

Medicare Current Beneficiary Survey  
CY 2002 Access to Care

Public Use File Documentation

Introduction

The accompanying data file is the twelfth in a series of annual data releases relating to Medicare beneficiaries' access to care. The file consists of selected interview data from the ongoing Medicare Current Beneficiary Survey (MCBS), which were collected during Round 34 (September through December of 2002) or earlier rounds for some variables, for individuals in the continuing sample. These data are augmented with Medicare claims and administrative data for calendar year (CY) 2002.

**Purposes of the Survey**

The MCBS is a continuous, multi-purpose panel survey of a representative sample of the Medicare population, including both aged and disabled enrollees. The study is sponsored by the Centers' for Medicare and Medicaid Services (CMS). CMS' primary mission is administering the Medicare program and assisting the States in administering the Medicaid program. The MCBS is designed to support the agency's functions by providing data necessary for policymakers to develop needed program enhancements.

In 2001 CMS estimated that the total spending on health care increased by 8.7 percent. This increase, while not as fast as the increase in spending for the period before the widespread adoption of managed care plans (an average annual rate of 9.7 percent between 1988 and 1993), is significantly faster than the average annual growth rate of 5.7 percent between 1993 and 2000 when enrollment in managed care plans were growing. For most of the period from 1988 to 2001, health spending has outpaced the growth in the overall economy (as measured by the GDP), with health spending growth 7.5 percent and GDP growth 5.4 percent.

In addition, the share of the nation's total health care bill funded by the Federal, State and local governments through the Medicare and the Medicaid programs continues to rise, from 28 percent in 1991 to 33 percent in 2001.

These trends, along with CMS' concerns about the quality of care beneficiaries receive; support the need for the collection of a wide variety of health related data. The MCBS is designed to aid in CMS' administration, monitoring and evaluation of the Medicare and Medicaid programs. MCBS data enables CMS to do the following: monitor the impact, especially financial, of changes in the Medicare program on the beneficiary population and on the trust funds; develop reliable and current information on the use and cost of services not covered by Medicare (such as prescription drugs and long term care); develop reliable and current information on the sources of payment for costs of covered services not reimbursed by Medicare and of noncovered services; and analyze factors which are not available from claims or other administrative records but are thought to affect use and mix of services.

The MCBS primarily focuses on economic and beneficiary issues; in particular, health care use, expenditures and factors that affect use of care and the beneficiary's ability to pay. As a part of this focus the MCBS collects a variety of information about demographic characteristics, health status and functioning, access to care, insurance coverage, financial resources and potential family support. The longitudinal design of the MCBS allows analysis of the effects of changes in these factors on patterns of use over time.

### **The Design of the MCBS**

CMS conducts the MCBS through a data collection contractor.

In its initial design, the MCBS was to serve as a traditional longitudinal survey of the Medicare population. There was no predetermined limit to the duration of time a beneficiary, once selected to participate, was to remain in the sample. However, this was later determined to be impractical, and beginning in 1994, a decision was made to limit participation of MCBS beneficiaries to no more than four years.

Fieldwork for Round 1 began in September 1991 and was completed in December 1991. Subsequent rounds, involving the re-interviewing of the same sample persons or appropriate proxy respondents, begin every four months. Interviews are conducted regardless of whether the sample person resides at home or in a long-term care facility, using the questionnaire version (discussed later) appropriate to the setting.

Repeated Interviews. The MCBS is a longitudinal panel survey. Sample persons are interviewed three times a year for a maximum of four years to form a continuous profile of each individual's personal health care experience. The MCBS is thus uniquely capable of tracing changes in coverage and other personal circumstances and observing processes that occur over time, such as people leaving their homes and taking up residence in long-term care facilities or spending down their assets for medical care until they become eligible for Medicaid.

Sample. Respondents for the MCBS were sampled from the Medicare enrollment file to be representative of the Medicare population as a whole and by the following age groups: under 45, 45 to 64, 65 to 69, 70 to 74, 75 to 79, 80 to 84, and 85 and over. Because of interest in their special health care needs, the oldest old (85 and over) and the disabled (64 and under) were oversampled to permit more detailed analysis of these subpopulations. The sample size was designed to yield about 12,000 completed cases annually.

The sample was drawn from 107 primary sampling units (PSUs) or major geographic areas chosen to represent the nation, including the District of Columbia and Puerto Rico, with a second stage of 1,163 geographic clusters initially drawn within those PSUs. The second-stage sample was later expanded to 1,366 in Round 4; 1,412 in Round 7; 1,443 in Round 10; 1,448 in Round 13; 1,468 in Round 16; 1,487 in Round 19; 1,507 in Round 22; 1,519 in Round 25; and 1,523 in Round 28. For Round 31, the PSU sample was updated and reselected. Within the new sample of 107 PSUs, 1,209 geographic clusters were selected in Round 31 (and later expanded to 1,219 in Round 34). The MCBS sample are annually supplemented during the September through December interview periods (that is, Rounds 4, 7, 10, . . . , 28, and 31) to account for attrition (deaths, disenrollments, refusals, etc.) and newly enrolled persons. These annual supplements are referred to as panels.

The beneficiaries included in the 2002 Access to Care File consist of a random cross-section of all beneficiaries who were enrolled in one or both parts of the Medicare program as of January 1, 2002 and were alive and enrolled at the time of interview during the 2002 fall round (September - December). These beneficiaries include those in four separate MCBS panels (the 1999, 2000, 2001, and 2002 panels) and were drawn through the use of a fairly complex selection algorithm.

The initial large panel of 15,411 beneficiaries was fielded in the fall of 1991. Smaller supplemental panels were added in the fall of 1992 and 1993. These supplementary panels afforded a chance of selection to beneficiaries who became entitled to either part A or Part B benefits during 1991 and 1992 in addition to

maintaining adequate sample sizes in the face of death and sample attrition. At the time that the first panel was fielded, no definite decision had been made on how many years to interview sample beneficiaries.

In 1993, a decision was made phase out the 1991, 1992 and 1993 Panels after no more than 6 years of interviews and to limit future panels to four years of interviews. This meant that the new sample to be selected for 1994 had to be designed like the 1991 Panel so that it could eventually replace it, rather than being narrowly focused as the 1992 and 1993 Panels were.

At the same time, a decision was made to increase the overall sample size in terms of interviews per year in order to allow the simultaneous interviewing of 4 panels, each starting with about 6,400 sample beneficiaries. In Round 10 (September-December 1994) we began implementation of the rotating panel process with the 1994 Panel. This group consisted of 6,390 beneficiaries, including a sample of those who became entitled during 1993 or on January 1, 1994. Like the first rotating panel (Round 10), all subsequent panels are designed to be nationally representative samples of the current Medicare population. The following bullets describe panel composition for each of the four panels participating in this data file.

- In Round 25 (September-December 1999) the sixth rotating panel was selected, consisting of 6,399 beneficiaries. In addition, a special one round supplement was used to expand the total sample by an additional 1,000 interviews. The additional interviews permitted a more detailed analysis of risk-based HMO beneficiaries than would have been possible with the regular MCBS panels. However, the beneficiaries selected for the special supplement were interviewed only during Round 25, and are not included in subsequent Access to Care files.
- In Round 28 (September-December 2000) the seventh rotating panel was selected, consisting of 6,376 beneficiaries. This was the last panel to be selected from the original MCBS PSUs.
- In Round 31 (September-December 2001) the eighth rotating panel was selected, consisting of 6,302 beneficiaries. This panel was the first to be selected from the new (update) sample of PSUs.
- In Round 34 (September-December 2002) the ninth rotating panel was selected, consisting of 6,301 beneficiaries. This panel was the second to be selected from the new (updated) sample of PSUs.

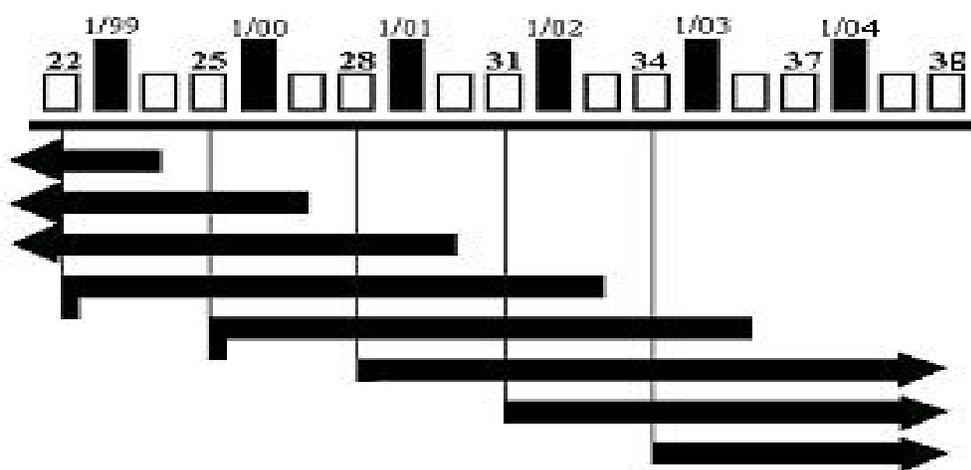
A rotating panel will be followed for 12 interviews. There are four panels active at any one time, and each panel has approximately 3,000 to 5,000 active sample persons depending on when the panel was originally selected. New panels that are selected in the spring of each year and introduced in the fall round will replace the oldest panel, retired in the summer following sample selection.

Because of the overlap between the new panel and the retiring panel, the number of interviews conducted in the September--December (Fall) round increases from 12,000 to 16,000. Figure I.1, while not drawn to scale, gives a visual display of the overlap that occurs during the simultaneous fielding of four panels in the fall round, and the special one round supplement.

The retiring panel (about 4,000 individuals) has abbreviated questionnaires administered beginning in the January to April round and, if necessary, May to August (summer) round to complete the collection of medical events occurring in the previous calendar year. These sample persons were then rotated out of the study. These individuals participated a maximum of four years (that is, a baseline interview, three complete years of utilization and expenditure data, and up to two interviews to "close out" events due to late arriving paperwork).

Each Fall round, under the rotating panel design, a new panel will be introduced and each Summer round a panel will be retired. Thus, for example, the new panel that was introduced in Round 34 will replace approximately 4,000 of the ongoing sample by Round 36. This rotating panel sample design allows for both the eventual termination of participation in the study for individuals and for the completion of about 12,000 interviews for an ongoing study population.

**Figure I.1: Rotating Panel Overlap and Special One Round Supplement**



As noted earlier, Figure I.1 shows the overlap that occurs during the simultaneous fielding of four panels in the fall round. It also shows the inclusion of a special-purpose one-time (that is, from the participant's viewpoint) supplemental sample that was added to the regular MCBS sample for the Round 28 interview period only. This supplement, consisting of 3,693 sample persons, yielded 1,886 completed Round 28 cases to increase the precision of the dual eligible population in the Boston area. The analyses of additional respondents will permit statistically valid representation of this geographically restricted sub-population. However, since the special sample is so restrictive, it is not included in the Access to Care Data files.

Table I.1 shows the number of Round 34 respondents by oldest age attained in 2002. Differential sampling rates were used to obtain such large samples of the disabled and the oldest old.

Complex Sample Design. In order to minimize survey costs while maximizing the precision of statistics, the sample was concentrated in up to 1500 ZIP code clusters within 107 Metropolitan Statistical Areas and clusters of non-metropolitan counties. Although this clustering increases the sample size that can be afforded for a given budget, the precision is not as good as would be expected from a simple random sample of the same size (were such a sampling procedure feasible).

The use of differential sampling rates also has the effect of degrading precision compared to a simple random sample of the same size. Standard statistical packages, such as SAS, SPSS, S, and BMDP are not designed to control for clustering and differential sampling rates and can give seriously incorrect standard errors, confidence intervals and p-values. Two packages that will give correct estimates of precision and significance are WesVar and SUDAAN<sup>7</sup>. See Section 5 for information on how to use these packages.

**Table I.1** Number of completes at Round 34 by age category

Oldest age attained in 2002	Number of completes at Round 34
Total	16,315
Under 45	1,305
45 to 64	1,412
65 to 69	2,684
70 to 74	2,904
75 to 79	2,810
80 to 84	2,707
85 and older	2,493

Non-response Bias Knowing that cumulative attrition can become very serious in a panel survey, a concerted effort is constantly made to keep response rates high at each round. After conducting 10 rounds of interviewing, approximately 69 percent of the survivors in the 1999 Panel were still responding. (The other 31 percent dropped out of the survey after providing anywhere from 0 to 9 interviews.) See Table I.2 for a complete breakdown of cumulative response rates by panel for Rounds 25 through 34.

Although average cumulative non-response rates in this range are non-trivial; steps have been and continue to be taken to reduce the risk of non-response bias. First, at each round, data from administrative records and from prior rounds are used to contrast new non-respondents with the continuing sample. Where

systematic differences are noted, the survey sampling weights are adjusted to reduce potential biases. For this reason, it is critical that the survey sampling weights be used in all analyses. (This variable is called CS1YRWGT on the RIC X record format.)

**Table I.2 Cumulative Response Rates for Each Panel Through Ten Rounds of Data Collection**

	Cumulative Response Rates for Medicare Current Beneficiary Survey by Round						
	1996 Panel Response Rate (n=6,506)	1997 Panel Response Rate (n=6,599)	1998 Panel Response Rate (n=6,450)	1999 Panel Response Rate (n=6,085)	2000 Panel Response Rate (n=6,376)	2001 Panel Response Rate (n=6,302)	2002 Panel Response Rate (n=6,301)
Round 25	69.4%	71.7%	73.9%	84.8%			
Round 26	68.9%	70.5%	72.3%	80.0%			
Round 27	68.7%	69.6%	70.9%	77.1%			
Round 28		69.0%	69.9%	75.2%	84.3%		
Round 29		68.5%	69.0%	73.6%	79.4%		
Round 30		68.2%	67.9%	72.4%	76.9%		
Round 31			67.1%	71.2%	74.8%	84.8%	
Round 32			66.6%	70.2%	73.1%	79.0%	
Round 33			66.4%	69.3%	71.5%	75.9%	
Round 34				68.6%	70.5%	72.9%	84.3%

Longitudinal Analyses. In addition to cross-sectional analyses of the Medicare population as of the fall of 2002, this PUF may be linked to PUFs from preceding years to enable longitudinal analyses. Special survey sampling weights are provided for the analysis of different time periods. Table I.3 shows the different possible periods that may be analyzed after linkage along with the panels involved, sample sizes, and the appropriate weight. (It should be noted that the longitudinal files are not appropriate for doing certain types of analyses, such as mortality, disenrollment or characteristics of nonrespondents. If an analyst is interested specifically in analyzing such topics using the MCBS, they will need additional data.)

The Community Interview. Sample persons in the community (or appropriate proxy respondents) are interviewed using computer-assisted personal interviewing (CAPI) survey instruments installed on notebook-size portable computers. The CAPI program automatically guides the interviewer through the questions, records the answers, and compares them to edit specifications, thereby increasing the output of timely, clear, and high quality data. CAPI guides the interviewer through complex skip patterns and inserts follow-up questions where certain data were missing from the previous round's interview. When the interview is completed, CAPI allows the interviewer to transmit the data by telephone to the home office computer.

**Table I.3** Possible longitudinal analyses using CY 2002 Access to Care

Period	Targeted last possible "accretion" (that is, new entitlement) date	Earliest possible loss of entitlement	Rounds Interviewed	Sample Size	Weight
Fall 1999 to fall 2002	1/1/1999	Fall 2002	R25, R28, R31, R34	3,457	L4YRSWGT
Fall 2000 to fall 2002	1/1/2000	Fall 2002	R28, R31, R34	7,219	L3YRSWGT
Fall 2001 to fall 2002	1/1/2001	Fall 2002	R31, R34	11,287	L2YRSWGT

These interviews yield a series of complementary data over time for each sample person on utilization of health services, medical care expenditures, health insurance coverage, sources of payment (public and private, including out-of-pocket payments), health status and functioning, and a variety of demographic and behavioral information (such as income, assets, living arrangements, family supports, and quality of life). Additionally, an access to care supplement is asked once a year in the September – December round.

An effort is made to interview the sampled person directly, but in case this person is unable to answer the questions, he or she is asked to designate a proxy respondent, usually a family member or close acquaintance. In Round 34, approximately 12 percent of the community interviews were done with proxies.

**The Facility Interview.** The MCBS conducts interviews for persons in long-term care facilities using a similar, but shortened instrument. A long-term care facility is defined as having three or more beds and providing long-term care services throughout the facility or in a separately identifiable unit. Types of facilities currently participating in the survey include nursing homes, retirement homes, domiciliary or personal care facilities, distinct long-term units in a hospital complex, mental health facilities and centers, assisted and foster care homes, and institutions for the mentally retarded and developmentally disabled.

If an institutionalized person returns to the community, a community interview is conducted. If he or she spent part of the reference period in the community and part in an institution, a separate interview is conducted for each period of time. Because of this, a beneficiary can be followed in and out of facilities, and a continuous record is maintained regardless of the location of the respondent.

The initial contact for the institutional interview is always with the facility administrator. Interviews are then conducted with the staff designated by the director as the most appropriate to answer each section of the questionnaire. It was decided early in the design of the study not to attempt interviews with the sample

person or family members. The facility interview does not include attitudinal or other subjective items. The facility instruments include:

- (1) The Facility Screener - This instrument gathers information on the facility to determine the facility type. It is asked during the initial interview;
- (2) The Baseline Questionnaire - Gathers information on the health status, insurance coverage, residence history, and demographic items on supplemental sample beneficiaries in a facility setting and new admissions from the continuing sample. Selected information from this questionnaire is updated annually for continuing sample persons using an abbreviated version, The Facility Component Supplement to the Core Questionnaire; and
- (3) The Facility Core Questionnaire - Collects information on facility utilization, charge and payment information. This questionnaire is asked in every round but the initial one.

Data Linkage. MCBS interview data have been augmented with selected individual person-level administrative data (for example, buy-in status for Medicaid and Medicare capitation payments for managed care plan membership) and fee-for-service claims for Medicare-covered services. The addition of these data greatly enhances the analytic power of the survey-reported data alone. This results in a database which combines data that can only be obtained from personal interviews (survey data) with Medicare administrative data and Medicare claims data. All personal identifying information is removed to ensure confidentiality.

### **Design of the Access to Care Data File**

The Access to Care data file is designed to provide early release of MCBS data related to Medicare beneficiaries' access to care. Rapid release of access data is achieved by omitting survey reported utilization and expenditure data. The claims information, while limited to program payments for covered services, third party payments for some Medicare secondary payer situations, and potential beneficiary liability, allows significant analysis of the impact of program changes on the beneficiary. This process eliminates the need for imputation of missing cost and payment variables and bypasses the reconciliation of the utilization and expenditure data collected in the survey with Medicare claims data.

The content of the Access to Care data file is governed by its central focus. In addition to questions from the access supplement concerning access to care, satisfaction with care and usual source of care, the file contains demographic and health insurance data and data on health status and functioning. To facilitate analysis, the information collected in the survey is augmented with data on the use and program cost of Medicare services from Medicare claims data.

## Contents of this Documentation

The rest of this manual contains detailed information about this public use file and specific background information intended to make the data more understandable. The sections are described below.

Section 1: Technical description of the public use file file specifications and the structure of the public use file. It also provides a brief description and count of each of the record types in this file.

Section 2: Codebook of the file variables. This codebook is organized by record type and contains the question number (for data collected in the survey), and variable name, description and location in the record. Codes or possible values and value labels are also supplied. Frequencies for most variables (those with fewer than 120 distinct values) are also included in the codebook, as are notes concerning when variables are inapplicable (that is, questions were not asked due to skip patterns in the CAPI program). An index of variables is also included at the end of the codebook.

Variables in the CMS bill records are documented slightly differently. Record layouts are provided and are cross-walked to CMS data dictionary names. The data dictionary supplies a full explanation of all the variables and their various values.

Section 3: Notes on how individual variables were collected.

Section 4: Hard copy versions of the questionnaires used in Round 34. The questionnaires have been annotated with variable names to associate the questions with the codebook.

Section 5: A general description of the MCBS sample design, estimation procedures and projections. A brief discussion of response rates is also included. This section concludes with a comparison of the MCBS projections to CMS control figures.

## References

Centers for Medicare and Medicaid Services, Office of the Actuary, published 2001 data from the National Health Accounts.

