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# **Medicare Health Outcomes Survey 2024 Cohort 27 Baseline Data Users Guide**

Centers for Medicare & Medicaid Services  
Health Services Advisory Group



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# Preface

## Medicare Health Outcomes Survey

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) was 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](#) and a full description of the program is available on the HOS website at [www.HOSonline.org](http://www.HOSonline.org).

This HOS 2024 Cohort 27 Baseline **Data Users Guide** (DUG) is designed to assist users with the beneficiary level HOS 2024 Cohort 27 Baseline Research Identifiable File (RIF) and the corresponding HOS 2024 Cohort 27 Baseline Limited Data Set (LDS). The DUG includes an overview of the file organization, an explanation of derived fields, a table defining the attributes of all fields in the file, and a copy of the survey instrument annotated with the field names in the data file.

The *2024 Cohort 27 Baseline Reports* were made available to participating MAOs via the CMS Health Plan Management System ([HPMS](#)) in November 2025. The MAO reports summarize the results for an individual MAO compared with the national HOS total. A sample MAO report is also available on the Sample Reports page of the [Resources](#) section on the HOS website. The sample report displays actual results for the HOS total, but uses hypothetical data for the MAO summaries. This report may be consulted for program background, methodology, design, and national HOS results.

## Types of Research Files

### ***Limited Data Set***

The HOS 2024 Cohort 27 Baseline LDS contains all records in the complete RIF, as well as most of the 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 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 (i.e., categorical enrollment) or excluded (i.e., 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 also 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 patients and policies that govern their care.

### ***Research Identifiable File***

The complete HOS 2024 Cohort 27 Baseline RIF data file contains all fields, including the 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 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 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 a 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 RIF files. ResDAC may also be contacted by calling (888) 9RESDAC (888-973-7322) between the hours of 8am to 4pm CT Monday through Friday or by emailing [resdac@umn.edu](mailto: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 [CMS LDS HOS](#) page. The Medicare HOS Information and Technical Support at [hos@hsag.com](mailto: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 that were collected before November 1, 2003. Collected since 1998, the Medicare HOS was the first patient-reported outcomes measure in Medicare managed care, and therefore remains a critical part of assessing MAO quality. In addition, CMS includes the HOS results as a component of the Medicare Plan Finder ([www.medicare.gov/plan-compare](http://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

Medicare HOS Information and Technical Support at [hos@hsag.com](mailto:hos@hsag.com) or (888) 880-0077 is available to assist with questions regarding the data file. For a more detailed discussion on sampling, data collection, and submission, please refer to the *Healthcare Effectiveness Data and Information Set (HEDIS®)*<sup>1</sup> *Measurement Year (MY) 2023, Volume 6: Specifications for the Medicare Health Outcomes Survey* manual.<sup>2</sup> The most recent HEDIS Volume 6 manuals are available at no cost from the [NCQA Store](#). Copies of older editions of HEDIS publications may be obtained by calling NCQA Customer Support at (888) 275-7585.

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<sup>1</sup> HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

<sup>2</sup> National Committee for Quality Assurance. *HEDIS® MY 2023, Volume 6: Specifications for the Medicare Health Outcomes Survey*. Washington, DC: NCQA Publication, 2024.

# Methodology

## 2024 Medicare Advantage Organization Participation

The HOS is a longitudinal measure so MAOs that administer the Baseline Survey are required to administer the Follow Up Survey two years later. MAOs with Medicare contracts in effect on or before January 1, 2023, were required to report the Baseline HOS in 2024, provided they had a minimum enrollment of 500 beneficiaries as of February 2024.

- 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)

Beneficiaries enrolled in Institutional Special Needs Plans (I-SNP) at the plan benefit package (PBP) level were excluded from the Baseline HOS. Contracts in effect on or before January 1, 2023, with only one PBP or with multiple PBPs that were all I-SNPs as of February 1, 2024, were exempt from the Baseline reporting requirement. Contracts with a minimum of 500 members after I-SNP members were excluded, were required to administer the Baseline Survey in 2024 to their non-I-SNP members. Contracts with less than 500 non-I-SNP members after I-SNP members were excluded, were not required to report the Baseline HOS.

All Program of All-Inclusive Care for the Elderly (PACE) organizations with Medicare contracts in effect on or before January 1, 2023, and with a minimum enrollment of 30 beneficiaries as of February 1, 2024, were required by CMS to administer the HOS-Modified (HOS-M) in 2024.

MAOs sponsoring Fully Integrated Dual Eligible (FIDE) Special Needs Plans (SNPs) in 2024 could elect to report HOS or HOS-M at the PBP level to determine eligibility for frailty adjustment under the Affordable Care Act. For contracts with more than 500 beneficiaries, voluntary reporting is in addition to standard HOS requirements for quality reporting at the contract level. Up to 1,200 enrollees were sampled for each FIDE SNP PBP, if available. The requirements for participating in the HOS or HOS-M for frailty are as follows:

- The PBP that will be the FIDE SNP in 2024 must have existed as of January 1, 2024.
- The PBP did not have to meet FIDE SNP requirements to be surveyed in 2024 but must have been a Dual Eligible SNP.
- The PBP must have at least 50 enrollees.

## Sampling Methodology

### ***2024 Cohort 27 Baseline Sampling***

CMS identified beneficiaries who were eligible for sampling as follows:

- MAOs with fewer than 500 beneficiaries 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 for the baseline survey.
- 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 also request oversampling if the contract's enrollment permits a sample size larger than the standard sample of 1,200. Oversampling was expressed as a whole percentage of the standard sample size. Since 2020, I-SNPs have been excluded from the HOS baseline.

The baseline survey sample was comprised of beneficiaries who completed the HOS in English, Spanish, or Chinese language versions of the mail survey. While no mail surveys were completed in Russian for the Cohort 27 Baseline, the Russian language option became available in 2019. For the telephone phase, a standardized version of an Electronic Telephone Interviewing System was used to collect interview data in English, Spanish, or Chinese. The Chinese language telephone protocol was added to the HOS in 2020.



## Medicare HOS Instrument

The core HOS health status items were collected with the HOS 3.0 for the Cohort 27 Baseline survey. Like the HOS 2.5, these items incorporate the Veterans RAND 12-Item Health Survey (VR-12).

Detailed information about the Medicare HOS instrument can be found on the [HOS website](#) along with a glossary of terms related to the survey that may be accessed from the “[Glossary](#)” link at the bottom of the site webpages. The survey instrument can be downloaded from [NCQA’s website](#).

### Summary Measures

#### VR-12

The key component of the HOS for assessment of the physical and mental health functioning is the VR-12 Health Survey.<sup>3</sup> 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 36-item health survey: 1) Physical Functioning, 2) Role-Physical, 3) Role-Emotional, 4) Bodily Pain, 5) Social Functioning, 6) Mental Health, 7) Vitality, and 8) General Health. Each domain aggregates one or two items and all eight domains are used to calculate the two summary measures, as illustrated in the VR-12 mapping model on the following page. 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. The field names for the 14 items begin with the prefix “B27VR” in the data file.

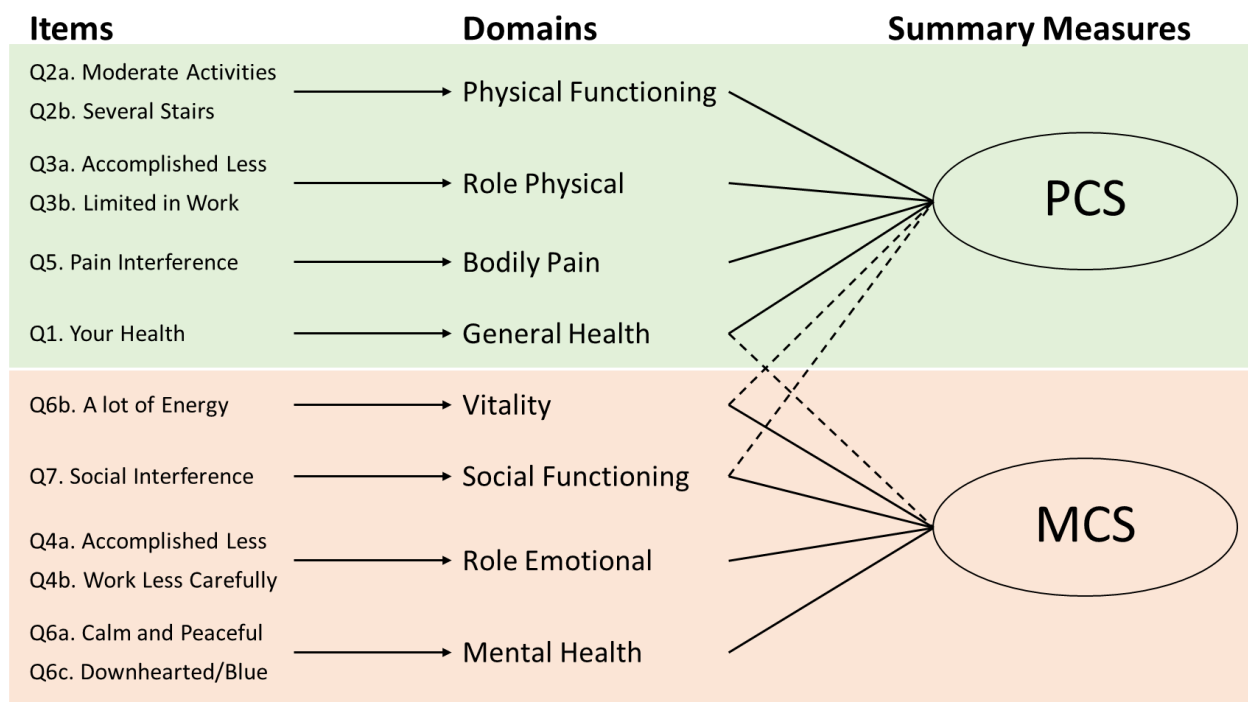
The PCS and MCS scores were calculated from the VR-12 using the Modified Regression Estimate (MRE) for scoring and imputation of missing data.<sup>4</sup> The MRE is a general method for obtaining scale scores for the eight domains in the context of missing data. The MRE uses complete cases to estimate a regression equation where only those items that are present are used.

