

# Medicare Current Beneficiary Survey (MCBS): Frequently Asked Questions



## Version Control Log

Date	Version	Revisions
08/09/2021	1.0	Initial version published.
08/03/2022	1.1	Updated FAQCM1, FAQDR3, FAQCM2, and FAQA5 Added FAQCM10

## FREQUENTLY ASKED QUESTIONS

The Frequently Asked Questions (FAQs) in this document provide answers to common inquiries and points of interest for users of the MCBS data sets.<sup>1</sup> A unique code follows each FAQ (noted in parentheses after each question). The purpose of the code is to provide a reference if one of the FAQs is updated, deleted, or otherwise modified. The Version Control Log on page (i) of this document provides a historical reference for any of these changes.

### Data Requests

- **How do I request the MCBS Limited Data Set (LDS) files and how long does it take to receive the data?** (FAQDR1) Requests for the 2020 MCBS LDS files must be made through the CMS Data Use Agreement (DUA) tracking system known as the Enterprise Privacy Policy Engine (EPPE). EPPE can be used to initiate a new LDS DUA request or to amend/update an existing LDS DUA. Instructions for accessing and using EPPE to make a request can be found here: [https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/Data-Disclosures-Data-Agreements/DUA - NewLDS](https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/Data-Disclosures-Data-Agreements/DUA-NewLDS).

The processing of DUAs takes approximately 6-8 weeks. If approved, then data processing time varies depending on the number of data years and files requested. Normal data processing time is one week.

- **Does the MCBS produce public use files that are available without a data use agreement (DUA)?** (FAQDR2) Yes, in addition to the Limited Data Sets (LDS), MCBS data are made available to users through two types of Public Use Files (PUF):
  - ▶ The Survey File PUF, released annually.
  - ▶ Special Topic PUFs, such as the COVID-19 PUFs, starting with the COVID-19 Summer 2020 PUF.

Like the LDS files, the PUFs serve as unique sources of information on beneficiaries' health and well-being that cannot be obtained through CMS administrative sources alone. The MCBS PUFs are not intended to replace the more detailed LDS files; rather, they are publicly available alternatives that do not require a DUA. The MCBS PUFs are available to the public as a free download and can be found through CMS' PUF website at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/MCBS-Public-Use-File/index>.

- **What resources are available to data users?** (FAQDR3) Resources for MCBS data users include *Data User's Guides and Variable Crosswalks* for the Survey File and Cost Supplement File LDS's, *Data User's Guides* for the Public Use Files, the *Methodology Report*, *Codebooks*, *Questionnaires and Questionnaire User Documentation*, *New User Tutorial*, and several Advanced Tutorials on special topics. Links to these and other resources are included in Exhibit 1.

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<sup>1</sup> The MCBS is authorized by section 1875 (42 USC 139511) of the Social Security Act and is conducted by NORC at the University of Chicago for the U.S. Department of Health and Human Services. The OMB Number for this survey is 0938-0568.

**Exhibit 1:** Table of Links to MCBS Documentation

MCBS Resources	Links
Bibliography	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Bibliography">https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Bibliography</a>
Chartbook	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Tables">https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Tables</a>
CMS Chronic Conditions Warehouse (CCW)	<a href="https://www.ccwdata.org/web/guest/home/">https://www.ccwdata.org/web/guest/home/</a>
CMS MCBS website	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS">https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS</a>
Data User's Guides, Methodology Reports, Codebooks, and LDS Variable Crosswalks	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Codebooks">https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Codebooks</a>
Early Look, Data Briefs, Infographics, and Tutorials	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Briefs">https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Briefs</a>
MCBS LDS file information	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/Data-Disclosures/Data-Agreements/DUA - NewLDS">https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/Data-Disclosures/Data-Agreements/DUA - NewLDS</a>
MCBS PUF	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/MCBS-Public-Use-File/index">https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/MCBS-Public-Use-File/index</a>
Questionnaires and Questionnaire User Documentation	<a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Questionnaires">https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Questionnaires</a>

