MEPS HC-010I:
Appendix to MEPS 1996 Event Files
HC-010A - HC-010H

Agency for Healthcare Research and Quality
Center for Cost and Financing Studies

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A. Data Use Agreement

Individual identifiers have been removed from the microdata contained in the files on this CD-ROM. Nevertheless, under sections 308 (d) and 903 (c) of the Public Health Service Act (42 U.S.C. 242m and 42 U.S.C. 299 a-1), data collected by the Agency for Healthcare Research and Quality (AHRQ) and/or the National Center for Health Statistics (NCHS) may not be used for any purpose other than for the purpose for which they were supplied; any effort to determine the identity of any reported cases, is prohibited by law.

Therefore in accordance with the above referenced Federal statute, it is understood that:

1. No one is to use the data in this data set in any way except for statistical reporting and analysis.

2. If the identity of any person or establishment should be discovered inadvertently, then (a) no use will be made of this knowledge, (b) the Director, Office of Management, AHRQ will be advised of this incident, (c) the information that would identify any individual or establishment will be safeguarded or destroyed, as requested by AHRQ, and (d) no one else will be informed of the discovered identity.

3. No one will attempt to link this data set with individually identifiable records from any data sets other than the Medical Expenditure Panel Survey or the National Health Interview Survey.

By using these data you signify your agreement to comply with the above-stated statutorily based requirements, with the knowledge that deliberately making a false statement in any matter within the jurisdiction of any department or agency of the Federal Government violates 18 U.S.C. 1001 and is punishable by a fine of up to $10,000 or up to 5 years in prison.

The Agency for Healthcare Research and Quality requests that users cite AHRQ and the Medical Expenditure Panel Survey as the data source in any publications or research based upon these data.

B. Background

This documentation describes one in a series of public use files from the Medical Expenditure Panel Survey (MEPS). The survey provides a new and extensive data set on the use of health services and health care in the United States.

MEPS is conducted to provide nationally representative estimates of health care use, expenditures, sources of payment, and insurance coverage for the U.S. civilian noninstitutionalized population. MEPS also includes a nationally representative survey of nursing homes and their residents. MEPS is cosponsored by the Agency for Healthcare Research and Quality (AHRQ) (formerly the Agency for Health Care Policy and Research (AHCPR)) and the National Center for Health Statistics (NCHS).

MEPS comprises four component surveys: the Household Component (HC), the Medical Provider Component (MPC), the Insurance Component (IC), and the Nursing Home Component (NHC). The HC is the core survey, and it forms the basis for the MPC sample and part of the IC sample. The separate NHC sample supplements the other MEPS components. Together these surveys yield comprehensive data that provide national estimates of the level and distribution of health care use and expenditures, support health services research, and can be used to assess health care policy implications.

MEPS is the third in a series of national probability surveys conducted by AHRQ on the financing and use of medical care in the United States. The National Medical Care Expenditure Survey (NMCES, also known as NMES-1) was conducted in 1977. The National Medical Expenditure Survey (NMES-2) was conducted in 1987. Beginning in 1996, MEPS continues this series with design enhancements and efficiencies that provide a more current data resource to capture the changing dynamics of the health care delivery and insurance system.

The design efficiencies incorporated into MEPS are in accordance with the Department of Health and Human Services (DHHS) Survey Integration Plan of June 1995, which focused on consolidating DHHS surveys, achieving cost efficiencies, reducing respondent burden, and enhancing analytical capacities. To accommodate these goals, new MEPS design features include linkage with the National Health Interview Survey (NHIS), from which the sampling frame for the MEPS HC is drawn, and continuous longitudinal data collection for core survey components. The MEPS HC augments NHIS by selecting a sample of NHIS respondents, collecting additional data on their health care expenditures, and linking these data with additional information collected from the respondents' medical providers, employers, and insurance providers.

1.0   Household Component

The MEPS HC, a nationally representative survey of the U.S. civilian noninstitutionalized population, collects medical expenditure data at both the person and household levels. The HC collects detailed data on demographic characteristics, health conditions, health status, use of medical care services,

charges and payments, access to care, satisfaction with care, health insurance coverage, income, and employment.

The HC uses an overlapping panel design in which data are collected through a preliminary contact followed by a series of five rounds of interviews over a 2½-year period. Using computer-assisted personal interviewing (CAPI) technology, data on medical expenditures and use for two calendar years are collected from each household. This series of data collection rounds is launched each subsequent year on a new sample of households to provide overlapping panels of survey data and, when combined with other ongoing panels, will provide continuous and current estimates of health care expenditures.

The sampling frame for the MEPS HC is drawn from respondents to NHIS, conducted by NCHS. NHIS provides a nationally representative sample of the U.S. civilian noninstitutionalized population, with oversampling of Hispanics and blacks.

2.0   Medical Provider Component

The MEPS MPC supplements and validates information on medical care events reported in the MEPS HC by contacting medical providers and pharmacies identified by household respondents. The MPC sample includes all hospitals, hospital physicians, home health agencies, and pharmacies reported in the HC. Also included in the MPC are all office-based physicians who:

- were identified by the household respondent as providing care for HC respondents receiving Medicaid.

- were selected through a 75-percent sample of HC households receiving care through an HMO (health maintenance organization) or managed care plan.

- were selected through a 25-percent sample of the remaining HC households.

Data are collected on medical and financial characteristics of medical and pharmacy events reported by HC respondents, including:

- Diagnoses coded according to ICD-9-CM (9th Revision, International Classification of Diseases) and DSM-IV (Fourth Edition, *Diagnostic and Statistical Manual of Mental Disorders*).

- Physician procedure codes classified by CPT-4 (Common Procedure Terminology, Version 4).

- Inpatient stay codes classified by DRGs (diagnosis-related groups).

- Prescriptions coded by national drug code (NDC), medication name, strength, and quantity dispensed.

- Charges, payments, and the reasons for any difference between charges and payments.

The MPC is conducted through telephone interviews and mailed survey materials. In some instances, providers sent medical and billing records which were abstracted into the survey instruments.

3.0   Insurance Component

The MEPS IC collects data on health insurance plans obtained through employers, unions, and other sources of private health insurance. Data obtained in the IC include the number and types of private insurance plans offered, benefits associated with these plans, premiums, contributions by employers and employees, eligibility requirements, and employer characteristics.

Establishments participating in the MEPS IC are selected through four sampling frames:

- A list of employers or other insurance providers identified by MEPS HC respondents who report having private health insurance at the Round 1 interview.

- A Bureau of the Census list frame of private-sector business establishments.

- The Census of Governments from Bureau of the Census.

- An Internal Revenue Service list of the self-employed.

To provide an integrated picture of health insurance, data collected from the first sampling frame (employers and insurance providers) are linked back to data provided by the MEPS HC respondents. Data from the other three sampling frames are collected to provide annual national and State estimates of the supply of private health insurance available to American workers and to evaluate policy issues pertaining to health insurance.

The MEPS IC is an annual survey. Data are collected from the selected organizations through a prescreening telephone interview, a mailed questionnaire, and a telephone follow-up for nonrespondents.

4.0   Nursing Home Component

 The 1996 MEPS NHC was a survey of nursing homes and persons residing in or admitted to nursing homes at any time during calendar year 1996. The NHC gathered information on the demographic characteristics, residence history, health and functional status, use of services, use of prescription

medicines, and health care expenditures of nursing home residents. Nursing home administrators and designated staff also provided information on facility size, ownership, certification status, services provided, revenues and expenses, and other facility characteristics. Data on the income, assets, family relationships, and care-giving services for sampled nursing home residents were obtained from next-of-kin or other knowledgeable persons in the community.

The 1996 MEPS NHC sample was selected using a two-stage stratified probability design. In the first stage, facilities were selected; in the second stage, facility residents were sampled, selecting both persons in residence on January 1, 1996, and those admitted during the period January 1 through December 31.

The sample frame for facilities was derived from the National Health Provider Inventory, which is updated periodically by NCHS. The MEPS NHC data were collected in person in three rounds of data collection over a 1½-year period using the CAPI system. Community data were collected by telephone using computer-assisted telephone interviewing (CATI) technology. At the end of three rounds of data collection, the sample consisted of 815 responding facilities, 3,209 residents in the facility on January 1, and 2,690 eligible residents admitted during 1996.

5.0   Survey Management

MEPS data are collected under the authority of the Public Health Service Act. They are edited and published in accordance with the confidentiality provisions of this act and the Privacy Act. NCHS provides consultation and technical assistance.

As soon as data collection and editing are completed, the MEPS survey data are released to the public in staged releases of summary reports and microdata files. Summary reports are released as printed documents and electronic files. Microdata files are released on CD-ROM and/or as electronic files.

Printed documents and CD-ROMs are available through the AHRQ Publications Clearinghouse. Write or call:

> AHRQ Publications Clearinghouse
> Attn: (publication number)
> P.O. Box 8547
> Silver Spring, MD 20907
> 800/358-9295
> 410/381-3150 (callers outside the United States only)
> 888/586-6340 (toll-free TDD service; hearing impaired only)

Be sure to specify the AHRQ number of the document or CD-ROM you are requesting. Selected electronic files are available from the Internet on the MEPS web site: <http://www.meps.ahrq.gov/>.

Additional information on MEPS is available from the MEPS project manager or the MEPS public use data manager at the Center for Cost and Financing Studies, Agency for Healthcare Research and Quality.

C. Technical and Programming Information

1.0   General Information

This documentation describes the MEPS Public Use Release HC-011I, which is the Appendix to MEPS releases HC-010A through HC010H. This release contains two data files, both of which are provided in ASCII and SAS versions: 1) the condition-event link file; and 2) the prescribed medicines-event link file. Also included in this release are two tables provided as PDF files: 1) the condition-event frequency table and 2) the utilization and expenditures summary table.

This documentation offers a brief overview of the content and structure of the files and the codebooks, and programming information. It contains the following sections:

Data File Information
Merging MEPS Data Files
Programming Information
Codebooks
Crosswalk of Clinical Classification Code to ICD-9 Code
Matrix of MEPS Data Items

For more information on MEPS HC survey design see S. Cohen, 1997; J. Cohen, 1997; and S. Cohen, 1996. For information on the MEPS MPC design, see S. Cohen, 1998. Both reports, along with a copy of the survey instruments used to collect the information on this file, is available on the MEPS web site at the following address: <http**://**www.meps.ahrq.gov>.

2.0   Data File Information

This public use data set consists of two data files containing variables for linkage of the MEPS 1996 event-level data files. File 1, the HC10IF1 file, is used for linking the MEPS condition file with the MEPS event files; File 2, the RXLK file, is used for linking the MEPS prescribed medicines event file with other MEPS event files.

2.1   Codebook Format

Section D of this document includes codebooks describing the ASCII version of each data file (the data are also provided as SAS transport files). The following codebook items are provided for each variable on the file:

IDENTIFIER	DESCRIPTION
Name	Variable name (maximum of 8 characters)
Description	Variable descriptor (maximum of 40 characters)
Format	Number of bytes
Type	Type of data: numeric (indicated by NUM) or character (indicated by CHAR)
Start	Beginning column position of variable in record
End	Ending column position of variable in record

2.2 Variable Naming and Source

In general, variable names reflect the content of the variable, with an 8 character limitation. All variables contained on Files 1 and 2 were derived from the CAPI.

2.3 Contents of File 1: Condition-Event Link File

File 1, (HC10IF1) or the CLNK file, contains the variables needed to link each record on the MEPS 1996 condition file, HC-006R, with one or more records on the MEPS 1996 event files, HC-010A through HC-010H. Section 3.0 contains additional information on completing this linkage.

The 8-character variable DUPERSID uniquely identifies each person represented on the file. There may be more than one record on the HC10IF1 file for a specific DUPERSID value.

CONDIDX is the ID which uniquely identifies each condition for a person and corresponds to a unique record on the MEPS 1996 Condition file, HC-006R. There may be more than one record on the HC10IF1 file for a specific CONDIDX value.

EVNTIDX is the 12-digit number which uniquely identifies each event for a person and corresponds to a unique record on one of the MEPS 1996 event files, HC-010A through HC-010H. There may be more than one record on File 1 for a specific EVNTIDX value.

CLNKIDX is the 24-digit number which uniquely identifies each record on File 1 and is the combination of CONDIDX + EVNTIDX. There is just one record on File 1 for each value of CLNKIDX, i.e., each unique combination of CONDIDX + EVNTIDX.

The variable EVENTYPE indicates the type of event record identified by EVNTIDX, and has the following values:

    1 = MVIS - office-based medical provider visit event contained on MEPS release HC-010G
    2 = OPAT - outpatient department visit event contained on MEPS release HC-010F
    3 = EROM - emergency room visit event contained on MEPS release HC-010E

4 = STAZ - hospital inpatient stay event contained on MEPS release HC-010D
5 = DVIS - dental visit event contained on MEPS release HC-010B
7 = HVIS - home health visit event contained on MEPS release HC-010H
8 = PMED - prescribed medicines event contained on MEPS release HC-010A

2.4   Contents of File 2: Prescribed Medicines-Event Link File (RXLK)

File 2, (HC10IF2) or the RXLK file, contains the variables needed to link each record on the MEPS 1996 prescribed medicines file, HC-010A, with one or more records on the MEPS 1996 event files, HC-010B through HC-010H. Section 3.0 contains additional information on completing this linkage.

The 8-character variable DUPERSID uniquely identifies each person represented on the file. There may be more than one record on the RXLK file for a specific DUPERSID value.

EVNTIDX is the 12-digit number which uniquely identifies each event for a person and corresponds to a unique record on one of the MEPS 1996 event files, HC-010BA through HC-010H. There may be more than one record on the RXLK file for a specific EVNTIDX value.

LINKIDX is the 12-digit number which identifies the record(s) on the prescribed medicines file, HC-010A which link to an event record. There may be more than one record on the RXLK file for a specific LINKIDX value, and there may be more than one record on the HC-010A file for a specific LINKIDX value.

RXLKIDX is the 24-digit number which uniquely identifies each record on File 2, and is the combination of EVNTIDX + LINKIDX. There is just one record on File 2 for each value of RXLKIDX, i.e., each unique combination of EVNTIDX + LINKIDX.

The variable EVENTYPE indicates the type of event record identified by EVNTIDX, and has the following values:

1 = MVIS - office-based medical provider visit event contained on MEPS release HC-010G
2 = OPAT - outpatient department visit event contained on MEPS release HC-010F
3 = EROM - emergency room visit event contained on MEPS release HC-010E
4 = STAZ - hospital inpatient stay event contained on MEPS release HC-010D
5 = DVIS - dental visit event contained on MEPS release HC-010B
6 = OMED - other medical expense event contained on MEPS release HC-010C

2.5   Condition-Event Frequency Table

The file HC10IT1.PDF contains the "MEPS 1996 Condition-Event Frequency" table. This table contains unweighted and weighted counts of records on the MEPS 1996 event files, HC-010A through

HC-010H, for each of the condition, procedure and clinical classification codes contained on the MEPS 1996 condition file, HC-006R. Section E contains a crosswalk of the clinical classification codes to ICD-9 codes. See the HC-006R document for additional information on these codes.

2.6   Utilization and Expenditures Summary Table

The file HC10IT2.PDF contains the "MEPS 1996 Utilization and Expenditures Summary" table. This table contains statistics for all of the utilization and expenditure variables contained on the MEPS 1996 Full Year Use and Expenditure Data file, HC-011. For each of these variables, the following statistics are provided from the HC-011 file, and from the corresponding event-level file(s) HC-010A through HC-010H:

> Number of persons with positive person-level weight (WTDPER96) and with value GT 0 for that variable

> Weighted sum of the variable

> Weighted mean of the variable

The table also includes the technical specifications used to construct each of the person-level HC-011 variables from the event-level files.

3.0   Merging/Linking MEPS Data Files

This section provides information on using each of the two HC-010I files, RXLK and CLNK, to link with the files contained in MEPS releases HC-006R and HC-010A through HC-010H. The linking procedure is described using several examples of deriving MEPS-based estimates. Also included in this section are several caveats related to using the RXLK and CLNK files.

3.1   Example A: Using the RXLNK and CLNK Files with the Medical Conditions File (HC-006R), the Prescribed Medicines and Office-Based Medical Provider Visits Event Files (HC-010A and HC-010G)

This example calculates the total expenditures for prescribed medicines associated with office-based medical provider visits for asthma, using these files: the condition file (HC-006R), the CLNK file, the office-based medical provider visit event file (HC-010G), the RXLK file, and the prescribed medicines event file (HC-010A). It includes the following major steps:

1.   From HC-006R file select only records with condition coded as asthma.

2.   Use the CLNK file to obtain unique record IDs of events which are linked to each of the selected asthma condition records.

3.   From the HC-010G file, select only records for non-telephone office-based medical provider visits for persons with a positive weight.

4.   Using the selected record IDs obtained from the CLNK file with the selected HC-010G records, identify only those visits which were for asthma.

5.   Use the RXLK file with the selected visit records which were for asthma, to obtain unique record IDs of prescribed medicine records from file HC-010A linked to those visits.

6.   Using these record IDs obtain the linked records from the HC-010A file and calculate the weighted mean of the expenditure variable.

Attachment 1 contains a copy of the SAS job for this example.

3.2   Example B: Using the CLNK File with the Medical Conditions File (HC-006R) and the Prescribed Medicines Event File (HC-010A)

This example calculates the total expenditure for prescribed medicines associated with asthma, using the condition file (HC-006R), the CLNK file and the prescribed medicines event file (HC-010A). It includes the following major steps:

1.   From HC-006R file select only records with condition coded as asthma.

2.   Use the CLNK file to obtain unique record IDs of events which are linked to each of the asthma condition records.

3.   Using these record IDs, obtain linked records from the HC-010A file and calculate the weighted mean of the expenditure variable.

Attachment 1 contains a copy of the SAS job for this example.

3.3   Example C: Using the CLNK File with the Medical Conditions File (HC-006R) and Office-Based Medical Provider Visits Event File (HC-010G)

This example calculates the total expenditures for office-based medical provider visits associated with asthma, using the condition file (HC-006R), the CLNK file and the office-based medical provider visits event file (HC-010G). It includes the following major steps:

1.   From HC-006R file select only records with condition coded as asthma.

2.   Use the CLNK file to obtain unique record IDs of events which are linked to each of the asthma condition records.

3.   From the HC-010G file, select only records for non-telephone office-based medical provider visits for persons with a positive weight.

4.   Using the selected record IDs obtained from the CLNK file, with the selected HC-010G records, identify only those visits which were for asthma and calculate the weighted mean of the expenditure variable.

Attachment 1 contains a copy of the SAS job for this example.

3.4   Example D: Using the RXLNK File with the Other Medical Expenses Event File (HC-010C)

This example calculates the total expenditures for insulin that were reported by the household as an other medical expense, using the RXLNK file and the other medical expenses event file (HC-010C). It includes the following major steps:

1.   From HC-010C file select only records for other medical expense type of insulin, for persons with a positive weight.

2.   Use the RXLNK file to obtain unique record IDs of prescribed medicine events which are linked to each of the selected other medical expense records.

3.   Use the selected record IDs from the RXLK file to obtain the linked prescribed medicines event records from the HC-010A file, and calculate the weighted sum of the expenditure variable.

Attachment 1 contains a copy of the SAS job for this example.

3.5   Limitations/Caveats of the CLNK File

When using the CLNK file, analysts should keep in mind that (1) conditions are self-reported and (2) there may be multiple conditions associated with an event. Users should also note that not all events link to the condition file.

3.6   Limitations/Caveats of the RXLK File

When using RXLK, analysts should keep in mind that one event record can link to more than one prescribed medicine record. Conversely, a prescribed medicine record may link to more than one event record in the same event file and/or more than one event record in other event files. When this occurs, it is up to the analyst to determine how the prescribed medicine expenditures should be allocated among those medical events.

4.0   Programming Information

The following are the technical specifications for the two HC-010I data files, which are provided in ASCII and SAS formats.

ASCII versions:
File Name: HC10IF1.DAT
Number of Records: 198,362
Number of Variables: 5
Record Length: 57
Record Format: fixed
Record Identifier and Sort Key: CLNKIDX

File Name: HC10IF2.DAT
Number of Records: 41,069
Number of Variables: 5
Record Length: 57
Record Format: fixed
Record Identifier and Sort Key: RXLKIDX

SAS Transport versions:
File Name: HC10IF1.SSP
SAS Name: HC10IF1
Number of Observations: 198,362
Number of Variables: 5
Record Identifier and Sort Key: CLNKIDX

File Name: HC10IF2.SSP
SAS Name: HC10IF2
Number of Observations: 41,069
Number of Variables: 5
Record Identifier and Sort Key: RXLKIDX

Attachment 1
Sample SAS Jobs for Linking Examples

```
xx
1                                        The SAS System              10:34 Friday, July 14, 2000

NOTE: Copyright (c) 1989-1996 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 6.12  TS060
      Licensed to SOCIAL & SCIENTIFIC SYSTEMS INC, Site 0026405003.


1          OPTIONS LS=132 PS=59;
2
3          TITLE1 "HC-010I";
4
5          LIBNAME IN 'D:\';
NOTE: Libref IN was successfully assigned as follows:
      Engine:        V612
      Physical Name: D:\
6
7          ********************************************************************************************************
8          * Calculate the expenditures for prescribed medicines associated with medical visits for asthma.
9          ********************************************************************************************************;
10
11         PROC FORMAT;
12           VALUE EVENTYPE
13               1 = "1 MVIS"
14               2 = "2 OPAT"
15               3 = "3 EROM"
16               4 = "4 STAZ"
17               5 = "5 DVIS"
18               6 = "6 OMED"
19               7 = "7 HVIS"
20               8 = "8 PMED";
NOTE: Format EVENTYPE has been output.
21
22         RUN;

NOTE: The PROCEDURE FORMAT used 0.33 seconds.


23
24         *-------------------------------------------------------------------------------------------
25         * Get condition records coded as asthma.
26         *------------------------------------------------------------------------------------------;
27         DATA ASCONDS;
28           SET IN.HC006R (KEEP=CONDIDX CCCODEX);
29           IF CCCODEX="128";
30
31         RUN;

NOTE: The data set WORK.ASCONDS has 982 observations and 2 variables.
NOTE: The DATA statement used 4.62 seconds.


32
33         *-------------------------------------------------------------------------------------------
34         * Get the events linked to each of the asthma condition records.
35         *------------------------------------------------------------------------------------------;
36         PROC SORT DATA=ASCONDS; BY CONDIDX; RUN;

NOTE: The data set WORK.ASCONDS has 982 observations and 2 variables.
```

SAMPLE SAS JOB FOR EXAMPLE A

NOTE: The PROCEDURE SORT used 0.17 seconds.


```
37
38          proc print data=asconds (obs=50);
39            title3 "sample print of work.asconds - sorted by condidx";
40            title4 "COND (HC-006R) records where cccodex=128";
41          run;
```

NOTE: The PROCEDURE PRINT printed page 1.
NOTE: The PROCEDURE PRINT used 0.22 seconds.


```
42
43          PROC SORT DATA=IN.HC10IF1 OUT=CLNK; BY CONDIDX; RUN;
```

NOTE: The data set WORK.CLNK has 198363 observations and 5 variables.
NOTE: The PROCEDURE SORT used 12.67 seconds.


```
44
45          DATA ASCLNKS;
46            MERGE CLNK   (IN=INCLNK   KEEP=CONDIDX EVNTIDX EVENTYPE)
47                  ASCONDS(IN=INASCOND KEEP=CONDIDX);
48            BY CONDIDX;
49            IF INCLNK & INASCOND;
50          RUN;
```

NOTE: The data set WORK.ASCLNKS has 4319 observations and 3 variables.
NOTE: The DATA statement used 1.81 seconds.


```
51
52          proc print data=asclnks (obs=75);
53            by condidx;
54            id condidx;
55            format eventype eventype.;
56            title3 "sample print of work.asclnks - sorted by condidx";
57            title4 "events linked to asthma condition records";
58          run;
```

NOTE: The PROCEDURE PRINT printed pages 2-3.
NOTE: The PROCEDURE PRINT used 0.39 seconds.


```
59
60          PROC SORT DATA=ASCLNKS; BY EVNTIDX; RUN;
```

NOTE: The data set WORK.ASCLNKS has 4319 observations and 3 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.


```
61
62          proc print data=asclnks (obs=50);
63            format eventype eventype.;
64            title3 "sample print of work.asclnks - sorted by evntidx";
65          run;
```

```
NOTE: The PROCEDURE PRINT printed page 4.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


66
67          DATA ASCLNKS;
68            SET ASCLNKS (KEEP=EVNTIDX EVENTYPE);
69            BY EVNTIDX;
70            IF FIRST.EVNTIDX;
71          RUN;

NOTE: The data set WORK.ASCLNKS has 4304 observations and 2 variables.
NOTE: The DATA statement used 0.11 seconds.


72
73          proc print data=asclnks (obs=50);
74            title3 "sample print of unique evntidxs from work.asclnks";
75            format eventype eventype.;
76          run;

NOTE: The PROCEDURE PRINT printed page 5.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


77
78          *-----------------------------------------------------------------------------------------------
79          * Get non-telephone office based visits (i.e. MVIS events) for persons with positive weights.
80          *----------------------------------------------------------------------------------------------;
81          DATA MVIS;
82            SET IN.HC10GF1 (KEEP=EVNTIDX WTDPER96 SEETLKPV);
83            IF WTDPER96 > 0 & SEETLKPV NE 2;
84          RUN;

NOTE: The data set WORK.MVIS has 95287 observations and 3 variables.
NOTE: The DATA statement used 8.66 seconds.


85
86          PROC SORT DATA=MVIS; BY EVNTIDX; RUN;

NOTE: The data set WORK.MVIS has 95287 observations and 3 variables.
NOTE: The PROCEDURE SORT used 1.54 seconds.


87
88          *-----------------------------------------------------------------------------------------------
89          * Identify MVIS events which were for asthma.
90          *----------------------------------------------------------------------------------------------;
91          DATA ASMVIS;
92            MERGE ASCLNKS (IN=INASCLNK)
93                  MVIS    (IN=INMVIS KEEP=EVNTIDX);
94            BY EVNTIDX;
95            IF INASCLNK & INMVIS;
96          RUN;
```

```
4                                        The SAS System                        10:34 Friday, July
14, 2000

NOTE: The data set WORK.ASMVIS has 1420 observations and 2 variables.
NOTE: The DATA statement used 0.6 seconds.


97
98          proc print data=asmvis (obs=50);
99             format eventype eventype.;
100            title3 "sample print of work.asmvis";
101            title4 "unique evntidxs from work.asclnks that are non-telephone MVIS (HC-010G) events";
102         run;

NOTE: The PROCEDURE PRINT printed page 6.
NOTE: The PROCEDURE PRINT used 0.27 seconds.


103
104         *-------------------------------------------------------------------------------------
105         * Get PMED IDs linked to the MVIS events which were for asthma.
106         *------------------------------------------------------------------------------------;
107         PROC SORT DATA=IN.HC10IF2 OUT=RXLK; BY EVNTIDX; RUN;

NOTE: The data set WORK.RXLK has 41069 observations and 5 variables.
NOTE: The PROCEDURE SORT used 1.42 seconds.


108
109         proc print data=rxlk (obs=140);
110            by evntidx;
111            id evntidx;
112            var linkidx eventype;
113            format eventype eventype.;
114            title3 "sample print of work.rxlk - sorted by eventidx";
115            title4 "Rx+event link file records (HC-10IF2)";
116         run;

NOTE: The PROCEDURE PRINT printed pages 7-11.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


117
118         DATA PMEDIDS;
119            MERGE RXLK   (IN=INRXLK KEEP=EVNTIDX LINKIDX EVENTYPE)
120                  ASMVIS(IN=INASMVIS KEEP=EVNTIDX);
121            BY EVNTIDX;
122            IF INRXLK & INASMVIS;
123         RUN;

NOTE: The data set WORK.PMEDIDS has 1106 observations and 3 variables.
NOTE: The DATA statement used 0.27 seconds.


124
125         proc print data=pmedids (obs=50);
126            by evntidx;
127            id evntidx;
128            format eventype eventype.;
129            title3 "sample print of work.pmedids - sorted by evntidx";
```

```
130          title4 "work.rxlk records for evntidxs in work.asmvis";
131       run;

NOTE: The PROCEDURE PRINT printed pages 12-13.
NOTE: The PROCEDURE PRINT used 0.05 seconds.


132
133       PROC SORT DATA=PMEDIDS; BY LINKIDX; RUN;

NOTE: The data set WORK.PMEDIDS has 1106 observations and 3 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.


134
135       proc print data=pmedids (obs=50);
136          format eventype eventype.;
137          title3 "sample print of work.pmedids - sorted by linkidx";
138       run;

NOTE: The PROCEDURE PRINT printed page 14.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


139
140       DATA PMEDIDS;
141          SET PMEDIDS (KEEP=LINKIDX);
142          BY LINKIDX;
143          IF FIRST.LINKIDX;
144       RUN;

NOTE: The data set WORK.PMEDIDS has 1024 observations and 1 variables.
NOTE: The DATA statement used 0.05 seconds.


145
146       proc print data=pmedids (obs=50);
147          title3 "sample print of unique linkidxs in work.pmedids";
148       run;

NOTE: The PROCEDURE PRINT printed page 15.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


149
150       *-------------------------------------------------------------------------------------------
151       * Get PMED records (excluding free samples) linked to MVIS events which were for asthma.
152       *------------------------------------------------------------------------------------------;
153       PROC SORT DATA=IN.HC10A OUT=PMED; BY LINKIDX; RUN;

NOTE: The data set WORK.PMED has 171587 observations and 52 variables.
NOTE: The PROCEDURE SORT used 52.22 seconds.


154
155       DATA MVPMEDS;
156         MERGE PMED (KEEP=LINKIDX RXRECIDX FREEFLG RXXP96X WTDPER96 RXNAME)
```

```
6                                               The SAS System                              10:34 Friday, July
14, 2000
157                  PMEDIDS (IN=A);
158             BY LINKIDX;
159             IF A & FREEFLG=0;
160          RUN;

NOTE: The data set WORK.MVPMEDS has 2918 observations and 6 variables.
NOTE: The DATA statement used 11.65 seconds.


161
162          proc print data=mvpmeds (obs=200);
163             var rxrecidx rxname rxxp96x freeflg wtdper96;
164             by linkidx;
165             id linkidx;
166             title3 "sample print of work.mvpmeds";
167             title4 "PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids";
168          run;

NOTE: The PROCEDURE PRINT printed pages 16-21.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


169
170          PROC MEANS DATA=MVPMEDS N SUM;
171             VAR RXXP96X;
172             TITLE3 "Total Rx expenditures associated with medical visits (excluding telephone) for asthma";
173          RUN;

NOTE: The PROCEDURE MEANS printed page 22.
NOTE: The PROCEDURE MEANS used 0.27 seconds.


174
175          PROC MEANS DATA=MVPMEDS  N SUM;
176             VAR RXXP96X;
177             WEIGHT WTDPER96;
178             TITLE3 "Total Rx expenditures associated with medical visits (excluding telephone) for asthma";
179             TITLE5 "Weighted";
180          RUN;

NOTE: The PROCEDURE MEANS printed page 23.
NOTE: The PROCEDURE MEANS used 0.0 seconds.


181
182
183

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414
```

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.asconds - sorted by condidx
COND (HC-006R) records where cccodex=128

OBS	CONDIDX	CCCODEX
1	000040320014	128
2	000170710050	128
3	000630450038	128
4	000630450044	128
5	000650110054	128
6	000850580014	128
7	000860130035	128
8	000980120017	128
9	001170160082	128
10	001300290022	128
11	001660130011	128
12	001660370019	128
13	001660440018	128
14	001830490013	128
15	001860600013	128
16	001900110024	128
17	002360270026	128
18	002400120025	128
19	002550290027	128
20	002940230026	128
21	003050120030	128
22	003210280044	128
23	003320230104	128
24	003430100019	128
25	003470170019	128
26	003540170016	128
27	003570290019	128
28	003570360018	128
29	003620170023	128
30	003620310015	128
31	003660480029	128
32	003700290015	128
33	003770240045	128
34	004060270035	128
35	004160280015	128
36	004500120011	128
37	004500450016	128
38	004630460039	128
39	004840190010	128
40	004840520061	128
41	005030330030	128
42	005060320036	128
43	005070320015	128
44	005260160028	128
45	005300270020	128
46	005420210025	128
47	005670410030	128
48	005690210026	128
49	005710290049	128
50	005710430053	128

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.asclnks - sorted by condidx
events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
000040320014	000040320012	3 EROM
000170710050	000170710013	1 MVIS
	000170710020	8 PMED
000630450038	000630450237	1 MVIS
	000630450251	1 MVIS
	000630450282	8 PMED
000630450044	000630450268	1 MVIS
	000630450282	8 PMED
000650110054	000650110177	1 MVIS
	000650110184	1 MVIS
	000650110191	1 MVIS
	000650110204	1 MVIS
	000650110211	1 MVIS
	000650110735	8 PMED
000860130035	000860130097	8 PMED
	000860130220	1 MVIS
	000860130251	8 PMED
000980120017	000980120018	1 MVIS
	000980120032	8 PMED
	000980120070	8 PMED
001170160082	001170160136	1 MVIS
	001170160143	1 MVIS
	001170160150	1 MVIS
	001170160167	1 MVIS
	001170160198	8 PMED
	001170160201	8 PMED
	001170160218	8 PMED
001300290022	001300290043	8 PMED
	001300290163	8 PMED
	001300290170	8 PMED
001660130011	001660130011	8 PMED
001660370019	001660370011	8 PMED
001830490013	001830490046	1 MVIS
	001830490053	1 MVIS
	001830490060	1 MVIS
	001830490166	8 PMED
	001830490173	8 PMED
	001830490375	8 PMED

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.asclnks - sorted by condidx
events linked to asthma condition records

```
       CONDIDX          EVNTIDX          EVENTYPE

   001860600013      001860600019       1 MVIS
                     001860600026       8 PMED
                     001860600040       8 PMED
                     001860600057       8 PMED
                     001860600071       8 PMED
                     001860600095       8 PMED
                     001860600108       8 PMED

   001900110024      001900110022       1 MVIS
                     001900110039       1 MVIS
                     001900110046       1 MVIS
                     001900110053       2 OPAT
                     001900110060       2 OPAT

   002360270026      002360270116       1 MVIS
                     002360270178       2 OPAT
                     002360270192       8 PMED
                     002360270212       8 PMED

   002550290027      002550290121       8 PMED
                     002550290138       8 PMED
                     002550290176       8 PMED
                     002550290183       8 PMED
                     002550290210       1 MVIS
                     002550290234       8 PMED
                     002550290241       8 PMED

   002940230026      002940230142       8 PMED
                     002940230159       8 PMED

   003050120030      003050120011       8 PMED
                     003050120028       8 PMED
                     003050120059       1 MVIS
                     003050120066       1 MVIS
                     003050120097       8 PMED
                     003050120100       8 PMED
                     003050120408       8 PMED

   003210280044      003210280465       8 PMED
                     003210280472       8 PMED

   003320230104      003320230176       8 PMED

   003430100019      003430100018       8 PMED

   003540170016      003540170039       8 PMED
```