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<sup>3</sup> 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: <https://www.bu.edu/sph/research/centers-and-groups/vr-36-vr-12-and-vr-6d/>. Accessed on: Sep 26, 2025.

<sup>4</sup> 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*. 2007. Available at: [https://hosonline.org/globalassets/hos-online/publications/veterans\\_rand\\_12\\_item\\_health\\_survey\\_vr-12\\_2007.pdf](https://hosonline.org/globalassets/hos-online/publications/veterans_rand_12_item_health_survey_vr-12_2007.pdf). Accessed on: Sep 26, 2025.

**Figure 1: Mapping of HOS VR-12 to Eight Health Domains and Two Summary Measures**



**Note:** Domains contributing the most to each summary measure are indicated by a solid line. Domains contributing to a lesser degree are indicated by a broken line; however, all domains contribute to some extent to the scoring of both summary measures (PCS and MCS).

### **Physical and Mental Component Summary Scores**

For those beneficiaries with complete responses across the VR-12, the following steps were taken to calculate PCS and MCS:<sup>5</sup>

- Step One: New variables were created for each response level choice with one level omitted. Using the 59 total response categories across the VR-12 questions, 47 indicator variables were created.
- Step Two: Aggregate PCS and MCS scores were created separately from a regression equation that weighted each of the 47 indicator variables. The weights were derived from the Veterans SF-36 PCS and MCS Scales using the 1999 Large Health Survey of Veteran Enrollees.
- Step Three: A constant was added to each of the estimates obtained from Step Two. The scores were then standardized using normative values from a 1990 U.S. general population. Therefore, a mean score of 50 represents the national average, a 10-point

<sup>5</sup> Spiro A, Rogers WH, Qian S, Kazis L. *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](http://www.hosonline.org/globalassets/hos-online/publications/hos_veterans_12_imputation.pdf). Accessed on: Sep 26, 2025.

difference above and below the mean score is one standard deviation, and, with few exceptions, the scores have a range of 0 through 100 (higher being better).

When a beneficiary had missing data across the VR-12 items, PCS and MCS scores were imputed using the MRE. Using the MRE algorithm, PCS and MCS scores can be calculated in as many as 90% of the cases in which one or more VR-12 responses are missing.<sup>6</sup> Depending on the pattern of missing item responses for a beneficiary, a different set of regression weights was required to compute that individual's PCS and/or MCS scores.<sup>5</sup> For each combination of missing data, the beneficiaries' data were merged with the stored regression weights and the PCS or MCS scores were computed and then standardized using the normative values from Step Three.

Beneficiary PCS and MCS results were mode adjusted for the impact of telephone administration compared to the reference mode of mail administration. Comparisons across the VR-12 of matched HOS and Veterans Administration surveys for the same respondents showed that PCS and MCS scores were, on average, 1.9 and 4.5 points greater respectively for telephone compared to mail administered surveys.<sup>7</sup> Therefore, for telephone surveys, 1.9 points were subtracted from the PCS score and 4.5 points were subtracted from the MCS score.

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 effect, absence of psychological distress, and no limitations in usual social and role activities due to emotional problems.

### ***Case-Mix Adjustment for Comparison of MAOs at Baseline***

Beneficiaries are not randomly assigned to MAOs. Therefore, unadjusted PCS and MCS scores may be biased by demographic and chronic health characteristics that are disproportionately represented in some MAOs. For this reason, the PCS and MCS scores were case-mix adjusted to allow for equitable comparisons across all MAOs. In the context of the HOS, case-mix refers to those beneficiary characteristics measured at baseline (such as age and the presence of chronic conditions) that are outside the control and influence of the MAO, but that may contribute to better or worse physical and/or mental health summary scores. Case-mix adjustment is a statistical technique that uses multiple regression models to control for those differences, thus allowing comparisons in performance and quality across MAOs.

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<sup>6</sup> Selim A, Iqbal SU, Rogers W, et al. *Medicare Health Outcomes Survey: An Alternative Case-Mix Methodology*. Technical Report prepared by: Center for Health Quality, Outcomes, and Economic Research, VA Medical Center, Bedford, Massachusetts. 2007. Available at: [www.hosonline.org/globalassets/hos-online/publications/hos\\_case\\_mix\\_final\\_technical\\_report.pdf](http://www.hosonline.org/globalassets/hos-online/publications/hos_case_mix_final_technical_report.pdf). Accessed on: Sep 26, 2025.

<sup>7</sup> Rogers WH, Gandek B, Sinclair SJ. *Calculating Medicare Health Outcomes Survey Performance Measurement Results*. Technical Report prepared by: Health Assessment Lab, Waltham, MA, The Health Institute, Department of Clinical Care Research, New England Medical Center, Boston, MA. 2004. Available at: [www.hosonline.org/globalassets/hos-online/publications/hos\\_calculating\\_pm\\_results.pdf](http://www.hosonline.org/globalassets/hos-online/publications/hos_calculating_pm_results.pdf). Accessed on: Sep 26, 2025.

Models used to adjust the summary scores included variables to control for differences in demographic and socioeconomic characteristics, chronic medical conditions, and HOS study design variables.

- Sociodemographic characteristics included age, sex, race, education, marital status.
- Chronic medical conditions were measured from 12 questions about medical conditions.
- HOS study design variables included who completed the survey, CMS region, and the survey vendor.

Two different generalized linear regression models were used to adjust PCS and MCS scores since not all beneficiaries responded to all survey questions. Only one model, the most comprehensive model possible, was used to calculate an adjusted score for each beneficiary.

- Model One: If a beneficiary had complete data for all the covariates, then the adjusted scores were calculated using Model One, which contains all variables.
- Model Two: If a beneficiary did not have enough complete data for Model One, then Model Two was used. Age, sex, race, CMS region, and survey vendor were included in Model Two because they were available for all sampled beneficiaries.
- Adjusted MAO scores can only be calculated with use of the complete HOS dataset.

## Data File Characteristics

The file is a SAS<sup>®</sup> data set generated with SAS Version 9.4. There are no formats permanently associated with the variables. The file contains one record per beneficiary. Field names begin with the **B27** prefix to reflect the cohort number. There is a total of 208 fields and 1,106,815 beneficiary records in the Cohort 27 Baseline RIF data file. In the corresponding LDS, 31 person-level and plan-level identifiers have been removed, resulting in a total of 177 fields in the LDS file. Additionally, the contract number field B27CONTRACT has been replaced in the LDS with a blinded contract identifier **B27CONT\_ID**, and the plan population field B27PLPOP has been replaced in the LDS by a categorical population field **B27POPCAT**.

The baseline data file contains all beneficiaries from the national HOS sample, including survey respondents, non-respondents, and those identified as ineligible. Both senior (age 65 or older) and disabled (ages 18-65) beneficiaries are included. Respondents are defined as those for whom a PCS or MCS score can be calculated (B27PCS or B27MCS not equal to missing). The field B27INVSrv identifies beneficiaries as eligible (B27INVSrv=0) or ineligible (B27INVSrv=1). An ineligible beneficiary meets one of the following criteria: deceased; bad address and phone number; or language barrier.

The field B27ANALYT identifies senior respondents belonging to the analytic sample (B27ANALYT=1) or excluded from the analytic sample (B27ANALYT=0). The analytic sample includes all beneficiaries who met the following criteria:

- Completed the baseline survey, where a completed survey is one for which a PCS or MCS score can be calculated (B27PCS or B27MCS not equal to missing)
- Age 65 or older (B27AGE greater than or equal to 65)
- Were part of the quality reporting sample (B27HOSQRS=1)

The field B27PLANSTN is the state designation, which in most cases was assigned to the MAO from the 2024 Plan Contract List obtained from HPMS. A small number of MAOs were reassigned for consistency with previous HOS cohorts or because most beneficiaries resided in a different state from the one designated in HPMS. The Cohort 27 Baseline survey included several PFFS and Regional PPO contracts. These MAOs usually include beneficiaries from several states. Therefore, the PFFS and RPPO contracts were excluded from state-level totals in the *2024 Cohort 27 Baseline Report*. They were, however, included in the national HOS totals in the report. A second state field B27RPTST was assigned the value of FS and RS for the PFFS and RPPO contracts, respectively. For all other MAOs, B27RPTST has the same value as B27PLANSTN. The field **B27RPTST** is the state level unit of analysis for the *2024 Cohort 27 Baseline Report*. The field **B27CONTRACT** is the MAO-level unit of analysis for the *2024 Cohort 27 Baseline Report*.

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<sup>8</sup> SAS<sup>®</sup> is a registered trademark of the SAS Institute Inc., Cary, NC.

## New and Revised Fields

There were no **new** fields in the 2024 Cohort 27 Baseline data file compared with the 2023 Cohort 26 Baseline file.

There were no **revised fields** in the 2024 Cohort 27 Baseline data file compared with the Cohort 26 Baseline file.

