

## **Medicare Current Beneficiary Survey**

### **CY 1991 Access to Care Documentation**

#### **Introduction**

##### **Purpose of the survey**

The accompanying public use files are the first in a series of data releases planned from the ongoing Medicare Current Beneficiary Survey (MCBS). The MCBS is a continuous, multi-purpose survey of a representative sample of the Medicare population. It is sponsored by the Centers for Medicare and Medicaid Services (CMS). The first round of MCBS interviews was conducted in the last four months of calendar year 1991. This first round interview captured baseline information on the sample persons, omitting detailed questions on medical utilization and costs. The calendar year 1991 public use files contain two types of information: the baseline information collected in Round 1; and full-year 1991 Medicare utilization and other administrative data for the sample persons.

CMS's primary mission is administering Medicare and assisting the States in administering the Medicaid program. In 1990 federal expenditures for these two programs exceeded \$150 billion --approximately 25% of all personal health care expenditures in the nation.

While much of CMS's work involves paying medical bills, the agency is also responsible for monitoring the quality of care the beneficiaries receive, seeing that the public's health care dollar is well spent, and making formal estimates of the budget impact of current law as well as proposed legislative and regulatory changes to the health care system.

The Medicare Current Beneficiary Survey collects important new information on a sample of the Medicare enrolled population. It will provide a current and accurate picture of the use of health services, expenditures and sources of payment. These data will enable CMS to monitor the financial effects of changes in the Medicare program, to develop reliable and current information on the use and cost of

services not covered by Medicare (such as prescription drugs and long-term care), and to develop reliable and current information on the sources of payment for costs of covered services not reimbursed by Medicare.

While focused on the financing of health care, the MCBS collects a variety of baseline information about the Medicare population including their demographic characteristics, health status and functioning, insurance coverage, financial resources, and family supports. We collect this baseline information in the first interview with the sample person (or designated proxy) and update it annually thereafter. The wide variety of data collected extends the utility of the MCBS data beyond the financing of health care to the penumbra of health care policy issues.

### **Design of the survey**

The MCBS is a longitudinal panel survey. Sample persons are interviewed three times a year over several years to form a continuous profile of their health care experience. Field work for Round 1 began in September of 1991 and was completed in December. New rounds, which involve re-interviewing the same sample persons (or other appropriate 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 appropriate to the setting.

Sample. Respondents for the MCBS were sampled from the Medicare enrollment file to be representative of the Medicare population as a whole and by age group: 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 over-sampled to permit detailed analysis of these subpopulations.

The sample was drawn from 107 primary sampling units (PSUs) chosen to represent the nation, including 41 states, the District of Columbia, and Puerto Rico, with a second stage of 1,163 geographic clusters randomly drawn within those PSUs.

The sample is replenished annually for attrition, as well as for newly eligible persons.

The Round 1 MCBS sample consisted of 14,530 Medicare beneficiaries, for whom 12,677 interviews were completed. The response rate for the first round was 87%, yielding 11,735 community interviews and 942 facility interviews.

The community interview. Sampled individuals in the community are interviewed three times a year, 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 edits the answers instantaneously for accuracy and reasonableness. This process enhances the timeliness, clarity and quality of the output data. CAPI guides the interviewer through complex skip patterns and inserts follow-up questions where certain data were missing or incorrect from the previous round interview. When the interview is completed, CAPI allows the interviewer to transmit the data by telephone to the home office computer.

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 1, proxies completed 11% of the community interviews.

These interviews will yield a time series of data for each respondent 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).

In addition to the time series data which comprise the core of the survey, supplements will be administered in each round to address topical issues. Round 1 of the community interview contained a supplement on access to care. This supplement will be repeated in round 4, allowing a before and after look at the effect of the Medicare physician fee schedule. The following table is a schedule of actual and planned supplements for the first three years of the survey.

Schedule of Rounds and Supplements for the First  
Three Years of MCBS

| <u>Round</u> | <u>Dates begin &amp; end</u> | <u>Supplement</u>                |
|--------------|------------------------------|----------------------------------|
| 1            | Sep.-Dec. 1991               | Access and Satisfaction          |
| 2            | Jan.-Apr. 1992               | Information sources              |
| 3            | May-Aug. 1992                | Income and Assets                |
| 4            | Sep.-Dec. 1992               | Access and Satisfaction          |
| 5            | Jan.-Apr. 1993               | Qualified Medicare Beneficiaries |
| 6            | May-Aug. 1993                | Income and Assets                |
| 7            | Sep.-Dec. 1993               | Access and Satisfaction          |

The Round 1 community interview introduced the respondents to the survey, but did not include the detailed questions about use of services and the associated expenditures that will be asked in each subsequent round. Rather, Round 1 captured baseline demographic and insurance data and measures of health status and access to care. Respondents were also provided with a calendar to record details of health care use, including charges and actual payments by source of payment. They were also encouraged to collect their Medicare and insurance statements along with any supporting bills, receipts, and prescriptions in preparation for the next interview.

In subsequent rounds of the survey, respondents are asked about health care events "since the last interview." The calendar and accumulated insurance statements and receipts are reviewed as part of the interview. In round 3 and after, a summary of utilization events recorded in the previous round is presented to the respondent to confirm the completeness and accuracy of the information. In addition, the interviewer probes for information recorded on insurance statements that were not available at the time of the last interview.

The facility interview. The MCBS conducts interviews for persons in long term care facilities using a similar, but shortened instrument. Facility interviews are conducted with persons who are in facilities at first contact and with those who moved into a facility after the first contact. If an institutionalized person returns to the community in a subsequent round, a community interview is conducted. Thus, a beneficiary can be followed in and out of facilities, and a continuous record is maintained regardless of the location of the respondent.

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.

The initial contact for the facility 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. As a result, the facility interview does not include attitudinal or other subjective items. The facility instrument includes: (a) a facility screener to gather information on the facility, (b) a beneficiary baseline section for health status and demographic items, and (c) a facility core questionnaire for utilization, charge and payment information.

The facility interviews also differ from those conducted in the community because they are administered using a printed questionnaire with hand-written entries, rather than a computer.

Data linkage. MCBS interview data have been linked to Medicare claims and other administrative data to enhance their analytic power. This results in a data base which combines data which can only be obtained from personal interviews, with highly accurate Medicare administrative data. The survey data plus Medicare claims data constitute a more complete data set for the MCBS sample than is available for any other national survey.

### **Availability of MCBS Data**

Public use files and documentation will be issued on a calendar year basis. The releases will contain survey responses, administrative data, and Medicare claims data for the MCBS sample.

The first DVD, for calendar year 1991, includes Round 1 baseline interviews (September-December, 1991), and has claims for Medicare covered services for the entire 1991 calendar year. In all future rounds, interview data will include all utilization (non-covered as well as Medicare) and associated payments from all sources for the full calendar year.

A series of methodological reports is planned. Reports are being prepared for publication in professional journals. Copies will be available from the Office of the Actuary.

## **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: This section contains a technical description of the public use 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: This section provides a 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 discrete variables are included in the codebook, as are notations concerning skip patterns. An index of variables is also included at the end of the codebook.

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

Section 3: This section contains notes on how individual variables were collected.

Section 4: This section presents the Round 1 database edits ("Fix" edits) and a list of anomalies that exist in the data which were intentionally left as reported by the respondent ("No-Fix" edits).

Section 5: This section presents the hard copy versions of the questionnaires used in Round 1. The questionnaires have been annotated with variable names to associate the questions with the codebook.

Section 6: This section contains a general description of the MCBS sample design, estimation procedures and projections. A limited discussion of response rates is included. This section concludes with a comparison of the MCBS projections to HCFA control figures.

## Medicare Current Beneficiary Survey

### 1991 Access to Care

#### Section 1: File Structure

##### File specifications

The Medicare Current Beneficiary Survey Calendar Year 1991 public use file(s) consist of a series of 25 separate datasets, or files. Fifteen of these datasets contain data on the MCBS sample persons; these files are the data files. The other ten datasets contain SAS code (SAS input statements, formats and labels) to facilitate the use of the 15 data files by users who have access to a SAS mainframe environment. These are the README files.

Figure 1.1 shows file specifications such as file names, record counts, and the associated README file names.



| <b>Figure 1.1: File organization</b>    |                      |  |
|---|----------------------|--|
| <b>Dataset name</b>                     | <b>Record Counts</b> | <b>Associated Readme File Name</b>                 |
| Data\Flat Files\RIK.dat                 | 12,677               | Data\Flat files\readme\RIK.txt                     |
| Data\Flat Files\RICA.dat                | 12,677               | Data\Flat Files\readme\RICA.txt                    |
| Data\Flat Files\RIC1.dat                | 12,677               | Data\Flat Files\readme\RIC1.txt                    |
| Data\Flat Files\RIC2.dat                | 12,677               | Data\Flat Files\readme\RIC2.txt                    |
| Data\Flat Files\RIC3.dat                | 11,735               | Data\Flat Files\readme\RIC3.txt                    |
| Data\Flat Files\RIC4.dat                | 12,677               | Data\Flat Files\readme\RIC4.txt                    |
| Data\Flat Files\RIC5.dat                | 11,735               | Data\Flat Files\readme\RIC5.txt                    |
| Data\Flat Files\RIC6.dat                | 942                  | Data\Flat Files\readme\RIC6.txt                    |
| Data\Flat Files\RIC7.dat                | 942                  | Data\Flat Files\readme\RIC7.txt                    |
| Data\Flat Files\RIX.dat                 | 12,677               | Data\Flat Files\readme\RIX.txt                     |
| Data\Research Claims\Flat Files\DME.dat | 17                   | Data\Research Claims\Flat Files\Readme\readdme.txt |
| Data\Research Claims\Flat Files\HHA.dat | 3,631                | Data\Research Claims\Flat Files\Readme\readdme.txt |
| Data\Research Claims\Flat Files\HSP.dat | 75                   | Data\Research Claims\Flat Files\Readme\readdme.txt |
| Data\Research Claims\Flat Files\INP.dat | 3,970                | Data\Research Claims\Flat Files\Readme\readdme.txt |
| Data\Research Claims\Flat Files\OTP.dat | 25,179               | Data\Research Claims\Flat Files\Readme\readdme.txt |
| Data\Research Claims\Flat Files\PHY.dat | 367,939              | Data\Research Claims\Flat Files\Readme\readdme.txt |
| Data\Research Claims\Flat Files\SNF.dat | 492                  | Data\Research Claims\Flat Files\Readme\readdme.txt |

## Summary of the Data

The seventeen data files represent completed Round 1 interviews with a sample of 12,677 Medicare beneficiaries, and supplemental information from CMSs Medicare files. Of these cases, 11,735 beneficiaries had community interviews and 942 beneficiaries had facility interviews.