**File Corrections**

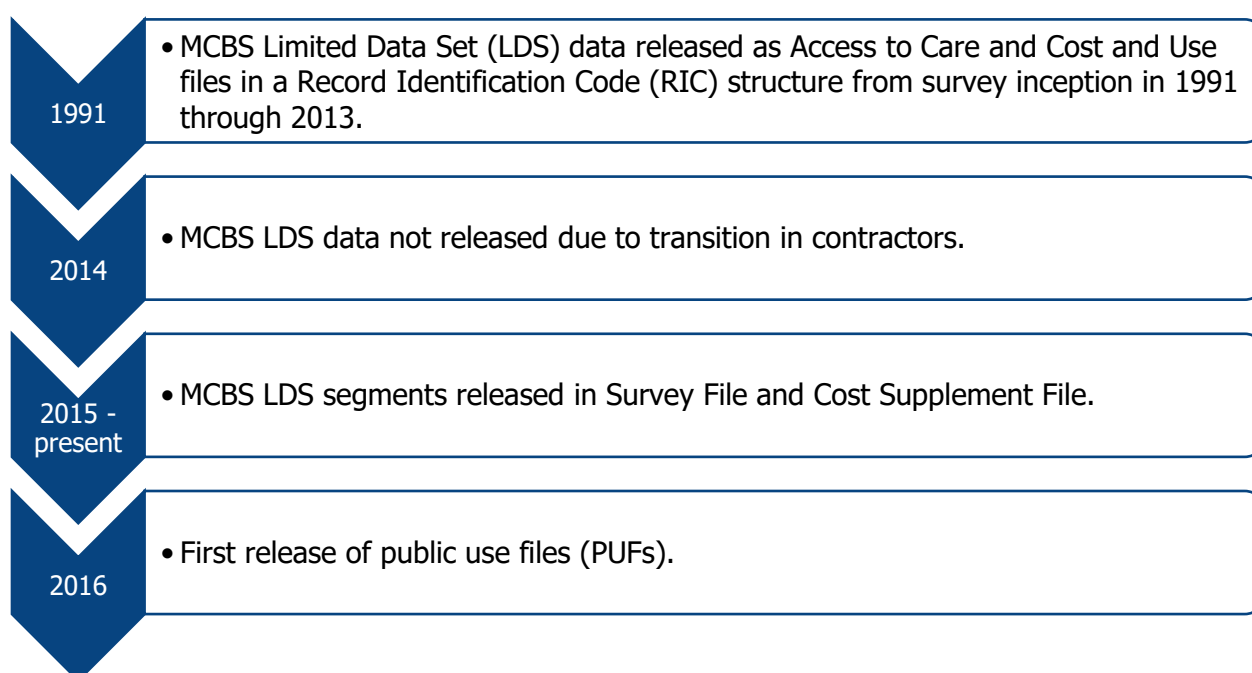
- **What happens if there are corrections to data files?** (FAQFC1) Occasionally, there are corrections to the original files that a data user has received. Recipients will be notified via email, and, where possible, a zipped/encrypted correction will be sent via email.
  - ▶ **If you did not receive the updated files.** If you received a password notification but did not receive updated MCBS files, it is likely that your organization has removed the attachments (.zip files). Check your e-mail security settings to determine how attachments are handled by your organization. The updates are also available as executable (.exe) files. If executable files are supported by your organization, these can be sent to you by request.
  - ▶ **If the "password" doesn't work.** MCBS data products are encrypted using PKWARE and this can sometimes cause problems when opened with other encryption packages. If the error you are receiving is asking for a password, this is the problem. PKWARE uses the term "passphrase" instead of password. PKWARE is freeware. For more information, please see: SecureZIP® by PKWARE, Inc.  
<https://support.pkware.com/>

- ▶ **If you received multiple emails from the MCBS.** Updates are sent by data use agreement (DUA) #. If you receive password notifications or receive data more than once, it is likely because you are listed as having multiple DUAs that include MCBS data.

## Content and Methodology

- **Are there changes in the structure of the MCBS over time that may impact analyses?** (FAQCM1) MCBS Limited Data Set (LDS) data have been released for every data year since 1991, except in 2014 due to a contract transition. As described below in Exhibit 2, starting in 2015, the file structure of the MCBS LDS data releases changed. Additionally, Public Use File (PUF) data first became available with the release of 2013 MCBS data in 2016.