Selected field attributes (i.e., field name, type, length, or label) may have been modified for some fields included in the Cohort 27 Baseline data file when compared to the same fields in previous HOS data files. Refer to Appendix A for detailed information regarding all field attributes contained in the Cohort 27 Baseline data file.

## Excluded Fields

There were no fields excluded in the 2024 Cohort 27 Baseline data file compared with the 2023 Cohort 26 Baseline file.

## Field Overview

The following is a general description of fields included in the Cohort 27 Baseline data file. The fields are listed in the order they appear in the SAS data file. CMS administrative fields were obtained from a combination of CMS databases. The field descriptions include all fields in the RIF file; however, fields that were excluded in the LDS file are shaded gray in the Appendix A Data File Layout table.

### ***Beneficiary and Contract Level Fields (Fields 1-4)***

Fields in this section include the Medicare Beneficiary Identifier (MBI) number (B27MBIDNUM) and anonymous beneficiary and contract identification numbers. B27MBIDNUM is the unique Medicare identifier that replaced the Health Insurance Claim number and was the beneficiary level unit of analysis for the Medicare HOS *2024 Cohort 27 Baseline Report*.

### ***Contract Level Fields (Fields 5-11)***

Most fields in this section are taken from the header record of the Cohort 27 Baseline data file and include information about the MAO's contract and plan identifiers. The contract number B27CONTRACT and plan identifier B27PLANID represent the member's contract assignment at the time of the baseline sampling in 2024. The CMS contract identifier B27CONTRACT is of the form Hxxxx or Rxxxx, where xxxx represents a unique four-digit number. Similarly, the plan identifier B27PLANID is of the form Hxxxx or Rxxxx, and is identical to B27CONTRACT. The contract number field B27CONTRACT was the MAO level unit of analysis for the Medicare HOS *2024 Cohort 27 Baseline Report*. Please note that in the LDS file B27CONTRACT has been replaced by a blinded contract identifier **B27CONT\_ID**, and the B27PLANID was dropped.

### ***Member Level Record Fields (Fields 12-51)***

Most fields in this section are taken from the member level record of the baseline file and were obtained from CMS data at the time the sample files were created. The plan benefit package

(PBP) identifier, SNP type, HOS quality reporting sample indicator, a unique beneficiary link key ID (B27BLKEY), and phone numbers, as well as the beneficiary address fields (mailing address, county, state, and ZIP code), are included. B27PHONE is a character field that indicates the phone number used to successfully contact the beneficiary, if they participated in the Cohort 27 Baseline. The PBP identifier, B27PBPID, identifies the plan benefit package within a contract to which the beneficiary belongs at baseline. Each contract may contain one or more PBPs, and some PBPs are SNPs. B27SNPTYPE identifies the type of SNP PBP in which certain vulnerable beneficiaries are enrolled at baseline. Three types of special needs beneficiaries may be targeted for SNP enrollment: (1) beneficiaries with severe or disabling chronic conditions, (2) dual-eligible, and (3) the institutionalized.

Further information about SNPs, such as contract number, contract name, plan ID, enrollment, and type of medical condition(s) served, may be obtained from the *SNP Comprehensive Report* that is available on the CMS Medicare Advantage Part D Contract and Enrollment Data page on the [CMS website](#). The FIDE SNP indicator B27FIDEIND identifies if a beneficiary is (0) not a member of a prospective FIDE SNP, or (1, 2, or 3) is a member of a prospective FIDE SNP. B27HOSQRS indicates if a beneficiary is (0) not in the quality reporting sample due to voluntary FIDE SNP reporting status, or (1) is in the quality reporting sample for collection of HOS quality measures (e.g., measures used in the Medicare Star Ratings). B27PBPID is a character variable which contains a three-digit number, filled with leading zeros, and corresponds to the PlanID column of the *SNP Comprehensive Report*. Beneficiary race, sex, date of birth, reason for entitlement, ESRD status, hospice status, Medicaid status, and Dual status are also included in this section. The field B27SRVIND indicates if a beneficiary was sampled for inclusion in (1) Cohort 27 Baseline only, (2) Cohort 25 Follow Up only, or (3) Cohort 27 Baseline and Cohort 25 Follow Up. Only values of 1 or 3 are valid for this data file.

### ***Survey Fields (Fields 52-155)***

This section contains survey fields from the 62 questions comprising the 2024 HOS 3.0 instrument. It includes beneficiary responses to questions pertaining to the VR-12 Health Survey, health status, demographics, activities of daily living, number of physically and mentally unhealthy days, chronic medical conditions, depression, urinary incontinence, physical activity, falls, sleep measures, height, weight, and the name of the person who completed the survey. The 12-item health survey portion of the HOS instrument (questions 1 [Q1] through 7 [Q7]) is used to obtain physical and mental health summary measures. The beneficiary's weight and height are found in B27WEIGHTLB, B27HEIGHTFT, and B27HEIGHTIN. These fields are obtained from open-ended weight and height questions.

### ***Survey Administration Fields (Fields 156-168)***

For each beneficiary, the fields in this section include the disposition of the survey, the round in which the survey was obtained, the date the survey was completed, and the language in which the survey was completed. Other fields in this section include a flag for beneficiaries who have requested to be excluded from future HOS sampling and an ineligible survey flag. B27DISP indicates whether respondents completed the survey by mail or telephone. B27ADLCOUNT indicates the number of ADL questions answered in the survey (0-6). Other fields include the percentage of the survey that was completed and an indicator for a "complete" survey (with at

least 80% completion of the items + all 6 ADL questions answered).

### ***SAS Dates (Fields 169-173)***

This section provides SAS dates for date of birth, date of survey, date of enrollment into the plan, and enrollment limit. For beneficiaries with a missing survey date, a date of August 22, 2024.

was imputed to represent the midpoint date of the sampling timeframe. This imputation was used to generate the SAS date field B27TSRVDATIM, which is equal to the original survey date except in those instances where a date has been imputed due to a missing survey date for the nonrespondents.

### ***Analytic Fields (Fields 174-186)***

This section contains the baseline analytic fields used for analysis and reporting. Categorical fields include Body Mass Index (BMI), enrollment duration, age group, racial group, marital status, education level, number of chronic medical conditions, and a depression screen indicator. The beneficiary's baseline date of birth B27TDOB and the survey date field B27TSRVDATIM were used to derive the beneficiary's age at baseline B27AGE.

### ***Summary Measures (Fields 187-191)***

Included in this section are the unadjusted (B27PCS and B27MCS), the adjusted (B27ADJPCS and B27ADJMCS) PCS and MCS scores, and the unadjusted PFADL scale score (B27PFADL) used in the Cohort 27 Baseline analysis and reporting. Individual scale scores for the VR-12 are not available.

### ***Analytical Sample Indicator Field (Field 192)***

This section includes the baseline analytic sample indicator B27ANALYT, which indicates whether beneficiaries were seniors (age 65 or older), had calculable PCS or MCS scores, and were part of the HOS quality reporting sample. This field can be used to identify records that were included in the Cohort 27 Baseline analytic sample (1) or were not part of the analytic sample (0).

### ***Contract Characteristics Fields (Fields 193-208)***

Fields in this section provide contract characteristics, including plan type, tax status, organization name, parent organization name, plan population, state, and CMS region code. The information was obtained from the August 2024 HPMS Plan Contract List and the August 2024 *CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans*. The *CMS Monthly Report* is available on the [CMS website](#). The information links to the contract number field B27CONTRACT. (Please note that in the LDS file, the plan contract number field B27CONTRACT has been replaced with a blinded contract identifier **B27CONT\_ID**, and the plan population field B27PLPOP has been replaced by a categorical population field **B27POPCAT**.) Typically, plan state and CMS region designations are determined at the MAO level and are assigned to the state and region in which an MAO is reported. The reporting state field B27RPTST is the state level unit of analysis for the Medicare HOS 2024 Cohort 27 Baseline Report.



## Data Field Utilization Notes

- The HOS questionnaire contains multiple skip patterns. Caution should be exercised when examining questions that involve skip pattern responses. The skip patterns are indicated on the survey instrument in Appendix B.
- The demographic fields (race and sex) were obtained from CMS Medicare databases at the baseline sampling, and from the data provided by the respondent in the survey. Inconsistencies may exist between the CMS fields and the corresponding respondent survey data. Caution should be exercised when examining these fields.
- Since questions may be added or removed each year, some question numbers in this year's baseline survey may differ from previous years' surveys. Caution should be exercised when examining the data across multiple cohorts.
- In 2021, the response for "No pain" in the pain rate question (PAINRATE) was changed from 1 to 0. Due to the change, the "No pain" response is not comparable with surveys prior to 2021.

# Appendix A

## 2024 Cohort 27 Baseline Data File Specifications

### *Research Identifiable File (RIF)*

There is a total of 208 fields in the baseline RIF, as indicated in the Field # column.

### *Limited Data Set (LDS)*

The LDS contains a total of 177 fields after the removal of 31 person-level and plan-level identifiers. The fields which were removed from the LDS are shaded gray in the table below.

