

**MEPS HC-077I:
Appendix to MEPS 2003 Event Files
HC-077A - HC-077H**

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A. Data Use Agreement

Individual identifiers have been removed from the micro-data contained in these files. 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; and
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; and
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 Title 18 part 1 Chapter 47 Section 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

The Medical Expenditure Panel Survey (MEPS) provides nationally representative estimates of health care use, expenditures, sources of payment, and insurance coverage for the U.S. civilian non-institutionalized population. MEPS is cosponsored by the Agency for Healthcare Research and Quality (AHRQ) and the National Center for Health Statistics (NCHS).

MEPS is a family of three surveys. The Household Component (HC) is the core survey and forms the basis for the Medical Provider Component (MPC) and part of the Insurance Component (IC). 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 and the National Medical Expenditure Survey (NMES-2) in 1987. Since 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 advance these goals, MEPS includes linkage with the National Health Interview Survey (NHIS) - a survey conducted by NCHS from which the sample for the MEPS HC is drawn - and enhanced 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 non-institutionalized 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 2 ½-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. NHIS provides a nationally representative sample of the U.S. civilian non-institutionalized population, with oversampling of Hispanics and blacks.

2.0 Medical Provider Component

The MEPS MPC supplements and/or replaces 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 home health agencies and pharmacies reported by HC respondents. Office-based physicians, hospitals, and hospital physicians are also included in the MPC but may be subsampled at various rates, depending on burden and resources, in certain years.

Data are collected on medical and financial characteristics of medical and pharmacy events reported by HC respondents. The MPC is conducted through telephone interviews and record abstraction.

3.0 Insurance Component

The MEPS IC collects data on health insurance plans obtained through private and public-sector employers. 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 three 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 the Bureau of the Census.

To provide an integrated picture of health insurance, data collected from the first sampling frame (employers and insurance providers identified by MEPS HC respondents) are linked back to data provided by those respondents. Data from the two Census Bureau sampling frames are used to produce annual national and state estimates of the supply and cost of private health insurance available to American workers and to evaluate policy issues pertaining to health insurance. National estimates of employer contributions to group insurance from the MEPS IC are used in the computation of Gross Domestic Product (GDP) by the Bureau of Economic Analysis.

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 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, microdata files and compendiums of tables. Data are released through MEPSnet, an online interactive tool developed to give users the ability to statistically analyze MEPS data in real time. Summary reports and compendiums of tables are released as printed documents and electronic files. Microdata files are released on electronic files.

Selected printed documents 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 you are requesting.

Additional information on MEPS is available from the MEPS project manager or the MEPS public use data manager at the Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850 (301-427-1406).

C. Technical and Programming Information

1.0 General Information

This documentation describes the MEPS Public Use Release HC-077I, which is the Appendix to MEPS releases HC-077A through HC-077H. This release contains two data files, both of which are provided in ASCII (with related SAS and SPSS programming statements) 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 both HTML and 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 (provided as files H77IF1CB.PDF and H77IF2CB.PDF). It contains the following sections:

- Data File Information
- Merging MEPS Data Files
- Crosswalk of Clinical Classification Code to ICD-9-CM Code
- Sample SAS Jobs for Linking

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, are 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 2003 event-level data files. File 1, the H77IF1 or CLNK file, is used for linking the MEPS condition file with the MEPS event files; File 2, the H77IF2 or RXLK file, is used for linking the MEPS prescribed medicines event file with other MEPS event files.

2.1 Using MEPS Data for Trend and Longitudinal Analysis

MEPS began in 1996 and several annual data files have been released. As more years of data are produced, MEPS will become increasingly valuable for examining health care trends. However, it is important to consider a variety of factors when examining trends over time using MEPS. Statistical significance tests should be conducted to assess the likelihood that observed trends are attributable to sampling variation. MEPS expenditure estimates are especially sensitive to sampling variation due to the underlying skewed distribution of expenditures. For example, 1 percent of the population accounts for about one-quarter of all expenditures. The extent to which observations with extremely high expenditures are captured in the MEPS sample varies from year to year (especially for smaller population subgroups), which can produce substantial shifts in estimates of means or totals that are simply an artifact of the sample(s). The length of

time being analyzed should also be considered. In particular, large shifts in survey estimates over short periods of time (e.g. from one year to the next) that are statistically significant should be interpreted with caution, unless they are attributable to known factors such as changes in public policy or MEPS survey methodology. Looking at changes over longer periods of time can provide a more complete picture of underlying trends. Analysts may wish to consider using techniques to smooth or stabilize trend analyses of MEPS data such as pooling time periods for comparison (e.g. 1996-97 versus 1998-99), working with moving averages, or using modeling techniques with several consecutive years of MEPS data to test the fit of specified patterns over time. Finally, researchers should be aware of the impact of multiple comparisons on Type I error because performing numerous statistical significance tests of trend increases the likelihood of inappropriately concluding a change is statistically significant.

The records on this file can be linked to all other 2003 MEPS-HC public use data sets by the sample person identifier (DUPERSID).

2.2 Codebook Format

This codebook describes an ASCII data set and provides the following programming identifiers for each variable:

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

2.3 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.

2.4 Contents of File 1: Condition-Event Link File (CLNK)

File 1 (H77IF1) or the CLNK file, contains the variables needed to link each record on the MEPS 2003 condition file, HC-078, with one or more records on the MEPS 2003 event files, HC-077A through HC-077H. 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 CLNK file for a specific DUPERSID value.

CONDIDX is the ID that uniquely identifies each condition for a person and corresponds to a unique record on the MEPS 2003 Condition file, HC-078. There may be more than one record on the CLNK file for a specific CONDIDX value.

EVNTIDX is the 12-digit number that uniquely identifies each event for a person and corresponds to a unique record on one of the MEPS 2003 event files, HC-077B through HC-077H. (EVNTIDX is not included on the 2003 Prescription Medicines event file, HC-077A; rather, on this file the variable for linking with EVNTIDX on the CLNK file is LINKIDX.) There may be more than one record on the CLNK file for a specific EVNTIDX value.

CLNKIDX is the 24-digit number which uniquely identifies each record on the CLNK file and is the combination of CONDIDX + EVNTIDX. There is just one record on this file 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-077G
- 2 = OPAT - outpatient department visit event contained on MEPS release HC-077F
- 3 = EROM - emergency room visit event contained on MEPS release HC-077E
- 4 = STAZ – inpatient hospital stay event contained on MEPS release HC-077D
- 7 = HVIS - home health visit event contained on MEPS release HC-077H
- 8 = PMED - prescribed medicines event contained on MEPS release HC-077A

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

File 2 (H77IF2) or the RXLK file, contains the variables needed to link each record on the MEPS 2003 prescribed medicines file, HC-077A, with one or more records on the MEPS 2003 event files, HC-077B through HC-077H. 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 2003 event files, HC-077B through HC-077H. 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-077A 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-077A file for a specific LINKIDX value.

RXLKIDX is the 24-digit number which uniquely identifies each record on the RXLK file, and

is the combination of EVNTIDX + LINKIDX. There is just one record on this file 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-077G
- 2 = OPAT - outpatient department visit event contained on MEPS release HC-077F
- 3 = EROM - emergency room visit event contained on MEPS release HC-077E
- 4 = STAZ – inpatient hospital stay event contained on MEPS release HC-077D
- 5 = DVIS - dental visit event contained on MEPS release HC-077B
- 6 = OMED - other medical expense event contained on MEPS release HC-077C

2.6 2003 Condition-Event Frequency Table

The files H77IT1.HTM and H77IT1.PDF contain the MEPS 2003 Condition-Event Frequency table. This table contains unweighted and weighted counts of records on the MEPS 2003 event files, HC-077A through HC-077H, for each of the condition, procedure and clinical classification codes contained on the MEPS 2003 condition file, HC-078. Attachment 1 contains a crosswalk of the clinical classification codes to ICD-9-CM codes.

Note that, for conditions related to certain medical events, the ICD-9-CM codes on the Conditions file are also released in the Prescribed Medicines, Emergency Room Visits, Office-based Medical Provider Visits, Outpatient Department Visits, and Inpatient Hospital Stays Event Files. ICD-9-CM codes are collapsed into broader codes to ensure confidentiality. Because of this collapsing, it is possible for there to be duplicate ICD-9-CM condition or procedure codes linked to a single medical event when different fully-specified codes are collapsed into the same code. For more information on ICD-9-CM codes, see the HC-078 documentation.

2.7 2003 Utilization and Expenditures Summary Table

The files H77IT2.HTM and H77IT2.PDF contain the MEPS 2003 Utilization and Expenditures Summary table. This table contains statistics for all of the utilization and expenditure variables contained on the MEPS 2003 Full Year Use and Expenditure Data file, HC-073. For each of these variables, the following statistics are provided from the HC-073 file, and from the corresponding event-level file(s) HC-077A through HC-077H:

Number of persons with positive person-level weight (PERWT03F) 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-073 variables from the event-level files.

3.0 Merging/Linking MEPS Data Files

This section provides information on using each of the two HC-077I files, RXLK and CLNK, to link with the files contained in MEPS releases HC-078 and HC-077A through HC-077H. 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 RXLK and CLNK Files with the Medical Conditions File (HC-078), the Prescribed Medicines and Office-Based Medical Provider Visits Event Files (HC-077A and HC-077G)

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-078), the CLNK file (HC-077I1), the office-based medical provider visit event file (HC-077G), the RXLK file (HC-077I2), and the prescribed medicines event file (HC-077A). It includes the following major steps:

1. From HC-078 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-077G 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-077G 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-077A linked to those visits.
6. Using these record IDs obtain the linked records from the HC-077A file and calculate the weighted mean of the expenditure variable.

Attachment 2 contains a copy of the SAS job for this example.

3.2 Example B: Using the CLNK File with the Medical Conditions File (HC-078) and the Prescribed Medicines Event File (HC-077A)

This example calculates the total expenditure for prescribed medicines associated with asthma, using the condition file (HC-078), the CLNK file and the prescribed medicines event file (HC-077A). It includes the following major steps:

1. From HC-078 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-077A file and calculate the weighted mean of the expenditure variable.

Attachment 2 contains a copy of the SAS job for this example.

3.3 Example C: Using the CLNK File with the Medical Conditions File (HC-078) and Office-Based Medical Provider Visits Event File (HC-077G)

This example calculates the total expenditures for office-based medical provider visits associated with asthma, using the condition file (HC-078), the CLNK file and the office-based medical provider visits event file (HC-077G). It includes the following major steps:

1. From HC-078 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-077G 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-077G records, identify only those visits which were for asthma and calculate the weighted mean of the expenditure variable.

Attachment 2 contains a copy of the SAS job for this example.

3.4 Example D: Using the RXLK File with the Other Medical Expenses Event File (HC-077C)

This example calculates the total prescription expenditures for other medical events reported by the household with type of other medical expense indicated as insulin (OMTYPEX=2), using the RXLK file and the other medical expenses event file (HC-077C). It includes the following major steps:

1. From HC-077C file select only records for other medical expense type of insulin, for persons with a positive weight.
2. Use the RXLK 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-077A file, and calculate the weighted sum of the expenditure variable.

Attachment 2 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.