# Medicare Current Beneficiary Survey

## CY 2002 Access to Care

### File Structure

#### Data Specifications

The MCBS 2002 Access to Care file consists of a series of 41 separate files. Twenty of these files contain data on the MCBS sample persons; 20 files (READMEs) contain SAS code (SAS input statements, labels, and format statements) to facilitate the use of the data files by users who use SAS. The one remaining file contains SAS code used to produce a format library for all of the data.

CMS releases the data for use with either mainframe or personal computer setting. Figure 1.1 shows file specifications such as file names, record counts and the associated README file names.

#### Summary of the Data

The 20 data files represent completed Round 34 interviews with a sample of 16,315 Medicare beneficiaries, and supplemental information from the CMS Medicare files. Of these cases, 15,142 beneficiaries had community interviews and 1,173 beneficiaries had facility interviews.

#### Using the Data

All datasets are standard "flat" files to allow for processing with a wide variety of operating systems and programming languages. The datasets can be divided into two subject matter groups; files related to MCBS survey data with related Medicare administrative variables and files related to Medicare bill data.

There are 20 data files containing survey data and related summary administrative variables. For each of these files there is a "README" file which includes a SAS INPUT statement, a PROC FORMAT to interpret the coded fields, labels which provide more information about the variable than would be possible in an 8-character name, and a FORMAT statement which associates the code interpretations with the appropriate variables. As noted in Section C (Changes), the READMEs no longer contain formats. CMS developed a single format library containing all formats used in all the READMEs. The program CMS uses to create a SAS format library contains all the formats and is included in this release.

**Section 1: File Structure**

File Names	Record Counts	
ACCESS02.README.RICK		
ACCESS02.README.RICA		
ACCESS02.README.RIC1		
ACCESS02.README.RIC2		
CCESS02.README.RIC2F		
ACCESS02.README.RIC2H		
ACCESS02.README.RIC2P		
ACCESS02.README.RIC3		
ACCESS02.README.RIC4		
ACCESS02.README.RIC4A		
ACCESS02.README.RIC5		
ACCESS02.README.RIC6		
ACCESS02.README.RIC7		
ACCESS02.README.RIC8		
ACCESS02.README.RICH		
ACCESS02.README.RICKN		
ACCESS02.README.RICX		
ACCESS02.README.RICX2		
ACCESS02.README.RICX3		
ACCESS02.README.RICX4		
Data\rica	16,315	
Data\rick	16,315	
ACCESS02.RIC1	16,315	
ACCESS02.RIC2	15,142	
ACCESS02.RIC2F	1,173	
ACCESS02.RIC2H	10,839	
ACCESS02.RIC2P	15,142	
ACCESS02.RIC3	15,142	
ACCESS02.RIC4	16,315	
ACCESS02.RIC4A	724	
ACCESS02.RIC5	15,142	
ACCESS02.RIC6	1,173	
ACCESS02.RIC7	1,173	
.ACCESS02.RIC8	16,315	
ACCESS02.RICH	2,036	
ACCESS02.RICKN	14,255	
ACCESS02.RICX	16,315	
ACCESS02.RICX2	16,315	
ACCESS02.RICX3	16,315	
ACCESS02.RICX4	16,315	

## Section 1: File Structure

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As an illustration of the structure of the README files, Figure 1.2 is a copy of the README file for the Survey Identification Record, RIC1.