### Exhibit 2: Timeline of MCBS Structure Changes



- **What is the mode of data collection on the MCBS?** (FAQCM2) Interviews are usually conducted in-person using computer-assisted personal interviewing (CAPI). However, due to the coronavirus disease 2019 (COVID-19) pandemic, data collection switched to phone-only interviews in March 2020 and throughout most of 2021 with a gradual return to some in-person interviewing beginning in November 2021. MCBS data collection will continue to include both in-person and phone interviewing in the future.
- **What type of Medicare eligibility/enrollment data are included?** (FAQCM3) The Survey File Limited Data Set (LDS) contains information on Medicare eligibility and enrollment data. Specifically, the Health Insurance Timeline (HITLINE) segment provides monthly coverage indicators, coverage start and end dates, the type of plan, and the source of coverage information for the plan. The Health Insurance Summary (HISUMRY) segment also contains monthly eligibility codes and detailed Medicare-Medicaid dual eligibility indicators.

- **Are Medicare Advantage (MA)/Medicaid/Part D claims data included?** (FAQCM4) The Survey File release contains the Fee-for-Service (FFS) claims data, which provide CMS administrative information on medical services and payments paid by Medicare FFS claims. The Cost Supplement File links survey-reported health care utilization and cost data to FFS claims data and Part D Prescription Drug claims data. See Exhibit 1.2.2 in the *Data User's Guide: Cost Supplement File* for more information. Claims data for MA beneficiaries are not available, nor are Medicaid claims<sup>2</sup>. However, starting with the 2019 data year, data for beneficiaries with MA coverage have been adjusted to account for unreported utilization that would appear as MA encounters based on an analysis of previous years' encounter data files.
- **What cost and utilization information is available for beneficiaries enrolled in Medicare Advantage (MA)?** (FAQCM5) When a respondent reports health care events, the survey uses the explanation of benefits (EOBs) form from their MA provider to report the payments, as well as the capitation information from the administrative data for total MA payments. This is the same approach for services that are not covered by Medicare, such as most dental care. Actual claims-based information for MA beneficiaries, referred to as encounter data, are not currently available for these individual events. However, starting in data year 2019, utilization and cost data for MA beneficiaries have been adjusted to account for unreported utilization that would appear as MA encounter data files if they were available.
- **How often do respondents receive each questionnaire?** (FAQCM6) Different combinations of MCBS Questionnaire sections are used depending on a number of criteria, including interview type (Baseline vs. Continuing); the season of the round of data collection (fall, winter, summer); whether the beneficiary is alive, deceased, or in a facility; and whether the interview is being completed with the beneficiary or a proxy. For more information about the specific questionnaires administered during each round of data collection, please see the *MCBS Data User's Guide: Survey File* available on CMS' MCBS website. Questionnaires for each data year are also available on CMS's MCBS website at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Questionnaires>.
- **How do I find out what proportion of Medicare beneficiaries received a flu shot in a given calendar year?** (FAQCM7) Flu shot data are available for both Community and Facility components, but data collection and processing methods are different, and the variables are located on different segments in the Survey File Limited Data Set (LDS). To estimate prevalence of flu shots in a given flu season, data users need the prior data year (e.g., 2019) Survey File for beneficiaries living in the community and the current data year (e.g., 2020) Survey File for beneficiaries living in a facility. Note that the response categories of the FLUSHOT variables are similar across the two components (Yes/No), but the coding values associated with the Yes/No categories in the LDS files are different. For Community, Yes = 1 and No = 2, but for Facility Yes = 1 and No = 0. In addition, the reference periods differ between the Community and Facility components. Therefore, users need both the prior and current data year Survey File

<sup>2</sup> While Medicaid claims data are not available, estimated Medicaid amounts, derived from CMS algorithms, are used during imputation for Medicaid payments. Medicaid payments are available in event-level segments of the Cost Supplement File release.

LDS's in order to estimate the flu shot prevalence for all Medicare beneficiaries for a given flu season.