Attachment 1:
Clinical Classification Code to ICD-9-CM Code Crosswalk

Appendix A - Clinical Classification Software-DIAGNOSES (January 1980 through September 2005)
Revised 09/16/05

1 Tuberculosis

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 V1201

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

3 Bacterial infection; unspecified site

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 04082 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 79531 79539 V090 V091 V092 V093 V094 V0950 V0951 V096 V0970 V0971 V0980 V0981 V0990
V0991

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

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

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 07070 07071 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 0664 06640
06641 06642 06649 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 07982 07988 07989 0799 07998 07999 7908

8 Other infections; including parasitic

080 0810 0811 0812 0819 0820 0821 0822 0823 08240 08241 08249 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 V120 V1200 V1203 V1209

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 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

7955 7956 V010 V011 V012 V013 V014 V015 V016 V017 V0171 V0179 V018 V0181 V0182 V0183 V0184 V0189 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 V0481 V0482
V0489 V050 V051 V052 V053 V054 V058 V059 V060 V061 V062 V063 V064 V065 V066 V068 V069 V286 V712 V7182
V7183 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

11 Cancer of head and neck

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 V1001 V1002 V1021

12 Cancer of esophagus

1500 1501 1502 1503 1504 1505 1508 1509 2301 V1003

13 Cancer of stomach

1510 1511 1512 1513 1514 1515 1516 1518 1519 2302 V1004

14 Cancer of colon

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

15 Cancer of rectum and anus

1540 1541 1542 1543 1548 2304 2305 2306 V1006

16 Cancer of liver and intrahepatic bile duct

1550 1551 1552 2308 V1007

17 Cancer of pancreas

1570 1571 1572 1573 1574 1578 1579

18 Cancer of other GI organs; peritoneum

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

19 Cancer of bronchus; lung

1622 1623 1624 1625 1628 1629 2312 V1011

20 Cancer; other respiratory and intrathoracic

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

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

1720 1721 1722 1723 1724 1725 1726 1727 1728 1729 V1082

23 Other non-epithelial cancer of skin

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

24 Cancer of breast

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

25 Cancer of uterus

179 1820 1821 1828 2332 V1042

26 Cancer of cervix

1800 1801 1808 1809 2331 7950 V1041

27 Cancer of ovary

1830 V1043

28 Cancer of other female genital organs

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

29 Cancer of prostate

185 2334 V1046

30 Cancer of testis

1860 1869 V1047

31 Cancer of other male genital organs

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

32 Cancer of bladder

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

33 Cancer of kidney and renal pelvis

1890 1891 V1052

34 Cancer of other urinary organs

1892 1893 1894 1898 1899 2339 V1050 V1059

35 Cancer of brain and nervous system

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

36 Cancer of thyroid

193 V1087

37 Hodgkin`s disease

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 V1072

38 Non-Hodgkin's lymphoma

2000 2001 2002 2003 2004 2005 2006 2007 2008 2010 2011 2012 2013 2014 2015 2016 2017 2018 2020 2021
2022 2023 2024 2025 2026 2027 2028 2080 2081 2082 2083 2084 2085 2086 2087 2088 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 V1071 V1079

39 Leukemias

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 V1060 V1061 V1062 V1063 V1069

40 Multiple myeloma

2030 20300 20301 2038 20380 20381

41 Cancer; other and unspecified primary

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 V1029 V1081 V1084 V1088 V1089 V109 V711

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

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

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 V1272

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 79021 79022 79029 7915 7916 V4585 V5391 V6546

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 25200 25201 25202 25208 2521 2528 2529 2530 2531 2532 2533
2534 2535 2536 2537 2538 2539 2540 2541 2548 2549 2550 2551 25510 25511 25512 25513 25514 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

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 267 2680 2681 2682 2689 2690 2691 2692 2693 2698 2699 7994 V121

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 27702 27703 27709

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

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 2734 2738 2739 2750 2751 2752 2753 2754 27540 27541 27542 27549 2758 2759
2771 2772 2773 2774 2775 2776 2777 2778 27781 27782 27784 27785 27786 27787 27789 2779 2780 27800 27801 2781
2782 2783 2784 2788 7831 7832 78321 78322 7833 7834 78340 78341 78342 78343 7835 7837 7839 7947 7957 79579
V122

59 Deficiency and other anemia

2800 2801 2808 2809 2810 2811 2812 2813 2814 2818 2819 2820 2821 2822 2823 2824 28249 2827 2828 2829
2830 2831 28310 28311 28319 2832 2839 2840 2848 2849 2850 28521 28522 28529 2858 2859

60 Acute posthemorrhagic anemia

2851

61 Sickle cell anemia

28241 28242 2825 28260 28261 28262 28263 28264 28268 28269

62 Coagulation and hemorrhagic disorders

2860 2861 2862 2863 2864 2865 2866 2867 2869 2870 2871 2872 2873 2874 2875 2878 2879 28981 28982 7827

63 Diseases of white blood cells

2880 2881 2882 2883 2888 2889

64 Other hematologic conditions

2890 2894 28950 28951 28952 28959 2896 2897 2898 28989 2899 7900 79001 79009 V123 V582

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

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 V1582

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 29410 29411 2948 2949 3100 3101 3102 3108 3109 3310 3311 33111 33119 3312 33182 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

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

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

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 V1202

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 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

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 V431

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 36583 36589 3659

89 Blindness and vision defects

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 V410

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

36020 36021 36023 36024 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 37281 37289 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 78193 V411 V425 V430 V456 V4561 V4569 V522 V531
 V720

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

38000 38001 38002 38003 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 V412 V413
 V532 V721

95 Other nervous system disorders

325 3321 33720 33721 33722 33729 3410 3411 3418 3419 34461 347 34700 34701 34710 34711 3480 3482 3483 34830
 34831 34839 3484 3485 3488 3489 3492 34981 34982 34989 3499 3501 3502 3508 3509 3510 3511 3518 3519 3520
 3521 3522 3523 3524 3525 3526 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 35781 35782 35789 3579 3580 35800 35801 3581
 3582 3588 3589 3590 3591 3592 3593 3594 3595 3596 3598 35981 35989 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 V124 V1240 V1241 V1249 V415 V452 V484 V485 V493 V530 V5301 V5302 V5309

96 Heart valve disorders

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 V422 V433

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

4110 4111 4118 41181 41189 412 4130 4131 4139 4140 41400 41401 41403 41406 4148 4149 V4581 V4582

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 41412 41419 4291 4292 4293 4295 4296 42971 42979 42981 42982 42989 4299

105 Conduction disorders

4260 42610 42611 42612 42613 4262 4263 4264 42650 42651 42652 42653 42654 4266 4267 42681 42689 4269 V450 V4500

V4501 V4502 V4509 V533 V5331 V5332 V5339

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 42820 42821 42822 42823 42830 42831 42832 42833 42840 42841 42842 42843 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 4386
4387 43881 43882 43883 43884 43885 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 44321 44322 44323 44324 44329

116 Aortic and peripheral arterial embolism or thrombosis

4440 4441 44421 44422 44481 44489 4449 44501 44502 44581 44589

117 Other circulatory disease

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 V125
V1250 V1259 V151 V421 V432 V4321 V4322 V434 V717

118 Phlebitis; thrombophlebitis and thromboembolism

4510 45111 45119 4512 45181 45182 45183 45184 45189 4519 452 4530 4531 4532 4533 45340 45341 45342 4538 4539
V1251 V1252

119 Varicose veins of lower extremity

4540 4541 4542 4548 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 45910 45911 45912 45913 45919 4592 45930 45931 45932
45933 45939 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 4803 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 46400 46401 46410 46411 46420 46421
46430 46431 4644 46450 46451 4650 4658 4659 4730 4731 4732 4733 4738 4739

127 Chronic obstructive pulmonary disease and bronchiectasis

490 4910 4911 4912 49120 49121 49122 4918 4919 4920 4928 494 4940 4941 496

128 Asthma

49300 49301 49302 49310 49311 49312 49320 49321 49322 49381 49382 49390 49391 49392

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)

5173 5185 51881 51882 51883 51884 7991 V461 V4611 V4612 V462

132 Lung disease due to external agents

4950 4951 4952 4953 4954 4955 4956 4957 4958 4959 500 501 502 503 504 505 5060 5061 5062 5063
5064 5069 5071 5078 5080 5081 5088 5089

133 Other lower respiratory disease

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 V126 V426

134 Other upper respiratory disease

470 4710 4711 4718 4719 4720 4721 4722 4760 4761 4770 4772 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 V414 V440 V550

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 0075 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

5200 5201 5202 5203 5204 5205 5206 5207 5208 5209 5210 52100 52101 52102 52103 52104 52105 52106 52107 52108
52109 5211 52110 52111 52112 52113 52114 52115 5212 52120 52121 52122 52123 52124 52125 5213 52130 52131 52132 52133
52134 52135 5214 52140 52141 52142 52149 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227
5228 5229 5230 5231 5232 52320 52321 52322 52323 52324 52325 5233 5234 5235 5236 5238 5239 5240 52400 52401
52402 52403 52404 52405 52406 52407 52409 5241 52410 52411 52412 52419 5242 52420 52421 52422 52423 52424 52425 52426
52427 52428 52429 5243 52430 52431 52432 52433 52434 52435 52436 52437 52439 5244 5245 52450 52451 52452 52453 52454
52455 52456 52457 52459 5246 52460 52461 52462 52463 52464 52469 52470 52471 52472 52473 52474 52475 52476 52479 5248
52481 52482 52489 5249 5250 5251 52510 52511 52512 52513 52519 5252 52520 52521 52522 52524 52525 52526 5253
5258 5259 5260 5261 5262 5263 5264 5265 52681 52689 5269 V523 V534 V585 V722

137 Diseases of mouth; excluding dental

5270 5271 5272 5273 5274 5275 5276 5277 5278 5279 5280 5281 5282 5283 5284 5285 5286 5287 52871 52872
52879 5288 5289 5290 5291 5292 5293 5294 5295 5296 5298 5299 7924

138 Esophageal disorders

4561 45621 5300 5301 53010 53011 53012 53019 5302 53020 53021 5303 5304 5305 5306 5308 53081 53083 53084 53085
53089 5309

139 Gastroduodenal ulcer (except hemorrhage)

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
V1271

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 53781 53782 53783 53784 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

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

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

5589

155 Other gastrointestinal disorders

5581 5582 5640 56400 56401 56402 56409 5641 5645 5647 5648 56481 56489 5649 5680 56881 56882 56889 5689 56981
56982 56983 56984 56985 56986 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 V127 V1270 V1279 V416 V441 V442 V443 V444 V453 V473 V535 V551 V552
V553 V554

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

585 7925 V420 V451 V560 V561 V562 V5631 V5632 V568

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

5920 5921 5929 5940 5941 5942 5948 5949 7880 V1301

161 Other diseases of kidney and ureters

5880 5881 5888 58881 58889 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

5996 5997 5998 59989 5999 7881 7882 78820 78821 78829 7883 78830 78831 78832 78833 78834 78835 78836 78837 78838
78839 7884 78841 78842 78843 7885 7886 78861 78862 78863 78869 7887 7888 7889 7910 7911 7912 7913 7914 7917
7919 7935 7944 V130 V1300 V1309 V417 V435 V445 V4450 V4451 V4452 V4459 V446 V474 V475 V536 V555 V556

164 Hyperplasia of prostate

600 6000 60000 60001 6001 60010 60011 6002 60020 60021 6003 6009 60090 60091

165 Inflammatory conditions of male genital organs

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

166 Other male genital disorders

6020 6021 6022 6023 6028 6029 6030 6038 6039 605 6060 6061 6068 6069 6070 6073 60781 60782 60783 60784
60785 60789 6079 6081 6082 6083 60881 60882 60883 60884 60885 60886 60887 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 7938
79380 79381 79389

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 61800 61801 61802 61803 61804 61805 61809 6181 6182 6183 6184 6185 6186 6187 6188 61881 61882 61883 61889
6189

171 Menstrual disorders

6253 6260 6261 6262 6263 6264 6265 6266 6268 6269

172 Ovarian cyst

6200 6201 6202

173 Menopausal disorders

25631 25639 6270 6271 6272 6273 6274 6278 6279 V074

174 Female infertility

6280 6281 6282 6283 6284 6288 6289

175 Other female genital disorders

6190 6191 6192 6198 6199 6203 6204 6205 6206 6207 6208 6209 6210 6211 6212 6213 62130 62131 62132 62133
6214 6215 6216 6217 6218 6219 6220 6221 62210 62211 62212 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 62920 62921 62922 62923 6298 6299 79500 79501 79502 79503 79504
79505 79508 79509 V132 V1321 V1329 V557 V723

