey: Diabetes Question (Q32)	62	**Has a doctor ever told you that you had:** Diabetes, high blood sugar, or sugar in the urine 1 = Yes 2 = No
52	Cohort 23 Baseline Survey: Depression Question (Q33)	63	**Has a doctor ever told you that you had:** Depression 1 = Yes 2 = No
53	Cohort 23 Baseline Survey: Any Cancer Question (Q34)	64	**Has a doctor ever told you that you had:** Any cancer (other than skin cancer) 1 = Yes 2 = No
54	Cohort 23 Baseline Survey: Colorectal Cancer Treatment Question (Q35a)	65	**If you answered "yes" to question 34 above (that you have had cancer),** Are you **currently** under treatment for: Colon or rectal cancer 1 = Yes 2 = No
55	Cohort 23 Baseline Survey: Lung Cancer Treatment Question (Q35b)	66	**If you answered "yes" to question 34 above (that you have had cancer),** Are you **currently** under treatment for: Lung cancer 1 = Yes 2 = No
56	Cohort 23 Baseline Survey: Breast Cancer Treatment Question (Q35c)	67	**If you answered "yes" to question 34 above (that you have had cancer),** Are you **currently** under treatment for: Breast cancer 1 = Yes 2 = No
57	Cohort 23 Baseline Survey: Prostate Cancer Treatment Question (Q35d)	68	**If you answered "yes" to question 34 above (that you have had cancer),** Are you **currently** under treatment for: Prostate cancer 1 = Yes 2 = No
58	Cohort 23 Baseline Survey: Other Cancer Treatment Question (Q35e)	69	**If you answered "yes" to question 34 above (that you have had cancer),** Are you **currently** under treatment for: Other cancer (other than skin cancer) 1 = Yes 2 = No
59	Cohort 23 Baseline Survey: Pain Interfered with Activities Question (Q36)	70	In the **past 7 days**, how much did pain interfere with your day to day activities? 1 = Not at all 2 = A little bit 3 = Somewhat 4 = Quite a bit 5 = Very much

Field #	Field Description	Field Position	Valid Values and Notes
60	Cohort 23 Baseline Survey: Pain Interfered with Socializing Question (Q37)	71	In the **past 7 days**, how much did pain keep you from socializing with others? 1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always
61	Cohort 23 Baseline Survey: Average Pain Rating Question (Q38)	72-73	In the **past 7 days**, how would you rate your pain **on average**? 1 = 1 (No pain) 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 10 = 10 (Worst imaginable pain)
62	Cohort 23 Baseline Survey: Little Interest or Pleasure in Doing Things Question (Q39a)	74	Over the **past 2 weeks**, how often have you been bothered by any of the following problems? <u>Little interest or pleasure in doing things</u> 1 = Not at all 2 = Several days 3 = More than half the days 4 = Nearly every day
63	Cohort 23 Baseline Survey: Feeling Down, Depressed, or Hopeless Question (Q39b)	75	Over the **past 2 weeks**, how often have you been bothered by any of the following problems? <u>Feeling down, depressed, or hopeless</u> 1 = Not at all 2 = Several days 3 = More than half the days 4 = Nearly every day
64	Cohort 23 Baseline Survey: Comparative Health Question (Q40)	76	In general, compared to other people your age, would you say that your health is: 1 = Excellent 2 = Very good 3 = Good 4 = Fair 5 = Poor
65	Cohort 23 Baseline Survey: Current Smoker Question (Q41)	77	Do you **now** smoke every day, some days, or not at all? 1 = Every day 2 = Some days 3 = Not at all 4 = Don't know
66	Cohort 23 Baseline Survey: Urine Leakage Question (Q42)	78	Many people experience leakage of urine, also called urinary incontinence. In the **past 6 months**, have you experienced leaking of urine? 1 = Yes *(Go to Q43)* 2 = No *(Go to Q46)*