**NOTE:** During subsequent interviews, we obtained conclusive evidence that three of the individuals that were interviewed in Round 1 were interviewed in error. Because those individuals completed an interview, their records are part of this file but they have been assigned a weight of zero. The variable BASEID has a value of 00011535, 00016091 or 00055094 for these three individuals.

## 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 nine 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.

There are seven data files containing Medicare bill data. The MCBS.README.BILLREC file contains SAS input statements and labels (but no formats) for all seven bill record files.

As an illustration of the structure of the README files, Figure 1.2 is a copy of the README file for the Survey Enumeration record, RIC 5.

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Figure 1.2: Text of a Typical README file  
(MCBS.README.RIC5 Illustrated)

```

INPUT  @1    RIC      $1.
        @2    FILEYR   $2.
        @4    BASEID   $8.
        @12   D_HHTOT  $CHAR2.
        @14   D_HHREL  $CHAR2.
        @16   D_HHUNRL $CHAR2.
        @18   D_HHCOMP $CHAR2.
        @20   D_HHLT50 $CHAR2.
        @22   D_HHGE50 $CHAR2.
        @24   D_WRKBEN $CHAR2.
        @26   D_WRKSPO $CHAR2. ;

PROC FORMAT;

VALUE $HHCPFMT  '-8' = 'DONT KNOW'
                ' 1' = 'NO ONE'
                ' 2' = 'SPOUSE ONLY'
                ' 3' = 'SPOUSE AND OTHERS'
                ' 4' = 'CHILDREN ONLY'
                ' 5' = 'CHILDREN AND OTHERS'
                ' 6' = 'OTHERS ONLY'
                ' 7' = 'NONE RELATIVE ONLY';

VALUE $WRKFMT   ' 0' = 'NOT REPORTED'
                ' 1' = 'YES';

LABEL  FILEYR='1991 SUMMARY FILE' D_HHTOT='TOTAL NUMBER
OF PEOPLE IN HH' D_HHREL='NO. IN HH RELATED TO SP
(INCLUDING SP)' D_HHUNRL='TOTAL NO. PEOPLE IN HH
UNRELATED TO SP' D_HHCOMP='HOUSEHOLD COMPOSITION
CODE' D_HHLT50='NUMBER IN HH UNDER 50 (MAY
INCLUDE SP)' D_HHGE50='NO. IN HH 50 AND OVER (MAY
INCLUDE SP)' D_WRKBEN='DID BENEFICIARY WORK IN
PAST YEAR?' D_WRKSPO='DID SPOUSE WORK IN PAST
YEAR?';

FORMAT D_HHCOMP $HHCPFMT.
       D_WRKBEN D_WRKSPO $WRKFMT.;

```

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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 ten data files in the survey and administrative summary data group:

- Key record file
- Administrative Identification record file
- Survey Identification record file
- Survey Health Status and Functioning record file
- Survey Access to Care record file
- Survey Health Insurance record file
- Survey Enumeration record file
- Survey Facility Residence History record file
- Survey Facility Identification record file
- Survey Cross-Sectional Weights record file

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

- Durable medical equipment bill record file
- inpatient hospital bill record file
- SNF bill record file
- hospice bill record file
- home health bill record file
- outpatient bill record file
- physician/supplier bill record file.

The bill records represent services provided during calendar year 1991 and processed by 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 public use 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 1, none of the sample people have 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. ~~Medicare Current Beneficiaries~~

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; Table 1.B describes the bill records.

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

| Data files                                   | Community respondents              | Facility respondent |
|--|------------------------------------|---------------------|
| 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 - Survey Health Status and Functioning | 1 per respondent                   | 1 per respondent    |
| RIC 3 - Survey Access to Care                | 1 per respondent                   | 1 per respondent    |
| RIC 4 - Survey Health Insurance              | 1 per respondent                   | 1 per respondent    |
| RIC 5 - Survey Enumeration                   | 1 per respondent                   | none                |
| RIC 6 - Survey Facility Residence History    | none                               | 1 per respondent    |
| RIC 7 - Survey Facility Identification       | none                               | 1 per respondent    |
| RIC X - Survey Cross-Sectional Weights       |                                    |                     |
| Durable medical equipment bills *            |                                    |                     |
| 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 |                     |

\*      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.A - File Overviews

### Survey and Administrative Summary Data Files

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#### File: KEY

RIC: K

Number of Records: 12,677 - 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 check digit.

In addition to the BASEID, the KEY file contains the bounding dates of the interview, disposition code, the type of interview conducted and the final weight assigned to the interview. Three records are not weighted.

#### File: ADMINISTRATIVE IDENTIFICATION

RIC: A

Number of records: 12,677 - 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 Health Care Financing Administration. 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 1991.

**Table 1.A - File Overviews****Survey and Administrative Summary Data Files**  
-----**File: SURVEY IDENTIFICATION**

RIC: 1

Number of records: 12,677 - 1 for each person who

Description: The SURVEY IDENTIFICATION file contains 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.

In addition, this file contains information about the interview itself, such as the type of questionnaire administered (community or facility), the length of the interview, and whether or not the community interview was conducted by proxy.

**File: SURVEY HEALTH STATUS AND FUNCTIONING**

RIC: 2

Number of Records: 12,677 - 1 for each person who

Description: The SURVEY HEALTH STATUS AND FUNCTIONING file contains information 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 such as smoking, 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.A - File Overviews

### Survey and Administrative Summary Data Files

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#### File: SURVEY ACCESS TO CARE

RIC: 3

Number of Records: 11,735 - 1 for each person who completed a community 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 1991 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.

#### File: SURVEY HEALTH INSURANCE

RIC: 4

Number of Records: 12,677 - 1 for each person who completed an interview

Description: The SURVEY HEALTH INSURANCE file summarizes the health insurance information provided by the sample people.

One derived variable, the summary insurance indicator, indicates the variety and number of policies reported by the sample person. Medicaid coverage and details of other types of coverage are also included. To limit the size of the record, only 5 additional policies are detailed.

NOTE: Two individuals in the sample had more than 5 additional policies. For those two people the total in the summary indicator is correct, but the number of plans detailed is one less than the total.

## **Table 1.A - File Overviews**

### **Survey and Administrative Summary Data Files**

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#### **File: SURVEY ENUMERATION**

RIC: 5

Number of Records: 11,735 - 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.

#### **File: SURVEY FACILITY RESIDENCE HISTORY**

RIC: 6

Number of Records: 942 - 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 discharge dates, the dates of any breaks in stay, and some limited information about the sample person's household.

#### **File: SURVEY FACILITY IDENTIFICATION**

RIC: 7

Number of Records: 942 - 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 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

### Medicare Utilization Data Files

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#### File: HOSPITAL BILL

RIC: INP

Number of Records: 3,970

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: 492

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: 75

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.

## **Table 1.B - File Overviews**

### **Medicare Utilization Data Files**

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#### **File: HOME HEALTH BILL**

RIC: HHA

Number of Records: 3,631

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

#### **File: OUTPATIENT HOSPITAL BILL**

RIC: OTP

Number of Records: 25,179

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: 367,939

Description: Medicare Part B (physician and supplier)  
claims for the MCBS population. These  
records reflect services such as doctor  
visits, laboratory tests, X-rays and other  
types of radiological tests, surgeries,  
inoculations and durable medical  
equipment.

**Table 1.B - File Overviews**

Medicare Utilization Data Files

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**File: DURABLE MEDICAL EQUIPMENT**

RIC: DME

Number of Records: 17

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

# Medicare Current Beneficiary Survey

CY 1991 Access to Care

## Section 2: Codebook

This public use release consists of two parts: a summary segment, which contains all of the survey information and summary data from CMS's administrative files; and a bill detail segment, which contains itemized bill records from CMS's national claims history database (NCH).

The first part of this section includes frequency tables for all of the variables in the summary segment. The second part of this section documents the variables in the bill detail records.

### SUMMARY SEGMENT

#### Using the tables

The following tables list the variables in each of the records, give their physical location in the record, list their possible values and relate them to the questionnaires or to source HCFA files.

The complete Medicare Current Beneficiary Survey file is made up of 7 different types of records. The name of the record being described is in the upper right-hand corner of each page of the description.

Quex No. - The column headed "Quex No." contains a reference to the questionnaire for direct variables, or to the source of derived variables. For example, the "Quex No." 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.

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

This column will be blank for variables that relate to neither the questionnaire nor to HCFA 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.

Variable Name - This column contains the variable names that we have associated with the SAS version of our data

Certain conventions apply to the SAS variable names. All variables that are preceded by the characters "D\_", such as D\_INTRPT, are derived variables. These variables did not come directly from the survey data, but were compiled from several survey variables. Variables preceded by the characters "H\_" come from CMS source files.

Counts - This column actually contains two pieces of information. The first line of any variable description identifies the type of variable: numeric, alphanumeric, date, etc. All subsequent lines contain a frequency count.

All of the possible values of the variable appear in lines beneath that explanation. Associated with each possible value is a count of the number of times that the variable had that value, and a short format expanding on the coded value. Formats are also available in supplemental files.

conventional codes are: or , not applicable; ,  
~~answer and reference used in answer~~ ~~not~~ ~~besides~~ ~~didn't~~ ~~With~~ the  
 derived variables, a blank or . means that the variable could  
 not be derived because one or more of the component parts was  
 not available.

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 Questionnaire

|    |                               |
|----|-------------------------------|
| IN | Introduction                  |
| EN | Enumeration                   |
| HI | Health Insurance              |
| AC | Access to Care                |
| HS | Health Status and Functioning |
| SC | Satisfaction with Care        |
| US | Usual Source of Care          |
| DI | Demographics/Income           |
| CL | Closing materials             |

Facility Questionnaire ("Screener")

FQ

Facility Baseline Questionnaire

|   |                               |
|---|-------------------------------|
| A | Demographics/Income           |
| B | Residence history             |
| C | Health Status and Functioning |
| D | Health Insurance              |
| L | Tracing and Closing           |

**BILL DETAIL SEGMENT**

**Using the tables**

The tables in the bill detail section describe the Medicare utilization files included on the public use file(s). There are three 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 six Medicare utilization files on the public use file(s). The inpatient hospital and SNF bill files are described in the same record layout even though they are in separate datasets.

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. Counters show how many of each trailer type are present.