**Figure 1.2: Sample Text a README file (README.RIC1 Illustrated)**

```
INPUT
@1      RIC          $2.
@3      VERSION     $1.
@4      BASEID      $8.
@12     D_DOB       $6.
@18     ROSTSEX     2.
@20     D_AFEVER    2.
@22     D_AFVIET    2.
@24     D_AFKORE    2.
@26     D_AFWWII    2.
@28     D_AFWWI     2.
@30     D_AFPEAC    2.
@32     D_NGEVER    2.
@34     D_NGALL     2.
@36     D_NGDSBL    2.
@38     D_VARATE    3.
@41     D_RACE2     2.
@43     HISPORIG    2.
@45     SPCHNLNM    2.
@47     SPDEGRCV    2.
@49     SPMARSTA    2.
@51     INCOME      3.
@54     INCSRCE     $2.
@56     D_DIVCUR$  2.
@58     RACEAS      2.
@60     RACEAA      2.
@62     RACENH     2.
@64     RACEWH     2.
@66     RACEAI     2.
@68     RACEOTH    2.
@70     JOBSTAT     2.;
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## Section 1: File Structure

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LABEL	RIC	= "Record Identification Code"				
	VERSION	= "Version Number"				
	BASEID	= "Unique SP Identification Number"				
	D_AFEVER	= "SP ever served in armed forces (AF)?"				
	D_AFKORE	= "SP served in AF during Korean conflict?"				
	D_AFPEAC	= "SP served in AF during peace time?"				
	D_AFVIET	= "SP served in AF during Vietnam era?"				
	D_AFWWI	= "SP served in AF during World War I?"				
	D_AFWWII	= "SP served in AF during World War II?"				
	D_DIVCUR	= "Census division of SP's residence"				
	D_DOB	= "Date of birth (YYYYMM)"				
	D_NGEVER	= "SP ever active Nat'l Guard/Reserve?"				
	D_NGALL	= "All active duty spent in Nat'l Guard?"				
	D_NGDSBL	= "Does SP have disability from service?"				
	D_RACE2	= "Race of SP"				
	D_VARATE	= "Current VA disability rating"				
	INCOME	= "Income range of SP"				
	INCSRCE	= "Source of SP income data"				
	ROSTSEX	= "Gender of SP"				
	SPCHNLNM	= "Number of children living"				
	SPMARSTA	= "Marital status of SP"				
	SPDEGRCV	= "Highest grade SP completed"				
	RACEAA	= "Is SP Black or African-American?"				
	RACEAI	= "Is SP American Indian or Alaskan Native?"				
	RACEAS	= "Is SP Asian?"				
	RACENH	= "Is SP Native Hawaiian/Pacific Islander?"				
	RACEOTH	= "Is SP of another race?"				
	RACEWH	= "Is SP Caucasian?"				
	HISPORIG	= "Is SP of Hispanic or Latino origin?"				
	JOBSTAT	= "Is SP now working at job or business?";				

FORMAT							
D_DOB	\$DTE6FMT.						
D_VARATE	VADISFMT.						
ROSTSEX	SEXFMT.						
D_DIVCUR	\$CENSUS.						
D_RACE2	RACE2FMT.						
HISPORIG	YES2FMT.						
SPMARSTA	MARFMT.						
INCOME	INCFMT.						
INCSRCE	\$FLGFMT.						
SPCHNLNM	CHILDFMT.						
SPDEGRCV	DEGREFMT.						
RACEAS	RACEAA	RACENH	RACEWH	RACEAI	RACEOTH	IND2FMT.	
D_AFEVER	D_NGEVER	D_NGALL	D_NGDSBL	D_AFVIET	D_AFKORE	D_AFWWII	
D_AFWWI	D_AFPEAC	JOBSTAT	YES1FMT.;				

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### Structure of the MCBS public use file(s)

As mentioned above, the data files can be divided into two subject matter groups: files containing survey data with related Medicare administrative variables and files containing Medicare bill data.

There are 20 data files in the survey and administrative summary data group:

- Key
- Administrative Identification
- Survey Identification
- Survey Health Status and Functioning (Community only)
- Survey Health Status and Functioning (Facility only)
- Survey Health Status and Functioning (Helper)
- Survey Health Status and Functioning (Prevention)
- Survey Access to Care
- Survey Health Insurance
- Survey Discount Drug Plan Membership
- Survey Enumeration
- Survey Facility Residence History
- Survey Facility Identification
- Survey Interview
- Survey HMO Supplement
- Survey KN Supplement (Beneficiary Knowledge and Information Needs)
- Survey Cross-Sectional Weights
- Survey Longitudinal Weights (for individuals from the Round 25 Panel who completed Round 25, Round 28, Round 31, and Round 34 interviews)
- Survey Longitudinal Weights (for individuals from the Round 25 or Round 28 panel who completed Round 28 Round 31, and Round 34 interviews)
- Survey Longitudinal Weights (for individuals from the Round 25, Round 28, or Round 31 panel who completed Round 31 and Round 34 interviews)

There are seven types of Medicare bill records in the detailed utilization portion of the file:

- Inpatient hospital
- Skilled nursing facility
- Hospice
- Home health
- Outpatient
- Physician/supplier (Part B)
- Durable medical equipment

## Section 1: File Structure

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The bill records represent services provided during calendar year 2002 and processed by the CMS in conjunction with our administrative functions. To facilitate analysis, the Administrative Identification record contains a summary of the utilization that these bills present in detail.

All MCBS records begin with the same three variables: a record identification code (RIC), the version of the RIC (VERSION) and a unique number that identifies the person who was sampled (BASEID). These elements serve to identify the type of record and to provide a link to other types of records. To obtain complete survey information for an individual, an analyst must link together records for that individual from the various data files using the variable BASEID. In Round 34, none of the sample people has a record on every data file. Figure 1.3 provides an overview of the presence of data records on the various data files for community and facility respondents.

The tables that follow Figure 1.3 describe all of the types of records in this release – Table 1.A describes the survey and administrative records and Table 1.B describes the bill records.

**Section 1: File Structure**

**Figure 1.3** The number of records present on each of the data files for community and facility sample respondents

Data files	<u>Community respondents</u>	<u>Facility respondents</u>
RIC K – Key record	1 per respondent	1 per respondent
RIC A – Administrative Identification	1 per respondent	1 per respondent
RIC 1 – Survey Identification	1 per respondent	1 per respondent
RIC 2 – Health Status and Functioning (community)	1 per respondent	none
RIC 2F – Health Status and Functioning (facility)	none	1 per respondent
RIC 2H – Health Status and Functioning (helper)	1, several, or none per respondent	none
RIC 2P – Health Status and Functioning (prevention)	1 per respondent	none
RIC 3 – Access to Care	1 per respondent	none
RIC 4 – Health Insurance	1 per respondent	1 per respondent
RIC 4A – Prescription Drug Membership	1 or none per respondent	none
RIC 5 – Enumeration	1 per respondent	none
RIC 6 – Facility Residence History	none	1 per respondent
RIC 7 – Facility Identification	none	1 per respondent
RIC 8 – Interview	1 per respondent	1 per respondent
RIC H – HMO Supplement	1 per respondent	1 per respondent
RIC KN – Beneficiary Knowledge & Information Needs	1 per respondent	none
RIC X – Cross-sectional Weights	1 per respondent	1 per respondent
RIC X2 – 2 years’ Longitudinal Weights	1 per respondent	1 per respondent
RIC X3 – 3 years’ Longitudinal Weights	1 per respondent	1 per respondent
RIC X4 – 4 years’ Longitudinal Weights	1 per respondent	1 per respondent
Hospital bills *	1, several, or none per respondent	
Skilled nursing facility bills *	1, several, or none per respondent	
Hospice bills *	1, several, or none per respondent	
Home health bills *	1, several, or none per respondent	
Outpatient bills *	1, several, or none per respondent	
Physician/supplier bills *	1, several, or none per respondent	
Durable medical equipment bills *	1, several, or none per respondent	

\* *These bills are summarized in the Administrative Identification record (RIC A), but are provided for more detailed analysis. If the sample person used Medicare benefits, there will be one or many bills, of one or many types, depending on what types of services were used. If the sample person used no Medicare benefits of a certain type, there will be no bills of that type. If the sample person used no Medicare benefits at all, there will be no bills. The RIC A summary provides information about how many services of each type will be found in the bill record files.*

**Table 1.B – File Overviews**

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**File: KEY**

RIC: K

Number of Records: 16,315 - 1 for each person who completed an interview

Description: The BASEID key identifies the person interviewed. It is an 8-digit element, consisting of a unique, randomly assigned 7-digit number concatenated with a single-digit checkdigit.

In addition to the BASEID, the KEY file contains the type of interview conducted and other variables for classifying the beneficiary.

**File: ADMINISTRATIVE IDENTIFICATION**

RIC: A

Number of records: 16,315 - 1 for each person who completed an interview

Description: The Administrative Identification file contains information about the sample person from administrative records maintained by the Centers for Medicare and Medicaid Services. It contains basic demographic information (date of birth, sex), insurance information (Medicare entitlement, Medicaid eligibility, HMO enrollment), and summarizes the sample person's Medicare utilization for 2002.

**File: SURVEY IDENTIFICATION**

RIC: 1

Number of records: 16,315 - 1 for each person who completed an interview

Description: The Survey Identification file contains demographic information collected in the survey. To some extent, it parallels the demographic information provided in the Administrative Identification file (date of birth and sex, for example). Demographic information that is not available in the CMS records, such as education, income and military service, are also present.

**Table 1.B – File Overviews**

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**File: SURVEY HEALTH STATUS AND FUNCTIONING--COMMUNITY**

**RIC: 2**

Number of 15,142 - 1 for each person who completed an interview

**Description:** The Survey Health Status & Functioning file contains data about the sample person's health, including: self-reported height and weight, a self-assessment of vision and hearing, use of preventive measures such as immunizations and mammograms, avoidable risk factors (smoking, e.g.) and a history of medical conditions. Standard measures – activities of daily living (ADLs) and instrumental activities of daily living (IADLs) – also appear in this file.

**File: SURVEY HEALTH STATUS AND FUNCTIONING--FACILITY**

**RIC: 2F**

Number of Records: 1,173

**Description:** The Survey Health Status & Functioning file contains data about the sample person's health, including: self-reported height and weight, a self-assessment of vision and hearing, use of preventive measures such as immunizations and mammograms, avoidable risk factors (smoking, e.g.) and a history of medical conditions. Standard measures – activities of daily living (ADLs) and instrumental activities of daily living (IADLs) – also appear in this file.

**Table 1.B – File Overviews**

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**RIC: 2H**

Number of Records: 10,839

Description: The Survey Health Status And Functioning (Helper) file contains information about those persons responsible for assisting respondents in performing their activities of daily living (ADLs) and/or instrumental activities of daily living (IADLs). The number of helpers, the helper’s relationship to the respondent, and the types of ADLs and IADLs the helper assists the respondent in performing are contained in this file.

NOTE: The number of records reflects the number of persons identified as assisting the survey respondent in performing various ADLs and IADLs. Therefore, it is possible to have one, several, or no records per respondent.

**RIC: 2P**

Number of Records: 15,142

Description: The Survey Health Status and Functioning (Prevention) file contains data about screening, diagnosis, treatment, and attitudes toward such common preventative health services as mammogram, papsmear, prostate, diabetes, colon cancer, and osteoporosis.

**File: SURVEY ACCESS TO CARE**

RIC: 3

Number of Records: 15,142 - 1 for each community person who completed an interview

Description: The Access To Care file contains information from the Access to Care and Satisfaction with Care sections of the questionnaire. Sample people were asked general questions about their use of all types of medical services in 2002 and about their usual source of medical care. This file also contains the sample people's assessment of the quality of the medical care that they are receiving.

**Table 1.B – File Overviews**

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**File: SURVEY HEALTH INSURANCE**

RIC: 4

Number of Records: 16,315 - 1 for each person who completed an interview

Description: The Survey Health Insurance file summarizes current health insurance information provided by the sample people.

NOTE: To limit the size of the RIC 4 record, only 5 private health insurance policies are detailed. For individuals in the sample that had more than 5 private health insurance policies, the total in the summary indicator is correct, but the number of plans detailed is less than the total. After a comparison of two MCBS files revealed a deviation in the number of health insurance policies held by the survey population, the editing procedures in the Access to Care RIC 4 were changed to include only those health insurance plans that the survey participant is currently enrolled with.

**File: PRESCRIPTION DRUG DISCOUNT MEMBERSHIPS**

RIC: 4A

Number of Records: 724 - 1 for each person who had at least one discount drug membership

Description: The Prescription Drug Discount Membership file contains basic cost and characteristic data for up to 5 memberships.

**File: SURVEY ENUMERATION**

RIC: 5

Number of Records: 15,142 - 1 for each person who completed a community interview

Description: The Enumeration file contains information about the sample person's household. It reflects the size of the household, and the age and relationship of the people in it.

**Table 1.B – File Overviews**

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**File: SURVEY FACILITY RESIDENCE HISTORY**

RIC: 6

Number of Records: 1,173 - 1 for each person who completed a facility interview

Description: The Facility Residence History file summarizes the sample person's stay(s) in the facility, providing information about the admission and some limited information about the sample person's living arrangement prior to admission.

NOTE: In converting the MCBS Facility questionnaire to CAPI, full advantage was taken of the work done by the Agency for Health Care Policy and Research in its development of the CAPI protocol for the National Nursing Home Expenditure Survey (NNHES). The NNHES closely resembles the MCBS facility questionnaire in design and content. Adaptation was done carefully to insure both the continuity of the MCBS data and their comparability with NNHES. Consequently, both the RIC 6 and RIC 7 were modified. A more complete discussion of these modifications can be found in Section 3: Notes on Using the Data.

**File: SURVEY FACILITY IDENTIFICATION**

RIC: 7

Number of Records: 1,173 - 1 for each sample person interviewed in a facility

Description: The Facility Identification file provides general characteristics of the institutions, most of the information from the facility screener. In several cases, more than one sample person resided in the same facility. In these cases the RIC 7 records are redundant (containing all of the same information), and differ only in the BASEID.

**Table 1.B – File Overviews**

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**File: SURVEY INTERVIEW**

RIC: 8

Number of Records: 16,315 - 1 for each person who completed an interview

Description: The Survey Interview file summarizes the characteristics of the interview, including type of questionnaire, duration, and whether or not the interview was conducted with a proxy respondent.

**File: SURVEY HMO SUPPLEMENT**

RIC: H

Number of Records: 2,036 - 1 for each sample person

Description: The HMO Supplement file augments information from the Access to Care and Satisfaction with Care sections of the questionnaire. Sample people who were currently enrolled in a State licensed HMO at the time of the interview were asked general questions about their health plans, to include access to and satisfaction with medical services in 2002. This file also contains the sample people's assessment of the quality of the medical care that they are receiving, types of additional coverage offered, and any out of pocket costs associated with the health plan.

**Table 1.B – File Overviews**

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**File: BENEFICIARY KNOWLEDGE AND INFORMATION NEEDS SUPPLEMENT**

RIC: KN

Number of Records: 14,255 - 1 for each sample person

Description: This supplement combines new questions with some questions previously asked in the BK and BN supplements. Some of the original questions resulted from the need to measure beneficiaries' knowledge about new options to the Medicare program in response to the Balanced Budget Act of 1997. The data collected in this supplement will allow an evaluation of the impact of existing education initiatives by CMS. The KN section will also help to refine future CMS education initiatives by asking about information that beneficiaries may need, preferred sources for this information, and beneficiaries' access to insurance information. This data also presents the knowledge beneficiaries have gained from CMS publications.

NOTE: The KN Supplement was conducted in the January through April 2002 interview period. As a result, there is a discrepancy in the number of records. This record count variance is attributed to the retiring of a panel and natural attrition.

**File: SURVEY CROSS-SECTIONAL WEIGHTS**

RIC: X

Number of Records: 16,315 - 1 for each sample person

Description: The Cross-Sectional Weights file provides cross-sectional weights, including general-purpose weights and a series of replicate weights.

**Table 1.B – File Overviews**

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**File: TWO-YEAR SURVEY LONGITUDINAL WEIGHTS**

RIC: X2

Number of Records: 16,315 - 1 non-zero weight for each sample person who completed an interview in the current and first preceding years.

Description: The Longitudinal Weights file provides longitudinal weights, including general-purpose weights and a series of replicate weights.

**File: THREE-YEAR SURVEY LONGITUDINAL WEIGHTS**

RIC: X3

Number of Records: 16,315 - 1 non-zero weight for each sample person who completed an interview in the current and both of the two preceding years.

Description: The Longitudinal Weights file provides longitudinal weights, including general-purpose weights and a series of replicate weights.

**File: FOUR-YEAR SURVEY LONGITUDINAL WEIGHTS**

RIC: X4

Number of Records: 16,315 - 1 non-zero weight for each sample person who completed an interview in the current and all of the three preceding years.

Description: The Longitudinal Weights file provides longitudinal weights, including general-purpose weights and a series of replicate weights.

**Table 1.B – File Overviews**

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**File: HOSPITAL BILL**

RIC: INP

Number of Records: 5,361

Description: Inpatient hospital bills for the MCBS population. These include bills from short stay general hospitals, and long-term hospitals such as psychiatric and TB hospitals. Different provider types are distinguishable. Generally, there is one bill for each stay. Some hospitals, particularly the long-term facilities, may bill on a cyclical basis and several bills may constitute a single hospitalization.

**File: SKILLED NURSING FACILITY BILL**

RIC: SNF

Number of Records: 1,467

Description: Skilled-nursing facility bills for the MCBS population. These include Christian Science facilities and other skilled nursing facilities. Different provider types are distinguishable. Generally, several bills constitute a period of institutionalization.

**File: HOSPICE BILL**

RIC: HSP

Number of Records: 525

Description: Hospice bills for the MCBS population. Billing practices vary by provider in that some hospices bill on a cycle (e.g. monthly) so that several bills constitute a period of hospice care; others submit a series of "final" bills.

**File: HOME HEALTH BILL**

RIC: HHA

Number of Records: 1,946

Description: Home health bills for the MCBS population. Home health agencies generally bill on a cycle, e.g., monthly.

**Table 1.B – File Overviews**

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**File: OUTPATIENT BILL**

RIC: OTP

Number of Records: 54,523

Description: Outpatient hospital bills for the MCBS population. These bills are generally for Part B services that are delivered through the outpatient department of a hospital (traditionally, a Part A provider).

**File: PHYSICIAN/SUPPLIER BILL**

RIC: PHY

Number of Records: 544,719

Description: Medicare Part B (physician, other practitioners, and suppliers other than DME-- see RIC M below for DME) claims for the MCBS population. These records reflect services such as doctor visits, laboratory tests, X-rays and other types of radiological tests, surgeries, and inoculations.

**File: DURABLE MEDICAL EQUIPMENT BILL**

RIC: DME

Number of Records: 42,929

Description: Medicare DME Part B claims for the MCBS population. These records reflect claims for DME rentals and purchases.

**Medicare Current Beneficiary Survey**  
CY 2002 Access to Care

Codebook

This release consists of two parts: 1) a summary segment, which contains all of the survey information and summary data from CMS's administrative and claims files; and 2) a bill segment, which contains itemized bill records from CMS' National Claims History (NCH) database.

The first part of this section, the Codebook, includes frequency counts for all of the variables in the summary segment. The second part of this section documents the variables (without frequencies) in the bill detail records.

SUMMARY SEGMENT

**Using the Codebook**

The Codebook lists of variables in each of the records, with their physical location in the record, their possible values and the question number from the questionnaire, if any. There are also some notes associated with most variables. Many questions are not always asked; the notes explain when questions are skipped. CMS also identifies when variables were first available if they were added after the initial MCBS year of 1991.

The first part of the Medicare Current Beneficiary Survey data file (that is, the survey and CMS summary data) is made up of 20 different types of records. The name of the record type being described is identified by name in the header. The RIC or record identification code with the record type being described is shown in the header on the first line on the right of the page above the page number. From time to time, CMS changes the files and as that happens, the version number changes. The version number appears in the header on the third line on the right of the page below the page number.

Variable - This column contains the variable names that we have associated with the SAS version of our data files. Since SAS limits variable names to 8 characters, these names are not always immediately meaningful. You can change them to more informative names, but the names in the tables were used to annotate the copies of the questionnaires.

Certain conventions apply to the variable names. All variables that are preceded by the characters "D\_", such as D\_SMPTYP are derived variables. The variables did not come directly from the survey data, but compiled from two or more survey variables. Variables preceded by the characters "H\_", such as H\_DOB, come for CMS source files.

Col (Column) - This column locates the variable physically in the record.

Len (Length) - This column describes the length of the field of the variable.

Fmt (Format) Name - This column identifies the format name associated with the variable in the SAS README file for this variable's RIC.

Frequency - This column shows unweighted frequency counts of values or recodes for each variable.

Ques # - The column headed "Ques #" contains a reference to the questionnaire for direct variables, or to the source of derived variables. For example, the "Ques #" entry that accompanies the variable ERVISIT in the Access to Care record is "AC1." The first question in the Access to Care portion of the community questionnaire is the one referenced. This column will be blank for variables that relate to neither the questionnaire or to CMS source files. These variables, such as the record identification code (variable name is RIC), are usually ones that we created to manage the data and the file.

Table 2.1 lists the abbreviations that may appear in this column when a section of the questionnaire is referenced.

Ty (Type) - This column identifies the type of variable, either numeric (N) or character (C).

Label (Variable label and codes) - In the first line under this column, you will find an explanation of the variable, which describes it more explicitly than would be possible in only 8 letters. These labels are available in README files, if you wish to use them in creating SAS data sets.

For coded variables all of the possible values of the variable appear in lines beneath that explanation. Associated with each possible value (in the column labeled "Frequency") is a count of the number of times that the variable had that value, and, under the column labeled "Label", a short format expanding on the coded value. Formats are also available in the README files.

Certain conventions were used in coding all variables to distinguish between questions that beneficiaries would not or could not answer and questions that were not asked. These conventional codes are as follows: "." or "-1" if the question was not applicable; "-7" if the respondent refused to answer; "-8" if the respondent didn't know the answer; and "-9" if the answer could not be ascertained from the response. With derived variables, a " " (blank) or "." mean that the variable could not be derived because one or more of the component parts was not available.

Many questions were posed to elicit simple "Yes" or "No" answers, or to limit responses to one choice from a list of categories. In these cases the responses are "Yes" or "No" or one of the codes from the list.

In other questions the respondent was given a list of items to choose from and all of the responses were recorded. In these cases each of the responses is coded “Indicated” or “Not Indicated.”

If a beneficiary responded with an answer that was not on the list of possible choices, it was recorded verbatim. All of the verbatim responses were reviewed and categorized. New codes were added to the original list of options to accommodate narratives that appeared frequently. For this reason the list of possible values for some variables may not exactly match the questionnaire.

Inapplicable - Each variable is followed by a statement that describes when a question was not asked, resulting in a missing variable. Questions were not asked when the response to a prior question or other information gathered earlier in the interview would make them inappropriate. For example, if the sample person said he has never smoked (community component, question HS16), he would not be asked if he smokes now (question HS17).

Table 2.1: Abbreviations Used to Identify Sections of the Questionnaires

Community Baseline Questionnaire

IN	Introduction
EN	Enumeration
HI	Health Insurance
AC	Access to Care
SC	Satisfaction with Care
US	Usual Source of Care
HF	Health Status and Functioning
DI	Demographics/Income
KN	Beneficiary Knowledge & Information Needs
HA	Housing Characteristics
CL	Closing

Facility Questionnaire (Screener)

FAVERIF, FA, FB

Facility Baseline Questionnaire

RH	Residence History
BQ	Background History
IN	Health Insurance
HA	Health Status and Functioning

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BILL DETAIL SEGMENT

**Using the tables**

The tables in the bill detail section describe the Medicare utilization files included on the data file. There are two sets of tables; they must be considered together in order to interpret the data in this segment.

- **FILE DESCRIPTIONS FOR MEDICARE CLAIMS** - These record layouts correspond to the seven Medicare utilization files on the data file(s). The inpatient hospital and SNF bill files are described in the same record layout even though they are in separate datasets.

NCH No. - The number associated with each variable in the data file bill records and CMS' Data Dictionary (discussed below). The NCH No. can be used to crosswalk from the bill record to the more detailed description in the dictionary.

Variable - The name we have assigned to the data element (variable). Names may be up to eight characters long and are mnemonic. The variable name links the record layout to the remainder of the bill detail documentation. This name is also the name that we have supplied in the "README" SAS INPUT statement and labels.

Type - The format of the data element, or variable. Singly occurring data fields may be numeric, character or packed-decimal.