Field #	Field Description	Field Position	Valid Values and Notes
67	Cohort 23 Baseline Survey: Leaking of Urine Interfering With Daily Activities Question (Q43)	79	During the **past six months**, how much did leaking of urine make you change your daily activities or interfere with your sleep? 1 = A lot 2 = Somewhat 3 = Not at all
68	Cohort 23 Baseline Survey: Talked with Doctor about Urine Leakage Question (Q44)	80	Have you <u>**ever**</u> talked with a doctor, nurse, or other health care provider about leaking of urine? 1 = Yes 2 = No
69	Cohort 23 Baseline Survey: Talked About Treatment for Urine Leakage Question (Q45)	81	There are many ways to control or manage the leaking of urine, including bladder training exercises, medication, and surgery. Have you ever talked with a doctor, nurse, or other health care provider about any of these approaches? 1 = Yes 2 = No
70	Cohort 23 Baseline Survey: Talked with Doctor about Physical Activities Question (Q46)	82	In the **past 12 months,** did you talk with a doctor or other health provider about your level of exercise or physical activity? For example, a doctor or other health provider may ask if you exercise regularly or take part in physical exercise. 1 = Yes *(Go to Q47)* 2 = No *(Go to Q47)* 3 = I had no visits in the past 12 months *(Go to Q48)*
71	Cohort 23 Baseline Survey: Advised to Increase or Maintain Activities Question (Q47)	83	In the **past 12 months,** did a doctor or other health provider advise you to start, increase or maintain your level of exercise or physical activity? For example, in order to improve your health, your doctor or other health provider may advise you to start taking the stairs, increase walking from 10 to 20 minutes every day or to maintain your current exercise program. 1 = Yes 2 = No
72	Cohort 23 Baseline Survey: Talked to Doctor about Falling or Balance Problem Question (Q48)	84	A fall is when your body goes to the ground without being pushed. In the **past 12 months**, did you talk with your doctor or other health provider about falling or problems with balance or walking? 1 = Yes 2 = No 3 = I had no visits in the past 12 months
73	Cohort 23 Baseline Survey: Fell in Past 12 Months Question (Q49)	85	Did you fall in the **past 12 months**? 1 = Yes 2 = No
74	Cohort 23 Baseline Survey: Problem with Walking or Balance in Past 12 Months Question (Q50)	86	In the **past 12 months**, have you had a problem with balance or walking? 1 = Yes 2 = No

Field #	Field Description	Field Position	Valid Values and Notes
75	Cohort 23 Baseline Survey: Talked to Doctor about How to Prevent Falls Question (Q51)	87	Has your doctor or other health provider done anything to help prevent falls or treat problems with balance or walking? Some things they might do include: • Suggest that you use a cane or walker • Suggest that you do an exercise or physical therapy program • Suggest a vision or hearing test 1 = Yes 2 = No 3 = I had no visits in the past 12 months
76	Cohort 23 Baseline Survey: Osteoporosis Testing Question (Q52)	88	Have you **ever** had a **bone density test** to check for **osteoporosis**, sometimes thought of as "brittle bones"? This test may have been done to your back or hip. 1 = Yes 2 = No
77	Cohort 23 Baseline Survey: Hours of Sleep Question (Q53)	89	During the **past month**, on average, how many hours of actual sleep did you get at night? (This may be different from the number of hours you spent in bed.) 1 = Less than 5 hours 2 = 5-6 hours 3 = 7-8 hours 4 = 9 or more hours
78	Cohort 23 Baseline Survey: Sleep Quality Question (Q54)	90	During the **past month**, how would rate your overall sleep quality? 1 = Very Good 2 = Fairly Good 3 = Fairly Bad 4 = Very Bad
79	Cohort 23 Baseline Survey: Language Spoken at Home Question (Q60)	91	What language do you **mainly** speak at home? 1 = English 2 = Spanish 3 = Chinese 4 = Russian 7=Some other language (please specify) Note: The language under option 7 is not specified in the PUF
80	Cohort 23 Baseline Survey: Who Completed this Survey Question (Q66)	92	Who completed this survey form? 1 = Person to whom survey was addressed *(Go to Q68)* 2 = Family member or relative of person to whom the survey was addressed 3 = Friend of person to whom the survey was addressed 4 = Professional caregiver of person to whom the survey was addressed