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 6 characters, interpreted as YYMMDD (two-digit year, followed by two-digit month, followed by two-digit day).

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.

- **CROSS-WALK** - As its title suggests, this table links the variable names listed in the record layouts to HCFA standard names. The HCFA standard names are referenced in the next series of tables.
- **DATA DICTIONARY and TABLE OF CODES** - These tables are maintained by HCFA to describe their internal records. They contain standard definitions of the variables in this file and values for all coded variables. 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.

## **Medicare Current Beneficiary Survey**

### **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 and how field procedures affect the data collection process. We have included this section to address those questions.

This section is a conglomerate of information about various data fields present in this public use 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). Specific information on individual data fields follows, presented in the same sequence as the data fields appear in the codebook.

### **Global Information**

#### Unweighted respondents

Several-hundred sample persons gave information in Round 1, which conflicted with information about them in the master file which was used to draw the sample. During subsequent interviews, we obtained conclusive evidence that three of the individuals were interviewed in error in Round 1. Because those individuals completed an interview, their records are part of this file, but they have been assigned a weight of zero. The variable BASEID has a value of 00011535, 00016091 or 00055094 for these three individuals.

#### Missing Values

Various negative values are used to indicate missing data. For instance, a value of -1 indicates that the variable is inapplicable. A variable is generally inapplicable because the question is not appropriate, for example, a question about hysterectomy when the respondent is a male. In this file, the value -1 has been replaced with SAS standard missing values

(blank for character and "." for numeric). Other missing value codes: -7 for "refused", -8 for "don't know", and -9 for "not ascertained" were not changed.

### Dates

The dates in this public use release have been written as six numeric characters: MMDDYY (2-digit month, 2-digit day and 2-digit year). 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 - "I know it was in June of last year, but I'm not sure of the exact day" - would be coded "06-891" ("06" for June, the code "-8" for "Don't know", and "91" for the year).

### 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' answer. However, the public use release does not contain narratives. Instead, we have supplied codes that summarize the answer. Often there will be more than one code because the answer included several specific topics.

### **Key Record (RIC K)**

There are 12,677 key records, one for each individual who completed an interview (942 facility interviews (**D\_DISPC=f**) and 11,732 community interviews (**D\_DISPC=C**). Three of the community interviews are unweighted.

The facility interview was conducted whenever the sample person was residing in a facility that contains three or more beds, classified itself as providing long-term care, and could identify long-term care residents of the facility separately 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 extend the focus of their studies of

facility care by using information from the Survey Facility Identification Record. This record is present for each sample person for whom a facility questionnaire was administered.

Several questions in both the community and facility instruments refer to the date that bounds the period that the sample person is asked to recall ("REF DATE"). The reference date for every community interview (**REFCOMM**) was January 1, 1991. The reference date for the facility interviews (**REFNH**) was September 1991 or the date of the sample person's admission to the facility, whichever was later.

The final Round 1 weight (**FINR1WGT**) has an average value of 2565.62 and a sum of 32,524,426. For a full explanation of how the final weights were developed, please refer to Section 6.

This record contains a special-purpose variable, **SURVIVE**. The Round 1 MCBS data are not suited for making estimates of the "ever enrolled" 1991 Medicare population because the sample did not include beneficiaries new to Medicare. For the same reason, point-in-time estimates are also inappropriate. It is appropriate, however, to use the Round 1 data to approximate the "always enrolled" 1991 Medicare population, i.e., those beneficiaries who were alive and enrolled on or before January 1, 1991 and were still alive and enrolled on January 1, 1992. We estimate this population at 32,255,458 beneficiaries. This group can be separated from the entire group of Round 1 interviews by selecting only beneficiaries who survived until 1992 (**SURVIVE**="Y").

#### **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 as of July 1, 1991.

Five variables relating to the sample person's age are provided. Date of birth as reported by the respondent during the interview is recorded in the RIC 1 - Survey Identification record (**D\_DOB**). Date of birth from the Medicare - Social Security Administration records is recorded in the Administrative Identification Record (**H\_DOB**). The variable

**H\_AGE** represents the sample person's age as of July 1, 1991. The variable **H\_STRAT** groups the sample persons by **H\_AGE**. When the sample was designed, beneficiaries were grouped into age stratum based on their age projected forward to July 1, 1992.

These analytic domains (again, age groups) are represented by

~~dhSTRAT~~ ~~appears as~~ ~~D\_STRAT~~. The variables ~~H\_DOB~~, ~~H\_AGE~~, ~~H\_STRAT~~, and

Approximately 11 percent of the Medicare population have their Part B premiums paid by a State agency. This process, called State buy-in, is tracked by CMS and is used as a general proxy for Medicaid participation. The variables that describe this participation (**H\_MCDE1** - **H\_MCDE12**) were derived through a match with CMS's Third Party buy-in master file of March 1992.

Approximately 6 percent of the Medicare population receive Medicare benefits through a coordinated care organization (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. The variables that describe this membership (**H\_PLTP1** - **H\_PLTP12**) were derived through a match with CMS's Group Health Plan master file of March 1992. The MCBS sample is not representative of the Medicare coordinated care population because those organizations operate in geographic areas that are restricted by contract, and are not randomly distributed across the U.S.

### 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 1991, as received and processed by CMS through June 1992. (See the variables in the Administrative Identification Record from **H\_LATDRG** to the end). Itemized bill records are supplied as part of this public use release for researchers who wish to look at Medicare bills in detail (i.e., the HOSPITAL BILL RECORD, the SNF BILL RECORD, the HOSPICE BILL, the HOME HEALTH BILL, the OUTPATIENT BILL and the PHYSICIAN/SUPPLIER BILL).

The utilization summary represents services rendered in calendar year 1991. If a beneficiary used no Medicare services at all, all summary variables will be empty. If the

beneficiary used no services of a particular type (e.g., hospitalization), the variables relating to those benefits will be empty. Empty variables are zero-filled, except as noted in the next paragraphs.

The variables pertaining to deductibles (Part A deductible, **H\_INPDED**, Part B deductible, **H\_PTBDDED**, and blood pints deductible, **H\_BLDDED**) are always blank. This information is not consistently available from CMS's present files. An approximation can be derived from the individual bill records.

The variables pertaining to special coverage (lifetime reserve days, **H\_RESDAY**, and psychiatric days, **H\_PSYDAY**) are always blank. These benefits are applied to the beneficiary once in a lifetime, and they are decremented as they are used. At the current time, CMS files contain a "current balance" of these benefit days rather than a history of their utilization. For example, the files will reflect that Mr. Johnson has 20 lifetime reserve days remaining today, but will not tell us how many days were used in CY 1991.

#### Utilization Summary Adjustment bills

There are two types of Part A 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). 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 which 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 of 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. Admissions (**H\_INPSTY**) were totaled by sorting the bills in chronological order, and counting the first admission in each sequence. 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 "001"; 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 **PROVPAY**, organ acquisition costs (if any) and "pass through" amounts. Organ acquisition costs were accumulated from revenue center trailers when the first 2 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. Admissions (**H\_SNFSTY**) were totaled by sorting the bills in chronological order, and counting the first admission in each sequence. 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 "001"; total charges were summed as **H\_SNFCHG** and covered charges (total charges less non-covered charges) were summed as **H\_SNFCCH**. Coinsurance amounts (**H\_SNFCAM**) were summed from **COINAMTA** in the bill.

Reimbursement (**H\_SNFRMB**) is the sum of **PROVPAY**, organ acquisition costs (if any) and "pass through" amounts. Organ acquisition costs were accumulated from revenue center trailers when the first 2 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).

### **Home Health**

Utilization is summarized by visits and other charges. If the first two 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 reimbursement (**H\_HHARMB**) was summed from the variable **PROVPAY**.

### **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 revenue center trailer coded "001" and summed as **H\_HSTCHG**. Total hospice reimbursement (**H\_HSREIM**) was summed from the variable **PROVPAY**.

### **Outpatient**

Utilization is summarized by bills, covered charges and reimbursement amount. All bills were counted as **H\_OUTBIL**. Covered charges were selected from the revenue center trailer coded "001" and summed as **H\_OUTCHG**. Total outpatient reimbursement (**H\_OUTRMB**) was summed from the variable **PROVPAY**.



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

Utilization is summarized by number of claims, number of line items, submitted and allowed charges, reimbursement, office visits and office visit charges. All claims and individual line items (there can be up to 13 per claim) were counted and summed as (**H\_PMTCLM**) and (**H\_PMTLIN**). Submitted charges and allowed charges (**H\_PMTTCH**) and (**H\_PMTCHG**) were summed from **SUBCRG** and **ALLOWCRG** in the bill. Total reimbursement for Part B claims (**H\_PMTRMB**) was summed from the variable **PAYAMT** in the bill.

Office visits and their charges are summed with other services and as separate categories (**H\_PMTVST**) and (**H\_PMTCHO**).

We summed office visits 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 which vary depending on the services that have been performed. Office visits are identified by HCPCS codes in the series 90000-90090 in the revenue center trailer.

### Unweighted respondents

The RIC A records for the three individuals who were interviewed in error (the variable BASEID has the values 00011535, 00016091 or 00055094) are totally blank.

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

### Proxy rules

Whenever possible, the community interviews were conducted directly with the sample person. Some people, however, were too ill or otherwise incapacitated to be interviewed. These people 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.

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 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**. (NOTE: Interviewer remarks questionnaires are missing for 634 of the 11,735 community interviews).

"Sample person language problem" was given as a reason for the use of a proxy in seventy cases. More often, language problems were addressed without the use of a proxy. Interpreters were used in some cases, and Spanish-language versions of the questionnaires were used by bilingual interviewers when the respondent preferred to be interviewed in Spanish.

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

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 Medicare record date of birth (**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.

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

Race categories (**D\_RACE**) 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.

Hispanic (**D\_ETHNIC**) 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.

The respondent was allowed to define marital status categories (**SPMARSTA**); there was no requirement for a legal arrangement (e.g., separated).

**SPCHNLNM:** Respondents were asked to report all living children, whether stepchildren, natural or adopted children.

**D\_OWNHOM:** Only one person was identified as the person who owned or rented the dwelling in which the sample person was living. The sample person was listed as the owner or renter when he or she was among several identified.

**SPHIGRAD:** Education does not include education or training received in vocational, trade or business schools outside of the regular school system. This variable only includes years the sample person actually finished. If the sample person had earned a GED, the response was coded "high school--4th year". If the sample person said he or she earned a college degree in fewer than 4 years, the response was coded "college and graduate school--4 years". If the sample person attended school in a foreign country, in an ungraded school, under a tutor or under special circumstances, the nearest equivalent or the number of years of attendance was coded.