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.asclnks - sorted by evntidx

OBS	CONDIDX	EVNTIDX	EVENTYPE
1	000040320014	000040320012	3 EROM
2	000170710050	000170710013	1 MVIS
3	000170710050	000170710020	8 PMED
4	000630450038	000630450237	1 MVIS
5	000630450038	000630450251	1 MVIS
6	000630450044	000630450268	1 MVIS
7	000630450038	000630450282	8 PMED
8	000630450044	000630450282	8 PMED
9	000650110054	000650110177	1 MVIS
10	000650110054	000650110184	1 MVIS
11	000650110054	000650110191	1 MVIS
12	000650110054	000650110204	1 MVIS
13	000650110054	000650110211	1 MVIS
14	000650110054	000650110735	8 PMED
15	000860130035	000860130097	8 PMED
16	000860130035	000860130220	1 MVIS
17	000860130035	000860130251	8 PMED
18	000980120017	000980120018	1 MVIS
19	000980120017	000980120032	8 PMED
20	000980120017	000980120070	8 PMED
21	001170160082	001170160136	1 MVIS
22	001170160082	001170160143	1 MVIS
23	001170160082	001170160150	1 MVIS
24	001170160082	001170160167	1 MVIS
25	001170160082	001170160198	8 PMED
26	001170160082	001170160201	8 PMED
27	001170160082	001170160218	8 PMED
28	001300290022	001300290043	8 PMED
29	001300290022	001300290163	8 PMED
30	001300290022	001300290170	8 PMED
31	001660130011	001660130011	8 PMED
32	001660370019	001660370011	8 PMED
33	001830490013	001830490046	1 MVIS
34	001830490013	001830490053	1 MVIS
35	001830490013	001830490060	1 MVIS
36	001830490013	001830490166	8 PMED
37	001830490013	001830490173	8 PMED
38	001830490013	001830490375	8 PMED
39	001860600013	001860600019	1 MVIS
40	001860600013	001860600026	8 PMED
41	001860600013	001860600040	8 PMED
42	001860600013	001860600057	8 PMED
43	001860600013	001860600071	8 PMED
44	001860600013	001860600095	8 PMED
45	001860600013	001860600108	8 PMED
46	001900110024	001900110022	1 MVIS
47	001900110024	001900110039	1 MVIS
48	001900110024	001900110046	1 MVIS
49	001900110024	001900110053	2 OPAT
50	001900110024	001900110060	2 OPAT

SAMPLE SAS JOB FOR EXAMPLE A

sample print of unique evntidxs from work.asclnks

OBS	EVNTIDX	EVENTYPE
1	000040320012	3 EROM
2	000170710013	1 MVIS
3	000170710020	8 PMED
4	000630450237	1 MVIS
5	000630450251	1 MVIS
6	000630450268	1 MVIS
7	000630450282	8 PMED
8	000650110177	1 MVIS
9	000650110184	1 MVIS
10	000650110191	1 MVIS
11	000650110204	1 MVIS
12	000650110211	1 MVIS
13	000650110735	8 PMED
14	000860130097	8 PMED
15	000860130220	1 MVIS
16	000860130251	8 PMED
17	000980120018	1 MVIS
18	000980120032	8 PMED
19	000980120070	8 PMED
20	001170160136	1 MVIS
21	001170160143	1 MVIS
22	001170160150	1 MVIS
23	001170160167	1 MVIS
24	001170160198	8 PMED
25	001170160201	8 PMED
26	001170160218	8 PMED
27	001300290043	8 PMED
28	001300290163	8 PMED
29	001300290170	8 PMED
30	001660130011	8 PMED
31	001660370011	8 PMED
32	001830490046	1 MVIS
33	001830490053	1 MVIS
34	001830490060	1 MVIS
35	001830490166	8 PMED
36	001830490173	8 PMED
37	001830490375	8 PMED
38	001860600019	1 MVIS
39	001860600026	8 PMED
40	001860600040	8 PMED
41	001860600057	8 PMED
42	001860600071	8 PMED
43	001860600095	8 PMED
44	001860600108	8 PMED
45	001900110022	1 MVIS
46	001900110039	1 MVIS
47	001900110046	1 MVIS
48	001900110053	2 OPAT
49	001900110060	2 OPAT
50	002360270116	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.asmvis
unique evntidxs from work.asclnks that are non-telephone MVIS (HC-010G) events

OBS	EVNTIDX	EVENTYPE
1	000170710013	1 MVIS
2	000630450237	1 MVIS
3	000630450251	1 MVIS
4	000650110177	1 MVIS
5	000650110184	1 MVIS
6	000650110191	1 MVIS
7	000650110204	1 MVIS
8	000650110211	1 MVIS
9	000860130220	1 MVIS
10	000980120018	1 MVIS
11	001170160136	1 MVIS
12	001170160143	1 MVIS
13	001170160150	1 MVIS
14	001170160167	1 MVIS
15	001830490046	1 MVIS
16	001830490053	1 MVIS
17	001830490060	1 MVIS
18	001860600019	1 MVIS
19	001900110022	1 MVIS
20	001900110039	1 MVIS
21	001900110046	1 MVIS
22	002360270116	1 MVIS
23	002550290210	1 MVIS
24	003050120059	1 MVIS
25	003050120066	1 MVIS
26	003540170104	1 MVIS
27	003540170111	1 MVIS
28	003540170128	1 MVIS
29	003540170135	1 MVIS
30	003570290018	1 MVIS
31	003570290025	1 MVIS
32	003570290032	1 MVIS
33	003570360018	1 MVIS
34	003570360025	1 MVIS
35	003620310014	1 MVIS
36	003620310038	1 MVIS
37	003620310076	1 MVIS
38	003620310083	1 MVIS
39	003660480012	1 MVIS
40	003700290010	1 MVIS
41	003770240020	1 MVIS
42	004840190015	1 MVIS
43	004840190022	1 MVIS
44	005070320058	1 MVIS
45	005260160083	1 MVIS
46	005260160261	1 MVIS
47	005260160278	1 MVIS
48	005260160305	1 MVIS
49	005260160312	1 MVIS
50	005260160329	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.rxlk - sorted by eventidx
Rx+event link file records (HC-10IF2)

EVNTIDX	LINKIDX	EVENTYPE
000020250010	000020250027	1 MVIS
000020320010	000020320027	1 MVIS
000020490010	000020490089	1 MVIS
	000020490096	1 MVIS
000020490034	000020490109	1 MVIS
000020490041	000020490116	1 MVIS
000020490058	000020490123	1 MVIS
	000020490130	1 MVIS
000020490065	000020490147	4 STAZ
000020490072	000020490130	4 STAZ
	000020490154	4 STAZ
000030150125	000030150156	1 MVIS
000030220098	000030220221	1 MVIS
000030220170	000030220238	1 MVIS
000030220310	000030220252	1 MVIS
000040250081	000040250098	6 OMED
000040250125	000040250149	1 MVIS
000040250372	000040250389	6 OMED
000040250396	000040250409	6 OMED
000050110017	000050110079	1 MVIS
000050110106	000050110144	1 MVIS
000050170011	000050170066	5 DVIS
000050170028	000050170073	1 MVIS
000050170193	000050170388	1 MVIS
	000050170395	1 MVIS
000050170275	000050170422	2 OPAT
	000050170439	2 OPAT

SAMPLE SAS JOB FOR EXAMPLE A

```
                       sample print of work.rxlk - sorted by eventidx
                          Rx+event link file records (HC-10IF2)

                      EVNTIDX        LINKIDX        EVENTYPE

                  000050170282   000050170446      2 OPAT
                                 000050170453      2 OPAT

                  000050170319   000050170460      3 EROM

                  000050170326   000050170460      3 EROM

                  000050240011   000050240035      1 MVIS
                                 000050240042      1 MVIS

                  000050240066   000050240073      1 MVIS

                  000050310011   000050310035      1 MVIS

                  000060180012   000060180050      5 DVIS

                  000070170086   000070170113      1 MVIS

                  000070240144   000070240168      1 MVIS

                  000070240151   000070240168      1 MVIS

                  000100150073   000100150080      6 OMED

                  000100150100   000100150179      1 MVIS

                  000100150124   000100150186      1 MVIS

                  000100150148   000100150193      5 DVIS

                  000100150319   000100150388      1 MVIS

                  000100220011   000100220059      1 MVIS
                                 000100220066      1 MVIS
                                 000100220073      1 MVIS

                  000100220097   000100220148      1 MVIS
                                 000100220155      1 MVIS
                                 000100220162      1 MVIS
                                 000100220179      1 MVIS
                                 000100220186      1 MVIS

                  000100220193   000100220244      1 MVIS
                                 000100220251      1 MVIS
                                 000100220268      1 MVIS
                                 000100220275      1 MVIS
                                 000100220282      1 MVIS

                  000110120061   000110120085      1 MVIS
```

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.rxlk - sorted by eventidx
Rx+event link file records (HC-10IF2)

EVNTIDX	LINKIDX	EVENTYPE
000110120061	000110120092	1 MVIS
000110120105	000110120198	1 MVIS
	000110120201	1 MVIS
000110290054	000110290078	1 MVIS
000120190014	000120190021	1 MVIS
	000120190038	1 MVIS
000130190057	000130190160	1 MVIS
000130190324	000130190444	1 MVIS
000130190348	000130190451	1 MVIS
	000130190468	1 MVIS
000150150019	000150150026	1 MVIS
	000150150033	1 MVIS
000170160061	000170160078	1 MVIS
000170600017	000170600031	1 MVIS
	000170600048	1 MVIS
000170710013	000170710020	1 MVIS
000200110019	000200110108	3 EROM
000200110026	000200110115	1 MVIS
000200110033	000200110122	5 DVIS
	000200110139	5 DVIS
000200280019	000200280026	1 MVIS
	000200280033	1 MVIS
	000200280040	1 MVIS
000200280064	000200280071	3 EROM
000200350026	000200350057	1 MVIS
	000200350064	1 MVIS
000200350040	000200350071	1 MVIS
000200350088	000200350115	5 DVIS
000200350108	000200350115	5 DVIS

SAMPLE SAS JOB FOR EXAMPLE A

```
sample print of work.rxlk - sorted by eventidx
   Rx+event link file records (HC-10IF2)
```

EVNTIDX	LINKIDX	EVENTYPE
000230160034	000230160065	1 MVIS
000230160116	000230160147	5 DVIS
	000230160154	5 DVIS
000230160123	000230160161	1 MVIS
000230160192	000230160205	1 MVIS
000290370011	000290370059	1 MVIS
000290370042	000290370059	1 MVIS
	000290370066	1 MVIS
	000290370073	1 MVIS
	000290370080	1 MVIS
000290370179	000290370193	3 EROM
	000290370206	3 EROM
	000290370213	3 EROM
000310100013	000310100068	1 MVIS
000310100075	000310100099	1 MVIS
000310230048	000310230062	1 MVIS
000310230086	000310230106	1 MVIS
000310230093	000310230113	1 MVIS
000320280030	000320280047	6 OMED
000320280054	000320280061	6 OMED
000340100045	000340100083	1 MVIS
000340100069	000340100090	1 MVIS
000340100110	000340100158	1 MVIS
000360330035	000360330042	3 EROM
000370110017	000370110106	2 OPAT
000410160016	000410160085	1 MVIS
000410160112	000410160201	1 MVIS
000410160136	000410160218	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.rxlk - sorted by eventidx
Rx+event link file records (HC-10IF2)

```
     EVNTIDX        LINKIDX        EVENTYPE

   000410160136   000410160225      1 MVIS

   000410160167   000410160232      1 MVIS
                  000410160249      1 MVIS

   000410160263   000410160383      1 MVIS
                  000410160390      1 MVIS

   000420140040   000420140211      1 MVIS
                  000420140228      1 MVIS

   000420140273   000420140317      1 MVIS

   000440150027   000440150072      4 STAZ
                  000440150089      4 STAZ

   000440150034   000440150096      4 STAZ

   000440150192   000440150281      4 STAZ

   000440220010   000440220027      1 MVIS

   000450100013   000450100020      1 MVIS
                  000450100037      1 MVIS

   000450100068   000450100102      1 MVIS

   000460110013   000460110068      1 MVIS

   000460110044   000460110051      6 OMED

   000460110304   000460110328      1 MVIS

   000480180023   000480180078      1 MVIS

   000480250030   000480250047      1 MVIS

   000480250054   000480250061      1 MVIS

   000480320030   000480320078      1 MVIS

   000480320047   000480320078      1 MVIS

   000480320054   000480320085      1 MVIS
```

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.pmedids - sorted by evntidx
work.rxlk records for evntidxs in work.asmvis

EVNTIDX	LINKIDX	EVENTYPE
000170710013	000170710020	1 MVIS
000630450237	000630450282	1 MVIS
000980120018	000980120032	1 MVIS
001170160136	001170160198	1 MVIS
001170160143	001170160201	1 MVIS
	001170160218	1 MVIS
001830490046	001830490142	1 MVIS
001860600019	001860600026	1 MVIS
	001860600033	1 MVIS
	001860600040	1 MVIS
	001860600057	1 MVIS
002360270116	002360270161	1 MVIS
003050120059	003050120097	1 MVIS
003540170104	003540170142	1 MVIS
	003540170159	1 MVIS
	003540170166	1 MVIS
003570290018	003570290063	1 MVIS
	003570290070	1 MVIS
003570290025	003570290070	1 MVIS
003570360018	003570360063	1 MVIS
003620310038	003620310069	1 MVIS
003660480012	003660480029	1 MVIS
	003660480036	1 MVIS
	003660480043	1 MVIS
	003660480050	1 MVIS
003700290010	003700290027	1 MVIS
003770240020	003770240068	1 MVIS
004840190015	004840190046	1 MVIS
	004840190053	1 MVIS
004840190022	004840190060	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE A

```
         sample print of work.pmedids - sorted by evntidx
          work.rxlk records for evntidxs in work.asmvis

               EVNTIDX        LINKIDX        EVENTYPE

            005260160083    005260160172     1 MVIS
                            005260160189     1 MVIS

            005260160261    005260160374     1 MVIS

            005420210010    005420210072     1 MVIS

            005670410085    005670410092     1 MVIS
                            005670410112     1 MVIS
                            005670410129     1 MVIS

            005950540035    005950540059     1 MVIS

            006700210029    006700210074     1 MVIS
                            006700210081     1 MVIS
                            006700210098     1 MVIS
                            006700210101     1 MVIS

            006960390021    006960390076     1 MVIS
                            006960390083     1 MVIS

            006960460583    006960460689     1 MVIS
                            006960460696     1 MVIS
                            006960460709     1 MVIS

            007030280111    007030280248     1 MVIS
                            007030280255     1 MVIS
                            007030280262     1 MVIS
```

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.pmedids - sorted by linkidx

OBS	EVNTIDX	LINKIDX	EVENTYPE
1	000170710013	000170710020	1 MVIS
2	000630450237	000630450282	1 MVIS
3	000980120018	000980120032	1 MVIS
4	001170160136	001170160198	1 MVIS
5	001170160143	001170160201	1 MVIS
6	001170160143	001170160218	1 MVIS
7	001830490046	001830490142	1 MVIS
8	001860600019	001860600026	1 MVIS
9	001860600019	001860600033	1 MVIS
10	001860600019	001860600040	1 MVIS
11	001860600019	001860600057	1 MVIS
12	002360270116	002360270161	1 MVIS
13	003050120059	003050120097	1 MVIS
14	003540170104	003540170142	1 MVIS
15	003540170104	003540170159	1 MVIS
16	003540170104	003540170166	1 MVIS
17	003570290018	003570290063	1 MVIS
18	003570290018	003570290070	1 MVIS
19	003570290025	003570290070	1 MVIS
20	003570360018	003570360063	1 MVIS
21	003620310038	003620310069	1 MVIS
22	003660480012	003660480029	1 MVIS
23	003660480012	003660480036	1 MVIS
24	003660480012	003660480043	1 MVIS
25	003660480012	003660480050	1 MVIS
26	003700290010	003700290027	1 MVIS
27	003770240020	003770240068	1 MVIS
28	004840190015	004840190046	1 MVIS
29	004840190015	004840190053	1 MVIS
30	004840190022	004840190060	1 MVIS
31	005260160083	005260160172	1 MVIS
32	005260160083	005260160189	1 MVIS
33	005260160261	005260160374	1 MVIS
34	005420210010	005420210072	1 MVIS
35	005670410085	005670410092	1 MVIS
36	005670410085	005670410112	1 MVIS
37	005670410085	005670410129	1 MVIS
38	005950540035	005950540059	1 MVIS
39	006700210029	006700210074	1 MVIS
40	006700210029	006700210081	1 MVIS
41	006700210029	006700210098	1 MVIS
42	006700210029	006700210101	1 MVIS
43	006960390021	006960390076	1 MVIS
44	006960390021	006960390083	1 MVIS
45	006960460583	006960460689	1 MVIS
46	006960460583	006960460696	1 MVIS
47	006960460583	006960460709	1 MVIS
48	007030280111	007030280248	1 MVIS
49	007030280111	007030280255	1 MVIS
50	007030280111	007030280262	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE A

sample print of unique linkidxs in work.pmedids

OBS	LINKIDX
1	000170710020
2	000630450282
3	000980120032
4	001170160198
5	001170160201
6	001170160218
7	001830490142
8	001860600026
9	001860600033
10	001860600040
11	001860600057
12	002360270161
13	003050120097
14	003540170142
15	003540170159
16	003540170166
17	003570290063
18	003570290070
19	003570360063
20	003620310069
21	003660480029
22	003660480036
23	003660480043
24	003660480050
25	003700290027
26	003770240068
27	004840190046
28	004840190053
29	004840190060
30	005260160172
31	005260160189
32	005260160374
33	005420210072
34	005670410092
35	005670410112
36	005670410129
37	005950540059
38	006700210074
39	006700210081
40	006700210098
41	006700210101
42	006960390076
43	006960390083
44	006960460689
45	006960460696
46	006960460709
47	007030280248
48	007030280255
49	007030280262
50	007030280279

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.mvpmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
000170710020	00017071002001001	EPIEN	64.68	0	6089.40
000630450282	00063045028201001	BIAXIN	36.63	0	19737.17
000980120032	00098012003201001	UNIPHYL	21.09	0	12968.18
	00098012003201002	UNIPHYL	21.00	0	12968.18
	00098012003202001	THEOPHYLLINE	16.01	0	12968.18
	00098012003202002	THEOPHYLLINE	16.01	0	12968.18
	00098012003202003	THEOPHYLLINE	16.01	0	12968.18
001170160198	00117016019801001	SEREVENT INH	48.41	0	14880.15
001170160201	00117016020101001	DELTASONE	10.49	0	14880.15
001170160218	00117016021801001	AZMACORT	41.92	0	14880.15
001830490142	00183049014201001	BIAXIN	31.49	0	26312.38
001860600026	00186060002601001	THEOPHYLLINE	16.01	0	20127.55
	00186060002601002	THEOPHYLLINE	16.01	0	20127.55
	00186060002601003	THEOPHYLLINE	16.01	0	20127.55
	00186060002601004	THEOPHYLLINE	16.01	0	20127.55
	00186060002601005	THEOPHYLLINE	16.01	0	20127.55
	00186060002601006	THEOPHYLLINE	16.01	0	20127.55
	00186060002601007	THEOPHYLLINE	16.01	0	20127.55
001860600033	00186060003301001	HYZAAR	31.44	0	20127.55
	00186060003301002	HYZAAR	31.44	0	20127.55
	00186060003301003	HYZAAR	31.44	0	20127.55
	00186060003301004	HYZAAR	31.44	0	20127.55
	00186060003301005	HYZAAR	31.44	0	20127.55
	00186060003301006	HYZAAR	31.44	0	20127.55
001860600040	00186060004001001	VENTOLIN	26.16	0	20127.55
	00186060004001002	VENTOLIN	26.16	0	20127.55
	00186060004001003	VENTOLIN	26.16	0	20127.55
	00186060004001004	VENTOLIN	26.16	0	20127.55
	00186060004001005	VENTOLIN	26.16	0	20127.55
	00186060004001006	VENTOLIN	26.16	0	20127.55
001860600057	00186060005701001	AEROBID	52.02	0	20127.55
	00186060005701002	AEROBID	52.02	0	20127.55
	00186060005701003	AEROBID	52.02	0	20127.55
	00186060005701004	AEROBID	52.02	0	20127.55
	00186060005701005	AEROBID	52.02	0	20127.55
	00186060005701006	AEROBID	52.02	0	20127.55
002360270161	00236027016101001	FERROUS SULFATE	4.99	0	19460.44

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.mvpmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
003050120097	003050012009701001	ALBUTEROL	21.43	0	7866.01
003540170142	003540017014201001	LANOXIN	6.28	0	14244.68
	003540017014201002	LANOXIN	6.28	0	14244.68
	003540017014201003	LANOXIN	6.28	0	14244.68
	003540017014201004	LANOXIN	6.28	0	14244.68
	003540017014201005	LANOXIN	6.28	0	14244.68
	003540017014201006	LANOXIN	6.28	0	14244.68
	003540017014201007	LANOXIN	6.28	0	14244.68
003540170159	003540017015901001	CAPOTEN	76.63	0	14244.68
	003540017015901002	CAPOTEN	69.36	0	14244.68
	003540017015901003	CAPOTEN	76.63	0	14244.68
	003540017015901004	CAPOTEN	76.63	0	14244.68
	003540017015901005	CAPOTEN	76.63	0	14244.68
	003540017015901006	CAPOTEN	76.63	0	14244.68
	003540017015901007	CAPOTEN	76.63	0	14244.68
003540170166	003540017016601001	ALDACTONE	37.82	0	14244.68
003570290063	003570029006301001	-9	5.96	0	6058.65
	003570029006301002	-9	5.96	0	6058.65
003570290070	003570029007001001	ALBUTEROL	19.98	0	6058.65
	003570029007001002	ALBUTEROL	19.98	0	6058.65
	003570029007001003	ALBUTEROL	19.98	0	6058.65
	003570029007001004	ALBUTEROL	19.98	0	6058.65
	003570029007001005	ALBUTEROL	19.98	0	6058.65
003570360063	003570036006301001	ALBUTEROL	18.99	0	8573.39
	003570036006301002	ALBUTEROL	18.99	0	8573.39
	003570036006301003	ALBUTEROL	18.99	0	8573.39
	003570036006301004	ALBUTEROL	18.99	0	8573.39
003620310069	003620031006901001	PPA/GG	6.77	0	4651.24
003660480029	003660048002901001	AMOXICILLIN	5.32	0	2117.99
003660480036	003660048003601001	SEREVENT	51.11	0	2117.99
003660480043	003660048004301001	PROVENTIL	26.01	0	2117.99
	003660048004301002	PROVENTIL	26.01	0	2117.99
003660480050	003660048005001001	CLARITIN	54.78	0	2117.99
003700290027	003700029002701001	VENTOLIN	28.06	0	5641.61
003770240068	003770024006801001	SMZ-TMP	6.04	0	8671.69
	003770024006801002	SMZ-TMP	6.04	0	8671.69

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.mvpmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
004840190046	00484019004601001	PERPHENAZINE	16.57	0	3656.02
004840190053	00484019005301001	TRAZODONE	11.65	0	3656.02
	00484019005301002	TRAZODONE	11.65	0	3656.02
004840190060	00484019006001001	SOD CHL	33.97	0	3656.02
	00484019006001002	SOD CHL	33.97	0	3656.02
	00484019006001003	SOD CHL	33.97	0	3656.02
	00484019006001004	SOD CHL	33.97	0	3656.02
	00484019006001005	SOD CHL	33.97	0	3656.02
	00484019006001006	SOD CHL	33.97	0	3656.02
005260160172	00526016017201001	ATROVENT NASAL SPRAY	29.97	0	14137.43
005260160189	00526016018901001	ALDACTONE	39.24	0	14137.43
	00526016018901002	ALDACTONE	39.24	0	14137.43
005260160374	00526016037401001	ALBUTEROL INHALER	15.50	0	14137.43
005420210072	00542021007201001	TRIPLE ANTI OINT	5.72	0	18412.36
005670410092	00567041009201001	PRELONE	26.69	0	24123.47
005670410112	00567041011201001	ALBUTEROL SULFATE	6.76	0	24123.47
005670410129	00567041012901001	-9	5.96	0	24123.47
005950540059	00595054005901001	ALBUTEROL	18.99	0	11475.66
	00595054005901002	ALBUTEROL	18.99	0	11475.66
	00595054005901003	ALBUTEROL	18.99	0	11475.66
	00595054005901004	ALBUTEROL	18.99	0	11475.66
	00595054005901005	ALBUTEROL	18.99	0	11475.66
	00595054005901006	ALBUTEROL	18.99	0	11475.66
	00595054005901007	ALBUTEROL	18.99	0	11475.66
006700210074	00670021007401001	VENTOLIN INH	49.19	0	5384.58
	00670021007401002	VENTOLIN INH	49.19	0	5384.58
	00670021007401003	AZMA-CORT IN	25.69	0	5384.58
	00670021007401004	VENTOLIN INH	49.19	0	5384.58
006700210081	00670021008101001	AZMA-CORT IN	132.69	0	5384.58
	00670021008101002	AZMA-CORT IN	132.69	0	5384.58
	00670021008101003	AZMA-CORT IN	132.69	0	5384.58
	00670021008101004	AZMA-CORT IN	132.69	0	5384.58
006700210098	00670021009801001	BECONASE NAS	31.53	0	5384.58
	00670021009801002	BECONASE NAS	31.53	0	5384.58
	00670021009802001	BECONASE AQ	30.31	0	5384.58
	00670021009802002	BECONASE AQ	30.31	0	5384.58

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.mvpmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
006700210101	00670021010101001	ASTECH PEAK	22.36	0	5384.58
006960390076	00696039007601001	VANCENASE	28.66	0	3766.03
006960390083	00696039008301001	KENALOG/NUTRADERM	15.86	0	3766.03
006960460689	00696046068901001	PRELONE	51.53	0	7584.65
006960460696	00696046069601001	NUCOFED EXP	16.87	0	7584.65
006960460709	00696046070901001	CROLOM	39.54	0	7584.65
	00696046070901002	CROLOM	39.54	0	7584.65
	00696046070901003	CROLOM	39.54	0	7584.65
	00696046070901004	CROLOM	39.54	0	7584.65
	00696046070901005	CROLOM	39.54	0	7584.65
007030280248	00703028024801001	DYNABAC	17.56	0	12090.79
007030280255	00703028025501001	R-TANNATE	9.22	0	12090.79
007030280262	00703028026201001	AZMACORT	40.67	0	12090.79
007030280279	00703028027901001	NAPROXEN	9.62	0	12090.79
007030280700	00703028070001001	PEAK FLOW METER STANDARD	28.68	0	12090.79
007370120025	00737012002501001	THEOPHYLLINE ER	27.66	0	4641.82
007370120032	00737012003201001	AMPICILLIN	7.99	0	4641.82
007370120049	00737012004901001	PROMETHAZINE V	5.01	0	4641.82
007470140053	00747014005301001	ERY-TAB	10.49	0	16812.41
	00747014005301002	ERY-TAB	10.49	0	16812.41
007470140060	00747014006001001	GUAIFENESIN	39.65	0	16812.41
007470140142	00747014014201001	ERY-TAB	10.49	0	16812.41
007620260119	00762026011901001	AZMACORT	42.15	0	21174.64
007620260126	00762026012601001	VENTOLIN	32.92	0	21174.64
007620260133	00762026013301001	NITRO-DUR	45.26	0	21174.64
007620260140	00762026014001001	VERAPAMIL ER	57.49	0	21174.64
007620260157	00762026015701001	CAPTOPRIL	70.09	0	21174.64

SAMPLE SAS JOB FOR EXAMPLE A

sample print of work.mvpmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
007620260164	00762026016401001	FUROSEMIDE	5.34	0	21174.64
007620260171	00762026017101001	SYNTHROID	15.68	0	21174.64
007620260188	00762026018801001	KLOR-CON	11.57	0	21174.64
007620260195	00762026019501001	RELAFEN	30.20	0	21174.64
007620260455	00762026045501001	AZMACORT INHALER	111.47	0	21174.64
	00762026045501002	AZMACORT INHALER	111.47	0	21174.64
	00762026045501003	AZMACORT INHALER	111.47	0	21174.64
007620260462	00762026046201001	ALBUTEROL INHALER	44.16	0	21174.64
	00762026046201002	ALBUTEROL INHALER	44.16	0	21174.64
	00762026046201003	ALBUTEROL INHALER	44.16	0	21174.64
007620260479	00762026047901001	DEPONIT	89.89	0	21174.64
007620260486	00762026048601001	VERAPAMIL ER	57.49	0	21174.64
	00762026048601002	VERAPAMIL ER	57.49	0	21174.64
	00762026048601003	VERAPAMIL ER	57.49	0	21174.64
	00762026048601004	VERAPAMIL ER	57.49	0	21174.64
	00762026048601005	VERAPAMIL ER	57.49	0	21174.64
007620260493	00762026049301001	CAPTOPRIL	64.69	0	21174.64
	00762026049301002	CAPTOPRIL	64.69	0	21174.64
	00762026049301003	CAPTOPRIL	64.69	0	21174.64
	00762026049301004	CAPTOPRIL	64.69	0	21174.64
	00762026049301005	CAPTOPRIL	64.69	0	21174.64
	00762026049301006	CAPTOPRIL	64.69	0	21174.64
007620260506	00762026050601001	FUROSEMIDE	4.30	0	21174.64
	00762026050601002	FUROSEMIDE	4.30	0	21174.64
	00762026050601003	FUROSEMIDE	4.30	0	21174.64
	00762026050601004	FUROSEMIDE	4.30	0	21174.64
	00762026050601005	FUROSEMIDE	4.30	0	21174.64
007620260513	00762026051301001	SYNTHROID	15.68	0	21174.64
	00762026051301002	SYNTHROID	15.68	0	21174.64
	00762026051301003	SYNTHROID	15.68	0	21174.64
	00762026051301004	SYNTHROID	15.68	0	21174.64
	00762026051301005	SYNTHROID	15.68	0	21174.64
	00762026051301006	SYNTHROID	15.68	0	21174.64
	00762026051301007	SYNTHROID	15.68	0	21174.64
007620260520	00762026052001001	KLOR-CON	13.09	0	21174.64
	00762026052001002	KLOR-CON	13.09	0	21174.64
	00762026052001003	KLOR-CON	13.09	0	21174.64
	00762026052001004	KLOR-CON	13.09	0	21174.64

sample print of work.mvpmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
007620260520	00762026052001005	KLOR-CON	13.09	0	21174.64
007620260537	00762026053701001	RELAFEN	58.41	0	21174.64
	00762026053701002	RELAFEN	58.41	0	21174.64
	00762026053701003	RELAFEN	58.41	0	21174.64
	00762026053701004	RELAFEN	58.41	0	21174.64
	00762026053701005	RELAFEN	58.41	0	21174.64
	00762026053701006	RELAFEN	58.41	0	21174.64
007620260544	00762026054401001	PAXIL	145.18	0	21174.64
	00762026054401002	PAXIL	49.62	0	21174.64
	00762026054401003	PAXIL	49.62	0	21174.64
007950160198	00795016019801001	PEPCID	91.27	0	7348.10
007950160201	00795016020101001	PROVENTIL	24.98	0	7348.10
007950160218	00795016021801001	FUROSEMIDE	4.39	0	7348.10
007950160225	00795016022501001	THEOPHYLLINE	11.01	0	7348.10
007950160232	00795016023201001	LANOXIN	5.94	0	7348.10
007950160249	00795016024901001	K-DUR	13.89	0	7348.10
007950160256	00795016025601001	RIGEL	2.75	0	7348.10
007950160263	00795016026301001	APAP W/CODEINE #3	5.61	0	7348.10
008510200042	00851020004201001	SOD CHL	33.97	0	4341.07
008850120138	00885012013801001	ALBUTEROL	27.60	0	7200.64
	00885012013801002	ALBUTEROL	27.60	0	7200.64
	00885012013801003	ALBUTEROL	27.60	0	7200.64
009290190033	00929019003301001	UNIPHYL	21.09	0	7252.51
	00929019003301002	UNIPHYL	21.09	0	7252.51
009640310056	00964031005601001	PROVENTIL	20.70	0	16349.74
	00964031005601002	PROVENTIL	20.70	0	16349.74

SAMPLE SAS JOB FOR EXAMPLE A

Total Rx expenditures associated with medical visits (excluding telephone) for asthma

Analysis Variable : RXXP96X SUM OF PAYMENTS RXSF96X-RXOU96X(IMPUTED)

```
        N           Sum
-----------------------
      2918       91094.46
-----------------------
```

SAMPLE SAS JOB FOR EXAMPLE A

Total Rx expenditures associated with medical visits (excluding telephone) for asthma

Weighted

Analysis Variable : RXXP96X SUM OF PAYMENTS RXSF96X-RXOU96X(IMPUTED)

```
       N          Sum
------------------
  2918    1094856747
------------------
```

SAMPLE SAS JOB FOR EXAMPLE B

```
1                              The SAS System              10:39 Friday, July 14, 2000

NOTE: Copyright (c) 1989-1996 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 6.12  TS060
      Licensed to SOCIAL & SCIENTIFIC SYSTEMS INC, Site 0026405003.


1           OPTIONS LS=132 PS=59;
2
3           TITLE1 "HC-010I";
4
5           LIBNAME IN 'D:\';
NOTE: Libref IN was successfully assigned as follows:
      Engine:        V612
      Physical Name: D:\
6
7           ****************************************************************************************
8           * Calculate the expenditures for prescribed medicines associated with asthma.
9           ****************************************************************************************;
10          PROC FORMAT;
11            VALUE EVENTYPE
12                1 = "1 MVIS"
13                2 = "2 OPAT"
14                3 = "3 EROM"
15                4 = "4 STAZ"
16                5 = "5 DVIS"
17                6 = "6 OMED"
18                7 = "7 HVIS"
19                8 = "8 PMED";
NOTE: Format EVENTYPE has been output.
20          RUN;

NOTE: The PROCEDURE FORMAT used 0.59 seconds.


21
22          *---------------------------------------------------------------------------------------
23          * Get condition records coded as asthma.
24          *---------------------------------------------------------------------------------------;
25          DATA ASCONDS;
26            SET IN.HC006R (KEEP=CONDIDX CCCODEX);
27            IF CCCODEX="128";
28          RUN;

NOTE: The data set WORK.ASCONDS has 982 observations and 2 variables.
NOTE: The DATA statement used 5.11 seconds.


29
30          *----------------------------------------------------------------------------
31          * Get the events linked to each of the asthma condition records.
32          *----------------------------------------------------------------------------;
33          PROC SORT DATA=ASCONDS; BY CONDIDX; RUN;

NOTE: The data set WORK.ASCONDS has 982 observations and 2 variables.
NOTE: The PROCEDURE SORT used 0.22 seconds.
```