Cohort 23 Baseline Survey Administration

Field #	Field Description	Field Position	Valid Values and Notes
81	Cohort 23 Baseline: Baseline Survey Disposition	93-95	**NOTE:** This field contains a character string. Cohort 23 Baseline Survey disposition code: M10/T10 = completed survey (79.5-100% complete and all 6 ADLs answered in Q10a-f) M11/T11 = non-response: partial complete (50-79.5% complete, or 79.5-100% complete and <6 ADLs answered) M31/T31 = non-response: break-off (0- 49% complete) Note: For survey disposition codes, M=Mail and T=Telephone
82	Cohort 23 Baseline: Baseline Survey Round	96-97	**NOTE:** This field contains a character string. Survey round code for completed, partially completed, and non-completed surveys by mail or telephone: M1 = 1st mailing M2 = 2nd mailing T1 = 1st telephone T2 = 2nd telephone T3 = 3rd telephone T4 = 4th telephone T5 = 5th telephone T6 = 6th telephone T7 = 7th telephone T8 = 8th telephone T9 = 9th telephone MT = Partially completed by mail and converted to complete by telephone NC = Not completed
83	Cohort 23 Baseline: Percent of Baseline Survey Completed	98-102	Range: 0 to 100% (value is rounded to the tenths decimal place)
84	Cohort 23 Baseline: Baseline Survey Language	103	1 = English 2 = Spanish 3 = Not Applicable 4 = Chinese 5 = Russian

Cohort 23 Follow Up Survey Questions

Field #	Field Description	Field Position	Valid Values and Notes
85	Cohort 23 Follow Up Survey: General Health Question (Q1)	104	In general, would you say your health is: 1 = Excellent 2 = Very good 3 = Good 4 = Fair 5 = Poor

86	Cohort 23 Follow Up Survey: Moderate Activities Question (Q2a)	105	The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?
			    <u>**Moderate activities,** such as moving a table, pushing a vacuum cleaner, bowling, or playing golf</u>
			    1 = Yes, limited a lot
			    2 = Yes, limited a little
			    3 = No, not limited at all

87	Cohort 23 Follow Up Survey: Climbing Several Flights of Stairs Question (Q2b)	106	The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?
			    <u>Climbing **several** flights of stairs</u>
			    1 = Yes, limited a lot
			    2 = Yes, limited a little
			    3 = No, not limited at all

88	Cohort 23 Follow Up Survey: Physical Health Limiting Amount Accomplished Question (Q3a)	107	During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health?**
			    <u>**Accomplished less** than you would like **as a result of your physical health?**</u>
			    1 = No, none of the time
			    2 = Yes, a little of the time
			    3 = Yes, some of the time
			    4 = Yes, most of the time
			    5 = Yes, all of the time

89	Cohort 23 Follow Up Survey: Physical Health Limiting the Kind of Activities Question (Q3b)	108	During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health?**
			    <u>Were limited in the **kind** of work or other activities **as a result of your physical health?**</u>
			    1 = No, none of the time
			    2 = Yes, a little of the time
			    3 = Yes, some of the time
			    4 = Yes, most of the time
			    5 = Yes, all of the time

Field #	Field Description	Field Position	Valid Values and Notes

90	Cohort 23 Follow Up Survey: Emotional Problems Limiting Amount Accomplished Question (Q4a)	109	During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?
			  <u>**Accomplished less** than you would like **as a result of any emotional problems**</u>
			    1 = No, none of the time
			    2 = Yes, a little of the time
			    3 = Yes, some of the time
			    4 = Yes, most of the time
			    5 = Yes, all of the time