Group items may appear more than once, depending on the information that is present in the bill. For example, if several surgical procedures were reported on the bill, each of them would appear as a separate group item. One surgical procedure would translate to a single group item. A counter shows how many of each trailer type are present. For example, the number of ICD-9-CM procedure code groups present on the claim would be indicated by the counter PROCCNT.

Length - The number of bytes physically occupied by the variable in the record.

Format - How the data should be interpreted. For example, date fields may be read as eight characters, interpreted as CCYYMMDD (two-digit century, followed by two-digit year of the century, followed by two-digit month, followed by the two-digit day of the month).

Description - A more complete explanation of what the variable contains. These descriptions can be assigned to variables with the SAS LABEL code that is provided in the "README" file.

- **DATA DICTIONARY** - These tables are maintained by CMS to describe their internal records. They contain standard definitions of the variables in this file and values for all coded variables.

## Section 2: Codebook

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Some of the variables referenced in this dictionary do not appear in this file. We have deleted some fields to protect the privacy of those who are participating in the survey.

**Note:** CMS has released a new version of the Medicare claims. This new version ( I ) incorporates federally mandated changes to the structure and content of the Medicare claims found in version H. It is important to look closely at the different readme files for each of the claim records before attempting to merge the Medicare claims data with MCBS data.

# Medicare Current Beneficiary Survey

## CY 2002 Access to Care

### Section 3: Notes on Using the Data

In an undertaking of this nature and magnitude, there are bound to be questions about how terms are defined operationally, how field procedures affect the data collection process, complicated skip patterns, and how some variables were derived. We have included this section to address these questions.

This section is a collection of information about various data fields present in this release. We have not attempted to present information on every survey data field; rather, we concentrated our efforts on data fields where we have something useful to introduce. We start with information which is relevant across the board (global information). We follow that with specific information on individual data fields, presented in the same sequence as the data fields appear in the codebook.

#### **Global Information**

##### Missing Values

We use various negative values to indicate the reason why some data are missing. For instance, for survey collected data, a value of -1 indicates that the variable is inapplicable. A variable is generally inapplicable because the question did not need to be asked. For example, we do not ask male sample persons about hysterectomies. CMS uses other codes to denote standard reasons why data are not available, such as -7 for “refused,” -8 for “don’t know,” and -9 for “not ascertained.”

##### Dates

The CMS-derived dates of birth and death include century indicators and are in the format CCYYMMDD (2-digit century, 2-digit year, 2-digit month and 2-digit day). Due to the manner in which the responses were given, these dates must be evaluated in parts because one or more of the parts may be missing. For example, a vague response about a particular date (such as, “I know it was in June of last year, but I’m not sure of the exact day”) would be coded “200106-8” (“20” for the century, “01” for the year, “06” for June, and the code “-8” for “Don’t know” for the day).

##### Narratives

Respondents were asked a number of open-ended questions. The respondents answered these questions in their own words, and interviewers recorded the responses verbatim. The interviewer was prohibited from paraphrasing or summarizing the respondents’ answers. However, this release does not contain narratives. Instead, we have assigned codes to similar responses to make analysis easier. Often there will be more than

one answer to a single question. In these cases, we supply several variables, all of which contain categorized data.

### Specific variables - Key Record (RIC K)

There is one record for each individual who completed an interview, either community (**INTERVU** = “C”) or facility (**INTERVU** = “F”).

A facility interview was conducted whenever a sample person was residing in a facility: 1) that contains three or more beds; 2) that is classified by the administrator as providing long-term care, and 3) whose physical structure allows long-term care residents of the facility to be separately identified from those of the institution as a whole. This broad definition allows analysis beyond traditional views of long-term care, that is, nursing home and related care homes having three or more beds and providing either skilled nursing, or rehabilitative or personal care (other than supervision). Analysts can narrow or broaden the focus of their studies of facility care by using information from the Survey Facility Identification Record (RIC 7.) This file contains one record for each sample person for whom a facility questionnaire was administered.

This release is a mix of people who joined the survey in Round 25 (**D\_SMPTYP** = “99”), Round 28 (**D\_SMPTYP** = “00”), Round 31 (**D\_SMPTYP** = “01”), or Round 34 (**D\_SMPTYP** = “02”). CMS conducted interviews for the continuing sample (that is, the supplemental samples of Rounds 25, 28, and 31) in as many settings as necessary, to create a seamless view of the entire round. For the Round 34 supplemental sample, CMS conducted only one interview-- facility or community-- depending on the sample person’s living situation. A very small number of sample persons had more than one interview in a round as they moved to or from the community setting during a round. To avoid duplication of data, CMS only uses data obtained from the last interview in Round 34 for each sample person.

This file contains data from sample persons who were enrolled Medicare on January 1 and were alive for the fall round interview. This file is well suited for making estimates of the Medicare population who were enrolled for the entire year (the “always enrolled”). We estimate the “always enrolled” Medicare population in 2002 at 38.0 million beneficiaries. This group can be distinguished from all Round 34 interviews by selecting only beneficiaries who were enrolled before 2002 and survived until 2003 (**SURVIVE** = “Y”). It is inappropriate to use this file for estimates of either the “ever-enrolled” 2002 Medicare population or a “point-in-time” Medicare population because the sample excludes beneficiaries who either (1) were new to Medicare in 2002, or (2) died in 2002 prior to the fall round.

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### Administrative Identification Record (RIC A)

Except as noted otherwise, the variables in this record were derived from CMS's Medicare enrollment database. History records were searched to establish the beneficiary's status (for example, age, residence, and type of beneficiary) as of December 31, 2002.

The MCBS furnishes five variables relating to the sample person's age: four in the Administrative Identification record (RIC A), and one in the Survey Identification record (RIC 1). The "legal" dates of birth and death from Medicare and Social Security Administration records are recorded in RIC A (**H\_DOB** and **H\_DOD**, respectively.) [Note: the SSA legal date of birth is the first day of the birth month, unless the sample person was born on the first of the month, in which case the legal birth date is the first day of the previous month. Similarly the date of death (**H\_DOD**) is the last day of the death month.] The variable **H\_AGE** represents the sample person's "legal" age as of December 31, 2002. The variable **D\_STRAT** groups the sample persons by various age categories using **H\_AGE**. The sample person's date of birth, as reported by the respondent during the initial interview, is recorded in the RIC 1 (**D\_DOB**).

During CY2002 an average of 5.7 million Medicare enrollees or 14.4 percent of the total population enrolled at that time had their Part B premium paid for by a State agency. More than 6.4 million enrollees or 15.3 percent of the 42 million ever-enrolled Medicare population during the calendar year had their premium paid for at least one month. (These data do not include those entitled to Medicaid but were not buy-ins; that is, the medically needy. This data also says nothing of how extensive the Medicaid benefits were.) This process, called State buy-in, is tracked by CMS and is used as a general proxy for Medicaid participation. CMS derived the variables that describe this participation (**H\_MCSW**) and (**H\_MCDE01 - H\_MCDE12**) using its enrollment database. The variable (**H\_MCSW**) can be used when only an indication that the enrollee was a "buy-in" at any time during 2002 is needed for analysis. The monthly variables (**H\_MCDE01 - H\_MCDE12**) can be used for analyzing Medicaid eligibility at specific points in time.

In recent years, membership in Medicare managed care plans has seen significant declines even as the Medicare population steadily grows. During 2002 managed care enrollees dropped for the fourth consecutive year, with 5.7 million in January to 5.2 million in December. As of the mid-point of the calendar year, July 1, approximately 5.5 million or 13.6 percent of the Medicare population received Medicare benefits through coordinated care organizations such as an HMO, which contracts directly with CMS to provide those services. Some of the beneficiaries in the MCBS sample belong to such organizations. CMS derived variables that describe this Medicare managed care membership (**H\_GHPSW**) and (**H\_PLTP01 - H\_PLTP12**) were its enrollment database. The variable (**H\_GHPSW**) can be used when only an indication that the enrollee was a member of a Medicare managed care plan at some time during 2002 is needed for analysis. The monthly variables (**H\_PLTP01 - H\_PLTP12**) can be used for analyzing membership at specific points in time.

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Utilization Summary

For easier comparison of groups of people by the number and cost of medical services they have received, the Administrative Identification Record also includes a summary of all Medicare bills and claims for calendar year 2002, as received and processed by CMS through July 2003. (See the variables in the Administrative Identification Record from ([H\\_LATDCH](#)) to the end). In response to privacy regulations of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), CMS has removed all “facial identifiers” (name, social security number, etc.) from the Medicare claims data. Researchers who need the “facial identifiers” to conduct their research must justify this need in their data request.

The utilization summary represents services rendered and reimbursed under fee-for-service in calendar year 2002. If a beneficiary used no Medicare services at all or was a member of a coordinated or managed care plan (such as a risk HMO) that does not submit claims to a fiscal intermediary or carrier, all program payment summary variables will be empty. If the beneficiary used no services of a particular type (for example, inpatient hospitalization), the variables relating to those benefits will be empty. Empty variables are zero-filled, except as noted in the next paragraphs.

Adjustment bills Initial claims submitted by fiscal intermediaries and carriers for services rendered and paid for by Medicare may be modified by later transactions that result in additional submittal of information relevant to payment or utilization for a given event. There are two types of Part A (institutional) adjustment transactions: credit-debit pairs, and cancel-only credit transactions. Both types of transactions cancel out a bill that was processed earlier (the credit bill exactly matches the earlier bill, which can be viewed as an initial debit). The difference between them lies in how (or if) a new debit transaction is applied to show the correct utilization. If the adjustment consists of a credit-debit pair, the new debit is applied immediately because it is submitted as the “debit” half of the pair. If the adjustment is a cancel-only transaction, the debit may be processed at a later date through a separate bill. In some cases, as when the original bill was completely in error, the cancel-only transaction simply serves to “erase” a mistake, and no new debit would be submitted. For this file, the adjustment processing removes the original debit and the credit that cancels it out, leaving only the final, corrected debit.

[NOTE: A few rare cases of credit bills with no prior debit may be in this file; these records can be dropped from analysis because they are, in effect, canceling out something for which CMS has no record.]

For Part B claims, we summarized only accepted claims (process code is “A”), or adjusted claims if the adjustment concerned money (process code either “R” or “S” and allowed charges greater than \$0). If the claim disposition code (DISPCD) was “03” or “63” (indicating a credit), both the credit and the matching debit were deleted.

Individual fields After adjustments were processed; the bills were summarized following the rules set forth below.

### **Inpatient hospital bills**

Utilization is summarized by admissions, days, charges, covered charges, reimbursement amount, coinsurance days, and coinsurance amount. CMS calculated the number of admissions (**H\_INPSTY**) by sorting the bills in chronological order, and counting the admission in each uninterrupted series of inpatient days. Total covered days (**H\_INPDAY**) were summed from COVDAY in the bill. Total coinsurance days (**H\_INPCDY**) were summed from COINDAY. Total bill charges and non-covered charges were selected from the revenue center trailer coded “0001”; total charges were summed as (**H\_INPCHG**) and covered charges (total charges less non-covered charges) were summed as (**H\_INPCCH**). Coinsurance amounts (**H\_INPCAM**) were summed from COINAMTA in the bill. Reimbursement (**H\_INPRMB**) is the sum of PROVPA, organ acquisition costs (if any) and “pass through” amounts. Organ acquisition costs were accumulated from revenue center trailers when the second and third positions of the code were “81.” Pass through amounts were calculated by multiplying covered days (COVDAY in the bill record) by the pass through per diem (PTDIEM in the bill record).

### **Skilled nursing facility**

Utilization is summarized by admissions, days, charges, covered charges, reimbursement amount, coinsurance days and coinsurance amount. CMS calculated the number of admissions (**H\_SNFSTY**) by sorting the bills in chronological order, and counting the admission in each uninterrupted series of inpatient days. Total covered days (**H\_SNFDAY**) were summed from COVDAY in the bill. Total coinsurance days (**H\_SNFCDY**) were summed from COINDAY. Total bill charges and non-covered charges were selected from the revenue center trailer coded “0001”; total charges were summed as (**H\_SNFCHG**) and covered charges (total charges less non-covered charges) were summed as (**H\_SNFCCH**). Total coinsurance amounts (**H\_SNFCAM**) were summed from COINAMTA in the bill. Total reimbursement (**H\_SNFRMB**) is the sum of PROVPA.

### **Home Health**

Utilization is summarized by the number of visits; visit charges; and other (that is, nonvisit) charges. If the second and third positions of the revenue center code were 42, 43, 44, 47, 55, 56, 57, or 58, then the units in the trailer (visits) were added to total visits (**H\_HHAVST**) and the charges were accumulated as total covered visit charges (**H\_HHACCH**). If the revenue center codes did not indicate visits, the charges were accumulated as other HHA charges (**H\_HHACHO**). Total home health reimbursements were summed for Part A (**H\_HHRMBA**) and Part B (**H\_HHRMBB**).

### **Hospice**

Utilization is summarized by days, covered charges and reimbursement amount. Covered hospice days (**H\_HSDAYS**) were summed from the bill variable COVDAY. Covered charges were selected from the

### Section 3: Notes on Using the Data

revenue center trailer coded "0001" and summed as (**H\_HSTCHG**). Total hospice reimbursement (**H\_HSREIM**) was summed from the variable PROVPAY.

#### **Outpatient**

CMS summarizes utilization by the number of bills, covered charges, and reimbursement amount. Total bills were counted as (**H\_OUTBIL**). Total covered charges were selected from the revenue center trailer coded "0001" and summed as (**H\_OUTCHG**). Total outpatient reimbursement (**H\_OUTRMB**) was summed from the variable PROVPAY.

#### **Part B (Carrier) claims**

Utilization is summarized by: the number of claims; the number of line items; submitted and allowed charges; reimbursement; the number of office visits; and office visit charges. All claims and individual line items (there may be up to 13 line items per claim) were counted and summed as (**H\_PHYCLM**) and (**H\_PHYLIN**). Submitted charges and allowed charges (**H\_PHYSCH**) and (**H\_PHYACH**) were summed from SUBCRG and ALLOWCRG in the bill. Total reimbursement for Part B claims (**H\_PHYRMB**) was summed from the variable PAYAMT in the bill. Durable Medical Equipment charges are broken out from the physician charges, as follows: number of claims (**H\_DMECLM**), number of DME line items (**H\_DMELIN**), DME submitted charges (**H\_DMESCH**), allowed charges (**H\_DMEACH**), and total DME reimbursement (**H\_DMERMB**).

Office visits and their charges are summed with other services (described above) and as separate categories (**H\_PMTVST** and **H\_PMTCHO**). We summed office visits and office visit charges separately for two reasons. An office visit is a universally understood measure of service use and access to medical care. It also is an accurate measure of levels of service use across separate groups, unlike charge or payment figures that vary depending on the services that have been performed. Office visits are identified by HCPCS codes in the series 90000-90090 and 99201-99215 in the Part B line item trailer group(s).

#### **Survey Identification Record (RIC 1)**

##### "Initial interview" variables

Some questions are asked only in the initial interview of a sample person and are not asked again during subsequent sessions because the responses are not likely to change. Such questions include "Have you ever served in the armed forces?" and "What is the highest grade of school you ever completed?" Similarly, once a sample person has told us that he or she has a chronic condition (such as diabetes), the interviewer will not ask, "Have you ever been told you have diabetes?" in a subsequent interview. For this reason, the answers to these questions are missing from Round 34 for people from the 1999, 2000, and 2001 panels. To maximize the usefulness of this release as a cross-sectional file, we have these data forward from the

### Section 3: Notes on Using the Data

initial interviews, for persons joining the survey in the 1999, 2000, and 2001 panels. Variables that have been reproduced this way are annotated "Initial interview" in this section.

When the complete date of birth was entered (**D\_DOB**), the CAPI program automatically calculated the person's age, which was then verified with the respondent. In spite of this validation, the date of birth given by the respondent (**D\_DOB**) does not always agree with the date of birth per SMS records (**H\_DOB**). In these cases, the sample person was asked again, in the next interview, to provide a date of birth. Some recording errors have been identified this way, but in most cases beneficiaries provided the same date of birth both times they were asked. In some cases, proxies indicated that no one was exactly sure of the correct date of birth. In general, it is recommended that the variable (**H\_DOB**) be used for analyses, since the CMS date of birth was used to select and stratify the sample. (Initial interview variable)

The VA disability rating (**D\_VARATE**) is a percentage and is expressed in multiples of ten; it refers to disabilities that are officially recognized by the government as service-related. (Initial interview variable)

Race categories (**D\_RACE2**) are recorded as interpreted by the respondent. Categories were not suggested by the interviewer, nor did the interviewer try to explain or define any of the groups. Ethnic groups such as Irish or Cuban were not recorded. (Initial interview variable)

Hispanic / Latino origin (**HISPORIG**) includes persons of Mexican, Puerto Rican, Cuban Central or South American or other Spanish culture or origin, regardless of race. Again, these answers are recorded as interpreted by the respondent. (Initial interview variable)

**SPCHNLNM**: Respondents were asked to report all living children, whether stepchildren, natural or adopted children. (Initial interview variable)

**D\_DIVCUR**: The Census division is preformed through internal edits, by matching the survey participant's address to the appropriate Census region. The Census divisions are as follows:

**New England** – Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont;

**Middle Atlantic** – New Jersey, New York, Pennsylvania;

**South Atlantic** – Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia;

**East North Central** – Illinois, Indiana, Michigan, Ohio, Wisconsin;

**West North Central** – Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota;

**East South Central** – Alabama, Kentucky, Mississippi, Tennessee;

**West South Central** – Arkansas, Louisiana, Oklahoma, Texas;

**Mountain** – Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming;

**Pacific** – Alaska, California, Hawaii, Oregon, Washington; and

**Puerto Rico.**

### Section 3: Notes on Using the Data

**INCOME:** Income represents the best source or estimate of income during 2002. Data gathered in Round 33 interviews represent the most detailed 2002 data and are used when available. For individuals not completing a Round 33 interview (that is, continuing panel people unavailable for that Round 33 and the Round 34 supplemental sample), the most recent information available was used. It should be noted that the variable **INCOME** includes income from all sources, such as pension, Social Security and retirement benefits, for the sample person and spouse. In some cases the respondent would not, or could not, provide specific information but did say the income was above or below \$25,000.

Some “initial interview” questions (which were previously viewed as not likely to change) were carried over to subsequent sessions, because the responses were likely to change. The respondent was allowed to define marital status categories (**SPMARSTA**); there was no requirement for a legal arrangement (for example, separated).

#### **Survey Health Status and Functioning Record – Community (RIC 2)**

Part of the process of converting the facility instrument from a “paper and pencil” format to a Computer Assisted Personal Interviewing (CAPI) format was to adapt applicable questions from the facility instrument to the Resident Assessment Instrument (RAI) format. The RAI requires a Medicare and Medicaid certified long term care facility to conduct a comprehensive standardized assessment of the resident’s functional capacity and health status within 10 days of admission. In addition, a RAI must be completed once a year or whenever a resident’s health status changes. By adapting the applicable MCBS questions, interviewers can extract data regarding a resident’s health status and functioning directly from the RAI.

Note: Due to the number of variables that were altered in the facility instrument, resulting from the CAPI conversion, a separate RIC (2F) was created starting in 1997. As a result, RIC 2 now only includes data about the community population. The RIC 2F was created for the sample population responding to the health status and functioning section of the facility instrument.

The answers in the health status and functioning section of the questionnaire reflect the respondent's opinion, not a professional medical opinion.

Limitations on activities and social life (**HELMTACT**) reflect the sample person's experience over the preceding month, even if that experience was atypical.

For height and weight, the sample person was asked to recall or estimate, not to measure or weigh him or herself. In the height measurement (**HEIGHTFT** and **HEIGHTIN**), fractions of an inch have been rounded: those one half inch or more were rounded up to the next whole inch, those less than one half inch were rounded down. (Initial interview variable) In the weight measurement (**WEIGHT**), fractions of a pound have been rounded: those one half pound or more were rounded up to the next whole pound; those less than one half pound were rounded down. (Initial interview variable)

Female SPs are asked if they have ever had a hysterectomy (**HYSTEREC**). "Hysterectomy" includes partial hysterectomies. (Initial interview variable).

Note: In subsequent rounds, if we learn that the SP has had a hysterectomy since the initial interview, the value for **HYSTEREC** is changed from 2 ("No") to 1 ("Yes")

SPs are asked about whether they smoke. Use of other forms of tobacco, such as chewing tobacco, is not relevant to the "smoking" questions (**EVERSMOK** and **SMOKNOW**). Trying a cigarette once or twice was not considered "smoking", but any period of regular smoking, no matter how brief or long ago, was considered smoking. We ask if the SP "Now" smokes. We define "Now" as being within the current month or so, and not just whether the sample person had a cigarette, cigar, or pipe tobacco on the day of the interview. Even the use of a very small amount at the present time qualified as a "yes." Stopping temporarily (as for a cold) qualified as a "yes." (**EVERSMOK** is an initial interview variable)

We ask SPs whether they have *ever* had any of a series of illnesses or conditions. Their responses were coded affirmatively if the sample person had at some time been diagnosed with the conditions, even if the condition had been corrected by time or treatment. The condition must have been diagnosed by a physician, and not by the sample person. Misdiagnosed conditions were not included. If the respondent was not sure about the definition of a condition, the interviewer offered no advice or information, but recorded the respondent's answer, verbatim. (Initial interview variables) We ask about: heart disease and high blood pressure (**OCARTERY**, **OCHBP**, **OCMYOCAR**, **OCCHD**, **OCCFAIL**, **OCCVALVE**, **OCRHYTHM**, and **OCOTHART**); disorders or diseases of the brain (**OCSTROKE**, **OCALZHMR**, **OCPARKIN**); psychiatric disorders (**OCPSYCH**); mental retardation (**OCMENTAL**); skin cancer (**OCCSKIN**); cancer, other than skin cancer (**OCCANCER**); diabetes (**OCDIABTS**); arthritis (**OCARTHRH** and **OCARTH**); osteoporosis (**OCOSTEOP**); a broken hip (**OCBRKHIP**); emphysema, asthma, or COPD (**OCEMPHYS**); complete or partial paralysis (**OCPPARAL**); an amputation (**OCAMPUTE**); enlarged prostate or benign prostatic hypertrophy (**HAVEPROS**);

If the SP confirms having had cancer, *other than skin cancer* (**OCCANCER** = 1), we ask a series of follow-up questions to learn the affected body parts (**OCCLUNG**, **OCCCOLON**, **OCCBREST**, **OCCUTER**, **OCCPROST**, **OCCBLAD**, **OCCOVARY**, **OCCSTOM**, **OCCCERVX**, **OCCKIDNY**, **OCCBRAIN**, **OCCTHROA**, **OCCBACK**, **OCCHEAD**, **OCCFONEC**, **OCCOTHER**).

**Section 3: Notes on Using the Data**

Has a doctor told you in the past year that you have a specific illness or condition?

All respondents are asked about various illnesses or conditions such as hypertension in the fall round. There are different versions of each question, depending on whether a respondent is in a supplemental sample (new panel) or continuing sample. New panel respondents are asked only if a doctor *ever* told them that they had a specific condition (hypertension, for example). Annually thereafter, the same respondents are asked if a doctor told them *in the past year* that they had a specific condition.

Since only those respondents in the continuing sample are asked the *in the past year* version of the question, CMS added a set of variables that are asked of new panel respondents in 2001. CMS combined responses to questions asked of the continuing sample with responses to questions asked of the supplemental sample. CMS did this so that there is one *in the past year* variable for all sample persons who completed a community interview in the fall round. Below is a list of these variables with the variables that CMS used to derived them:

Combined		Continuing Sample		Supplemental Sample
<b>D_HBP</b>	=	<b>OCHBP</b>	+	YRHBP
<b>D_ARTHRD</b>	=	OCARTHRD	+	YRARTHRD
<b>D_BRKHIP</b>	=	<b>OCBRKHIP</b>	+	YRBRKHIP