**INCOME:** Income includes 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 below \$25,000 (or, conversely, \$25,000 or more).

**ANOTHHOM:** A "second home" refers to another home to which the sample person or the family had access on a regular basis. It does not refer to a home rented for a week's vacation.

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

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

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

In the height measurement **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.

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 inch, those less than one half pound were rounded down.

The sample person was asked to recall or estimate, not to measure or weigh himself or herself.

**HYSTEREC:** "Hysterectomy" includes partial hysterectomies.

Use of other forms of tobacco, such as chewing tobacco, are 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. "Now" meant within the current month or so and not necessarily 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".

The answers about difficulty with various tasks (DIFSTOOP, DIFLIFT, DIFREACH, DIFWRITE, DIFWALK) reflect whether or not the sample person usually had trouble with these tasks, even if a short-term injury made them temporarily difficult.

The questions about various conditions (OCARTERY, OCHBP, OCMYOCAR, OCCHD, OCOTHART, OCSTROKE, OCCSKIN, OCCANCER, OCCLUNG, OCCOLON, OCCBREST, OCCUTER, OCCOROST, OCCCERVX, OCCBLAD, OCCOVARY, OCCSTOM, OCCKIDNY, OCCBRAIN, OCCTHROA, OCCBACK, OCCHEAD, OCCFONEC, OCCOTHER, OCDIABTS, OCARTHHR, OCARTH, OCAARM, OCAFEET, OCABACK, OCANECK, OCAALOVR, OCAOTHER, OCMENTAL, OCALZHMR, OCPSYCH, OCOSTEOP, OCBRKHIP, OCPARKIN, OCEMPHYS, OCPPARAL and OCAMPUTE) were coded if the sample person had at some time been diagnosed with the conditions, even if the condition had been corrected by time or treatment.

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.

#### IADLs and ADLs

"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 (**PRBHWWK**) 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 accommodate 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 (i.e., 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, this is considered "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 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.

**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 Access to Care Record (RIC 3)

### Definitions applied to medical providers

Doctor - Medical doctors (M.D.) and doctors of osteopathy (D.O.). Chiropractors, nurses, technicians, optometrists, podiatrists, physician's assistants, physical therapists, psychologists, mental health counselors and social workers are not included. 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 - 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 - 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 - An organization that provides a full range of health care coverage in exchange for a fixed fee.

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.

### 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.

**USMCCHK:** 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.

## **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 which 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 which are limited to certain illnesses or diseases such as cancer, stroke or heart attacks.
- Policies which 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\_PHREL1 - D\_PHREL5:** The "Policy Holder or "Main insured person" is the member of the group or 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.

**D\_ANAMT1 - D\_ANAMT5:** 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, even though the sample person may not have held the policy for the full 12 months. Premium amounts include cents. The frequency at which the sample person pays the premium (**D\_UNIT1 - D\_UNIT5**) is provided only as analytically interesting; the annual premium amount is already a product of this number and a unit premium amount.

A special character "@" in some date fields is intended to show that the sample person had the policy at the time of the interview. Since the questionnaire does not collect an initial purchase date, the exact span of coverage of a policy cannot be determined. An "@" in the coverage start date (**D\_BDATP1 ... D\_BDATP5**) means that the policy was in effect on or before the reference date. An "@" in the coverage end date (**D\_EDATP1 ... D\_EDATP5**) means that the policy was in effect at least through the ending date of the interview.

## Survey Enumeration Record (RIC 5)

A household is defined as the group of individuals either related or unrelated who live together and share one kitchen facility. This may be one person living alone, a head of household and relatives only, or may include head of household, relatives, boarders and any other non-related individual living in the same dwelling unit.

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\_HHUNREL) 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).

D\_WRKBEN and D\_WRKSPO: Any work, whether part time or full time, is included. Working includes working for pay or working on a family farm or business. Self employed persons are included as working. Whether or not the person is working outside the home is not important; however, homemakers are not included as working.

If the respondent stated that the individual was not working due to illness, the interviewer probed to find out if it was a long term illness or disability before entering a response. A probe such as "is the job being held for you" would be used; a "yes" response would have been coded as working. An individual who had a temporary illness would have been coded as working if it was clear that he or she would be going back to work.

## Survey Facility Identification Record (RIC 7)

The "number of beds" (**FACLTBED** and **FACTOBED**) items will be missing when either there were no beds of that type in the facility, or the question was skipped.

## 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, 1991 and on or before December 31, 1991.
- Skilled nursing facility bills were included if the **admission or "from" date** fell on or after January 1, 1991 and on or before December 31, 1991.
- Home health agency and outpatient facility bills were included if the **"through" date** fell on or after January 1, 1991 and on or before December 31, 1991.
- Hospice bills were included if the **admission or "from" date** fell on or after January 1, 1991 and on or before December 31, 1991.
- Physician or supplier claims were included if the **latest "service thru" date** fell on or after January 1, 1991 and on or before December 31, 1991.

About 15 percent of the beneficiaries did not use Medicare benefits in 1991; consequently, there are no bill records for them in this file. In addition, there are no bill records in this file for the three individuals who were interviewed in error. For other individuals in the sample, we have captured any and all bills meeting the date criteria and processed by CMS through June 30, 1992.

## Medicare Current Beneficiary Survey

CY 1991 Access to Care

### Section 4: Edits

The use of Computer Assisted Person Interviewing (CAPI) significantly affects the data editing process. Many of the edits are performed as the responses are collected. Often, problems arising from miscommunications or data entry errors can be detected and corrected immediately. Also, since the computer software structures the interview, it prevents most "skip pattern" errors.

As survey information is collected it is put into a database management system built into the CAPI software. During the interview and subsequent in-house review, the data in the database are subjected to two types of edits. First, logical relationship edits are performed between various segments of the database to ensure the integrity of the whole. Second, subject matter edits are performed to ensure the internal consistency of the data.

The edits related to the logical integrity of the database ensure that the database is sound by checking the links between segments. For example, every medical provider record in the provider segment must be linked to at least one respondent. The provider record is useless if the linkage does not exist. Because they deal with the internal structure of the database and do not apply directly to the public use release, the database edits are not spelled out here.

The subject matter edits that are performed to ensure the internal consistency of the data are explained in the pages that follow. In order to provide an all-inclusive list of edits, we have included edits for data elements which are collected in the survey but which are not included in the subset of variables in the public use release.

Internal consistency edits are of two types: those that resulted in changes being made to the database, and those that did not. Table 4.1 describes the "fix" edits, those that resulted in repairs to the database. These edits are referenced in the codebook (Section 2). For example, variable MAMMOGRAM in the Health Status and Functioning record (RIC 2) references edits MC01013 and MC01014. (If the sample person was a man, the question was not asked; if the sample person was a woman, the question was asked.)

The second group of consistency edits are the "no fix" edits. These edits serve as a warning that certain data are not consistent and cannot be made consistent with only the data and interviewers' notes for guides. These edits are described in Table 4.2. A list of the interviews that failed each edit follows the edit description.

**Table 4.1: "Fixed" Internal Consistency Edits**

|         |   |
|---------|---|
| MC01013 | If the sample person is a woman, then questions about mammograms and pap smears must be asked.  |
| MC01014 | If the sample person is a man, questions about mammograms, pap smears and hysterectomies are not asked.                                 |
| MC01018 | If the sample person indicated more than one reason for not seeing a doctor, one of the reasons must be indicated as the "main" reason. |
| MC01019 | If the sample person is less than 17 years old, the questions about marital status and number of children are not asked.                |
| MC01020 | If the sample person is more than 16 years old, the questions about marital status and number of children must be asked.                |
| MC01021 | If a member of the household is more than 15 years old, the interviewer must ask if he or she worked in the preceding year.             |
| MC01022 | If a member of the household is under 16 years of age, the interviewer will not ask if he or she worked in the preceding year.          |
| MC01023 | If the sample person indicates that he or she is a member of an HMO, at least one health insurance plan must be described as an HMO.    |

**Sex code must be consistent with relationship for any person described by the sample person.**

|         |   |
|---------|---|
| MC01029 | A person described as a "son" must be male.               |
| MC01030 | A person described as a "daughter" must be female.        |
| MC01031 | A person described as a "brother" must be male.           |
| MC01032 | A person described as a "sister" must be female.          |
| MC01033 | A person described as a "father" must be male.            |
| MC01034 | A person described as a "mother" must be female.          |
| MC01035 | A person described as a "son-in-law" must be male.        |
| MC01036 | A person described as a "daughter-in-law" must be female. |
| MC01037 | A person described as a "grandson" must be male.          |
| MC01038 | A person described as a "granddaughter" must be female.   |
| MC01039 | A person described as a "nephew" must be male.            |
| MC01040 | A person described as a "niece" must be female.           |

**Sex code must be consistent with relationship for any person described by the sample person as living in his or her household.**

MC01043      A person described as a "son" must be male.  
MC01044      A person described as a "daughter" must be female.  
MC01045      A person described as a "brother" must be male.  
MC01046      A person described as a "sister" must be female.  
MC01047      A person described as a "father" must be male.  
MC01048      A person described as a "mother" must be female.  
MC01049      A person described as a "son-in-law" must be male.  
MC01050      A person described as a "daughter-in-law" must be female.  
MC01051      A person described as a "grandson" must be male.  
MC01052      A person described as a "granddaughter" must be female.  
MC01053      A person described as a "nephew" must be male.  
MC01054      A person described as a "niece" must be female.

MC01055      If the sample person has indicated that someone helps with daily activities, at least one activity must be indicated.

**If a "helper" record shows that someone assists with a certain activity or stays nearby to help if needed, the sample person has to have said that he or she receives help with that activity.**

MC01056      If a "helper" assists the sample person to use the telephone, the sample person must have indicated that he or she gets help using the telephone.  
MC01057      Same as MC01056, but activity is light housework.  
MC01058      Same as MC01056, but activity is heavy housework.  
MC01059      Same as MC01056, but activity is preparing meals.  
MC01060      Same as MC01056, but activity is shopping.  
MC01061      Same as MC01056, but activity is managing money.  
MC01062      Same as MC01056, but activity is bathing or showering.  
MC01063      Same as MC01056, but activity is dressing.  
MC01064      Same as MC01056, but activity is eating.  
MC01065      Same as MC01056, but activity is getting into or out of chairs.  
MC01066      Same as MC01056, but activity is walking.  
MC01067      Same as MC01056, but activity is using the toilet.