SAMPLE SAS JOB FOR EXAMPLE B

```
34
35          proc print data=asconds (obs=50);
36             title3 "sample print of work.asconds - sorted by condidx";
37             title4 "COND (HC-006R) records where cccodex=128";
38          run;

NOTE: The PROCEDURE PRINT printed page 1.
NOTE: The PROCEDURE PRINT used 0.22 seconds.


39
40          PROC SORT DATA=IN.HC10IF1 OUT=CLNK; BY CONDIDX; RUN;

NOTE: The data set WORK.CLNK has 198363 observations and 5 variables.
NOTE: The PROCEDURE SORT used 13.67 seconds.


41
42          DATA ASCLNKS;
43            MERGE CLNK    (IN=INCLNK   KEEP=CONDIDX EVNTIDX EVENTYPE)
44                  ASCONDS(IN=INASCOND KEEP=CONDIDX);
45            BY CONDIDX;
46            IF INCLNK & INASCOND;
47          RUN;

NOTE: The data set WORK.ASCLNKS has 4319 observations and 3 variables.
NOTE: The DATA statement used 3.02 seconds.


48
49          proc print data=asclnks (obs=75);
50            by condidx;
51            id condidx;
52            format eventype eventype.;
53            title3 "sample print of work.asclnks - sorted by condidx";
54            title4 "events linked to asthma condition records";
55          run;

NOTE: The PROCEDURE PRINT printed pages 2-3.
NOTE: The PROCEDURE PRINT used 0.33 seconds.


56
57          PROC SORT DATA=ASCLNKS; BY EVNTIDX; RUN;

NOTE: The data set WORK.ASCLNKS has 4319 observations and 3 variables.
NOTE: The PROCEDURE SORT used 0.17 seconds.


58
59          proc print data=asclnks (obs=50);
60            format eventype eventype.;
61            title3 "sample print of work.asclnks - sorted by evntidx";
62          run;

NOTE: The PROCEDURE PRINT printed page 4.
NOTE: The PROCEDURE PRINT used 0.0 seconds.
```

```
63
64          DATA ASCLNKS;
65            SET ASCLNKS (KEEP=EVNTIDX EVENTYPE);
66            BY EVNTIDX;
67            IF FIRST.EVNTIDX;
68          RUN;

NOTE: The data set WORK.ASCLNKS has 4304 observations and 2 variables.
NOTE: The DATA statement used 0.11 seconds.


69
70          proc print data=asclnks (obs=50);
71            format eventype eventype.;
72            title3 "sample print of unique evntidxs from work.asclnks";
73          run;

NOTE: The PROCEDURE PRINT printed page 5.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


74
75          *------------------------------------------------------------------------------
76          * Get PMED records linked to asthma condition records.
77          *-----------------------------------------------------------------------------;
78          PROC SORT DATA=IN.HC10A OUT=PMED; BY LINKIDX; RUN;

NOTE: The data set WORK.PMED has 171587 observations and 52 variables.
NOTE: The PROCEDURE SORT used 58.32 seconds.


79
80          DATA ASPMEDS;
81            MERGE PMED (KEEP=LINKIDX RXRECIDX RXNAME RXXP96X FREEFLG WTDPER96)
82                  ASCLNKS (IN=INASCLNK KEEP=EVNTIDX RENAME=(EVNTIDX=LINKIDX));
83            BY LINKIDX;
84            IF INASCLNK & FREEFLG=0 & WTDPER96>0;
85          RUN;

NOTE: The data set WORK.ASPMEDS has 6372 observations and 6 variables.
NOTE: The DATA statement used 12.02 seconds.


86
87          proc print data=aspmeds (obs=300);
88            by linkidx;
89            id linkidx;
90            var rxrecidx rxname rxxp96x freeflg wtdper96;
91            title3 "sample print of work.aspmeds";
92            title4 "PMED (HC-010A) records (including free samples) which link to condition records coded as asthma";
93          run;

NOTE: The PROCEDURE PRINT printed pages 6-15.
NOTE: The PROCEDURE PRINT used 0.05 seconds.
```

SAMPLE SAS JOB FOR EXAMPLE B

```
94
95          PROC MEANS DATA=ASPMEDS N SUM;
96            VAR RXXP96X;
97            TITLE3 "Total Rx expenditures associated with asthma";
98          RUN;
```

NOTE: The PROCEDURE MEANS printed page 16.
NOTE: The PROCEDURE MEANS used 0.28 seconds.

```
99
100         PROC MEANS DATA=ASPMEDS N SUM;
101           VAR RXXP96X;
102           WEIGHT WTDPER96;
103           TITLE3 "Total Rx expenditures associated with asthma";
104           TITLE5 "Weighted";
105         RUN;
```

NOTE: The PROCEDURE MEANS printed page 17.
NOTE: The PROCEDURE MEANS used 0.0 seconds.

```
106
107
```

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.asconds - sorted by condidx
COND (HC-006R) records where cccodex=128

OBS	CONDIDX	CCCODEX
1	000040320014	128
2	000170710050	128
3	000630450038	128
4	000630450044	128
5	000650110054	128
6	000850580014	128
7	000860130035	128
8	000980120017	128
9	001170160082	128
10	001300290022	128
11	001660130011	128
12	001660370019	128
13	001660440018	128
14	001830490013	128
15	001860600013	128
16	001900110024	128
17	002360270026	128
18	002400120025	128
19	002550290027	128
20	002940230026	128
21	003050120030	128
22	003210280044	128
23	003320230104	128
24	003430100019	128
25	003470170019	128
26	003540170016	128
27	003570290019	128
28	003570360018	128
29	003620170023	128
30	003620310015	128
31	003660480029	128
32	003700290015	128
33	003770240045	128
34	004060270035	128
35	004160280015	128
36	004500120011	128
37	004500450016	128
38	004630460039	128
39	004840190010	128
40	004840520061	128
41	005030330030	128
42	005060320036	128
43	005070320015	128
44	005260160028	128
45	005300270020	128
46	005420210025	128
47	005670410030	128
48	005690210026	128
49	005710290049	128
50	005710430053	128

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.asclnks - sorted by condidx
events linked to asthma condition records

```
          CONDIDX         EVNTIDX        EVENTYPE

       000040320014    000040320012      3 EROM

       000170710050    000170710013      1 MVIS
                       000170710020      8 PMED

       000630450038    000630450237      1 MVIS
                       000630450251      1 MVIS
                       000630450282      8 PMED

       000630450044    000630450268      1 MVIS
                       000630450282      8 PMED

       000650110054    000650110177      1 MVIS
                       000650110184      1 MVIS
                       000650110191      1 MVIS
                       000650110204      1 MVIS
                       000650110211      1 MVIS
                       000650110735      8 PMED

       000860130035    000860130097      8 PMED
                       000860130220      1 MVIS
                       000860130251      8 PMED

       000980120017    000980120018      1 MVIS
                       000980120032      8 PMED
                       000980120070      8 PMED

       001170160082    001170160136      1 MVIS
                       001170160143      1 MVIS
                       001170160150      1 MVIS
                       001170160167      1 MVIS
                       001170160198      8 PMED
                       001170160201      8 PMED
                       001170160218      8 PMED

       001300290022    001300290043      8 PMED
                       001300290163      8 PMED
                       001300290170      8 PMED

       001660130011    001660130011      8 PMED

       001660370019    001660370011      8 PMED

       001830490013    001830490046      1 MVIS
                       001830490053      1 MVIS
                       001830490060      1 MVIS
                       001830490166      8 PMED
                       001830490173      8 PMED
                       001830490375      8 PMED
```

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.asclnks - sorted by condidx
events linked to asthma condition records

```
        CONDIDX         EVNTIDX        EVENTYPE

     001860600013    001860600019     1 MVIS
                     001860600026     8 PMED
                     001860600040     8 PMED
                     001860600057     8 PMED
                     001860600071     8 PMED
                     001860600095     8 PMED
                     001860600108     8 PMED

     001900110024    001900110022     1 MVIS
                     001900110039     1 MVIS
                     001900110046     1 MVIS
                     001900110053     2 OPAT
                     001900110060     2 OPAT

     002360270026    002360270116     1 MVIS
                     002360270178     2 OPAT
                     002360270192     8 PMED
                     002360270212     8 PMED

     002550290027    002550290121     8 PMED
                     002550290138     8 PMED
                     002550290176     8 PMED
                     002550290183     8 PMED
                     002550290210     1 MVIS
                     002550290234     8 PMED
                     002550290241     8 PMED

     002940230026    002940230142     8 PMED
                     002940230159     8 PMED

     003050120030    003050120011     8 PMED
                     003050120028     8 PMED
                     003050120059     1 MVIS
                     003050120066     1 MVIS
                     003050120097     8 PMED
                     003050120100     8 PMED
                     003050120408     8 PMED

     003210280044    003210280465     8 PMED
                     003210280472     8 PMED

     003320230104    003320230176     8 PMED

     003430100019    003430100018     8 PMED

     003540170016    003540170039     8 PMED
```

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.asclnks - sorted by evntidx

OBS	CONDIDX	EVNTIDX	EVENTYPE
1	000040320014	000040320012	3 EROM
2	000170710050	000170710013	1 MVIS
3	000170710050	000170710020	8 PMED
4	000630450038	000630450237	1 MVIS
5	000630450038	000630450251	1 MVIS
6	000630450044	000630450268	1 MVIS
7	000630450038	000630450282	8 PMED
8	000630450044	000630450282	8 PMED
9	000650110054	000650110177	1 MVIS
10	000650110054	000650110184	1 MVIS
11	000650110054	000650110191	1 MVIS
12	000650110054	000650110204	1 MVIS
13	000650110054	000650110211	1 MVIS
14	000650110054	000650110735	8 PMED
15	000860130035	000860130097	8 PMED
16	000860130035	000860130220	1 MVIS
17	000860130035	000860130251	8 PMED
18	000980120017	000980120018	1 MVIS
19	000980120017	000980120032	8 PMED
20	000980120017	000980120070	8 PMED
21	001170160082	001170160136	1 MVIS
22	001170160082	001170160143	1 MVIS
23	001170160082	001170160150	1 MVIS
24	001170160082	001170160167	1 MVIS
25	001170160082	001170160198	8 PMED
26	001170160082	001170160201	8 PMED
27	001170160082	001170160218	8 PMED
28	001300290022	001300290043	8 PMED
29	001300290022	001300290163	8 PMED
30	001300290022	001300290170	8 PMED
31	001660130011	001660130011	8 PMED
32	001660370019	001660370011	8 PMED
33	001830490013	001830490046	1 MVIS
34	001830490013	001830490053	1 MVIS
35	001830490013	001830490060	1 MVIS
36	001830490013	001830490166	8 PMED
37	001830490013	001830490173	8 PMED
38	001830490013	001830490375	8 PMED
39	001860600013	001860600019	1 MVIS
40	001860600013	001860600026	8 PMED
41	001860600013	001860600040	8 PMED
42	001860600013	001860600057	8 PMED
43	001860600013	001860600071	8 PMED
44	001860600013	001860600095	8 PMED
45	001860600013	001860600108	8 PMED
46	001900110024	001900110022	1 MVIS
47	001900110024	001900110039	1 MVIS
48	001900110024	001900110046	1 MVIS
49	001900110024	001900110053	2 OPAT
50	001900110024	001900110060	2 OPAT

SAMPLE SAS JOB FOR EXAMPLE B

sample print of unique evntidxs from work.asclnks

OBS	EVNTIDX	EVENTYPE
1	000040320012	3 EROM
2	000170710013	1 MVIS
3	000170710020	8 PMED
4	000630450237	1 MVIS
5	000630450251	1 MVIS
6	000630450268	1 MVIS
7	000630450282	8 PMED
8	000650110177	1 MVIS
9	000650110184	1 MVIS
10	000650110191	1 MVIS
11	000650110204	1 MVIS
12	000650110211	1 MVIS
13	000650110735	8 PMED
14	000860130097	8 PMED
15	000860130220	1 MVIS
16	000860130251	8 PMED
17	000980120018	1 MVIS
18	000980120032	8 PMED
19	000980120070	8 PMED
20	001170160136	1 MVIS
21	001170160143	1 MVIS
22	001170160150	1 MVIS
23	001170160167	1 MVIS
24	001170160198	8 PMED
25	001170160201	8 PMED
26	001170160218	8 PMED
27	001300290043	8 PMED
28	001300290163	8 PMED
29	001300290170	8 PMED
30	001660130011	8 PMED
31	001660370011	8 PMED
32	001830490046	1 MVIS
33	001830490053	1 MVIS
34	001830490060	1 MVIS
35	001830490166	8 PMED
36	001830490173	8 PMED
37	001830490375	8 PMED
38	001860600019	1 MVIS
39	001860600026	8 PMED
40	001860600040	8 PMED
41	001860600057	8 PMED
42	001860600071	8 PMED
43	001860600095	8 PMED
44	001860600108	8 PMED
45	001900110022	1 MVIS
46	001900110039	1 MVIS
47	001900110046	1 MVIS
48	001900110053	2 OPAT
49	001900110060	2 OPAT
50	002360270116	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
000170710020	000170710020001001	EPIEN	64.68	0	6089.40
000630450282	00063045028201001	BIAXIN	36.63	0	19737.17
000650110735	00065011073501001	NORVASC	33.98	0	17005.66
000860130097	00086013009701001	HISANAL	58.62	0	13634.51
000860130251	00086013025101001	CLARITIN	61.72	0	13634.51
	00086013025102001	CLARITIN	61.72	0	13634.51
	00086013025102002	CLARITIN	61.72	0	13634.51
	00086013025102003	CLARITIN	61.72	0	13634.51
	00086013025102004	CLARITIN	61.72	0	13634.51
	00086013025102005	CLARITIN	61.72	0	13634.51
000980120032	00098012003201001	UNIPHYL	21.09	0	12968.18
	00098012003201002	UNIPHYL	21.00	0	12968.18
	00098012003202001	THEOPHYLLINE	16.01	0	12968.18
	00098012003202002	THEOPHYLLINE	16.01	0	12968.18
	00098012003202003	THEOPHYLLINE	16.01	0	12968.18
000980120070	00098012007001001	THEOPHYLLINE	16.01	0	12968.18
	00098012007001002	THEOPHYLLINE	16.01	0	12968.18
	00098012007001003	THEOPHYLLINE	16.01	0	12968.18
	00098012007002001	THEOPHYLLINE	19.68	0	12968.18
001170160198	00117016019801001	SEREVENT INH	48.41	0	14880.15
001170160201	00117016020101001	DELTASONE	10.49	0	14880.15
001170160218	00117016021801001	AZMACORT	41.92	0	14880.15
001300290043	00130029004301001	VANCERIL	29.69	0	14655.98
001300290163	00130029016301001	VANCERIL INHALER	34.50	0	14655.98
001300290170	001300290170001001	ALBUTEROL INHALER	42.82	0	14655.98
001660130011	00166013001101001	VENTOLIN	32.92	0	15865.79
	00166013001101002	VENTOLIN	32.92	0	15865.79
001660370011	00166037001101001	VENTOLIN	48.84	0	14531.54
001830490166	00183049016601001	INTAL	54.78	0	26312.38
	00183049016601002	INTAL	54.78	0	26312.38
	00183049016601003	INTAL	54.78	0	26312.38
	00183049016601004	INTAL	54.78	0	26312.38
001830490173	00183049017301001	ALBUTEROL	18.34	0	26312.38

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
001830490173	00183049017301002	ALBUTEROL	18.34	0	26312.38
	00183049017301003	ALBUTEROL	18.34	0	26312.38
	00183049017301004	ALBUTEROL	18.34	0	26312.38
	00183049017301005	ALBUTEROL	18.34	0	26312.38
	00183049017301006	ALBUTEROL	18.34	0	26312.38
	00183049017301007	ALBUTEROL	18.34	0	26312.38
	00183049017301008	ALBUTEROL	18.34	0	26312.38
001830490375	00183049037501001	ALBUTEROL	18.99	0	26312.38
	00183049037501002	ALBUTEROL	18.99	0	26312.38
001860600026	00186060002601001	THEOPHYLLINE	16.01	0	20127.55
	00186060002601002	THEOPHYLLINE	16.01	0	20127.55
	00186060002601003	THEOPHYLLINE	16.01	0	20127.55
	00186060002601004	THEOPHYLLINE	16.01	0	20127.55
	00186060002601005	THEOPHYLLINE	16.01	0	20127.55
	00186060002601006	THEOPHYLLINE	16.01	0	20127.55
	00186060002601007	THEOPHYLLINE	16.01	0	20127.55
001860600040	00186060004001001	VENTOLIN	26.16	0	20127.55
	00186060004001002	VENTOLIN	26.16	0	20127.55
	00186060004001003	VENTOLIN	26.16	0	20127.55
	00186060004001004	VENTOLIN	26.16	0	20127.55
	00186060004001005	VENTOLIN	26.16	0	20127.55
	00186060004001006	VENTOLIN	26.16	0	20127.55
001860600057	00186060005701001	AEROBID	52.02	0	20127.55
	00186060005701002	AEROBID	52.02	0	20127.55
	00186060005701003	AEROBID	52.02	0	20127.55
	00186060005701004	AEROBID	52.02	0	20127.55
	00186060005701005	AEROBID	52.02	0	20127.55
	00186060005701006	AEROBID	52.02	0	20127.55
001860600071	00186060007101001	THEOPHYLLINE	16.01	0	20127.55
	00186060007101002	THEOPHYLLINE	16.01	0	20127.55
	00186060007101003	THEOPHYLLINE	16.01	0	20127.55
	00186060007101004	THEOPHYLLINE	16.01	0	20127.55
001860600095	00186060009501001	VENTOLIN	32.92	0	20127.55
	00186060009501002	VENTOLIN	32.92	0	20127.55
001860600108	00186060010801001	AEROBID	52.02	0	20127.55
	00186060010801002	AEROBID	52.02	0	20127.55
002550290121	00255029012101001	AZMACORT	41.63	0	23294.72
002550290138	00255029013801001	VENTOLIN	46.10	0	23294.72
002550290176	00255029017601001	AZMACORT	38.73	0	23294.72

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
002550290183	00255029018301001	VENTOLIN	44.69	0	23294.72
	00255029018301002	VENTOLIN	44.69	0	23294.72
002550290234	00255029023401001	AZMACORT	38.73	0	23294.72
	002550290234402001	AZMACORT	38.73	0	23294.72
002550290241	00255029024101001	VENTOLIN	44.69	0	23294.72
	00255029024101002	VENTOLIN	44.69	0	23294.72
002940230142	00294023014201001	VENTOLIN	32.92	0	12170.07
	00294023014201002	VENTOLIN	32.92	0	12170.07
002940230159	00294023015901001	VENTOLIN	32.92	0	12170.07
	00294023015901002	VENTOLIN	32.92	0	12170.07
003050120011	00305012001101001	SOD CHL	33.97	0	7866.01
	00305012001101002	SOD CHL	33.97	0	7866.01
	00305012001101003	SOD CHL	33.97	0	7866.01
003050120028	003050120002802001	DIFIL-G	22.69	0	7866.01
003050120097	00305012009701001	ALBUTEROL	21.43	0	7866.01
003050120408	00305012040801001	DIFIL-G	22.58	0	7866.01
003210280465	00321028046501001	AZMACORT	42.37	0	5017.62
003210280472	00321028047201001	BC	14.32	0	5017.62
003320230176	00332023017601001	RESAID SR	15.84	0	8134.89
003430100018	00343010001801001	BC	14.32	0	19200.22
003540170039	00354017003901001	THEO-24	36.54	0	14244.68
003540170053	00354017005301001	AZMACORT INHALER	108.45	0	14244.68
	00354017005301002	AZMACORT INHALER	97.28	0	14244.68
	00354017005301003	AZMACORT INHALER	108.45	0	14244.68
003540170060	00354017006001001	SEREVENT INHALATION AEROSOL	66.20	0	14244.68
003540170173	00354017017301001	AZMACORT INHALER	108.45	0	14244.68
	00354017017301002	AZMACORT INHALER	108.45	0	14244.68
	00354017017301003	AZMACORT INHALER	97.24	0	14244.68
	00354017017301004	AZMACORT INHALER	108.45	0	14244.68
	00354017017301005	AZMACORT INHALER	108.45	0	14244.68
	00354017017301006	AZMACORT INHALER	108.45	0	14244.68
	00354017017301007	AZMACORT INHALER	108.45	0	14244.68

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
003540170180	003540170180001001	SEREVENT INHALATION AEROSOL	57.90	0	14244.68
	003540170180001002	SEREVENT INHALATION AEROSOL	53.25	0	14244.68
	003540170180001003	SEREVENT INHALATION AEROSOL	66.20	0	14244.68
	003540170180001004	SEREVENT INHALATION AEROSOL	66.20	0	14244.68
	003540170180001005	SEREVENT INHALATION AEROSOL	53.25	0	14244.68
	003540170180001006	SEREVENT INHALATION AEROSOL	66.21	0	14244.68
	003540170180001007	SEREVENT INHALATION AEROSOL	53.25	0	14244.68
003540170197	003540170197001001	PROVENTIL INH	55.56	0	14244.68
	003540170197001002	PROVENTIL INH	55.16	0	14244.68
	003540170197001003	PROVENTIL INH	55.56	0	14244.68
	003540170197001004	PROVENTIL INH	55.56	0	14244.68
003540170255	003540170255001001	AZMACORT	42.15	0	14244.68
	003540170255001002	AZMACORT	42.15	0	14244.68
	003540170255001003	AZMACORT	42.15	0	14244.68
	003540170255001004	AZMACORT	42.15	0	14244.68
003570290070	003570290070001001	ALBUTEROL	19.98	0	6058.65
	003570290070001002	ALBUTEROL	19.98	0	6058.65
	003570290070001003	ALBUTEROL	19.98	0	6058.65
	003570290070001004	ALBUTEROL	19.98	0	6058.65
	003570290070001005	ALBUTEROL	19.98	0	6058.65
003570360063	003570360063001001	ALBUTEROL	18.99	0	8573.39
	003570360063001002	ALBUTEROL	18.99	0	8573.39
	003570360063001003	ALBUTEROL	18.99	0	8573.39
	003570360063001004	ALBUTEROL	18.99	0	8573.39
003620170038	003620170038001001	SOD CHL	33.97	0	2878.73
003620310069	003620310069001001	PPA/GG	6.77	0	4651.24
003660480036	003660480036001001	SEREVENT	51.11	0	2117.99
003660480043	003660480043001001	PROVENTIL	26.01	0	2117.99
	003660480043001002	PROVENTIL	26.01	0	2117.99
003660480067	003660480067001001	PROVENTIL	27.14	0	2117.99
003700290027	003700290027001001	VENTOLIN	28.06	0	5641.61
003700290041	003700290041001001	VENTOLIN	28.06	0	5641.61
003770240082	003770240082001001	PROVENTIL	25.26	0	8671.69
003770240099	003770240099001001	AZMACORT	40.76	0	8671.69
003770240328	003770240328001001	INTAL	65.37	0	8671.69

SAMPLE SAS JOB FOR EXAMPLE B

                              sample print of work.aspmeds
      PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
003770240366	00377024036601001	AZMACORT	40.76	0	8671.69
003770240373	00377024037301001	PROVENTIL	25.26	0	8671.69
003770240448	00377024044801001	AZMACORT	50.00	0	8671.69
004060270075	00406027007501001	VENTOLIN ROTACAPS	23.23	0	4451.30
004160280025	00416028002501001	ALBUTEROL	18.99	0	6730.20
004500450018	00450045001801001	SOD CHL	33.97	0	11007.57
	00450045001801002	SOD CHL	33.97	0	11007.57
	00450045001801003	SOD CHL	33.97	0	11007.57
	00450045001801004	SOD CHL	33.97	0	11007.57
004500450025	00450045002501001	SOD CHL	33.97	0	11007.57
004840190060	00484019006001001	SOD CHL	33.97	0	3656.02
	00484019006001002	SOD CHL	33.97	0	3656.02
	00484019006001003	SOD CHL	33.97	0	3656.02
	00484019006001004	SOD CHL	33.97	0	3656.02
	00484019006001005	SOD CHL	33.97	0	3656.02
	00484019006001006	SOD CHL	33.97	0	3656.02
004840520212	00484052021201001	DIPHENHYDRAMINE ELX	5.69	0	3674.58
004840520236	00484052023601001	BRONCHO SALINE	10.22	0	3674.58
005070320109	00507032010901001	ALBUTEROL INHALER	30.02	0	9282.27
005070320147	00507032014701001	AZMACORT INHALER	60.90	0	9282.27
	00507032014701002	AZMACORT INHALER	60.90	0	9282.27
	00507032014701003	AZMACORT INHALER	60.90	0	9282.27
	00507032014701004	AZMACORT INHALER	60.90	0	9282.27
	00507032014701005	AZMACORT INHALER	60.90	0	9282.27
005070320154	00507032015401001	ZYRTEC	51.41	0	9282.27
005260160374	00526016037401001	ALBUTEROL INHALER	15.50	0	14137.43
005260160418	00526016041801001	AZMACORT INHALER	39.81	0	14137.43
005420210072	00542021007201001	TRIPLE ANTI OINT	5.72	0	18412.36
005670410092	00567041009201001	PRELONE	26.69	0	24123.47
005670410112	00567041011201001	ALBUTEROL SULFATE	6.76	0	24123.47
005670410129	00567041012901001	-9	5.96	0	24123.47

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
005690210025	00569021002501001	AZMACORT	42.12	0	13297.17
	00569021002501002	AZMACORT	42.12	0	13297.17
	00569021002501003	AZMACORT	42.12	0	13297.17
005710430039	00571043003901001	ALBUTEROL INHALER	29.97	0	16100.25
005950540011	00595054001101001	ALBUTEROL SYRUP	6.86	0	11475.66
005950540059	00595054005901001	ALBUTEROL	18.99	0	11475.66
	00595054005901002	ALBUTEROL	18.99	0	11475.66
	00595054005901003	ALBUTEROL	18.99	0	11475.66
	00595054005901004	ALBUTEROL	18.99	0	11475.66
	00595054005901005	ALBUTEROL	18.99	0	11475.66
	00595054005901006	ALBUTEROL	18.99	0	11475.66
	00595054005901007	ALBUTEROL	18.99	0	11475.66
006700210074	00670021007401001	VENTOLIN INH	49.19	0	5384.58
	00670021007401002	VENTOLIN INH	49.19	0	5384.58
	00670021007401003	AZMA-CORT IN	25.69	0	5384.58
	00670021007401004	VENTOLIN INH	49.19	0	5384.58
006700210081	00670021008101001	AZMA-CORT IN	132.69	0	5384.58
	00670021008101002	AZMA-CORT IN	132.69	0	5384.58
	00670021008101003	AZMA-CORT IN	132.69	0	5384.58
	00670021008101004	AZMA-CORT IN	132.69	0	5384.58
006700210098	00670021009801001	BECONASE NAS	31.53	0	5384.58
	00670021009801002	BECONASE NAS	31.53	0	5384.58
	00670021009802001	BECONASE AQ	30.31	0	5384.58
	00670021009802002	BECONASE AQ	30.31	0	5384.58
006700210101	00670021010101001	ASTECH PEAK	22.36	0	5384.58
006960390076	00696039007601001	VANCENASE	28.66	0	3766.03
006960390090	00696039009001001	CROLOM	37.54	0	3766.03
006960390127	00696039012701001	VENTOLIN	28.40	0	3766.03
006960390261	00696039026101001	ALBUTEROL	36.59	0	3766.03
006960390278	00696039027801001	CROLOM	37.54	0	3766.03
	00696039027801002	CROLOM	37.54	0	3766.03
	00696039027801003	CROLOM	37.54	0	3766.03
	00696039027801004	CROLOM	37.54	0	3766.03
006960390285	00696039028501001	VENTOLIN	43.62	0	3766.03
	00696039028501002	VENTOLIN	48.84	0	3766.03
	00696039028501003	VENTOLIN	15.85	0	3766.03

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
006960390285	00696039028501004	VENTOLIN	48.84	0	3766.03
006960390292	00696039029201001	INTAL	84.01	0	3766.03
006960390305	00696039030501001	VANCENASE	29.78	0	3766.03
	00696039030501002	VANCENASE	29.78	0	3766.03
006960390425	00696039042501001	VENTOLIN	43.52	0	3766.03
006960390456	00696039045601001	CROLOM	38.98	0	3766.03
	00696039045601002	CROLOM	38.98	0	3766.03
	00696039045601003	CROLOM	38.98	0	3766.03
006960390470	00696039047001001	CROMOLYN SOD	38.20	0	3766.03
006960390487	00696039048701001	VANCENASE	29.86	0	3766.03
006960460110	00696046011001001	POLY-HISTINE	19.67	0	7584.65
006960460127	00696046012701001	USSI-ORGAN	35.99	0	7584.65
006960460141	00696046014101001	PRELONE	24.73	0	7584.65
006960460165	00696046016501001	DECONAMINE	16.20	0	7584.65
006960460172	00696046017201001	HISTUPOIN HC	10.54	0	7584.65
006960460189	00696046018901001	CROLOM	39.54	0	7584.65
006960460196	00696046019601001	VENTOLIN	28.81	0	7584.65
006960460432	00696046043201001	PRELONE	26.77	0	7584.65
006960460449	00696046044901001	CROLOM	37.54	0	7584.65
	00696046044901002	CROLOM	37.54	0	7584.65
	00696046044901003	CROLOM	37.54	0	7584.65
006960460456	00696046045601001	VENTOLIN	43.52	0	7584.65
	00696046045601002	VENTOLIN	43.52	0	7584.65
	00696046045601003	VENTOLIN	43.52	0	7584.65
006960460689	00696046068901001	PRELONE	51.53	0	7584.65
006960460709	00696046070901001	CROLOM	39.54	0	7584.65
	00696046070901002	CROLOM	39.54	0	7584.65
	00696046070901003	CROLOM	39.54	0	7584.65
	00696046070901004	CROLOM	39.54	0	7584.65
	00696046070901005	CROLOM	39.54	0	7584.65

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
006960460723	00696046072301001	VENTOLIN	23.52	0	7584.65
006960460747	00696046074701001	AZMACOURT	40.52	0	7584.65
006960460761	00696046076101001	INTAL	43.00	0	7584.65
006960460792	00696046079201001	BECLOVENT	30.20	0	7584.65
006960460829	00696046082901001	VENTOLIN	12.81	0	7584.65
007030280700	00703028070001001	PEAK FLOW METER STANDARD	28.68	0	12090.79
007030280724	00703028072401001	VENTOLIN ROTACAPS	23.23	0	12090.79
007030280731	00703028073101001	TILADE	25.25	0	12090.79
007030280748	00703028074801001	METAPROTERENOL	8.20	0	12090.79
007030280755	00703028075501001	ALBUTEROL UD	27.57	0	12090.79
007060330126	00706033012601001	SEREVENT	65.85	0	11709.09
	00706033012601002	SEREVENT	65.85	0	11709.09
007060330133	00706033013301001	ALBUTEROL	21.41	0	11709.09
007210140078	00721014007801001	SOD CHL	33.97	0	9973.63
	00721014007801002	SOD CHL	33.97	0	9973.63
007210140085	00721014008501001	VANCERIL INHALER	34.50	0	9973.63
007210140092	00721014009201001	DYAZIDE	24.36	0	9973.63
007210140105	00721014010501001	PROVENTIL REPETABS	68.59	0	9973.63
007210140129	00721014012901001	THEOPHYLLINE	16.01	0	9973.63
007210140167	00721014016701001	SOD CHL	33.97	0	9973.63
	00721014016701002	SOD CHL	33.97	0	9973.63
	00721014016701003	SOD CHL	33.97	0	9973.63
007210140174	00721014017401001	THEOPHYLLINE	16.01	0	9973.63
	00721014017401002	THEOPHYLLINE	16.01	0	9973.63
	00721014017401003	THEOPHYLLINE	16.01	0	9973.63
007210140198	00721014019801001	PROVENTIL REPETABS	68.59	0	9973.63
007210140201	00721014020101001	VANCERIL INHALER	34.50	0	9973.63
007210140294	00721014029401001	SOD CHL	33.97	0	9973.63

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
007210140294	00721014029401002	SOD CHL	33.97	0	9973.63
	00721014029401003	SOD CHL	33.97	0	9973.63
007210140321	00721014032101001	VANCERIL INHALER	34.50	0	9973.63
007210140338	00721014033801001	SEREVENT	65.85	0	9973.63
007250300081	00725030008101001	VENTOLIN	28.40	0	15191.13
007330320019	00733032001901001	PROVENTIL AER	25.26	0	10129.90
	00733032001901002	PROVENTIL AER	25.26	0	10129.90
	00733032001901003	PROVENTIL AER	25.26	0	10129.90
	00733032001901004	PROVENTIL AER	25.26	0	10129.90
	00733032001901005	PROVENTIL AER	25.26	0	10129.90
	00733032001901006	PROVENTIL AER	25.26	0	10129.90
	00733032001901007	PROVENTIL AER	25.26	0	10129.90
007330320033	00733032003301001	PROVENTIL AER	25.26	0	10129.90
	00733032003301002	PROVENTIL AER	25.26	0	10129.90
	00733032003301003	PROVENTIL AER	25.26	0	10129.90
	00733032003301004	PROVENTIL AER	25.26	0	10129.90
	00733032003301005	PROVENTIL AER	25.26	0	10129.90
	00733032003301006	PROVENTIL AER	25.26	0	10129.90
	00733032003301007	PROVENTIL AER	25.26	0	10129.90
	00733032003301008	PROVENTIL AER	25.26	0	10129.90
007350200172	00735020017201001	BRETHINE	20.65	0	4948.08
	00735020017201002	BRETHINE	20.65	0	4948.08
007370120025	00737012002501001	THEOPHYLLINE ER	27.66	0	4641.82
007370120032	00737012003201001	AMPICILLIN	7.99	0	4641.82
007370120049	00737012004901001	PROMETHAZINE V	5.01	0	4641.82
007470140053	00747014005301001	ERY-TAB	10.49	0	16812.41
	00747014005301002	ERY-TAB	10.49	0	16812.41
007470140060	00747014006001001	GUAIFENESIN	39.65	0	16812.41
007470140142	00747014014201001	ERY-TAB	10.49	0	16812.41
007470140200	00747014020001001	GUAIFENESIN	39.65	0	16812.41
007470140217	00747014021701001	ERY-TAB	10.49	0	16812.41
007600580048	00760058004801001	-9	5.00	0	10039.11
007600580055	00760058005501001	ALBUTEROL	18.34	0	10039.11

SAMPLE SAS JOB FOR EXAMPLE B

sample print of work.aspmeds
PMED (HC-010A) records (including free samples) which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
007600580055	00760058005501002	ALBUTEROL	18.34	0	10039.11
007600580062	00760058006201001	PREDNISONE	6.82	0	10039.11
007620260013	00762026001301001	AZMACORT	42.15	0	21174.64

SAMPLE SAS JOB FOR EXAMPLE B

Total Rx expenditures associated with asthma

Analysis Variable : RXXP96X SUM OF PAYMENTS RXSF96X-RXOU96X(IMPUTED)

```
         N          Sum
      -----------------
      6372     207575.96
      -----------------
```

SAMPLE SAS JOB FOR EXAMPLE B

Total Rx expenditures associated with asthma

Weighted

Analysis Variable : RXXP96X SUM OF PAYMENTS RXSF96X-RXOU96X(IMPUTED)

```
            N           Sum
       ------------------
       6372     2441625303
       ------------------
```

SAMPLE SAS JOB FOR EXAMPLE C

```
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NOTE: SAS (r) Proprietary Software Release 6.12  TS060
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1
2          OPTIONS LS=132 PS=59;
3
4          TITLE1 "HC-010I";
5
6          LIBNAME IN 'D:\';
NOTE: Libref IN was successfully assigned as follows:
      Engine:       V612
      Physical Name: D:\
7
8          ************************************************************************************
9          *  Calculate the expenditures for medical visits associated with asthma.
10         ***********************************************************************************;
11         PROC FORMAT;
12           VALUE EVENTYPE
13             1 = "1 MVIS"
14             2 = "2 OPAT"
15             3 = "3 EROM"
16             4 = "4 STAZ"
17             5 = "5 DVIS"
18             6 = "6 OMED"
19             7 = "7 HVIS"
20             8 = "8 PMED";
NOTE: Format EVENTYPE has been output.
21       RUN;

NOTE: The PROCEDURE FORMAT used 0.39 seconds.


22
23         *----------------------------------------------------------------------------------
24         * Get conditions records coded as asthma.
25         *---------------------------------------------------------------------------------;
26         DATA ASCONDS;
27           SET IN.HC006R (KEEP=CONDIDX CCCODEX);
28           IF CCCODEX="128";
29         RUN;

NOTE: The data set WORK.ASCONDS has 982 observations and 2 variables.
NOTE: The DATA statement used 5.42 seconds.


30
31         *----------------------------------------------------------------------------------
32         * Get the events linked to each of the asthma condition records.
33         *---------------------------------------------------------------------------------;
34         PROC SORT DATA=ASCONDS; BY CONDIDX; RUN;

NOTE: The data set WORK.ASCONDS has 982 observations and 2 variables.
NOTE: The PROCEDURE SORT used 0.22 seconds.
```

SAMPLE SAS JOB FOR EXAMPLE C

```
35
36          proc print data=asconds (obs=50);
37             title3 "sample print of work.asconds - sorted by condidx";
38             title4 "COND (HC-006R) records where cccodex=128";
39          run;
```

NOTE: The PROCEDURE PRINT printed page 1.
NOTE: The PROCEDURE PRINT used 0.28 seconds.

```
40
41          PROC SORT DATA=IN.HC10IF1 OUT=CLNK; BY CONDIDX; RUN;
```

NOTE: The data set WORK.CLNK has 198363 observations and 5 variables.
NOTE: The PROCEDURE SORT used 15.38 seconds.

```
42
43          DATA ASCLNKS;
44            MERGE CLNK    (IN=INCLNK   KEEP=CONDIDX EVNTIDX EVENTYPE)
45                  ASCONDS(IN=INASCOND KEEP=CONDIDX);
46            BY CONDIDX;
47            IF INCLNK & INASCOND;
48          RUN;
```

NOTE: The data set WORK.ASCLNKS has 4319 observations and 3 variables.
NOTE: The DATA statement used 1.91 seconds.

```
49
50          proc print data=asclnks (obs=75);
51            by condidx;
52            id condidx;
53            format eventype eventype.;
54            title3 "sample print of work.asclnks - sorted by condidx";
55            title4 "events linked to asthma condition records";
56          run;
```

NOTE: The PROCEDURE PRINT printed pages 2-3.
NOTE: The PROCEDURE PRINT used 0.38 seconds.

```
57
58          PROC SORT DATA=ASCLNKS; BY EVNTIDX; RUN;
```

NOTE: The data set WORK.ASCLNKS has 4319 observations and 3 variables.
NOTE: The PROCEDURE SORT used 0.11 seconds.

```
59
60          proc print data=asclnks (obs=50);
61            format eventype eventype.;
62            title3 "sample print of work.asclnks - sorted by evntidx";
63          run;
```

NOTE: The PROCEDURE PRINT printed page 4.