<b>D_CANCER</b>	=	<b>OCCANCER</b>	+	YRCANCER
<b>D_CHD</b>	=	<b>OCCHD</b>	+	YRCHD
<b>D_CSKIN</b>	=	<b>OCCSKIN</b>	+	YRSKIN
<b>D_MYOCAR</b>	=	<b>OCMYOCAR</b>	+	YRMYOCAR
<b>D_PPARAL</b>	=	<b>OCPPARAL</b>	+	YRPPARAL
<b>D_PSYCH</b>	=	<b>OCPSYCH</b>	+	YRPSYCH
<b>D_STROKE</b>	=	<b>OCSTROKE</b>	+	YRSTROKE

**D\_PROST:** Has a doctor told you in the past year that you had an enlarged prostate or benign prostatic hypertrophy (BPH)?

CMS combines the answers to two related questions on BPH in deriving the value for **D\_PROST**. The first question (**HAVEPROS**) asks male SPs, who have not reported having had their prostate gland removed, if a doctor ever told them that they had BPH. This version of the BPH question is asked only once, in the very first MCBS interview. If an SP answers “Yes” to this question, a follow-up question is asked to determine if a doctor had told the SP that he had BPH in the past year (**YRPROST**). A different version of the same question (**HAVEPROS**) asks male SPs in the continuing sample, who have not reported having had their prostate gland removed, if a doctor told them in the past year that they had BPH. CMS combines the responses to **HAVEPROS** and **YRPROST** to yield a single variable, **D\_PROST**.

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Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL)

We ask SPs whether they have any difficulty performing 12 activities. Their answers about difficulty performing the IADLs (**PRBTELE**, **PRBLHWK**, **PRBHHWK**, **PRBMEAL**, **PRBSHOP**, and **PRBBILS**) ADLs (**HPPDBATH**, **HPPDDRES**, **HPPDEAT**, **HPPDCHAR**, **HPPDWALK**, and **HPPDTOIL**) and reflect whether or not the sample person usually had difficulty and anticipates continued trouble with these tasks, even if a short-term injury made them temporarily difficult.

“Difficulty” in these questions has a qualified meaning. Only difficulties associated with a health or physical problem were considered. If a sample person only performed an activity with help from another person (including just needing to have the other person present while performing the activity), or did not perform the activity at all, then that person was deemed to have difficulty with the activity.

Help from another person includes a range of helping behaviors. The concept encompasses personal assistance in physically doing the activity, instruction, supervision, and “standby” help.

These questions were asked in the present tense; the difficulty may have been temporary or may be chronic. Vague or ambiguous answers, such as “Sometimes I have difficulty”, were coded “yes.”

**PRBTELE**: Using the telephone includes the overall complex behavior of obtaining a phone number, dialing the number, talking and listening, and answering the telephone.

The distinction between light housework (**PRBLHWK**) and heavy housework (**PRBHHWK**) was made clear by examples. Washing dishes, straightening up and light cleaning represent light housework; scrubbing floors and washing windows represent heavy housework. The interviewer was not permitted to interpret the answer in light of the degree of cleanliness of the dwelling.

**PRBMEAL**: “Preparing meals” includes the overall complex behavior of cutting up, mixing and cooking food. The amount of food prepared is not relevant, so long as it would be sufficient to sustain a person over time. Reheating food prepared by someone else does not qualify as “preparing meals.”

**PRBSHOP**: Shopping for personal items means going to the store, selecting the items and getting them home. Having someone accompany the sample person would qualify as help from another person.

**PRBBILS**: Managing money refers to the overall complex process of paying bills, handling simple cash transactions, and generally keeping track of money coming in and money going out. It does not include managing investments, preparing tax forms, or handling other financial activities for which members of the general population often seek professional advice.

**HPPDBATH:** Those who have difficulty bathing or showering without help met at least one of the following criteria:

- someone else washes at least one part of the body;
- someone else helps the person get in or out of the tub or shower, or helps get water for a sponge bath;
- someone else gives verbal instruction, supervision, or stand-by help;
- the person uses special equipment such as hand rails or a seat in the shower stall;
- the person never bathes at all (a highly unlikely possibility); or,
- the person receives no help, uses no special equipment or aids, but acknowledges having difficulty.

**HPPDDRES:** Dressing is the overall complex behavior of getting clothes from closets and drawers and then putting the clothes on. Tying shoelaces is not considered part of dressing, but putting on socks or hose is. Special dressing equipment includes items such as button hooks, zipper pulls, long-handled shoe horns, tools for reaching, and any clothing made especially for accommodating a person's limitations in dressing, such as Velcro fasteners or snaps.

**HPPDEAT:** A person eats without help if he or she can get food from the plate into the mouth. A person who does not ingest food by mouth (that is, is fed by tube or intravenously) is not considered to eat at all. Special eating equipment includes such items as a special spoon that guides food into the mouth, a forked knife, a plate guard, or a hand splint.

**HPPDCHAR:** Getting in and out of chairs includes getting into and out of wheelchairs. If the sample person holds onto walls or furniture for support, he or she is considered to receive “help from special equipment or aids”, since the general population does not use such objects in getting in and out of chairs. Special equipment includes mechanical lift chairs and railings.

**HPPDWALK:** Walking means using one’s legs for locomotion without the help of another person or special equipment or aids such as a cane, walker or crutches. Leaning on another person, having someone stand nearby in case help is needed, and using walls or furniture for support all count as receiving help. Orthopedic shoes and braces are special equipment.

**HPPDTOIL:** Using the toilet is the overall complex behavior of going to the bathroom for bowel and bladder function, transferring on and off the toilet, cleaning after elimination, and arranging clothes. Elimination itself, and consequently incontinence, are not included in this activity, but were asked as a separate question, discussed next.

**D\_ADLHNM:** CMS derives the number of persons helping with ADLs and/or IADLs from HFk4a-f series and HFL9.

### Section 3: Notes on Using the Data

**LOSTURIN**: “More than once a week” was coded if the sample person could not control urination at all. Leaking urine, especially when the person laughs, strains or coughs, does not qualify as incontinence.

#### **Survey Health Status and Functioning Record – Facility (RIC 2F)**

CMS obtains much of the Health Status and Functioning data from the facility instrument to the Resident Assessment Instrument (RAI) format. The RAI requires a Medicare and Medicaid certified long term care facility to conduct a comprehensive standardized assessment of the resident’s functional capacity and health status within 10 days of admission. In addition, a RAI must be completed once a year or whenever a resident’s health status changes. By adapting the applicable MCBS questions, interviewers can extract data regarding a resident’s health status and functioning directly from the RAI.

Note: Due to the number of variables that were altered in the facility instrument, resulting from the CAPI conversion, a separate RIC (2F) has been released since 1997. Previously, the data for SPs in facilities was included in RIC 2.

The answers in the health status and functioning section of the questionnaire reflect the respondent's opinion, not a professional medical opinion.

Limitations on activities and social life (**LIMACTIV**) reflect the sample person's experience over the preceding month, even if that experience was atypical.

For height and weight, the sample person was asked to recall or estimate, not to measure or weigh him or herself. In the height measurement (**HEIGHT**), fractions of an inch have been rounded: those one half inch or more were rounded up to the next whole inch, those less than one half inch were rounded down. (Initial interview variable) In the weight measurement (**WEIGHTF**), fractions of a pound have been rounded: those one half pound or more were rounded up to the next whole pound; those less than one half pound were rounded down. (Initial interview variable)

Female SPs are asked if they have ever had a hysterectomy (**EVERHYST**). "Hysterectomy" includes partial hysterectomies. (Initial interview variable)

Note: In subsequent rounds, if we learn that the SP has had a hysterectomy since the initial interview, the value for **EVERHYST** is changed from 2 (“No”) to 1 (“Yes”)

**HYSTLAST** –This variable does not apply to and is not asked of:

1. male SPs;
2. female SPs in the new panel or supplemental sample other than those who reported that they have never had a hysterectomy (**EVERHYST** does not equal 2); or
3. female SPs in the continuing sample who previously reported having had a hysterectomy in an earlier round (**EVERHYST** = 1).

### Section 3: Notes on Using the Data

SPs are asked about whether they smoke. Use of other forms of tobacco, such as chewing tobacco, is not relevant to the “smoking” questions (**EVRSMOKE** and **NOWSMOKE**). Trying a cigarette once or twice was not considered “smoking”, but any period of regular smoking, no matter how brief or long ago, was considered smoking. We ask if the SP “Now” smokes. We define “Now” as being within the current month or so, and not just whether the sample person had a cigarette, cigar, or pipe tobacco on the day of the interview. Even the use of a very small amount at the present time qualified as a “yes.” Stopping temporarily (as for a cold) qualified as a “yes.” (**EVRSMOKE** is an initial interview variable)

#### Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL)

We ask whether SPs have any difficulty performing 8 activities. Their answers about difficulty performing the ADLs (**PFBATHNG**, **PFDRSSNG**, **PFEATING**, **PFTRNSFR**, **PFLOCOMO**, and **PFTOILET**) and IADLs (**DIFUSEPH**, **DIFSHOP**, and **DIFMONEY**) reflect whether or not the sample person usually had difficulty and anticipates continued trouble with these tasks, even if a short-term injury made them temporarily difficult. Note that in addition to the three IADLs above that are common to both the community and facility interviews, the facility MDS evaluates five more IADLs (**IADSTOOP**, **IADLIFT**, **IADREACH**, **IADGRASP**, and **IADWALK**).

“Difficulty” in these questions has a qualified meaning. Only difficulties associated with a health or physical problem were considered. If a sample person only performed an activity with help from another person (including just needing to have the other person present while performing the activity), or did not perform the activity at all, then that person was deemed to have difficulty with the activity.

Help from another person includes a range of helping behaviors. The concept encompasses personal assistance in physically doing the activity, instruction, supervision, and “standby” help.

These questions were asked in the present tense; the difficulty may have been temporary or may be chronic. Vague or ambiguous answers, such as “Sometimes I have difficulty”, were coded “yes.”

**PFBATHNG**: Those who have difficulty bathing or showering without help met at least one of the following criteria:

- someone else washes at least one part of the body;
- someone else helps the person get in or out of the tub or shower, or helps get water for a sponge bath;
- someone else gives verbal instruction, supervision, or stand-by help;
- the person uses special equipment such as hand rails or a seat in the shower stall;
- the person never bathes at all (a highly unlikely possibility); or,
- the person receives no help, uses no special equipment or aids, but acknowledges having difficulty.

### Section 3: Notes on Using the Data

**PFDRSSNG:** Dressing is the overall complex behavior of getting clothes from closets and drawers and then putting the clothes on. Tying shoelaces is not considered part of dressing, but putting on socks or hose is. Special dressing equipment includes items such as button hooks, zipper pulls, long-handled shoe horns, tools for reaching, and any clothing made especially for accommodating a person's limitations in dressing, such as Velcro fasteners or snaps.

**PFEATING:** A person eats without help if he or she can get food from the plate into the mouth. A person who does not ingest food by mouth (that is, is fed by tube or intravenously) is not considered to eat at all. Special eating equipment includes such items as a special spoon that guides food into the mouth, a forked knife, a plate guard, or a hand splint.

**PFTRNSFR:** Getting in and out of chairs includes getting into and out of wheelchairs. If the sample person holds onto walls or furniture for support, he or she is considered to receive “help from special equipment or aids”, since the general population does not use such objects in getting in and out of chairs. Special equipment includes mechanical lift chairs and railings.

**PFLOCOMO:** Walking means using one’s legs for locomotion without the help of another person or special equipment or aids such as a cane, walker or crutches. Leaning on another person, having someone stand nearby in case help is needed, and using walls or furniture for support all count as receiving help. Orthopedic shoes and braces are special equipment.

**PFTOILET:** Using the toilet is the overall complex behavior of going to the bathroom for bowel and bladder function, transferring on and off the toilet, cleaning after elimination, and arranging clothes. Elimination itself, and consequently incontinence, are not included in this activity, but were asked as a separate question, discussed next.

**DIFUSEPH:** Using the telephone includes the overall complex behavior of obtaining a phone number, dialing the number, talking and listening, and answering the telephone.

**DIFSHOP:** Shopping for personal items means going to the store, selecting the items and getting them home. Having someone accompany the sample person would qualify as help from another person.

**DIFMONEY:** Managing money refers to the overall complex process of paying bills, handling simple cash transactions, and generally keeping track of money coming in and money going out. It does not include managing investments, preparing tax forms, or handling other financial activities for which members of the general population often seek professional advice.

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**Survey Health Status and Functioning Helper Record (RIC 2H)**

This file contains information about those persons responsible for assisting sample persons in performing their activities of daily living (ADLs) and/or instrumental activities of daily living (IADLs). The number of helpers, the helper's relationship to the respondent, and the types of ADLs and IADLs the helper assists the respondent in performing are all contained in this file.

NOTE: The number of records reflects the number of persons identified as having assisted the sample person in performing one or more ADL or IADLs. Therefore, it is possible to have one, several, or no records per respondent.

**HLPRREL** – Relationship of Helper to SP: This is an automated function of the CAPI program. As people are identified as helpers with ADLs, IADLs, Medicare insurance decisions, or Medicare paperwork, their name is entered into the database. The respondent is then prompted for the helper(s) relationship to the SP. Both the House Hold Enumeration and Health Status sections provide names of individuals collected into this “name” and corresponding “relationship” database, found in one of three places:

1. proxy – **IN4a**;
2. anyone living with the SP – EN2; or
3. anyone who helped the SP with any personal care or daily needs – **HH21**.

**HLPRNUM** – Helper Identification Number: This variable is derived from the survey's administrative files. The survey develops a person roster containing information about each person living with, treating or helping the SP. An internal variable, ROSTNUM, contains a sequential value assigned to each of these persons as they are identified by name during the interview. Individuals' names may be gathered in four places:

1. proxy – **IN4a**;
2. anyone living with the SP – EN1;
3. any health or medical professional who treats the SP at home – **HH2**;
4. anyone who helped the SP at home with daily needs, but did not live with the SP, including home health aides, homemakers, friends, neighbors, or relatives – **HH19**.

The person roster number (contained in ROSTNUM ) of a helper becomes the **HLPRNUM** for that helper.

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**Survey Access to Care Record (RIC 3)**

Definitions applied to medical providers

Doctor – This includes both medical doctors (M.D.) and doctors of osteopathy (D.O.). It does not include chiropractors, nurses, technicians, optometrists, podiatrists, physician’s assistants, physical therapists, psychologists, mental health counselors or social workers. Generic specialties shown in parenthesis following one of the specialties were coded as the specialty. For example, if the respondent mentioned a “heart” doctor, cardiology was coded. Generic answers not listed were not converted to specialties.

Doctor's office or group practice – This refers to an office maintained by a doctor or a group of doctors practicing together; generally, the patient makes an appointment to see a particular physician.

Doctor's clinic practice – This refers to a group of doctors who have organized their practice in a clinic setting and work cooperatively; generally, patients either come in without an appointment or make an appointment and see whatever doctor is available.

HMO – This is an organization that provides a full range of health care coverage at a fixed periodic fixed fee, usually with low or no coinsurance requirement.

Neighborhood/family health center - A non-hospital facility which provides diagnostic and treatment services, frequently maintained by government agencies or private organizations.

Free-standing surgical center - A facility performing minor surgical procedures on an outpatient basis, and not physically connected to a hospital.

Rural health clinic - provides outpatient services, routine diagnostic services for individuals residing in an area that is not urbanized and is designated as a health staff shortage area or an area with a shortage of personal health services. These services are provided for a nominal copayment and deductible.

Company clinic - A company doctor’s office or clinic which is operated principally for the employees (and sometimes their dependents).

Other clinic - a non-hospital facility such as a drug abuse clinic, a “free” clinic, a family planning clinic or military base clinic.

Walk-in urgent center - a facility not affiliated with a nearby hospital, offering services for acute conditions. Typically, people are seen without appointments.

Home (doctor comes to sample person's home) - home is anywhere the sample person is staying; it may be his or her home, the home of a friend, a hotel room, etc.

Hospital emergency room - means the emergency room of a hospital. “Urgent care” centers are not included. (NOTE: All hospital emergency room visits were included, even if the sample person went there for a “non-emergency” condition such as a cold, flu or intestinal disorder.)

Hospital outpatient department - unit of a hospital, or a facility connected with a hospital, providing health and medical services to individuals who receive services from the hospital but do not require hospitalization.

#### Differences in the questionnaire sequence for the continuing and supplemental panel

It should be noted in using data in this section that the questionnaire sequence on access to care for supplemental panel persons differs from that for continuing panel persons and may lead to apparent differences in expected number of responses to questions in the access to care codebook section. For example, continuing panel persons indicating use of emergency room (and later, outpatient hospital) care in the utilization section of the core questionnaire are asked, after the conclusion of questions on utilization in that section, appropriate access to care questions about the visit (AC3-AC6). The CAPI program then reverts back to the next utilization section in the core questionnaire. Questions AC1 and AC2 are not later asked of these people.

The supplemental panel people, on the other hand, are not asked the core questions during their initial interview and go through the entire sequence of access to care questions. Thus, the number of persons responding to AC3 on whether or not they had an appointment (ERAPPT) is greater than those who responded to question AC1 on whether they had gone to a hospital emergency room for medical care during the reference period (ERVISIT).

#### Open-ended questions

Respondents were asked a number of open-ended questions (reasons for dissatisfaction with care, kinds of problems experienced in getting health care, etc.). The respondents answered these questions in their own words, and interviewers recorded the responses verbatim. The interviewer was prohibited from paraphrasing or summarizing the respondents’ answer.

This file contains no verbatim responses. We have supplied, instead, codes that summarize the answer. Often there will be more than one code because the answer included several specific topics.

Other variables

The questions about satisfaction with care represent the respondent's general opinion of all medical care received in the year preceding the interview.

**MCDRNSEE:** If a respondent mentioned any health problem that was not cared for, it was recorded without discrimination; the respondent might have referred to a small ache or pain, or to a serious illness or symptom.

**USMCHEK:** The distinction in question US12 is between the doctor or doctor's office and the sample person or family. For example, if the check usually goes to the daughter, the answer would be coded "to the sample person."

**USFINDMC:** "Ever tried to find a doctor..." refers to some type of active search. It does not refer to simply thinking or talking about it.

**USHOWLNG:** If the sample person had an actual visit with the doctor listed in **USUALDOC** by the time of the interview, "less than one year" was coded.

**OPDSCOND – (AC10):** Was visit to OPD for a specific condition?

This question applies only to new panel SPs (RIC K, **D\_SMPTYP** = 00) where either the reason for an OPD visit was not a medical condition (**OPDMCOND** is not equal to 1) OR the reason for an OPD visit was for a medical condition (**OPDMCOND** equal 1) but it was not for surgery (**OPDSURGY** is not equal to 1).

**MDSPCLTY – (AC20):** What is the specialty of the physician who saw the SP most recently in a setting other than at home or in a hospital?

This question applies to:

1. all SPs in new panels; or
2. continuing SPs with no emergency room, outpatient department, or medical provider visits in either of the previous two rounds AND AC20, AC21, AC24- AC36 not already asked in this Round in the medical provider utilization section of the questionnaire.

**MDSCOND – (AC22):** Was visit to doctor's office for a specific condition?

This question applies only to new panel SPs (RIC K, **D\_SMPTYP** = 00) where either the reason for an OPD visit was not for a medical condition (**OPDMCOND** is not equal to 1) OR the reason for an OPD visit was for a medical condition (**OPDMCOND** equals 1) but it was not for surgery (**OPDSURG** is not equal to 1).

**HEARMHMO – (HIMC1aa):** Has the SP heard of an HMO that Medicare beneficiaries are able to join?

This question applies to initial interviews of all SPs in new panels and SPs in the continuing sample who have never been enrolled in a Medicare HMO.

### Survey Health Insurance Record (RIC 4)

To help the respondent answer the questions about Medicaid, the interviewers used the name of the Medicaid program in the state where the sample person was living.

A health insurance plan is one that covers any part of hospital bills, doctor bills, or surgeon bills. It does not include any of the following:

- Public plans, including Medicare and Medicaid, mentioned elsewhere in the questionnaire.
- Disability insurance which pays only on the basis of the number of days missed from work.
- Veterans' benefits.
- "Income maintenance" insurance which pays a fixed amount of money to persons both in and out of the hospital or "Extra Cash" policies. These plans pay a specified amount of cash for each day or week that a person is hospitalized, and the cash payment is not related in any way to the person's hospital or medical bills.
- Workers' Compensation.
- Any insurance plans that are specifically for contact lenses or glasses only. Any insurance plans or maintenance plans for hearing aids only.
- Army Health Plan and plans with similar names (e.g., CHAMPUS, CHAMPVA, Air Force Health Plan).
- Dread disease plans that are limited to certain illnesses or diseases such as cancer, stroke or heart attacks.
- Policies that cover students only during the hours they are in school, such as accident plans offered in elementary or secondary schools.
- Care received through research programs such as the National Institutes of Health.

**D\_MCRHMO:** What data source was used to determine the Medicare HMO enrollment stats?

This variable was derived from CMS administrative records (RIC A: **H\_ENT08 – H\_ENT12**) as of the date of the interview in the fall round (RIC 8: **INT\_DATE**.)

**D\_PRIVAT:** What private health insurance coverage does the SP have, if any?

This variable is derived from responses to **D\_OBTNP1 – D\_OBTNP5**.

**D\_MCARE:** What Medicare coverage does the SP have?

This variable is derived from CMS administrative records (RIC A: **H\_ENT08 – H\_ENT12**) data as of the date of the interview in the fall round (RIC 8: **INT\_DATE**.)

**D\_MCAID:** Is the SP eligible for Medicaid?

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This variable is derived from either CMS administrative records (RICA: **H\_MCDE08 – H\_MCDE12**) or survey data (**HIS7** or **HI7**) as of the date of the interview in the fall round (RIC 8: **INT\_DATE**.)

**MCAIDHMO**: Was the SP enrolled in a Medicaid managed care plan?

This variable was obtained from either (**HI10a**) or (**HIS10a**).

**CHOICHMO**: Was the SP given the opportunity to enroll in a Medicaid HMO?

This variable was obtained from either (**HI10b**) or (**HIS10b**).

**PUBRXCOV**: Does the SP's public plan cover prescription drugs?

This variable was obtained from either (**HI16a**) or (**HIS16a**).

**MCDRXCOV**: Does the SP's Medicaid plan cover prescription drugs?

This variable was obtained from either (**HI10d**) or (**HIS10c**).

**D\_HMOTYP**: This variable is derived from CMS administrative records (RICA: **H\_PLTP08 – H\_PLTP12**) as of the date of the interview in the fall round (RIC 8: **INT\_DATE**.)

**D\_HMOCOV**: Was the SP enrolled in an HMO at any time in the last year?

This variable was derived from (**HIMC1a**), (**HIMC1c**), and (**HIMC1**).

**D\_HMOCUR**: Is the SP now enrolled in a Medicare HMO?

This variable was derived from either (**MC1**) and (**HIMC3**).

**D\_DMCCOST**: What is the annual cost of your drug discount membership cost?

This annualized cost was derived using the amount paid (**DMFEEAMT**) and the associated payment interval (either **DMFEEDAY** or **DMFEEOS**).

**D\_DMEM**: How many active discount drug memberships does the SP have?

This variable is derived by adding the number of memberships from the last round (**DMEMHAVE**) to the number of new memberships entered into since the last round (**DMEMNEW**).

**D\_PHREL1 – D\_PHREL5**: What is the relationship of the policyholder to the SP?

The "Policy Holder" or "Main insured person" is the member of the group/union or the employee of the company that provides the insurance plans. It would also be the name on the policy, if the respondent had it available. Responses from (**HIS26**), (**HI22a**), or (**HI26**) are coupled with roster information which contains these relationships to determine the policyholder's relationship to the SP.

**D\_COVNM1 – D\_COVNM5**: Number of family members covered by each private plan.

Obtained from either (**HI22d**), (**HI29**) or (**HIS29**).

**D\_COVRX1 – D\_COVRX5**: Does the private plan cover prescription drugs?

Obtained from either (HI22e), (HI30), or (HIS30).

**D\_COVNH1 – D\_COVNH5:** Does the private plan cover nursing home care?

Obtained from either (HI22f), (HI31), or (HIS31).

**D\_PAYSP1 – D\_PAYSP5:** Does the main insured person (MIP) pay any part of the insurance premium?

Obtained from either (HI22g), (HI32), or (HIS32).