MC01068      If more than one person is described as helping with activities (ADLs), the one who helps the most must be indicated.

MC01069      If anyone is described as "helping the most" with activities (ADLs), then there must be at least one other helper indicated.

MC01070      If anyone is described as "helping the most" with ADLs, then the "helper" roster entry for that person must agree.



- MC01071 If any "helper" roster entry indicates that a person helps the most, then the ADL section must show that someone helps more than others.
- MC01072 If any "helper" roster entry indicates that a person helps the most, then that specific person must also be referenced in the ADL section.
- MC01073 DELETED
- MC01074 If someone is identified as "the person who accompanies the sample person to the doctor" on the "main" roster, the sample person must have indicated that someone performs this task.

**If the sample person indicates that someone helps with an activity or stays nearby to help if needed, that person must be identified.**

- MC01075 If the sample person indicates that someone helps with bathing or stays nearby, that person must be identified.
- MC01076 Same as MC01075, but activity is dressing.
- MC01077 Same as MC01075, but activity is eating.
- MC01078 Same as MC01075, but activity is getting into or out of a chair.
- MC01079 Same as MC01075, but activity is walking.
- MC01080 Same as MC01075, but activity is using the toilet.
- MC01081 Same as MC01075, but activity is using the telephone.
- MC01082 Same as MC01075, but activity is light housework.
- MC01083 Same as MC01075, but activity is heavy housework.
- MC01084 Same as MC01075, but activity is preparing meals.
- MC01085 Same as MC01075, but activity is shopping.
- MC01086 Same as MC01075, but activity is managing money.
- MC01087 If the sample person is 65 years of age or older, or age is unknown, the interviewer will not ask the sample person to identify the basis for Medicare eligibility.
- MC01088 If the sample person is under 65 years of age and has not indicated any medical condition, the interviewer will not ask which condition was the basis for Medicare eligibility.
- MC01089 If the sample person is under 65 years of age and has indicated a medical condition, the condition that was the basis for Medicare eligibility must be specified.
- MC01090 If the sample person has indicated that he or she is eligible for Medicare because of a medical condition, and has named only one condition, the interviewer will not ask which condition was chiefly responsible.

- MC01091 If the sample person is disabled but indicates that Medicare eligibility is not due to a medical condition, the interviewer will not ask which medical condition was the basis for Medicare eligibility. The interviewer will ask what makes the sample person eligible.
- MC01092 If the sample person is disabled and indicates that a specific medical condition is the basis for Medicare eligibility, then the specific condition must be indicated.
- MC01093 If the sample person usually receives medical care at a facility, the facility must be identified.
- MC01094 If the sample person usually receives medical care at home or in a doctor's office, the doctor must be identified.
- MC01095 If the sample person indicates that someone usually accompanies him or her to the doctor, there must be someone on the "helper" roster who does that.
- MC01096 If the sample person says he or she goes alone to the doctor, no one should be identified as "the person who accompanies the sample person to the doctor".
- MC01097 If someone is identified as "the person who accompanies the sample person to the doctor" on the "helper" roster, the sample person must have indicated that someone performs this task.
- MC01098 If a person is listed on the main roster as one who helps with IADLs or ADLs, that person must also be on the "helper" roster.
- MC01099 If the sample person has indicated that the interviewer should use another phone number to arrange the next interview, the phone number must be recorded.
- MC01101 If the sample person has a usual source of medical care and has a private insurance policy, the interviewer must ask if the doctor takes care of the insurance paperwork.

**"Helper" roster number and roster number recorded in the access segment must be consistent.**

- MC01104 If someone usually accompanies the sample person to the doctor's office, there must be someone so identified in the "helper" roster.

- MC01105 If someone in the "helper" roster is identified as the one who accompanies the sample person to the doctor's office, the access segment must contain a "helper" roster number.
- MC01106 The "helper" roster must associate the correct service (accompanying the sample person to the doctor's office) with the person identified in the access segment.
- MC01107- Sex code must be recorded for each person  
MC01108 mentioned by the sample person as being in the household.

**"Helper" roster entries must be consistent with the sample person's answers about having someone go along on visits to the doctor.**

- MC01109 If the "helper" roster has no entry for an accompanist, then the sample person must go alone to the doctor.
- MC01110 If the sample person usually goes alone to the doctor, then no one on the "helper" roster should be listed as the accompanist.
- MC01111 If the sample person was not asked to identify the accompanist, then he or she must usually go alone to the doctor.
- MC01112 If the "helper" roster has no entry for an accompanist, then the sample person cannot have been asked to identify an accompanist.
- MC01113 DELETED
- MC01114 If more than one helper is identified, only one can be identified as the one who "helps the most".
- MC01115 If more than one helper is identified, only one can be identified as the person who accompanies the sample person to the doctor.
- MC01116 The sample person and anyone else listed in the "household" roster must live in the sample person's home. When the sample person identifies potential proxies, the interviewer must ask if they live in the sample person's home.
- MC01117 If an individual's date of birth is given on the "main" roster, the individual must also appear on the "household" roster.
- MC01118 DELETED
- MC01119 If the sample person offers another person as a MC01120 contact for change of address, etc., that person's name and phone number must be recorded (2 edits).

- MC01121 No one living in the household can be identified as a provider in the same round. (Sometimes family members or friends provide home health services; the intent of this edit is to separate those who live with the sample person from those who come into the home to provide services.)
- MC01123 If the sample person's Medicare number begins with a number, the format of the number must be the Social Security Administration format.
- MC01124 If the sample person's Medicare number begins with a letter, the format of the number must be the Railroad Retirement Board format.
- MC01125 If an individual's date of birth is missing from the "main" roster, that person must not appear on the "household" roster.
- MC01126 If the sample person has indicated that he or she has arthritis, the site of the arthritis must be specified.
- MC01127 If the sample person has indicated that he or she has or has had cancer, the site of the cancer must be specified.
- MC01128 If the sample person has postponed seeking medical services, a reason must be specified.
- MC01129 If the sample person has visited an outpatient clinic, a reason for the visit must be specified.
- MC01130 If the sample person has visited a medical practitioner, a reason for the visit must be specified.
- MC01131 If the sample person has served in the armed forces, at least one service era must be specified.
- MC01132 If the sample person has never been married, then no person on any roster can be identified as the spouse.
- MC01133 Anyone described as living in the same household as the sample person must also be recorded on the "household" roster.
- MC01134 No one living in a different household than the sample person can be recorded on the "household" roster.
- MC01135 If a Medicare number is entered, it must not equal the original Medicare number provided by CMS. (The new number is only to be entered when it differs.)

- MC01136 If the sample person has visited an emergency room, a medical condition must be recorded for that visit.
- MC01137 If the sample person visited an outpatient clinic for treatment of a condition or for surgery, a medical condition must be recorded for that visit.
- MC01138 If the sample person visited a medical practitioner for treatment of a condition or for surgery, a medical condition must be recorded for that visit.
- MC01139 If the sample person indicates that he or she did not seek care for a medical condition, the condition must be specified.
- MC01140 If there is a condition associated with an emergency room visit, there must be an emergency room visit.
- MC01141 If there is a condition associated with an outpatient clinic visit, there must be an outpatient clinic visit.
- MC01142 If there is a condition associated with a visit to a medical practitioner, there must be a visit to a medical practitioner.
- MC01143 If there is a condition associated with not seeking medical care, the sample person must have indicated that he or she did not seek care.
- MC01144 If the sample person indicates that Medicare eligibility is attributable to a specific condition, the condition must be recorded.
- MC01146 Only one person can be identified as the "spouse".
- MC01147 If someone is listed on the roster as the "sample person", that person's relationship must be recorded as the sample person herself/himself.
- MC01148 If the relationship of a person on the roster is "the sample person herself/himself", that entry must be coded "the sample person".
- MC01149 If the sample person only gives one reason for not seeking medical care, the interviewer will not ask which reason is most important.
- MC01150 Addresses for possible proxies must be recorded.

- MC01151      If the interviewer's notes indicate that a proxy wasn't necessary, then the record must show that the interview was conducted with the sample person, directly.
- MC01152      If the interviewer's notes indicate why a proxy was necessary, then the record must show that the interview was conducted by proxy.
- MC01153      No more than 2 people can be listed as contacts.
- MC01154      There can only be one MRES segment for Round 1.

**Table 4.2: "No Fix" Internal Consistency Edits**

**NF01001** The number of children given in response to question IN14:  
 "Including natural, adopted and stepchildren, how many living children  
 do you have?" (Community component, Introduction); is less than the  
 total number of people listed by name in the roster and identified as  
 "son" or "daughter". (121 cases)

|          |          |          |          |
|----------|----------|----------|----------|
| 00000812 | 00039129 | 00084464 | 00121318 |
| 00001491 | 00042618 | 00084890 | 00122088 |
| 00003091 | 00043689 | 00085009 | 00122191 |
| 00003461 | 00043974 | 00088705 | 00122624 |
| 00005889 | 00045273 | 00089469 | 00125217 |
| 00010291 | 00046589 | 00090217 | 00126664 |
| 00010843 | 00047782 | 00090831 | 00132398 |
| 00010859 | 00050077 | 00091454 | 00132627 |
| 00013163 | 00051032 | 00097016 | 00132677 |
| 00014952 | 00053303 | 00097505 | 00132871 |
| 00015434 | 00055135 | 00098112 | 00133347 |
| 00015666 | 00055969 | 00099296 | 00136059 |
| 00016041 | 00060036 | 00100062 | 00136297 |
| 00017476 | 00060371 | 00100153 | 00136855 |
| 00018102 | 00061063 | 00100670 | 00137600 |
| 00019173 | 00062692 | 00101362 | 00137995 |
| 00020448 | 00068486 | 00105192 | 00140224 |
| 00021447 | 00070556 | 00106141 | 00140581 |
| 00025512 | 00071577 | 00108252 | 00141223 |
| 00026511 | 00073280 | 00109160 | 00144424 |
| 00027429 | 00073462 | 00109245 | 00145326 |
| 00027645 | 00077753 | 00110980 | 00146319 |
| 00028898 | 00077769 | 00113244 | 00148226 |
| 00029013 | 00079331 | 00114594 | 00148395 |
| 00030037 | 00079751 | 00116138 | 00150506 |
| 00030394 | 00080048 | 00116401 | 00150528 |
| 00031133 | 00082074 | 00116859 | 00150625 |
| 00031230 | 00082193 | 00118926 | 00151157 |
| 00031268 | 00083954 | 00120660 | 00151890 |
| 00032897 | 00084185 | 00121205 | 00152112 |
|          |          |          | 00153898 |