### Exhibit 3: Segment, Questionnaire, and Variable Information for Analyses of Flu Shot Data

Component	Variable Location	Variable Label	Data Collection Timing	Reference Period
Community	FLUSHOT on PREVCARE	"Flu shot for last winter"	PVQ in Winter and Summer current year and included in prior year Survey File	"Flu season" from July 1 of the prior year through date of Winter/Summer current year interview
Facility	FLUSHOTF on FACASMNT	"Sp Had A Flu Shot In The Past Year?"	HS in fall of current year and included in Survey File	"Last winter" or September through December current year

- Why did CMS redesign the Facility Instrument?** (FAQCM8) The MCBS Facility Instrument is comprised of core questionnaire sections that collect information about beneficiaries living in a long-term care facility at the time of interview. In Fall 2019, the MCBS Facility Instrument was redesigned in order to skip items redundant with Certification and Survey Provider Enhanced Reports (CASPER) and Long-Term Care Minimum Data Set (MDS) administrative data. These items are regularly reported to CMS and skipping them allows the MCBS to shorten the Facility Instrument for interviews conducted at Medicare- or Medicaid-certified facilities. The redesigned instrument provides a link between Facility interview data and the administrative data by collecting the CMS Certification Number (CCN), a unique number that is assigned to all facilities certified by Medicare and/or Medicaid, via a questionnaire lookup tool. For facilities with a CCN, the Facility Instrument then skips more than 100 questionnaire items that are redundant with CASPER and MDS administrative data in the Facility Questionnaire (FQ) and Health Status (HS) sections. For interviews conducted at facilities not certified by Medicare or Medicaid, the full Facility Instrument is administered.

During data processing, survey-reported data from the HS section are merged with MDS data and survey-reported data from the FQ section are merged with CASPER for beneficiaries living in a facility for which the Facility respondent reported a valid CCN. This processing step results in a blended data product. MDS data are released for data users in the MDS segment in the Survey File Limited Data Set (LDS).

Due to the new skip patterns in the Facility Instrument and inclusion of administrative MDS variables when a CCN is reported, values for some variables may be coded as 'Missing' rather than 'Not indicated.' Data users should take this into account when calculating estimates or comparing distributions with prior years.

For additional details on the redesigned Facility Instrument and ensuing changes to data processing, refer to the *2019 MCBS Methodology Report*, Special Section: Facility Redesign.

- How did the MCBS modify data collection activities due to the COVID-19 pandemic?** (FAQCM9) Due to the COVID-19 pandemic, on 3/13/20 for Facility and 3/22/20 for Community,

data collection was paused for all in-person data collection. Testing data collection by phone using the computer-assisted personal interviewing (CAPI) questionnaires ensued, and on 4/9/20 the MCBS determined it was feasible to continue collecting interviews via phone only. Therefore, Community Questionnaire items asked at the end of Winter 2020 or in Summer 2020 that are pulled back into 2019 Survey File Limited Data Set (LDS) segments as a result of their reference period were collected by phone instead of in-person. Mode effects are discussed in further detail in the *2019 MCBS Methodology Report*.

- **How were data from the MCBS COVID-19 Community and Facility Supplements released and why are the data available in different Limited Data Set (LDS) releases?** (FAQCM10) Data collected for MCBS sampled beneficiaries living in the community using the COVID-19 Summer and Fall 2020 Community Supplements were first released as standalone COVID-19 Public Use Files (PUFs) and were also made available as part of the 2019 Survey File LDS. These data were released with the 2019 Survey File LDS because the population administered the COVID-19 Summer and Fall 2020 Community Supplements aligns with the 2019 Survey File population.