**D\_ANAMT1 – D\_ANAMT5:** The annual cost of private health insurance plan premiums.

A premium amount was recorded even if the sample person did not directly pay the premium (if, for example, a son or daughter paid the premium). Premium amounts have been annualized based on the assumption that the SP held the policy for the entire 12-month period. This variable was derived using responses from (HI22h), (HI33) and (HIS33).

**D\_OBTNP1 – D\_OBTNP5:** How did the main insured person get the policy?

Obtained from either (HI22b), (HI27), or (HIS27).

**D\_INDUS1 – D\_INDUS5:** The industry of the SP's current or former employer through which the SP obtained health insurance coverage.

Obtained from either (HI22c), (HI28), or (HIS28).

**D\_PLLTR1 – D\_PLLTR5:** What is the plan letter of the Medicare supplemental or Medigap policy?

Obtained from either (HI22b2), (HI27b) or (HIS27b).

The following nine variables are found in both the RIC 4 and RIC H:

**MHMORX:** Does the SP have prescription drug coverage through the Medicare HMO?

Obtained from either (HIMC6) or (HISMC4);

**MHMODENT:** Does the SP have dental coverage through the Medicare HMO?

Obtained from either (HIMC7), (HISMC5), (HI22e1), or (HI30a);

**MHMOEYE:** Does the SP have optical coverage through the Medicare HMO?

Obtained from either (HISMC6), (HIMC8), (HI22e2), or (HI30b);

**MHMOPCAR:** Does the SP have preventive care coverage through the Medicare HMO?

Obtained from either (HISMC7), (HIMC9), (HI22e3), or (HI30c);

**MHMONH:** Does the SP have nursing home coverage through the Medicare HMO?

Obtained from either (HISMC8) or (HIMC10);

**MHMOPAY:** Besides the cost of the Medicare Part B premium, is there any additional cost for coverage, excluding co-payment amounts?

Obtained from either (**HISMC9**) or (**HIMC11**);

**MHMOCOST:** Does anyone else contribute to the cost of Medicare HMO coverage?

Obtained from either (**HISMC11**), (**HIMC12a**), (**HI22h1**), or (**HI33a**);

**MHMOWHO:** If anyone else did contribute to the cost of Medicare HMO coverage, who was it?

Obtained from either (**HISMC12**), (**HIMC12b**), (**HI22h2**), or (**HI33b**); and

**D\_ANHMO:** What is the annual additional cost of Medicare HMO premiums?

The premiums have been annualized regardless of the length of time the sample person actively held the policy (**HISMC10**).

### Survey Enumeration Record (RIC 5)

The Survey Enumeration Record contains data about the sample person's household. CMS defines a household as the group of individuals, either related or not, who live together and share one kitchen. This may be one person living alone, a head of household and relatives only, or a head of household living with relatives, boarders and any other unrelated individual living under the same roof, sharing the same kitchen.

Household membership includes all persons who currently live at the household or who normally live there but are away temporarily. Unmarried students away at school, family members away receiving medical care, etc., are included. Visitors in the household who will be returning to a different home at the end of the visit are not included. Generally, if there was any question about the composition of the household, the respondent's perception was accepted.

Because the date of birth or exact relationship of a household member was sometimes unknown (perhaps because a proxy provided the information), the sum of the variables "number related" / "number not related" (**D\_HHREL/D\_HHUNRL**) or "number under 50" / "number 50 or older" (**D\_HHLT50/D\_HHGE50**) may not equal the total number of people in the household (**D\_HHTOT**).

### Survey Facility Identification Record (RIC 7)

This file provides general characteristics of the institutions, most of the information coming from the facility screener. Sometimes, more than one sample person resided in the same facility. In these cases the RIC 7 records are redundant (containing all of the same information), and differ only in the BASEID. There is one record for each sample person interviewed in a facility.

The value of variables representing “number of beds” (**FACTBED** and **FACTOBED**) will be missing when either there were no beds of that type in the facility, or the question was skipped.

**FACTBED**: The number of long-term beds is calculated from (**FA43**, **FA44**, **FA45**, **FA45a**, **FA45b**, **FA45c**, and **FA46**).

**SPIDCNT**: Backend edit count of survey participants that reside in a particular facility.

### Survey Interview Description Record (RIC 8)

This record was added in the 1992 MCBS Access to Care public use release. Most of the material in it was included in the Survey Identification record in the 1991 MCBS Access to Care public use release.

#### Multiple Interviews

Some sample people had more than one interview in this round. To avoid duplication of data, the information in this file represents the last interview conducted with the sample person in Round 34. The variable **INTERVU** indicates which type of interview was conducted. Please see the description of the KEY Record (RIC K) earlier in this section for a more detailed description of multiple interviews and of this variable.

#### Proxy rules

Wherever possible, the community interviews were conducted directly with the sample person. In most cases, the sample person was able to respond to the interview unassisted. In a few cases, the sample person was assisted with the interview by a friend or relative, and in some cases the sample person was too ill or otherwise incapacitated to be interviewed. The variables **PROXY**, **D\_PROXR**, **RREHELP** and **D\_IHLPR** provide information about who was interviewed, and how those respondents are related to the sample person.

People who were too ill, or who could not complete the community interview for other reasons were asked to designate a proxy, someone very knowledgeable about the sample person’s health and living habits. In many cases, the proxy was a close relative such as the spouse, a son or daughter. In other cases, the proxy was a non-relative like a close friend or caregiver. The variable **PROXY** indicates whether or not a community interview was conducted with a proxy respondent, and the variable **D\_PROXR** indicates the relationship of the proxy to the sample person. (Since all facility interviews are conducted with proxy respondents, this variable is “missing” for facility cases.)

If the sample person appeared confused or disoriented at the time of the interview, and no proxy could be identified, the interviewer was instructed to complete the questionnaire as well as possible. If the interviewer

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felt that the respondent was not able to supply reasonably accurate data, this perception was recorded in the interviewer remarks questionnaire and appears in this record as the variable **RINFOSAT**.

“Proxy needed – language problem” was given as a reason for the use of a proxy in less than 1 percent of the cases. More often, language problems were addressed without the use of a proxy. Interpreters were used in some cases, and bilingual interviewers used Spanish-language versions of the questionnaires when the respondent preferred to be interviewed in Spanish. There are both English and Spanish versions of the CAPI survey instrument; the variable **LANG** indicates which version was used.

Proxy respondents were always used in nursing homes, homes for the mentally retarded, and psychiatric hospitals. Sample persons were interviewed directly in prisons when that was permitted. The need for a proxy when interviewing respondents in other institutions was evaluated on a case-by-case basis.

In long-term care facilities, the proxy respondents were members of the staff at the facility identified by the administrator. Usually, more than one respondent was used; for example, a nurse may have answered the questions about health status and functioning, while someone in the business office handled questions about financial arrangements.

#### Other variables

Several questionnaires are administered in the facility interview: a personal baseline for individuals in the supplemental sample found to reside in a nursing facility and for new admissions to a facility from the continuing sample; the core and supplement questionnaires for the continuing sample. The facility screener was administered in every case. Please see Section 4 for copies of all of the instruments and for a more detailed description of when each is administered.

Two variables are supplied to further characterize the interview: **LENGTH** contains the length of the interview, in minutes, and **RESTART** indicates whether or not the interview was interrupted. Community interviews are sometimes interrupted to accommodate the respondent's schedule or for other reasons. We did not calculate the duration of the community interview if the interview was interrupted. Facility interviews are conducted with several instruments and often involve a number of respondents. Since nearly all of the facility interviews are interrupted and total duration is difficult to capture (and interpret), **LENGTH** and **RESTART** are always missing for facility interviews.

**INT\_DATE**: Date in which the interview was conducted.

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**Survey HMO Supplement Record (RIC H)**

CMS added this record to the 1996 MCBS Access to Care public use release as a result of growing interest on the coverage and service provided by Medicare HMOs to Medicare beneficiaries. The questions in this record were asked only if the sample person was currently enrolled in a Medicare HMO.

The following variables are found in both the RIC 4 and RIC H codebooks:

**MHMORX:** Does the SP have prescription drug coverage through the Medicare HMO?  
Obtained from either **(HIMC6)** or **(HISMC4)**;

**MHMODENT:** Does the SP have dental coverage through the Medicare HMO?  
Obtained from either **(HIMC7)**, **(HISMC5)**, **(HI22e1)**, or **(HI30a)**;

**MHMOEYE:** Does the SP have optical coverage through the Medicare HMO?  
Obtained from either **(HISMC6)**, **(HIMC8)**, **(HI22e2)**, or **(HI30b)**;

**MHMOPCAR:** Does the SP have preventive care coverage through the Medicare HMO?  
Obtained from either **(HISMC7)**, **(HIMC9)**, **(HI22e3)**, or **(HI30c)**;

**MHMONH:** Does the SP have nursing home coverage through the Medicare HMO?  
Obtained from either **(HISMC8)** or **(HIMC10)**;

**MHMOPAY:** Besides the cost of the Medicare Part B premium, is there any additional cost for coverage, excluding co-payment amounts?  
Obtained from either **(HISMC9)** or **(HIMC11)**;

**MHMOCCOST:** Does anyone else contribute to the cost of Medicare HMO coverage?  
Obtained from either **(HISMC11)**, **(HIMC12a)**, **(HI22h1)**, or **(HI33a)**;

**MHMOWHO:** If anyone else did contribute to the cost of Medicare HMO coverage, who was it?  
Obtained from either **(HISMC12)**, **(HIMC12b)**, **(HI22h2)**, or **(HI33b)**; and

**D\_ANHMO:** What is the annual additional cost of Medicare HMO premiums?  
The premiums have been annualized regardless of the length of time the sample person actively held the policy **(HISMC10)**.

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### Survey Beneficiary Knowledge and Information Needs Supplement (RIC KN)

The KN Supplement combines new questions with some questions previously asked in the BK and BN supplements.

Note: This supplement was conducted during the January through April 2002 interview period, as opposed to the September through December (2002) interview period (with the rest of the Access to Care file). As a result of collecting this information during the following interview period, a reduction in sample size occurs. This reduction is due to normal attrition caused either by sample persons' death or refusal to continue their participation in the MCBS.

SPs living in Arkansas, Arizona, Delaware, Maine, Montana, South Carolina, South Dakota, Utah, Vermont, or Wyoming are not asked either of the following questions:

**KBOKRTGS**: Has the SP ever looked at the quality measures about Medicare + Choice plans that are contained in Medicare and You 2003?

**KBOKUSFL**: How useful was the quality information?

### Survey Cross-sectional Weights Record (RIC X)

Cross-sectional and three sets of longitudinal weights are provided. Cross-sectional weights apply to the entire file of all those who completed an interview, either community or facility. These cross-sectional weights can be used for making estimates of the population enrolled in Medicare for the entire calendar year.

To enable SUDAAN (Professional Software for SURvey DATA ANalysis for Multi-stage Sample Designs) users to compute population estimates and the associated variance estimates, two variables have been included in this record, SUDSTRAT AND SUDUNIT. Please see Section 6 for a further discussion about weights and estimation using these files.

### Survey Longitudinal Weights Records (RICs X2, X3, and X4)

The first set of longitudinal weights (RIC X2) applies to sample persons who completed fall-round interviews in the current and the first preceding year. This set of weights can be used to study data trends over a two-year period. By applying these weights to data in the current and first preceding year, users will be able to estimate change among the Medicare population who were alive for the full two-year period.

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The second set of longitudinal weights (RIC X3) applies to sample persons who completed fall-round interviews in the current and the two preceding years. This set of weights can be used to study data trends over a three-year period. By applying these weights to data in the current and the two preceding years, users will be able to estimate change among the Medicare population who were alive for the full three-year period.

The third set of longitudinal weights (RIC X4) applies to sample persons who completed fall-round interviews in the current and the three preceding years. This set of weights can be used to study data trends over a four-year period. By applying these weights to data in the current and the three preceding years, users will be able to estimate change among the Medicare population who were alive for the full four-year period.

To enable SUDAAN (Professional Software for SURvey DATA ANalysis for Multi-stage Sample Designs) users to compute population estimates and the associated variance estimates, two variables have been included in these records, SUDSTRAT and SUDUNIT. Please see Section 5 for a further discussion about weights and estimation using these files.

It should be noted that this file and these longitudinal weights are not appropriate for doing mortality studies, an area of considerable interest. This file does not include those who may have died during calendar year 2002 prior to the fall interview. Analysts interested in this topic are encouraged to use the annual Cost and Use files which target the ever-enrolled population.

#### **Claims Records (DME, HHA, HSP, INP, OTP, PHY, SNF)**

The following rules were used to select bill and claims records for this file.

- Inpatient bills were included if the discharge or "through" date fell on or after January 1, 2002 and on or before December 31, 2002.
- Skilled nursing facility bills were included if the admission or "from" date fell on or after January 1, 2002 and on or before December 31, 2002.
- Home health agency and outpatient facility bills were included if the "through" date fell on or after January 1, 2002 and on or before December 31, 2002.
- Hospice bills were included if the admission or "from" date fell on or after January 1, 2002 and on or before December 31, 2002.
- Physician or supplier claims were included if the latest "service thru" date fell on or after January 1, 2002 and on or before December 31, 2002.
- Durable medical equipment (DME) claims were included if the latest "service thru" date fell on or after January 1, 2002 and on or before December 31, 2002.

### **Section 3: Notes on Using the Data**

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A total of 3,370 (about 20.6 percent) of the sample people did not use Medicare reimbursed services in a fee-for-service setting in 2002; consequently, there are no bill records for them in this file. These individuals may have used no services at all, services only in a managed care plan, or services provided by a payer other than Medicare. For the other 12,945 individuals in the sample, we have captured bills meeting the date criteria, processed and made available by CMS through July 2003.

Medicare Current Beneficiary Survey  
CY 2002 Access to Care

Questionnaires

This section contains copies of the community and facility questionnaires that were administered during Round 34 of the Medicare Current Beneficiary Survey. Round 34 is the eleventh annual update of information on Medicare beneficiaries' access to care. The questionnaires are similar in content and sequence of events; however, they differ in how they are administered. Of special note, beginning in 2001 data collected in RIC BK (formerly known as RIC PR): Beneficiary Knowledge supplement and RIC BN Beneficiary Information Needs supplement were merged into one supplement. Like both BK and BN, this new supplement (RIC KN Beneficiary Knowledge and Information Needs) has been added to the Access to Care file. RIC KN data was collected in the 2003 January-April round.

Because the questionnaires are conducted using CAPI, the questionnaires actually exist only as a computer program, and it is impossible to replicate it exactly in hard copy. The version represented here lists the questions, verbatim, and shows the skip patterns. It also displays instructions to the programmers (enclosed in boxes), to the program, and to the interviewer. Although these instructions would be hidden from the respondent, they have been retained in this copy because they are important for understanding the flow of the questionnaire and for establishing logical links between questions.

Questions in all of the questionnaires are preceded by a number, which is cross-referred to variables in the codebook (Section 2). Since more than one variable may be collected in response to one question, each question has also been annotated with all of the variable names associated with it. Hypertext links both the annotated variables in the questionnaire and the codebook.

### **Community Component**

The community component is conducted in the home of the respondent.

#### Components of the Community Questionnaire

The community instrument consists of the following components:

- Initial interview questionnaire
- Core questionnaire
- Supplement to the core questionnaire
- Interviewer remarks questionnaire

### Initial interview questionnaire

This baseline questionnaire is used for the first interview when a sample person is added to the survey, that is, Round 25 for the 1999 panel, Round 28 for the 2000 panel, Round 31 for the 2001 panel, Round 34 for the 2002 panel, etc. In the initial interview, we collect information about the national origin, age, education and income of the sample person. The interviewer also verifies the sample person's address and telephone number and obtains the names and addresses of people who might be willing to serve as proxy respondents. The interviewer also uses this opportunity to acquaint the respondent with the intent of the survey and to familiarize him or her with the MCBS calendar, and to emphasize the importance of keeping accurate records of medical care and expenses.

In subsequent interviews, some of the information collected in the initial interview will need to be updated. For example, the sample person's designation of his or her race is not likely to change, and will not be asked about again. On the other hand, the sample person's address or telephone number may change, so this information is verified in every interview, and updated when necessary.

### Core questionnaire (community)

**NOTE: This release does not include any cost or utilization information from the core questionnaire.**

The core questionnaire is the major component of the community instrument. The questions focus on the use of medical services and the resulting costs, and are asked in essentially the same way each and every time the sample person is interviewed (after the first time). In each interview, the sample person is asked about new encounters, and to complete any partial information that was collected in the last interview. For example, the sample person may mention a doctor visit during the "utilization" part of the interview. In the "cost" section, the interviewer will ask if the sample person has any receipts or statements from the visit. If the answer is "yes", the interviewer will record information about costs from the statements, but if the answer is "no," the question will be stored until the next interview.

In Round 34, only persons in the longitudinal sample (that is, 1999, 2000, and 2001 panels) were interviewed with this questionnaire.

### Supplement to the core questionnaire (community)

Supplemental questions are added to the core questionnaire to gather information about specific topics. The Round 34 supplement focuses on health status and access to care. It includes questions about the sample persons' general health (including standard measures such as IADLs and ADLs), their sources of medical care, and their satisfaction with that care.

### Interviewer remarks questionnaire

This questionnaire is completed by the interviewer; after every interview with the sample person. The interviewer is asked to evaluate the sample person's ability to respond to the questionnaire and to provide some information about the interview (for example, if a proxy answered the questionnaire, the interviewer provides reasons why the proxy was necessary). The interviewer is also encouraged to provide comments that will assist the interviewer in remembering unique facts about the sample person, such as hearing or vision impairments, or that the sample person cannot read.

### **Facility Questionnaire**

Interviews are conducted in the facility where the respondent is residing at the time of the interview. Information is obtained from facility records; therefore, the beneficiary is never interviewed directly. It was decided early in the design of the MCBS not to attempt interviews with sample persons in facilities, or with their family members. For that reason, the facility questionnaires do not ask about attitudes or other subjective items.

If an institutionalized person returns to the community, a community interview is conducted. If the sample person spent part of the reference period in the community and part in an institution, then a separate interview is conducted for each period of time. In this way, a beneficiary is followed in and out of facilities and a continuous record is maintained regardless of the location of the respondent.

The CY 2002 Access to Care release is intended to serve as a "snapshot" of the sample person at one point in time during Round 34. For this reason, we have selected the latest interview in the round to represent the entire round whenever the sample person was encountered in more than one setting in Round 34.

### Components of the Facility Questionnaire

The facility instrument consists of the following components:

- Facility eligibility screener
- Initial (baseline) questionnaire
- Core questionnaire
- Supplement to the core questionnaire

### Facility eligibility screener

This questionnaire gathers information about the facility to determine the facility type. The initial interview is conducted with the facility administrator. All other interviews are conducted with the staff designated by the director. A facility screener is administered upon the sample person's admission to a new facility, and once a year thereafter (in Rounds 25, 28, 31, and 34) to capture any changes in the facility's size or composition. The screener is not administered if the sample person simply re-enters the same facility.

### Initial (baseline) questionnaire (facility)

This questionnaire gathers information on the health status, insurance coverage, residence history and demographics of the sample person. This questionnaire is administered the first time the sample person is admitted to a facility.

### Core questionnaire (facility)

This questionnaire parallels the core questionnaire for the community, collecting information about use of medical services and their associated costs, including the facility cost. Like its community counterpart, this questionnaire is administered in each and every interview after the first one, as long as the sample person continues to reside in the facility.

### Supplement to the core questionnaire (facility)

This questionnaire is asked once a year (in Rounds 25, 28, 31 and 34) to update our information about the sample person's health status. It includes questions about the sample person's general health (including standard measures such as IADLs and ADLs), but excludes the questions about access and the subjective questions about satisfaction with care.

Table 5.1 - Components of the Community Questionnaire

NOTE: This release contains information from only those sections marked with an arrow (→).

→	UPD	Name/Address Update
→	IN	Introduction
→	ENS*	Enumeration
→	EN	Enumeration
→	HIS*	Health Insurance Summary
→	HI	Health Insurance
	UTS*	Utilization Summary
	DU	Dental Utilization and Events
	ER	Emergency Room Utilization and Events
	IP	Inpatient Hospital Utilization and Events
	OP	Outpatient Hospital Utilization and Events
	IU	Institutional Utilization
	HHS*	Home Health Utilization Summary
	HH	Home Health Utilization and Events
	MP	Medical Provider Utilization and Events
	OM	Other Medical Expenses Utilization
	PMS*	Prescribed Medicine Summary
	PM	Prescribed Medicine Utilization
	ST	Charge Questions (Statement Series)
	NS	Charge Questions (No Statement Series)
	CPS*	Charge/Payment Summary
→	AC	Provider Probes/Access to Care
→	HF	Health Status and Functioning
→	SC	Satisfaction with Care
→	US	Usual Source of Care
→	DI	Demographics/Income (For Supplemental Sample People Only)
→	CL	Closing Materials
→	IR	Interviewer Remarks
→	KN	Knowledge and Needs Supplement

\* Summary sections - Updates and corrections are collected through the summaries. The respondent is handed a hard copy summary of information gathered in previous interviews, and is asked to verify the material. Changes are recorded if the respondent notices information that is not accurate.

Table 5.2 - Components of the Facility Questionnaire

NOTE: This release contains information from only those sections marked with an arrow (→).

Facility Eligibility Screener

→ FQ Facility questions

Initial interview (facility)

- A Demographic/Income
- B Residence History
- C Health Status and Functioning
- D Health Insurance
- L Tracing and Closing

Core questionnaire (facility)

- A Residence History
- B Provider Probes
- C Medicine Summary
- D Inpatient Hospital Stays
- E Medical Charges
- F Tracing and Closing

Supplement to the core (facility)

- C Health Status and Functioning
- D Health Insurance

## **Medicare Current Beneficiary Survey** CY 2002 Access to Care

### Sample Design and Guidelines for Preparing Statistics

This section opens with a description of the population covered by the 2002 Access to Care release and a comparison of this “view” with others that are frequently used for analyzing the Medicare program. Next the targeted population is discussed in terms of the sampling strata. This is followed by a general discussion of the selection of the original and supplemental samples. Next appears a description of primary sampling units (PSU) and clusters of zip codes within PSU. Following is a general review of person level response rates, completed interviews by age strata, and selected item nonresponse rates. Guidelines for preparing population estimates using full sample weights and variance estimates using replicate weights are then reviewed.

#### **Medicare population covered by the 2002 public use data**

The calendar year 2002 MCBS public use data are focused on Medicare beneficiaries residing in the United States or Puerto Rico who were enrolled in one or both parts of the program throughout calendar year 2002. This “always enrolled” population includes individuals enrolled on January 1, 2002 who remained enrolled through the end of December. Excluded are the following categories of Medicare enrollees:

- 1) residents of foreign countries and U.S. possessions and territories other than Puerto Rico;
- 2) persons who became enrolled after January 1, 2002; and
- 3) persons who disenrolled or died prior to the end of December 2002.

NOTE: A small number of sample people included in this file 505 died during 2002 subsequent to their Round 34 interview and are a subset of group 3) above. A discussion of how to subset this file to get the “always enrolled” population is included in Section 3, “Notes on Using the Data”, under ‘Specific Variables – Key Record (RIC K)’.