176 Contraceptive and procreative management

V157 V2501 V2502 V2503 V2509 V251 V252 V253 V2540 V2541 V2542 V2543 V2549 V255 V258 V259 V260 V261 V262 V2621
V2622 V2629 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

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 63300 63301 6331 63310 63311 6332 63320 63321 6338 63380 63381 6339 63390 63391

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 64510 64511 64513 64520 64521 64523

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

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 OB-related 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

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 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 67410 67412 67414
67420 67422 67424 67430 67432 67434 67440 67442 67444 67450 67451 67452 67453 67454 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 V230 V231 V232 V233 V234 V2341 V2349 V235 V237
V238 V2381 V2382 V2383 V2384 V2389 V239

196 Normal pregnancy and/or delivery

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

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 69276 69277 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 70700 70701 70702 70703 70704 70705 70706 70707 70709 7071 70710 70711 70712 70713 70714 70715 70719 7078 7079

200 Other skin disorders

69275 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 70521 70522 70581 70582 70583 70589 7059 7060 7061 7062
7063 7068 7069 7090 70900 70901 70909 7091 7092 7093 7094 7098 7099 7808 7821 7822 V133 V423

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

202 Rheumatoid arthritis and related disease

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

203 Osteoarthritis

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 V134

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 71870
71871 71872 71873 71874 71875 71876 71877 71878 71879 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 7197 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 73393 73394 73395

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

210 Systemic lupus erythematosus and connective tissue disorders

7100 7101 7102 7103 7104 7108 7109

211 Other connective tissue disease

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
72783 72789 7279 7280 72810 72811 72812 72813 72819 7282 7283 7284 7285 7286 72871 72879 72881 72882 72883 72884
72885 72886 72887 72888 72889 7289 7290 7291 7292 72930 72931 72939 7294 7295 7296 72981 72982 72989 7299 7819
78191 78192 78194 78199 7937 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

212 Other bone disease and musculoskeletal deformities

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 V424 V486 V487 V494

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 74783 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

7520 75210 75211 75219 7522 7523 75240 75241 75242 75249 7525 75251 75252 7526 75261 75262 75263 75264 75265 75269
7527 7528 75281 75289 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 V1361

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

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 7480 7481 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 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 75831 75832 75833 75839 7584 7585 7586 7587 7588 75881 75889 7589 7590 7591 7592 7593
7594 7595 7596 7597 7598 75981 75982 75983 75989 7599 7952 V136 V1369

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 76520 76521 76522 76523 76524 76525 76526 76527 76528 76529 V2130 V2131 V2132 V2133
V2134 V2135

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 76711 76719 7672 7673 7674 7675 7676 7677 7678 7679

224 Other perinatal conditions

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 76621 76622 7700 7701 7702 7703
7704 7705 7706 7707 7708 77081 77082 77083 77084 77089 7709 7710 7711 7712 7713 7714 7715 7716 7717 7718
77181 77182 77183 77189 7720 7721 77210 77211 77212 77213 77214 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 7797 7798 77981 77982 77983 77989 7799 78091 78092 V137 V502

225 Joint disorders and dislocations; trauma-related

71610 71611 71612 71613 71614 71615 71616 71617 71618 71619 7170 7171 7172 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 V5413
V5423

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

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 81345 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 V5410 V5411 V5412 V5420
V5421 V5422

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 82340 82341 82342 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 V5414 V5415 V5416 V5424 V5425 V5426

231 Other fractures

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 8084 80842 80843 80849 80851
80852 80853 80859 8088 8089 8090 8091 8280 8281 8290 8291 9051 9055 V540 V5401 V5402 V5409 V5417 V5419 V5427
V5429 V664 V674

232 Sprains and strains

8400 8401 8402 8403 8404 8405 8406 8407 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 85011 85012
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	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	41404	41405	41407	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	99657	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
99687	99689	99690	99691	99692	99693	99694	99695	99696	99699										

238 Complications of surgical procedures or medical care

27783	3490	3491	41511	4294	4582	45821	45829	5121	5190	51900	51901	51902	51909	53086	53087	53640	53641	53642	53649
5642	5643	5644	5696	56962	5793	9093	9954	99586	9970	99700	99701	99702	99709	9971	9972	9973	9974	9975	99760
99761	99762	99769	99771	99772	99779	9979	99791	99799	9980	9981	99811	99812	99813	9982	9983	99831	99832	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 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

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

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 95911
95912 95913 95914 95919 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 99590 99591 99592 99593 99594 V155 V156 V713 V714 V715 V716

245 Syncope

7802

246 Fever of unknown origin

7806

247 Lymphadenitis

2891 2892 2893 683 7856

248 Gangrene

44024 7854

249 Shock

78550 78551 78552 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

4771 5186 5583 6910 6918 6920 6921 6922 6923 6924 6925 6926 69270 69271 69272 69273 69274 69279 69281 69282
69283 69284 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 9957 V071 V140 V141 V142 V143 V144 V145 V146 V147 V148 V149
V150 V1501 V1502 V1503 V1504 V1505 V1506 V1507 V1508 V1509 V727

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 V6511 V6519 V652 V653 V654 V6540 V6541 V6542 V6543 V6544 V6545 V6549 V655
V658 V659 V680 V681 V682 V6881 V6889 V689

256 Medical examination/evaluation

V290 V291 V292 V293 V298 V299 V700 V703 V704 V705 V706 V707 V708 V709 V718 V719 V7231 V7232 V725 V726
V728 V7281 V7282 V7283 V7284 V7285 V729

257 Other aftercare

V51 V539 V5390 V5399 V548 V5481 V5489 V549 V558 V559 V583 V584 V5841 V5842 V5843 V5844 V5849 V5861 V5862 V5863
V5864 V5865 V5866 V5867 V5869 V5871 V5872 V5873 V5874 V5875 V5876 V5877 V5878 V588 V5881 V5883 V5889 V589 V660 V665
V666 V667 V669 V670 V6700 V6701 V6709 V6751 V6759 V676 V679

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

V280 V281 V282 V283 V284 V285 V288 V289 V7181 V7189 V7240 V7241 V760 V761 V7610 V7611 V7612 V7619 V762 V763
V7641 V7642 V7643 V7644 V7645 V7646 V7647 V7649 V7650 V7651 V7652 V768 V7681 V7689 V769 V770 V771 V772 V773 V774
V775 V776 V777 V778 V779 V7791 V7799 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 V8281 V8289 V829

259 Residual codes; unclassified

3020	78002	7801	78050	78051	78052	78053	78054	78055	78056	78057	78058	78059	7809	78093	78094	78099	7815	7816	7823
78261	78262	7828	7829	7830	7836	7842	7901	7903	7906	7909	79091	79092	79093	79094	79095	79099	7929	7932	7939
7949	7954	7963	7964	7965	7966	7969	7980	7981	7982	7989	7992	7993	7998	79981	79989	7999	V070	V072	V073
V0731	V0739	V078	V079	V1053	V131	V138	V139	V152	V153	V1581	V1584	V1585	V1586	V1587	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	V4284	V4289	V429	V438	V4381	V4382
V4383	V4389	V447	V448	V449	V4571	V4572	V4573	V4574	V4575	V4576	V4577	V4578	V4579	V4583	V4584	V4589	V460	V468	V469
V470	V471	V472	V479	V480	V488	V489	V498	V4981	V4982	V4983	V4989	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	V6441
V6442	V6443	V690	V691	V692	V693	V694	V698	V699	V8301	V8302	V8381	V8389	V8401	V8402	V8403	V8404	V8409	V848	

2601 E Codes: Cut/pierce

E9200 E9201 E9202 E9203 E9204 E9205 E9208 E9209 E956 E966 E974 E986

2602 E Codes: Drowning/submersion

E8300 E8301 E8302 E8303 E8304 E8305 E8306 E8308 E8309 E8320 E8321 E8322 E8323 E8324 E8325 E8326 E8328 E8329 E9100 E9101
E9102 E9103 E9104 E9108 E9109 E954 E964 E984

2603 E Codes: Fall

E8800 E8801 E8809 E8810 E8811 E882 E8830 E8831 E8832 E8839 E8840 E8841 E8842 E8843 E8844 E8845 E8846 E8849 E8850 E8851
E8852 E8853 E8854 E8859 E8860 E8869 E8880 E8881 E8888 E8889 E9570 E9571 E9572 E9579 E9681 E9870 E9871 E9872 E9879

2604 E Codes: Fire/burn

E8900 E8901 E8902 E8903 E8908 E8909 E8910 E8911 E8912 E8913 E8918 E8919 E892 E8930 E8931 E8932 E8938 E8939 E894 E895
E896 E897 E8980 E8981 E899 E9240 E9241 E9242 E9248 E9249 E9581 E9582 E9587 E961 E9680 E9683 E9881 E9882 E9887 E9793

2605 E Codes: Firearm

E9220 E9221 E9222 E9223 E9228 E9229 E9550 E9551 E9552 E9553 E9554 E9650 E9651 E9652 E9653 E9654 E970 E9850 E9851 E9852
E9853 E9854 E9794

2606 E Codes: Machinery

E9190 E9191 E9192 E9193 E9194 E9195 E9196 E9197 E9198 E9199

2607 E Codes: Motor vehicle traffic (MVT)

E8100 E8101 E8102 E8103 E8104 E8105 E8106 E8107 E8108 E8109 E8110 E8111 E8112 E8113 E8114 E8115 E8116 E8117 E8118 E8119
E8120 E8121 E8122 E8123 E8124 E8125 E8126 E8127 E8128 E8129 E8130 E8131 E8132 E8133 E8134 E8135 E8136 E8137 E8138 E8139
E8140 E8141 E8142 E8143 E8144 E8145 E8146 E8147 E8148 E8149 E8150 E8151 E8152 E8153 E8154 E8155 E8156 E8157 E8158 E8159
E8160 E8161 E8162 E8163 E8164 E8165 E8166 E8167 E8168 E8169 E8170 E8171 E8172 E8173 E8174 E8175 E8176 E8177 E8178 E8179
E8180 E8181 E8182 E8183 E8184 E8185 E8186 E8187 E8188 E8189 E8190 E8191 E8192 E8193 E8194 E8195 E8196 E8197 E8198 E8199
E9585 E9685 E9885

2608 E Codes: Pedal cyclist; not MVT

E8003 E8013 E8023 E8033 E8043 E8053 E8063 E8073 E8206 E8216 E8226 E8236 E8246 E8256 E8261 E8269

2609 E Codes: Pedestrian; not MVT

E8002 E8012 E8022 E8032 E8042 E8052 E8062 E8072 E8207 E8217 E8227 E8237 E8247 E8257 E8260 E8270 E8280 E8290

2610 E Codes: Transport; not MVT

E8000 E8001 E8008 E8009 E8010 E8011 E8018 E8019 E8020 E8021 E8028 E8029 E8030 E8031 E8038 E8039 E8040 E8041 E8048 E8049
E8050 E8051 E8058 E8059 E8060 E8061 E8068 E8069 E8070 E8071 E8078 E8079 E8200 E8201 E8202 E8203 E8204 E8205 E8208 E8209
E8210 E8211 E8212 E8213 E8214 E8215 E8218 E8219 E8220 E8221 E8222 E8223 E8224 E8225 E8228 E8229 E8230 E8231 E8232 E8233
E8234 E8235 E8238 E8239 E8240 E8241 E8242 E8243 E8244 E8245 E8248 E8249 E8250 E8251 E8252 E8253 E8254 E8255 E8258 E8259
E8262 E8263 E8264 E8268 E8272 E8273 E8274 E8278 E8279 E8282 E8284 E8288 E8289 E8294 E8298 E8299 E8310 E8311 E8312 E8313
E8314 E8315 E8316 E8318 E8319 E8330 E8331 E8332 E8333 E8334 E8335 E8336 E8338 E8339 E8340 E8341 E8342 E8343 E8344 E8345
E8346 E8348 E8349 E8350 E8351 E8352 E8353 E8354 E8355 E8356 E8358 E8359 E8360 E8361 E8362 E8363 E8364 E8365 E8366 E8368
E8369 E8370 E8371 E8372 E8373 E8374 E8375 E8376 E8378 E8379 E8380 E8381 E8382 E8383 E8384 E8385 E8386 E8388 E8389 E8400
E8401 E8402 E8403 E8404 E8405 E8406 E8407 E8408 E8409 E8410 E8411 E8412 E8413 E8414 E8415 E8416 E8417 E8418 E8419 E8426
E8427 E8428 E8429 E8430 E8431 E8432 E8433 E8434 E8435 E8436 E8437 E8438 E8439 E8440 E8441 E8442 E8443 E8444 E8445 E8446
E8447 E8448 E8449 E8450 E8458 E8459 E9586 E9886