### Data File Layout by Position

The following table describes the field attributes for the Cohort 27 Baseline data file. The fields are sorted in the order they appear in the file. The “Comments” column indicates where the field was obtained, and if applicable, how it was derived. For the survey level items, the exact text of each question can be obtained from Appendix B or by referring to the *HEDIS MY 2023, Volume 6* manual.<sup>2</sup>

Field #	Name/ Description	Type	Length	Valid Values	Comments
1	<i>B27MBIDNUM</i> Medicare Beneficiary Identifier	Char	11		Obtained from Sample File Unique beneficiary identifier <b>Beneficiary level unit of analysis for the Cohort 27 Baseline Report</b>
2	<i>B27PATID</i> Anonymous Beneficiary ID	Num	8		Derived field Unique beneficiary ID May be used as a database key if personally identifiable fields (e.g., B27MDINUM) were removed.
3	<i>B27PLAN</i> Anonymous Plan ID	Num	8		Derived field Unique plan ID May be used as a database key if plan identifiable fields (e.g., B27PLANID) were removed.
4	<i>B27RECID</i> Record ID	Char	1		Obtained from Header Record Every record contains a tilde “~” (not used)
5	<i>B27RPTYR</i> Report Year	Num	3		Obtained from Header Record Reporting year for the Cohort 27 Baseline sample

Field #	Name/ Description	Type	Length	Valid Values	Comments
6	<i>B27CONTRACT</i> Contract Number (in RIF)	Char	5		Obtained from Header Record <b>B27CONTRACT in the RIF is the MAO level unit of analysis for the Cohort 27 Baseline Report</b>
	<i>B27CONT_ID</i> Blinded Contract Number (in LDS).	Char	5		<i>B27CONT_ID</i> in the LDS is the blinded Contract Number. <b>May be used as the MAO level unit of analysis for the Cohort 27 Baseline LDS file.</b>
7	<i>B27PLAN_NAME</i> Plan Name	Char	70		Obtained from Header Record MAO name
8	<i>B27VENDOR</i> Vendor	Num	8	1413= CSS 1415= DataStat, Inc. 1463= Press Ganey 630396= Qualtrics	Obtained from Header Record
9	<i>B27NCQAORGID</i> NCQA Healthcare Organization ID	Num	8		Obtained from Header Record
10	<i>B27NCQASUBID</i> NCQA Submission ID	Num	8		Obtained from Header Record
11	<i>B27PLANID</i> Plan ID	Char	5		Obtained from Sample File
12	<i>B27PBPID</i> Plan Benefit Package Number	Char	3		Obtained from the Sample File 3-digit number filled with leading zeros corresponding to PlanID in <i>SNP Comprehensive Report</i> on the CMS website
13	<i>B27SNPTYPE</i> Type of Special Needs Plan	Num	3	1 = Chronic or Disabling Condition 2 = Dual-Eligible 3 = Institutional	Obtained from Sample File
14	<i>B27FIDEIND</i> FIDE Applicant Frailty Assessment Indicator	Num	8	0 = Not an applicant 1 = Applicant not eligible for quality reporting 2 = Applicant only PBP in contract 3 = Applicant one of multiple PBPs in contract	Obtained from Sample File
15	<i>B27FIDESST</i> FIDE Applicant Sampling Stage Indicator	Num	8	0 = Not an applicant 1 = Stage 1 contract-level random sample 2 = Stage 2 Supplemental Sample; not previously selected 3 = Stage 2 Supplemental Sample; previously selected for Follow-Up	Obtained from Sample File

Field #	Name/ Description	Type	Length	Valid Values	Comments
16	<i>B27HOSQRS</i> HOS Quality Reporting Sample Flag	Num	8	0 = HOS non-quality reporting sample (voluntary FIDE SNPs) 1 = HOS quality reporting sample	Obtained from Sample File
17	<i>B27BLKEY</i> Beneficiary Link Key	Char	13		Obtained from Sample File
18	<i>B27PHONE</i> Member Telephone with Successful Contact	Char	10	10 digit numeric	Generated by survey vendor
19	<i>B27FNAME</i> First Name	Char	15		Obtained from Sample File
20	<i>B27MIDINIT</i> Middle Initial	Char	1		Obtained from Sample File
21	<i>B27LNAME</i> Last Name	Char	24		Obtained from Sample File
22	<i>B27ADDRESS1</i> Address Line 1	Char	30		Obtained from Sample File
23	<i>B27ADDRESS2</i> Address Line 2	Char	30		Obtained from Sample File
24	<i>B27ADDRESS3</i> Address Line 3	Char	30		Obtained from Sample File
25	<i>B27CITY</i> Member City	Char	22		Obtained from Sample File
26	<i>B27STATE</i> Member State	Char	22		Obtained from Sample File
27	<i>B27ZIP</i> Member Zip code	Char	22		Obtained from Sample File Zip + 4 separated by a hyphen
28	<i>B27ADDRESS</i> Combined Address (Member Address Fields)	Char	161		Derived by concatenating all address fields from Sample File
29	<i>B27STATEABV</i> State Abbreviation from State SSA Code	Char	2		Derived field Two letter state abbreviation derived from state SSA code B27STATECDE
30	<i>B27STNAME</i> State Name from State SSA Code	Char	20		Derived field State name derived from state SSA code B27STATECDE
31	<i>B27STATECDE</i> State SSA Code	Char	2		Obtained from Sample File Two digit state SSA code
32	<i>B27CTNAME</i> County Name from County SSA Code	Char	21		Derived field County name derived from county SSA code B27CNTYCDE
33	<i>B27CNTYCDE</i> County SSA Code	Char	3		Obtained from Sample File Three digit county SSA code

Field #	Name/ Description	Type	Length	Valid Values	Comments
34	<i>B27RACE</i> Race (CMS)	Num	3	0 = Unknown 1 = White 2 = Black 3 = Other 4 = Asian 5 = Hispanic 6 = North American Native	Obtained from Sample File
35	<i>B27SEX</i> Sex (CMS)	Num	3	1 = Male 2 = Female	Obtained from Sample File
36	<i>B27DOB</i> Date of Birth	Char	8		Obtained from Sample File Displayed as MMDDYYYY
37	<i>B27DOD</i> Date of Death	Char	8		Obtained from Sample File (blank for all records)
38	<i>B27DOE</i> Accretion Date to Plan	Char	8		Obtained from Sample File Date of enrollment displayed as MMDDYYYY
39	<i>B27DOT</i> Termination Date	Char	8		Obtained from Sample File (blank for all records)
40	<i>B27ESRD</i> ESRD Indicator	Num	3	0 = No ESRD 1 = ESRD	Obtained from CMS data
41	<i>B27INSTUT</i> Institutional Status	Num	3	0 = Out of Institution 1 = Institutionalized 2 = Eligible for nursing home care	Obtained from CMS data
42	<i>B27HOSPICE</i> Hospice Status	Num	3	0 = No hospice start date present 1 = Hospice start date present	Obtained from CMS data
43	<i>B27MEDICAID</i> Medicaid Status	Num	3	0 = Out of Medicaid 1 = In Medicaid (Full or Partial Benefit in March)	Obtained from CMS data
44	<i>B27DUAL</i> Dual Status	Num	3	0 =Not Dual Status 1 = Dual Status (Full Benefit any time during the year)	Obtained from CMS data
45	<i>B27ENTITLE</i> Reason for Entitlement	Num	3	10 =Aged without ESRD 11 =Aged with ESRD 20 =Disabled without ESRD 21 =Disabled with ESRD 31 =ESRD only	Obtained from Sample File
46	<i>B27PROTID</i> Protocol Identifier Flag	Num	8	1 = English Follow-Up--No Proxy at Baseline 2 = English Follow-Up--Proxy at Baseline 3 = Baseline (all languages) 4 = Spanish Follow Up--No Proxy at Baseline 5 = Spanish Follow Up--Proxy at Baseline 6 = Chinese Follow Up--No Proxy at Baseline 7 = Chinese Follow Up--Proxy at Baseline	Obtained from Sample File