While the “always enrolled” population differs from other views of the Medicare population commonly generated from CMS files or encountered in CMS publications such as “ever enrolled” or “mid-point enrollment”, the concept of “always enrolled” is consistent with the familiar concept of being exposed or “at risk” for using services for the entire 12-month period.

Table 5.1 shows data from CMS's 5-percent HISKEW file (health insurance skeleton write-off), which contains selected demographic and coverage information on a 5-percent sample of Medicare enrollees. Data for the targeted population are arrayed by age, gender, race using these three views: persons “ever-enrolled”, persons enrolled as of the “mid-point of the year” (July 1), and persons

**Section 5: Sample Design and Estimation**

**Table 5.1** 2002 Medicare population, by gender, race and age

Gender	Race	Age	Always Enrolled	July 1 Midpoint	Ever Enrolled
Total			37,973,680	40,118,300	42,170,680
Males	Black	0-44	175,300	188,580	199,880
		45-64	349,780	373,400	395,640
		65-69	309,960	349,840	382,220
		70-74	280,900	288,840	296,060
		75-79	199,900	207,100	215,080
		80-84	119,700	126,140	132,880
		85+	85,560	92,760	99,820
	Non-black	0-44	678,020	728,720	773,480
		45-64	1,711,880	1,834,540	1,946,460
		65-69	3,263,140	3,680,960	4,048,420
		70-74	3,456,340	3,518,160	3,583,440
		75-79	2,789,660	2,864,380	2,948,520
		80-84	1,816,600	1,896,160	1,981,360
		85+	1,205,220	1,307,020	1,419,060
Females	Black	0-44	128,760	139,520	149,540
		45-64	338,620	362,180	384,800
		65-69	403,140	449,680	487,540
		70-74	408,020	414,960	421,760
		75-79	332,840	340,760	349,220
		80-84	240,000	247,840	256,580
		85+	247,460	263,600	281,400
	Non-black	0-44	506,200	548,160	583,180
		45-64	1,409,060	1,507,760	1,605,060
		65-69	3,644,300	4,094,620	4,486,200
		70-74	4,182,460	4,232,200	4,285,640
		75-79	3,863,040	3,933,520	4,010,480
		80-84	2,970,080	3,061,440	3,159,940
		85+	2,857,740	3,065,460	3,287,020
Female total		21,531,720	22,661,700	23,748,360	
Male total		16,441,960	17,456,600	18,422,320	
Black total		3,619,940	3,845,200	4,052,420	
Non-black total		34,353,740	36,273,100	38,118,260	

Based on November 2003 HISKEW files, inflated to 100 percent. "Always Enrolled" data are estimated.

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## Section 5: Sample Design and Estimation

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“always enrolled”. We have included these relationships to allow users to compare the population represented by this release to the more frequently used views of the Medicare population.

(It should be noted that the other series of files produced from the MCBS, known as “Cost and Use”, contains data composed to represent the ever-enrolled population to better capture total Medicare and other expenditures for a given year. A discussion of how the ever-enrolled population was composed for a given period to capture total utilization (covered and non-covered) and expenditures (Medicare and other) for that period is presented in the documentation for the 2001 file for that series.)

### Targeted population and sampling strata

The targeted population for Round 1 of the MCBS consisted of persons enrolled in one or both parts of the Medicare program, that is, Part A (Hospital Insurance) or Part B (Supplementary Medical Insurance) as of January 1, 1991, and whose address on the Medicare files was in one of the 50 states, the District of Columbia, or Puerto Rico. Correspondingly, for Rounds 4, 7, 10, ... and 34 the targeted populations included those individuals enrolled as of January 1, 1992,<sup>1</sup> 1993,<sup>2</sup> 1994,<sup>3</sup> ... and 2002 respectively.

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**Table 5.2** Targeted number of MCBS sample persons with complete annual utilization and expenditure data by sampling stratum

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Age group	Target
Total	12,000
0 - 44	1,000
45 - 64	1,000
65 - 69	2,000
70 - 74	2,000
75 - 79	2,000
80 - 84	2,000
85 +	2,000

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In general, the targeted universe for the MCBS is divided into seven analytic strata based on age as of December 31, 2002. The age categories are: 0 to 44, 45 to 64, 65 to 69, 70 to 74, 75 to 79, 80 to

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## Section 5: Sample Design and Estimation

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84, and 85 or older. The goal of the sample design is to obtain complete annual data on health care use of both Medicare covered as well as non-covered services and the associated costs by source of payment on 12,000 beneficiaries per year, with 2,000 for each of the elderly strata and 1,000 for each of the disabled strata. See Table 5.2.

(Note: Starting with the implementation of the rotating panel design described earlier in the Introduction Section, it was estimated that it would be necessary to interview roughly 16,000 sample persons in each of the fall rounds 1994 - 2002 (Rounds 10, 13, 16, ... and 34) in order to meet the targets for complete annual utilization and expenditure data for 1994 through 2002. The annual sample is distributed across four currently active panels of which the oldest will be replaced by a new panel in the following year. This use of such overlapping of panels will continue indefinitely under the rotating panel design for each fall interview session. See Table 5.3 for actual number of Round 34 completes by age stratum.)

Beneficiaries for the original sample (Round 1), the first supplement (Round 4), and the second supplement (Round 7) were selected from the standard 5-percent sample of CMS's Enrollment Data Base (EDB). The decision to select the MCBS sample from within the standard 5-percent CMS sample was based mostly on considerations of convenience. The 5-percent sample has been used for many research projects involving the Medicare population, and data files have been constructed to allow access to the claims for this group this 5-percent sample.

The development of the National Claims History File makes the claims data generally available for the entire population, not just those individuals included in the standard 5-percent sample. In addition, for some PSU areas, the number of beneficiaries within the standard 5-percent sample is so small that the list of potential sample people can become exhausted over time. As a result, beginning in Round 10, the beneficiary samples have been drawn from 5-percent samples other than the standard 5-percent sample.

### Primary and Second Stage Sampling Units

For the two continuing panels in the 2002 Access to Care release (i.e., the 1999 and 2000 panels), the MCBS sample is spread across the 107 primary sampling units (PSUs) originally selected in 1991. These PSUs were geographically dispersed and consisted of metropolitan areas and groups of non-metropolitan counties. Within the PSUs, the initial sample was concentrated in 1,163 second-stage units consisting of clusters of ZIP code areas (5 digits). With the introduction of the 1992 and 1993 supplements, the number of sample ZIP code clusters expanded to 1,366 and 1,412, respectively. Between 1994 and 2001, a total of 111 new ZIP clusters had been added to the sample bringing the total to 1,523 clusters.

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The 2001 panel was the first panel to be selected from the redesigned MCBS PSUs. Like the original PSU sample, a total of 107 PSUs were selected. Of these, 63 were retained from the original sample. Within the 107 PSUs, the initial sample (i.e. 2001 panel) was concentrated in 1,209 second-stage units consisting of clusters of ZIP code areas. With the introduction of the 2002 panel, the number of sample ZIP code clusters expanded to 1,219. With the rotating panel design, the PSU redesign will be transparent to data users and no special processing is required. For more details on the PSU redesign, see Lo, Chu, and Apodaca (2002).

All of the ZIP cluster samples were selected from CMS' master file of beneficiaries enrolled in Medicare, using the beneficiary's address recorded in that file as of March of the year the individual was selected to be in the sample.

### Sample selection

The MCBS sample is designed to be nearly self-weighting within the age strata. Within the selected PSUs and ZIP clusters, a systematic sampling scheme with random starts is employed. A brief summary of the samples that have been selected to date is given below.

A sample of 15,411 beneficiaries was selected in 1991 for Round 1 of the MCBS. This initial sample was representative of beneficiaries who were entitled on January 1, 1991. Round 1 interviews started in September of 1991, and participating beneficiaries have been re-interviewed roughly every four months for up to a maximum of six years (i.e., until they were scheduled to exit the MCBS sample under the rotating panel design described in the Introduction).

A supplemental sample of 2,410 beneficiaries was added to the sample in 1992 for Round 4. The 1992 supplemental sample was primarily designed to include newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 1991 through January 1992 (see Endnote1)), but also included previously enrolled beneficiaries to compensate for losses in the original sample due to the cumulative effects of deaths, emigration, and nonresponse. The 1992 Access to Care questions were administered in September through December 1992 as part of the Round 4 interview for the continuing sample, and as part of the initial interview for the supplemental sample.

In 1993 an additional supplemental sample of 2,449 beneficiaries was added to the sample for Round 7. Like the 1992 supplemental sample, the 1993 supplemental sample was intended primarily to include newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 1992 through December 1992), as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 1, 1992) to maintain the desired sample size. The 1993 Access to Care questions were

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administered in September through December 1993 as part of the Round 7 interview for the continuing sample, and as part of the initial interview of the 1993 supplemental sample.

The MCBS rotating panel design became operational in 1994. Under the rotating panel design, a nationally representative sample is selected for each Fall interviewing round to replace beneficiaries who are scheduled to exit the study in the preceding Spring round. In 1994, a supplemental sample of 6,390 beneficiaries was added to the MCBS sample for Round 10. The 1994 supplemental sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period January 1993 through December 1993) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before December 1992). The 1994 Access to Care questions were administered in September through December 1994 as part of the Round 10 interview for the continuing sample, and as part of the initial interview of the 1994 supplemental sample.

In 1995, a supplemental sample of 6,349 beneficiaries was added to the sample for Round 13. The 1995 supplemental sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period January 1994 through January 1995) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before December 1993). The 1995 Access to Care questions were administered in September through December 1995 as part of the Round 13 interview for the continuing sample, and as part of the initial interview of the 1995 supplemental sample.

In 1996, a supplemental sample of 6,506 beneficiaries was added to the sample for Round 16. The 1996 supplemental sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 1995 through January 1996) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 1995). In addition to the 6,506 beneficiaries selected for the “regular” supplement, an additional 2,799 beneficiaries were selected for a one-time ORD/HMO special supplement. These 2,799 beneficiaries included 1,490 in risk HMO or FFS plans in selected target areas of South California and South Florida and 1,309 beneficiaries in risk HMO plans outside of the targeted areas. The 1996 Access to Care questions were administered in September through December 1996 as part of the Round 16 interview for the continuing sample, and as part of the initial interview for the 1996 supplemental samples. In addition to questions on access to care, satisfaction with care, and health status, the Round 16 supplement included questions specific to managed care issues.

In 1997, a supplemental sample of 6,599 beneficiaries was added to the sample for Round 19. The 1997 supplemental sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 1996 through January 1997) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 1996). In addition to the 6,599 beneficiaries selected for the “regular” supplement, an additional 2,536 beneficiaries were selected for a one-time ORD/HMO special

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supplement. These 2,536 beneficiaries included 2,089 in risk HMO and FFS plans in selected targeted areas of Arizona and Philadelphia and 447 beneficiaries in risk HMO plans outside of the targeted areas.

The 1997 Access to Care questions were administered in September through December 1997 as part of the Round 19 interview for the continuing sample, and as part of the initial interview for the 1997 supplemental samples. In addition to questions on access to care, satisfaction with care and health status, the Round 19 supplement included questions specific to managed care issues.

In 1998, a supplemental sample of 6,450 beneficiaries was added to the sample for Round 22. The 1998 supplemental MCBS sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 1997 through January 1998) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 1997). In addition to the 6,450 beneficiaries selected for the “regular” supplement, an additional 5,162 beneficiaries were selected for a one-time ORD/HMO special supplement. These 5,162 beneficiaries included 3,909 beneficiaries in risk HMO and FFS plans in selected targeted areas of Denver, Minneapolis, and South Florida and 1,253 beneficiaries in risk HMO plans outside of the targeted areas. The 1998 Access to Care questions were administered in September through December 1998 as part of the Round 22 interview for the continuing sample, and as part of the initial interview for the 1998 supplemental samples. In addition to questions on access to care, satisfaction with care, and health status, the Round 22 supplement included questions specific to managed care issues.

In 1999, a supplemental sample of 6,399 beneficiaries was added to the sample for Round 25. The 1999 supplemental MCBS sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 1998 through January 1999) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 1998). In addition to the 6,399 beneficiaries selected for the “regular” supplement, an additional 1,279 beneficiaries were selected for a one-time national OSP/HMO special supplement in risk HMO plans. The 1999 Access to Care questions were administered in September through December 1999 as part of the Round 25 interview for the continuing sample, and as part of the initial interview for the 1999 supplemental samples. In addition to questions on access to care, satisfaction with care, and health status, the Round 25 supplement included questions specific to managed care issues.

In 2000, a supplemental sample of 6,376 beneficiaries was added to the sample for Round 28. The 2000 supplemental MCBS sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 1999 through January 2000) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 1999). In addition to the 6,276 beneficiaries selected for the “regular” supplement, an additional 3,693 beneficiaries were selected for a special study of Medicare beneficiaries residing in selected areas of Massachusetts who were also eligible for Medicaid (i.e., dual eligible beneficiaries). However, since the sample of dual eligible beneficiaries was restricted to only a few

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counties in Massachusetts, it would not have been efficient to combine it with the regular MCBS sample. Thus, the special dual eligible sample is *not* included in the 2000 Access to Care release. The 2000 Access to Care questions were administered in September through December 2000 as part of the Round 28 interview for the continuing sample, and as part of the initial interview for the 2000 supplemental sample.

In 2001, a supplemental sample of 6,302 beneficiaries was added to the sample for Round 31. The 2001 supplemental MCBS sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 2000 through January 2001) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 2000). The 2001 Access to Care questions were administered in September through December 2001 as part of the Round 31 interview for the continuing sample, and as part of the initial interview for the 2001 supplemental sample.

Finally, in 2002 a supplemental sample of 6,301 beneficiaries was added to the sample for Round 34. The 2002 supplemental MCBS sample included newly enrolled beneficiaries (i.e., beneficiaries who were enrolled during the period February 2001 through January 2002) as well as previously enrolled beneficiaries (i.e., beneficiaries who were enrolled on or before January 2001). The 2002 Access to Care questions were administered in September through December 2002 as part of the Round 34 interview for the continuing sample, and as part of the initial interview for the 2002 supplemental sample.

### Response Rates

By Round 34, 69 percent of the 1999 panel were still in a formal responding status (that is, either the SP was alive and still participating or had died after Round 25 but left behind a cooperative proxy for the collection of data on the last months of life) or had participated in the survey until death, leaving enough data to estimate the last months of life. For the 2000 and 2001 panels, the corresponding figures were 71 and 73 percent, respectively. The 2002 panel (Round 34) had an initial response rate of 84 percent.

There were 3,457 interviews successfully completed at Round 34 with still-living members of the 1999 panel. For brevity, we refer to these 3,457 interviews as “live completes”. For the 2000 and 2001 panels there were 3,762 and 4,068 live Round 34 completes, respectively.

### Completed interviews by sampling strata

Table 5.3 lists the number of completed interviews for Round 34 for the continuing (Rounds 25, 28, and 31) and supplemental (Round 34) panels by age strata (oldest age attained in 2002). Under the rotating panel design, the beneficiaries selected in Round 22 were released from the sample prior to Round 34.

**Table 5.3** MCBS Round 34 completed interviews for the continuing and supplemental panels

Age group	- Round 34 Completed Interviews -		Total
	Continuing	Supplemental	
Total	11,287	5,028	16,315
0 - 44	825	480	1,305
45 - 64	998	414	1,412
65 - 69	1,582	1,102	2,684
70 - 74	2,182	722	2,904
75 - 79	1,968	842	2,810
80 - 84	1,935	772	2,707
85 +	1,797	696	2,493

**Item Non-response**

As in any other survey, some respondents could not, or would not, supply answers to some questions. Item non-response rates are generally low in the CY 2002 Access to Care release, but the analyst still needs to be aware of the missing data and be cautious about patterns of nonresponse.

Some of the missing data is attributable to the fact that some of the community interviews and all of the facility interviews are conducted through a proxy respondent. In other words, the respondent may not have had knowledge of the information sought on the sample person. In other situations the respondent may have simply refused to answer. While no effort was made to specifically impute missing data for the Access to Care variables, where possible, much of the data not collected in the current round has been filled in through editing to earlier files or through the use of files that have been imputed.

Each user can decide how to handle the missing data. One simple approach is to delete records with missing data. The cumulative effect of deleting each record with any missing data can significantly reduce the data available for analysis. Another approach is to create an “unknown” or “missing” category within each variable distribution. This approach retains more observations than the first approach.

There are other more complicated alternatives for handling cases with missing data. One is to impute the missing data. This can be done fairly easily in such a way as to improve univariate tabulations, but techniques that retain correlation structure for multivariate analyses are extremely complex. For more discussion of imputation, the user is referred to Kalton and Kasprzyk (1986). An alternative is model-

based estimation where a joint mechanism is hypothesized that underlies both the substantive data and the missing data structure. For a discussion of this technique, see Little and Rubin (1987).

### Preparing Statistics (Using the Full Sample Weights)

Four sets of final “full sample” Round 34 weights have been provided for different types of statistics. (The term “full sample” is used to distinguish these weights from the replicate weights discussed in the next section). One set of weights is labeled **CS1YRWGT** (RIC X). **CS1YRWGT** is a cross-sectional weight and applies to both the continuing sample and to the supplemental sample, which was fielded for the first time in Round 34. This weight is intended for use in cross-sectional statistics involving the total (combined) Round 31 sample. Each weight is greater than zero for all 16,315 beneficiaries on the file. **CS1YRWGT** should be used to make estimates of the levels of access to care for the Medicare population alive in the fall of 2002.

The second set of weights is labeled **L4YRSWGT** (RIC X4). It is intended for use in longitudinal statistics involving respondents in the 1999 panel who completed Round 25, 28, 31 and 34 interviews. The longitudinal weight, **L4YRSWGT**, does not apply to the 2000, 2001, and 2002 panels. This weight should only be used when the CY 1999 (Round 25), CY 2000 (Round 28), CY 2001 (Round 31) and CY 2002 (Round 34) Access to Care releases have been merged together. Records must be merged at the beneficiary level, and only those beneficiaries who completed all four rounds (that is, have positive numeric **L4YRSWGT**) should be included in the final file. This weight can then be used to make estimates of changes in characteristics (say, health status) or attitudes (say, satisfaction with care) of a given subset of the population over the three- year period. There are 3,457 beneficiaries who completed the Round 25, 28, 31 and 34 interviews; these beneficiaries can be identified by selecting cases for which **D\_SMPTYP**=’99’ (RIC K, Key Record).

The third set of weights is labeled **L3YRSWGT** (RIC X3). These weights are intended for use in longitudinal statistics involving respondents in the 1999 and 2000 panels who completed interviews in Round 28, 31 and 34. The longitudinal weight, **L3YRSWGT**, does not apply to the 2001 or 2002 panel cases. This weight should only be used when the CY 2000 (Round 28), CY 2001 (Round 31) and CY 2002 (Round 34) Access to Care releases have been merged together. Records must be merged at the beneficiary level, and only those beneficiaries who completed all three interviews should be included in the final file. This weight can then be used to make estimates of year-to-year changes from 2000 to 2002. **L3YRSWGT** is greater than zero only for persons who completed the Round 28, 31 and 34 interviews; it is inapplicable (".") for the respondents in the 2001 and 2002 panels. There are 7,219 beneficiaries who completed Round 28, 31, and 34 interviews; these beneficiaries are identified as **D\_SMPTYP**=’99’ or **D\_SMPTYP**=’00’ (RIC K, Key record).

The fourth set of weights is labeled **L2YRSWGT** (RIC X2). These weights are intended for use in longitudinal statistics involving respondents from the 1999, 2000 and 2001 panels who completed interviews in both Round 31 and 34. The longitudinal weight, **L2YRSWGT**, does not apply to the 2002 panel cases. This weight should only be used when the CY 2001 (Round 31) and CY 2002 (Round 34) Access to Care releases have been merged together. Records must be merged at the beneficiary level, and only those beneficiaries who completed both interviews should be included in the final file. This weight can then be used to make estimates of year-to-year changes, such as the number of persons who went from being very satisfied with their care to being dissatisfied with their care. **L2YRSWGT** is greater than zero only for persons who completed Round 28 and 31; it is inapplicable (“.”) for the 2002 panel. There are 11,287 beneficiaries who completed both Round 31 and 34 interviews; these beneficiaries are identified as **D\_SMPTYP='99'**, **D\_SMPTYP='00'** or **D\_SMPTYP='01'** (RIC K, Key record).

Although it is possible to create some cross-sectional estimates using **L4YRSWGT**, **L3YRSWGT**, or **L2YRSWGT** and create longitudinal estimates using **CS1YRWGT**, both of these actions are strongly discouraged. In general, estimates of the same population statistic produced using the two types of weights (that is, cross-sectional and longitudinal) will differ systematically. When **L4YRSWGT**, **L3YRSWGT**, or **L2YRSWGT** are used for cross-sectional estimation, recently enrolled beneficiaries will not be represented. When **CS1YRWGT** is used for longitudinal estimation, positive weights will be given to cases without baseline data and the weights for long-term enrollees will be too small.

### Variance Estimation (Using the Replicate Weights)

In many statistical packages, including SAS, the procedures for calculating sampling errors (e.g., variances, standard errors, etc.) assume that the data were collected in a simple random sample. Procedures of this type are not appropriate for calculating the sampling errors of statistics based upon a stratified, unequal-probability, multi-stage sample such as the MCBS. Thus, to permit the calculation of sampling errors, a series of replicate weights are included in the 2001 Access to Care release.

The replicate weights included in the MCBS data files can be used to calculate standard errors of the sample-based estimates as described below. Just as there are four full sample weights for Round 31, one for cross-sectional analyses and three for longitudinal analyses, there are four corresponding sets of replicate weights.

The replicate cross-sectional weights are labeled **CS1YR001** through **CS1YR100** and may be found in the Cross-sectional Weights record (RIC X). The first set of replicate longitudinal weights is labeled **L4YRS001** through **L4YRS100** and may be found on the first Longitudinal Weights Record (RIC X4).

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The second set of replicate longitudinal weights is labeled **L3YRS001** through **L3YRS100** and may be found on the second Longitudinal Weights Record (RIC X3). The third set of replicate longitudinal weights is labeled **L2YRS001** through **L2YRS100** and may be found on the third Longitudinal Weights Record (RIC X2).

These replicate weights can be used for variance estimation. The user has two options for using the replicate weights, and a third option that does not require replicate weights. The first option is to use a software package called WesVar. A free downloadable version, WesVar2, can be obtained from Westat's home page: **WWW.WESTAT.COM**. A newer version with additional features, WesVar4, can also be purchased. Technical questions regarding the use of the MCBS replicate weights for variance estimation may be directed to David Ferraro at Westat, telephone 301.251.4261.

Identification of weight variable and variables for analysis can be done using the WesVar menus. To run WesVar with MCBS data and weights, the method should be specified as Fay's method with a factor of 0.3.

The second option is for the user to write a small custom program using a very simple algorithm. Let  $X_0$  be an estimate of a statistic of interest formed using one of the full sample weights. Let  $X_1$  through  $X_{100}$  be estimates (calculated by the user) of the same statistic of interest formed using the corresponding 100 replicate weights. The estimated variance of  $X_0$  is then simply:

$$Var( X_0 ) = \frac{2.04}{100} \sum_{i=1}^{100} ( X_i - X_0 )^2$$

The third option is for users who prefer to use alternate software such as SUDAAN7 (Professional Software for SURvey DATA ANalysis for Multi-stage Sample Designs) to compute population estimates and the associated variance estimates. Two variables, SUDSTRAT and SUDUNIT, have been included in the cross sectional and longitudinal weight records to allow use of SUDAAN.

An example of using SUDAAN statements to compute an estimate of the proportion of the Medicare population (excluding newly enrolled after January 2002) that had an inpatient stay in 2002 is shown below:

```
PROC CROSSTAB DATA=dsn FILETYPE=SAS DESIGN=WR;  
  NEST SUDSTRAT SUDUNIT / MISSUNIT;  
  WEIGHT R34COWGT;  
  SUBGROUP H_INPSW;  
  LEVELS 2;  
  PRINT NSUM ROWPER SEROW;
```

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The data set `dsn` is the name of the file that contains the weights and statistics of interest. The variable `H_INPSW` is an inpatient switch indicator from the RIC A. Note that variables specified in the `NEST`, `WEIGHT`, and `SUBGROUP` statements have to be numeric and that `SUBGROUP` must run between 1 and the number of levels with no gaps.

### Consistency with Medicare Program Statistics and with Prior Access to Care releases

In general, MCBS estimates are not consistent with Medicare program statistics such as tabulations of the `HISKEW`. There are several reasons for the inconsistencies. The most important reason is that the `EDB`, and hence the `HISKEW`, includes people who are no longer alive. This may occur where people have entitlement, say for Part A only, and receive no Social Security check. When field staff try to locate these beneficiaries for interviews, they establish the fact of these deaths. This over-reporting on the `HISKEW` files is under constant scrutiny, with efforts to modify CMS edit procedures that reject records from SSA that have valid dates of death but other erroneous information. Unrecorded deaths are still present on the `EDB`.

For cross-sectional estimates of the CY 1992 and CY 1993 Access to Care, special weighting procedures were used to force some MCBS estimates to agree with `HISKEW` tabulations. This was not the case for the CY 1991 release nor is it the case for CY 1994 through CY 2002.

Although revised 1992 weights have not been published, internal analyses indicate that the estimated mean reimbursement per enrollee in 1992 was slightly too low in all but the youngest age category. The estimate of mean total Medicare reimbursement amount in 1992 increased 0.25 percent from \$5,022 per beneficiary before reweighting to \$5,035 per beneficiary after reweighting. This downward bias was due to the presence of a relatively small number of individuals on the enrollment database who are listed as alive when in fact they are dead (primarily individuals not receiving social security benefits but deemed “insured” for purposes of Medicare at the beginning of the program). Consequently, the number of enrollees was estimated to be too large. This effect was concentrated in the 85+ age category since that is where most of the unrecorded deaths were detected during survey field operations. Results of internal analysis indicate that the estimated proportion of beneficiaries in the 85 + age group decreased from 9.6 percent to 9.0 percent after reweighting.

Also, research has shown that MCBS estimates by Census Division (the nation is divided into nine of these areas) are subject to extremely high variance. Users are urged to collapse down to the standard four Census Regions for geographic analyses.

## Section 5: Sample Design and Estimation

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There was an error in the 1992 weighting that skewed sample estimates toward non-metropolitan characteristics. Results from the reweighting indicate that mean total 1992 Medicare reimbursement increased from \$4,238 to \$4,269 for non-metropolitan beneficiaries, but decreased from \$5,334 to \$5,303 for beneficiaries in metropolitan areas.

Finally, an error in sampling was discovered early in 1996 that resulted in the selection of 320 beneficiaries from ZIP clusters that are not in sampled PSUs. Of these missampled cases, 64 were sampled with the 1992 supplementary panel, 38 were sampled with the 1993 supplementary panel, 115 were sampled with the 1994 supplementary panel, and 103 were sampled with the 1995 supplementary panel. Most of these cases are located in Central Florida (92 cases) and Puerto Rico (181 cases). Missampled cases in the 1991-1993 panels were released at Round 16. Seven missampled cases in the 1992 panel remained in the sample at Round 16 but will be released at Round 19 when this panel rotates out of the sample.

Weighting procedures for the 1996 Access to Care releases included a special adjustment to correct for the missampling. Weights for the previous Access to Care releases have not been revised to reflect this correction. Although preliminary analysis indicates that the effect on overall estimates is small, estimates for Hispanics appear to be more affected by the sampling errors, and analysts are advised to use caution when interpreting results for this subgroup that are obtained from earlier Access to Care releases.

### References

- Kalton, G. and Kasprzyk, D. (1986), "The Treatment of Missing Survey Data," *Survey Methodology*, 2, 1-16.
- Little, R.J.A. and Rubin, D.B. (1987), *Statistical Analysis with Missing Data*, New York: John Wiley and Sons.
- Lo, A., Chu, A. and Apodaca, R. (forth coming). Redesign of the Medicare Current Beneficiary Survey Sample. *Proceedings of the Survey Research Methods Section of the American Statistical Association* [CD-ROM], Alexandria, VA: American Statistical Association.

### Notes

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1. Because people often are listed in the enrollment database before eligibility for Medicare benefits actually begins, the Round 4 supplement includes some beneficiaries who became eligible in February 1992 or later.
2. The primary goal of the survey is the dissemination of detailed calendar year utilization and expenditure data. Therefore, it was decided to delay sampling the January 1993 accretes to coincide with sampling for the balance of 1993 accretes. Since the target for the CY 1993 Access to Care file was all those enrolled for all of 1993, which includes the January 1993 accretes, a weighting adjustment was made so that the cross-sectional weights on that file do reflect the inclusion of this group.
3. The primary goal of the survey is the dissemination of detailed calendar year utilization and expenditure data. Therefore, it was decided to delay sampling the January 1994 accretes to coincide with sampling for the balance of 1994 accretes. Since the target for the CY 1994 Access to Care file was all those enrolled for all of 1994, which includes the January 1994 accretes, a weighting adjustment was made so that the cross-sectional weights on that file do reflect the inclusion of this group.

Medicare Current Beneficiary Survey  
CY 2002 Access to Care

File Changes

Changes in This Year's File

The MCBS Access to Care files have remained fairly similar in format and content. There are three basic changes in this release.

- RIC PA, which attempted to measure how involved Medicare beneficiaries were in their health care decisions, was dropped.
- RIC 4A, which gathers information about any drug discount card memberships beneficiaries have, was added.
- In RIC 2F, CMS dropped a number of variables pertaining to particular diagnoses if the number of affirmative responses were so low as to prevent them from being statistically significant. These variables were combined to create a new variable, OTHERDIAG, which represents the number of other diagnoses associated with the SP, but not separately identified.

A list of every variable, either added or dropped, follows.

RIC 1

Variable	Description	Change
D_AFGULF	SP served in AF during Persian Gulf War?	Added

RIC 2

Variable	Description	Change
D_CANCER	Past yr told had other (non-skin) cancer	Added
D_CFAIL	Past yr new episode congest. hrt failure	Added
D_CHD	Past yr new episode angina pectoris/CHD	Added
D_CSKIN	Past yr told had skin cancer occurrence	Added
D_HBP	Past yr told you have hypert/HBP	Added
D_MYOCAR	Past yr told had myoc infarct/hrt attack	Added
D_OTHHRT	Past yr told had other heart condition	Added
D_PPARAL	Past yr told had any paralysis	Added
D_PROST	Past yr told had enlarged prostate/BPH	Added
D_PSYCH	Past yr told had mental/psych. disorder	Added
D_RHYTHM	Past yr new probs w/ heart rhythm	Added
D_STROKE	Past yr told had stroke/brain hemorrhage	Added
D_VALVE	Past yr new probs w/ heart valves	Added
EDOCEXAM	SP had eye exam w/ eye doctor n past yr	Added
EDOCLAST	How long since last exam by eye doctor	Added

## RIC 2 (Continued)

<b>Variable</b>	<b>Description</b>	<b>Change</b>
EINTROUB	Difficulty reading Rx instructions/label	Added
EMCTROUB	Difficulty finding out about Medicare	Added
EOBTROUB	Difficulty getting medical care	Added
EYEEEXAM	SP had eye exam within past yr	Dropped
FALLANY	Have fallen down in past yr.	Added
FALLHURT	Needed medical attention because of fall	Added
FALLPREV	Did hlth prof give info to avoid falls	Added
FALLREAS	Did hlth prof try to understand why fell	Added
FALLTALK	Talked to professional about falls	Added
FALLTIME	Number of times fallen	Added
HCCOMDOC	Trouble communicating with Dr. due to hearing	Added
HCKNOWMC	How diff to find Medicare info due to hearing	Added
LASTEXAM	How long since last eye exam	Dropped
OCCFAIL	Ever told had congestive heart failure	Dropped
OCCVALVE	Ever told had probs w/ heart valves	Dropped
OCOTHRT	SP told had new episode other heart cond	Dropped
OCRHYTHM	Ever told had probs w/ heart rhythms	Dropped
PROSRMVD	Has the prostate gland been removed?	Dropped
PROSSURG	Had prostate surgery in last year?	Added

## RIC 3

<b>Variable</b>	<b>Description</b>	<b>Change</b>
ACCAPPTS	Accompanies SP to schedule appointments	Added
ACCASKQS	Accompanies SP to ask questions	Added
ACCDRIVE	Accompanies SP to provide transportation	Added
ACCEXPDR	Accompanies SP to explain things to Dr.	Added
ACCEXPSP	Accompanies SP to explain Dr's instr.	Added
ACCHELP	Accompanies SP to assist w/ ADLs	Added
ACCMORAL	Accompanies SP for moral support	Added
ACCOTHER	Accompanies SP for other reason	Added
ACCTRANS	Accompanies SP to act as a translator	Added
ACCWRITE	Accompanies SP to take notes	Added
HCTRC1	Why SP had troub getting needed care - 1	Dropped
HCTRC2	Why SP had troub getting needed care - 2	Dropped
HCTRC3	Why SP had troub getting needed care - 3	Dropped

## RIC 4

<b>Variable</b>	<b>Description</b>	<b>Change</b>
D_DMCCOST	Annual cost of discount card	Added
D_DMCMEM	Num. of active discount card memberships	Added

## RIC 2F

<b>Variable</b>	<b>Description</b>	<b>Change</b>
ALCOH	Was SP alcohol dependent	Dropped
BRAINS	SP has nonpsychotic brain syndrome	Dropped
BREAST	SP has breast disorders	Dropped
CERDEG	SP has cerebral degeneration	Dropped
CONST	SP has constipation	Dropped
DEGJNT	Did SP have degenerative joint disease?	Dropped
DIVCOL	SP has diverticula of colon	Dropped
DYSPHA	Did SP have dysphagia?	Dropped
EDEMA	Did SP have edema?	Dropped
EPILEP	SP has epilepsy	Dropped
GASTR	SP has gastritis	Dropped
GASTRO	SP has gastroenteritis	Dropped
GHEMOR	SP has gastrointestinal hemorrhage	Dropped
HERNIA	SP has diaphragmatic (hiatal) hernia	Dropped
HYPER	SP has hyperplasia of prostate	Dropped
HYPOP	SP has hypopotassemia/hypokalemia	Dropped
LEGULC	SP has ulcer of leg, chronic	Dropped
OSARTH	Did SP have osteoarthritis?	Dropped
PEPULC	SP has peptic ulcer	Dropped
RENTUR	SP has renal ureteral disorder	Dropped
SCOLIO	SP has scoliosis	Dropped

## RIC 2P

<b>Variable</b>	<b>Description</b>	<b>Change</b>
ACTVAGO	Is SP more/less/same active from last yr	Dropped
ACTVAGO	Is SP more/less/same active from last yr	Dropped
ACTVNOW	Is SP more/less/same active now?	Dropped
ACTVPART	Does SP participate in weekly exercise?	Dropped
ACTVWALK	How often does SP walk each week?	Dropped
D_MODTIM	Time spent doing moderate phys. activity	Dropped
D_MUSTIM	Time spent to increase muscle strength	Dropped
D_VIGTIM	Time spent doing vigorous phys. activity	Dropped
DIDSMOKE	How many years did you smoke?	Dropped
DRINKDAY	Nbr of days in a month SP drinks alcohol	Dropped
DRINKSPD	Nbr of alcoholic drinks SP has per day	Dropped
FOURDRNK	Nbr of days in month SP had 4+ drinks	Dropped
HAVSMOKE	How many years have you smoked?	Dropped
LASTSMOK	How long since you last smoked regularly	Dropped
MAMANUL	Dr recommends/prescribes annually	Dropped
MAMFMLY	Family/friend recommends it	Dropped
MAMFREE	Free/reasonable cost of mammogram	Dropped
MAMOTHR	Reason for mammogram - other	Dropped

## RIC 2P (Continued)

<b>Variable</b>	<b>Description</b>	<b>Change</b>
MAMPRES	Dr. prescribed it	Dropped
MAMPROB	SP has lump/possible problem	Dropped
MAMREC	Dr. recommended it	Dropped
MAMRISK	At risk for cancer/other problems	Dropped
MAMSCRN	To screen for or prevent breast cancer	Dropped
MAMSITE	Where was last mammogram performed	Dropped
PAPANUL	Dr. recommends/prescribes annually	Dropped
PAPFMLY	Family/friend recommends it	Dropped
PAPFREE	Free/reasonable cost of pap smear	Dropped
PAPOTHR	Reason for pap smear - other	Dropped
PAPPRES	Dr. prescribed it	Dropped
PAPPROB	Result of exam/possible problem	Dropped
PAPREC	Dr. recommended it	Dropped
PAPRISK	At risk for cancer or health problem	Dropped
PAPSCRN	To screen for or prevent cancer	Dropped
PNUOTHER	No pneu shot b/c other reason	Dropped
PROANUL	Dr. recommends/prescribes annually	Dropped
PROCANCR	Has/had prostate cancer	Dropped
PROFMLY	Family/friend recommends it	Dropped
PROFREE	Free/reasonable cost of PSA	Dropped
PROOTHR	Reason for prostate test - other	Dropped
PROPRES	Dr. prescribed it	Dropped
PROPROB	SP has possible problem	Dropped
PROREC	Dr. recommended it	Dropped
PRORISK	At risk for cancer	Dropped
PROSCRN	To screen for or prevent cancer	Dropped
QUITSMOK	Did you quit smoking in the last year?	Dropped

## RIC 4A

<b>Variable</b>	<b>Description</b>	<b>Change</b>
D_CHIRO1	Discount card 1 covers chiropractic care	Added
D_CHIRO2	Discount card 2 covers chiropractic care	Added
D_CHIRO3	Discount card 3 covers chiropractic care	Added
D_CHIRO4	Discount card 4 covers chiropractic care	Added
D_CHIRO5	Discount card 5 covers chiropractic care	Added
D_DRUGS1	Discount card 1 covers prescription Rx	Added
D_DRUGS2	Discount card 2 covers prescription Rx	Added
D_DRUGS3	Discount card 3 covers prescription Rx	Added
D_DRUGS4	Discount card 4 covers prescription Rx	Added
D_DRUGS5	Discount card 5 covers prescription Rx	Added
D_EARS1	Discount card 1 covers hearing aids	Added
D_EARS2	Discount card 2 covers hearing aids	Added
D_EARS3	Discount card 3 covers hearing aids	Added

## RIC 4A (Continued)

<b>Variable</b>	<b>Description</b>	<b>Change</b>
D_EARS4	Discount card 4 covers hearing aids	Added
D_EARS5	Discount card 5 covers hearing aids	Added
D_ENROL1	Does discount card 1 have enrollment fee	Added
D_ENROL2	Does discount card 2 have enrollment fee	Added
D_ENROL3	Does discount card 3 have enrollment fee	Added
D_ENROL4	Does discount card 4 have enrollment fee	Added
D_ENROL5	Does discount card 5 have enrollment fee	Added
D_EQUIP1	Discount card 1 covers HH equip/supplies	Added
D_EQUIP2	Discount card 2 covers HH equip/supplies	Added
D_EQUIP3	Discount card 3 covers HH equip/supplies	Added
D_EQUIP4	Discount card 4 covers HH equip/supplies	Added
D_EQUIP5	Discount card 5 covers HH equip/supplies	Added
D_EYES1	Discount card 1 covers eye/vision care	Added
D_EYES2	Discount card 2 covers eye/vision care	Added
D_EYES3	Discount card 3 covers eye/vision care	Added
D_EYES4	Discount card 4 covers eye/vision care	Added
D_EYES5	Discount card 5 covers eye/vision care	Added
D_NAME1	Name of discount card 1	Added
D_NAME2	Name of discount card 2	Added
D_NAME3	Name of discount card 3	Added
D_NAME4	Name of discount card 4	Added
D_NAME5	Name of discount card 5	Added
D_OTHER1	Discount card 1 covers other services	Added
D_OTHER2	Discount card 2 covers other services	Added
D_OTHER3	Discount card 3 covers other services	Added
D_OTHER4	Discount card 4 covers other services	Added
D_OTHER5	Discount card 5 covers other services	Added
D_TEETH1	Discount card 1 covers dental care	Added
D_TEETH2	Discount card 2 covers dental care	Added
D_TEETH3	Discount card 3 covers dental care	Added
D_TEETH4	Discount card 4 covers dental care	Added
D_TEETH5	Discount card 5 covers dental care	Added
D_VMINS1	Discount card 1 covers vitamin suppl.	Added
D_VMINS2	Discount card 2 covers vitamin suppl.	Added
D_VMINS3	Discount card 3 covers vitamin suppl.	Added
D_VMINS4	Discount card 4 covers vitamin suppl.	Added
D_VMINS5	Discount card 5 covers vitamin suppl.	Added

## RIC KN

<b>Variable</b>	<b>Description</b>	<b>Change</b>
KBOKLOOK	Ever looked at plan information chart	Added
KBOKRTGS	Ever looked at ratings in plan info chart	Added
KBOKUNST	How easy is plan information chart	Added
KBOKUSFL	How useful was quality measure info	Added
KCCPLSRC	Who gives most accurate health plan info	Dropped
KCDRADIO	Medicaid info from radio	Added
KCDTV	Medicaid info from TV	Added
KCDTVRAD	Medicaid info from TV or radio	Dropped
KGPRADIO	Medigap/sup info from radio	Added
KGPTV	Medigap/sup info from TV	Added
KGPTVRAD	Medigap/sup info from TV or radio	Dropped
KNBKPLAN	Did SP receive booklet of available HMOs	Dropped
KNBOKLET	How thoroughly has SP read this booklet	Dropped
KNCOMPAR	SP used booklet to compare health plans	Dropped
KNUPRAD	Mcare developments info from radio	Added
KNUPTV	Mcare developments info from TV	Added
KNUPTVRD	Mcare developments info from TV or radio	Dropped
KPYRADIO	Mcare paymt info from TV or radio	Added
KPYTV	Mcare paymt info from TV or radio	Added
KPYTVRAD	Mcare paymt info from TV or radio	Dropped
KVLRADIO	HMO avail info from radio	Added
KVLTV	HMO avail info from TV	Added
KVLTVRAD	HMO avail info from TV or radio	Dropped
KVRRADIO	Coverage info from radio	Added
KVRTV	Coverage info from TV	Added
KVRTVRAD	Coverage info from TV or radio	Dropped
KWBRADIO	New benefit info from radio	Added
KWBTV	New benefit info from TV	Added
KWBTVRAD	New benefit info from TV or radio	Dropped

## RIC PA

<b>Variable</b>	<b>Description</b>	<b>Change</b>
PAANSWR	Leaves MD w/ all concerns addressed	Dropped
PACHGDRS	SP would change MD if dissatisfied w/ MD	Dropped
PADISAGR	SP would tell MD if SP disagrees w/ MD	Dropped
PADREXPL	I easily understand my MD's explanations	Dropped
PADREXPN	I ask MD to explain things in detail	Dropped
PADRINFO	Have brought MD med. info from news/inet	Dropped
PADRLISN	My MD listens to my symptoms/concerns	Dropped
PADRQUAL	Before going to new MD, I check qualif.	Dropped
PADRQUEX	Brings list of questions to MD visits	Dropped
PADRSAME	Most MDs give same diagnosis, treatment	Dropped
PADVICE	Can call MDs office for advice as needed	Dropped
PAHCONDS	Reads about health in newspaper/internet	Dropped
PAINSTRC	SP is able to self-care instructions	Dropped
PALISTRX	Brings list of current meds to MD	Dropped
PAMEDNWS	It is hard to keep up w/ medical news	Dropped
PAMEDREC	SP can change habits as recommended	Dropped
PANECESS	SP can identify when med care is needed	Dropped
PANOTIME	Insuff time to discuss all concerns @ MD	Dropped
PAOPTION	Talks w/ MD abt options w/followup care	Dropped
PAPREFER	SP wants MD to give choices, help decide	Dropped
PARXINFO	Reads Rx info such as side effects	Dropped
PASIDEXF	SP is able to identify Rx side effects	Dropped
PATRSLT	Understands test/procedure results	Dropped