2611 E Codes: Natural/environment

E9000 E9001 E9009 E9010 E9011 E9018 E9019 E9020 E9021 E9022 E9028 E9029 E903 E9040 E9041 E9042 E9043 E9049 E9050 E9051
E9052 E9053 E9054 E9055 E9056 E9057 E9058 E9059 E9060 E9061 E9062 E9063 E9064 E9065 E9068 E9069 E907 E908 E9080 E9081
E9082 E9083 E9084 E9088 E9089 E909 E9090 E9091 E9092 E9093 E9094 E9098 E9099 E9280 E9281 E9282 E9583 E9883

2612 E Codes: Overexertion

E927

2613 E Codes: Poisoning

E8500 E8501 E8502 E8503 E8504 E8505 E8506 E8507 E8508 E8509 E851 E8520 E8521 E8522 E8523 E8524 E8525 E8528 E8529 E8530
E8531 E8532 E8538 E8539 E8540 E8541 E8542 E8543 E8548 E8550 E8551 E8552 E8553 E8554 E8555 E8556 E8558 E8559 E856 E857
E8580 E8581 E8582 E8583 E8584 E8585 E8586 E8587 E8588 E8589 E8600 E8601 E8602 E8603 E8604 E8608 E8609 E8610 E8611 E8612
E8613 E8614 E8615 E8616 E8619 E8620 E8621 E8622 E8623 E8624 E8629 E8630 E8631 E8632 E8633 E8634 E8635 E8636 E8637 E8638
E8639 E8640 E8641 E8642 E8643 E8644 E8650 E8651 E8652 E8653 E8654 E8655 E8658 E8659 E8660 E8661 E8662 E8663 E8664 E8665

E8666 E8667 E8668 E8669 E867 E8680 E8681 E8682 E8683 E8688 E8689 E8690 E8691 E8692 E8693 E8694 E8698 E8699 E9500 E9501
E9502 E9503 E9504 E9505 E9506 E9507 E9508 E9509 E9510 E9511 E9518 E9520 E9521 E9528 E9529 E9620 E9621 E9622 E9629 E972
E9800 E9801 E9802 E9803 E9804 E9805 E9806 E9807 E9808 E9809 E9810 E9811 E9818 E9820 E9821 E9828 E9829

2614 E Codes: Struck by; against

E916 E9170 E9171 E9172 E9173 E9174 E9175 E9176 E9177 E9178 E9179 E9600 E9682 E973 E975

2615 E Codes: Suffocation

E911 E912 E9130 E9131 E9132 E9133 E9138 E9139 E9284 E9285 E9530 E9531 E9538 E9539 E963 E9830 E9831 E9838 E9839

2616 E Codes: Adverse effects of medical care

E8700 E8701 E8702 E8703 E8704 E8705 E8706 E8707 E8708 E8709 E8710 E8711 E8712 E8713 E8714 E8715 E8716 E8717 E8718 E8719
E8720 E8721 E8722 E8723 E8724 E8725 E8726 E8728 E8729 E8730 E8731 E8732 E8733 E8734 E8735 E8736 E8738 E8739 E8740 E8741
E8742 E8743 E8744 E8745 E8748 E8749 E8750 E8751 E8752 E8758 E8759 E8760 E8761 E8762 E8763 E8764 E8765 E8768 E8769 E8780
E8781 E8782 E8783 E8784 E8785 E8786 E8788 E8789 E8790 E8791 E8792 E8793 E8794 E8795 E8796 E8797 E8798 E8799

2617 E Codes: Adverse effects of medical drugs

E9300 E9301 E9302 E9303 E9304 E9305 E9306 E9307 E9308 E9309 E9310 E9311 E9312 E9313 E9314 E9315 E9316 E9317 E9318 E9319
E9320 E9321 E9322 E9323 E9324 E9325 E9326 E9327 E9328 E9329 E9330 E9331 E9332 E9333 E9334 E9335 E9338 E9339 E9340 E9341
E9342 E9343 E9344 E9345 E9346 E9347 E9348 E9349 E9350 E9351 E9352 E9353 E9354 E9355 E9356 E9357 E9358 E9359 E9360 E9361
E9362 E9363 E9364 E9370 E9371 E9372 E9373 E9374 E9375 E9376 E9378 E9379 E9380 E9381 E9382 E9383 E9384 E9385 E9386 E9387

E9389 E9390 E9391 E9392 E9393 E9394 E9395 E9396 E9397 E9398 E9399 E9400 E9401 E9408 E9409 E9410 E9411 E9412 E9413 E9419
E9420 E9421 E9422 E9423 E9424 E9425 E9426 E9427 E9428 E9429 E9430 E9431 E9432 E9433 E9434 E9435 E9436 E9438 E9439 E9440
E9441 E9442 E9443 E9444 E9445 E9446 E9447 E9450 E9451 E9452 E9453 E9454 E9455 E9456 E9457 E9458 E9460 E9461 E9462 E9463
E9464 E9465 E9466 E9467 E9468 E9469 E9470 E9471 E9472 E9473 E9474 E9478 E9479 E9480 E9481 E9482 E9483 E9484 E9485 E9486
E9488 E9489 E9490 E9491 E9492 E9493 E9494 E9495 E9496 E9497 E9499

2618 E Codes: Other specified and classifiable

E9224 E846 E847 E848 E914 E915 E918 E9210 E9211 E9218 E9219 E9225 E9230 E9231 E9232 E9238 E9239 E9250 E9251 E9252
E9258 E9259 E9260 E9261 E9262 E9263 E9264 E9265 E9268 E9269 E9283 E9290 E9291 E9292 E9293 E9294 E9295 E9555 E9556 E9557
E9559 E9580 E9584 E9601 E9655 E9656 E9657 E9658 E9659 E9670 E9671 E9672 E9673 E9674 E9675 E9676 E9677 E9678 E9679 E9684
E9686 E9687 E971 E978 E9790 E9791 E9792 E9795 E9796 E9797 E9798 E9799 E9855 E9856 E9857 E9880 E9884 E9900 E9909 E9910
E9911 E9912 E9913 E9919 E992 E993 E994 E996 E9970 E9971 E9972 E9990 E9991

2619 E Codes: Other specified; NEC

E9288 E9298 E9588 E959 E9688 E969 E977 E9888 E989 E995 E9978 E998 E999

2620 E Codes: Unspecified

E887 E9289 E9299 E9589 E9689 E976 E9889 E9979

2621 E Codes: Place of occurrence

E8490 E8491 E8492 E8493 E8494 E8495 E8496 E8497 E8498 E8499

**Attachment 2:
Sample SAS Jobs for Linking Example**

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
NOTE: This session is executing on the WIN_PRO platform.

NOTE: This installation is running Base SAS hot fix bundle 82BX09.

NOTE: SAS initialization used:
real time 2.28 seconds
cpu time 0.37 seconds

NOTE: AUTOEXEC processing beginning; file is C:\progra-1\sasins-1\sas\v8\autoexec.sas.

NOTE: AUTOEXEC processing completed.

```
1      OPTIONS LS=132 PS=59;
2
3      TITLE1 "HC-077I";
4      TITLE2 'Sample SAS Job for Example A';
5
6      LIBNAME IN V8 'C:\DATA';
```

NOTE: Libref IN was successfully assigned as follows:
Engine: V8
Physical Name: C:\DATA

```
7
8      *****
9      * Calculate the expenditures for prescribed medicines associated with medical visits for asthma.
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     RUN;
```

NOTE: PROCEDURE FORMAT used:
real time 0.12 seconds
cpu time 0.01 seconds

24

2

```

25 *-----
26 * Get condition records coded as asthma.
27 *-----;
28 DATA ASCONDS;
29     SET IN.H78 (KEEP=CONDIDX CCCODEX);
30     IF CCCODEX="128";
31
32     RUN;

```

NOTE: There were 106279 observations read from the data set IN.H78.
NOTE: The data set WORK.ASCONDS has 1839 observations and 2 variables.
NOTE: DATA statement used:
real time 1.15 seconds
cpu time 0.23 seconds

```

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

```

NOTE: There were 1839 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCONDS has 1839 observations and 2 variables.
NOTE: PROCEDURE SORT used:
real time 0.06 seconds
cpu time 0.03 seconds

```

38
39 proc print data=asconds (obs=50);
40     title3 "sample print of work.asconds - sorted by condidx";
41     title4 "COND (H78) records where cccodex=128";
42     run;

```

NOTE: There were 50 observations read from the data set WORK.ASCONDS.
NOTE: The PROCEDURE PRINT printed page 1.
NOTE: PROCEDURE PRINT used:
real time 0.25 seconds
cpu time 0.06 seconds

```

43
44 PROC SORT DATA=IN.H77IF1 OUT=CLNK; BY CONDIRX; RUN;

```

NOTE: There were 343747 observations read from the data set IN.H77IF1.
NOTE: The data set WORK.CLNK has 343747 observations and 5 variables.
NOTE: PROCEDURE SORT used:
real time 16.82 seconds
cpu time 2.24 seconds

```

45
46 DATA ASCLNKS;
47     MERGE CLNK (IN=INCLNK KEEP=CONDIDX EVNTIDX EVENTTYPE)
48     ASCONDS(IN=INASCOND KEEP=CONDIDX);
49     BY CONDIRX;

```

```
50     IF INCLNK & INASCOND;
51     RUN;
```

```
NOTE: There were 343747 observations read from the data set WORK.CLNK.
NOTE: There were 1839 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCLNKS has 7392 observations and 3 variables.
NOTE: DATA statement used:
      real time          0.73 seconds
      cpu time           0.37 seconds
```

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

```
NOTE: There were 75 observations read from the data set WORK.ASCLNKS.
NOTE: The PROCEDURE PRINT printed pages 2-3.
NOTE: PROCEDURE PRINT used:
      real time          0.06 seconds
      cpu time           0.01 seconds
```

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

```
NOTE: There were 7392 observations read from the data set WORK.ASCLNKS.
NOTE: The data set WORK.ASCLNKS has 7392 observations and 3 variables.
NOTE: PROCEDURE SORT used:
      real time          0.01 seconds
      cpu time           0.01 seconds
```

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

```
NOTE: There were 50 observations read from the data set WORK.ASCLNKS.
NOTE: The PROCEDURE PRINT printed page 4.
NOTE: PROCEDURE PRINT used:
      real time          0.03 seconds
      cpu time           0.01 seconds
```

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

NOTE: There were 7392 observations read from the data set WORK.ASCLNKS.
 NOTE: The data set WORK.ASCLNKS has 7382 observations and 2 variables.
 NOTE: DATA statement used:
 real time 0.01 seconds
 cpu time 0.01 seconds

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

NOTE: There were 50 observations read from the data set WORK.ASCLNKS.
 NOTE: The PROCEDURE PRINT printed page 5.
 NOTE: PROCEDURE PRINT used:
 real time 0.01 seconds
 cpu time 0.01 seconds

```
78
79     *-----;
80     * Get non-telephone office based visits (i.e. MVIS events) for persons with positive weights.
81     *-----;
82     DATA MVIS;
83         SET IN.H77G (KEEP=EVNTIDX PERWT03F SEETLKPV);
84         IF PERWT03F > 0 & SEETLKPV NE 2;
85     RUN;
```

NOTE: There were 154853 observations read from the data set IN.H77G.
 NOTE: The data set WORK.MVIS has 149794 observations and 3 variables.
 NOTE: DATA statement used:
 real time 3.85 seconds
 cpu time 0.46 seconds

```
86
87     PROC SORT DATA=MVIS; BY EVNTIDX; RUN;
```

NOTE: There were 149794 observations read from the data set WORK.MVIS.
 NOTE: The data set WORK.MVIS has 149794 observations and 3 variables.
 NOTE: PROCEDURE SORT used:
 real time 0.92 seconds
 cpu time 0.56 seconds

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

NOTE: There were 7382 observations read from the data set WORK.ASCLNKS.