**NF01002** The sample person has indicated that he or she has trouble doing light housework, but has indicated no problem with heavy housework. (Community component, Instrumental Activities of Daily Living) (77 cases)

|          |          |          |          |
|----------|----------|----------|----------|
| 00001485 | 00031280 | 00074790 | 00111729 |
| 00001548 | 00032110 | 00076168 | 00113363 |
| 00001827 | 00036291 | 00076209 | 00114005 |
| 00003502 | 00043231 | 00076823 | 00117472 |
| 00004874 | 00043350 | 00078213 | 00122345 |
| 00008046 | 00046852 | 00085322 | 00123322 |
| 00008278 | 00048612 | 00087201 | 00124995 |
| 00008682 | 00053557 | 00093208 | 00125239 |
| 00009487 | 00055135 | 00093474 | 00129940 |
| 00012120 | 00055420 | 00095745 | 00131270 |
| 00012697 | 00060202 | 00097696 | 00131355 |
| 00016706 | 00062119 | 00097806 | 00132445 |
| 00017846 | 00063550 | 00103138 | 00133961 |
| 00018851 | 00065172 | 00103536 | 00134829 |
| 00019004 | 00065940 | 00104256 | 00135395 |
| 00025039 | 00066115 | 00104375 | 00139385 |
| 00026834 | 00066999 | 00106602 | 00139937 |
| 00030714 | 00071414 | 00108525 | 00143124 |
| 00030764 | 00071436 | 00110902 | 00145780 |
|          |          |          | 00152281 |

**NF01003** The "wait" time during an emergency room visit is reported to be longer than the total time of the visit. (Community component, Provider Probes/Access to Care. Questions AC5: "From the time you arrived until the time you left, about how long did the visit to the hospital emergency room take altogether?" and AC6: "How much of that time was spent waiting before you saw a doctor or some other medical person?")(24 cases)

|          |          |          |          |
|----------|----------|----------|----------|
| 00002694 | 00034986 | 00066911 | 00112370 |
| 00008234 | 00039157 | 00069037 | 00117256 |
| 00018641 | 00050196 | 00071458 | 00120751 |
| 00024018 | 00060036 | 00085463 | 00122088 |
| 00034174 | 00061079 | 00097094 | 00130679 |
| 00034497 | 00065019 | 00097668 | 00132724 |



**NF01004** The "wait" time during an outpatient department visit is reported to be longer than the total time of the visit. (Community component, Provider Probes/Access to Care. Questions AC15: "From the time you arrived until the time you left, about how long did the visit to the hospital clinic or outpatient department take altogether?" and AC16: "How much of that time was spent waiting before you saw a doctor or some other medical person?") (35 cases)

|          |          |          |          |
|----------|----------|----------|----------|
| 00003596 | 00035838 | 00079096 | 00117905 |
| 00006258 | 00039646 | 00079212 | 00120002 |
| 00014548 | 00043758 | 00082632 | 00121114 |
| 00021726 | 00050209 | 00085463 | 00124666 |
| 00022208 | 00059608 | 00090643 | 00128286 |
| 00030764 | 00060036 | 00102731 | 00137832 |
| 00034447 | 00062573 | 00103473 | 00139915 |
| 00034801 | 00065348 | 00111707 | 00153133 |
| 00035612 | 00066206 | 00111785 |          |

**NF01005** The "wait" time during an office visit is reported to be longer than the total time of the visit. (Community component, Provider Probes/Access to Care. Questions AC27: "From the time you arrived until the time you left, about how long did the visit to the medical doctor take altogether?"; and AC28: "How much of that time was spent waiting before you saw the doctor or some other medical person?") (99 cases)

|          |          |          |          |
|----------|----------|----------|----------|
| 00003176 | 00040438 | 00089384 | 00121744 |
| 00004573 | 00041493 | 00090057 | 00124995 |
| 00004686 | 00041578 | 00090643 | 00127685 |
| 00006593 | 00046642 | 00091595 | 00127760 |
| 00007774 | 00047099 | 00091608 | 00128383 |
| 00008610 | 00048634 | 00096380 | 00132100 |
| 00009807 | 00054192 | 00100909 | 00133165 |
| 00010724 | 00055420 | 00103081 | 00133961 |
| 00010906 | 00055997 | 00103291 | 00135840 |
| 00012051 | 00057622 | 00103683 | 00136673 |
| 00012227 | 00057638 | 00104507 | 00137713 |
| 00013135 | 00059131 | 00105233 | 00139608 |
| 00014554 | 00060848 | 00105603 | 00140218 |
| 00014582 | 00062573 | 00106856 | 00140434 |
| 00015070 | 00063033 | 00108393 | 00142868 |
| 00017517 | 00063209 | 00108553 | 00144383 |
| 00018641 | 00063839 | 00111810 | 00144446 |
| 00020818 | 00065019 | 00112148 | 00145122 |
| 00024494 | 00076312 | 00113391 | 00146626 |
| 00025750 | 00078019 | 00113523 | 00148890 |
| 00029041 | 00078768 | 00114522 | 00150625 |
| 00033517 | 00080258 | 00116417 | 00151765 |
| 00033642 | 00080480 | 00117949 | 00152344 |
| 00036081 | 00080684 | 00118722 | 00152708 |
| 00039806 | 00087041 | 00120046 |          |

**NF01006** No reason was given for an outpatient visit. (Community component, Provider Probes/Access to Care. Questions AC8: "Since (REF.DATE) did you go to a hospital clinic or outpatient department?" and AC9: "...What was the reason you went to the hospital clinic or outpatient department?") (12 cases).

|          |          |          |          |
|----------|----------|----------|----------|
| 00013038 | 00035753 | 00080957 | 00137406 |
| 00017686 | 00043093 | 00100670 | 00139448 |
| 00023031 | 00064305 | 00130516 | 00152645 |

**NF01007** No reason was given for a medical doctor visit.

(Community component, Provider Probes/Access to Care. Questions AC19: "...Have you seen a doctor since (REF.DATE)?" and AC21: "What was the reason you saw the doctor?") (56 cases).

|          |          |          |          |
|----------|----------|----------|----------|
| 00010990 | 00061029 | 00081774 | 00118653 |
| 00012114 | 00062454 | 00084458 | 00120228 |
| 00014582 | 00062636 | 00086939 | 00130851 |
| 00015531 | 00068577 | 00088432 | 00132445 |
| 00018572 | 00068652 | 00088545 | 00133892 |
| 00022032 | 00069231 | 00090706 | 00134277 |
| 00026931 | 00069720 | 00095400 | 00134857 |
| 00034293 | 00070108 | 00097840 | 00150540 |
| 00038813 | 00073428 | 00103984 | 00150681 |
| 00043708 | 00075125 | 00106113 | 00151232 |
| 00043996 | 00075868 | 00109621 | 00152758 |
| 00045803 | 00076704 | 00114312 | 00152902 |
| 00057763 | 00079319 | 00115311 | 00153133 |
| 00058784 | 00081100 | 00118396 | 00153967 |

The following 16 cases contained more than one "no fix" error:

|          |                           |
|----------|---------------------------|
| 00014582 | NF01005, NF01007          |
| 00018641 | NF01003, NF01005          |
| 00030764 | NF01002, NF01004          |
| 00055420 | NF01002, NF01005          |
| 00060036 | NF01001, NF01003, NF01004 |
| 00062573 | NF01004, NF01005          |
| 00065019 | NF01003, NF01005          |
| 00085463 | NF01003, NF01004          |
| 00090643 | NF01004, NF01005          |
| 00100670 | NF01001, NF01006          |
| 00122088 | NF01001, NF01003          |
| 00124995 | NF01002, NF01005          |
| 00132445 | NF01002, NF01007          |
| 00133961 | NF01002, NF01005          |
| 00150625 | NF01001, NF01005          |
| 00153133 | NF01004, NF01007          |

## Medicare Current Beneficiary Survey

CY 1991 Access to Care

### Section 5: Questionnaires

This section contains copies of the questionnaires administered in Round 1 of the Current Medicare Beneficiary Survey.

#### Community Component

Since the community component of the survey was conducted using CAPI, the questionnaire actually exists 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.

Each question is 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 the all of the variable names associated with it. Variable names are also indexed in the codebook.

#### Facility Component

The facility component of the survey was conducted conventionally, and the questionnaire presented here is the same as the hard copy instrument that was used in the field. As in the community version of the questionnaire, the instrument has been annotated with corresponding variable names.

A facility screener was completed for each facility contacted in the survey. This questionnaire, too, was administered conventionally, and has been annotated with the names we have assigned to the variables.

## Medicare Current Beneficiary Survey

CY 1991 Access to Care

### Sample Design and Estimation

This section includes a general discussion of the statistical methodology used to draw the MCBS sample, the estimation procedures for the 1991 public use data, the Round 1 response rates and comparisons of the MCBS Medicare enrollment projections to Medicare control figures.

#### Sample selection

The initial MCBS sample was spread across 107 primary sampling units (PSUs) which are metropolitan areas and clusters of non-metropolitan counties.

Within these areas, the sample was concentrated in 1,163 clusters of fragments of ZIP code areas (5 digit). The sample was selected for CMS's master file of beneficiaries enrolled in Medicare using the beneficiary's address recorded in that file.

#### Primary Sampling Units (PSUs)

The PSUs used for the MCBS were randomly selected within fixed strata with probability proportionate to the U.S. population in 1980. Westat selected a set of 100 PSUs for its own purposes in 1981 using the 1980 population to determine selection probabilities. In selecting the additional seven PSUs, WESTAT took advantage of the opportunity to bring some southern and western MSAs into the sample that have experienced significant increases in elderly population during the 1980s.

The strata used for selection of the PSUs cover the 50 states, the District of Columbia and Puerto Rico. There are some states without any sample PSUs within their boundaries. Within region and metropolitan status, the strata were defined to be internally homogeneous with respect to socio-economic data from the 1970 Decennial Census and to be nearly equal in size with respect to the 1980 population.