NOTE: The PROCEDURE PRINT used 0.0 seconds.


```
64
65          DATA ASCLNKS;
66            SET ASCLNKS (KEEP=EVNTIDX EVENTYPE);
67            BY EVNTIDX;
68            IF FIRST.EVNTIDX;
69          RUN;
```

NOTE: The data set WORK.ASCLNKS has 4304 observations and 2 variables.
NOTE: The DATA statement used 0.11 seconds.


```
70
71          proc print data=asclnks (obs=50);
72            format eventype eventype.;
73            title3 "sample print of unique evntidxs from work.asclnks";
74          run;
```

NOTE: The PROCEDURE PRINT printed page 5.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


```
75
76          *------------------------------------------------------------------------------------
77          * Get non-telephone office based visits (i.e. MVIS events) for persons with positive weights.
78          *-----------------------------------------------------------------------------------;
79          DATA MVIS;
80            SET IN.HC10GF1 (KEEP=EVNTIDX WTDPER96 SEETLKPV OBXP96X);
81            IF WTDPER96 > 0 & SEETLKPV NE 2;
82          RUN;
```

NOTE: The data set WORK.MVIS has 95287 observations and 4 variables.
NOTE: The DATA statement used 9.23 seconds.


```
83
84          PROC SORT DATA=MVIS; BY EVNTIDX; RUN;
```

NOTE: The data set WORK.MVIS has 95287 observations and 4 variables.
NOTE: The PROCEDURE SORT used 1.87 seconds.


```
85
86          *----------------------------------------------------------------------------------
87          * Identify MVIS events which were for asthma.
88          *---------------------------------------------------------------------------------;
89          DATA ASMVIS;
90            MERGE ASCLNKS (IN=INASCLNK)
91                  MVIS    (IN=INMVIS);
92            BY EVNTIDX;
93            IF INASCLNK & INMVIS;
94          RUN;
```

NOTE: The data set WORK.ASMVIS has 1420 observations and 5 variables.
NOTE: The DATA statement used 0.7 seconds.

SAMPLE SAS JOB FOR EXAMPLE C

```
95
96          proc print data=asmvis (obs=50);
97            format eventype eventype.;
98            title3 "sample print of work.asmvis";
99            title4 "unique evntidxs from work.asclnks that are non-telephone MVIS (HC-010G) events";
100         run;

NOTE: The PROCEDURE PRINT printed page 6.
NOTE: The PROCEDURE PRINT used 0.28 seconds.


101
102         PROC MEANS DATA=ASMVIS N SUM;
103           VAR OBXP96X;
104           TITLE3 "Total medical visit expenditures (excluding telephone) associated with asthma";
105         RUN;

NOTE: The PROCEDURE MEANS printed page 7.
NOTE: The PROCEDURE MEANS used 0.11 seconds.


106
107         PROC MEANS DATA=ASMVIS SUM;
108           VAR OBXP96X;
109           WEIGHT WTDPER96;
110           TITLE3 "Total medical visit expenditures (excluding telephone) associated with asthma";
111           TITLE5 "Weighted";
112         RUN;

NOTE: The PROCEDURE MEANS printed page 8.
NOTE: The PROCEDURE MEANS used 0.0 seconds.


113
114
115

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414
```

SAMPLE SAS JOB FOR EXAMPLE C

```
              sample print of work.asconds - sorted by condidx
                COND (HC-006R) records where cccodex=128

              OBS      CONDIDX        CCCODEX

                1     000040320014      128
                2     000170710050      128
                3     000630450038      128
                4     000630450044      128
                5     000650110054      128
                6     000850580014      128
                7     000860130035      128
                8     000980120017      128
                9     001170160082      128
               10     001300290022      128
               11     001660130011      128
               12     001660370019      128
               13     001660440018      128
               14     001830490013      128
               15     001860600013      128
               16     001900110024      128
               17     002360270026      128
               18     002400120025      128
               19     002550290027      128
               20     002940230026      128
               21     003050120030      128
               22     003210280044      128
               23     003320230104      128
               24     003430100019      128
               25     003470170019      128
               26     003540170016      128
               27     003570290019      128
               28     003570360018      128
               29     003620170023      128
               30     003620310015      128
               31     003660480029      128
               32     003700290015      128
               33     003770240045      128
               34     004060270035      128
               35     004160280015      128
               36     004500120011      128
               37     004500450016      128
               38     004630460039      128
               39     004840190010      128
               40     004840520061      128
               41     005030330030      128
               42     005060320036      128
               43     005070320015      128
               44     005260160028      128
               45     005300270020      128
               46     005420210025      128
               47     005670410030      128
               48     005690210026      128
               49     005710290049      128
               50     005710430053      128
```

SAMPLE SAS JOB FOR EXAMPLE C

sample print of work.asclnks - sorted by condidx
events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
000040320014	000040320012	3 EROM
000170710050	000170710013	1 MVIS
	000170710020	8 PMED
000630450038	000630450237	1 MVIS
	000630450251	1 MVIS
	000630450282	8 PMED
000630450044	000630450268	1 MVIS
	000630450282	8 PMED
000650110054	000650110177	1 MVIS
	000650110184	1 MVIS
	000650110191	1 MVIS
	000650110204	1 MVIS
	000650110211	1 MVIS
	000650110735	8 PMED
000860130035	000860130097	8 PMED
	000860130220	1 MVIS
	000860130251	8 PMED
000980120017	000980120018	1 MVIS
	000980120032	8 PMED
	000980120070	8 PMED
001170160082	001170160136	1 MVIS
	001170160143	1 MVIS
	001170160150	1 MVIS
	001170160167	1 MVIS
	001170160198	8 PMED
	001170160201	8 PMED
	001170160218	8 PMED
001300290022	001300290043	8 PMED
	001300290163	8 PMED
	001300290170	8 PMED
001660130011	001660130011	8 PMED
001660370019	001660370011	8 PMED
001830490013	001830490046	1 MVIS
	001830490053	1 MVIS
	001830490060	1 MVIS
	001830490166	8 PMED
	001830490173	8 PMED
	001830490375	8 PMED

SAMPLE SAS JOB FOR EXAMPLE C

sample print of work.asclnks - sorted by condidx
events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
001860600013	001860600019	1 MVIS
	001860600026	8 PMED
	001860600040	8 PMED
	001860600057	8 PMED
	001860600071	8 PMED
	001860600095	8 PMED
	001860600108	8 PMED
001900110024	001900110022	1 MVIS
	001900110039	1 MVIS
	001900110046	1 MVIS
	001900110053	2 OPAT
	001900110060	2 OPAT
002360270026	002360270116	1 MVIS
	002360270178	2 OPAT
	002360270192	8 PMED
	002360270212	8 PMED
002550290027	002550290121	8 PMED
	002550290138	8 PMED
	002550290176	8 PMED
	002550290183	8 PMED
	002550290210	1 MVIS
	002550290234	8 PMED
	002550290241	8 PMED
002940230026	002940230142	8 PMED
	002940230159	8 PMED
003050120030	003050120011	8 PMED
	003050120028	8 PMED
	003050120059	1 MVIS
	003050120066	1 MVIS
	003050120097	8 PMED
	003050120100	8 PMED
	003050120408	8 PMED
003210280044	003210280465	8 PMED
	003210280472	8 PMED
003320230104	003320230176	8 PMED
003430100019	003430100018	8 PMED
003540170016	003540170039	8 PMED

SAMPLE SAS JOB FOR EXAMPLE C

sample print of work.asclnks - sorted by evntidx

OBS	CONDIDX	EVNTIDX	EVENTYPE
1	000040320014	000040320012	3 EROM
2	000170710050	000170710013	1 MVIS
3	000170710050	000170710020	8 PMED
4	000630450038	000630450237	1 MVIS
5	000630450038	000630450251	1 MVIS
6	000630450044	000630450268	1 MVIS
7	000630450038	000630450282	8 PMED
8	000630450044	000630450282	8 PMED
9	000650110054	000650110177	1 MVIS
10	000650110054	000650110184	1 MVIS
11	000650110054	000650110191	1 MVIS
12	000650110054	000650110204	1 MVIS
13	000650110054	000650110211	1 MVIS
14	000650110054	000650110735	8 PMED
15	000860130035	000860130097	8 PMED
16	000860130035	000860130220	1 MVIS
17	000860130035	000860130251	8 PMED
18	000980120017	000980120018	1 MVIS
19	000980120017	000980120032	8 PMED
20	000980120017	000980120070	8 PMED
21	001170160082	001170160136	1 MVIS
22	001170160082	001170160143	1 MVIS
23	001170160082	001170160150	1 MVIS
24	001170160082	001170160167	1 MVIS
25	001170160082	001170160198	8 PMED
26	001170160082	001170160201	8 PMED
27	001170160082	001170160218	8 PMED
28	001300290022	001300290043	8 PMED
29	001300290022	001300290163	8 PMED
30	001300290022	001300290170	8 PMED
31	001660130011	001660130011	8 PMED
32	001660370019	001660370011	8 PMED
33	001830490013	001830490046	1 MVIS
34	001830490013	001830490053	1 MVIS
35	001830490013	001830490060	1 MVIS
36	001830490013	001830490166	8 PMED
37	001830490013	001830490173	8 PMED
38	001830490013	001830490375	8 PMED
39	001860600013	001860600019	1 MVIS
40	001860600013	001860600026	8 PMED
41	001860600013	001860600040	8 PMED
42	001860600013	001860600057	8 PMED
43	001860600013	001860600071	8 PMED
44	001860600013	001860600095	8 PMED
45	001860600013	001860600108	8 PMED
46	001900110024	001900110022	1 MVIS
47	001900110024	001900110039	1 MVIS
48	001900110024	001900110046	1 MVIS
49	001900110024	001900110053	2 OPAT
50	001900110024	001900110060	2 OPAT

SAMPLE SAS JOB FOR EXAMPLE C

sample print of unique evntidxs from work.asclnks

OBS	EVNTIDX	EVENTYPE
1	000040320012	3 EROM
2	000170710013	1 MVIS
3	000170710020	8 PMED
4	000630450237	1 MVIS
5	000630450251	1 MVIS
6	000630450268	1 MVIS
7	000630450282	8 PMED
8	000650110177	1 MVIS
9	000650110184	1 MVIS
10	000650110191	1 MVIS
11	000650110204	1 MVIS
12	000650110211	1 MVIS
13	000650110735	8 PMED
14	000860130097	8 PMED
15	000860130220	1 MVIS
16	000860130251	8 PMED
17	000980120018	1 MVIS
18	000980120032	8 PMED
19	000980120070	8 PMED
20	001170160136	1 MVIS
21	001170160143	1 MVIS
22	001170160150	1 MVIS
23	001170160167	1 MVIS
24	001170160198	8 PMED
25	001170160201	8 PMED
26	001170160218	8 PMED
27	001300290043	8 PMED
28	001300290163	8 PMED
29	001300290170	8 PMED
30	001660130011	8 PMED
31	001660370011	8 PMED
32	001830490046	1 MVIS
33	001830490053	1 MVIS
34	001830490060	1 MVIS
35	001830490166	8 PMED
36	001830490173	8 PMED
37	001830490375	8 PMED
38	001860600019	1 MVIS
39	001860600026	8 PMED
40	001860600040	8 PMED
41	001860600057	8 PMED
42	001860600071	8 PMED
43	001860600095	8 PMED
44	001860600108	8 PMED
45	001900110022	1 MVIS
46	001900110039	1 MVIS
47	001900110046	1 MVIS
48	001900110053	2 OPAT
49	001900110060	2 OPAT
50	002360270116	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE C

sample print of work.asmvis
unique evntidxs from work.asclnks that are non-telephone MVIS (HC-010G) events

OBS	EVNTIDX	EVENTYPE	SEETLKPV	OBXP96X	WTDPER96
1	000170710013	1 MVIS	1	50.00	6089.40
2	000630450237	1 MVIS	1	69.33	19737.17
3	000630450251	1 MVIS	1	67.00	19737.17
4	000650110177	1 MVIS	1	47.00	17005.66
5	000650110184	1 MVIS	1	47.00	17005.66
6	000650110191	1 MVIS	1	47.00	17005.66
7	000650110204	1 MVIS	1	47.00	17005.66
8	000650110211	1 MVIS	1	131.00	17005.66
9	000860130220	1 MVIS	1	37.20	13634.51
10	000980120018	1 MVIS	1	29.38	12968.18
11	001170160136	1 MVIS	1	42.04	14880.15
12	001170160143	1 MVIS	1	197.00	14880.15
13	001170160150	1 MVIS	1	45.00	14880.15
14	001170160167	1 MVIS	1	45.00	14880.15
15	001830490046	1 MVIS	1	37.00	26312.38
16	001830490053	1 MVIS	1	37.00	26312.38
17	001830490060	1 MVIS	1	34.36	26312.38
18	001860600019	1 MVIS	1	49.00	20127.55
19	001900110022	1 MVIS	1	53.00	17300.53
20	001900110039	1 MVIS	1	54.99	17300.53
21	001900110046	1 MVIS	1	72.60	17300.53
22	002360270116	1 MVIS	1	95.84	19460.44
23	002550290210	1 MVIS	1	27.35	23294.72
24	003050120059	1 MVIS	1	30.00	7866.01
25	003050120066	1 MVIS	1	53.00	7866.01
26	003540170104	1 MVIS	1	657.85	14244.68
27	003540170111	1 MVIS	1	278.49	14244.68
28	003540170128	1 MVIS	1	55.41	14244.68
29	003540170135	1 MVIS	1	11.88	14244.68
30	003570290018	1 MVIS	1	217.00	6058.65
31	003570290025	1 MVIS	1	16.00	6058.65
32	003570290032	1 MVIS	1	16.00	6058.65
33	003570360018	1 MVIS	1	42.59	8573.39
34	003570360025	1 MVIS	1	16.00	8573.39
35	003620310014	1 MVIS	1	10.00	4651.24
36	003620310038	1 MVIS	1	10.00	4651.24
37	003620310076	1 MVIS	1	10.00	4651.24
38	003620310083	1 MVIS	1	26.52	4651.24
39	003660480012	1 MVIS	1	9.00	2117.99
40	003700290010	1 MVIS	1	15.00	5641.61
41	003770240020	1 MVIS	1	61.00	8671.69
42	004840190015	1 MVIS	1	40.00	3656.02
43	004840190022	1 MVIS	1	50.00	3656.02
44	005070320058	1 MVIS	1	50.00	9282.27
45	005260160083	1 MVIS	1	85.97	14137.43
46	005260160261	1 MVIS	1	126.22	14137.43
47	005260160278	1 MVIS	1	0.00	14137.43
48	005260160305	1 MVIS	1	52.97	14137.43
49	005260160312	1 MVIS	1	166.00	14137.43
50	005260160329	1 MVIS	1	42.00	14137.43

SAMPLE SAS JOB FOR EXAMPLE C

Total medical visit expenditures (excluding telephone) associated with asthma

Analysis Variable : OBXP96X SUM OF OBSF96X-OBOT96X (IMPUTED)

```
        N          Sum
   -----------------
   1420        92139.17
   -----------------
```

SAMPLE SAS JOB FOR EXAMPLE C

Total medical visit expenditures (excluding telephone) associated with asthma

Weighted

Analysis Variable : OBXP96X SUM OF OBSF96X-OBOT96X (IMPUTED)

```
                             Sum
                        ------------
                         1046099305
                        ------------
```

```
1                                       The SAS System            10:55 Friday, July 14, 2000

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NOTE: SAS (r) Proprietary Software Release 6.12  TS060
      Licensed to SOCIAL & SCIENTIFIC SYSTEMS INC, Site 0026405003.



1
2           OPTIONS LS=132 PS=59;
3
4           TITLE1 "HC-010I";
5
6           LIBNAME IN 'D:\';
NOTE: Libref IN was successfully assigned as follows:
      Engine:        V612
      Physical Name: D:\
7           *****************************************************************************************
8           * Calculate the expenditures for prescribed medicines associated
9           * with insulin reported by the household as an other medical expense.
10          ****************************************************************************************;
11
12          PROC FORMAT;
13            VALUE EVENTYPE
14                1 = "1 MVIS"
15                2 = "2 OPAT"
16                3 = "3 EROM"
17                4 = "4 STAZ"
18                5 = "5 DVIS"
19                6 = "6 OMED"
20                7 = "7 HVIS"
21                8 = "8 PMED";
NOTE: Format EVENTYPE has been output.
22
23            VALUE OMTYPE
24                -9 = '-9 NOT ASCERTAINED'
25                -8 = '-8 DK'
26                -7 = '-7 REFUSED'
27                -1 = '-1 INAPPLICABLE'
28                 1 = '1 GLASSES OR CONTACT LENSES'
29                 2 = '2 INSULIN'
30                 3 = '3 DIABETIC EQUIPMENT/SUPPLIES'
31                 4 = '4 AMBULANCE SERVICES'
32                 5 = '5 ORTHOPEDIC ITEMS'
33                 6 = '6 HEARING DEVICES'
34                 7 = '7 PROSTHESIS'
35                 8 = '8 BATHROOM AIDS'
36                 9 = '9 MEDICAL EQUIPMENT'
37                10 = '10 DISPOSABLE SUPPLIES'
38                11 = '11 ALTERATIONS/MODIFICATIONS'
39                91 = '91 OTHER'
40                 ;
NOTE: Format OMTYPE has been output.
41        RUN;

NOTE: The PROCEDURE FORMAT used 0.33 seconds.


42
```

SAMPLE SAS JOB FOR EXAMPLE D

```
2                                         The SAS System                    10:55 Friday, July
14, 2000
43        *-------------------------------------------------------------------------------------
44        * Get other medical records for insulin for persons with positive weights.
45        *------------------------------------------------------------------------------------;
46
47        DATA OMED;
48          SET IN.HC10CF1 (KEEP=EVNTIDX WTDPER96 OMTYPE1X);
49          IF WTDPER96 > 0 & OMTYPE1X=2;
50        RUN;

NOTE: The data set WORK.OMED has 481 observations and 3 variables.
NOTE: The DATA statement used 1.26 seconds.


51
52        proc print data=omed (obs=100);
53          var evntidx omtype1x wtdper96;
54          format omtype1x omtype.;
55          title3 "sample print of OMED (HC-010C) records where omtype1x=2";
56        run;

NOTE: The PROCEDURE PRINT printed pages 1-2.
NOTE: The PROCEDURE PRINT used 0.22 seconds.


57
58        *-------------------------------------------------------------------------------------
59        * Get PMED IDs linked to the OMED events which were for insulin.
60        *------------------------------------------------------------------------------------;
61
62        PROC SORT DATA=IN.HC10IF2 OUT=RXLK; BY EVNTIDX; RUN;

NOTE: The data set WORK.RXLK has 41069 observations and 5 variables.
NOTE: The PROCEDURE SORT used 1.76 seconds.


63
64        proc print data=rxlk (obs=150);
65          by evntidx;
66          id evntidx;
67          var linkidx eventype;
68          format eventype eventype.;
69          title3 "sample print of Rx+event link file records (HC-10IF2) - sorted by eventidx";
70        run;

NOTE: The PROCEDURE PRINT printed pages 3-8.
NOTE: The PROCEDURE PRINT used 0.05 seconds.


71
72        data omedrxlk;
73          set rxlk (where=(eventype=6));
74        run;

NOTE: The data set WORK.OMEDRXLK has 850 observations and 5 variables.
NOTE: The DATA statement used 0.22 seconds.
```

SAMPLE SAS JOB FOR EXAMPLE D

```
75          proc print data=omedrxlk (obs=120);
76            by evntidx;
77            id evntidx;
78            var linkidx eventype;
79            format eventype eventype.;
80            title3 "sample print of work.omedrxlk - sorted by eventidx";
81            title4 "Rx+event link file records (HC-10IF2) where eventype=6 (omed)";
82          run;

NOTE: The PROCEDURE PRINT printed pages 9-13.
NOTE: The PROCEDURE PRINT used 0.05 seconds.


83
84          DATA PMEDIDS;
85            MERGE RXLK (IN=INRXLK KEEP=EVNTIDX LINKIDX EVENTYPE)
86                  OMED (IN=INOMED KEEP=EVNTIDX);
87            BY EVNTIDX;
88            IF INRXLK & INOMED;
89          RUN;

NOTE: The data set WORK.PMEDIDS has 438 observations and 3 variables.
NOTE: The DATA statement used 0.59 seconds.


90
91          proc print data=pmedids (obs=50);
92            by evntidx;
93            id evntidx;
94            format eventype eventype.;
95            title3 "sample print of work.pmedids - sorted by evntidx";
96            title4 "work.rxlk records for omed events for insulin";
97          run;

NOTE: The PROCEDURE PRINT printed pages 14-15.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


98
99          PROC SORT DATA=PMEDIDS; BY LINKIDX; RUN;

NOTE: The data set WORK.PMEDIDS has 438 observations and 3 variables.
NOTE: The PROCEDURE SORT used 0.05 seconds.


100
101          proc print data=pmedids (obs=50);
102            format eventype eventype.;
103            title3 "sample print of work.pmedids - sorted by linkidx";
104          run;

NOTE: The PROCEDURE PRINT printed page 16.
NOTE: The PROCEDURE PRINT used 0.05 seconds.


105
106          DATA PMEDIDS;
```

```
107          SET PMEDIDS (KEEP=LINKIDX);
108          BY LINKIDX;
109          IF FIRST.LINKIDX;
110          KEEP LINKIDX;
111       RUN;

NOTE: The data set WORK.PMEDIDS has 438 observations and 1 variables.
NOTE: The DATA statement used 0.05 seconds.


112
113       proc print data=pmedids (obs=50);
114          title3 "sample print of unique linkidxs in work.pmedids";
115       run;

NOTE: The PROCEDURE PRINT printed page 17.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


116
117
118       *-------------------------------------------------------------------------------
119       * Get PMED records for OMED event which were for insulin.
120       *------------------------------------------------------------------------------;
121       PROC SORT DATA=IN.HC10A OUT=PMED; BY LINKIDX; RUN;

NOTE: The data set WORK.PMED has 171587 observations and 52 variables.
NOTE: The PROCEDURE SORT used 56.4 seconds.


122
123       DATA OMPMEDS;
124         MERGE PMED (KEEP=LINKIDX RXRECIDX FREEFLG RXXP96X WTDPER96 RXNAME)
125              PMEDIDS (IN=A);
126         BY LINKIDX;
127         IF A & FREEFLG=0 & WTDPER96>0;
128       RUN;

NOTE: The data set WORK.OMPMEDS has 1692 observations and 6 variables.
NOTE: The DATA statement used 12.67 seconds.


129
130       proc print data=ompmeds (obs=200);
131          by linkidx;
132          id linkidx;
133          var rxrecidx rxname rxxp96x freeflg wtdper96;
134          title3 "sample print of work.pmeds";
135          title4 "PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids";
136       run;

NOTE: The PROCEDURE PRINT printed pages 18-23.
NOTE: The PROCEDURE PRINT used 0.0 seconds.


137
138       PROC MEANS DATA=OMPMEDS N SUM;
```

```
139         VAR RXXP96X;
140         TITLE3 "Total Rx expenditures associated with other medical expenses for insulin";
141       RUN;
```

NOTE: The PROCEDURE MEANS printed page 24.
NOTE: The PROCEDURE MEANS used 0.28 seconds.


```
142
143       PROC MEANS DATA=OMPMEDS N SUM;
144         VAR RXXP96X;
145         WEIGHT WTDPER96;
146         TITLE3 "Total Rx expenditures associated with other medical expenses for insulin";
147         TITLE5 "Weighted";
148       RUN;
```

NOTE: The PROCEDURE MEANS printed page 25.
NOTE: The PROCEDURE MEANS used 0.0 seconds.


```
149
150
```

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

SAMPLE SAS JOB FOR EXAMPLE D

sample print of OMED (HC-010C) records where omtype1x=2

OBS	EVNTIDX	OMTYPE1X	WTDPER96
1	000040250081	2 INSULIN	4372.36
2	000040250372	2 INSULIN	4372.36
3	000320280030	2 INSULIN	25604.92
4	000650110108	2 INSULIN	17005.66
5	000650110348	2 INSULIN	17005.66
6	000650110595	2 INSULIN	17005.66
7	000920100039	2 INSULIN	12334.10
8	001080160158	2 INSULIN	17308.09
9	001280210016	2 INSULIN	12623.02
10	001280210061	2 INSULIN	12623.02
11	001280210105	2 INSULIN	12623.02
12	001650120050	2 INSULIN	8267.17
13	001790280243	2 INSULIN	21104.13
14	001990260092	2 INSULIN	12428.09
15	003080260013	2 INSULIN	15169.67
16	003080260068	2 INSULIN	15169.67
17	003080260102	2 INSULIN	15169.67
18	003280130322	2 INSULIN	14625.87
19	003360120081	2 INSULIN	7919.45
20	003910200162	2 INSULIN	10030.35
21	003970160036	2 INSULIN	5206.96
22	004710120013	2 INSULIN	17596.00
23	004800220368	2 INSULIN	13093.03
24	004800220539	2 INSULIN	13093.03
25	004840260060	2 INSULIN	3979.05
26	004840260135	2 INSULIN	3979.05
27	004980170068	2 INSULIN	20680.35
28	004980170739	2 INSULIN	20680.35
29	005010180060	2 INSULIN	4293.77
30	006030180172	2 INSULIN	16778.82
31	006150180193	2 INSULIN	4025.55
32	006670110104	2 INSULIN	19006.98
33	006670110262	2 INSULIN	19006.98
34	006930160157	2 INSULIN	6506.26
35	007080180076	2 INSULIN	11875.98
36	007170110025	2 INSULIN	10725.60
37	007440120439	2 INSULIN	8551.92
38	007920190217	2 INSULIN	15719.78
39	007950160136	2 INSULIN	7348.10
40	007950160472	2 INSULIN	7348.10
41	007950160585	2 INSULIN	7348.10
42	008040200061	2 INSULIN	5624.16
43	008310250011	2 INSULIN	10897.47
44	008310250097	2 INSULIN	10897.47
45	008310250124	2 INSULIN	10897.47
46	008690140266	2 INSULIN	12312.05
47	009640240169	2 INSULIN	22697.20
48	010230140064	2 INSULIN	12540.51
49	010230140482	2 INSULIN	12540.51
50	010360120272	2 INSULIN	19388.74
51	010360120405	2 INSULIN	19388.74
52	010790190083	2 INSULIN	16883.72
53	010790190254	2 INSULIN	16883.72

SAMPLE SAS JOB FOR EXAMPLE D

sample print of OMED (HC-010C) records where omtype1x=2

OBS	EVNTIDX	OMTYPE1X	WTDPER96
54	010790190521	2 INSULIN	16883.72
55	010860180087	2 INSULIN	18030.58
56	010950150099	2 INSULIN	4805.83
57	011210230043	2 INSULIN	10973.41
58	011210230276	2 INSULIN	10973.41
59	012070100149	2 INSULIN	6670.39
60	012070100303	2 INSULIN	6670.39
61	012350120026	2 INSULIN	7622.36
62	012350121036	2 INSULIN	7622.36
63	012670240081	2 INSULIN	4844.93
64	013290160016	2 INSULIN	7798.09
65	013340360067	2 INSULIN	26985.14
66	013680140140	2 INSULIN	5519.43
67	013680140246	2 INSULIN	5519.43
68	013840110134	2 INSULIN	24983.70
69	013840110374	2 INSULIN	24983.70
70	014330100022	2 INSULIN	14275.01
71	014330100173	2 INSULIN	14275.01
72	014330100262	2 INSULIN	14275.01
73	014860220302	2 INSULIN	9967.74
74	014860220600	2 INSULIN	9967.74
75	015710290076	2 INSULIN	13097.84
76	015710290336	2 INSULIN	13097.84
77	015790200150	2 INSULIN	11980.30
78	015900180219	2 INSULIN	27782.98
79	015900180442	2 INSULIN	27782.98
80	015900180651	2 INSULIN	27782.98
81	016350200068	2 INSULIN	4326.82
82	016390330072	2 INSULIN	5618.56
83	016760150032	2 INSULIN	12208.18
84	016860270065	2 INSULIN	16004.75
85	017550200018	2 INSULIN	16062.92
86	017550200258	2 INSULIN	16062.92
87	017770100198	2 INSULIN	8276.22
88	017770100321	2 INSULIN	8276.22
89	017950170258	2 INSULIN	14331.10
90	018270100105	2 INSULIN	17576.83
91	018350120073	2 INSULIN	3253.51
92	018650130564	2 INSULIN	3411.38
93	018710150144	2 INSULIN	6249.45
94	018710150562	2 INSULIN	6249.45
95	018900290076	2 INSULIN	12936.47
96	018900290127	2 INSULIN	12936.47
97	019140190129	2 INSULIN	4304.72
98	019140190218	2 INSULIN	4304.72
99	019260240099	2 INSULIN	15829.08
100	019580120053	2 INSULIN	7452.78

SAMPLE SAS JOB FOR EXAMPLE D

sample print of Rx+event link file records (HC-10IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
000020250010	000020250027	1 MVIS
000020320010	000020320027	1 MVIS
000020490010	000020490089	1 MVIS
	000020490096	1 MVIS
000020490034	000020490109	1 MVIS
000020490041	000020490116	1 MVIS
000020490058	000020490123	1 MVIS
	000020490130	1 MVIS
000020490065	000020490147	4 STAZ
000020490072	000020490130	4 STAZ
	000020490154	4 STAZ
000030150125	000030150156	1 MVIS
000030220098	000030220221	1 MVIS
000030220170	000030220238	1 MVIS
000030220310	000030220252	1 MVIS
000040250081	000040250098	6 OMED
000040250125	000040250149	1 MVIS
000040250372	000040250389	6 OMED
000040250396	000040250409	6 OMED
000050110017	000050110079	1 MVIS
000050110106	000050110144	1 MVIS
000050170011	000050170066	5 DVIS
000050170028	000050170073	1 MVIS
000050170193	000050170388	1 MVIS
	000050170395	1 MVIS
000050170275	000050170422	2 OPAT
	000050170439	2 OPAT
000050170282	000050170446	2 OPAT