91	Cohort 23 Follow Up Survey: Emotional Problems Limiting Carefulness Question (Q4b)	110	During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?
			  <u>Didn't do work or other activities as **carefully** as usual **as a result of any emotional problems**</u>
			    1 = No, none of the time
			    2 = Yes, a little of the time
			    3 = Yes, some of the time
			    4 = Yes, most of the time
			    5 = Yes, all of the time

92	Cohort 23 Follow Up Survey: Pain Interfering with Work Question (Q5)	111	During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)?
			    1 = Not at all
			    2 = A little bit
			    3 = Moderately
			    4 = Quite a bit
			    5 = Extremely

93	Cohort 23 Follow Up Survey: Calm and Peaceful Question (Q6a)	112	These questions are about how you feel and how things have been with you during the **past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks:**
			  <u>Have you felt calm and peaceful</u>?
			    1 = All of the time
			    2 = Most of the time
			    3 = A good bit of the time
			    4 = Some of the time
			    5 = A little of the time
			    6 = None of the time

Field #	Field Description	Field Position	Valid Values and Notes

94	Cohort 23 Follow Up Survey: Lots of Energy Question (Q6b)	113	These questions are about how you feel and how things have been with you during the **past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks:**
			    <u>Did you have a lot of energy</u>?
			    1 = All of the time
			    2 = Most of the time
			    3 = A good bit of the time
			    4 = Some of the time
			    5 = A little of the time
			    6 = None of the time

95	Cohort 23 Follow Up Survey: Downhearted and Blue Question (Q6c)	114	These questions are about how you feel and how things have been with you during the **past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks:**
			    <u>Have you felt downhearted and blue</u>?
			    1 = All of the time
			    2 = Most of the time
			    3 = A good bit of the time
			    4 = Some of the time
			    5 = A little of the time
			    6 = None of the time

96	Cohort 23 Follow Up Survey: Amount of Time Health Interfering with Social Activities Question (Q7)	115	During the **past 4 weeks**, how much of the time has your **physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc.)?
			    1 = All of the time
			    2 = Most of the time
			    3 = Some of the time
			    4 = A little of the time
			    5 = None of the time

97	Cohort 23 Follow Up Survey: Physical Health Compared to One Year Ago Question (Q8)	116	**Compared to one year ago**, how would you rate your **physical health** in general **now**?
			    1 = Much better
			    2 = Slightly better
			    3 = About the same
			    4 = Slightly worse
			    5 = Much worse

98	Cohort 23 Follow Up Survey: Emotional Problems Compared to One Year Ago Question (Q9)	117	**Compared to one year ago**, how would you rate your **emotional problems** (such as feeling anxious, depressed, or irritable) in general **now**?
			    1 = Much better
			    2 = Slightly better
			    3 = About the same
			    4 = Slightly worse
			    5 = Much worse

Field #	Field Description	Field Position	Valid Values and Notes
99	Cohort 23 Follow Up Survey: Bathing Question (Q10a)	118	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person***?* _Bathing_ 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
100	Cohort 23 Follow Up Survey: Dressing Question (Q10b)	119	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? _Dressing_ 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
101	Cohort 23 Follow Up Survey: Eating Question (Q10c)	120	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? _Eating_ 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
102	Cohort 23 Follow Up Survey: Getting In or Out of Chairs Question (Q10d)	121	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? _Getting in or out of chairs_ 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
103	Cohort 23 Follow Up Survey: Walking Question (Q10e)	122	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? _Walking_ 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity
104	Cohort 23 Follow Up Survey: Using the Toilet Question (Q10f)	123	Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person**? _Using the toilet_ 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity

Field #	Field Description	Field Position	Valid Values and Notes
105	Cohort 23 Follow Up Survey: Difficulty Preparing Meals Question (Q11a)	124	Because of a health or physical problem, do you have any difficulty doing the following activities? <u>Preparing meals</u> 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I don't do this activity
106	Cohort 23 Follow Up Survey: Difficulty Managing Money Question (Q11b)	125	Because of a health or physical problem, do you have any difficulty doing the following activities? <u>Managing Money</u> 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I don't do this activity
107	Cohort 23 Follow Up Survey: Difficulty Taking Medication as Prescribed Question (Q11c)	126	Because of a health or physical problem, do you have any difficulty doing the following activities? <u>Taking Medication as prescribed</u> 1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I don't do this activity
108	Cohort 23 Follow Up Survey: Number of Days Physical Health Not Good Question (Q12)	127-128	Now, thinking about your physical health, which includes physical illness and injury, for how many days during the **past 30 days** was your physical health **not** good? (Please enter a number between "0" and "30" days. If no days, please enter "0" days. Your best estimate would be fine.) Note: A value of "88" indicates ≥ 100 days.
109	Cohort 23 Follow Up Survey: Number of Days Mental Health Not Good Question (Q13)	129-130	Now, thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the **past 30 days** was your mental health **not** good? (Please enter a number between "0" and "30" days. If no days, please enter "0" days. Your best estimate would be fine.) Note: A value of "88" indicates ≥ 100 days.
110	Cohort 23 Follow Up Survey: Number of Days Health Interfered with Daily Activities Question (Q14)	131-132	During the **past 30 days**, for about how many days did **poor** physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? (Please enter a number between "0" and "30" days. If no days, please enter "0" days. Your best estimate is fine.) Note: A value of "88" indicates ≥ 100 days.
111	Cohort 23 Follow Up Survey: Blind or Serious Difficulty Seeing Question (Q15)	133	Are you blind or do you have serious difficulty seeing, even when wearing glasses? 1 = Yes 2 = No
112	Cohort 23 Follow Up Survey: Deaf or Serious Difficulty Hearing Question (Q16)	134	Are you deaf or do you have serious difficulty hearing, even with a hearing aid? 1 = Yes 2 = No
113	Cohort 23 Follow Up Survey: Difficulty Concentrating, Remembering, or Making Decisions Question (Q17)	135	**Because of a physical, mental, or emotional condition**, do you have **serious** difficulty concentrating, remembering, or making decisions? 1 = Yes 2 = No

Field #	Field Description	Field Position	Valid Values and Notes
114	Cohort 23 Follow Up Survey: Difficulty Doing Errands Question (Q18)	136	**Because of a physical, mental, or emotional condition**, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? 1 = Yes 2 = No
115	Cohort 23 Follow Up Survey: Memory Problems Interfered with Activities in Past Month Question (Q19)	137	In the past month, how often did memory problems interfere with your daily activities? 1 = Every day (7 days a week) 2 = Most days (5-6 days a week) 3 = Some days (2-4 days a week) 4 = Rarely (once a week or less) 5 = Never
116	Cohort 23 Follow Up Survey: Hypertension Question (Q20)	138	**Has a doctor ever told you that you had:** Hypertension or high blood pressure 1 = Yes 2 = No
117	Cohort 23 Follow Up Survey: Angina or Coronary Artery Disease Question (Q21)	139	**Has a doctor ever told you that you had:** Angina pectoris or coronary artery disease 1 = Yes 2 = No
118	Cohort 23 Follow Up Survey: Congestive Heart Failure Question (Q22)	140	**Has a doctor ever told you that you had:** Congestive heart failure 1 = Yes 2 = No
119	Cohort 23 Follow Up Survey: Myocardial Infarction Question (Q23)	141	**Has a doctor ever told you that you had:** A myocardial infarction or heart attack 1 = Yes 2 = No
120	Cohort 23 Follow Up Survey: Other Heart Conditions Question (Q24)	142	**Has a doctor ever told you that you had:** Other heart conditions, such as problems with heart valves or the rhythm of your heartbeat 1 = Yes 2 = No
121	Cohort 23 Follow Up Survey: Stroke Question (Q25)	143	**Has a doctor ever told you that you had:** A stroke 1 = Yes 2 = No
122	Cohort 23 Follow Up Survey: COPD Question (Q26)	144	**Has a doctor ever told you that you had:** Emphysema, or asthma, or COPD (chronic obstructive pulmonary disease) 1 = Yes 2 = No
123	Cohort 23 Follow Up Survey: Inflammatory Bowel Disease Question (Q27)	145	**Has a doctor ever told you that you had:** Crohn's disease, ulcerative colitis, or inflammatory bowel disease 1 = Yes 2 = No