NOTE: There were 149794 observations read from the data set WORK.MVIS.

NOTE: The data set WORK.ASMVIS has 2219 observations and 2 variables.

NOTE: DATA statement used:

```
real time      0.17 seconds
cpu time       0.15 seconds
```

```
98
99      proc print data=asmvis (obs=50);
100      format eventype eventype.;
101      title3 "sample print of work.asmvis";
102      title4 "unique evtidxs from work.asclnks that are non-telephone MVIS (HC-077G) events";
103      run;
```

NOTE: There were 50 observations read from the data set WORK.ASMVIS.

NOTE: The PROCEDURE PRINT printed page 6.

NOTE: PROCEDURE PRINT used:

```
real time      0.01 seconds
cpu time       0.00 seconds
```

```
104
105      *-----
106      * Get PMED IDs linked to the MVIS events which were for asthma.
107      *-----;
108      PROC SORT DATA=IN.H77IF2 OUT=RXLK; BY EVNTIDX; RUN;
```

NOTE: There were 64605 observations read from the data set IN.H77IF2.

NOTE: The data set WORK.RXLK has 64605 observations and 5 variables.

NOTE: PROCEDURE SORT used:

```
real time      0.43 seconds
cpu time       0.32 seconds
```

```
109
110      proc print data=rxlk (obs=140);
111      by evtidx;
112      id evtidx;
113      var linkidx eventype;
114      format eventype eventype.;
115      title3 "sample print of work.rxlk - sorted by evtidx";
116      title4 "Rx+event link file records (HC-77IF2)";
117      run;
```

NOTE: There were 140 observations read from the data set WORK.RXLK.

NOTE: The PROCEDURE PRINT printed pages 7-11.

NOTE: PROCEDURE PRINT used:

```
real time      0.03 seconds
cpu time       0.03 seconds
```

```
118
119      DATA PMEDIDS;
120      MERGE RXLK (IN=INRXLK KEEP=EVNTIDX LINKIDX EVENTYPE)
121      ASMVIS(IN=INASMVIS KEEP=EVNTIDX);
122      BY EVNTIDX;
```

```
123     IF INRXLK & INASMVIS;
124     RUN;
```

```
NOTE: There were 64605 observations read from the data set WORK.RXLK.
NOTE: There were 2219 observations read from the data set WORK.ASMVIS.
NOTE: The data set WORK.PMEDIDS has 2223 observations and 3 variables.
NOTE: DATA statement used:
      real time          0.07 seconds
      cpu time           0.07 seconds
```

```
125
126     proc print data=pmedids (obs=50);
127         by evtidx;
128         id evtidx;
129         format eventype eventype.;
130         title3 "sample print of work.pmedids - sorted by evtidx";
131         title4 "work.rxlk records for evtidxs in work.aservis";
132     run;
```

```
NOTE: There were 50 observations read from the data set WORK.PMEDIDS.
NOTE: The PROCEDURE PRINT printed pages 12-13.
NOTE: PROCEDURE PRINT used:
      real time          0.01 seconds
      cpu time           0.00 seconds
```

```
133
134     PROC SORT DATA=PMEDIDS; BY LINKIDX; RUN;
```

```
NOTE: There were 2223 observations read from the data set WORK.PMEDIDS.
NOTE: The data set WORK.PMEDIDS has 2223 observations and 3 variables.
NOTE: PROCEDURE SORT used:
      real time          0.00 seconds
      cpu time           0.00 seconds
```

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

```
NOTE: There were 50 observations read from the data set WORK.PMEDIDS.
NOTE: The PROCEDURE PRINT printed page 14.
NOTE: PROCEDURE PRINT used:
      real time          0.03 seconds
      cpu time           0.01 seconds
```

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

NOTE: There were 2223 observations read from the data set WORK.PMEDIDS.
 NOTE: The data set WORK.PMEDIDS has 2076 observations and 1 variables.
 NOTE: DATA statement used:
 real time 0.01 seconds
 cpu time 0.00 seconds

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

NOTE: There were 50 observations read from the data set WORK.PMEDIDS.
 NOTE: The PROCEDURE PRINT printed page 15.
 NOTE: PROCEDURE PRINT used:
 real time 0.00 seconds
 cpu time 0.00 seconds

```
150
151   *-----
152   * Get PMED records linked to MVIS events which were for asthma.
153   *-----;
154   PROC SORT DATA=IN.H77A OUT=PMED; BY LINKIDX; RUN;
```

NOTE: There were 304324 observations read from the data set IN.H77A.
 NOTE: The data set WORK.PMED has 304324 observations and 13 variables.
 NOTE: PROCEDURE SORT used:
 real time 33.53 seconds
 cpu time 4.12 seconds

```
155
156   DATA MVPMEDS;
157       MERGE PMED (KEEP=LINKIDX RXRECIDX  RXXP03X PERWT03F RXNAME)
158           PMEDIDS (IN=A);
159       BY LINKIDX;
160       IF A;
161   RUN;
```

NOTE: There were 304324 observations read from the data set WORK.PMED.
 NOTE: There were 2076 observations read from the data set WORK.PMEDIDS.
 NOTE: The data set WORK.MVPMEDS has 5940 observations and 5 variables.
 NOTE: DATA statement used:
 real time 0.43 seconds
 cpu time 0.42 seconds

```
162
163   proc print data=mvpmeds (obs=200);
164       var rxrecidx rxname RXXP03X  PERWT03F;
165       by linkidx;
166       id linkidx;
167       title3 "sample print of work.mvpmeds";
168       title4 "PMED (HC-077A) records for unique linkidxs in work.pmedids";
169   run;
```

NOTE: There were 200 observations read from the data set WORK.MVPMEDS.

NOTE: The PROCEDURE PRINT printed pages 16-21.

NOTE: PROCEDURE PRINT used:

real time	0.00 seconds
cpu time	0.00 seconds

170

171 PROC MEANS DATA=MVPMEDS N SUM;

172 VAR RXXP03X;

173 TITLE3 "Total Rx expenditures associated with medical visits (excluding telephone) for asthma";

174 RUN;

NOTE: There were 5940 observations read from the data set WORK.MVPMEDS.

NOTE: The PROCEDURE MEANS printed page 22.

NOTE: PROCEDURE MEANS used:

real time	0.09 seconds
cpu time	0.01 seconds

175

176 PROC MEANS DATA=MVPMEDS N SUM;

177 VAR RXXP03X;

178 WEIGHT PERWT03F;

179 TITLE3 "Total Rx expenditures associated with medical visits (excluding telephone) for asthma";

180 TITLE5 "Weighted";

181 RUN;

NOTE: There were 5940 observations read from the data set WORK.MVPMEDS.

NOTE: The PROCEDURE MEANS printed page 23.

NOTE: PROCEDURE MEANS used:

real time	0.01 seconds
cpu time	0.01 seconds

182

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

NOTE: The SAS System used:

real time	1:01.65
cpu time	9.78 seconds

Sample SAS Job for Example A
 sample print of work.asconds - sorted by condidx
 COND (H78) records where cccodex=128

Obs	CONDIDX	CCCODEX
1	200260120036	128
2	200300100028	128
3	200340280018	128
4	200390220116	128
5	200410170097	128
6	200530380017	128
7	200540110059	128
8	200540230019	128
9	200640100022	128
10	200640100141	128
11	200680340054	128
12	200760300018	128
13	200880360010	128
14	200940110030	128
15	201090290010	128
16	201150170015	128
17	201290280019	128
18	201550320028	128
19	201790290043	128
20	201790320052	128
21	201790360014	128
22	201790590029	128
23	201840320043	128
24	201860330010	128
25	201930150013	128
26	201980300032	128
27	202170150026	128
28	202170290028	128
29	202240300029	128
30	202350170021	128
31	202600660049	128
32	202620130056	128
33	202650560036	128
34	202680360017	128
35	202680360051	128
36	202680430038	128
37	202680590038	128
38	202700210038	128
39	202740110040	128
40	202760300046	128
41	202900140013	128
42	203080160025	128
43	203600120037	128
44	203600290042	128
45	203650120019	128
46	203740440015	128
47	203840180080	128
48	203840250120	128
49	203840250142	128
50	204040400082	128

Sample SAS Job for Example A
 sample print of work.asclnks - sorted by condidx
 events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
200260120036	200260121148	8 PMED
	200260121155	8 PMED
	200260121299	8 PMED
	200260121326	8 PMED
	200260121333	8 PMED
200340280018	200340280112	8 PMED
	200340280143	8 PMED
	200340280150	8 PMED
	200340280218	8 PMED
	200340280225	8 PMED
200340280270	8 PMED	
200390220116	200390220541	8 PMED
200410170097	200410170370	8 PMED
	200410170387	8 PMED
200540110059	200540110241	1 MVIS
	200540110258	1 MVIS
	200540110265	1 MVIS
	200540110272	8 PMED
	200540110296	8 PMED
	200540110309	8 PMED
	200540110316	8 PMED
	200540110323	8 PMED
	200540110330	8 PMED
	200540110347	8 PMED
200540110378	8 PMED	
200540230019	200540230215	1 MVIS
	200540230239	8 PMED
	200540230246	8 PMED
	200540230253	8 PMED
	200540230284	8 PMED
200640100022	200640100883	8 PMED
	200640100890	8 PMED
	200640101139	1 MVIS
	200640101146	1 MVIS
	200640101153	1 MVIS
	200640101177	8 PMED
	200640101273	8 PMED
	200640101280	8 PMED
	200640101317	8 PMED
	200640101324	8 PMED
	200640101331	1 MVIS
	200640101348	1 MVIS
	200640101355	1 MVIS

Sample SAS Job for Example A
 sample print of work.asclnks - sorted by condidx
 events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
200640100022	200640101362	1 MVIS
	200640101379	1 MVIS
	200640101386	1 MVIS
	200640101393	1 MVIS
	200640101406	1 MVIS
	200640101413	1 MVIS
	200640101420	1 MVIS
	200640101437	1 MVIS
	200640101444	1 MVIS
	200640101451	1 MVIS
	200640101468	1 MVIS
	200640101475	1 MVIS
	200640101482	1 MVIS
200680340054	200680340170	8 PMED
	200680340187	8 PMED
200760300018	200760300161	8 PMED
200940110030	200940110140	8 PMED
	200940110164	8 PMED
201090290010	201090290040	8 PMED
	201090290095	8 PMED
201150170015	201150170507	8 PMED
	201150170514	8 PMED
	201150170665	8 PMED
	201150170716	8 PMED
201790290043	201790290410	1 MVIS
	201790290650	8 PMED
	201790290674	8 PMED
	201790290821	1 MVIS
	201790290838	1 MVIS
	201790290845	1 MVIS
	201790290852	1 MVIS
201790290869	1 MVIS	