SAMPLE SAS JOB FOR EXAMPLE D

sample print of Rx+event link file records (HC-10IF2) - sorted by eventidx

```
               EVNTIDX        LINKIDX        EVENTYPE

            000050170282   000050170453     2 OPAT

            000050170319   000050170460     3 EROM

            000050170326   000050170460     3 EROM

            000050240011   000050240035     1 MVIS
                           000050240042     1 MVIS

            000050240066   000050240073     1 MVIS

            000050310011   000050310035     1 MVIS

            000060180012   000060180050     5 DVIS

            000070170086   000070170113     1 MVIS

            000070240144   000070240168     1 MVIS

            000070240151   000070240168     1 MVIS

            000100150073   000100150080     6 OMED

            000100150100   000100150179     1 MVIS

            000100150124   000100150186     1 MVIS

            000100150148   000100150193     5 DVIS

            000100150319   000100150388     1 MVIS

            000100220011   000100220059     1 MVIS
                           000100220066     1 MVIS
                           000100220073     1 MVIS

            000100220097   000100220148     1 MVIS
                           000100220155     1 MVIS
                           000100220162     1 MVIS
                           000100220179     1 MVIS
                           000100220186     1 MVIS

            000100220193   000100220244     1 MVIS
                           000100220251     1 MVIS
                           000100220268     1 MVIS
                           000100220275     1 MVIS
                           000100220282     1 MVIS

            000110120061   000110120085     1 MVIS
                           000110120092     1 MVIS
```

SAMPLE SAS JOB FOR EXAMPLE D

sample print of Rx+event link file records (HC-10IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
000110120105	000110120198	1 MVIS
	000110120201	1 MVIS
000110290054	000110290078	1 MVIS
000120190014	000120190021	1 MVIS
	000120190038	1 MVIS
000130190057	000130190160	1 MVIS
000130190324	000130190444	1 MVIS
000130190348	000130190451	1 MVIS
	000130190468	1 MVIS
000150150019	000150150026	1 MVIS
	000150150033	1 MVIS
000170160061	000170160078	1 MVIS
000170600017	000170600031	1 MVIS
	000170600048	1 MVIS
000170710013	000170710020	1 MVIS
000200110019	000200110108	3 EROM
000200110026	000200110115	1 MVIS
000200110033	000200110122	5 DVIS
	000200110139	5 DVIS
000200280019	000200280026	1 MVIS
	000200280033	1 MVIS
	000200280040	1 MVIS
000200280064	000200280071	3 EROM
000200350026	000200350057	1 MVIS
	000200350064	1 MVIS
000200350040	000200350071	1 MVIS
000200350088	000200350115	5 DVIS
000200350108	000200350115	5 DVIS
000230160034	000230160065	1 MVIS
000230160116	000230160147	5 DVIS

SAMPLE SAS JOB FOR EXAMPLE D

sample print of Rx+event link file records (HC-10IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
000230160116	000230160154	5 DVIS
000230160123	000230160161	1 MVIS
000230160192	000230160205	1 MVIS
000290370011	000290370059	1 MVIS
000290370042	000290370059	1 MVIS
	000290370066	1 MVIS
	000290370073	1 MVIS
	000290370080	1 MVIS
000290370179	000290370193	3 EROM
	000290370206	3 EROM
	000290370213	3 EROM
000310100013	000310100068	1 MVIS
000310100075	000310100099	1 MVIS
000310230048	000310230062	1 MVIS
000310230086	000310230106	1 MVIS
000310230093	000310230113	1 MVIS
000320280030	000320280047	6 OMED
000320280054	000320280061	6 OMED
000340100045	000340100083	1 MVIS
000340100069	000340100090	1 MVIS
000340100110	000340100158	1 MVIS
000360330035	000360330042	3 EROM
000370110017	000370110106	2 OPAT
000410160016	000410160085	1 MVIS
000410160112	000410160201	1 MVIS
000410160136	000410160218	1 MVIS
	000410160225	1 MVIS
000410160167	000410160232	1 MVIS
	000410160249	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE D

sample print of Rx+event link file records (HC-10IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
000410160263	000410160383	1 MVIS
	000410160390	1 MVIS
000420140040	000420140211	1 MVIS
	000420140228	1 MVIS
000420140273	000420140317	1 MVIS
000440150027	000440150072	4 STAZ
	000440150089	4 STAZ
000440150034	000440150096	4 STAZ
000440150192	000440150281	4 STAZ
000440220010	000440220027	1 MVIS
000450100013	000450100020	1 MVIS
	000450100037	1 MVIS
000450100068	000450100102	1 MVIS
000460110013	000460110068	1 MVIS
000460110044	000460110051	6 OMED
000460110304	000460110328	1 MVIS
000480180023	000480180078	1 MVIS
000480250030	000480250047	1 MVIS
000480250054	000480250061	1 MVIS
000480320030	000480320078	1 MVIS
000480320047	000480320078	1 MVIS
000480320054	000480320085	1 MVIS
000480320092	000480320105	1 MVIS
000480490016	000480490023	1 MVIS
000490120034	000490120058	1 MVIS
000490290034	000490290096	1 MVIS
	000490290109	1 MVIS
	000490290116	1 MVIS
	000490290123	1 MVIS

SAMPLE SAS JOB FOR EXAMPLE D

sample print of Rx+event link file records (HC-10IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
000490290089	000490290130	1 MVIS
	000490290147	1 MVIS
000490290154	000490290205	2 OPAT

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.omedrxlk - sorted by eventidx
Rx+event link file records (HC-10IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
000040250081	000040250098	6 OMED
000040250372	000040250389	6 OMED
000040250396	000040250409	6 OMED
000100150073	000100150080	6 OMED
000320280030	000320280047	6 OMED
000320280054	000320280061	6 OMED
000460110044	000460110051	6 OMED
000520170481	000520170498	6 OMED
000650110108	000650110115	6 OMED
000650110122	000650110139	6 OMED
000650110348	000650110355	6 OMED
000650110595	000650110608	6 OMED
000740250077	000740250084	6 OMED
000920100039	000920100046	6 OMED
000920100053	000920100060	6 OMED
001080160158	001080160165	6 OMED
001130170010	001130170027	6 OMED
001280210016	001280210023	6 OMED
001280210030	001280210047	6 OMED
001280210061	001280210078	6 OMED
001280210105	001280210112	6 OMED
001420270216	001420270223	6 OMED
001650120050	001650120067	6 OMED
001650120074	001650120081	6 OMED
001790280243	001790280250	6 OMED

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.omedrxlk - sorted by eventidx
Rx+event link file records (HC-10IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
001990260092	001990260105	6 OMED
001990260112	001990260129	6 OMED
003080260013	003080260020	6 OMED
003080260037	003080260044	6 OMED
003080260068	003080260075	6 OMED
003080260102	003080260119	6 OMED
003280130031	003280130048	6 OMED
003280130322	003280130339	6 OMED
003360120081	003360120098	6 OMED
003360120101	003360120118	6 OMED
003910200148	003910200155	6 OMED
003910200162	003910200179	6 OMED
003970160036	003970160043	6 OMED
003970160050	003970160067	6 OMED
004430180093	004430180106	6 OMED
004710120013	004710120020	6 OMED
004800220368	004800220375	6 OMED
004800220539	004800220546	6 OMED
004840260060	004840260077	6 OMED
004840260135	004840260142	6 OMED
004840260159	004840260166	6 OMED
004880240017	004880240024	6 OMED
004910290014	004910290021	6 OMED
004980170068	004980170075	6 OMED
004980170082	004980170099	6 OMED

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.omedrxlk - sorted by eventidx
Rx+event link file records (HC-10IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
004980170739	004980170746	6 OMED
005010180060	005010180077	6 OMED
005480200070	005480200087	6 OMED
006030180172	006030180189	6 OMED
006030180196	006030180209	6 OMED
006150180193	006150180206	6 OMED
006150180213	006150180220	6 OMED
006670110104	006670110111	6 OMED
006670110262	006670110279	6 OMED
006930160157	006930160164	6 OMED
007080180076	007080180083	6 OMED
007080180090	007080180103	6 OMED
007170110025	007170110032	6 OMED
007170110049	007170110056	6 OMED
007440120439	007440120446	6 OMED
007440120453	007440120460	6 OMED
007470140015	007470140022	6 OMED
007920190039	007920190046	6 OMED
007920190217	007920190224	6 OMED
007950160136	007950160143	6 OMED
007950160150	007950160167	6 OMED
007950160472	007950160489	6 OMED
007950160585	007950160592	6 OMED
008040130105	008040130112	6 OMED
008040200030	008040200047	6 OMED

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.omedrxlk - sorted by eventidx
Rx+event link file records (HC-10IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
008040200061	008040200078	6 OMED
008260130106	008260130113	6 OMED
008310250011	008310250028	6 OMED
008310250097	008310250100	6 OMED
008310250124	008310250131	6 OMED
009360190044	009360190051	6 OMED
009640240145	009640240152	6 OMED
009640240169	009640240176	6 OMED
010230140064	010230140071	6 OMED
010230140088	010230140095	6 OMED
010230140482	010230140499	6 OMED
010360120258	010360120265	6 OMED
010360120272	010360120289	6 OMED
010360120405	010360120412	6 OMED
010790190083	010790190090	6 OMED
010790190254	010790190285	6 OMED
010790190521	010790190538	6 OMED
010860180087	010860180094	6 OMED
010860180107	010860180114	6 OMED
010950150099	010950150102	6 OMED
010950150119	010950150126	6 OMED
011030350029	011030350036	6 OMED
011200150059	011200150066	6 OMED
011210230043	011210230050	6 OMED
011210230067	011210230074	6 OMED

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.omedrxlk - sorted by eventidx
Rx+event link file records (HC-10IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
011210230276	011210230283	6 OMED
011510200132	011510200149	6 OMED
011990260048	011990260055	6 OMED
011990260062	011990260079	6 OMED
012070100149	012070100156	6 OMED
012070100163	012070100170	6 OMED
012350120026	012350120033	6 OMED
012350120040	012350120057	6 OMED
012350121036	012350121043	6 OMED
012670240081	012670240098	6 OMED
012800310197	012800310200	6 OMED
013290160016	013290160023	6 OMED
013290160030	013290160047	6 OMED
013340360067	013340360074	6 OMED
013340360081	013340360098	6 OMED
013660170024	013660170031	6 OMED
013680140140	013680140157	6 OMED
013680140164	013680140171	6 OMED
013680140246	013680140253	6 OMED
013840110134	013840110141	6 OMED

SAMPLE SAS JOB FOR EXAMPLE D

```
                    sample print of work.pmedids - sorted by evntidx
                     work.rxlk records for omed events for insulin

                 EVNTIDX        LINKIDX        EVENTYPE

               000040250081   000040250098     6 OMED
               000040250372   000040250389     6 OMED
               000320280030   000320280047     6 OMED
               000650110108   000650110115     6 OMED
               000650110348   000650110355     6 OMED
               000650110595   000650110608     6 OMED
               000920100039   000920100046     6 OMED
               001080160158   001080160165     6 OMED
               001280210016   001280210023     6 OMED
               001280210061   001280210078     6 OMED
               001280210105   001280210112     6 OMED
               001650120050   001650120067     6 OMED
               001790280243   001790280250     6 OMED
               001990260092   001990260105     6 OMED
               003080260013   003080260020     6 OMED
               003080260068   003080260075     6 OMED
               003080260102   003080260119     6 OMED
               003280130322   003280130339     6 OMED
               003360120081   003360120098     6 OMED
               003910200162   003910200179     6 OMED
               003970160036   003970160043     6 OMED
               004710120013   004710120020     6 OMED
               004800220368   004800220375     6 OMED
               004800220539   004800220546     6 OMED
               004840260060   004840260077     6 OMED
```

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.pmedids - sorted by evntidx
work.rxlk records for omed events for insulin

EVNTIDX	LINKIDX	EVENTYPE
004840260135	004840260142	6 OMED
004980170068	004980170075	6 OMED
004980170739	004980170746	6 OMED
005010180060	005010180077	6 OMED
006030180172	006030180189	6 OMED
006150180193	006150180206	6 OMED
006670110104	006670110111	6 OMED
006670110262	006670110279	6 OMED
006930160157	006930160164	6 OMED
007080180076	007080180083	6 OMED
007170110025	007170110032	6 OMED
007440120439	007440120446	6 OMED
007920190217	007920190224	6 OMED
007950160136	007950160143	6 OMED
007950160472	007950160489	6 OMED
007950160585	007950160592	6 OMED
008040200061	008040200078	6 OMED
008310250011	008310250028	6 OMED
008310250097	008310250100	6 OMED
008310250124	008310250131	6 OMED
009640240169	009640240176	6 OMED
010230140064	010230140071	6 OMED
010230140482	010230140499	6 OMED
010360120272	010360120289	6 OMED
010360120405	010360120412	6 OMED

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.pmedids - sorted by linkidx

OBS	EVNTIDX	LINKIDX	EVENTYPE
1	000040250081	000040250098	6 OMED
2	000040250372	000040250389	6 OMED
3	000320280030	000320280047	6 OMED
4	000650110108	000650110115	6 OMED
5	000650110348	000650110355	6 OMED
6	000650110595	000650110608	6 OMED
7	000920100039	000920100046	6 OMED
8	001080160158	001080160165	6 OMED
9	001280210016	001280210023	6 OMED
10	001280210061	001280210078	6 OMED
11	001280210105	001280210112	6 OMED
12	001650120050	001650120067	6 OMED
13	001790280243	001790280250	6 OMED
14	001990260092	001990260105	6 OMED
15	003080260013	003080260020	6 OMED
16	003080260068	003080260075	6 OMED
17	003080260102	003080260119	6 OMED
18	003280130322	003280130339	6 OMED
19	003360120081	003360120098	6 OMED
20	003910200162	003910200179	6 OMED
21	003970160036	003970160043	6 OMED
22	004710120013	004710120020	6 OMED
23	004800220368	004800220375	6 OMED
24	004800220539	004800220546	6 OMED
25	004840260060	004840260077	6 OMED
26	004840260135	004840260142	6 OMED
27	004980170068	004980170075	6 OMED
28	004980170739	004980170746	6 OMED
29	005010180060	005010180077	6 OMED
30	006030180172	006030180189	6 OMED
31	006150180193	006150180206	6 OMED
32	006670110104	006670110111	6 OMED
33	006670110262	006670110279	6 OMED
34	006930160157	006930160164	6 OMED
35	007080180076	007080180083	6 OMED
36	007170110025	007170110032	6 OMED
37	007440120439	007440120446	6 OMED
38	007920190217	007920190224	6 OMED
39	007950160136	007950160143	6 OMED
40	007950160472	007950160489	6 OMED
41	007950160585	007950160592	6 OMED
42	008040200061	008040200078	6 OMED
43	008310250011	008310250028	6 OMED
44	008310250097	008310250100	6 OMED
45	008310250124	008310250131	6 OMED
46	009640240169	009640240176	6 OMED
47	010230140064	010230140071	6 OMED
48	010230140482	010230140499	6 OMED
49	010360120272	010360120289	6 OMED
50	010360120405	010360120412	6 OMED

SAMPLE SAS JOB FOR EXAMPLE D

sample print of unique linkidxs in work.pmedids

OBS	LINKIDX
1	000040250098
2	000040250389
3	000320280047
4	000650110115
5	000650110355
6	000650110608
7	000920100046
8	001080160165
9	001280210023
10	001280210078
11	001280210112
12	001650120067
13	001790280250
14	001990260105
15	003080260020
16	003080260075
17	003080260119
18	003280130339
19	003360120098
20	003910200179
21	003970160043
22	004710120020
23	004800220375
24	004800220546
25	004840260077
26	004840260142
27	004980170075
28	004980170746
29	005010180077
30	006030180189
31	006150180206
32	006670110111
33	006670110279
34	006930160164
35	007080180083
36	007170110032
37	007440120446
38	007920190224
39	007950160143
40	007950160489
41	007950160592
42	008040200078
43	008310250028
44	008310250100
45	008310250131
46	009640240176
47	010230140071
48	010230140499
49	010360120289
50	010360120412

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.pmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
000040250098	00004025009801001	HUMULIN	20.22	0	4372.36
000040250389	00004025038901001	INSULIN REG	27.79	0	4372.36
000320280047	00032028004701001	HUMULIN-R IN	18.05	0	25604.92
	00032028004702001	HUMULIN-N IN	34.59	0	25604.92
000650110115	00065011011501001	HUMULIN R U-100 INJ	18.91	0	17005.66
	00065011011502001	HUMULIN R U-100 INJ	15.71	0	17005.66
	00065011011502002	HUMULIN R U-100 INJ	18.91	0	17005.66
	00065011011502003	HUMULIN R U-100 INJ	18.91	0	17005.66
000650110355	00065011035501001	HUMULIN R INJ	15.71	0	17005.66
	00065011035501002	HUMULIN R INJ	15.71	0	17005.66
	00065011035501003	HUMULIN R INJ	15.71	0	17005.66
	00065011035501004	HUMULIN R U-100 INJ	15.71	0	17005.66
	00065011035502001	HUMULIN N U-100 INJ	15.71	0	17005.66
	00065011035502002	HUMULIN N U-100 INJ	15.71	0	17005.66
000650110608	00065011060801001	HUMULIN R INJ	15.89	0	17005.66
	00065011060802001	HUMULIN N U-100 INJ	15.89	0	17005.66
	00065011060802002	HUMULIN N U-100 INJ	15.89	0	17005.66
	00065011060802003	HUMULIN N U-100 INJ	15.89	0	17005.66
	00065011060802004	HUMULIN N U-100 INJ	15.89	0	17005.66
	00065011060802005	HUMULIN N U-100 INJ	15.89	0	17005.66
000920100046	00092010004601001	INSULIN REG	27.79	0	12334.10
	00092010004601002	INSULIN REG	27.79	0	12334.10
	00092010004601003	INSULIN REG	27.79	0	12334.10
001080160165	00108016016501001	INSULIN REG	27.79	0	17308.09
	00108016016501002	INSULIN REG	27.79	0	17308.09
	00108016016501003	INSULIN REG	27.79	0	17308.09
	00108016016501004	INSULIN REG	27.79	0	17308.09
	00108016016501005	INSULIN REG	27.79	0	17308.09
	00108016016501006	INSULIN REG	27.79	0	17308.09
	00108016016501007	INSULIN REG	27.79	0	17308.09
	00108016016501008	INSULIN REG	27.79	0	17308.09
	00108016016501009	INSULIN REG	27.79	0	17308.09
	00108016016501010	INSULIN REG	27.79	0	17308.09
	00108016016501011	INSULIN REG	27.79	0	17308.09
	00108016016501012	INSULIN REG	27.79	0	17308.09
001280210023	00128021002301001	INSULIN REG	27.79	0	12623.02
001280210078	00128021007801001	HUMALEN	48.29	0	12623.02
	00128021007801002	HUMALEN	48.29	0	12623.02
001280210112	00128021011201001	HUMULU	83.95	0	12623.02

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.pmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
001280210112	001280210112011201002	HUMULU	83.95	0	12623.02
001650120067	001650120067001001	B-D INSULIN	20.13	0	8267.17
	001650120067001002	B-D INSULIN	20.13	0	8267.17
	001650120067001003	B-D INSULIN	20.13	0	8267.17
	001650120067001004	B-D INSULIN	20.13	0	8267.17
	001650120067001005	B-D INSULIN	20.13	0	8267.17
	001650120067001006	B-D INSULIN	20.13	0	8267.17
	001650120067001007	B-D INSULIN	20.13	0	8267.17
	001650120067001008	B-D INSULIN	20.13	0	8267.17
	001650120067001009	B-D INSULIN	20.13	0	8267.17
001790280250	001790280250001001	B-D INSULIN	20.13	0	21104.13
	001790280250001002	B-D INSULIN	20.13	0	21104.13
	001790280250001003	B-D INSULIN	20.13	0	21104.13
	001790280250001004	B-D INSULIN	20.13	0	21104.13
	001790280250001005	B-D INSULIN	20.13	0	21104.13
001990260105	001990260105001001	B-D INSULIN	20.13	0	12428.09
	001990260105001002	B-D INSULIN	20.13	0	12428.09
	001990260105001003	B-D INSULIN	20.13	0	12428.09
003080260020	003080260020001001	INSULIN REG	27.79	0	15169.67
003080260075	003080260075001001	INSULIN REG	27.79	0	15169.67
	003080260075001002	INSULIN REG	27.79	0	15169.67
	003080260075001003	INSULIN REG	27.79	0	15169.67
	003080260075001004	INSULIN REG	27.79	0	15169.67
	003080260075001005	INSULIN REG	27.79	0	15169.67
003080260119	003080260119001001	INSULIN REG	27.79	0	15169.67
	003080260119001002	INSULIN REG	27.79	0	15169.67
003280130339	003280130339001001	INSULIN REG	27.79	0	14625.87
	003280130339001002	INSULIN REG	27.79	0	14625.87
	003280130339001003	INSULIN REG	27.79	0	14625.87
	003280130339001004	INSULIN REG	27.79	0	14625.87
	003280130339001005	INSULIN REG	27.79	0	14625.87
	003280130339001006	INSULIN REG	27.79	0	14625.87
	003280130339001007	INSULIN REG	27.79	0	14625.87
003360120098	003360120098001001	HUMULIN	19.48	0	7919.45
	003360120098001002	HUMULIN	32.99	0	7919.45
	003360120098001003	HUMULIN	32.99	0	7919.45
	003360120098001004	HUMULIN	32.99	0	7919.45
	003360120098001005	HUMULIN	32.99	0	7919.45
003910200179	003910200179002001	INSULIN SYR	170.50	0	10030.35
	003910200179002002	INSULIN SYR	170.50	0	10030.35

A1-86   **MEPS HC-010I**

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.pmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
003910200179	003910200179022003	INSULIN SYR	170.50	0	10030.35
	003910200179022004	INSULIN SYR	170.50	0	10030.35
003970160043	003970160043010001	B-D INSULIN	20.13	0	5206.96
	003970160043010002	B-D INSULIN	20.13	0	5206.96
	003970160043010003	B-D INSULIN	20.13	0	5206.96
004710120020	004710120020010001	INSULIN REG	27.79	0	17596.00
004800220375	004800220375010001	INSULIN REG	27.79	0	13093.03
004800220546	004800220546010001	INSULIN REG	27.79	0	13093.03
004840260077	004840260077010001	HUMULIN NPH	20.22	0	3979.05
	004840260077010002	HUMULIN NPH	19.40	0	3979.05
	004840260077010003	HUMULIN NPH	21.01	0	3979.05
004840260142	004840260142010001	HUMULIN NPH	21.01	0	3979.05
	004840260142010002	HUMULIN NPH	21.01	0	3979.05
	004840260142010003	HUMULIN NPH	21.01	0	3979.05
	004840260142010004	HUMULIN NPH	21.01	0	3979.05
	004840260142010005	HUMULIN NPH	21.01	0	3979.05
004980170075	004980170075010001	INSULIN REG	27.79	0	20680.35
	004980170075010002	INSULIN REG	27.79	0	20680.35
	004980170075010003	INSULIN REG	27.79	0	20680.35
004980170746	004980170746010001	INSULIN REG	27.79	0	20680.35
	004980170746010002	INSULIN REG	27.79	0	20680.35
	004980170746010003	INSULIN REG	27.79	0	20680.35
	004980170746010004	INSULIN REG	27.79	0	20680.35
	004980170746010005	INSULIN REG	27.79	0	20680.35
006030180189	006030180189010001	HUMULIN N INSULIN	18.92	0	16778.82
	006030180189010002	HUMULIN N INSULIN	18.92	0	16778.82
	006030180189010003	HUMULIN N INSULIN	18.92	0	16778.82
006150180206	006150180206010001	INSULIN SYR	170.50	0	4025.55
	006150180206010002	INSULIN SYR	170.50	0	4025.55
006670110111	006670110111010001	INSULIN REG	27.79	0	19006.98
	006670110111010002	INSULIN REG	27.79	0	19006.98
	006670110111010003	INSULIN REG	27.79	0	19006.98
	006670110111010004	INSULIN REG	27.79	0	19006.98
	006670110111010005	INSULIN REG	27.79	0	19006.98
	006670110111010006	INSULIN REG	27.79	0	19006.98
	006670110111010007	INSULIN REG	27.79	0	19006.98
006670110279	006670110279010001	INSULIN REG	27.79	0	19006.98

sample print of work.pmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
006670110279	00667011027901002	INSULIN REG	27.79	0	19006.98
006930160164	00693016016401001	INSULIN REG	27.79	0	6506.26
	00693016016401002	INSULIN REG	27.79	0	6506.26
	00693016016401003	INSULIN REG	27.79	0	6506.26
	00693016016401004	INSULIN REG	27.79	0	6506.26
	00693016016401005	INSULIN REG	27.79	0	6506.26
	00693016016401006	INSULIN REG	27.79	0	6506.26
	00693016016401007	INSULIN REG	27.79	0	6506.26
	00693016016401008	INSULIN REG	27.79	0	6506.26
	00693016016401009	INSULIN REG	27.79	0	6506.26
	00693016016401010	INSULIN REG	27.79	0	6506.26
007080180083	00708018008301001	INSULIN REG	27.79	0	11875.98
	00708018008301002	INSULIN REG	27.79	0	11875.98
	00708018008301003	INSULIN REG	27.79	0	11875.98
007170110032	00717011003201001	INSULIN REG	27.79	0	10725.60
	00717011003201002	INSULIN REG	27.79	0	10725.60
	00717011003201003	INSULIN REG	27.79	0	10725.60
	00717011003201004	INSULIN REG	27.79	0	10725.60
	00717011003201005	INSULIN REG	27.79	0	10725.60
	00717011003201006	INSULIN REG	27.79	0	10725.60
	00717011003201007	INSULIN REG	27.79	0	10725.60
	00717011003201008	INSULIN REG	27.79	0	10725.60
	00717011003201009	INSULIN REG	27.79	0	10725.60
	00717011003201010	INSULIN REG	27.79	0	10725.60
	00717011003201011	INSULIN REG	27.79	0	10725.60
	00717011003201012	INSULIN REG	27.79	0	10725.60
007440120446	00744012044601001	B-D INSULIN	20.13	0	8551.92
007920190224	00792019022401001	INSULIN NPH	51.45	0	15719.78
007950160143	00795016014301001	HUMULIN	75.73	0	7348.10
007950160489	00795016048901001	HUMULIN	75.74	0	7348.10
	00795016048901002	HUMULIN	67.47	0	7348.10
	00795016048901003	HUMULIN	88.95	0	7348.10
	00795016048901004	HUMULIN	67.47	0	7348.10
	00795016048901005	HUMULIN	75.74	0	7348.10
007950160592	00795016059202001	HUMULIN	67.47	0	7348.10
	00795016059202002	HUMULIN	67.47	0	7348.10
	00795016059202003	HUMULIN	67.47	0	7348.10
008040200078	00804020007801001	B-D INSULIN	20.13	0	5624.16
008310250028	00831025002801001	INSULIN REG	27.79	0	10897.47

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.pmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
008310250100	008310250100001001	NOVOLIN R INJ	29.98	0	10897.47
008310250131	008310250131001001	NOVOLIN N INJ	66.19	0	10897.47
009640240176	009640240176001001	B-D INSULIN	20.13	0	22697.20
	009640240176001002	B-D INSULIN	20.13	0	22697.20
	009640240176001003	B-D INSULIN	20.13	0	22697.20
010230140071	010230140071001001	ILETIN NPH	44.49	0	12540.51
	010230140071001002	ILETIN NPH	44.49	0	12540.51
010230140499	010230140499001001	INSULIN LILLY REGULAR	44.49	0	12540.51
	010230140499001002	INSULIN LILLY REGULAR	51.22	0	12540.51
	010230140499001003	INSULIN LILLY REGULAR	51.22	0	12540.51
	010230140499001004	INSULIN LILLY REGULAR	51.22	0	12540.51
	010230140499002001	INSULIN LILLY NPH	44.49	0	12540.51
	010230140499002002	INSULIN LILLY NPH	51.22	0	12540.51
	010230140499002003	INSULIN LILLY NPH	51.22	0	12540.51
010360120289	010360120289001001	INSULIN SYR	170.50	0	19388.74
	010360120289001002	INSULIN SYR	170.50	0	19388.74
	010360120289001003	INSULIN SYR	170.50	0	19388.74
010360120412	010360120412001001	INSULIN SYR	170.50	0	19388.74
	010360120412001002	INSULIN SYR	170.50	0	19388.74
	010360120412001003	INSULIN SYR	170.50	0	19388.74
	010360120412001004	INSULIN SYR	170.50	0	19388.74
	010360120412001005	INSULIN SYR	170.50	0	19388.74
	010360120412001006	INSULIN SYR	170.50	0	19388.74
	010360120412001007	INSULIN SYR	170.50	0	19388.74
010790190090	010790190090001001	B-D INSULIN	20.13	0	16883.72
010790190285	010790190285001001	B-D INSULIN	20.13	0	16883.72
	010790190285001002	B-D INSULIN	20.13	0	16883.72
010790190538	010790190538001001	B-D INSULIN	20.13	0	16883.72
	010790190538001002	B-D INSULIN	20.13	0	16883.72
010860180094	010860180094001001	INSULIN REG	27.79	0	18030.58
	010860180094001002	INSULIN REG	27.79	0	18030.58
	010860180094001003	INSULIN REG	27.79	0	18030.58
	010860180094001004	INSULIN REG	27.79	0	18030.58
	010860180094001005	INSULIN REG	27.79	0	18030.58
	010860180094001006	INSULIN REG	27.79	0	18030.58
	010860180094001007	INSULIN REG	27.79	0	18030.58
010950150102	010950150102001001	HUMULIN	20.58	0	4805.83
	010950150102001002	HUMULIN	20.58	0	4805.83

SAMPLE SAS JOB FOR EXAMPLE D

sample print of work.pmeds
PMED (HC-010A) records (including free samples) for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP96X	FREEFLG	WTDPER96
011210230050	01121023005001001	INSULIN REG	27.79	0	10973.41
011210230283	01121023028301001	INSULIN REG	27.79	0	10973.41
	01121023028301002	INSULIN REG	27.79	0	10973.41
	01121023028301003	INSULIN REG	27.79	0	10973.41
012070100156	01207010015601001	ILETIN I NPH	32.65	0	6670.39
012350120033	01235012003301001	INSULIN REG	27.79	0	7622.36
	01235012003301002	INSULIN REG	27.79	0	7622.36

SAMPLE SAS JOB FOR EXAMPLE D

Total Rx expenditures associated with other medical expenses for insulin

Analysis Variable : RXXP96X SUM OF PAYMENTS RXSF96X-RXOU96X(IMPUTED)

```
        N          Sum
    ------------------
    1692       59228.15
    ------------------
```

SAMPLE SAS JOB FOR EXAMPLE D

Total Rx expenditures associated with other medical expenses for insulin

Weighted

Analysis Variable : RXXP96X SUM OF PAYMENTS RXSF96X-RXOU96X(IMPUTED)

```
        N          Sum
------------------------
      1692      729281742
------------------------
```

D. Codebooks

MEPS HC10IF1
1996 CONDITION-EVENT LINK FILE

DATE: July 17, 2000

ALPHABETICAL AND POSITIONAL LISTING OF VARIABLES

-----ALPHABETICAL LISTING OF VARIABLES-----

START	END	NAME	DESCRIPTION
33	56	CLNKIDX	CLNK ID: CONDIDX+EVNTIDX
9	20	CONDIDX	CONDITION ID
1	8	DUPERSID	PERSON ID: DUID+PID
57	57	EVENTYPE	TYPE OF EVENT CONDITION IS LINKED TO
21	32	EVNTIDX	EVENT ID

MEPS HC10IF1
1996 CONDITION-EVENT LINK FILE

DATE: July 17, 2000

ALPHABETICAL AND POSITIONAL LISTING OF VARIABLES

-----POSITIONAL LISTING OF VARIABLES-----

START	END	NAME	DESCRIPTION
1	8	DUPERSID	PERSON ID: DUID+PID
9	20	CONDIDX	CONDITION ID
21	32	EVNTIDX	EVENT ID
33	56	CLNKIDX	CLNK ID: CONDIDX+EVNTIDX
57	57	EVENTYPE	TYPE OF EVENT CONDITION IS LINKED TO

NAME	DESCRIPTION	FORMAT	TYPE	START	END
DUPERSID	PERSON ID: DUID+PID	8.0	CHAR	1	8

	VALUE	UNWEIGHTED
	VALID ID	198,362
	TOTAL	198,362

NAME	DESCRIPTION	FORMAT	TYPE	START	END
CONDIDX	CONDITION ID	12.0	CHAR	9	20

	VALUE	UNWEIGHTED
	VALID ID	198,362
	TOTAL	198,362

NAME	DESCRIPTION	FORMAT	TYPE	START	END
EVNTIDX	EVENT ID	12.0	CHAR	21	32

	VALUE	UNWEIGHTED
	VALID ID	198,362
	TOTAL	198,362

NAME	DESCRIPTION	FORMAT	TYPE	START	END
CLNKIDX	CLNK ID: CONDIDX+EVNTIDX	24.0	CHAR	33	56

	VALUE	UNWEIGHTED
	VALID ID	198,362
	TOTAL	198,362

NAME	DESCRIPTION	FORMAT	TYPE	START	END
EVENTYPE	TYPE OF EVENT CONDITION IS LINKED TO	1.0	NUM	57	57

	VALUE	UNWEIGHTED
	1 MVIS	100,242
	2 OPAT	10,355
	3 EROM	3,998
	4 STAZ	2,565
	5 DVIS	509
	7 HVIS	6,698
	8 PMED	73,995
	TOTAL	198,362

```
                    MEPS HC-010IF2
          1996 PRESCRIBED MEDICINES - EVENT LINK FILE


               DATE:        June 8, 2000


     ALPHABETICAL AND POSITIONAL LISTING OF VARIABLES

        -----ALPHABETICAL LISTING OF VARIABLES-----


     START      END    NAME        DESCRIPTION
        1        8     DUPERSID    PERSON ID
       57       57     EVENTYPE    TYPE OF EVENT RX IS LINKED TO
        9       20     EVNTIDX     EVENT ID
       21       32     LINKIDX     ID FOR LINKAGE TO COND/OTH EVENT FILES
       33       56     RXLKIDX     RECORD ID: EVNTIDX+LINKIDX
```

```
                         MEPS HC-010IF2
              1996 PRESCRIBED MEDICINES - EVENT LINK FILE


                     DATE:        June 8, 2000


            ALPHABETICAL AND POSITIONAL LISTING OF VARIABLES

               -----POSITIONAL LISTING OF VARIABLES-----


        START       END     NAME        DESCRIPTION
            1         8     DUPERSID    PERSON ID
            9        20     EVNTIDX     EVENT ID
           21        32     LINKIDX     ID FOR LINKAGE TO COND/OTH EVENT FILES
           33        56     RXLKIDX     RECORD ID: EVNTIDX+LINKIDX
           57        57     EVENTYPE    TYPE OF EVENT RX IS LINKED TO
```

DATE: June 8, 2000

NAME	DESCRIPTION	FORMAT	TYPE	START	END
DUPERSID	PERSON ID	8.0	CHAR	1	8

	VALUE	UNWEIGHTED
	VALID ID	41,069
	TOTAL	41,069

NAME	DESCRIPTION	FORMAT	TYPE	START	END
EVNTIDX	EVENT ID	12.0	CHAR	9	20

	VALUE	UNWEIGHTED
	VALID ID	41,069
	TOTAL	41,069

NAME	DESCRIPTION	FORMAT	TYPE	START	END
LINKIDX	ID FOR LINKAGE TO COND/OTH EVENT FILES	12.0	CHAR	21	32

	VALUE	UNWEIGHTED
	VALID ID	41,069
	TOTAL	41,069

NAME	DESCRIPTION	FORMAT	TYPE	START	END
RXLKIDX	RECORD ID: EVNTIDX+LINKIDX	24.0	CHAR	33	56

	VALUE	UNWEIGHTED
	VALID ID	41,069
	TOTAL	41,069

NAME	DESCRIPTION	FORMAT	TYPE	START	END
EVENTYPE	TYPE OF EVENT RX IS LINKED TO	1.0	NUM	57	57

	VALUE	UNWEIGHTED
	1 MVIS	32,545
	2 OPAT	1,589
	3 EROM	2,054
	4 STAZ	2,076
	5 DVIS	1,955
	6 OMED	850
	TOTAL	41,069

**E. Clinical Classification Code to
ICD-9 Code Crosswalk**

Diagnosis category
ICD-9-CM codes

1   Tuberculosis

V1201	01000	01001	01002	01003	01004	01005	01006	01010	01011	01012	01013	01014
01015	01016	01080	01081	01082	01083	01084	01085	01086	01090	01091	01092	01093
01094	01095	01096	01100	01101	01102	01103	01104	01105	01106	01110	01111	01112
01113	01114	01115	01116	01120	01121	01122	01123	01124	01125	01126	01130	01131
01132	01133	01134	01135	01136	01140	01141	01142	01143	01144	01145	01146	01150
01151	01152	01153	01154	01155	01156	01160	01161	01162	01163	01164	01165	01166
01170	01171	01172	01173	01174	01175	01176	01180	01181	01182	01183	01184	01185
01186	01190	01191	01192	01193	01194	01195	01196	01200	01201	01202	01203	01204
01205	01206	01210	01211	01212	01213	01214	01215	01216	01220	01221	01222	01223
01224	01225	01226	01230	01231	01232	01233	01234	01235	01236	01280	01281	01282
01283	01284	01285	01286	01300	01301	01302	01303	01304	01305	01306	01310	01311
01312	01313	01314	01315	01316	01320	01321	01322	01323	01324	01325	01326	01330
01331	01332	01333	01334	01335	01336	01340	01341	01342	01343	01344	01345	01346
01350	01351	01352	01353	01354	01355	01356	01360	01361	01362	01363	01364	01365
01366	01380	01381	01382	01383	01384	01385	01386	01390	01391	01392	01393	01394
01395	01396	01400	01401	01402	01403	01404	01405	01406	01480	01481	01482	01483
01484	01485	01486	01500	01501	01502	01503	01504	01505	01506	01510	01511	01512
01513	01514	01515	01516	01520	01521	01522	01523	01524	01525	01526	01550	01551
01552	01553	01554	01555	01556	01560	01561	01562	01563	01564	01565	01566	01570
01571	01572	01573	01574	01575	01576	01580	01581	01582	01583	01584	01585	01586
01590	01591	01592	01593	01594	01595	01596	01600	01601	01602	01603	01604	01605
01606	01610	01611	01612	01613	01614	01615	01616	01620	01621	01622	01623	01624
01625	01626	01630	01631	01632	01633	01634	01635	01636	01640	01641	01642	01643
01644	01645	01646	01650	01651	01652	01653	01654	01655	01656	01660	01661	01662
01663	01664	01665	01666	01670	01671	01672	01673	01674	01675	01676	01690	01691
01692	01693	01694	01695	01696	01700	01701	01702	01703	01704	01705	01706	01710
01711	01712	01713	01714	01715	01716	01720	01721	01722	01723	01724	01725	01726
01730	01731	01732	01733	01734	01735	01736	01740	01741	01742	01743	01744	01745
01746	01750	01751	01752	01753	01754	01755	01756	01760	01761	01762	01763	01764
01765	01766	01770	01771	01772	01773	01774	01775	01776	01780	01781	01782	01783
01784	01785	01786	01790	01791	01792	01793	01794	01795	01796	01800	01801	01802
01803	01804	01805	01806	01880	01881	01882	01883	01884	01885	01886	01890	01891
01892	01893	01894	01895	01896	1370	1371	1372	1373	1374			

2   Septicemia (except in labor)

0031	0202	0223	0362	0380	0381	03810	03811	03819	0382	0383	03840	03841
03842	03843	03844	03849	0388	0389	0545	7907					

NOTE: All ICD-9-CM coding changes from January 1980 through September 1999 are included in this appendix. However, special treatment is required for code 2510 (Hypoglycemic coma) which resides in diagnosis category 50 Diabetes mellitus, if data prior to October 1993 are used. After October 1993, code 2510 resides in diagnosis category 51 Other endocrine disorders (as depicted in this appendix).