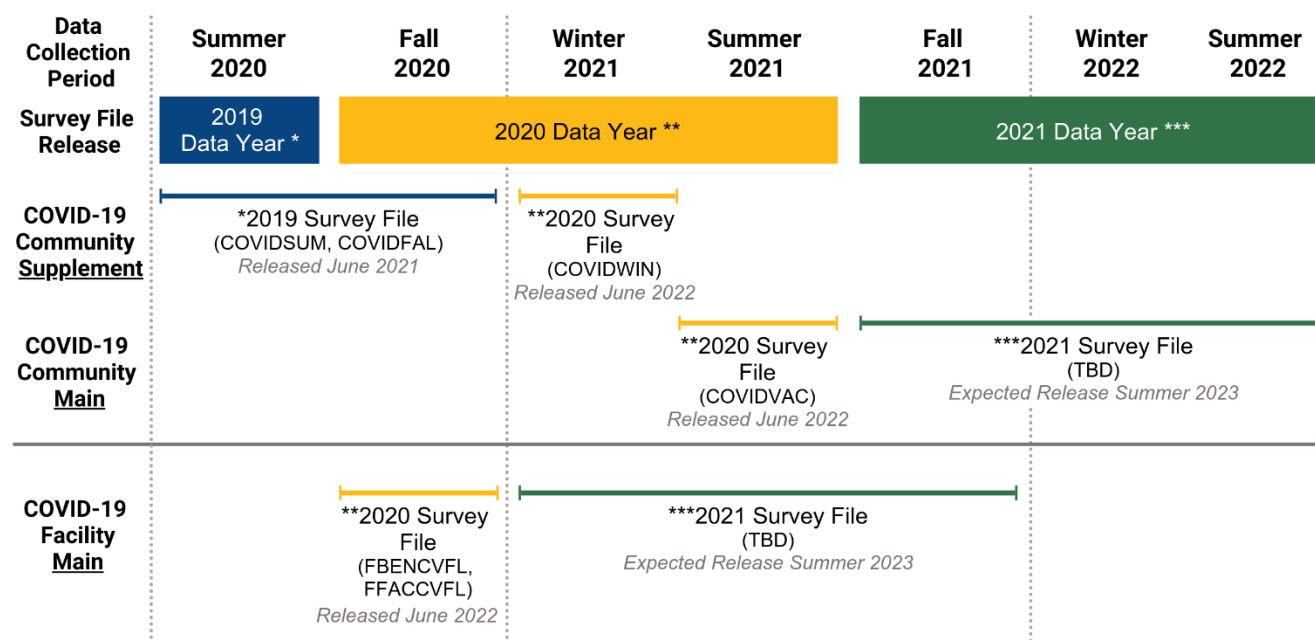
Likewise, data collected for MCBS sampled beneficiaries living in the community using the COVID-19 Winter 2021 Community Supplement were made available as a standalone COVID-19 PUF and as part of the 2020 Survey File LDS. These data were released with the 2020 Survey File LDS because the population administered the COVID-19 Winter 2021 Community Supplement aligns with the 2020 Survey File population.

Data collected for MCBS sampled beneficiaries living in a facility in Fall 2020 were also released as part of the 2020 Survey File LDS. These data were released with the 2020 Survey File LDS because the population administered the COVID-19 Fall 2020 Facility Supplement aligns with the 2020 Survey File population.

Beginning in Summer 2021, COVID-19 Community Supplement content was incorporated into the main MCBS Community Questionnaire for subsequent interviews as appropriate. In Winter 2021, the COVID-19 Facility Supplement content continued to be incorporated into the main MCBS Facility Instrument for subsequent interviews.

Exhibit 4 (from the *2020 MCBS Data User's Guide: Survey File*) shows the schedule of the MCBS COVID-19 Community and Facility Supplements and corresponding LDS and PUF data releases known to date.



**Exhibit 4: COVID-19 Data Collection and Corresponding Survey File Releases**

For additional details on the MCBS Community and Facility COVID-19 Supplements and their LDS and PUF releases, refer to the *2019 and 2020 MCBS Data User's Guide: Survey File* and the *MCBS Advanced Tutorial on the COVID-19 Supplement Data*.

## Sampling

- What types of beneficiaries are in the continuously enrolled vs. ever enrolled populations?** (FAQS1) The continuously enrolled represent a population of beneficiaries who were enrolled continuously between January 1st of the data year and the completion of their fall interview. Beneficiaries who died during the calendar year, current-year enrollees who enrolled in Medicare during the year that they were sampled, and beneficiaries who have lost eligibility are not included in the continuously enrolled group. The ever enrolled represent the population of beneficiaries who were ever enrolled in Medicare for at least one day at any time during the data year. The ever enrolled population includes beneficiaries who died or lost entitlement prior to completing the fall interview. Beneficiaries who first became enrolled in Medicare during the data year are also included. Thus, the continuously enrolled beneficiaries are a subset of the ever enrolled beneficiaries.

The ever enrolled population from the Survey File is the largest, including anyone enrolled at any time during the calendar year. The Survey File continuously enrolled population is limited to those beneficiaries who were enrolled from January 1 of the survey year through the fall interview date. The Cost Supplement File represents the ever enrolled population derived from a smaller subset of sampled beneficiaries with complete cost and utilization data for the year.