Field #	Name/ Description	Type	Length	Valid Values	Comments
47	<i>B27RSPFNAME</i> First Name Respondent to Cohort 25B Survey	Char	25		Obtained from Sample File
48	<i>B27RSPLNAME</i> Last Name Respondent to Cohort 25B Survey	Char	25		Obtained from Sample File
49	<i>B27RSPPHONE</i> Telephone Respondent to Cohort 25B Survey	Char	10		Obtained from Sample File
50	<i>B27RESPB25</i> Combined Name Respondent to Cohort 25B Survey	Char	51		Obtained from Sample File
51	<i>B27SRVIND</i> Survey Indicator	Num	3	1 = BASE (baseline survey only) 2 = FUR (follow-up survey only) 3 = FUBSR (both baseline and follow-up surveys)	Obtained from Sample File (Only values of 1 and 3 are valid for the baseline data set.)
52	<i>B27VRGENHTH</i> Q1 General Health Question	Num	3	1 = Excellent 2 = Very Good 3 = Good 4 = Fair 5 = Poor	Entered from the survey (See Appendix B)
53	<i>B27VRMACT</i> Q2a Health Limitation-In moderate activities	Num	3	1 = Yes, limited a lot 2 = Yes, limited a little 3 = No, not limited at all	Entered from the survey (See Appendix B)
54	<i>B27VRSTAIR</i> Q2b Health Limitation-Climbing several flights	Num	3	1 = Yes, limited a lot 2 = Yes, limited a little 3 = No, not limited at all	Entered from the survey (See Appendix B)
55	<i>B27VRPACCL</i> Q3a Physical-Accomplished less than you would like	Num	3	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	Entered from the survey (See Appendix B)
56	<i>B27VRPWORK</i> Q3b Physical-Limited in work or activities	Num	3	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	Entered from the survey (See Appendix B)
57	<i>B27VRMACCL</i> Q4a Emotional-Accomplished less than you would like	Num	3	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	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
58	B27VRMWORK Q4b Emotional-Did not do work or activities as carefully	Num	3	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	Entered from the survey (See Appendix B)
59	B27VRPAIN Q5 Pain-Interfered with normal work	Num	3	1 = Not at all 2 = A little bit 3 = Moderately 4 = Quite a bit 5 = Extremely	Entered from the survey (See Appendix B)
60	B27VRCALM Q6a Felt calm and peaceful	Num	3	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	Entered from the survey (See Appendix B)
61	B27VRENERGY Q6b Have a lot of energy	Num	3	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	Entered from the survey (See Appendix B)
62	B27VRDOWN Q6c Felt downhearted and blue	Num	3	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	Entered from the survey (See Appendix B)
63	B27VRSACT Q7 Health Interfered with Social Activities	Num	3	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	Entered from the survey (See Appendix B)
64	B27VRPHCMP Q8 Physical Health compared to 1 Year Ago	Num	3	1 = Much better 2 = Slightly better 3 = About the same 4 = Slightly worse 5 = Much worse	Entered from the survey (See Appendix B)
65	B27VRMHCMP Q9 Emotional Health compared to 1 Year Ago	Num	3	1 = Much better 2 = Slightly better 3 = About the same 4 = Slightly worse 5 = Much worse	Entered from the survey (See Appendix B)
66	B27ADLBTH Q10a Difficulty Bathing	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
67	B27ADLDRS Q10b Difficulty Dressing	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity	Entered from the survey (See Appendix B)
68	B27ADLEAT Q10c Difficulty Eating	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity	Entered from the survey (See Appendix B)
69	B27ADLCHR Q10d Difficulty Getting in or out of Chairs	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity	Entered from the survey (See Appendix B)
70	B27ADLWLK Q10e Difficulty Walking	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity	Entered from the survey (See Appendix B)
71	B27ADLTLT Q10f Difficulty Using Toilet	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I am unable to do this activity	Entered from the survey (See Appendix B)
72	B27DIFMEALS Q11a Difficulty Preparing Meals	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I do not do this activity	Entered from the survey (See Appendix B)
73	B27DIFMONEY Q11b Difficulty Managing Money	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I do not do this activity	Entered from the survey (See Appendix B)
74	B27DIFMEDS Q11c Difficulty Taking Medication as Prescribed	Num	3	1 = No, I do not have difficulty 2 = Yes, I have difficulty 3 = I do not do this activity	Entered from the survey (See Appendix B)
75	B27HDPHY Q12 Number of Days Physical Health Not Good	Num	3		Entered from the survey (See Appendix B)
76	B27HDMEN Q13 Number of Days Mental Health Not Good	Num	3		Entered from the survey (See Appendix B)
77	B27HDACT Q14 Number of Days Poor Health Interfered with Activities	Num	3		Entered from the survey (See Appendix B)



Field #	Name/ Description	Type	Length	Valid Values	Comments
78	B27DIFSEE Q15 Blind or Serious Difficulty Seeing	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
79	B27DIFHEAR Q16 Deaf or Serious Difficulty Hearing	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
80	B27DIFREMEM Q17 Difficulty concentrating, remembering, or making decisions	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
81	B27DIFERRND Q18 Difficulty doing errands	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
82	B27DIFMPROB Q19 Memory problems interfered with activities in past month	Num	3	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	Entered from the survey (See Appendix B)
83	B27CCHBP Q20 Hypertension or High Blood Pressure	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
84	B27CC_CAD Q21 Angina Pectoris or Coronary Artery Disease	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
85	B27CC_CHF Q22 Congestive Heart Failure	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
86	B27CCMI Q23 Myocardial Infarction or Heart Attack	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
87	B27CCHRTOTH Q24 Other Heart Conditions	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
88	B27CCSTROKE Q25 Stroke	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
89	B27CC_COPD Q26 Emphysema, or Asthma, or COPD	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
90	B27CCGI Q27 Inflammatory Bowel Diseases	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
91	B27CCOSTEO Q28 Osteoporosis, or thin/brittle bones	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
92	B27CCDIABET Q29 Diabetes, or high blood sugar, or sugar in the urine	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
93	B27CCDEP Q30 Depression	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
94	B27CCANYCA Q31 Any Cancer (other than skin cancer)	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
95	B27CACOLON Q32a Under Treatment for Colon Cancer	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
96	B27CALUNG Q32b Under Treatment for Lung Cancer	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
97	B27CABRST Q32c Under Treatment for Breast Cancer	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
98	B27CAPROS Q32d Under Treatment for Prostate Cancer	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
99	B27CAOTHER Q32e Under Treatment for Other Cancer	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
100	B27PAINDACT Q33 Pain interfered with activities in past 7 days	Num	3	1 = Not at all 2 = A little bit 3 = Somewhat 4 = Quite a bit 5 = Very much	Entered from the survey (See Appendix B)
101	B27PAINSACT Q34 Pain kept you from socializing in past 7 days	Num	3	1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always	Entered from the survey (See Appendix B)
102	B27PAINRATE Q35 Average pain rating in past 7 days (0=No pain, 10=Worst pain)	Num	3	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	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
103	<i>B27DEPNOPLS</i> Q36a Little interest or pleasure in doing things in past 2 weeks	Num	3	1 = Not at all 2 = Several days 3 = More than half the days 4 = Nearly every day	Entered from the survey (See Appendix B)
104	<i>B27DEPDOWN</i> Q36b Feeling down, depressed, or hopeless in past 2 weeks	Num	3	1 = Not at all 2 = Several days 3 = More than half the days 4 = Nearly every day	Entered from the survey (See Appendix B)
105	<i>B27CMPHTH</i> Q37 General Health compared to peers	Num	3	1 = Excellent 2 = Very Good 3 = Good 4 = Fair 5 = Poor	Entered from the survey (See Appendix B)
106	<i>B27MUILKG</i> Q38 Urine Leakage in Past 6 Months	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
107	<i>B27MUIDACT</i> Q39 Urine Leakage Changed Daily Activities	Num	3	1 = A lot 2 = Somewhat 3 = Not at all	Entered from the survey (See Appendix B)
108	<i>B27MUITLK</i> Q40 Talked with Doctor About Urine Leakage	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
109	<i>B27MUITRT</i> Q41 Talked About Treatment for Urine Leakage	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
110	<i>B27PAOTLK</i> Q42 Talked with Doctor About Physical Activities	Num	3	1 = Yes 2 = No 3 = I had no visits in the past 12 months	Entered from the survey (See Appendix B)
111	<i>B27PAOADV</i> Q43 Advised to Increase or Maintain Activities	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
112	<i>B27FRMTLK</i> Q44 Talked with Doctor about Falling or Balance Problem	Num	3	1 = Yes 2 = No 3 = I had no visits in the past 12 months	Entered from the survey (See Appendix B)
113	<i>B27FRMFALL</i> Q45 Fell in Past 12 Months	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)
114	<i>B27FRMBAL</i> Q46 Problem with Walking or Balance in Past 12 Months	Num	3	1 = Yes 2 = No	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
115	B27FRMPREV Q47 Talked with Doctor about How to Prevent Falls	Num	3	1 = Yes 2 = No 3 = I had no visits in the past 12 months	Entered from the survey (See Appendix B)
116	B27SLEEPHRS Q48 Average Hours of Sleep per Night in Past Month	Num	3	1 = Less than 5 hours 2 = 5 – 6 hours 3 = 7 – 8 hours 4 = 9 or more hours	Entered from the survey (See Appendix B)
117	B27SLEEPQUA Q49 Overall Sleep Quality Rating in Past Month	Num	3	1 = Very Good 2 = Fairly Good 3 = Fairly Bad 4 = Very Bad	Entered from the survey (See Appendix B)
118	B27WEIGHTLB Q50 Weight in pounds (lbs.)	Num	8		Entered from the survey (See Appendix B)
119	B27HEIGHTFT Q51a Height in feet (ft.) Portion of Height Question	Num	8		Entered from the survey (See Appendix B)
120	B27HEIGHTIN Q51b Height in inches (in.) Portion of Height Question	Num	8		Entered from the survey (See Appendix B)
121	B27SRVSEX Q52 Survey Sex	Num	3	1 = Male 2 = Female	Entered from the survey (See Appendix B)
122	B27HPNOHISP Q53a No, not Hispanic, Latino/a or Spanish origin	Num	3	0 = No, not Hispanic not checked 1 = No, not Hispanic checked	Entered from the survey (See Appendix B)
123	B27HPMEX Q53b Yes, Mexican, Mexican American, Chicano/a	Num	3	0 = Respondent did not check Mexican 1 = Respondent checked Mexican	Entered from the survey (See Appendix B)
124	B27HPPR Q53c Yes, Puerto Rican	Num	3	0 = Respondent did not check Puerto Rican 1 = Respondent checked Puerto Rican	Entered from the survey (See Appendix B)
125	B27HPCUBA Q53d Yes, Cuban	Num	3	0 = Respondent did not check Cuban 1 = Respondent checked Cuban	Entered from the survey (See Appendix B)
126	B27HPOTHER Q53e Yes, another Hispanic, Latino/a or Spanish origin	Num	3	0 = Respondent did not check Other Hispanic 1 = Respondent checked Other Hispanic	Entered from the survey (See Appendix B)
127	B27RCWHITE Q54a White	Num	3	0 = Respondent did not check White 1 = Respondent checked White	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
128	<i>B27RCAFRAM</i> Q54b Black or African American	Num	3	0 = Respondent did not check Black or African American 1 = Respondent checked Black or African American	Entered from the survey (See Appendix B)
129	<i>B27RCNATAM</i> Q54c American Indian or Alaska Native	Num	3	0 = Respondent did not check American Indian or Alaska Native 1 = Respondent checked American Indian or Alaska Native	Entered from the survey (See Appendix B)
130	<i>B27RCINDIA</i> Q54d Asian Indian	Num	3	0 = Respondent did not check Asian Indian 1 = Respondent checked Asian Indian	Entered from the survey (See Appendix B)
131	<i>B27RCCHINA</i> Q54e Chinese	Num	3	0 = Respondent did not check Chinese 1 = Respondent checked Chinese	Entered from the survey (See Appendix B)
132	<i>B27RCFILIP</i> Q54f Filipino	Num	3	0 = Respondent did not check Filipino 1 = Respondent checked Filipino	Entered from the survey (See Appendix B)
133	<i>B27RCJAPAN</i> Q54g Japanese	Num	3	0 = Respondent did not check Japanese 1 = Respondent checked Japanese	Entered from the survey (See Appendix B)
134	<i>B27RCKOREA</i> Q54h Korean	Num	3	0 = Respondent did not check Korean 1 = Respondent checked Korean	Entered from the survey (See Appendix B)
135	<i>B27RCVIET</i> Q54i Vietnamese	Num	3	0 = Respondent did not check Vietnamese 1 = Respondent checked Vietnamese	Entered from the survey (See Appendix B)
136	<i>B27RCOTHASN</i> Q54j Other Asian	Num	3	0 = Respondent did not check Other Asian 1 = Respondent checked Other Asian	Entered from the survey (See Appendix B)
137	<i>B27RCHAWAII</i> Q54k Native Hawaiian	Num	3	0 = Respondent did not check Native Hawaiian 1 = Respondent checked Native Hawaiian	Entered from the survey (See Appendix B)
138	<i>B27RCGUAM</i> Q54l Guamanian or Chamorro	Num	3	0 = Respondent did not check Guamanian or Chamorro 1 = Respondent checked Guamanian or Chamorro	Entered from the survey (See Appendix B)
139	<i>B27RCSAMOA</i> Q54m Samoan	Num	3	0 = Respondent did not check Samoan 1 = Respondent checked Samoan	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
140	<i>B27RCOTHPAC</i> Q54n Other Pacific Islander	Num	3	0 = Respondent did not check Other Pacific Islander 1 = Respondent checked Other Pacific Islander	Entered from the survey (See Appendix B)
141	<i>B27SPEAKLNG</i> Q55a Language Mainly Spoken at Home	Num	3	1 = English 2 = Spanish 3 = Chinese 4 = Russian 7 = Some other language	Entered from the survey (See Appendix B)
142	<i>B27SPEAKOTH</i> Q55b Specify Other Language Spoken	Char	20		Entered from the survey (See Appendix B)
143	<i>B27MARITAL</i> Q56 Marital Status	Num	3	1 = Married 2 = Divorced 3 = Separated 4 = Widowed 5 = Never Married	Entered from the survey (See Appendix B)
144	<i>B27EDUC</i> Q57 Education Level	Num	3	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	Entered from the survey (See Appendix B)
145	<i>B27LVALONE</i> Q58a Live alone	Num	3	0 = Respondent did not check live alone 1 = Respondent checked live alone	Entered from the survey (See Appendix B)
146	<i>B27LVSPOUSE</i> Q58b Live with spouse/significant other	Num	3	0 = Respondent did not check live with spouse 1 = Respondent checked live with spouse	Entered from the survey (See Appendix B)
147	<i>B27LVCHILD</i> Q58c Live with children/other relatives	Num	3	0 = Respondent did not check live with child/relative 1 = Respondent checked live with child/relative	Entered from the survey (See Appendix B)
148	<i>B27LVNONREL</i> Q58d Live with non-relatives	Num	3	0 = Respondent did not check live with non-relatives 1 = Respondent checked live with non-relatives	Entered from the survey (See Appendix B)
149	<i>B27LVCAREGV</i> Q58e Live with paid caregiver	Num	3	0 = Respondent did not check live with paid caregiver 1 = Respondent checked live with paid caregiver	Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
150	<i>B27WHERELV</i> Q59 Where do you live	Num	3	1 = House, apartment, condominium, or mobile home 2 = Assisted living or board and care home 3 = Nursing home 4 = Other	Entered from the survey (See Appendix B)
151	<i>B27HMOWN</i> Q60 Homeowner Status	Num	3	1 = Owned or being bought by you 2 = Owned or being bought by someone in your family other than you 3 = Rented for money 4 = Not owned and you live in without payment of rent 5 = None of the above	Entered from the survey (See Appendix B)
152	<i>B27CMPWHO</i> Q61 Who completed Survey	Num	3	1 = Person to whom survey was addressed 2 = Family member or relative of person to whom survey was addressed 3 = Friend of person to whom survey was addressed 4 = Professional Caregiver of person to whom survey was addressed	Entered from the survey (See Appendix B)
153	<i>B27CMPFNAME</i> Q62a First Name Person Completing Survey	Char	25		Entered from the survey
154	<i>B27CMPLNAME</i> Q62b Last Name Person Completing Survey	Char	25		Entered from the survey
155	<i>B27NMCOMP</i> Q62 Combined Name Person Completing Survey	Char	51		Entered from the survey (See Appendix B)