Field #	Field Description	Field Position	Valid Values and Notes
124	Cohort 23 Follow Up Survey: Osteoporosis Question (Q28)	146	**Has a doctor ever told you that you had:** <u>Osteoporosis, sometimes called thin or brittle bones</u> 1 = Yes 2 = No
125	Cohort 23 Follow Up Survey: Diabetes Question (Q29)	147	**Has a doctor ever told you that you had:** <u>Diabetes, high blood sugar, or sugar in the urine</u> 1 = Yes 2 = No
126	Cohort 23 Follow Up Survey: Depression Question (Q30)	148	**Has a doctor ever told you that you had:** <u>Depression</u> 1 = Yes 2 = No
127	Cohort 23 Follow Up Survey: Any Cancer Question (Q31)	149	**Has a doctor ever told you that you had:** <u>Any cancer (other than skin cancer)</u> 1 = Yes *(Go to Q32a)* 2 = No *(Go to Q33)*
128	Cohort 23 Follow Up Survey: Colorectal Cancer Treatment Question (Q32a)	150	**If you answered "yes" to question 34 above (that you have had cancer),** Are you **<u>currently</u>** under treatment for: <u>Colon or rectal cancer</u> 1 = Yes 2 = No
129	Cohort 23 Follow Up Survey: Lung Cancer Treatment Question (Q32b)	151	Are you **<u>currently</u>** under treatment for: <u>Lung cancer</u> 1 = Yes 2 = No
130	Cohort 23 Follow Up Survey: Breast Cancer Treatment Question (Q32c)	152	Are you **<u>currently</u>** under treatment for: <u>Breast cancer</u> 1 = Yes 2 = No
131	Cohort 23 Follow Up Survey: Prostate Cancer Treatment Question (Q32d)	153	Are you **<u>currently</u>** under treatment for: <u>Prostate cancer</u> 1 = Yes 2 = No
132	Cohort 23 Follow Up Survey: Other Cancer Treatment Question (Q32e)	154	Are you **<u>currently</u>** under treatment for: <u>Other cancer (other than skin cancer)</u> 1 = Yes 2 = No
133	Cohort 23 Follow Up Survey: Pain Interfered with Activities Question (Q33)	155	In the **<u>past 7 days</u>**, how much did pain interfere with your day to day activities? 1 = Not at all 2 = A little bit 3 = Somewhat 4 = Quite a bit 5 = Very much

Field #	Field Description	Field Position	Valid Values and Notes
134	Cohort 23 Follow Up Survey: Pain Interfered with Socializing Question (Q34)	156	In the past 7 days, how often did pain keep you from socializing with others? 1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always
135	Cohort 23 Follow Up Survey: Average Pain Rating Question (Q35)	157-158	In the past 7 days, how would you rate your pain on average? 0 = 0 (No pain) 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 10 = 10 (Worst imaginable pain)
136	Cohort 23 Follow Up Survey: Little Interest or Pleasure in Doing Things Question (Q36a)	159	Over the **past 2 weeks**, how often have you been bothered by any of the following problems? <u>Little interest or pleasure in doing things</u> 1 = Not at all 2 = Several days 3 = More than half the days 4 = Nearly every day
137	Cohort 23 Follow Up Survey: Feeling Down, Depressed, or Hopeless Question (Q36b)	160	Over the **past 2 weeks**, how often have you been bothered by any of the following problems? <u>Feeling down, depressed, or hopeless</u> 1 = Not at all 2 = Several days 3 = More than half the days 4 = Nearly every day
138	Cohort 23 Follow Up Survey: Comparative Health Question (Q37)	161	In general, compared to other people your age, would you say that your health is: 1 = Excellent 2 = Very good 3 = Good 4 = Fair 5 = Poor
139	Cohort 23 Follow Up Survey: Urine Leakage Question (Q38)	162	Many people experience leakage of urine, also called urinary incontinence. In the **past six months**, have you experienced leaking of urine? 1 = Yes *(Go to Q39)* 2 = No *(Go to Q42)*
140	Cohort 23 Follow Up Survey: Leaking of Urine Interfering With Daily Activities Question (Q39)	163	During the **past six months**, how much did leaking of urine make you change your daily activities or interfere with your sleep? 1 = A lot 2 = Somewhat 3 = Not at all