Diagnosis category
ICD-9-CM codes

3　　Bacterial infection, unspecified site

V090	V091	V092	V093	V094	V0950	V0951	V096	V0970	V0971	V0980	V0981	V0990
V0991	0200	0208	0209	0218	0219	0228	0229	0230	0231	0232	0233	0238
0239	024	025	0260	0269	0270	0271	0272	0278	0279	0300	0301	0302
0303	0308	0309	0312	0318	0319	03289	0329	0330	0331	0338	0339	0341
0363	03681	03689	0369	037	0392	0393	0394	0398	0399	0400	0401	0402
0403	04081	04089	0410	04100	04101	04102	04103	04104	04105	04109	0411	04110
04111	04119	0412	0413	0414	0415	0416	0417	0418	04181	04182	04183	04184
04185	04186	04189	0419	390	3929	7953						

4　　Mycoses

1100	1101	1102	1103	1104	1105	1106	1108	1109	1110	1111	1112	1113
1118	1119	1120	1121	1122	1123	1125	11282	11284	11285	11289	1129	1141
1143	1149	11500	11509	11510	11519	11590	11599	1160	1161	1162	1170	1171
1172	1173	1174	1175	1176	1177	1178	1179	118				

5　　HIV infection

V08	042	0420	0421	0422	0429	0430	0431	0432	0433	0439	0440	0449
07953	27910	27919	79571	7958								

6　　Hepatitis

0700	0701	0702	07020	07021	07022	07023	0703	07030	07031	07032	07033	0704
07041	07042	07043	07044	07049	0705	07051	07052	07053	07054	07059		
0706	0709	57140	57141	57149	5731	5732	5733					

7　　Viral infection

0500	0501	0502	0509	0510	0511	0512	0519	0527	0528	0529	05310	05311
05312	05313	05319	05371	05379	0538	0539	0540	05410	05411	05412	05413	05419
0542	0546	05471	05473	05479	0548	0549	05579	0558	0559	05600	05609	05679
0568	0569	0570	0578	0579	0600	0601	0609	061	0650	0651	0652	0653
0654	0658	0659	0660	0661	0663	0668	0669	071	0720	0723	07271	07272
07279	0728	0729	0737	0738	0739	0740	0741	0743	0748	075	0780	0781
07810	07811	07819	0782	0783	0784	0785	0786	0787	07881	07882	07888	07889
0790	0791	0792	0793	0794	07950	07951	07952	07959	0796	0798	07981	07988
07989	0799	07998	07999	7908								

8　　Other infections, including parasitic

V120	V1200	V1203	V1209	080	0810	0811	0812	0819	0820	0821	0822	0823
0828	0829	0831	0832	0838	0839	0840	0841	0842	0843	0844	0845	0846
0847	0848	0849	0850	0851	0852	0853	0854	0855	0859	0860	0861	0862
0863	0864	0865	0869	0870	0871	0879	0880	0888	08881	08882	08889	0889
1000	10089	1009	101	1020	1021	1022	1023	1024	1025	1026	1027	1028
1029	1030	1031	1032	1033	1039	1040	1048	1049	1200	1201	1202	1203
1208	1209	1210	1211	1212	1213	1214	1215	1216	1218	1219	1220	1221
1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234
1235	1236	1238	1239	124	1250	1251	1252	1253	1254	1255	1256	1257
1259	1260	1261	1262	1263	1268	1269	1270	1271	1272	1273	1274	1275
1276	1277	1278	1279	1280	1281	1288	1289	129	1305	1307	1308	1309
13100	13101	13102	13103	13109	1318	1319	1320	1321	1322	1323	1329	1330
1338	1339	1340	1341	1342	1348	1349	135	1360	1361	1362	1364	1365
1368	1369	1398										

9　　Sexually transmitted infections (not HIV or hepatitis)

0900	0901	0902	0903	09040	09041	09042	09049	0905	0906	0907	0909	0910
0911	0912	0913	0914	09150	09151	09152	09161	09162	09169	0917	09181	09182

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

09189	0919	0920	0929	0930	0931	09320	09321	09322	09323	09324	09381	09382
09389	0939	0940	0941	0942	0943	09481	09482	09483	09484	09485	09486	09487
09489	0949	0950	0951	0952	0953	0954	0955	0956	0957	0958	0959	096
0970	0971	0979	0980	09810	09811	09812	09813	09814	09815	09816	09817	09819
0982	09830	09831	09832	09833	09834	09835	09836	09837	09839	09840	09841	09842
09843	09849	09850	09851	09852	09853	09859	0986	0987	09881	09882	09883	09884
09885	09886	09889	0990	0991	0992	0993	0994	09940	09941	09949	09950	09951
09952	09953	09954	09955	09956	09959	0998	0999					

10   Immunizations and screening for infectious disease

V010	V011	V012	V013	V014	V015	V016	V017	V018	V019	V020	V021	V022
V023	V024	V025	V0251	V0252	V0259	V026	V0260	V0261	V0262	V0269	V027	V028
V029	V030	V031	V032	V033	V034	V035	V036	V037	V038	V0381	V0382	V0389
V039	V040	V041	V042	V043	V044	V045	V046	V047	V048	V050	V051	V052
V053	V054	V058	V059	V060	V061	V062	V063	V064	V065	V066	V068	V069
V286	V712	V730	V731	V732	V733	V734	V735	V736	V738	V7388	V7389	V739
V7398	V7399	V740	V741	V742	V743	V744	V745	V746	V748	V749	V750	V751
V752	V753	V754	V755	V756	V757	V758	V759	7955	7956			

11   Cancer of head and neck

V1001	V1002	V1021	1400	1401	1403	1404	1405	1406	1408	1409	1410	1411
1412	1413	1414	1415	1416	1418	1419	1420	1421	1422	1428	1429	1430
1431	1438	1439	1440	1441	1448	1449	1450	1451	1452	1453	1454	1455
1456	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469
1470	1471	1472	1473	1478	1479	1480	1481	1482	1483	1488	1489	1490
1491	1498	1499	1600	1601	1602	1603	1604	1605	1608	1609	1610	1611
1612	1613	1618	1619	1950	2300	2310						

12   Cancer of esophagus

V1003	1500	1501	1502	1503	1504	1505	1508	1509	2301

13   Cancer of stomach

V1004	1510	1511	1512	1513	1514	1515	1516	1518	1519	2302

14   Cancer of colon

V1005	1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1590	2303

15   Cancer of rectum and anus

V1006	1540	1541	1542	1543	1548	2304	2305	2306

16   Cancer of liver and intrahepatic bile duct

V1007	1550	1551	1552	2308

17   Cancer of pancreas

1570	1571	1572	1573	1574	1578	1579

18   Cancer of other GI organs, peritoneum

V1000	V1009	1520	1521	1522	1523	1528	1529	1560	1561	1562	1568	1569
1580	1588	1589	1591	1598	1599	2307	2309					

19   Cancer of bronchus, lung

V1011	1622	1623	1624	1625	1628	1629	2312

Diagnosis category
ICD-9-CM codes

Diagnosis category
ICD-9-CM codes

20   Cancer, other respiratory and intrathoracic

| V1012 | V1020 | V1022 | 1620 | 1630 | 1631 | 1638 | 1639 | 1650 | 1658 | 1659 | 2311 | 2318 |
| 2319 | | | | | | | | | | | | |

21   Cancer of bone and connective tissue

| 1700 | 1701 | 1702 | 1703 | 1704 | 1705 | 1706 | 1707 | 1708 | 1709 | 1710 | 1712 | 1713 |
| 1714 | 1715 | 1716 | 1717 | 1718 | 1719 | | | | | | | |

22   Melanomas of skin

| V1082 | 1720 | 1721 | 1722 | 1723 | 1724 | 1725 | 1726 | 1727 | 1728 | 1729 |

23   Other non-epithelial cancer of skin

| V1083 | 1730 | 1731 | 1732 | 1733 | 1734 | 1735 | 1736 | 1737 | 1738 | 1739 | 2320 | 2321 |
| 2322 | 2323 | 2324 | 2325 | 2326 | 2327 | 2328 | 2329 | | | | | |

24   Cancer of breast

| V103 | 1740 | 1741 | 1742 | 1743 | 1744 | 1745 | 1746 | 1748 | 1749 | 1750 | 1759 | 2330 |

25   Cancer of uterus

| V1042 | 179 | 1820 | 1821 | 1828 | 2332 |

26   Cancer of cervix

| V1041 | 1800 | 1801 | 1808 | 1809 | 2331 | 7950 |

27   Cancer of ovary

| V1043 | 1830 |

28   Cancer of other female genital organs

| V1040 | V1044 | 181 | 1832 | 1833 | 1834 | 1835 | 1838 | 1839 | 1840 | 1841 | 1842 | 1843 |
| 1844 | 1848 | 1849 | 2333 | | | | | | | | | |

29   Cancer of prostate

| V1046 | 185 | 2334 |

30   Cancer of testis

| V1047 | 1860 | 1869 |

31   Cancer of other male genital organs

| V1045 | V1048 | V1049 | 1871 | 1872 | 1873 | 1874 | 1875 | 1876 | 1877 | 1878 | 1879 | 2335 |
| 2336 | | | | | | | | | | | | |

32   Cancer of bladder

| V1051 | 1880 | 1881 | 1882 | 1883 | 1884 | 1885 | 1886 | 1887 | 1888 | 1889 | 2337 |

33   Cancer of kidney and renal pelvis

| V1052 | 1890 | 1891 |

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

34   Cancer of other urinary organs

V1050 V1059 1892 1893 1894 1898 1899 2339

35   Cancer of brain and nervous system

| V1085 | V1086 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 |
| 1921 | 1922 | 1923 | 1928 | 1929 | | | | | | | | |

36   Cancer of thyroid

V1087 193

37   Hodgkin's disease

V1072	20100	20101	20102	20103	20104	20105	20106	20107	20108	20110	20111	20112
20113	20114	20115	20116	20117	20118	20120	20121	20122	20123	20124	20125	20126
20127	20128	20140	20141	20142	20143	20144	20145	20146	20147	20148	20150	20151
20152	20153	20154	20155	20156	20157	20158	20160	20161	20162	20163	20164	20165
20166	20167	20168	20170	20171	20172	20173	20174	20175	20176	20177	20178	20190
20191	20192	20193	20194	20195	20196	20197	20198					

38   Non-Hodgkin's lymphoma

V1071	V1079	20000	20001	20002	20003	20004	20005	20006	20007	20008	20010	20011
20012	20013	20014	20015	20016	20017	20018	20020	20021	20022	20023	20024	20025
20026	20027	20028	20080	20081	20082	20083	20084	20085	20086	20087	20088	20200
20201	20202	20203	20204	20205	20206	20207	20208	20210	20211	20212	20213	20214
20215	20216	20217	20218	20220	20221	20222	20223	20224	20225	20226	20227	20228
20280	20281	20282	20283	20284	20285	20286	20287	20288	20290	20291	20292	20293
20294	20295	20296	20297	20298								

39   Leukemias

V1060	V1061	V1062	V1063	V1069	20240	20241	20242	20243	20244	20245	20246	20247
20248	2031	20310	20311	2040	20400	20401	2041	20410	20411	2042	20420	20421
2048	20480	20481	2049	20490	20491	2050	20500	20501	2051	20510	20511	2052
20520	20521	2053	20530	20531	2058	20580	20581	2059	20590	20591	2060	20600
20601	2061	20610	20611	2062	20620	20621	2068	20680	20681	2069	20690	20691
2070	20700	20701	2071	20710	20711	2072	20720	20721	2078	20780	20781	2080
20800	20801	2081	20810	20811	2082	20820	20821	2088	20880	20881	2089	20890
20891												

40   Multiple myeloma

2030 20300 20301 2038 20380 20381

41   Cancer, other and unspecified primary

V1029	V1081	V1084	V1088	V1089	V109	V711	1640	1641	1642	1643	1648	1649
1760	1761	1762	1763	1764	1765	1768	1769	1900	1901	1902	1903	1904
1905	1906	1907	1908	1909	1940	1941	1943	1944	1945	1946	1948	1949
1951	1952	1953	1954	1955	1958	20230	20231	20232	20233	20234	20235	20236
20237	20238	20250	20251	20252	20253	20254	20255	20256	20257	20258	20260	20261
20262	20263	20264	20265	20266	20267	20268	2340	2348	2349	7951		

42   Secondary malignancies

1960	1961	1962	1963	1965	1966	1968	1969	1970	1971	1972	1973	1974
1975	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986	1987	19881
19882	19889											

Diagnosis category
ICD-9-CM codes

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43   Malignant neoplasm without specification of site

| 1990 | 1991 |

44   Neoplasms of unspecified nature or uncertain behavior

2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362
2363	2364	2365	2366	2367	23690	23691	23699	2370	2371	2372	2373	2374
2375	2376	2377	23770	23771	23772	2379	2380	2381	2382	2383	2384	2385
2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398
2399

45   Maintenance chemotherapy, radiotherapy

| V580 | V581 | V661 | V662 | V671 | V672 |

46   Benign neoplasm of uterus

| 2180 | 2181 | 2182 | 2189 | 2190 | 2191 | 2198 | 2199 |

47   Other and unspecified benign neoplasm

V1272	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111
2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124
2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137
2138	2139	2140	2141	2142	2143	2144	2148	2149	2150	2152	2153	2154
2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167
2168	2169	217	220	2210	2211	2212	2218	2219	2220	2221	2222	2223
2224	2228	2229	2230	2231	2232	2233	22381	22389	2239	2240	2241	2242
2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2258
2259	226	2270	2271	2273	2274	2275	2276	2278	2279	22800	22801	22802
22803	22804	22809	2281	2290	2298	2299

48   Thyroid disorders

2400	2409	2410	2411	2419	24200	24201	24210	24211	24220	24221	24230	24231
24240	24241	24280	24281	24290	24291	243	2440	2441	2442	2443	2448	2449
2450	2451	2452	2453	2454	2458	2459	2460	2461	2462	2463	2468	2469
7945

49   Diabetes mellitus without complication

| 25000 | 25001 | 7902 | 7915 | 7916 |

50   Diabetes mellitus with complications

25002	25003	25010	25011	25012	25013	25020	25021	25022	25023	25030	25031	25032
25033	25040	25041	25042	25043	25050	25051	25052	25053	25060	25061	25062	25063
25070	25071	25072	25073	25080	25081	25082	25083	25090	25091	25092	25093

51   Other endocrine disorders

2510	2511	2512	2513	2514	2515	2518	2519	2520	2521	2528	2529	2530
2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2548	2549
2550	2551	2552	2553	2554	2555	2556	2558	2559	2560	2561	2562	2563
2564	2568	2569	2570	2571	2572	2578	2579	2580	2581	2588	2589	2590
2591	2592	2593	2594	2598	2599	7946

52   Nutritional deficiencies

| V121 | 260 | 261 | 262 | 2630 | 2631 | 2632 | 2638 | 2639 | 2640 | 2641 | 2642 | 2643 |
| 2644 | 2645 | 2646 | 2647 | 2648 | 2649 | 2650 | 2651 | 2652 | 2660 | 2661 | 2662 | 2669 |

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

| 267 | 2680 | 2681 | 2682 | 2689 | 2690 | 2691 | 2692 | 2693 | 2698 | 2699 | 7994 |

53 Disorders of lipid metabolism

| 2720 | 2721 | 2722 | 2723 | 2724 |

54 Gout and other crystal arthropathies

2740	27410	27411	27419	27481	27482	27489	2749	71210	71211	71212	71213	71214
71215	71216	71217	71218	71219	71220	71221	71222	71223	71224	71225	71226	71227
71228	71229	71230	71231	71232	71233	71234	71235	71236	71237	71238	71239	71280
71281	71282	71283	71284	71285	71286	71287	71288	71289	71290	71291	71292	71293
71294	71295	71296	71297	71298	71299

55 Fluid and electrolyte disorders

| 2760 | 2761 | 2762 | 2763 | 2764 | 2765 | 2766 | 2767 | 2768 | 2769 |

56 Cystic fibrosis

| 27700 | 27701 |

57 Immunity disorders

| 27900 | 27901 | 27902 | 27903 | 27904 | 27905 | 27906 | 27909 | 27911 | 27912 | 27913 | 2792 | 2793 |
| 2794 | 2798 | 2799 |

58 Other nutritional, endocrine, and metabolic disorders

V122	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711
2712	2713	2714	2718	2719	2725	2726	2727	2728	2729	2730	2731	2732
2733	2738	2739	2750	2751	2752	2753	2754	27540	27541	27542	27549	2758
2759	2771	2772	2773	2774	2775	2776	2778	2779	2780	27800	27801	2781
2782	2783	2784	2788	7831	7832	7833	7834	7835	7839	7947	7957	79579

59 Deficiency and other anemia

2800	2801	2808	2809	2810	2811	2812	2813	2814	2818	2819	2820	2821
2822	2823	2824	2827	2828	2829	2830	2831	28310	28311	28319	2832	2839
2840	2848	2849	2850	2858	2859

60 Acute posthemorrhagic anemia

| 2851 |

61 Sickle cell anemia

| 2825 | 28260 | 28261 | 28262 | 28263 | 28269 |

62 Coagulation and hemorrhagic disorders

| 2860 | 2861 | 2862 | 2863 | 2864 | 2865 | 2866 | 2867 | 2869 | 2870 | 2871 | 2872 | 2873 |
| 2874 | 2875 | 2878 | 2879 | 7827 |

63 Diseases of white blood cells

| 2880 | 2881 | 2882 | 2883 | 2888 | 2889 |

64 Other hematologic conditions

| V123 | V582 | 2890 | 2894 | 28950 | 28951 | 28959 | 2896 | 2897 | 2898 | 2899 | 7900 |

Diagnosis category
ICD-9-CM codes

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65   Mental retardation

317   3180   3181   3182   319

66   Alcohol-related mental disorders

| 2910 | 2911 | 2912 | 2913 | 2914 | 2915 | 2918 | 29181 | 29189 | 2919 | 30300 | 30301 | 30302 |
| 30303 | 30390 | 30391 | 30392 | 30393 | 30500 | 30501 | 30502 | 30503 | | | | |

67   Substance-related mental disorders

V1582	2920	29211	29212	2922	29281	29282	29283	29284	29289	2929	30400	30401
30402	30403	30410	30411	30412	30413	30420	30421	30422	30423	30430	30431	30432
30433	30440	30441	30442	30443	30450	30451	30452	30453	30460	30461	30462	30463
30470	30471	30472	30473	30480	30481	30482	30483	30490	30491	30492	30493	3051
30510	30511	30512	30513	30520	30521	30522	30523	30530	30531	30532	30533	30540
30541	30542	30543	30550	30551	30552	30553	30560	30561	30562	30563	30570	30571
30572	30573	30580	30581	30582	30583							
30590	30591	30592	30593									

68   Senility and organic mental disorders

2900	29010	29011	29012	29013	29020	29021	2903	29040	29041	29042	29043	2908
2909	2930	2931	29381	29382	29383	29384	29389	2939	2940	2941	2948	2949
3100	3101	3102	3108	3109	3310	3311	3312	797				

69   Affective disorders

29600	29601	29602	29603	29604	29605	29606	29610	29611	29612	29613	29614	29615
29616	29620	29621	29622	29623	29624	29625	29626	29630	29631	29632	29633	29634
29635	29636	29640	29641	29642	29643	29644	29645	29646	29650	29651	29652	29653
29654	29655	29656	29660	29661	29662	29663	29664	29665	29666	2967	29680	29681
29682	29689	29690	29699	2980	3004	30111	30113					

70   Schizophrenia and related disorders

29500	29501	29502	29503	29504	29505	29510	29511	29512	29513	29514	29515	29520
29521	29522	29523	29524	29525	29530	29531	29532	29533	29534	29535	29540	29541
29542	29543	29544	29545	29550	29551	29552	29553	29554	29555	29560	29561	29562
29563	29564	29565	29570	29571	29572	29573	29574	29575	29580	29581	29582	29583
29584	29585	29590	29591	29592	29593	29594	29595	29900	29901	29910	29911	29980
29981	29990	29991										

71   Other psychoses

2970   2971   2972   2973   2978   2979   2981   2982   2983   2984   2988   2989

72   Anxiety, somatoform, dissociative, and personality disorders

30000	30001	30002	30009	30010	30011	30012	30013	30014	30015	30016	30019	30020
30021	30022	30023	30029	3003	3005	3006	3007	30081	30082	3010	30110	30112
30120	30121	30122	3013	3014	30150	30151	30159	3016	3017	30181	30182	30183
30184	30189	3019	30740	30741	30742	30743	30744	30745	30747	30748	30749	30780
30781	30789	3079	3080	3081	3082	3083	3084	3089	30981	31230	31231	31232
31233	31234	31235	31239									

73   Preadult disorders

30921	31200	31201	31202	31203	31210	31211	31212	31213	31220	31221	31222	31223
3124	3128	31281	31282	31289	3129	3130	31321	31400	31401	3141	3142	3148
3149												

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

74   Other mental conditions

30089	3009	3021	3022	3023	3024	30250	30251	30252	30253	3026	30270	30271
30272	30273	30274	30275	30276	30279	30281	30282	30283	30284	30285	30289	3029
3060	3061	3062	3063	3064	30650	30651	30652	30653	30659	3066	3067	3068
3069	3070	3071	30720	30721	30722	30723	3073	30746	30750	30751	30752	30753
30754	30759	3076	3077	3090	3091	30922	30923	30924	30928	30929	3093	3094
30982	30983	30989	3099	311	3131	31322	31323	3133	31381	31382	31383	31389
3139	31500	31501	31502	31509	3151	3152	31531	31532	31539	3154	3155	3158
3159	316	7801										

75   Personal history of mental disorder, mental and behavioral problems, observation and screening for mental condition

V110	V111	V112	V113	V118	V119	V154	V1541	V1542	V1549	V400	V401	V402
V403	V409	V663	V673	V701	V702	V7101	V7102	V7109	V790	V791	V792	V793
V798	V799											

76   Meningitis (except that caused by tuberculosis or sexually transmitted disease)

00321	0360	0470	0471	0478	0479	0490	0491	0530	05472	0721	10081	11283
1142	11501	11511	11591	3200	3201	3202	3203	3207	3208	32081	32082	32089
3209	3210	3211	3212	3213	3214	3218	3220	3221	3222	3229		

77   Encephalitis (except that caused by tuberculosis or sexually transmitted disease)

0361	0462	0498	0499	0520	0543	0550	05601	0620	0621	0622	0623	0624
0625	0628	0629	0630	0631	0632	0638	0639	064	0662	0722	1300	1390
3230	3231	3232	3234	3235	3236	3237	3238	3239				

78   Other CNS infection and poliomyelitis

V1202	04500	04501	04502	04503	04510	04511	04512	04513	04520	04521	04522	04523
04590	04591	04592	04593	0460	0461	0463	0468	0469	048	138	3240	3241
3249	326											

79   Parkinson's disease

3320

80   Multiple sclerosis

340

81   Other hereditary and degenerative nervous system conditions

3300	3301	3302	3303	3308	3309	3313	3314	3317	33181	33189	3319	3330
3331	3332	3333	3334	3335	3336	3337	33381	33382	33383	33384	33389	33390
33391	33392	33393	33399	3340	3341	3342	3343	3344	3348	3349	3350	33510
33511	33519	33520	33521	33522	33523	33524	33529	3358	3359	3360	3361	3362
3363	3368	3369	3370	3371	3373	3379						

82   Paralysis

3420	34200	34201	34202	3421	34210	34211	34212	34280	34281	34282	3429	34290
34291	34292	3430	3431	3432	3433	3434	3438	3439	3440	34400	34401	34402
34403	34404	34409	3441	3442	3443	34430	34431	34432	3444	34440	34441	34442
3445	34460	3448	34481	34489	3449	7814						

83   Epilepsy, convulsions

3450	34500	34501	3451	34510	34511	3452	3453	3454	34540	34541	3455	34550
34551	3456	34560	34561	3457	34570	34571	3458	34580	34581	3459	34590	34591

Diagnosis category
ICD-9-CM codes

| 7803 | 78031 | 78039 |

84 Headache, including migraine

| 3460 | 34600 | 34601 | 3461 | 34610 | 34611 | 3462 | 34620 | 34621 | 3468 | 34680 | 34681 | 3469 |
| 34690 | 34691 | 7840 |

85 Coma, stupor, and brain damage

| 3481 | 7800 | 78001 | 78003 | 78009 |

86 Cataract

V431	36600	36601	36602	36603	36604	36609	36610	36611	36612	36613	36614	36615
36616	36617	36618	36619	36620	36621	36622	36623	36630	36631	36632	36633	36634
36641	36642	36643	36644	36645	36646	36650	36651	36652	36653	3668	3669

87 Retinal detachments, defects, vascular occlusion, and retinopathy

36100	36101	36102	36103	36104	36105	36106	36107	36110	36111	36112	36113	36114
36119	3612	36130	36131	36132	36133	36181	36189	3619	36201	36202	36210	36211
36212	36213	36214	36215	36216	36217	36218	36221	36229	36230	36231	36232	36233
36234	36235	36236	36237	36240	36241	36242	36243	36250	36251	36252	36253	36254
36255	36256	36257	36260	36261	36262	36263	36264	36265	36266	36270	36271	36272
36273	36274	36275	36276	36277	36281	36282	36283	36284	36285	36289	3629

88 Glaucoma

36500	36501	36502	36503	36504	36510	36511	36512	36513	36514	36515	36520	36521
36522	36523	36524	36531	36532	36541	36542	36543	36544	36551	36552	36559	36560
36561	36562	36563	36564	36565	36581	36582	36589	3659

89 Blindness and vision defects

V410	3670	3671	36720	36721	36722	36731	36732	3674	36751	36752	36753	36781
36789	3679	36800	36801	36802	36803	36810	36811	36812	36813	36814	36815	36816
3682	36830	36831	36832	36833	36834	36840	36841	36842	36843	36844	36845	36846
36847	36851	36852	36853	36854	36855	36859	36860	36861	36862	36863	36869	3688
3689	36900	36901	36902	36903	36904	36905	36906	36907	36908	36910	36911	36912
36913	36914	36915	36916	36917	36918	36920	36921	36922	36923	36924	36925	3693
3694	36960	36961	36962	36963	36964	36965	36966	36967	36968	36969	36970	36971
36972	36973	36974	36975	36976	3698	3699

90 Inflammation, infection of eye (except that caused by tuberculosis or sexually transmitted disease)

0213	03281	05320	05321	05322	05329	05440	05441	05442	05443	05444	05449	05571
0760	0761	0769	0770	0771	0772	0773	0774	0778	0779	07798	07799	11502
11512	11592	1301	1302	1391	36000	36001	36002	36003	36004	36011	36012	36013
36014	36019	36300	36301	36303	36304	36305	36306	36307	36308	36310	36311	36312
36313	36314	36315	36320	36321	36322	36400	36401	36402	36403	36404	36405	36410
36411	36421	36422	36423	36424	3643	37020	37021	37022	37023	37024	37031	37032
37033	37034	37035	37040	37044	37049	37050	37052	37054	37055	37059	3708	3709
37200	37201	37202	37203	37204	37205	37210	37211	37212	37213	37214	37215	37220
37221	37222	37230	37231	37233	37239	37300	37301	37302	37311	37312	37313	37331
37332	37333	37334	3734	3735	3736	3738	3739	37500	37501	37502	37503	37530
37531	37532	37533	37541	37542	37543	37600	37601	37602	37603	37604	37610	37611
37612	37613	37730	37731	37732	37733	37734	37739	37900	37901	37902	37903	37904
37905	37906	37907	37909

91 Other eye disorders

| V411 | V425 | V430 | V456 | V4561 | V4569 | V522 | V531 | V720 | 36020 | 36021 | 36023 | 36024 |

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

36029	36030	36031	36032	36033	36034	36040	36041	36042	36043	36044	36050	36051
36052	36053	36054	36055	36059	36060	36061	36062	36063	36064	36065	36069	36081
36089	3609	36330	36331	36332	36333	36334	36335	36340	36341	36342	36343	36350
36351	36352	36353	36354	36355	36356	36357	36361	36362	36363	36370	36371	36372
3638	3639	36441	36442	36451	36452	36453	36454	36455	36456	36457	36459	36460
36461	36462	36463	36464	36470	36471	36472	36473	36474	36475	36476	36477	3648
3649	37000	37001	37002	37003	37004	37005	37006	37007	37060	37061	37062	37063
37064	37100	37101	37102	37103	37104	37105	37110	37111	37112	37113	37114	37115
37116	37120	37121	37122	37123	37124	37130	37131	37132	37133	37140	37141	37142
37143	37144	37145	37146	37148	37149	37150	37151	37152	37153	37154	37155	37156
37157	37158	37160	37161	37162	37170	37171	37172	37173	37181	37182	37189	3719
37240	37241	37242	37243	37244	37245	37250	37251	37252	37253	37254	37255	37256
37261	37262	37263	37264	37271	37272	37273	37274	37275	3728	3729	3732	37400
37401	37402	37403	37404	37405	37410	37411	37412	37413	37414	37420	37421	37422
37423	37430	37431	37432	37433	37434	37441	37443	37444	37445	37446	37450	37451
37452	37453	37454	37455	37456	37481	37482	37483	37484	37485	37486	37487	37489
3749	37511	37512	37513	37514	37515	37516	37520	37521	37522	37551	37552	37553
37554	37555	37556	37557	37561	37569	37581	37589	3759	37621	37622	37630	37631
37632	37633	37634	37635	37636	37640	37641	37642	37643	37644	37645	37646	37647
37650	37651	37652	3766	37681	37682	37689	3769	37700	37701	37702	37703	37704
37710	37711	37712	37713	37714	37715	37716	37721	37722	37723	37724	37741	37742
37749	37751	37752	37753	37754	37761	37762	37763	37771	37772	37773	37775	3779
37800	37801	37802	37803	37804	37805	37806	37807	37808	37810	37811	37812	37813
37814	37815	37816	37817	37818	37820	37821	37822	37823	37824	37830	37831	37832
37833	37834	37835	37840	37841	37842	37843	37844	37845	37850	37851	37852	37853
37854	37855	37856	37860	37861	37862	37863	37871	37872	37873	37881	37882	37883
37884	37885	37886	37887	3789	37911	37912	37913	37914	37915	37916	37919	37921
37922	37923	37924	37925	37926	37929	37931	37932	37933	37934	37939	37940	37941
37942	37943	37945	37946	37949	37950	37951	37952	37953	37954	37955	37956	37957
37958	37959	3798	37990	37991	37992	37993	37999					