Field #	Name/ Description	Type	Length	Valid Values	Comments
156	<i>B27SRVDISP</i> Survey Disposition	Char	3	M10/T10 = Complete survey (79.5-100% complete and all 6 ADLs answered in Q10a-f) M11/T11 = Non-response: partial survey (50-79.5% complete, or 79.5-100% complete and <6 ADLs answered) <b>Ineligible:</b> M20/T20 = Deceased M23/T23 = Language barrier T24 = Bad address AND phone number M25 = Removed from sample <b>Non-response:</b> M31/T31 = Break-off (0-49% complete) M32/T32 = Refusal M33/T33 = Unavailable M34/T34 = Physically or mentally incapacitated M35/T35 = Institutionalized M36/T36 = After maximum attempts	Derived by the survey vendor (M=Mail, T=Telephone)
157	<i>B27SRVMODE</i> Round Survey Obtained	Char	2	M1 = 1 <sup>st</sup> mailing M2 = 2 <sup>nd</sup> mailing T1 = 1 <sup>st</sup> telephone T2 = 2 <sup>nd</sup> telephone T3 = 3 <sup>rd</sup> telephone T4 = 4 <sup>th</sup> telephone T5 = 5 <sup>th</sup> telephone T6 = 6 <sup>th</sup> telephone T7 = 7 <sup>th</sup> telephone T8 = 8 <sup>th</sup> telephone T9 = 9 <sup>th</sup> telephone MT = Partially completed by mail and converted to complete by telephone TN = Inbound Telephone NC = Not completed	Derived by the survey vendor (M=Mail, T=Telephone)
158	<i>B27SRVLANG</i> Survey Language	Num	3	1 =English 2 =Spanish 3 =Not applicable 4 =Chinese 5 =Russian	Generated by the survey vendor



Field #	Name/ Description	Type	Length	Valid Values	Comments
159	<i>B27SRVDATE</i> Date Survey Completed	Char	8		Date the mail survey was received by the vendor or the date the telephone interview was conducted Displayed as MMDDYYYY
160	<i>B27VUCATI</i> Vendor Unique CATI ID	Char	11		Indicates which telephone interviewer conducted the interview
161	<i>B27MCONUM</i> MCO Provided Phone Number	Num	3	1 = Yes 2 = No	Generated by the survey vendor
162	<i>B27EXCLUDE</i> Request to be Excluded	Num	3	1 = Member requested "Take me off your list and/or never contact me again" 2 = Member did not request "Take me off your list and/or never contact me again"	Generated by the survey vendor
163	<i>B27PCTANS</i> Percent of Survey Answered	Num			Derived by the survey vendor
164	<i>B27DISP</i> Survey Disposition Indicator	Num	3	1 = Mail Survey Completed 2 = Telephone Survey Completed	Derived field
165	<i>B27INVSrv</i> Ineligible Survey Flag	Num	3	0 = Eligible 1 = Ineligible	Derived field Ineligible defined as B27SRVDISP values of M20/T20 = Ineligible: deceased M23/T23 = Ineligible: language barrier T24 = Ineligible: bad address AND phone number M25 = Ineligible: removed from sample
166	<i>B27ADLCOUNT</i> Count of ADL Questions Answered (0-6)	Num	3		Derived field
167	<i>B27CMPSRV</i> Completed Survey (80% + All 6 ADLs Criteria)	Num	3	0 = Incomplete Survey 1 = Completed Survey (80% criteria + 6 ADLs answered)	Derived field
168	<i>B27CMPFLG</i> Name Provided in Q62 Flag	Num	3	0 = Name Not Provided 1 = Name Provided for person completing survey	Derived field
169	<i>B27TDOB</i> SAS Date of Birth	Num	8		Derived field SAS date for B27DOB MMDDYY10. format
170	<i>B27TSRVDAT</i> SAS Date of Survey	Num	8		Derived field SAS date for B27SRVDAT MMDDYY10. format