- **How is the Cost Supplement ever enrolled population derived?** (FAQS2) The Cost Supplement ever enrolled population is a subset of the Survey File ever enrolled population with complete cost and utilization data for the year. To be included in the ever enrolled population, sample members must meet at least one of the following three criteria: (a) the ratio of days covered by interviews to the number of days enrolled in Medicare in the calendar year is equal to or greater than 0.66; (b) the difference between the number of days enrolled in Medicare and the number of days covered by interviews is less than or equal to 60 days; or (c) the beneficiary is a recent enrollee from the current Panel who completed the initial fall interview. Beneficiaries who died or lost entitlement prior to January 1 of the calendar year are ineligible and removed. Beneficiaries who survived into the calendar year but do not meet the above criteria are considered to be nonrespondents for the current Cost Supplement File data year and are adjusted for this in the resulting weights.
- **Does the survey use a household sample or a list sample?** (FAQS3) The survey uses a list sample. The sample for the MCBS is drawn from a subset of the Medicare enrollment data, which is a list of all Medicare beneficiaries.
- **Do Primary Sampling Units (PSUs) and Secondary Sampling Units (SSUs) align with other federal health surveys, such as the National Health Interview Survey (NHIS)?** (FAQS4) The MCBS selects its own PSUs and SSUs. In late 2000, the current set of PSUs was selected. In 2014, SSUs were reconstructed using Census tracts, and a new sample was drawn. While the MCBS PSUs and SSUs do not align directly with other surveys, they may overlap in some areas with PSUs and/or SSUs used for other federal health surveys.
- **Are populations (given changes to the sample design, e.g., the addition of current-year enrollees to the sample) comparable with past years?** (FAQS5) The Survey File cross-sectional and longitudinal population definitions are consistent from year to year, so the data are comparable between years. The Cost Supplement cross-sectional population definition is also consistent and comparable from year to year. The Cost Supplement two-year longitudinal population changed slightly in 2016 from what was defined the last time the two-year longitudinal weights were supplied (i.e., in 2013). In 2013, the two-year longitudinal (i.e., one-year backward longitudinal weight) Cost Supplement weights represented the population that enrolled on or before 1/1/2011 and was still enrolled in 2013 (i.e., enrollees after 1/1/2011 were not included). Beginning in 2016, the two-year longitudinal weights represent a true two-year ever enrolled population (i.e., the population of beneficiaries who were ever enrolled in both 2015 and 2016).

## Analysis

- **How do you merge Survey File Limited Data Set (LDS) segments?** (FAQA1) Sort order is often important to understand when data users are merging segments within or across LDS releases. Most LDS segments are sorted by BASEID. However, some are sorted on other fields to create appropriate and unique sort keys for matching and merging the data. See Exhibit 5 below.

**Exhibit 5:** Sort Order by Segment in the Survey File LDS

Segment	Sorted by
ASSIST	BASEID HLPRNUM
FACCHAR	BASEID RECADMN
HITLINE	BASEID PLANTYPE PLANNUM
INTERV	BASEID SEQNUM
MDS3	BASEID TRGT_DT A0310F A0310B
OASIS	BASEID HHASMTID

The MCBS Research Claims are a subset of items from the claims available on the Chronic Conditions Warehouse (CCW). All research claims are sorted by BASEID and CLAIMID. The MCBS Claims Variable Crosswalk spreadsheet crosswalks the MCBS claims item (variable) names with the CCW item (variable) names.

Item (variable) names are listed in alphabetical order. MCBS Research Claims have a unique and de-identified BASEID and CLAIMID, so that these cannot be linked back to the original claims.

The full descriptions of the items on the MCBS Research Claims can be found on the public facing CCW Claims Data Dictionary, located at:

<https://www2.ccwdata.org/documents/10280/19022436/codebook-ffs-claims.pdf>

- **How do I analyze prescription medicine (PM) data across time?** (FAQA2) Prior to the 2018 Limited Data Set (LDS), Facility PM utilization data were only available in the Prescription Medicine Events (PME) event-level segment but were not included in the summary-level Cost Supplement File LDS segments, the Person Summary (PS) and Service Summary (SS) segments. Researchers interested in analyzing Facility PM utilization with data released prior to the 2018 LDS should use the PME segment instead of PS or SS. The events from the PME segment can be summed to create a dataset that will be comparable to the summary records in the PS or SS segments from data years starting in 2018.
- **Can the MCBS be used to produce subnational estimates? / Are MCBS estimates representative at the state or local level?** (FAQA3) The MCBS is designed to produce nationally representative estimates of the population of all Medicare beneficiaries. Estimates from MCBS data are not representative at the state or local level.
- **Why do I see differences between Medicare published statistics and estimates using MCBS data?** (FAQA4) In general, MCBS estimates may differ from Medicare program statistics using 100 percent administrative enrollment data. There are several reasons for the differences. The most important reason for the difference is that the administrative enrollment data may include people who are no longer alive. This may occur where people have entitlement, such as for Part A only, and receive no Social Security check. When field interviewers try to locate these beneficiaries for interviews, they establish the fact of these deaths. Unrecorded deaths may still

be present on the Medicare Administrative enrollment data. The MCBS makes every effort to reconcile the survey information against the administrative data when possible. Other reasons, such as sampling error, may also contribute to differences between MCBS estimates and Medicare program statistics. Lastly, estimates may differ because Medicare program statistics adjust for partial enrollment. Medicare program estimates use a 'person year' calculation where partial enrollment is counted as a fraction for the year. In contrast, the MCBS gives each beneficiary the same weight regardless of full or partial enrollment during the year, thus leading to differences in estimates using Medicare published statistics and MCBS data.

- **Where can I find documentation for longitudinal analysis?** (FAQA5) The *Data User's Guide: Survey File* contains information on conducting longitudinal analyses (see section 9). The *Data User's Guide: Cost Supplement File* also contains some sample analyses with programs (see Technical Appendix C.1). The *Variable Crosswalks* for both the Survey File Limited Data Set (LDS) and the Cost Supplement File LDS provide additional guidance to assist data users with determining the feasibility of conducting longitudinal analyses on variables of interest. For more information on conducting longitudinal analyses using MCBS data, including analytic examples, please see the *MCBS Advanced Tutorial on Longitudinal Analysis Using MCBS Data* available at <https://www.cms.gov/research-statistics-data-and-systemsresearchmcbdata-briefs/mcbs-advanced-tutorial-longitudinal-analysis>.
- **Why does the number of BASEIDs differ across segments?** (FAQA6) There are multiple reasons why the number of BASEIDs may differ across segments. First, some segments include data from the Community Questionnaire and others from the Facility Instrument with different numbers of beneficiaries providing responses. Second, there are also differences in the number of beneficiaries by the specific round completed. Third, the use of ever enrolled or continuously enrolled weights in constructing the segments may result in differences.

Note that counts of cases with positive Topical weights may vary within the data year and may change across years due to response rates, sample sizes, and fielding methods. The Topical weights account for these changes. Please see the Weights section in the *Data User's Guide: Survey File* for information on using weights with data from Topical Questionnaire sections.

- **How can I conduct subgroup analyses and maintain the appropriate variance estimation?** (FAQA7)

- ▶ Using the Balanced Repeated Replication (BRR) method of variance estimation

Variance estimation can be impacted by selecting individuals prior to analysis. If the BRR variance estimation method is used, subgroup analyses can be conducted by limiting the dataset to the desired sub-sample. There are multiple ways to conduct subgroup analyses using BRR.

For indicator variables in three-way tables, you can create flags to help you identify the population of interest. For instance, if you are interested in the prevalence of diabetes in men versus women, but only in the over-65 population in Medicare Advantage (MA), you could use the following SAS® code:

```
proc surveyfreq data=mcbsdata VARMETHOD = brr (fay=.30);
```

```

table SEX * DIABETES * FLAG / col notot;
weight CEYRSWGT;
repweights CEYRS001 - CEYRS100;
run;

```

This sample code assumes an analytic data set, including replicate weights, in which the data user has created binary analytic variables for SEX and DIABETES, as well as a FLAG variable to identify the population of interest for this analysis. In this case, the flag is equal to 1 if the beneficiary is over 65 and in MA, and equal to 0 otherwise.