92   Otitis media and related conditions

0552	38100	38101	38102	38103	38104	38105	38106	38110	38119	38120	38129	3813
3814	38150	38151	38152	38160	38161	38162	38163	3817	38181	38189	3819	38200	38201
38202	3821	3822	3823	3824	3829	38300	38301	38302	3831	38320	38321	38322
38330	38331	38332	38333	38381	38389	3839	38420	38421	38422	38423	38424	38425
38481	38482	3849	38500	38501	38502	38503	38509	38510	38511	38512	38513	38519
38521	38522	38523	38524	3870	3871	3872	3878	3879				

93   Conditions associated with dizziness or vertigo

38600	38601	38602	38603	38604	38610	38611	38612	38619	3862	38630	38631	38632
38633	38634	38635	38640	38641	38642	38643	38648	38650	38651	38652	38653	38654
38655	38656	38658	3868	3869	7804							

94   Other ear and sense organ disorders

V412	V413	V532	V721	38000	38001	38002	38010	38011	38012	38013	38014	38015
38016	38021	38022	38023	38030	38031	38032	38039	3804	38050	38051	38052	38053
38081	38089	3809	38400	38401	38409	3841	38530	38531	38532	38533	38535	38582
38583	38589	3859	38800	38801	38802	38810	38811	38812	3882	38830	38831	38832
38840	38841	38842	38843	38844	3885	38860	38861	38869	38870	38871	38872	3888
3889	38900	38901	38902	38903	38904	38908	38910	38911	38912	38914	38918	3892
3897	3898	3899										

95   Other nervous system disorders

V124	V1240	V1241	V1249	V415	V452	V484	V485	V493	V530	V5301	V5302	V5309
325	3321	33720	33721	33722	33729	3410	3411	3418	3419	34461	347	3480
3482	3483	3484	3485	3488	3489	3492	34981	34982	34989	3499	3501	3502
3508	3509	3510	3511	3518	3519	3520	3521	3522	3523	3524	3525	3526

Diagnosis category
ICD-9-CM codes

3529	3530	3531	3532	3533	3534	3535	3536	3538	3539	3540	3541	3542
3543	3544	3545	3548	3549	3550	3551	3552	3553	3554	3555	3556	3557
35571	35579	3558	3559	3560	3561	3562	3563	3564	3568	3569	3570	3571
3572	3573	3574	3575	3576	3577	3578	3579	3580	3581	3582	3588	3589
3590	3591	3592	3593	3594	3595	3596	3598	3599	7810	7811	7812	7813
7817	7818	7820	7843	7845	78460	78461	78469	7920	7930	79400	79401	79402
79409	79410	79411	79412	79413	79414	79415	79416	79417	79419	7961		

96   Heart valve disorders

V422	V433	3940	3941	3942	3949	3950	3951	3952	3959	3960	3961	3962
3963	3968	3969	3970	3971	3979	4240	4241	4242	4243	42490	42491	42499
7852	7853											

97   Peri-, endo-, and myocarditis, cardiomyopathy (except that caused by tuberculosis or sexually transmitted disease)

03282	03640	03641	03642	03643	07420	07421	07422	07423	11281	11503	11504	11513
11514	11593	11594	1303	3910	3911	3912	3918	3919	3920	393	3980	39890
39899	4200	42090	42091	42099	4210	4211	4219	4220	42290	42291	42292	42293
42299	4230	4231	4232	4238	4239	4250	4251	4252	4253	4254	4255	4257
4258	4259	4290										

98   Essential hypertension

4011	4019

99   Hypertension with complications and secondary hypertension

4010	40200	40201	40210	40211	40290	40291	4030	40300	40301	4031	40310	40311
4039	40390	40391	4040	40400	40401	40402	40403	4041	40410	40411	40412	40413
4049	40490	40491	40492	40493	40501	40509	40511	40519	40591			
40599	4372											

100   Acute myocardial infarction

4100	41000	41001	41002	4101	41010	41011	41012	4102	41020	41021	41022	4103
41030	41031	41032	4104	41040	41041	41042	4105	41050	41051	41052	4106	41060
41061	41062	4107	41070	41071	41072	4108	41080	41081	41082			
4109	41090	41091	41092									

101   Coronary atherosclerosis and other heart disease

V4581	V4582	4110	4111	4118	41181	41189	412	4130	4131	4139	4140	41400
41401	4148	4149										

102   Nonspecific chest pain

78650	78651	78659

103   Pulmonary heart disease

4150	4151	41519	4160	4161	4168	4169	4170	4171	4178	4179

104   Other and ill-defined heart disease

41410	41411	41419	4291	4292	4293	4295	4296	42971	42979	42981	42982	42989
4299											

105   Conduction disorders

V450	V4500	V4501	V4502	V4509	V533	V5331	V5332	V5339	4260	42610	42611	42612
42613	4262	4263	4264	42650	42651	42652	42653	42654	4266	4267	42681	42689

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

4269

| 106 | Cardiac dysrhythmias |

| 4270 | 4271 | 4272 | 42731 | 42732 | 42760 | 42761 | 42769 | 42781 | 42789 | 4279 | 7850 | 7851 |

| 107 | Cardiac arrest and ventricular fibrillation |

42741 42742 4275

| 108 | Congestive heart failure, nonhypertensive |

39891 4280 4281 4289

| 109 | Acute cerebrovascular disease |

| 430 | 431 | 4320 | 4321 | 4329 | 43301 | 43311 | 43321 | 43331 | 43381 | 43391 | 4340 | 43400 |
| 43401 | 4341 | 43410 | 43411 | 4349 | 43490 | 43491 | 436 |

| 110 | Occlusion or stenosis of precerebral arteries |

| 4330 | 43300 | 4331 | 43310 | 4332 | 43320 | 4333 | 43330 | 4338 | 43380 | 4339 | 43390 |

| 111 | Other and ill-defined cerebrovascular disease |

| 4370 | 4371 | 4373 | 4374 | 4375 | 4376 | 4377 | 4378 | 4379 |

| 112 | Transient cerebral ischemia |

| 4350 | 4351 | 4352 | 4353 | 4358 | 4359 |

| 113 | Late effects of cerebrovascular disease |

| 438 | 4380 | 43810 | 43811 | 43812 | 43819 | 43820 | 43821 | 43822 | 43830 | 43831 | 43832 | 43840 |
| 43841 | 43842 | 43850 | 43851 | 43852 | 43853 | 43881 | 43882 | 43889 | 4389 |

| 114 | Peripheral and visceral atherosclerosis |

| 4400 | 4401 | 4402 | 44020 | 44021 | 44022 | 44023 | 44029 | 4408 | 4409 | 4439 | 5570 | 5571 |
| 5579 |

| 115 | Aortic, peripheral, and visceral artery aneurysms |

| 4410 | 44100 | 44101 | 44102 | 44103 | 4411 | 4412 | 4413 | 4414 | 4415 | 4416 | 4417 | 4419 |
| 4420 | 4421 | 4422 | 4423 | 44281 | 44282 | 44283 | 44284 | 44289 | 4429 |

| 116 | Aortic and peripheral arterial embolism or thrombosis |

| 4440 | 4441 | 44421 | 44422 | 44481 | 44489 | 4449 |

| 117 | Other circulatory disease |

V125	V1250	V1259	V151	V421	V432	V434	V717	4430	4431	44381	44389	4460
4461	4462	44620	44621	44629	4463	4464	4465	4466	4467	4470	4471	4472
4473	4474	4475	4476	4478	4479	4480	4481	4489	4580	4581	4588	4589
4590	45989	4599	7859	79430	79431	79439	7962

| 118 | Phlebitis, thrombophlebitis and thromboembolism |

| V1251 | V1252 | 4510 | 45111 | 45119 | 4512 | 45181 | 45182 | 45183 | 45184 | 45189 | 4519 | 452 |
| 4530 | 4531 | 4532 | 4533 | 4538 | 4539 |

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

119 | Varicose veins of lower extremity |||||||||||

4540 | 4541 | 4542 | 4549

120 | Hemorrhoids

4550 | 4551 | 4552 | 4553 | 4554 | 4555 | 4556 | 4557 | 4558 | 4559

121 | Other diseases of veins and lymphatics

4563 | 4564 | 4565 | 4566 | 4568 | 4570 | 4571 | 4572 | 4578 | 4579 | 4591 | 4592 | 45981

122 | Pneumonia (except that caused by tuberculosis or sexually transmitted disease)

00322	0203	0204	0205	0212	0221	0310	0391	0521	0551	0730	0830	1124
1140	1144	1145	11505	11515	11595	1304	1363	4800	4801	4802	4808	4809
481	4820	4821	4822	4823	48230	48231	48232	48239	4824	48240	48241	48249
4828	48281	48282	48283	48284	48289	4829	483	4830	4831	4838	4841	4843
4845	4846	4847	4848	485	486	5130	5171					

123 | Influenza

4870 | 4871 | 4878

124 | Acute and chronic tonsillitis

463 | 4740 | 47400 | 47401 | 47402 | 47410 | 47411 | 47412 | 4742 | 4748 | 4749 | 475

125 | Acute bronchitis

4660 | 4661 | 46611 | 46619

126 | Other upper respiratory infections

0320	0321	0322	0323	0340	460	4610	4611	4612	4613	4618	4619	462
4640	46410	46411	46420	46421	46430	46431	4644	4650	4658	4659	4730	4731
4732	4733	4738	4739									

127 | Chronic obstructive pulmonary disease and bronchiectasis

490 | 4910 | 4911 | 4912 | 49120 | 49121 | 4918 | 4919 | 4920 | 4928 | 494 | 496

128 | Asthma

49300 | 49301 | 49310 | 49311 | 49320 | 49321 | 49390 | 49391

129 | Aspiration pneumonitis, food/vomitus

5070

130 | Pleurisy, pneumothorax, pulmonary collapse

5100 | 5109 | 5110 | 5111 | 5118 | 5119 | 5120 | 5128 | 5180 | 5181 | 5182

131 | Respiratory failure, insufficiency, arrest (adult)

V461 | 5185 | 51881 | 51882 | 51883 | 51884 | 7991

132 | Lung disease due to external agents

4950 | 4951 | 4952 | 4953 | 4954 | 4955 | 4956 | 4957 | 4958 | 4959 | 500 | 501 | 502

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

503	504	505	5060	5061	5062	5063	5064	5069	5071	5078	5080	5081
5088	5089											

133   Other lower respiratory disease

V126	V426	5131	514	515	5160	5161	5162	5163	5168	5169	5172	5178
5183	5184	51889	5194	5198	5199	7825	78600	78601	78602	78603	78604	78605
78606	78607	78609	7862	7863	7864	78652	7866	7867	7868	7869	7931	7942

134   Other upper respiratory disease

V414	V440	V550	470	4710	4711	4718	4719	4720	4721	4722	4760	4761
4770	4778	4779	4780	4781	47820	47821	47822	47824	47825	47826	47829	47830
47831	47832	47833	47834	4784	4785	4786	47870	47871	47874	47875	47879	4788
4789	5191	5192	5193	7841	78440	78441	78449	7847	7848	7849	7861	

135   Intestinal infection

0010	0011	0019	0020	0021	0022	0023	0029	0030	00320	00329	0038	0039
0040	0041	0042	0043	0048	0049	0050	0051	0052	0053	0054	0058	00581
00589	0059	0060	0061	0062	0063	0064	0065	0066	0068	0069	0070	0071
0072	0073	0074	0078	0079	0080	00800	00801	00802	00803	00804	00809	0081
0082	0083	00841	00842	00843	00844	00845	00846	00847	00849	0085	0086	00861
00862	00863	00864	00865	00866	00867	00869	0088	0090	0091	0092	0093	0211
0222												

136   Disorders of teeth and jaw

V523	V534	V585	V722	5200	5201	5202	5203	5204	5205	5206	5207	5208
5209	5210	5211	5212	5213	5214	5215	5216	5217	5218	5219	5220	5221
5222	5223	5224	5225	5226	5227	5228	5229	5230	5231	5232	5233	5234
5235	5236	5238	5239	5240	52400	52401	52402	52403	52404	52405	52406	52409
5241	52410	52411	52412	52419	5242	5243	5244	5245	5246	52460	52461	52462
52463	52469	52470	52471	52472	52473	52474	52479	5248	5249	5250	5251	5252
5253	5258	5259	5260	5261	5262	5263	5264	5265	52681	52689	5269	

137   Diseases of mouth, excluding dental

5270	5271	5272	5273	5274	5275	5276	5277	5278	5279	5280	5281	5282
5283	5284	5285	5286	5287	5288	5289	5290	5291	5292	5293	5294	5295
5296	5298	5299	7924									

138   Esophageal disorders

4561	45621	5300	5301	53010	53011	53019	5302	5303	5304	5305	5306	5308
53081	53083	53084	53089	5309								

139   Gastroduodenal ulcer (except hemorrhage)

V1271	53110	53111	53130	53131	53150	53151	53170	53171	53190	53191	53210	53211
53230	53231	53250	53251	53270	53271	53290	53291	53310	53311	53330	53331	53350
53351	53370	53371	53390	53391	53410	53411	53430	53431	53450	53451	53470	53471
53490	53491											

140   Gastritis and duodenitis

5350	53500	53501	5351	53510	53511	5352	53520	53521	5353	53530	53531	5354
53540	53541	5355	53550	53551	5356	53560	53561					

141   Other disorders of stomach and duodenum

5360	5361	5362	5363	5368	5369	5370	5371	5372	5373	5374	5375	5376

Diagnosis category
ICD-9-CM codes

53781	53782	53783	53789	5379

142 Appendicitis and other appendiceal conditions

5400	5401	5409	541	542	5430	5439

143 Abdominal hernia

55000	55001	55002	55003	55010	55011	55012	55013	55090	55091	55092	55093	55100
55101	55102	55103	5511	55120	55121	55129	5513	5518	5519	55200	55201	55202
55203	5521	55220	55221	55229	5523	5528	5529	55300	55301	55302	55303	5531
55320	55321	55329	5533	5538	5539							

144 Regional enteritis and ulcerative colitis

5550	5551	5552	5559	556	5560	5561	5562	5563	5564	5565	5566	5568
5569												

145 Intestinal obstruction without hernia

5600	5601	5602	56030	56031	56039	56081	56089	5609

146 Diverticulosis and diverticulitis

56200	56201	56202	56203	56210	56211	56212	56213

147 Anal and rectal conditions

5646	5650	5651	566	5690	5691	5692	56941	56942	56949

148 Peritonitis and intestinal abscess

03283	5670	5671	5672	5678	5679	5695

149 Biliary tract disease

57400	57401	57410	57411	57420	57421	57430	57431	57440	57441	57450	57451	57460
57461	57470	57471	57480	57481	57490	57491	5750	5751	57510	57511	57512	5752
5753	5754	5755	5756	5758	5759	5760	5761	5762	5763	5764	5765	5768
5769	7933											

150 Liver disease, alcohol-related

5710	5711	5712	5713

151 Other liver diseases

V427	570	5715	5716	5718	5719	5720	5721	5722	5723	5724	5728	5730
5734	5738	5739	7824	7891	7895	7904	7905	7948				

152 Pancreatic disorders (not diabetes)

5770	5771	5772	5778	5779	5794

153 Gastrointestinal hemorrhage

4560	45620	5307	53082	53100	53101	53120	53121	53140	53141	53160	53161	53200
53201	53220	53221	53240	53241	53260	53261	53300	53301	53320	53321	53340	53341
53360	53361	53400	53401	53420	53421	53440	53441	53460	53461	5693	5780	5781
5789												

154 Noninfectious gastroenteritis

Diagnosis category
ICD-9-CM codes

5589

155   Other gastrointestinal disorders

V127	V1270	V1279	V416	V441	V442	V443	V444	V453	V473	V535	V551	V552
V553	V554	5581	5582	5640	5641	5645	5647	5648	56481	56489	5649	5680
56881	56882	56889	5689	56981	56982	56983	56984	56985	56989	5699	5790	5791
5792	5798	5799	7871	7872	7873	7874	7875	7876	7877	7879	78791	78799
7892	7893	78930	78931	78932	78933	78934	78935	78936	78937	78939	7894	78940
78941	78942	78943	78944	78945	78946	78947	78949	7899	7921	7934	7936	

156   Nephritis, nephrosis, renal sclerosis

5800	5804	58081	58089	5809	5810	5811	5812	5813	58181	58189	5819	5820
5821	5822	5824	58281	58289	5829	5830	5831	5832	5834	5836	5837	58381
58389	5839 587											

157   Acute and unspecified renal failure

5845   5846   5847   5848   5849   586

158   Chronic renal failure

V420   V451   V560   V561   V562   V568   585

159   Urinary tract infections

03284	59000	59001	59010	59011	5902	5903	59080	59081	5909	5950	5951	5952
5953	5954	59581	59582	59589	5959	5970	59780	59781	59789	59800		
59801	5990											

160   Calculus of urinary tract

V1301   5920   5921   5929   5940   5941   5942   5948   5949   7880

161   Other diseases of kidney and ureters

5880	5881	5888	5889	5890	5891	5899	591	5930	5931	5932	5933	5934
5935	5936	5937	59370	59371	59372	59373	59381	59382	59389	5939		

162   Other diseases of bladder and urethra

5960	5961	5962	5963	5964	5965	59651	59652	59653	59654	59655	59659	5966
5967	5968	5969	5981	5982	5988	5989	5991	5992	5993	5994	5995	59981
59982	59983	59984										

163   Genitourinary symptoms and ill-defined conditions

V130	V1300	V1309	V417	V435	V445	V4450	V4451	V4452	V4459	V446	V474	V475
V536	V555	V556	5996	5997	5998	59989	5999	7881	7882	78820	78821	78829
7883	78830	78831	78832	78833	78834	78835	78836	78837	78839	7884	78841	78842
78843	7885	7886	78861	78862	78869	7887	7888	7889	7910	7911	7912	7913
7914	7917	7919	7935	7944								

164   Hyperplasia of prostate

600

165   Inflammatory conditions of male genital organs

6010	6011	6012	6013	6014	6018	6019	6031	6040	60490	60491	60499	6071
6072	6080	6084										

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

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166   Other male genital disorders

6020	6021	6022	6028	6029	6030	6038	6039	605	6060	6061	6068	6069
6070	6073	60781	60782	60783	60784	60789	6079	6081	6082	6083	60881	60883
60884	60885	60886	60889	6089	7922							

167   Nonmalignant breast conditions

| 6100 | 6101 | 6102 | 6103 | 6104 | 6108 | 6109 | 6110 | 6111 | 6112 | 6113 | 6114 | 6115 |
| 6116 | 61171 | 61172 | 61179 | 6118 | 6119 | | | | | | | |

168   Inflammatory diseases of female pelvic organs

| 6140 | 6141 | 6142 | 6143 | 6144 | 6145 | 6146 | 6147 | 6148 | 6149 | 6150 | 6151 | 6159 |
| 6160 | 61610 | 61611 | 6162 | 6163 | 6164 | 61650 | 61651 | 6168 | 6169 | | | |

169   Endometriosis

| 6170 | 6171 | 6172 | 6173 | 6174 | 6175 | 6176 | 6178 | 6179 |

170   Prolapse of female genital organs

| 6180 | 6181 | 6182 | 6183 | 6184 | 6185 | 6186 | 6187 | 6188 | 6189 |

171   Menstrual disorders

| 6253 | 6260 | 6261 | 6262 | 6263 | 6264 | 6265 | 6266 | 6268 | 6269 |

172   Ovarian cyst

| 6200 | 6201 | 6202 |

173   Menopausal disorders

| V074 | 6270 | 6271 | 6272 | 6273 | 6274 | 6278 | 6279 |

174   Female infertility

| 6280 | 6281 | 6282 | 6283 | 6284 | 6288 | 6289 |

175   Other female genital disorders

V132	V557	V723	6190	6191	6192	6198	6199	6203	6204	6205	6206	6207
6208	6209	6210	6211	6212	6213	6214	6215	6216	6217	6218	6219	6220
6221	6222	6223	6224	6225	6226	6227	6228	6229	6230	6231	6232	6233
6234	6235	6236	6237	6238	6239	6240	6241	6242	6243	6244	6245	6246
6248	6249	6250	6251	6252	6254	6255	6256	6258	6259	6267	6290	6291
6298	6299											

176   Contraceptive and procreative management

V157	V2501	V2502	V2509	V251	V252	V253	V2540	V2541	V2542	V2543	V2549	V255
V258	V259	V260	V261	V262	V263	V264	V2651	V2652	V268	V269	V455	V4551
V4552	V4559											

177   Spontaneous abortion

63400	63401	63402	63410	63411	63412	63420	63421	63422	63430	63431	63432	63440
63441	63442	63450	63451	63452	63460	63461	63462	63470	63471	63472	63480	63481
63482	63490	63491	63492									

178   Induced abortion

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

63500	63501	63502	63510	63511	63512	63520	63521	63522	63530	63531	63532	63540
63541	63542	63550	63551	63552	63560	63561	63562	63570	63571	63572	63580	63581
63582	63590	63591	63592	63600	63601	63602	63610	63611	63612	63620	63621	63622
63630	63631	63632	63640	63641	63642	63650	63651	63652	63660	63661	63662	63670
63671	63672	63680	63681	63682	63690	63691	63692	63700	63701	63702	63710	63711
63712	63720	63721	63722	63730	63731	63732	63740	63741	63742	63750	63751	63752
63760	63761	63762	63770	63771	63772	63780	63781	63782	63790	63791	63792	6380
6381	6382	6383	6384	6385	6386	6387	6388	6389				

179   Postabortion complications

6390	6391	6392	6393	6394	6395	6396	6398	6399

180   Ectopic pregnancy

6330	6331	6332	6338	6339

181   Other complications of pregnancy

630	631	632	64300	64301	64303	64310	64311	64313	64320	64321	64323	64380
64381	64383	64390	64391	64393	64600	64601	64603	64610	64611	64612	64613	64614
64620	64621	64622	64623	64624	64630	64631	64633	64640	64641	64642	64643	64644
64650	64651	64652	64653	64654	64660	64661	64662	64663	64664	64670	64671	64673
64680	64681	64682	64683	64684	64690	64691	64693	64700	64701	64702	64703	64704
64710	64711	64712	64713	64714	64720	64721	64722	64723	64724	64730	64731	64732
64733	64734	64740	64741	64742	64743	64744	64750	64751	64752	64753	64754	64760
64761	64762	64763	64764	64780	64781	64782	64783	64784	64790	64791	64792	64793
64794	64810	64811	64812	64813	64814	64820	64821	64822	64823	64824	64830	64831
64832	64833	64834	64840	64841	64842	64843	64844	64850	64851	64852	64853	64854
64860	64861	64862	64863	64864	64870	64871	64872	64873	64874	64890	64891	64892
64893	64894											

182   Hemorrhage during pregnancy, abruptio placenta, placenta previa

64000	64001	64003	64080	64081	64083	64090	64091	64093	64100	64101	64103	64110
64111	64113	64120	64121	64123	64130	64131	64133	64180	64181	64183	64190	64191
64193												

183   Hypertension complicating pregnancy, childbirth and the puerperium

64200	64201	64202	64203	64204	64210	64211	64212	64213	64214	64220	64221	64222
64223	64224	64230	64231	64232	64233	64234	64240	64241	64242	64243	64244	64250
64251	64252	64253	64254	64260	64261	64262	64263	64264	64270	64271	64272	64273
64274	64290	64291	64292	64293	64294							

184   Early or threatened labor

64400	64403	64410	64413	64420	64421

185   Prolonged pregnancy

64500	64501	64503

186   Diabetes or abnormal glucose tolerance complicating pregnancy, childbirth, or the puerperium

64800	64801	64802	64803	64804	64880	64881	64882	64883	64884

187   Malposition, malpresentation

65200	65201	65203	65210	65211	65213	65220	65221	65223	65230	65231	65233	65240
65241	65243	65250	65251	65253	65260	65261	65263	65270	65271	65273	65280	65281
65283	65290	65291	65293	66000	66001	66003						

Diagnosis category
ICD-9-CM codes

188   Fetopelvic disproportion, obstruction

65300	65301	65303	65310	65311	65313	65320	65321	65323	65330	65331	65333	65340
65341	65343	65350	65351	65353	65360	65361	65363	65370	65371	65373	65380	65381
65383	65390	65391	65393	66010	66011	66013	66020	66021	66023	66030	66031	66033
66040	66041	66043	66050	66051	66053	66060	66061	66063	66070	66071	66073	66080
66081	66083	66090	66091	66093								

189   Previous C-section

65420   65421   65423

190   Fetal distress and abnormal forces of labor

65630	65631	65633	66100	66101	66103	66110	66111	66113	66120	66121	66123	66130
66131	66133	66140	66141	66143	66190	66191	66193	66200	66201	66203	66210	66211
66213	66220	66221	66223	66230	66231	66233						

191   Polyhydramnios and other problems of amniotic cavity

65700	65701	65703	65800	65801	65803	65810	65811	65813	65820	65821	65823	65830
65831	65833	65840	65841	65843	65880	65881	65883	65890	65891	65893	7923	

192   Umbilical cord complication

66300	66301	66303	66310	66311	66313	66320	66321	66323	66330	66331	66333	66340
66341	66343	66350	66351	66353	66360	66361	66363	66380	66381	66383	66390	66391
66393												

193   Trauma to perineum and vulva

66400	66401	66404	66410	66411	66414	66420	66421	66424	66430	66431	66434	66440
66441	66444	66450	66451	66454	66480	66481	66484	66490	66491	66494		

194   Forceps delivery

66950   66951

195   Other complications of birth, puerperium affecting management of mother

V230	V231	V232	V233	V234	V235	V237	V238	V2381	V2382	V2383	V2384	V2389
V239	65103	65113	65123	65130	65131	65133	65140	65141	65143	65150	65151	65153
65160	65161	65163	65183	65193	65400	65401	65402	65403	65404	65410	65411	65412
65413	65414	65430	65431	65432	65433	65434	65440	65441	65442	65443	65444	65450
65451	65452	65453	65454	65460	65461	65462	65463	65464	65470	65471	65472	65473
65474	65480	65481	65482	65483	65484	65490	65491	65492	65493	65494	65500	65501
65503	65510	65511	65513	65520	65521	65523	65530	65531	65533	65540	65541	65543
65550	65551	65553	65560	65561	65563	65570	65571	65573	65580	65581	65583	65590
65591	65593	65600	65601	65603	65610	65611	65613	65620	65621	65623	65640	65641
65643	65650	65651	65653	65660	65661	65663	65670	65671	65673	65680	65681	65683
65690	65691	65693	65900	65901	65903	65910	65911	65913	65920	65921	65923	65930
65931	65933	65940	65941	65943	65950	65951	65953	65960	65961	65963	65970	65971
65973	65980	65981	65983	65990	65991	65993	66500	66501	66503	66510	66511	66512
66514	66520	66522	66524	66530	66531	66534	66540	66541	66544	66550	66551	66554
66560	66561	66564	66570	66571	66572	66574	66580	66581	66582	66583	66584	66590
66591	66592	66593	66594	66600	66602	66604	66610	66612	66614	66620	66622	66624
66630	66632	66634	66700	66702	66704	66710	66712	66714	66800	66801	66802	66803
66804	66810	66811	66812	66813	66814	66820	66821	66822	66823	66824	66880	66881
66882	66883	66884	66890	66891	66892	66893	66894	66900	66901	66902	66903	66904
66910	66911	66912	66913	66914	66920	66921	66922	66923	66924	66930	66932	66934
66940	66941	66942	66943	66944	66960	66961	66970	66971	66980	66981	66982	66983
66984	66990	66991	66992	66993	66994	67000	67002	67004	67100	67101	67102	67103

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

67104	67110	67111	67112	67113	67114	67120	67121	67122	67123	67124	67130	67131
67133	67140	67142	67144	67150	67151	67152	67153	67154	67180	67181	67182	67183
67184	67190	67191	67192	67193	67194	67200	67202	67204	67300	67301	67302	67303
67304	67310	67311	67312	67313	67314	67320	67321	67322	67323	67324	67330	67331
67332	67333	67334	67380	67381	67382	67383	67384	67400	67401	67402	67403	67404
67412	67414	67420	67422	67424	67430	67432	67434	67440	67442	67444	67480
67482	67484	67490	67492	67494	67500	67501	67502	67503	67504	67510	67511	67512
67513	67514	67520	67521	67522	67523	67524	67580	67581	67582	67583	67584	67590
67591	67592	67593	67594	67600	67601	67602	67603	67604	67610	67611	67612	67613
67614	67620	67621	67622	67623	67624	67630	67631	67632	67633	67634	67640	67641
67642	67643	67644	67650	67651	67652	67653	67654	67660	67661	67662	67663	67664
67680	67681	67682	67683	67684	67690	67691	67692	67693	67694	677		

196   Normal pregnancy and/or delivery

V220	V221	V222	V240	V241	V242	V270	V271	V272	V273	V274	V275	V276
V277	V279	V724	650	65100	65101	65110	65111	65120	65121	65180	65181	65190
65191												

197   Skin and subcutaneous tissue infections

0201	0210	0220	0311	03285	035	0390	6800	6801	6802	6803	6804	6805
6806	6807	6808	6809	68100	68101	68102	68110	68111	6819	6820	6821	6822
6823	6824	6825	6826	6827	6828	6829	684	6850	6851	6860	68600	68601
68609	6861	6868	6869									

198   Other inflammatory condition of skin

690	69010	69011	69012	69018	6908	6940	6941	6942	6943	6944	6945	69460
69461	6948	6949	6950	6951	6952	6953	6954	69581	69589	6959	6960	6961
6962	6963	6964	6965	6968	6970	6971	6978	6979	6980	6981	6982	6983
6984	6988	6989										

199   Chronic ulcer of skin

7070	7071	7078	7079

200   Other skin disorders

V133	V423	700	7010	7011	7012	7013	7014	7015	7018	7019	702	7020
7021	70211	70219	7028	7030	7038	7039	70400	70401	70402	70409	7041	7042
7043	7048	7049	7050	7051	70581	70582	70583	70589	7059	7060	7061	7062
7063	7068	7069	7090	70900	70901	70909	7091	7092	7093	7094	7098	7099
7808	7821	7822										

201   Infective arthritis and osteomyelitis (except that caused by tuberculosis or sexually transmitted disease)

00323	00324	0261	03682	05671	71100	71101	71102	71103	71104	71105	71106	71107
71108	71109	71110	71111	71112	71113	71114	71115	71116	71117	71118	71119	71120
71121	71122	71123	71124	71125	71126	71127	71128	71129	71130	71131	71132	71133
71134	71135	71136	71137	71138	71139	71140	71141	71142	71143	71144	71145	71146
71147	71148	71149	71150	71151	71152	71153	71154	71155	71156	71157	71158	71159
71160	71161	71162	71163	71164	71165	71166	71167	71168	71169	71170	71171	71172
71173	71174	71175	71176	71177	71178	71179	71180	71181	71182	71183	71184	71185
71186	71187	71188	71189	71190	71191	71192	71193	71194	71195	71196	71197	71198
71199	73000	73001	73002	73003	73004	73005	73006	73007	73008	73009	73010	73011
73012	73013	73014	73015	73016	73017	73018	73019	73020	73021	73022	73023	73024
73025	73026	73027	73028	73029	73030	73031	73032	73033	73034	73035	73036	73037
73038	73039	73070	73071	73072	73073	73074	73075	73076	73077	73078	73079	73080
73081	73082	73083	73084	73085	73086	73087	73088	73089	73090	73091	73092	73093
73094	73095	73096	73097	73098	73099							

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

202   Rheumatoid arthritis and related disease

| 7140 | 7141 | 7142 | 71430 | 71431 | 71432 | 71433 | 7144 | 71481 | 71489 | 7149 | 7200 |

203   Osteoarthritis

V134	71500	71504	71509	71510	71511	71512	71513	71514	71515	71516	71517	71518
71520	71521	71522	71523	71524	71525	71526	71527	71528	71530	71531	71532	71533
71534	71535	71536	71537	71538	71580	71589	71590	71591	71592	71593	71594	71595
71596	71597	71598

204   Other non-traumatic joint disorders

7130	7131	7132	7133	7134	7135	7136	7137	7138	71600	71601	71602	71603
71604	71605	71606	71607	71608	71609	71620	71621	71622	71623	71624	71625	71626
71627	71628	71629	71630	71631	71632	71633	71634	71635	71636	71637	71638	71639
71640	71641	71642	71643	71644	71645	71646	71647	71648	71649	71650	71651	71652
71653	71654	71655	71656	71657	71658	71659	71660	71661	71662	71663	71664	71665
71666	71667	71668	71680	71681	71682	71683	71684	71685	71686	71687	71688	71689
71690	71691	71692	71693	71694	71695	71696	71697	71698	71699	71810	71811	71812
71813	71814	71815	71817	71818	71819	71820	71821	71822	71823	71824	71825	71826
71827	71828	71829	71850	71851	71852	71853	71854	71855	71856	71857	71858	71859
71860	71865	71880	71881	71882	71883	71884	71885	71886	71887	71888	71889	71890
71891	71892	71893	71894	71895	71897	71898	71899	71900	71901	71902	71903	71904
71905	71906	71907	71908	71909	71910	71911	71912	71913	71914	71915	71916	71917
71918	71919	71920	71921	71922	71923	71924	71925	71926	71927	71928	71929	71930
71931	71932	71933	71934	71935	71936	71937	71938	71939	71940	71941	71942	71943
71944	71945	71946	71947	71948	71949	71950	71951	71952	71953	71954	71955	71956
71957	71958	71959	71960	71961	71962	71963	71964	71965	71966	71967	71968	71969
71970	71975	71976	71977	71978	71979	71980	71981	71982	71983	71984	71985	71986
71987	71988	71989	71990	71991	71992	71993	71994	71995	71996	71997	71998	71999

205   Spondylosis, intervertebral disc disorders, other back problems

7201	7202	72081	72089	7209	7210	7211	7212	7213	72141	72142	7215	7216
7217	7218	72190	72191	7220	72210	72211	7222	72230	72231	72232	72239	7224
72251	72252	7226	72270	72271	72272	72273	72280	72281	72282	72283	72290	72291
72292	72293	7230	7231	7232	7233	7234	7235	7236	7237	7238	7239	72400
72401	72402	72409	7241	7242	7243	7244	7245	7246	72470	72471	72479	7248
7249

206   Osteoporosis

| 73300 | 73301 | 73302 | 73303 | 73309 |

207   Pathological fracture

| 7331 | 73310 | 73311 | 73312 | 73313 | 73314 | 73315 | 73316 | 73319 |

208   Acquired foot deformities

| 7271 | 734 | 7350 | 7351 | 7352 | 7353 | 7354 | 7355 | 7358 | 7359 | 73670 | 73671 | 73672 |
| 73673 | 73674 | 73675 | 73676 | 73679 |