Field #	Field Description	Field Position	Valid Values and Notes
141	Cohort 23 Follow Up Survey Talked with Doctor about Urine Leakage Question (Q40)	164	Have you <u>**ever**</u> talked with a doctor, nurse, or other health care provider about leaking of urine? 1 = Yes 2 = No
142	Cohort 23 Follow Up Survey: Talked About Treatment for Urine Leakage Question (Q41)	165	There are many ways to control or manage the leaking or urine, including bladder training, exercises, medication, and surgery. Have you **ever** talked with a doctor, nurse, or other health care provider about any of these approaches? 1 = Yes 2 = No
143	Cohort 23 Follow Up Survey: Talked with Doctor about Physical Activities Question (Q42)	166	In the **past 12 months,** did you talk with a doctor or other health provider about your level of exercise or physical activity? For example, a doctor or other health provider may ask if you exercise regularly or take part in physical exercise. 1 = Yes *(Go to Q43)* 2 = No *(Go to Q43)* 3 = I had no visits in the last 12 months *(Go to Q44)*
144	Cohort 23 Follow Up Survey: Advised to Increase or Maintain Activities Question (Q43)	167	In the **past 12 months,** did a doctor or other health provider advise you to start, increase or maintain your level of exercise or physical activity? For example, in order to improve your health, your doctor or other health provider may advise you to start taking the stairs, increase walking from 10 to 20 minutes every day or to maintain your current exercise program. 1 = Yes 2 = No
145	Cohort 23 Follow Up Survey: Talked to Doctor about Falling or Balance Problem Question (Q44)	168	A fall is when your body goes to the ground without being pushed. In the **past 12 months**, did you talk with your doctor or other health provider about falling or problems with balance or walking? 1 = Yes 2 = No 3 = I had no visits in the past 12 months
146	Cohort 23 Follow Up Survey: Fell in Past 12 Months Question (Q45)	169	Did you fall in the **past 12 months**? 1 = Yes 2 = No
147	Cohort 23 Follow Up Survey: Problem with Walking or Balance in Past 12 Months Question (Q46)	170	In the **past 12 months**, have you had a problem with balance or walking? 1 = Yes 2 = No

Field #	Field Description	Field Position	Valid Values and Notes
148	Cohort 23 Follow Up Survey: Talked to Doctor about How to Prevent Falls Question (Q47)	171	Has your doctor or other health provider done anything to help prevent falls or treat problems with balance or walking? Some things they might do include: • Suggest that you use a cane or walker • Suggest that you do an exercise or physical therapy program • Suggest a vision or hearing test 1 = Yes 2 = No 3 = I had no visits in the past 12 months
149	Cohort 23 Follow Up Survey: Hours of Sleep Question (Q48)	172	During the **past month**, on average, how many hours of actual sleep did you get at night? (This may be different from the number of hours you spent in bed.) 1 = Less than 5 hours 2 = 5-6 hours 3 = 7-8 hours 4 = 9 or more hours
150	Cohort 23 Follow Up Survey: Sleep Quality Question (Q49)	173	During the **past month**, how would you rate your overall sleep quality? 1 = Very Good 2 = Fairly Good 3 = Fairly Bad 4 = Very Bad
151	Cohort 23 Follow Up Survey: Language Spoken at Home Question (Q55a)	174	What language do you **mainly** speak at home? 1 = English 2 = Spanish 3 = Chinese 4 = Russian 7 = Some other language (please specify) Note: The language under option 7 is not specified in the PUF
152	Cohort 23 Follow Up Survey: Who Completed this Survey Form Question (Q61)	175	Who completed this survey form? 1 = Person to whom survey was addressed *STOP HERE* 2 = Family member or relative of person to whom the survey was addressed *(Go to Q62)* 3 = Friend of person to whom the survey was addressed *(Go to Q62)* 4 = Professional caregiver of person to whom the survey was addressed *(Go to Q62)*