Since variance estimation using the BRR approach permits limiting the dataset to the desired sub-sample of interest, the following SAS code can also be used to achieve the same result through subgroup analysis:

```

data mcbsdata_subset;
set mcbsdata;
if FLAG = 1 then output;
run;

proc surveyfreq data=mcbsdata_subset VARMETHOD = brr
(fay=.30); table SEX * DIABETES / col notot;
weight CEYRSWGT;
repweight CEYRS001 - CEYRS100;
run;

```

► Using the Taylor Series linearization method of variance estimation

If other variance estimation methods, such as Taylor Series linearization are used, the correct way to analyze MCBS data is to employ domain statements (in SAS: proc surveymeans, surveylogistic, and surveyreg) or indicator variables in three-way tables (in SAS: proc surveyfreq). The Taylor Series linearization method of variance estimation is not recommended for subgroup analysis with MCBS data because accidentally excluding any observation in the sample while conducting the subgroup analysis using this variance estimation method will result in biased standard error estimates.

For indicator variables in three-way tables, data users can create flags to identify the population of interest. The variables SUDSTRAT (sampling strata) and SUDUNIT (primary sampling unit) are included for variance estimation using the Taylor Series linearization method. This method does not require replicate weights. For instance, if a data user is interested in the prevalence of diabetes in men versus women, but only in the over-65 population in MA, they could use the following SAS code:

```

proc surveyfreq data=mcbsdata;
table SEX * DIABETES * FLAG / col notot;
strata SUDSTRAT;

```

```
cluster SUDUNIT;
weight CEYRSWGT;
run;
```

Additional information on variance estimation can be found in the *Data User's Guide: Survey File* (see section 9) and the *Data User's Guide: Cost Supplement File* (see Technical Appendix C.1).

- **Can I use the Survey File longitudinal weights with the Cost Supplement data?** (FAQA8) The Survey File longitudinal weights are for analysis of Survey File data. Data users cannot use the Survey File longitudinal weights with Cost Supplement data. There are no longitudinal weights for the 2015 Cost Supplement, because 2014 data were not released. As of 2018, a three-year longitudinal Cost Supplement weight is included. Users who want to analyze Survey File data along with utilization and cost data in the Cost Supplement should limit analysis to cases with a positive Cost Supplement weight.
- **Which cross-sectional weights are available in which data years?** (FAQA9) Cross sectional weights are available for the Survey File and the Cost Supplement File in each data year. The Survey File LDS contains weights for the continuously enrolled (CENWGTS) and ever enrolled (EVRWGTS) populations. Given that the Cost Supplement population represents an ever enrolled population enrolled in Medicare on at least one day at any time in the calendar year, the Cost Supplement LDS contains cross-sectional weights for the ever enrolled population only (CSEVRWGT). The population represented by the sum of CSEVRWGT is identical to the population represented by the sum of the ever enrolled Survey File weight, but it is populated for a smaller subset of respondents with complete cost and utilization data.
- **Can I link MCBS to electronic medical records?** (FAQA10) MCBS data cannot be linked to electronic medical records, or to any other records that record lab values or physiologic data. MCBS data can be linked to Medicare Part A and Part B claims data for beneficiaries who participated in the MCBS.
- **Are physical exams performed for the MCBS?** (FAQA11) No physical exams are administered as part of the MCBS. However, beginning in 2022, the MCBS will implement new physical measures.
- **Can I use the MCBS data to estimate deductibles for Part A or Part B?** (FAQA12) MCBS data alone cannot be used to estimate total paid deductibles for Part A or Part B. CMS administrative data have no available compilation of total paid deductible for a beneficiary. However, the fee-for-service (FFS) claims data indicate which portion of the amount was applied to the deductible for FFS claims, so the total out of pocket amount in the Cost Supplement Limited Data Set (LDS) does include amounts paid for the deductible. If a data user were to link MCBS data to Medicare Part A or Part B claims, summing the deductible fields on the FFS claims would provide an estimate of total paid deductible for the FFS enrollees. Please note that estimating total paid deductibles is only feasible for FFS enrollees. Medicare Advantage (MA) plan enrollees do not usually have a deductible, but instead have a copay. If MA enrollees have a deductible, it would vary by the plan.

- **How can I identify private health insurance plans that offer comprehensive coverage?** (FAQA13) MCBS collects information on a number of plan attributes. In particular, the survey asks beneficiaries whether their plan covers visits to a doctor, prescription medicines, hospital stays, etc. and makes coverage flags available on the Health Insurance Timeline (HITLINE) file. Data users can use these coverage flag to decide whether coverage offered by a particular plan should be considered comprehensive.