Sample SAS Job for Example A
 sample print of work.asclnks - sorted by evtntidx

Obs	CONDIDX	EVNTIDX	EVENTYPE
1	200260120036	200260121148	8 PMED
2	200260120036	200260121155	8 PMED
3	200260120036	200260121299	8 PMED
4	200260120036	200260121326	8 PMED
5	200260120036	200260121333	8 PMED
6	200340280018	200340280112	8 PMED
7	200340280018	200340280143	8 PMED
8	200340280018	200340280150	8 PMED
9	200340280018	200340280218	8 PMED
10	200340280018	200340280225	8 PMED
11	200340280018	200340280270	8 PMED
12	200390220116	200390220541	8 PMED
13	200410170097	200410170370	8 PMED
14	200410170097	200410170387	8 PMED
15	200540110059	200540110241	1 MVIS
16	200540110059	200540110258	1 MVIS
17	200540110059	200540110265	1 MVIS
18	200540110059	200540110272	8 PMED
19	200540110059	200540110296	8 PMED
20	200540110059	200540110309	8 PMED
21	200540110059	200540110316	8 PMED
22	200540110059	200540110323	8 PMED
23	200540110059	200540110330	8 PMED
24	200540110059	200540110347	8 PMED
25	200540110059	200540110378	8 PMED
26	200540230019	200540230215	1 MVIS
27	200540230019	200540230239	8 PMED
28	200540230019	200540230246	8 PMED
29	200540230019	200540230253	8 PMED
30	200540230019	200540230284	8 PMED
31	200640100022	200640100883	8 PMED
32	200640100022	200640100890	8 PMED
33	200640100022	200640101139	1 MVIS
34	200640100022	200640101146	1 MVIS
35	200640100022	200640101153	1 MVIS
36	200640100022	200640101177	8 PMED
37	200640100022	200640101273	8 PMED
38	200640100022	200640101280	8 PMED
39	200640100022	200640101317	8 PMED
40	200640100022	200640101324	8 PMED
41	200640100022	200640101331	1 MVIS
42	200640100022	200640101348	1 MVIS
43	200640100022	200640101355	1 MVIS
44	200640100022	200640101362	1 MVIS
45	200640100022	200640101379	1 MVIS
46	200640100022	200640101386	1 MVIS
47	200640100022	200640101393	1 MVIS
48	200640100022	200640101406	1 MVIS
49	200640100022	200640101413	1 MVIS
50	200640100022	200640101420	1 MVIS

Sample SAS Job for Example A
 sample print of unique evtidxs from work.asclnks

Obs	EVNTIDX	EVENTYPE
1	200260121148	8 PMED
2	200260121155	8 PMED
3	200260121299	8 PMED
4	200260121326	8 PMED
5	200260121333	8 PMED
6	200340280112	8 PMED
7	200340280143	8 PMED
8	200340280150	8 PMED
9	200340280218	8 PMED
10	200340280225	8 PMED
11	200340280270	8 PMED
12	200390220541	8 PMED
13	200410170370	8 PMED
14	200410170387	8 PMED
15	200540110241	1 MVIS
16	200540110258	1 MVIS
17	200540110265	1 MVIS
18	200540110272	8 PMED
19	200540110296	8 PMED
20	200540110309	8 PMED
21	200540110316	8 PMED
22	200540110323	8 PMED
23	200540110330	8 PMED
24	200540110347	8 PMED
25	200540110378	8 PMED
26	200540230215	1 MVIS
27	200540230239	8 PMED
28	200540230246	8 PMED
29	200540230253	8 PMED
30	200540230284	8 PMED
31	200640100883	8 PMED
32	200640100890	8 PMED
33	200640101139	1 MVIS
34	200640101146	1 MVIS
35	200640101153	1 MVIS
36	200640101177	8 PMED
37	200640101273	8 PMED
38	200640101280	8 PMED
39	200640101317	8 PMED
40	200640101324	8 PMED
41	200640101331	1 MVIS
42	200640101348	1 MVIS
43	200640101355	1 MVIS
44	200640101362	1 MVIS
45	200640101379	1 MVIS
46	200640101386	1 MVIS
47	200640101393	1 MVIS
48	200640101406	1 MVIS
49	200640101413	1 MVIS
50	200640101420	1 MVIS

Sample SAS Job for Example A
 sample print of work.asmvis

unique evntidxs from work.asclinks that are non-telephone MVIS (HC-077G) events

Obs	EVNTIDX	EVENTYPE
1	200540110241	1 MVIS
2	200540110258	1 MVIS
3	200540110265	1 MVIS
4	200540230215	1 MVIS
5	200640101139	1 MVIS
6	200640101146	1 MVIS
7	200640101153	1 MVIS
8	200640101331	1 MVIS
9	200640101348	1 MVIS
10	200640101355	1 MVIS
11	200640101362	1 MVIS
12	200640101379	1 MVIS
13	200640101386	1 MVIS
14	200640101393	1 MVIS
15	200640101406	1 MVIS
16	200640101413	1 MVIS
17	200640101420	1 MVIS
18	200640101437	1 MVIS
19	200640101444	1 MVIS
20	200640101451	1 MVIS
21	200640101468	1 MVIS
22	200640101475	1 MVIS
23	200640101482	1 MVIS
24	201790290410	1 MVIS
25	201790290821	1 MVIS
26	201790290838	1 MVIS
27	201790290845	1 MVIS
28	201790290852	1 MVIS
29	201790290869	1 MVIS
30	201790290876	1 MVIS
31	201790290903	1 MVIS
32	201790360232	1 MVIS
33	201860330161	1 MVIS
34	201860330229	1 MVIS
35	201860330236	1 MVIS
36	201860330243	1 MVIS
37	201860330250	1 MVIS
38	201930150018	1 MVIS
39	202170150639	1 MVIS
40	202170150646	1 MVIS
41	202620130491	1 MVIS
42	202620130504	1 MVIS
43	202620130511	1 MVIS
44	202620130528	1 MVIS
45	202620130542	1 MVIS
46	202620130782	1 MVIS
47	202650560365	1 MVIS
48	202650560430	1 MVIS
49	202650560447	1 MVIS
50	202650560454	1 MVIS

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by evntidx
 Rx+event link file records (HC-77IF2)

EVNTIDX	LINKIDX	EVENTYPE
200020380044	200020380051	3 EROM
	200020380068	3 EROM
200030110018	200030110049	1 MVIS
200030190154	200030190161	1 MVIS
200030260332	200030260363	1 MVIS
200040180290	200040180327	1 MVIS
200040180303	200040180334	1 MVIS
200040180341	200040180365	1 MVIS
200040180358	200040180372	1 MVIS
200070160070	200070160107	5 DVIS
200070160121	200070160169	1 MVIS
200140110148	200140110131	1 MVIS
200140240440	200140240471	1 MVIS
200150190081	200150190101	1 MVIS
	200150190118	1 MVIS
	200150190125	1 MVIS
	200150190132	1 MVIS
200150190194	200150190245	2 OPAT
200150190207	200150190252	1 MVIS
200150190290	200150190303	1 MVIS
	200150190310	1 MVIS
	200150190327	1 MVIS
	200150190334	1 MVIS
	200150190341	1 MVIS
	200150190358	1 MVIS
200150260012	200150260043	1 MVIS
200160130011	200160130073	1 MVIS
200170120180	200170120217	1 MVIS
200170120231	200170120286	2 OPAT
	200170120293	2 OPAT

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by evntidx
 Rx+event link file records (HC-77IF2)

EVNTIDX	LINKIDX	EVENTYPE
200190140130	200190140147	1 MVIS
	200190140154	1 MVIS
	200190140161	1 MVIS
200190140192	200190140212	1 MVIS
200200160278	200200160312	1 MVIS
200210100083	200210100141	1 MVIS
	200210100158	1 MVIS
	200210100165	1 MVIS
200210270103	200210270110	1 MVIS
	200210270127	1 MVIS
200210340134	200210340158	1 MVIS
200210410045	200210410076	1 MVIS
200220220026	200220220033	1 MVIS
200230100063	200230100107	1 MVIS
	200230100114	1 MVIS
200230100070	200230100121	1 MVIS
200230100138	200230100152	1 MVIS
	200230100169	1 MVIS
200260290809	200260290861	1 MVIS
200270100088	200270100139	1 MVIS
200270100095	200270100146	1 MVIS
200320100192	200320100243	1 MVIS
	200320100250	1 MVIS
	200320100267	1 MVIS
	200320100274	1 MVIS
	200320100281	1 MVIS
	200320100298	1 MVIS
200320270058	200320270089	1 MVIS
200320340041	200320340089	1 MVIS
200330150118	200330150125	3 EROM
200340110218	200340110249	1 MVIS

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2)

EVNTIDX	LINKIDX	EVENTYPE
200340280167	200340280181	1 MVIS
	200340280198	1 MVIS
200340280232	200340280249	1 MVIS
200350180068	200350180082	5 DVIS
	200350180099	5 DVIS
200390150096	200390150123	5 DVIS
	200390150130	5 DVIS
200390220325	200390220356	1 MVIS
200390220407	200390220476	1 MVIS
	200390220483	1 MVIS
	200390220490	1 MVIS
200390220445	200390220510	1 MVIS
200390220534	200390220541	1 MVIS
200410170407	200410170510	1 MVIS
	200410170527	1 MVIS
200450150111	200450150159	1 MVIS
200450150200	200450150217	1 MVIS
	200450150224	1 MVIS
200460470063	200460470070	1 MVIS
200460470094	200460470107	1 MVIS
200480150114	200480150532	4 STAZ
	200480150549	4 STAZ
	200480150556	4 STAZ
200480150474	200480150563	1 MVIS
200480150607	200480150621	1 MVIS
200490150117	200490150131	1 MVIS
	200490150148	1 MVIS
200490150124	200490150155	3 EROM
200490150162	200490150179	4 STAZ
200490460011	200490460028	1 MVIS

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2)

EVNTIDX	LINKIDX	EVENTYPE
200490460035	200490460059	1 MVIS
200490460042	200490460066	5 DVIS
200510130171	200510130208	1 MVIS
200510130222	200510130239	1 MVIS
200520110035	200520110042	5 DVIS
200520140070	200520140094	1 MVIS
200530140031	200530140106	2 OPAT
	200530140113	2 OPAT
200530380137	200530380144	2 OPAT
200540110241	200540110272	1 MVIS
	200540110289	1 MVIS
	200540110296	1 MVIS
	200540110309	1 MVIS
	200540110316	1 MVIS
	200540110323	1 MVIS
	200540110330	1 MVIS
200540160260	200540160304	1 MVIS
200540160277	200540160311	1 MVIS
200540160328	200540160373	1 MVIS
	200540160380	1 MVIS
	200540160397	1 MVIS
200540230133	200540230195	1 MVIS
	200540230208	1 MVIS
200540230215	200540230239	1 MVIS
	200540230246	1 MVIS
	200540230253	1 MVIS
	200540230260	1 MVIS
200540230222	200540230277	1 MVIS
200560180053	200560180077	3 EROM
200590180045	200590180052	3 EROM
200590180083	200590180134	3 EROM
	200590180141	3 EROM

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2)

EVNTIDX	LINKIDX	EVENTYPE
200600100227	200600100258	1 MVIS
	200600100265	1 MVIS
	200600100272	1 MVIS
200610130137	200610130151	1 MVIS
	200610130168	1 MVIS
	200610130175	1 MVIS
200640101122	200640101160	1 MVIS
200640101139	200640101177	1 MVIS
200680270043	200680270074	5 DVIS
	200680270081	5 DVIS
200680340101	200680340132	1 MVIS
	200680340149	1 MVIS
200700260345	200700260383	1 MVIS
200700330054	200700330061	1 MVIS
200700480176	200700480190	1 MVIS
200700480210	200700480227	1 MVIS
200720190272	200720190323	4 STAZ