Cohort 23 Follow Up Survey Administration

Field #	Field Description	Field Position	Valid Values and Notes
153	Cohort 23 Follow Up: Follow Up Survey Disposition	176-178	*Survey disposition code* **NOTE**: This field contains a character string. M10/T10 = completed survey (79.5-100% complete and all 6 ADLs answered in Q10a-f) M11/T11 = non-response: partial complete (50-79.5% complete, or 79.5-100% complete and <6 ADLs answered) M31/T31 = non-response: break-off (0- 49% complete) Note: For survey disposition codes, M=Mail and T=Telephone
154	Cohort 23 Follow Up: Follow Up Survey Round	179-180	Survey round code for completed, partially completed, and non-completed surveys by mail or telephone **NOTE:** This field contains a character string. M1 = 1st mailing M2 = 2nd mailing T1 = 1st telephone T2 = 2nd telephone T3 = 3rd telephone T4 = 4th telephone T5 = 5th telephone T6 = 6th telephone T7 = 7th telephone T8 = 8th telephone T9 = 9th telephone MT = Partially completed by mail and converted to complete by telephone NC = Not completed
155	Cohort 23 Follow Up: Percent of Follow Up Survey Completed	181-185	Percent of survey completed. Range: 0 to 100% (value is rounded to the tenths decimal place)
156	Cohort 23 Follow Up: Follow Up Survey Language	186	Survey Language. 1 = English 2 = Spanish 3 = Not Applicable 4 = Chinese 5 = Russian
157	Cohort 23 Analytic: Cohort Identifier	187-189	Cohort in which the HOS surveys contained in this data file were submitted **NOTE:** This field contains a character string. Value for each record = "A23"

Field #	Field Description	Field Position	Valid Values and Notes
158	Cohort 23 Analytic: Analytic CMS Region	190-191	Derived from the August 2022 HPMS Plan Contract List for the Analytic PUF. 1 = Region 1 - Boston (CT, MA, ME, NH, RI, and VT) 2 = Region 2 - New York (NJ, NY, PR, and the VI) 3 = Region 3 - Philadelphia (DC, DE, MD, PA, VA, and WV) 4 = Region 4 - Atlanta (AL, FL, GA, KY, MS, NC, SC, and TN) 5 = Region 5 - Chicago (IL, IN, MI, MN, OH, and WI) 6 = Region 6 - Dallas (AR, LA, NM, OK, and TX) 7 = Region 7 - Kansas City (IA, KS, MO, and NE) 8 = Region 8 - Denver (CO, MT, ND, SD, UT, and WY) 9 = Region 9 - San Francisco (AZ, CA, Guam, HI, and NV) 10 = Region 10-Seattle (AK, ID, OR, and WA)
159	Cohort 23 Follow Up: Follow Up Sample Indicator	192	Indicates if the record was included in the Follow Up sample: 1 = Eligible for Follow Up 2 = Not Eligible for Follow Up
160	Cohort 23 Analytic: Analytic Sample Indicator	193	Indicates status of the record in the analytic file: 1 = Respondent 2 = Non-respondent 3 = Ineligible 4 = Disenrolled 5 = Dead