Field #	Name/ Description	Type	Length	Valid Values	Comments
171	<i>B27TDOE</i> SAS Date of Accretion into Plan	Num	8		Derived field SAS date for date of enrollment B27DOE MMDDYY10. format
172	<i>B27TSRVDATIM</i> SAS Date of Survey (Missing Imputed)	Num	8		Derived field If B27SRVDATE missing, then B27TSRVDATIM=Aug 22, 2024 Otherwise B27TSRVDATIM=B27SRVDATE MMDDYY10. format
173	<i>B27TDOELMT</i> SAS Date of Accretion Limit - 06/01/2024	Num	8		Derived field SAS date for date of enrollment limit B27DOELMT (06/01/2024 for all records) MMDDYY10. format
174	<i>B27BMI</i> Calculated Body Mass Index	Num	8		Derived field BMI = (weight / height <sup>2</sup> )*703 Units: weight in pounds height in inches
175	<i>B27BMICAT</i> Categories of Body Mass Index	Num	8	1 = Underweight (BMI <18.5) 2 = Normal (BMI 18.5 - <25) 3 = Overweight (BMI 25 - <30) 4 = Obese (BMI ≥30)	Derived from B27BMI
176	<i>B27AGE</i> Age (Exact Calculation)	Num	8		Derived field Calculated by counting the number of months between the SAS date fields B27TDOB and B27TSRVDATIM, then dividing the result by 12 to produce an integer value for the whole number of years for the beneficiary's age.
177	<i>B27AGECAT</i> Age Groups (6 Categories from Calculated AGE)	Num	8	0 = less than 65 years 1 = 65 to 69 years 2 = 70 to 74 years 3 = 75 to 79 years 4 = 80 to 84 years 5 = 85 years or older	Derived from B27AGE
178	<i>B27RACECAT</i> Race Groups (3 Categories from CMS Race)	Num	8	1 = White 2 = Black 3 = Other	Derived from the CMS Race field B27RACE

Field #	Name/ Description	Type	Length	Valid Values	Comments
179	<i>B27HISPANA</i> Hispanic Indicator derived from Q53a-e	Num	8	1 = Yes, Hispanic or Latino 2 = No, not Hispanic or Latino	Derived field Corresponds to HISPAN variable in previous cohorts. HISPANA=1 if selects one or more Hispanic categories in Q53b-e (HPMEX, HPPR, HPCUBA, or HPOTHER=1) <u>and</u> does not select Q53a “No, not Hispanic, Latino/a or Spanish origin” (HPNOHISP=0). HISPANA=2 if HPNOHISP=1 and Q53b-e=0.
180	<i>B27ENRDUR</i> Enrollment Duration (Months)	Num	8		Derived field Enrollment duration in months: (B27TDOELMT-B27TDOE)/30
181	<i>B27ENRCAT</i> Enrollment Duration Categories	Num	8	1 = less than 6 months 2 = 6 to 12 months 3 = 13 to 36 months 4 = 37 months or more	Derived from B27ENRDUR
182	<i>B27MARCAT</i> Marital Status Using Combined Groups	Num	3	1 = Married 2 = Divorced or Separated 3 = Widowed 4 = Never married	Derived from B27MARITAL
183	<i>B27EDCAT</i> Educational Status Using Combined Groups	Num	3	1 = Did not graduate high school 2 = High school graduate or GED 3 = Some college or 2 year degree 4 = 4 year college degree or beyond	Derived from B27EDUC
184	<i>B27DEP2SCRN</i> Positive Depression Screen	Num	3	0 = Negative 1 =Positive	Derived field Positive: Score of 3 or greater for sum of Q36a and Q36b (responses coded from 0-3) when both questions are answered
185	<i>B27COMO</i> Number of Chronic Medical Conditions	Num	3		Derived field Total number of “Yes” answers to Q20 through Q31
186	<i>B27COMOCT</i> Number of Chronic Medical Conditions Category	Num	3	0 = No conditions 1 = One condition 2 = Two conditions 3 = Three conditions 4 = Four or more conditions	Derived from B27COMO
187	<i>B27PCS</i> Physical Component Summary (PCS) Score	Num	8		Derived field Unadjusted PCS score
188	<i>B27MCS</i> Mental Component Summary (MCS) Score	Num	8		Derived field Unadjusted MCS score

Field #	Name/ Description	Type	Length	Valid Values	Comments
189	B27ADJPCS Adj. Physical Component Summary Score	Num	8		Derived field Case mix adjusted PCS score
190	B27ADJMCS Adj. Mental Component Summary Score	Num	8		Derived field Case mix adjusted MCS score
191	B27PFADL Baseline PFADL Scale, 0-16 Higher is Better	Num	8		Derived field Unadjusted PFADL scale score
192	B27ANALYT Baseline Analytic Indicator	Num	8	0 = Not included in analytic sample 1 = Included in analytic sample	Derived field Respondents 65 years or older, with a calculable PCS or MCS score, and in the quality reporting sample (B27HOSQRS=1) were included in the analytic sample
193	B27MONRPT Monthly Report Date - source CMS 08/24	Num	8		SAS date of <i>CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans</i> August 2024 for all records MMDDYY10. format
194	B27PLTYPE Plan Type - source CMS 08/24	Char	39		Obtained from the August 2024 <i>CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans</i>
195	B27PLOGNM Plan Organization Name - source CMS 08/24	Char	54		Obtained from the August 2024 <i>CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans</i>
196	B27PLPTORG Plan Parent Organization - source CMS 08/24	Char	50		Obtained from the August 2024 <i>CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans</i>
197	B27PLMEDP Plan Medicare Product Name - source CMS 08/24	Char	82		Obtained from the August 2024 <i>CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans</i>
198	B27PLPOP Plan Population - source CMS 08/24	Num	8		Obtained from the August 2024 <i>CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans</i>

Field #	Name/ Description	Type	Length	Valid Values	Comments
199	B27POPCAT Plan population categories	Num	8	1 = 1,200 or less 2 = 1,201 - 3,000 3 = 3,001 - 5,000 4 = 5,001 - 10,000 5 = 10,001 - 15,000 6 = 15,001 - 25,000 7 = 25,001 - 50,000 8 = 50,001 - 100,000 9 = 100,001 or more	Categories of plan population were derived from B27PLPOP
200	B27PLSTDT Plan Start Date - source CMS 08/24	Num	8		Obtained from the August 2024 CMS Monthly Enrollment by Contract Report of Medicare Advantage/Part D Health Plans MMDDYY10. format
201	B27PLANSTN Plan State - source HPMS 08/24	Char	2		Obtained from the August 2024 Plan Contract List from HPMS
202	B27PLREGN Plan CMS Region - source HPMS 08/24	Char	13		Obtained from the August 2024 Plan Contract List from HPMS
203	B27PLREGCDE Plan CMS Region Code	Num	3	1 = Region 1 – Boston (CT, ME, MA, NH, RI, VT) 2 = Region 2 - New York (NJ, NY, PR, VI) 3 = Region 3 - Philadelphia (DC, DE, MD, PA, VA, WV) 4 = Region 4 - Atlanta (AL, FL, GA, KY, MS, NC, SC, TN) 5 = Region 5 – Chicago (IL, IN, MI, MN, OH, WI) 6 = Region 6 - Dallas (AR, LA, NM, OK, TX) 7 = Region 7 - Kansas City (IA, KS, MO, NE) 8 = Region 8 – Denver (CO, MT, ND, SD, UT, WY) 9 = Region 9 - San Francisco (AZ, CA, Guam, HI, NV) 10 = Region 10 – Seattle (AK, ID, OR, WA)	Derived from the CMS region field in the August 2024 Plan Contract List from HPMS
204	B27PLTAXST Plan Tax Status - source HPMS 08/24	Char	25		Obtained from the August 2024 Plan Contract List from HPMS
205	B27PLDUR Duration of Plan Contract - Years	Num	8		Derived field Duration of plan contract in years: (B27TDOELMT- B27PLSTDT) /365.25

Field #	Name/ Description	Type	Length	Valid Values	Comments
206	<i>B27PLNDCT</i> Duration of Plan Contract Categories	Num	8	1 = less than 1 year 2 = 1 to 4 years 3 = 5 to 9 years 4 = 10 years or more	Derived from B27PLDUR
207	<i>B27RPTST</i> Reporting Plan State	Char	2	FS = Private Fee-for-Service RS = Regional PPO All other values are identical to state codes from the B27PLANSTN field	Derived field <b>State level unit of analysis for the Cohort 27 Baseline Report</b>
208	<i>B27GEOCAT</i> HOS Geographic County Designation	Num	8	1 = Metropolitan 2 = Micropolitan 3=Rural	Derived from B27 HOS Geographic County Designation

## Appendix B (Annotated Survey Form)

### 2024 Medicare Health Outcomes Survey

1. In general, would you say your health is:

1 ☐ Excellent

B27VRGENHTH

2 ☐ Very good

3 ☐ Good

4 ☐ Fair

5 ☐ Poor

2. 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?

- a. **Moderate activities**, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf

1 ☐ Yes, limited a lot

B27VRMACT

2 ☐ Yes, limited a little

3 ☐ No, not limited at all

- b. Climbing **several** flights of stairs

1 ☐ Yes, limited a lot

B27VRSTAIR

2 ☐ Yes, limited a little

3 ☐ No, not limited at all

3. 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**?

- a. Accomplished less than you would like as a result of your physical health?

1 ☐ No, none of the time

B27VRPACCL

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

- b. Were limited in the **kind** of work or other activities **as a result of your physical health**?

1 ☐ No, none of the time

B27VRPWORK

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

4. 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)?

- a. Accomplished less than you would like as a result of any emotional problems

1 ☐ No, none of the time

B27VRMACCL

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

- b. Didn't do work or other activities as **carefully** as usual **as a result of any emotional problems**

1 ☐ No, none of the time

B27VRMWORK

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

5. 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

B27VRPAIN

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.

6. How much of the time during the **past 4 weeks**:

- a. Have you felt calm and peaceful?

- 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

B27VRCALM

- b. Did you have a lot of energy?

- 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

B27VRENERGY

- c. Have you felt downhearted and blue?

- 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

B27VRDOWN

7. 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

B27VRSACT

Now, we'd like to ask you some questions about how your health may have changed.

8. 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

B27VRPHCMP

9. **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

B27VRMHCMP



Earlier in the survey you were asked to indicate whether you have any limitations in your activities. We are now going to ask a few additional questions in this area.