Sample SAS Job for Example A
 sample print of work.pmedids - sorted by evtidx
 work.rxlk records for evtidxs in work.asmvis

EVNTIDX	LINKIDX	EVENTYPE
200540110241	200540110272	1 MVIS
	200540110289	1 MVIS
	200540110296	1 MVIS
	200540110309	1 MVIS
	200540110316	1 MVIS
	200540110323	1 MVIS
	200540110330	1 MVIS
200540230215	200540230239	1 MVIS
	200540230246	1 MVIS
	200540230253	1 MVIS
	200540230260	1 MVIS
200640101139	200640101177	1 MVIS
201790290410	201790290650	1 MVIS
	201790290667	1 MVIS
	201790290674	1 MVIS
	201790290681	1 MVIS
	201790290698	1 MVIS
	201790290701	1 MVIS
	201790290718	1 MVIS
	201790290725	1 MVIS
	201790290732	1 MVIS
	201790290756	1 MVIS
	201790290763	1 MVIS
	201790290770	1 MVIS
	201790290787	1 MVIS
	201790290794	1 MVIS
201790290821	201790290965	1 MVIS
	201790290972	1 MVIS
	201790290989	1 MVIS
	201790290996	1 MVIS
	201790291002	1 MVIS
	201790291019	1 MVIS
	201790291026	1 MVIS
	201790291033	1 MVIS
	201790291040	1 MVIS
	201790291057	1 MVIS
	201790291064	1 MVIS
	201790291071	1 MVIS
	201790291088	1 MVIS
201790291095	1 MVIS	
201790290838	201790290965	1 MVIS
	201790290972	1 MVIS
	201790290989	1 MVIS
	201790290996	1 MVIS

Sample SAS Job for Example A
sample print of work.pmedids - sorted by evtidx
work.rxlk records for evtidxs in work.asmvis

EVNTIDX	LINKIDX	EVENTYPE
201790290838	201790291002	1 MVIS
	201790291019	1 MVIS
	201790291026	1 MVIS
	201790291033	1 MVIS
	201790291040	1 MVIS
	201790291057	1 MVIS

Sample SAS Job for Example A
 sample print of work.pmedids - sorted by linkidx

Obs	EVNTIDX	LINKIDX	EVENTYPE
1	200540110241	200540110272	1 MVIS
2	200540110241	200540110289	1 MVIS
3	200540110241	200540110296	1 MVIS
4	200540110241	200540110309	1 MVIS
5	200540110241	200540110316	1 MVIS
6	200540110241	200540110323	1 MVIS
7	200540110241	200540110330	1 MVIS
8	200540230215	200540230239	1 MVIS
9	200540230215	200540230246	1 MVIS
10	200540230215	200540230253	1 MVIS
11	200540230215	200540230260	1 MVIS
12	200640101139	200640101177	1 MVIS
13	201790290410	201790290650	1 MVIS
14	201790290410	201790290667	1 MVIS
15	201790290410	201790290674	1 MVIS
16	201790290410	201790290681	1 MVIS
17	201790290410	201790290698	1 MVIS
18	201790290410	201790290701	1 MVIS
19	201790290410	201790290718	1 MVIS
20	201790290410	201790290725	1 MVIS
21	201790290410	201790290732	1 MVIS
22	201790290410	201790290756	1 MVIS
23	201790290410	201790290763	1 MVIS
24	201790290410	201790290770	1 MVIS
25	201790290410	201790290787	1 MVIS
26	201790290410	201790290794	1 MVIS
27	201790290821	201790290965	1 MVIS
28	201790290838	201790290965	1 MVIS
29	201790290876	201790290965	1 MVIS
30	201790290821	201790290972	1 MVIS
31	201790290838	201790290972	1 MVIS
32	201790290876	201790290972	1 MVIS
33	201790290821	201790290989	1 MVIS
34	201790290838	201790290989	1 MVIS
35	201790290876	201790290989	1 MVIS
36	201790290821	201790290996	1 MVIS
37	201790290838	201790290996	1 MVIS
38	201790290876	201790290996	1 MVIS
39	201790290821	201790291002	1 MVIS
40	201790290838	201790291002	1 MVIS
41	201790290876	201790291002	1 MVIS
42	201790290821	201790291019	1 MVIS
43	201790290838	201790291019	1 MVIS
44	201790290876	201790291019	1 MVIS
45	201790290821	201790291026	1 MVIS
46	201790290838	201790291026	1 MVIS
47	201790290876	201790291026	1 MVIS
48	201790290821	201790291033	1 MVIS
49	201790290838	201790291033	1 MVIS
50	201790290876	201790291033	1 MVIS

Sample SAS Job for Example A
 sample print of unique linkidxs in work.pmedids

Obs	LINKIDX
1	200540110272
2	200540110289
3	200540110296
4	200540110309
5	200540110316
6	200540110323
7	200540110330
8	200540230239
9	200540230246
10	200540230253
11	200540230260
12	200640101177
13	201790290650
14	201790290667
15	201790290674
16	201790290681
17	201790290698
18	201790290701
19	201790290718
20	201790290725
21	201790290732
22	201790290756
23	201790290763
24	201790290770
25	201790290787
26	201790290794
27	201790290965
28	201790290972
29	201790290989
30	201790290996
31	201790291002
32	201790291019
33	201790291026
34	201790291033
35	201790291040
36	201790291057
37	201790291064
38	201790291071
39	201790291088
40	201790291095
41	201790360249
42	201790360256
43	201790360263
44	201860330267
45	201930150025
46	201930150032
47	202170150653
48	202620130819
49	202620130826
50	202620130833

Sample SAS Job for Example A
sample print of work.mvpmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
200540110272	200540110272001	ORAPRED	28.52	5774.720123
	200540110272002	ORAPRED	28.52	5774.720123
	200540110272003	ORAPRED	28.52	5774.720123
	200540110272004	ORAPRED	28.52	5774.720123
200540110289	200540110289001	ZANTAC	29.60	5774.720123
	200540110289002	ZANTAC	29.60	5774.720123
	200540110289003	ZANTAC	29.60	5774.720123
	200540110289004	ZANTAC	29.60	5774.720123
200540110296	200540110296001	REGLAN	35.20	5774.720123
	200540110296002	REGLAN	35.20	5774.720123
	200540110296003	REGLAN	35.20	5774.720123
	200540110296004	REGLAN	35.20	5774.720123
200540110309	200540110309001	PULMICORT	129.85	5774.720123
	200540110309002	PULMICORT	129.85	5774.720123
	200540110309003	PULMICORT	129.85	5774.720123
	200540110309004	PULMICORT	129.85	5774.720123
200540110316	200540110316001	ALBUTEROL	21.41	5774.720123
	200540110316002	ALBUTEROL	21.41	5774.720123
	200540110316003	ALBUTEROL	21.41	5774.720123
	200540110316004	ALBUTEROL	21.41	5774.720123
	200540110316005	ALBUTEROL	21.41	5774.720123
200540110323	200540110323001	FLOVENT	81.06	5774.720123
	200540110323002	FLOVENT	81.06	5774.720123
	200540110323003	FLOVENT	81.06	5774.720123
	200540110323004	FLOVENT	81.06	5774.720123
	200540110323005	FLOVENT	81.06	5774.720123
200540110330	200540110330001	SINGULAIR	82.75	5774.720123
	200540110330002	SINGULAIR	82.75	5774.720123
	200540110330003	SINGULAIR	82.75	5774.720123
	200540110330004	SINGULAIR	82.75	5774.720123
	200540110330005	SINGULAIR	82.75	5774.720123
200540230239	200540230239001	FLOVENT	81.06	7793.388531
	200540230239002	FLOVENT	81.06	7793.388531
	200540230239003	FLOVENT	81.06	7793.388531
	200540230239004	FLOVENT	81.06	7793.388531
	200540230239005	FLOVENT	81.06	7793.388531
200540230246	200540230246001	NEBULIZER	187.02	7793.388531
	200540230246002	NEBULIZER	187.02	7793.388531
	200540230246003	NEBULIZER	187.02	7793.388531
200540230253	200540230253001	ALBUTEROL	21.41	7793.388531

Sample SAS Job for Example A
sample print of work.mvpmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
200540230253	200540230253002	ALBUTEROL	21.41	7793.388531
	200540230253003	ALBUTEROL	21.41	7793.388531
	200540230253004	ALBUTEROL	21.41	7793.388531
	200540230253005	ALBUTEROL	21.41	7793.388531
200540230260	200540230260001	ALLEGRA	42.35	7793.388531
	200540230260002	ALLEGRA	42.35	7793.388531
200640101177	200640101177001	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177002	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177003	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177004	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177005	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177006	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177007	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177008	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177009	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177010	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177011	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177012	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177013	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177014	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177015	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177016	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177017	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177018	WE ALLERGY (GRAPE)	17.76	12752.916659
201790290650	201790290650001	ALBUTEROL	42.82	2626.868553
	201790290650002	ALBUTEROL	42.82	2626.868553
	201790290650003	ALBUTEROL	42.82	2626.868553
201790290667	201790290667001	ULTRAM	24.38	2626.868553
	201790290667002	ULTRAM	24.38	2626.868553
	201790290667003	ULTRAM	24.38	2626.868553
201790290674	201790290674001	SINGULAIR	86.56	2626.868553
	201790290674002	SINGULAIR	86.56	2626.868553
	201790290674003	SINGULAIR	86.56	2626.868553
	201790290674004	SINGULAIR	86.56	2626.868553
201790290681	201790290681001	ALTACE	53.66	2626.868553
	201790290681002	ALTACE	53.66	2626.868553
	201790290681003	ALTACE	53.66	2626.868553
201790290698	201790290698001	GUAIFENEX DM	17.18	2626.868553
	201790290698002	GUAIFENEX DM	17.18	2626.868553
	201790290698003	GUAIFENEX DM	17.18	2626.868553
201790290701	201790290701001	NEURONTIN	50.04	2626.868553

Sample SAS Job for Example A
sample print of work.mvpmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
201790290701	201790290701002	NEURONTIN	50.04	2626.868553
	201790290701003	NEURONTIN	50.04	2626.868553
	201790290701004	NEURONTIN	50.04	2626.868553
201790290718	201790290718001	AMITRIPTYLINE HCL	32.40	2626.868553
	201790290718002	AMITRIPTYLINE HCL	32.40	2626.868553
	201790290718003	AMITRIPTYLINE HCL	32.40	2626.868553
201790290725	201790290725001	ANEMAGEN (10X10)	12.20	2626.868553
201790290732	201790290732001	ZOLOFT	70.20	2626.868553
201790290756	201790290756001	HYDROCODONE/APAP	5.82	2626.868553
	201790290756002	HYDROCODONE/APAP	5.82	2626.868553
	201790290756003	HYDROCODONE/APAP	5.82	2626.868553
201790290763	201790290763001	IBUPROFEN	18.29	2626.868553
	201790290763002	IBUPROFEN	18.29	2626.868553
201790290770	201790290770001	TRAMADOL HCL	50.25	2626.868553
	201790290770002	TRAMADOL HCL	50.25	2626.868553
201790290787	201790290787001	CYCLOBENZAPRINE HCL	17.23	2626.868553
201790290794	201790290794001	DITROPAN XL	101.24	2626.868553
	201790290794002	DITROPAN XL	101.24	2626.868553
201790290965	201790290965001	ALBUTEROL	42.82	2626.868553
	201790290965002	ALBUTEROL	42.82	2626.868553
	201790290965003	ALBUTEROL	42.82	2626.868553
	201790290965004	ALBUTEROL	42.82	2626.868553
	201790290965005	ALBUTEROL	42.82	2626.868553
	201790290965006	ALBUTEROL	42.82	2626.868553
	201790290965007	ALBUTEROL	42.82	2626.868553
	201790290965008	ALBUTEROL	42.82	2626.868553
	201790290965009	ALBUTEROL	42.82	2626.868553
	201790290965010	ALBUTEROL	42.82	2626.868553
	201790290965011	ALBUTEROL	42.82	2626.868553
	201790290965012	ALBUTEROL	42.82	2626.868553
	201790290972	201790290972001	ULTRAM	24.38
201790290972002		ULTRAM	24.38	2626.868553
201790290972003		ULTRAM	24.38	2626.868553
201790290989	201790290989001	ALTACE	53.66	2626.868553
	201790290989002	ALTACE	53.66	2626.868553
	201790290989003	ALTACE	53.66	2626.868553
201790290996	201790290996001	SINGULAIR (UNIT OF USE)	91.61	2626.868553