209   Other acquired deformities

71840	71841	71842	71843	71844	71845	71846	71847	71848	71849	73600	73601	73602
73603	73604	73605	73606	73607	73609	7361	73620	73621	73622	73629	73630	73631
73632	73639	73641	73642	7365	7366	73681	73689	7369	7370	73710	73711	73712
73719	73720	73721	73722	73729	73733	73734	73739	73740	73741	73742	73743	7378
7379	7380	7381	73810	73811	73812	73819	7382	7383	7384	7385	7386	7387
7388	7389

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

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210   Systemic lupus erythematosus and connective tissue disorders

7100   7101   7102   7103   7104   7108   7109

211   Other connective tissue disease

V135	V436	V4360	V4361	V4362	V4363	V4364	V4365	V4366	V4369	V437	V454	V481
V482	V483	V490	V491	V492	V495	V4960	V4961	V4962	V4963	V4964	V4965	V4966
V4967	V4970	V4971	V4972	V4973	V4974	V4975	V4976	V4977	V537	7105	725	7260
72610	72611	72612	72619	7262	72630	72631	72632	72633	72639	7264	7265	72660
72661	72662	72663	72664	72665	72669	72670	72671	72672	72673	72679	7268	72690
72691	72700	72701	72702	72703	72704	72705	72706	72709	7272	7273	72740	72741
72742	72743	72749	72750	72751	72759	72760	72761	72762	72763	72764	72765	72766
72767	72768	72769	72781	72782	72789	7279	7280	72810	72811	72812	72813	72819
7282	7283	7284	7285	7286	72871	72879	72881	72882	72883	72884	72885	72886
72889	7289	7290	7291	7292	72930	72931	72939	7294	7295	7296	72981	72982
72989	7299	7819	7937									

212   Other bone disease and musculoskeletal deformities

V424	V486	V487	V494	7310	7311	7312	7318	7320	7321	7322	7323	7324
7325	7326	7327	7328	7329	73320	73321	73322	73329	7333	73340	73341	73342
73343	73344	73349	7335	7336	7337	73381	73382	73390	73391	73392	73399	73730
73731	73732	7390	7391	7392	7393	7394	7395	7396	7397	7398	7399	

213   Cardiac and circulatory congenital anomalies

7450	74510	74511	74512	74519	7452	7453	7454	7455	74560	74561	74569	7457
7458	7459	74600	74601	74602	74609	7461	7462	7463	7464	7465	7466	7467
74681	74682	74683	74684	74685	74686	74687	74689	7469	7470	74710	74711	74720
74721	74722	74729	7473	74740	74741	74742	74749	7475	7476	74760	74761	74762
74763	74764	74769	74781	74782	74789	7479						

214   Digestive congenital anomalies

7500	75010	75011	75012	75013	75015	75016	75019	75021	75022	75023	75024	75025
75026	75027	75029	7503	7504	7505	7506	7507	7508	7509	7510	7511	7512
7513	7514	7515	75160	75161	75162	75169	7517	7518	7519			

215   Genitourinary congenital anomalies

V1361	7520	75210	75211	75219	7522	7523	75240	75241	75242	75249	7525	75251
75252	7526	75261	75262	75263	75264	75265	75269	7527	7528	7529	7530	7531
75310	75311	75312	75313	75314	75315	75316	75317	75319	7532	75320	75321	75322
75323	75329	7533	7534	7535	7536	7537	7538	7539				

216   Nervous system congenital anomalies

7400	7401	7402	74100	74101	74102	74103	74190	74191	74192	74193	7420	7421
7422	7423	7424	74251	74253	74259	7428	7429					

217   Other congenital anomalies

V136	V1369	74300	74303	74306	74310	74311	74312	74320	74321	74322	74330	74331
74332	74333	74334	74335	74336	74337	74339	74341	74342	74343	74344	74345	74346
74347	74348	74349	74351	74352	74353	74354	74355	74356	74357	74358	74359	74361
74362	74363	74364	74365	74366	74369	7438	7439	74400	74401	74402	74403	74404
74405	74409	7441	74421	74422	74423	74424	74429	7443	74441	74442	74443	74446
74447	74449	7445	74481	74482	74483	74484	74489	7449	74480	74481	7482	7483
7484	7485	74860	74861	74869	7488	7489	74900	74901	74902	74903	74904	74910
74911	74912	74913	74914	74920	74921	74922	74923	74924	74925	7540	7541	7542
75430	75431	75432	75433	75435	75440	75441	75442	75443	75444	75450	75451	75452

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

75453	75459	75460	75461	75462	75469	75470	75471	75479	75481	75482	75489	75500
75501	75502	75510	75511	75512	75513	75514	75520	75521	75522	75523	75524	75525
75526	75527	75528	75529	75530	75531	75532	75533	75534	75535	75536	75537	75538
75539	7554	75550	75551	75552	75553	75554	75555	75556	75557	75558	75559	75560
75561	75562	75563	75564	75565	75566	75567	75569	7558	7559	7560	75610	75611
75612	75613	75614	75615	75616	75617	75619	7562	7563	7564	75650	75651	75652
75653	75654	75655	75656	75659	7566	7567	75670	75671	75679	75681	75682	75683
75689	7569	7570	7571	7572	75731	75732	75733	75739	7574	7575	7576	7578
7579	7580	7581	7582	7583	7584	7585	7586	7587	7588	75881	75889	7589
7590	7591	7592	7593	7594	7595	7596	7597	7598	75981	75982	75983	75989
7599	7952											

218 Liveborn

V300	V3000	V3001	V301	V302	V310	V3100	V3101	V311	V312	V320	V3200	V3201
V321	V322	V330	V3300	V3301	V331	V332	V340	V3400	V3401	V341	V342	V350
V3500	V3501	V351	V352	V360	V3600	V3601	V361	V362	V370	V3700	V3701	V371
V372	V390	V3900	V3901	V391	V392							

219 Short gestation, low birth weight, and fetal growth retardation

7640	76400	76401	76402	76403	76404	76405	76406	76407	76408	76409	7641	76410
76411	76412	76413	76414	76415	76416	76417	76418	76419	7642	76420	76421	76422
76423	76424	76425	76426	76427	76428	76429	7649	76490	76491	76492	76493	76494
76495	76496	76497	76498	76499	7650	76500	76501	76502	76503	76504	76505	76506
76507	76508	76509	7651	76510	76511	76512	76513	76514	76515	76516	76517	76518
76519												

220 Intrauterine hypoxia and birth asphyxia

7680	7681	7682	7683	7684	7685	7686	7689

221 Respiratory distress syndrome

769

222 Hemolytic jaundice and perinatal jaundice

7730	7731	7732	7733	7734	7735	7740	7741	7742	77430	77431	77439	7744
7745	7746	7747										

223 Birth trauma

7670	7671	7672	7673	7674	7675	7676	7677	7678	7679

224 Other perinatal conditions

V137	V502	7600	7601	7602	7603	7604	7605	7606	76070	76071	76072	76073
76074	76075	76076	76079	7608	7609	7610	7611	7612	7613	7614	7615	7616
7617	7618	7619	7620	7621	7622	7623	7624	7625	7626	7627	7628	7629
7630	7631	7632	7633	7634	7635	7636	7637	7638	76381	76382	76383	76389
7639	7660	7661	7662	7700	7701	7702	7703	7704	7705	7706	7707	7708
7709	7710	7711	7712	7713	7714	7715	7716	7717	7718	7720	7721	7722
7723	7724	7725	7726	7728	7729	7750	7751	7752	7753	7754	7755	7756
7757	7758	7759	7760	7761	7762	7763	7764	7765	7766	7767	7768	7769
7771	7772	7773	7774	7775	7776	7778	7779	7780	7781	7782	7783	7784
7785	7786	7787	7788	7789	7790	7791	7792	7793	7794	7795	7796	7798
7799												

225 Joint disorders and dislocations, trauma-related

71610	71611	71612	71613	71614	71615	71616	71617	71618	71619	7170	7171	7172

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

7173	71740	71741	71742	71743	71749	7175	7176	7177	71781	71782	71783	71784
71785	71789	7179	71800	71801	71802	71803	71804	71805	71807	71808	71809	71830
71831	71832	71833	71834	71835	71836	71837	71838	71839	8300	8301	83100	83101
83102	83103	83104	83109	83110	83111	83112	83113	83114	83119	83200	83201	83202
83203	83204	83209	83210	83211	83212	83213	83214	83219	83300	83301	83302	83303
83304	83305	83309	83310	83311	83312	83313	83314	83315	83319	83400	83401	83402
83410	83411	83412	83500	83501	83502	83503	83510	83511	83512	83513	8360	8361
8362	8363	8364	83650	83651	83652	83653	83654	83659	83660	83661	83662	83663
83664	83669	8370	8371	83800	83801	83802	83803	83804	83805	83806	83809	83810
83811	83812	83813	83814	83815	83816	83819	83900	83901	83902	83903	83904	83905
83906	83907	83908	83910	83911	83912	83913	83914	83915	83916	83917	83918	83920
83921	83930	83931	83940	83941	83942	83949	83950	83951	83952	83959	83961	83969
83971	83979	8398	8399	9056								

226 Fracture of neck of femur (hip)

82000	82001	82002	82003	82009	82010	82011	82012	82013	82019	82020	82021	82022
82030	82031	82032	8208	8209	9053							

227 Spinal cord injury

80600	80601	80602	80603	80604	80605	80606	80607	80608	80609	80610	80611	80612
80613	80614	80615	80616	80617	80618	80619	80620	80621	80622	80623	80624	80625
80626	80627	80628	80629	80630	80631	80632	80633	80634	80635	80636	80637	80638
80639	8064	8065	80660	80661	80662	80669	80670	80671	80672	80679	8068	8069
9072	95200	95201	95202	95203	95204	95205	95206	95207	95208	95209	95210	95211
95212	95213	95214	95215	95216	95217	95218	95219	9522	9523	9524	9528	9529
99655	99656	99668										

228 Skull and face fractures

80000	80001	80002	80003	80004	80005	80006	80009	80050	80051	80052	80053	80054
80055	80056	80059	80100	80101	80102	80103	80104	80105	80106	80109	80150	80151
80152	80153	80154	80155	80156	80159	8020	8021	80220	80221	80222	80223	80224
80225	80226	80227	80228	80229	80230	80231	80232	80233	80234	80235	80236	80237
80238	80239	8024	8025	8026	8027	8028	8029	80300	80301	80302	80303	80304
80305	80306	80309	80350	80351	80352	80353	80354	80355	80356	80359	80400	80401
80402	80403	80404	80405	80406	80409	80450	80451	80452	80453	80454	80455	80456
80459	9050											

229 Fracture of upper limb

81000	81001	81002	81003	81010	81011	81012	81013	81100	81101	81102	81103	81109
81110	81111	81112	81113	81119	81200	81201	81202	81203	81209	81210	81211	81212
81213	81219	81220	81221	81230	81231	81240	81241	81242	81243	81244	81249	81250
81251	81252	81253	81254	81259	81300	81301	81302	81303	81304	81305	81306	81307
81308	81310	81311	81312	81313	81314	81315	81316	81317	81318	81320	81321	81322
81323	81330	81331	81332	81333	81340	81341	81342	81343	81344	81350	81351	81352
81353	81354	81380	81381	81382	81383	81390	81391	81392	81393	81400	81401	81402
81403	81404	81405	81406	81407	81408	81409	81410	81411	81412	81413	81414	81415
81416	81417	81418	81419	81500	81501	81502	81503	81504	81509	81510	81511	81512
81513	81514	81519	81600	81601	81602	81603	81610	81611	81612	81613	8170	8171
8180	8181	8190	8191	9052								

230 Fracture of lower limb

82100	82101	82110	82111	82120	82121	82122	82123	82129	82130	82131	82132	82133
82139	8220	8221	82300	82301	82302	82310	82311	82312	82320	82321	82322	82330
82331	82332	82380	82381	82382	82390	82391	82392	8240	8241	8242	8243	8244
8245	8246	8247	8248	8249	8250	8251	82520	82521	82522	82523	82524	82525
82529	82530	82531	82532	82533	82534	82535	82539	8260	8261	8270	8271	9054

Diagnosis category
ICD-9-CM codes

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231   Other fractures

V540	V664	V674	80500	80501	80502	80503	80504	80505	80506	80507	80508	80510
80511	80512	80513	80514	80515	80516	80517	80518	8052	8053	8054	8055	8056
8057	8058	8059	80700	80701	80702	80703	80704	80705	80706	80707	80708	80709
80710	80711	80712	80713	80714	80715	80716	80717	80718	80719	8072	8073	8074
8075	8076	8080	8081	8082	8083	80841	80842	80843	80849	80851	80852	80853
80859	8088	8089	8090	8091	8280	8281	8290	8291	9051	9055		

232   Sprains and strains

8400	8401	8402	8403	8404	8405	8406	8408	8409	8410	8411	8412	8413
8418	8419	84200	84201	84202	84209	84210	84211	84212	84213	84219	8430	8431
8438	8439	8440	8441	8442	8443	8448	8449	84500	84501	84502	84503	84509
84510	84511	84512	84513	84519	8460	8461	8462	8463	8468	8469	8470	8471
8472	8473	8474	8479	8480	8481	8482	8483	84840	84841	84842	84849	8485
8488	8489	9057										

233   Intracranial injury

80010	80011	80012	80013	80014	80015	80016	80019	80020	80021	80022	80023	80024
80025	80026	80029	80030	80031	80032	80033	80034	80035	80036	80039	80040	80041
80042	80043	80044	80045	80046	80049	80060	80061	80062	80063	80064	80065	80066
80069	80070	80071	80072	80073	80074	80075	80076	80079	80080	80081	80082	80083
80084	80085	80086	80089	80090	80091	80092	80093	80094	80095	80096	80099	80110
80111	80112	80113	80114	80115	80116	80119	80120	80121	80122	80123	80124	80125
80126	80129	80130	80131	80132	80133	80134	80135	80136	80139	80140	80141	80142
80143	80144	80145	80146	80149	80160	80161	80162	80163	80164	80165	80166	80169
80170	80171	80172	80173	80174	80175	80176	80179	80180	80181	80182	80183	80184
80185	80186	80189	80190	80191	80192	80193	80194	80195	80196	80199	80310	80311
80312	80313	80314	80315	80316	80319	80320	80321	80322	80323	80324	80325	80326
80329	80330	80331	80332	80333	80334	80335	80336	80339	80340	80341	80342	80343
80344	80345	80346	80349	80360	80361	80362	80363	80364	80365	80366	80369	80370
80371	80372	80373	80374	80375	80376	80379	80380	80381	80382	80383	80384	80385
80386	80389	80390	80391	80392	80393	80394	80395	80396	80399	80410	80411	80412
80413	80414	80415	80416	80419	80420	80421	80422	80423	80424	80425	80426	80429
80430	80431	80432	80433	80434	80435	80436	80439	80440	80441	80442	80443	80444
80445	80446	80449	80460	80461	80462	80463	80464	80465	80466	80469	80470	80471
80472	80473	80474	80475	80476	80479	80480	80481	80482	80483	80484	80485	80486
80489	80490	80491	80492	80493	80494	80495	80496	80499	8500	8501	8502	8503
8504	8505	8509	85100	85101	85102	85103	85104	85105	85106	85109	85110	85111
85112	85113	85114	85115	85116	85119	85120	85121	85122	85123	85124	85125	85126
85129	85130	85131	85132	85133	85134	85135	85136	85139	85140	85141	85142	85143
85144	85145	85146	85149	85150	85151	85152	85153	85154	85155	85156	85159	85160
85161	85162	85163	85164	85165	85166	85169	85170	85171	85172	85173	85174	85175
85176	85179	85180	85181	85182	85183	85184	85185	85186	85189	85190	85191	85192
85193	85194	85195	85196	85199	85200	85201	85202	85203	85204	85205	85206	85209
85210	85211	85212	85213	85214	85215	85216	85219	85220	85221	85222	85223	85224
85225	85226	85229	85230	85231	85232	85233	85234	85235	85236	85239	85240	85241
85242	85243	85244	85245	85246	85249	85250	85251	85252	85253	85254	85255	85256
85259	85300	85301	85302	85303	85304	85305	85306	85309	85310	85311	85312	85313
85314	85315	85316	85319	85400	85401	85402	85403	85404	85405	85406	85409	85410
85411	85412	85413	85414	85415	85416	85419	9070					

234   Crushing injury or internal injury

8600	8601	8602	8603	8604	8605	86100	86101	86102	86103	86110	86111	86112
86113	86120	86121	86122	86130	86131	86132	8620	8621	86221	86222	86229	86231
86232	86239	8628	8629	8630	8631	86320	86321	86329	86330	86331	86339	86340
86341	86342	86343	86344	86345	86346	86349	86350	86351	86352	86353	86354	86355

Source: AHCPR, Center for Organization and Delivery Studies, Healthcare Cost and Utilization Project (HCUP).

Diagnosis category
ICD-9-CM codes

86356	86359	86380	86381	86382	86383	86384	86385	86389	86390	86391	86392	86393
86394	86395	86399	86400	86401	86402	86403	86404	86405	86409	86410	86411	86412
86413	86414	86415	86419	86500	86501	86502	86503	86504	86509	86510	86511	86512
86513	86514	86519	86600	86601	86602	86603	86610	86611	86612	86613	8670	8671
8672	8673	8674	8675	8676	8677	8678	8679	86800	86801	86802	86803	86804
86809	86810	86811	86812	86813	86814	86819	8690	8691	90000	90001	90002	90003
9001	90081	90082	90089	9009	9010	9011	9012	9013	90140	90141	90142	90181
90182	90183	90189	9019	9020	90210	90211	90219	90220	90221	90222	90223	90224
90225	90226	90227	90229	90231	90232	90233	90234	90239	90240	90241	90242	90249
90250	90251	90252	90253	90254	90255	90256	90259	90281	90282	90287	90289	9029
90300	90301	90302	9031	9032	9033	9034	9035	9038	9039	9040	9041	9042
9043	90440	90441	90442	90450	90451	90452	90453	90454	9046	9047	9048	9049
9064	9080	9081	9082	9083	9084	925	9251	9252	9260	92611	92612	92619
9268	9269	92700	92701	92702	92703	92709	92710	92711	92720	92721	9273	9278
9279	92800	92801	92810	92811	92820	92821	9283	9288	9289	9290	9299	

235   Open wounds of head, neck, and trunk

8700	8701	8702	8703	8704	8708	8709	8710	8711	8712	8713	8714	8715
8716	8717	8719	87200	87201	87202	87210	87211	87212	87261	87262	87263	87264
87269	87271	87272	87273	87274	87279	8728	8729	8730	8731	87320	87321	87322
87323	87329	87330	87331	87332	87333	87339	87340	87341	87342	87343	87344	87349
87350	87351	87352	87353	87354	87359	87360	87361	87362	87363	87364	87365	87369
87370	87371	87372	87373	87374	87375	87379	8738	8739	87400	87401	87402	87410
87411	87412	8742	8743	8744	8745	8748	8749	8750	8751	8760	8761	8770
8771	8780	8781	8782	8783	8784	8785	8786	8787	8788	8789	8790	8791
8792	8793	8794	8795	8796	8797	8798	8799	9060				

236   Open wounds of extremities

88000	88001	88002	88003	88009	88010	88011	88012	88013	88019	88020	88021	88022
88023	88029	88100	88101	88102	88110	88111	88112	88120	88121	88122	8820	8821
8822	8830	8831	8832	8840	8841	8842	8850	8851	8860	8861	8870	8871
8872	8873	8874	8875	8876	8877	8900	8901	8902	8910	8911	8912	8920
8921	8922	8930	8931	8932	8940	8941	8942	8950	8951	8960	8961	8962
8963	8970	8971	8972	8973	8974	8975	8976	8977	9058	9059	9061	

237   Complication of device, implant or graft

41402	41403	41404	41405	44030	44031	44032	56960	56961	56969	99600	99601	99602
99603	99604	99609	9961	9962	99630	99631	99632	99639	9964	99651	99652	99653
99654	99655	99656	99659	9966	99660	99661	99662	99663	99664	99665	99666	99667
99668	99669	9967	99670	99671	99672	99673	99674	99675	99676	99677	99678	99679
99680	99681	99682	99683	99684	99685	99686	99689	99690	99691	99692	99693	99694
99695	99696	99699										

238   Complications of surgical procedures or medical care

3490	3491	41511	4294	4582	5121	5190	51900	51901	51902	51909	53640	53641
53642	53649	56962	5642	5643	5644	5696	56962	5793	9093	9954	99586	9970
99700	99701	99702	99709	9971	9972	9973	9974	9975	99760	99761	99762	99769
9979	99791	99799	9980	9981	99811	99812	99813	9982	9983	9984	9985	99851
99859	9986	9987	9988	99881	99882	99883	99889	9989	9990	9991	9992	9993
9994	9995	9996	9997	9998	9999							

239   Superficial injury, contusion

9062	9063	9100	9101	9102	9103	9104	9105	9106	9107	9108	9109	9110
9111	9112	9113	9114	9115	9116	9117	9118	9119	9120	9121	9122	9123
9124	9125	9126	9127	9128	9129	9130	9131	9132	9133	9134	9135	9136

Diagnosis category
ICD-9-CM codes

9137	9138	9139	9140	9141	9142	9143	9144	9145	9146	9147	9148	9149
9150	9151	9152	9153	9154	9155	9156	9157	9158	9159	9160	9161	9162
9163	9164	9165	9166	9167	9168	9169	9170	9171	9172	9173	9174	9175
9176	9177	9178	9179	9180	9181	9182	9189	9190	9191	9192	9193	9194
9195	9196	9197	9198	9199	920	9210	9211	9212	9213	9219	9220	9221
9222	9223	92231	92232	92233	9224	9228	9229	92300	92301	92302	92303	92309
92310	92311	92320	92321	9233	9238	9239	92400	92401	92410	92411	92420	92421
9243	9244	9245	9248	9249								

240   Burns

9065	9066	9067	9068	9069	9400	9401	9402	9403	9404	9405	9409	94100
94101	94102	94103	94104	94105	94106	94107	94108	94109	94110	94111	94112	94113
94114	94115	94116	94117	94118	94119	94120	94121	94122	94123	94124	94125	94126
94127	94128	94129	94130	94131	94132	94133	94134	94135	94136	94137	94138	94139
94140	94141	94142	94143	94144	94145	94146	94147	94148	94149	94150	94151	94152
94153	94154	94155	94156	94157	94158	94159	94200	94201	94202	94203	94204	94205
94209	94210	94211	94212	94213	94214	94215	94219	94220	94221	94222	94223	94224
94225	94229	94230	94231	94232	94233	94234	94235	94239	94240	94241	94242	94243
94244	94245	94249	94250	94251	94252	94253	94254	94255	94259	94300	94301	94302
94303	94304	94305	94306	94309	94310	94311	94312	94313	94314	94315	94316	94319
94320	94321	94322	94323	94324	94325	94326	94329	94330	94331	94332	94333	94334
94335	94336	94339	94340	94341	94342	94343	94344	94345	94346	94349	94350	94351
94352	94353	94354	94355	94356	94359	94400	94401	94402	94403	94404	94405	94406
94407	94408	94410	94411	94412	94413	94414	94415	94416	94417	94418	94420	94421
94422	94423	94424	94425	94426	94427	94428	94430	94431	94432	94433	94434	94435
94436	94437	94438	94440	94441	94442	94443	94444	94445	94446	94447	94448	94450
94451	94452	94453	94454	94455	94456	94457	94458	94500	94501	94502	94503	94504
94505	94506	94509	94510	94511	94512	94513	94514	94515	94516	94519	94520	94521
94522	94523	94524	94525	94526	94529	94530	94531	94532	94533	94534	94535	94536
94539	94540	94541	94542	94543	94544	94545	94546	94549	94550	94551	94552	94553
94554	94555	94556	94559	9460	9461	9462	9463	9464	9465	9470	9471	9472
9473	9474	9478	9479	94800	94810	94811	94820	94821	94822	94830	94831	94832
94833	94840	94841	94842	94843	94844	94850	94851	94852	94853	94854	94855	94860
94861	94862	94863	94864	94865	94866	94870	94871	94872	94873	94874	94875	94876
94877	94880	94881	94882	94883	94884	94885	94886	94887	94888	94890	94891	94892
94893	94894	94895	94896	94897	94898	94899	9490	9491	9492	9493	9494	9495

241   Poisoning by psychotropic agents

9690	9691	9692	9693	9694	9695	9696	9697	9698	9699

242   Poisoning by other medications and drugs

9090	9095	9600	9601	9602	9603	9604	9605	9606	9607	9608	9609	9610
9611	9612	9613	9614	9615	9616	9617	9618	9619	9620	9621	9622	9623
9624	9625	9626	9627	9628	9629	9630	9631	9632	9633	9634	9635	9638
9639	9640	9641	9642	9643	9644	9645	9646	9647	9648	9649	96500	96501
96502	96509	9651	9654	9655	9656	96561	96569	9657	9658	9659	9660	9661
9662	9663	9664	9670	9671	9672	9673	9674	9675	9676	9678	9679	9680
9681	9682	9683	9684	9685	9686	9687	9689	9700	9701	9708	9709	9710
9711	9712	9713	9719	9720	9721	9722	9723	9724	9725	9726	9727	9728
9729	9730	9731	9732	9733	9734	9735	9736	9738	9739	9740	9741	9742
9743	9744	9745	9746	9747	9750	9751	9752	9753	9754	9755	9756	9757
9758	9760	9761	9762	9763	9764	9765	9766	9767	9768	9769	9770	9771
9772	9773	9774	9778	9779	9780	9781	9782	9783	9784	9785	9786	9788
9789	9790	9791	9792	9793	9794	9795	9796	9797	9799	9952		

243   Poisoning by nonmedicinal substances

Diagnosis category
ICD-9-CM codes

9091	9800	9801	9802	9803	9808	9809	981	9820	9821	9822	9823	9824
9828	9830	9831	9832	9839	9840	9841	9848	9849	9850	9851	9852	9853
9854	9855	9856	9858	9859	986	9870	9871	9872	9873	9874	9875	9876
9877	9878	9879	9880	9881	9882	9888	9889	9890	9891	9892	9893	9894
9895	9896	9897	9898	98981	98982	98983	98984	98989	9899			

244   Other injuries and conditions due to external causes

V155	V156	V713	V714	V715	V716	7960	7990	9071	9073	9074	9075	9079
9085	9086	9089	9092	9094	9099	9300	9301	9302	9308	9309	931	932
9330	9331	9340	9341	9348	9349	9350	9351	9352	936	937	938	9390
9391	9392	9393	9399	9500	9501	9502	9503	9509	9510	9511	9512	9513
9514	9515	9516	9517	9518	9519	9530	9531	9532	9533	9534	9535	9538
9539	9540	9541	9548	9549	9550	9551	9552	9553	9554	9555	9556	9557
9558	9559	9560	9561	9562	9563	9564	9565	9568	9569	9570	9571	9578
9579	9580	9581	9582	9583	9584	9585	9586	9587	9588	9590	95901	95909
9591	9592	9593	9594	9595	9596	9597	9598	9599	990	9910	9911	9912
9913	9914	9915	9916	9918	9919	9920	9921	9922	9923	9924	9925	9926
9927	9928	9929	9930	9931	9932	9933	9934	9938	9939	9940	9941	9942
9943	9944	9945	9946	9947	9948	9949	9951	9955	99550	99551	99552	99553
99554	99555	99559	99580	99581	99582	99583	99584	99585	99589			

245   Syncope

7802

246   Fever of unknown origin

7806

247   Lymphadenitis

2891	2892	2893	683	7856

248   Gangrene

44024	7854

249   Shock

78550	78551	78559

250   Nausea and vomiting

7870	78701	78702	78703

251   Abdominal pain

7890	78900	78901	78902	78903	78904	78905	78906	78907	78909	78960	78961	78962
78963	78964	78965	78966	78967	78969							

252   Malaise and fatigue

7807	78071	78079

253   Allergic reactions

V071	V140	V141	V142	V143	V144	V145	V146	V147	V148	V149	V150	V727
5186	6910	6918	6920	6921	6922	6923	6924	6925	6926	69270	69271	69272

Diagnosis category
ICD-9-CM codes

69273	69274	69279	69281	69282	69283	69289	6929	6930	6931	6938	6939	7080
7081	7082	7083	7084	7085	7088	7089	9950	9953	99560	99561	99562	99563
99564	99565	99566	99567	99568	99569							

254 Rehabilitation care, fitting of prostheses, and adjustment of devices

V520	V521	V524	V528	V529	V538	V570	V571	V572	V5721	V5722	V573	V574
V5781	V5789	V579	V5882								

255 Administrative/social admission

V200	V201	V202	V600	V601	V602	V603	V604	V605	V606	V608	V609	V610
V611	V6110	V6111	V6112	V6120	V6121	V6122	V6129	V613	V6141	V6149	V616	V617
V618	V619	V620	V621	V622	V623	V624	V625	V626	V6281	V6282	V6283	V6289
V629	V630	V631	V632	V638	V639	V650	V651	V652	V653	V654	V6540	V6541
V6542	V6543	V6544	V6545	V6549	V655	V658	V659	V680	V681	V682	V6881	V6889
V689												

Diagnosis category
ICD-9-CM codes

256   Medical examination/evaluation

V290	V291	V292	V293	V298	V299	V700	V703	V704	V705	V706	V707	V708
V709	V718	V719	V725	V726	V728	V7281	V7282	V7283	V7284	V7285	V729	

257   Other aftercare

V51	V539	V548	V549	V558	V559	V583	V584	V5841	V5849	V5861	V5862	V5869
V588	V5881	V5889	V589	V660	V665	V666	V667	V669	V670	V6751	V6759	V676
V679												

258   Other screening for suspected conditions (not mental disorders or infectious disease)

V280	V281	V282	V283	V284	V285	V288	V289	V760	V761	V7610	V7611	V7612
V7619	V762	V763	V7641	V7642	V7643	V7644	V7645	V7649	V768	V769	V770	V771
V772	V773	V774	V775	V776	V777	V778	V779	V780	V781	V782	V783	V788
V789	V800	V801	V802	V803	V810	V811	V812	V813	V814	V815	V816	V820
V821	V822	V823	V824	V825	V826	V828	V829					

259   Residual codes, unclassified

V070	V072	V073	V0731	V0739	V078	V079	V131	V138	V139	V152	V153	V1581
V1584	V1585	V1586	V1589	V159	V160	V161	V162	V163	V164	V1640	V1641	V1642
V1643	V1649	V165	V1651	V1659	V166	V167	V168	V169	V170	V171	V172	V173
V174	V175	V176	V177	V178	V180	V181	V182	V183	V184	V185	V186	V1861
V1869	V187	V188	V190	V191	V192	V193	V194	V195	V196	V197	V198	V210
V211	V212	V218	V219	V418	V419	V428	V4281	V4282	V4283	V4289	V429	V438
V4381	V4382	V4383	V4389	V447	V448	V449	V4571	V4572	V4573	V4583	V4589	V460
V468	V469	V470	V471	V472	V479	V480	V488	V489	V498	V499	V500	V501
V503	V5041	V5042	V5049	V508	V509	V590	V5901	V5902	V5909	V591	V592	V593
V594	V595	V596	V598	V599	V615	V640	V641	V642	V643	V644	V690	V691
V692	V693	V698	V699	3020	78002	78050	78051	78052	78053	78054	78055	78056
78057	78059	7809	7815	7816	7823	78261	78262	7828	7829	7830	7836	7842
7901	7903	7906	7909	79091	79092	79093	79094	79099	7929	7932	7938	7939
7949	7954	7963	7964	7965	7969	7980	7981	7982	7989	7992	7993	7998
7999												

F. Matrix of MEPS Data Items

Panel 1 (1996) MEPS HC Data Items on Event Files

Data Item	PUF #HC010_								
	A	B	C	D	E	F	G	H	I
Dwelling unit	x	x	x	x	x	x	x	x	
Person	x	x	x	x	x	x	x	x	
Event	x	x	x	x	x	x	x	x	x
Provider	x	x	x	x	x	x	x	x	
Link to SBD				x	x	x			
Flat fee group		x	x	x	x	x	x	x	
Round number	x	x	x	x	x	x	x	x	
Link to Conditions									x
Link to Prescribed medicines									x
EVENT DESCRIPTION									
Date of event	x	x		x	x	x	x	x	
Repeat visit						x	x	x	
Frequency/length of visit				x				x	
Type of provider	x	x				x	x	x	
Procedures		x		x	x	x	x	x	
Due to accident or injury		x							
Received medicine		x							
Medicine prescribed				x	x	x			

A = Prescribed Medications (RX) G = Medical Provider Visit (MVIS)
B = Dental Events H = Home Health (HH)
C = Other Medical Expenses (OME) I = Appendices
D = Hospital Stays
E = Emergency Room (EROM)
F = Outpatient (OPAT)

[a] Family, Medicare, Medicaid, Private Insurance, Veterans, Champus/Champva, Other Federal, State/Local
Government, Workers Compensation, Other Private Insurance, Other Public Insurance, Other Insurance

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Data Item	PUF #HC010_								
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Medication name/code	x								
ICD-9 diagnosis codes	x	x		x	x	x	x	x	
ICD-9 procedure codes		x		x	x	x	x	x	
Modified clinical classification codes	x	x		x	x	x	x	x	
In person or telephone						x	x		
VA facility				x	x	x	x		
# condition records linked to event	x	x		x	x	x	x	x	
FLAT FEES									
Stem or leaf		x	x	x	x	x	x	x	
Visits in flat fee before, during and after 1996		x	x	x	x	x	x	x	
EXPENDITURES									
Source of Payment[a]	x	x	x				x	x	
Total Expenditures	x	x	x				x	x	
Expenditure Imp. Flags[a]		x	x	x	x	x	x	x	
Total charge		x	x				x		
HH preimputed expenditure variables		x	x	x	x	x	x	x	

A = Prescribed Medications (RX)
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I = Appendices

[a] Family, Medicare, Medicaid, Private Insurance, Veterans, Champus/Champva, Other Federal, State/Local Government, Workers Compensation, Other Private Insurance, Other Public Insurance, Other Insurance

Data Item	PUF #HC010_								
	A	B	C	D	E	F	G	H	I
MPC-reported amount paid unimputed expenditure variable		x	x	x	x	x	x	x	
Facility amount paid, by source[a] & total (imputed)				x	x	x			
Doctor amount paid, by source[a] & total (imputed)				x	x	x			
Total facility charge, unimputed				x	x	x			
Total doctor expenses, unimputed				x	x	x			
Total expenditure				x	x	x	x		
Total charge				x	x	x	x		
SAMPLING WEIGHTS AND VARIANCE ESTIMATION									
Poverty/Mortality-adjusted person weight (WTDPER96)	x	x	x	x	x	x	x	x	
Stratum	x	x	x	x	x	x	x	x	
PSU	x	x	x	x	x	x	x	x	

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MEPSHC-010I