10. Because of a health or physical problem, do you have any difficulty doing the following activities **without special equipment or help from another person?**

a. Bathing

B27ADLBTH

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I am unable to do this activity

b. Dressing

B27ADLDRS

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I am unable to do this activity

c. Eating

B27ADLEAT

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I am unable to do this activity

d. Getting in or out of chairs

B27ADLCHR

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I am unable to do this activity

e. Walking

B27ADLWLK

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I am unable to do this activity

f. Using the toilet

B27ADLTLT

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I am unable to do this activity

11. Because of a health or physical problem, do you have any difficulty doing the following activities?

a. Preparing meals

B27DIFMEALS

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I don't do this activity

b. Managing money

B27DIFMONEY

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I don't do this activity

c. Taking medication as prescribed

- 1 ☐ No, I do not have difficulty  
2 ☐ Yes, I have difficulty  
3 ☐ I don't do this activity

B27DIFMEDS

These next questions ask about your physical and mental health during the past 30 days.

12. 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.

days

B27HDPHY

13. 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.

days

B27HDMEN

14. 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 would be fine.

days

B27HDACT

Now we are going to ask some questions about specific medical conditions.

15. Are you blind or do you have serious difficulty seeing, even when wearing glasses?

1 ☐ Yes

2 ☐ No

B27DIFSEE

16. Are you deaf or do you have serious difficulty hearing, even with a hearing aid?

1 ☐ Yes

2 ☐ No

B27DIFHEAR

17. **Because of a physical, mental, or emotional condition**, do you have **serious** difficulty concentrating, remembering or making decisions?

1 ☐ Yes

2 ☐ No

B27DIFREMEM

18. **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

B27DIFERRND

19. 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

B27DIFMPROB

**Has a doctor ever told you that you had:**

20. Hypertension or high blood pressure

1 ☐ Yes

2 ☐ No

B27CCHBP

21. Angina pectoris or coronary artery disease

1 ☐ Yes

2 ☐ No

B27CC\_CAD

22. Congestive heart failure

1 ☐ Yes

2 ☐ No

B27CC\_CHF

23. A myocardial infarction or heart attack

1 ☐ Yes

2 ☐ No

B27CCMI

24. Other heart conditions, such as problems with heart valves or the rhythm of your heartbeat

1 ☐ Yes

2 ☐ No

B27CCHRTOTH

25. A stroke

1 ☐ Yes

2 ☐ No

B27CCSTROKE

**Has a doctor ever told you that you had:**

26. Emphysema, or asthma, or COPD (chronic obstructive pulmonary disease)

1 ☐ Yes

B27CC\_COPD

2 ☐ No

27. Crohn's disease, ulcerative colitis, or inflammatory bowel disease

1 ☐ Yes

B27CCGI

2 ☐ No

28. Osteoporosis, sometimes called thin or brittle bones

1 ☐ Yes

B27CCOSTEO

2 ☐ No

2 ☐ No

29. Diabetes, high blood sugar, or sugar in the urine

1 ☐ Yes

B27CCDIABET

2 ☐ No

30. Depression

1 ☐ Yes

B27CCDEP

2 ☐ No

31. Any cancer (other than skin cancer)

1 ☐ Yes → Go to Question 32

2 ☐ No → Go to Question 33

B27CCANYCA

32. Are you **currently** under treatment for:

a. Colon or rectal cancer

1 ☐ Yes

B27CACOLON

2 ☐ No

b. Lung cancer

1 ☐ Yes

B27CALUNG

2 ☐ No

c. Breast cancer

1 ☐ Yes

B27CABRST

2 ☐ No

d. Prostate cancer

1 ☐ Yes

B27CAPROS

2 ☐ No

e. Other cancer (other than skin cancer)

1 ☐ Yes

B27CAOTHER

2 ☐ No

33. In the **past 7 days**, how much did pain interfere with your day to day activities?

1 ☐ Not at all

B27PAINDACT

2 ☐ A little bit

3 ☐ Somewhat

4 ☐ Quite a bit

5 ☐ Very much

34. 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

B27PAINSACT

35. In the **past 7 days**, how would you rate your pain **on average**?

00 ☐ 0 No pain

01 ☐ 1

02 ☐ 2

03 ☐ 3

04 ☐ 4

05 ☐ 5

06 ☐ 6

07 ☐ 7

08 ☐ 8

09 ☐ 9

10 ☐ 10 Worst imaginable pain

B27PAINRATE

36. Over the **past 2 weeks**, how often have you been bothered by any of the following problems?

a. Little interest or pleasure in doing things

1 ☐ Not at all

2 ☐ Several days

3 ☐ More than half the days

4 ☐ Nearly every day

B27DEPNOPLS

b. Feeling down, depressed or hopeless

1 ☐ Not at all

2 ☐ Several days

3 ☐ More than half the days

4 ☐ Nearly every day

B27DEPDOWN

37. 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

B27CMPHTH

38. 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 Question 39**

2 ☐ No → **Go to Question 42**

B27MUILKG

39. 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

B27MUIDACT

40. Have you **ever** talked with a doctor, nurse, or other health care provider about leaking of urine?

1 ☐ Yes

2 ☐ No

B27MUITLK

41. 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

B27MUJTRT

42. 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 Question 43

2 ☐ No → Go to Question 43

3 ☐ I had no visits in the past 12 months  
→ Go to Question 44

B27PAOTLK

43. 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

B27PAOADV

44. 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

B27FRMTLK

45. Did you fall in the **past 12 months**?

1 ☐ Yes

2 ☐ No

B27FRMFALL

46. In the **past 12 months**, have you had a problem with balance or walking?

1 ☐ Yes

2 ☐ No

B27FRMBAL

47. 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

B27FRMPREV

48. 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

B27SLEEPHRS

49. During the **past month**, how would you rate your overall sleep quality?

1 ☐ Very Good

2 ☐ Fairly Good

3 ☐ Fairly Bad

4 ☐ Very Bad

B27SLEEPQUA

50. How much do you weigh in pounds (lbs.)?

lbs.

B27WEIGHTLB

51. How tall are you without shoes on, in feet and inches? Please fill in both feet and inches for example: 5 feet 00 inches, or 5 feet 04 inches (if 1/2 inch, please round up).

feet

inches

B27HEIGHTFT

B27HEIGHTIN

52. Are you male or female?

☐ Male

☐ Female

B27SRVSEX

53. Are you Hispanic, Latino/a or Spanish Origin? (One or more categories may be selected)

☐ No, not of Hispanic, Latino/a or Spanish origin

B27HPNOHISP

☐ Yes, Mexican, Mexican American, Chicano/a

B27HPMEX

☐ Yes, Puerto Rican

B27HPPR

☐ Yes, Cuban

B27HPCUBA

☐ Yes, another Hispanic, Latino/a or Spanish origin

B27HPOTHER

54. What is your race? (One or more categories may be selected)

☐ White

B27RCWHITE

☐ Black or African American

B27RCAFRAM

☐ American Indian or Alaska Native

B27RCNATAM

☐ Asian Indian

B27RCINDIA

☐ Chinese

B27RCCHINA

☐ Filipino

B27RCFILIP

☐ Japanese

B27RCJAPAN

☐ Korean

B27RCKOREA

☐ Vietnamese

B27RCVIET

☐ Other Asian

B27RCOTHASN

☐ Native Hawaiian

B27RCHAWAII

☐ Guamanian or Chamorro

B27RCGUAM

☐ Samoan

B27RCSAMOA

☐ Other Pacific Islander

B27RCOTHPACC

55. What language do you **mainly** speak at home?

☐ English

B27SPEAKLNG

☐ Spanish

☐ Chinese

☐ Russian

☐ Some other language (please specify)

B27SPEAKOTH

56. What is your current marital status?

☐ Married

B27MARITAL

☐ Divorced

☐ Separated

☐ Widowed

☐ Never married

57. What is the highest grade or level of school that you have completed?

- 1 ☐ 8th grade or less B27EDUC
- 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

58. Do you live alone or with others? (One or more categories may be selected)

- 1 ☐ Alone B27LVALONE
- 2 ☐ With spouse/significant other B27LVSPOUSE
- 3 ☐ With children/other relatives B27LVCHILD
- 4 ☐ With non-relatives B27LVNONREL
- 5 ☐ With paid caregiver B27LVCAREGV

59. Where do you live?

- 1 ☐ House, apartment, condominium or mobile home **→Go to Question 60**
- 2 ☐ Assisted living or board and care home **→Go to Question 60**
- 3 ☐ Nursing home **→Go to Question 61**
- 4 ☐ Other **→Go to Question 61**

60. Is the house or apartment you currently live in:

- 1 ☐ Owned or being bought by you
- 2 ☐ Owned or being bought by someone in your family other than you
- 3 ☐ Rented for money
- 4 ☐ Not owned and one in which you live without payment of rent
- 5 ☐ None of the above B27HMOWN

61. Who completed this survey form?

- 1 ☐ Person to whom survey was addressed **→ Stop Here** B27CMPWHO
- 2 ☐ Family member or relative of person to whom the survey was addressed **→Go to Question 62**
- 3 ☐ Friend of person to whom the survey was addressed **→Go to Question 62**
- 4 ☐ Professional caregiver of person to whom the survey was addressed **→Go to Question 62**

62. Did someone help you complete this survey? If so, please fill in that person's name.

**DO NOT** enter the name of the person to whom this survey was addressed.

Please **print** clearly.

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

B27NMCOMP

**YOU HAVE COMPLETED THE SURVEY.  
THANK YOU**