#### Clustering by Zip Code

Within populous PSUs, the next stage of sampling was to select a sample of ZIP clusters. There were several steps in this sampling process. The first was to form ZIP fragments (the intersection of ZIP code areas and counties in sample PSUs). The second was to assign a measure of size to each ZIP fragment. The measure of size was closely related to the total count of Medicare beneficiaries residing the ZIP fragment, but beneficiaries in domains to be over sampled (such as persons over age 84) were counted more heavily than persons to be under sampled (such as persons aged 66 to 69). Some of the ZIP fragments had very small numbers of beneficiaries residing in them (as few as one). The small ZIP fragments were collapsed with each other and with

larger ZIP fragments until the aggregate measure of size for each cluster was large enough to provide a reasonable cluster size for the sample. The resulting ZIP clusters were then sorted within each PSU by mean 1987 per capita Medicare reimbursement (Part A plus Part B). A sample of 1163 of the ZIP clusters was then selected with probability proportionate to measure of size using systematic sampling with a random start. All ZIP clusters in non-populous PSUs were selected with certainty.

#### Targeted population

Not all persons enrolled in Medicare reside in the United States. Some reside in one of the U.S. commonwealths or territories. Others reside outside of the country all together. In addition, not all persons are enrolled throughout a given year. Persons come on and leave the Medicare rolls at various months of the year.

The targeted population for Round 1 of the MCBS was persons enrolled for one or both parts of the program as of January 1, 1991 who reside in one of the fifty states, the District of Columbia, or Puerto Rico.

The targeted universe was divided into seven sampling strata based on projected age as of July 1, 1992, the first full calendar year of the survey.

The sample size was determined to ensure the robustness and generality of the survey results. It was designed to yield complete 1992 data on 12,000 beneficiaries who were alive at the beginning of the year. The disabled and the oldest old were over sampled. The projected universe size and designated sample size by stratum is shown in Table 6.1.

-----  
Table 6.1 MCBS Round 1 Projected Universe and  
Designated Sample Sizes  
-----

| Category        | Stratum | Universe<br>size | Designated<br>sample |
|-----------------|---------|------------------|----------------------|
| Disabled        | 0-44    | 1,088,000        | 1,234                |
|                 | 45-64   | 2,083,000        | 1,267                |
| Total           |         | 3,171,000        | 2,501                |
| Aged            | 65-69   | 9,659,000        | 2,473                |
|                 | 70-74   | 7,774,000        | 2,477                |
|                 | 75-79   | 5,931,000        | 2,529                |
|                 | 80-84   | 3,855,000        | 2,574                |
|                 | 85+     | 3,187,000        | 2,857                |
| Total           |         | 30,406,000       | 12,910               |
| Total, all ages |         | 33,577,000       | 15,411               |

-----

## Selection of Medicare Beneficiaries

Using the ZIP cluster sampling areas, a primary sample of 15,215 beneficiaries was selected from the 5-percent sample of CMS's Health Insurance Master file (HIMA). We selected the MCBS sample from within the CMS standard 5-percent sample because a rich data base of historical claims data exist for beneficiaries in this CMS sample.

Additionally, two secondary samples were selected. Each consisted of 575 beneficiaries and was selected with probabilities proportionate to those of the primary list sample by analytic domain. When preliminary response rates were tabulated after the first month of interviewing, response rates among those 85 years of age and older were lower than anticipated. As a result, the cases from both secondary samples of those 85 year of age and older (an additional 196 cases) were fielded. This increased the Round 1 sample to 15,411.

Both the primary sample and each of the secondary samples were systematic random samples designed to effect uniform sampling weights within analytic domains at the national level. The universe file for the sample was stratified by PSU, ZIP code cluster, age domain, sex, and projected 1991 Medicare reimbursements. The projected Medicare reimbursements were based on 1987 reimbursements. A measure of size was defined to make the beneficiary sample as close as possible to self-weighting within each of the age domains (age 0-44, 45-64, 65-69, 70-74, 75-79, 80-85 and 85+).

### **Estimation procedure**

The estimation program has two major components. The primary component is a set of general-purpose small weights. These weights reflect the sample design with adjustment for unit non-response. The weights have also been adjusted to reflect the July 1, 1992 Medicare enrollment. The general purpose weights can be used for most round and annual tables and are attached to this public use data so that analysts can calculate sample errors for statistics they prepare. The variable, FINRLWGT, appears in the key record.

The second component is a set of replicated weights (employing jackknife or balanced repeated half samples). In many statistical packages, including SAS, the procedures for calculating variance assume that the data was collected in a simple random sample. Procedures of this type are not appropriate for calculating the variance of data elements collected in a sample with a complex cluster design such as the MCBS.

The replicate weights associated with the MCBS data should be used to create estimated standard errors for MCBS variables. These replicate weights are not included on the public use data, but are available from the MCBS staff at CMS. A software package that uses the replicate weights can be downloaded from Westat's home page on the World Wide Web at [WWW.WESTAT.COM](http://WWW.WESTAT.COM). Additional documentation is available from Westat and can be obtained by submitting a request to: [WESVAR@WESTAT.COM](mailto:WESVAR@WESTAT.COM).

### Round One Response rate

Only beneficiaries entitled to Medicare on January 1, 1991 were eligible for the initial MCBS sample. During survey field operations we found 881 of the sample beneficiaries were ineligible for the survey due to death or other loss of entitlement prior to the Round 1 interview. This left 14,530 beneficiaries in the working sample.

-----  
Table 6.2 Response rates, Round 1 MCBS  
-----

| Outcome   | Number of<br>Sample persons | Percent |
|---|-----------------------------|---------|
| -----   |                             |         |
| Ineligible<br>(Leaves a working sample of 14,530) | 881                         | -       |
| Complete  | 12,677                      | 87.2    |
| Unavailable                                       | 76                          | 0.5     |
| Incompetent, no<br>proxy available                | 53                          | 0.4     |
| Could not locate                                  | 184                         | 1.3     |
| Language problem                                  | 6                           | 0.0     |
| Breakoff  | 30                          | 0.2     |
| Refusal   | 1,398                       | 9.6     |
| Out-of-area                                       | 64                          | 0.4     |
| Other non-response                                | 42                          | 0.3     |
| Total working sample                              | 14,530                      | 100.0   |
| -----   |                             |         |

Interviewers were able to complete the questionnaire with 12,677 beneficiaries, or 87 percent of the working sample. Field staff were not able to locate about 1.3 percent of the sample, and another 0.4 percent had moved away from our sampling area and were not contacted. Approximately 10 percent of the sample beneficiaries refused to participate.



## Non-response

### Unit non-response

In contrast to most surveys, CMS has an independent source of information on the sample persons. We plan to use information from Medicare files to characterize non-respondents. Data in the Medicare enrollment data base and in Medicare claims files will be the basis of comparison between respondents and non-respondents in future studies.

### Item non-response

Table 6.3 shows the non-response rates for seven demographic variables. The data on these items are fairly complete: on average, the non-response rate is very low, less than 5 percent. The only exception, which is typical of most surveys, is income. The non-response rate on the item about whether income exceeds \$25,00 is 5.1 percent, and the rate for the more detailed categories is 5.4 percent. (Thus, MCBS supplies some income information for about 95 percent of the sample).

-----  
Table 6.3 Missing rates for demographic variables,  
Round 1 MCBS  
-----

| Item | Description         | Number | Missing<br>Percent |
|------|---------------------|--------|--------------------|
| DI1  | Race                | 16     | 0.1                |
| DI2  | Ethnicity           | 42     | 0.3                |
| DI3  | Highest grade       | 510    | 3.3                |
| DI4  | Income              | 783    | 5.1                |
|      |                     | 830    | 5.4                |
| HI5  | Marital status      | 25     | 0.2                |
|      | Sex                 | 0      | 0.0                |
|      | Age (Date of Birth) | 0      | 0.0                |

-----

A review of all variables and analysis of missing rates are topics planned for independent review.

## Medicare Population Covered by the 1991 Public Use Data

The calendar year 1991 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 1991. This "always enrolled" population includes individuals enrolled on January 1, 1991 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, 1991; and 3) persons who disenrolled or died prior to the end of December 1991.

The "always enrolled" population concept was used for the 1991 MCBS public use release due to operational considerations. Interviewing for the MCBS did not begin until September 1991. Consequently, we have Medicare claims data, but not MCBS survey data, for enrollees who died or lost eligibility in 1991 prior to being interviewed. Health expenditures are much higher for Medicare beneficiaries in their last year of life. Because of this, we chose to exclude all those who died in 1991 from the 1991 public use data, rather than attempting to represent them using statistical imputation or estimation techniques. This decision was bolstered by the fact that our sampling procedures excluded beneficiaries who were added to the Medicare rolls after January 1, 1991.

While it 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 6.4 shows data from the 5-percent Health Insurance Skeleton Eligibility Write-off (HISKEW) file, which contains selected demographic and coverage information on a 5-percent sample of Medicare enrollees. Data for the targeted population are arrayed by age using these three views: persons "ever-enrolled," persons enrolled as of the "mid-point of the year" (July 1) and persons "always enrolled." We have included this comparison to allow users of this data to compare the Medicare population represented in the 1991 public use data to the more frequently used views of the Medicare population.

Table 6.5 distributes the targeted "always enrolled" population from the 5-percent HISKEW and the projected population based on the MCBS sample. The data are arrayed by age, sex and race. These counts show how population estimates based on weighted, "always enrolled" MCBS sample persons compare to the targeted population. The MCBS Medicare population estimates are lower than the target population because of accretions to the Medicare rolls which occurred prior to January 1, 1991 but were recorded after the sample was drawn, and deaths and disenrollment of Medicare beneficiaries which have not and probably never will be recorded.

Table 6.6 displays standard errors associated with the MCBS population estimates in Table 6.5. These data are based on variance estimation methodology discussed elsewhere in this section. Our analysis shows that the target population count is within the confidence interval for the MCBS population estimates after adjustments are made to account for the late recorded accretions and the unrecorded deaths.

The data in Tables 6.4, 6.5 and 6.6 differ from other published CMS data sources in several ways. First, age was computed differently for tables 6.3, 6.4 and 6.5 than it is for the control and publication tables prepared by

HCFA's Bureau of Data Management and Strategy (BDMS). Differences in the age definition will affect the validity of comparisons between these two sources.

BDMS counts "by age" employ the legal definition of age as used for Social Security and Medicare purposes. A person legally attains age for program purposes the day before the anniversary of his or her birthday. In contrast, the MCBS uses the chronological age of the individual. Under this concept, a person attains age on the anniversary of his or her birthday. Comparing the same population grouped by legal versus chronological age will exhibit slightly different distributions.

A second way these tables differ from other CMS enrollment counts is the age computation. The MCBS uses age as of July 1, 1991. For consistency purposes, the same definition (except for persons dying or disenrolling prior to July 1 for whom oldest age attained is used) was used to group individuals for all three views shown in Table 6.4. BDMS uniformly uses oldest age attained in the year (even if at the end of the calendar year) for counts of persons ever enrolled.

A final difference which should be noted concerns the racial breakdowns used in the MCBS and those available from the enrollment file. About 3 percent of persons listed on the Medicare enrollment file have an unknown race. Most of these are Railroad Retirement Board beneficiaries for whom this information was not made available to CMS. In contrast, in the survey relatively few sample persons did not have their race reported. For display purposes, "other" and unknown races are grouped together.

Table 6.4 - Medicare Population in 1991, by Age (Selected Periods)

Number of persons residing in the United States or Puerto Rico enrolled for one or both parts of the program for selected periods during 1991, and percent distribution by age.

| (Numbers in thousands) |                  |         |                 |         |                    |         |
|------------------------|------------------|---------|-----------------|---------|--------------------|---------|
| Age interval           | Ever Enrolled(a) |         | July 1, 1991(b) |         | Always Enrolled(c) |         |
|                        | Number           | Percent | Number          | Percent | Number             | Percent |
| Total                  | 36,406           | 100.0   | 34,599          | 100.0   | 32,646             | 100.0   |
| 0-44                   | 1,297            | 3.6     | 1,217           | 3.5     | 1,125              | 3.4     |
| 45-64                  | 3,228            | 8.9     | 2,336           | 6.8     | 2,013              | 6.2     |
| 65-69                  | 9,750            | 26.8    | 9,612           | 27.8    | 8,747              | 26.7    |
| 70-74                  | 8,182            | 22.5    | 8,041           | 23.2    | 7,903              | 24.2    |
| 75-79                  | 6,257            | 17.2    | 6,101           | 17.6    | 5,948              | 18.2    |
| 80-84                  | 4,140            | 11.4    | 3,985           | 11.5    | 3,835              | 11.7    |
| 85+                    | 3,551            | 9.8     | 3,307           | 9.6     | 3,077              | 9.4     |
| 0-64                   | 4,525            | 12.4    | 3,552           | 10.3    | 3,137              | 9.6     |
| 65 And Over            | 31,881           | 87.6    | 31,047          | 89.7    | 29,508             | 90.4    |

Source: June 1992 update of five percent HISKEW inflated to 100 percent.

- (a) Number of persons residing in the United States or Puerto Rico who were enrolled in one or both parts of the program at any time during calendar year 1991, by age. Persons are classified by age as of July 1, 1991. For persons dying prior to that date, oldest age attained is used.
- (b) Number of persons residing in the United States or Puerto Rico who were enrolled in one or both parts of the program, by age, as of July 1, 1991. Persons are classified by age as of July 1, 1991.
- (c) Number of persons residing in the United States or Puerto Rico who were enrolled in one or both parts of the program continuously from January 1 through December 31, 1991, by age. Persons are classified by age as of July 1, 1991.

Note: Definition of age used is chronological age, that is, age is attained on anniversary of birthday. See text for discussion of definitions of age under Medicare.

Table 6.5 - Medicare Population Estimates for 1991, by Age, Sex and Race

(Numbers in thousands)

| Medicare Population Estimates |         |         |        |                   |         |         |        |                   | MCBS |
|-------------------------------|---------|---------|--------|-------------------|---------|---------|--------|-------------------|------|
| Projections                   |         |         |        |                   |         |         |        |                   |      |
| All persons                   | Total   | White   | Black  | Other and unknown | Total   | White   | Black  | Other and unknown |      |
| Total                         | 32, 646 | 27, 927 | 2, 709 | 2, 010            | 32, 255 | 28, 354 | 2, 811 | 1, 091            |      |
| 0- 44                         | 1, 125  | 816     | 205    | 105               | 1, 091  | 816     | 215    | 61                |      |
| 45- 64                        | 2, 013  | 1, 557  | 310    | 145               | 1, 988  | 1, 589  | 302    | 97                |      |
| 65- 69                        | 8, 747  | 7, 407  | 667    | 673               | 8, 570  | 7, 544  | 693    | 332               |      |
| 70- 74                        | 7, 903  | 6, 862  | 587    | 454               | 7, 931  | 7, 053  | 653    | 225               |      |
| 75- 79                        | 5, 948  | 5, 206  | 426    | 316               | 5, 840  | 5, 214  | 429    | 197               |      |
| 80- 84                        | 3, 835  | 3, 375  | 273    | 187               | 3, 897  | 3, 519  | 290    | 88                |      |
| 85+                           | 3, 077  | 2, 703  | 242    | 131               | 2, 938  | 2, 619  | 229    | 90                |      |
| 0- 64                         | 3, 137  | 2, 373  | 515    | 250               | 3, 080  | 2, 405  | 517    | 158               |      |
| 65 And Over                   | 29, 508 | 25, 554 | 2, 194 | 1, 760            | 29, 176 | 25, 949 | 2, 294 | 933               |      |
| Male                          |         |         |        |                   |         |         |        |                   |      |
| Total                         | 13, 719 | 11, 713 | 1, 148 | 858               | 13, 562 | 11, 901 | 1, 137 | 524               |      |
| 0- 44                         | 719     | 520     | 133    | 66                | 691     | 513     | 138    | 41                |      |
| 45- 64                        | 1, 227  | 966     | 174    | 87                | 1, 205  | 977     | 168    | 61                |      |
| 65- 69                        | 3, 923  | 3, 353  | 288    | 282               | 3, 808  | 3, 389  | 277    | 141               |      |
| 70- 74                        | 3, 373  | 2, 950  | 238    | 185               | 3, 464  | 3, 096  | 255    | 112               |      |
| 75- 79                        | 2, 334  | 2, 050  | 156    | 128               | 2, 271  | 2, 032  | 141    | 98                |      |
| 80- 84                        | 1, 310  | 1, 150  | 91     | 69                | 1, 319  | 1, 180  | 103    | 36                |      |
| 85+                           | 832     | 723     | 68     | 41                | 804     | 714     | 55     | 36                |      |
| 0- 64                         | 1, 946  | 1, 486  | 307    | 153               | 1, 897  | 1, 489  | 306    | 101               |      |
| 65 And Over                   | 11, 773 | 10, 227 | 841    | 705               | 11, 666 | 10, 411 | 831    | 423               |      |
| Female                        |         |         |        |                   |         |         |        |                   |      |
| Total                         | 18, 927 | 16, 214 | 1, 561 | 1, 152            | 18, 693 | 16, 453 | 1, 673 | 567               |      |
| 0- 44                         | 406     | 296     | 72     | 38                | 400     | 303     | 77     | 20                |      |
| 45- 64                        | 785     | 591     | 136    | 58                | 782     | 612     | 134    | 37                |      |
| 65- 69                        | 4, 823  | 4, 054  | 379    | 390               | 4, 762  | 4, 155  | 416    | 191               |      |
| 70- 74                        | 4, 530  | 3, 912  | 348    | 270               | 4, 467  | 3, 956  | 398    | 113               |      |
| 75- 79                        | 3, 614  | 3, 156  | 270    | 188               | 3, 569  | 3, 182  | 287    | 99                |      |
| 80- 84                        | 2, 525  | 2, 225  | 182    | 118               | 2, 578  | 2, 339  | 187    | 52                |      |
| 85+                           | 2, 244  | 1, 980  | 174    | 90                | 2, 134  | 1, 905  | 174    | 54                |      |
| 0- 64                         | 1, 191  | 887     | 208    | 97                | 1, 182  | 915     | 210    | 57                |      |
| 65 And Over                   | 17, 735 | 15, 327 | 1, 353 | 1, 055            | 17, 511 | 15, 538 | 1, 463 | 510               |      |

Sources: Medicare population estimates based on June 1992 update of five percent HISKEW inflated to 100 percent. MCBS projections based on weighted survey results.

1) Age computed as of July 1, 1991.

2) Race for Medicare population based on information reported to SSA and RRB and recorded in HISKEW file. Race for MCBS projections based on survey responses.

Table 6.6 - Standard Errors of Estimated Number of Medicare enrollees, by Age, Sex, and Race

| All persons | Total    | White    | Black   | Other and unknown |
|-------------|----------|----------|---------|-------------------|
| Total       | 58854.4  | 122262.0 | 55586.2 | 112324.0          |
| 0-44        | 18841.8  | 17968.4  | 8176.0  | 6971.4            |
| 45-64       | 36709.8  | 36813.7  | 14536.7 | 14593.8           |
| 65-69       | 92401.3  | 93661.6  | 29712.9 | 49567.7           |
| 70-74       | 105188.0 | 105676.0 | 39410.0 | 33751.4           |
| 75-79       | 83978.2  | 77539.1  | 26299.1 | 26231.1           |
| 80-84       | 65236.2  | 66823.3  | 14519.7 | 16363.7           |
| 85+         | 47593.8  | 48679.8  | 12774.0 | 15834.6           |
| 0-64        |          |          |         |                   |
| 65 and over |          |          |         |                   |
| Male        |          |          |         |                   |
| Total       | 68284.1  | 86151.6  | 34281.3 | 60037.5           |
| 0-44        | 13823.3  | 13317.3  | 7111.6  | 5137.5            |
| 45-64       | 31032.7  | 31309.4  | 9964.0  | 9420.1            |
| 65-69       | 67681.9  | 61738.7  | 18956.8 | 26673.5           |
| 70-74       | 72020.6  | 72111.8  | 26216.0 | 22236.5           |
| 75-79       | 56138.4  | 51467.6  | 14465.2 | 17990.5           |
| 80-84       | 35007.4  | 35174.8  | 9523.6  | 9234.3            |
| 85+         | 22781.4  | 22555.5  | 6138.9  | 8206.2            |
| 0-64        |          |          |         |                   |
| 65 and over |          |          |         |                   |
| Female      |          |          |         |                   |
| Total       | 66274.2  | 84469.9  | 40965.0 | 63607.8           |
| 0-44        | 11612.7  | 10679.0  | 4847.3  | 4347.6            |
| 45-64       | 19556.0  | 18581.9  | 8843.1  | 9301.2            |
| 65-69       | 71156.8  | 72535.7  | 23823.1 | 32404.0           |
| 70-74       | 93374.3  | 87793.9  | 28053.4 | 18954.1           |
| 75-79       | 63704.0  | 58784.9  | 19059.0 | 15380.1           |
| 80-84       | 51182.4  | 50688.9  | 9819.2  | 11188.0           |
| 85+         | 41596.1  | 41642.6  | 10605.0 | 12082.7           |
| 0-64        |          |          |         |                   |
| 65 and over |          |          |         |                   |

Source: MCBS projections based on weighted survey results.