Sample SAS Job for Example A
sample print of work.mvpmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
201790290996	201790290996002	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996003	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996004	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996005	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996006	SINGULAIR (UNIT OF USE)	91.61	2626.868553
201790291002	201790291002001	GUAIFENEX DM	17.18	2626.868553
	201790291002002	GUAIFENEX DM	17.18	2626.868553
201790291019	201790291019001	NEURONTIN	50.04	2626.868553
	201790291019002	NEURONTIN	50.04	2626.868553
	201790291019003	NEURONTIN	50.04	2626.868553
	201790291019004	NEURONTIN	50.04	2626.868553
	201790291019005	NEURONTIN	50.04	2626.868553
201790291026	201790291026001	AMITRIPTYLINE HCL	32.40	2626.868553
	201790291026002	AMITRIPTYLINE HCL	32.40	2626.868553
	201790291026003	AMITRIPTYLINE HCL	32.40	2626.868553
	201790291026004	AMITRIPTYLINE HCL	32.40	2626.868553
201790291033	201790291033001	ANEMAGEN (10X10)	12.20	2626.868553
	201790291033002	ANEMAGEN (10X10)	12.20	2626.868553
	201790291033003	ANEMAGEN (10X10)	12.20	2626.868553
	201790291033004	ANEMAGEN (10X10)	12.20	2626.868553
	201790291033005	ANEMAGEN (10X10)	12.20	2626.868553
	201790291033006	ANEMAGEN (10X10)	12.20	2626.868553
201790291040	201790291040001	ZOLOFT	79.40	2626.868553
	201790291040002	ZOLOFT	79.40	2626.868553
201790291057	201790291057001	FLUNISOLIDE	68.21	2626.868553
	201790291057002	FLUNISOLIDE	68.21	2626.868553
	201790291057003	FLUNISOLIDE	68.21	2626.868553
201790291064	201790291064001	HYDROCODONE/APAP	5.82	2626.868553
	201790291064002	HYDROCODONE/APAP	5.82	2626.868553
	201790291064003	HYDROCODONE/APAP	5.82	2626.868553
201790291071	201790291071001	IBUPROFEN	18.29	2626.868553
	201790291071002	IBUPROFEN	18.29	2626.868553
	201790291071003	IBUPROFEN	18.29	2626.868553
	201790291071004	IBUPROFEN	18.29	2626.868553
	201790291071005	IBUPROFEN	18.29	2626.868553
201790291088	201790291088001	TRAMADOL HCL	50.25	2626.868553
	201790291088002	TRAMADOL HCL	50.25	2626.868553
	201790291088003	TRAMADOL HCL	50.25	2626.868553
201790291095	201790291095001	DITROPAN XL	101.24	2626.868553

Sample SAS Job for Example A
sample print of work.mvpmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
201790291095	201790291095002	DITROPAN XL	101.24	2626.868553
201790360249	201790360249001	THEOPHYLLINE	39.18	4144.408785
	201790360249002	THEOPHYLLINE	39.18	4144.408785
	201790360249003	THEOPHYLLINE	39.18	4144.408785
201790360256	201790360256001	ALBUTEROL	29.00	4144.408785
	201790360256002	ALBUTEROL	29.00	4144.408785
	201790360256003	ALBUTEROL	29.00	4144.408785
	201790360256004	ALBUTEROL	29.00	4144.408785
	201790360256005	ALBUTEROL	29.00	4144.408785
	201790360256006	ALBUTEROL	29.00	4144.408785
	201790360256007	ALBUTEROL	29.00	4144.408785
	201790360256008	ALBUTEROL	29.00	4144.408785
	201790360256009	ALBUTEROL	29.00	4144.408785
	201790360256010	ALBUTEROL	29.00	4144.408785
	201790360256011	ALBUTEROL	29.00	4144.408785
	201790360256012	ALBUTEROL	29.00	4144.408785
	201790360256013	ALBUTEROL	29.00	4144.408785
	201790360256014	ALBUTEROL	29.00	4144.408785
	201790360256015	ALBUTEROL	29.00	4144.408785
	201790360256016	ALBUTEROL	29.00	4144.408785
	201790360256017	ALBUTEROL	29.00	4144.408785
201790360256018	ALBUTEROL	29.00	4144.408785	
201790360263	201790360263001	SINGULAR	107.07	4144.408785
	201790360263002	SINGULAR	107.07	4144.408785
201860330267	201860330267001	CONCERTA	75.56	3205.761224
	201860330267002	CONCERTA	75.56	3205.761224
	201860330267003	CONCERTA	75.56	3205.761224
201930150025	201930150025001	CUTIVATE	42.89	3820.382576
201930150032	201930150032001	ALBUTEROL	24.90	3820.382576
202170150653	202170150653001	ALBUTEROL	21.41	10143.491415
	202170150653002	ALBUTEROL	21.41	10143.491415
	202170150653003	ALBUTEROL	21.41	10143.491415
202620130819	202620130819001	AMLODIPINE	40.13	6639.386741
202620130826	202620130826001	COMBIVENT	59.91	6639.386741
202620130833	202620130833001	SIMVASTATIN	172.86	6639.386741
202650560372	202650560372001	INSULIN 70/30 HUMAN	138.99	3495.424052
	202650560372002	INSULIN 70/30 HUMAN	138.99	3495.424052
	202650560372003	INSULIN 70/30 HUMAN	138.99	3495.424052

Sample SAS Job for Example A
 sample print of work.mvpmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
202650560372	202650560372004	INSULIN 70/30 HUMAN	138.99	3495.424052
	202650560372005	INSULIN 70/30 HUMAN	138.99	3495.424052
	202650560372006	INSULIN 70/30 HUMAN	138.99	3495.424052
202650560389	202650560389001	GLUCOPHAGE	48.81	3495.424052
	202650560389002	GLUCOPHAGE	48.81	3495.424052

Sample SAS Job for Example A

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

The MEANS Procedure

Analysis Variable : RXXP03X SUM OF PAYMENTS RXSF03X-RXOU03X(IMPUTED)

N	Sum
5940	414530.63

Sample SAS Job for Example A

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

Weighted

The MEANS Procedure

Analysis Variable : RXXP03X SUM OF PAYMENTS RXSF03X-RXOU03X(IMPUTED)

N	Sum
5940	3206154580

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
NOTE: This session is executing on the WIN_PRO platform.

NOTE: This installation is running Base SAS hot fix bundle 82BX09.

NOTE: SAS initialization used:
real time 1.76 seconds
cpu time 0.45 seconds

NOTE: AUTOEXEC processing beginning; file is C:\progra-1\sasins-1\sas\v8\autoexec.sas.

NOTE: AUTOEXEC processing completed.

```
1      OPTIONS LS=132 PS=59;
2
3      TITLE1 "HC-077I";
4      TITLE2 'Sample SAS Job for Example B';
5
6      LIBNAME IN 'C:\data';
```

NOTE: Libref IN was successfully assigned as follows:
Engine: V8
Physical Name: C:\data

```
7
8      *****
9      * Calculate the expenditures for prescribed medicines 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: PROCEDURE FORMAT used:
real time 0.12 seconds
cpu time 0.01 seconds

```
22
23     *-----
24     * Get condition records coded as asthma.
```

2

```

25      *-----;
26      DATA ASCONDS;
27          SET IN.H78 (KEEP=CONDIDX CCCODEX);
28          IF CCCODEX="128";
29      RUN;

```

NOTE: There were 106279 observations read from the data set IN.H78.
NOTE: The data set WORK.ASCONDS has 1839 observations and 2 variables.
NOTE: DATA statement used:

real time	1.46 seconds
cpu time	0.20 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: There were 1839 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCONDS has 1839 observations and 2 variables.
NOTE: PROCEDURE SORT used:

real time	0.04 seconds
cpu time	0.03 seconds

```

35
36      proc print data=asconds (obs=50);
37          title3 "sample print of work.asconds - sorted by condidx";
38          title4 "COND (H78) records where cccodex=128";
39      run;

```

NOTE: There were 50 observations read from the data set WORK.ASCONDS.
NOTE: The PROCEDURE PRINT printed page 1.
NOTE: PROCEDURE PRINT used:

real time	0.20 seconds
cpu time	0.04 seconds

```

40
41      PROC SORT DATA=IN.H77IF1 OUT=CLNK; BY CONDIDX; RUN;

```

NOTE: There were 343747 observations read from the data set IN.H77IF1.
NOTE: The data set WORK.CLNK has 343747 observations and 5 variables.
NOTE: PROCEDURE SORT used:

real time	16.71 seconds
cpu time	1.99 seconds

```

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

```


NOTE: There were 343747 observations read from the data set WORK.CLNK.
NOTE: There were 1839 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCLNKS has 7392 observations and 3 variables.
NOTE: DATA statement used:
real time 0.92 seconds
cpu time 0.38 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: There were 75 observations read from the data set WORK.ASCLNKS.
NOTE: The PROCEDURE PRINT printed pages 2-3.
NOTE: PROCEDURE PRINT used:
real time 0.07 seconds
cpu time 0.04 seconds

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

NOTE: There were 7392 observations read from the data set WORK.ASCLNKS.
NOTE: The data set WORK.ASCLNKS has 7392 observations and 3 variables.
NOTE: PROCEDURE SORT used:
real time 0.03 seconds
cpu time 0.03 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: There were 50 observations read from the data set WORK.ASCLNKS.
NOTE: The PROCEDURE PRINT printed page 4.
NOTE: PROCEDURE PRINT used:
real time 0.01 seconds
cpu time 0.01 seconds

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

NOTE: There were 7392 observations read from the data set WORK.ASCLNKS.
NOTE: The data set WORK.ASCLNKS has 7382 observations and 2 variables.
NOTE: DATA statement used:

```
real time      0.01 seconds
cpu time       0.01 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: There were 50 observations read from the data set WORK.ASCLNKS.

NOTE: The PROCEDURE PRINT printed page 5.

NOTE: PROCEDURE PRINT used:

```
real time      0.01 seconds
cpu time       0.01 seconds
```

```
75
76     *-----
77     * Get PMED records linked to asthma condition records.
78     *-----;
79     PROC SORT DATA=IN.H77A OUT=PMED; BY LINKIDX; RUN;
```

NOTE: There were 304324 observations read from the data set IN.H77A.

NOTE: The data set WORK.PMED has 304324 observations and 13 variables.

NOTE: PROCEDURE SORT used:

```
real time      34.09 seconds
cpu time       4.10 seconds
```

```
80
81     DATA ASPMEDS;
82         MERGE PMED (KEEP=LINKIDX RXRECIDX RXNAME RXXP03X PERWT03F)
83             ASCLNKS (IN=INASCLNK KEEP=EVNTIDX RENAME=(EVNTIDX=LINKIDX));
84         BY LINKIDX;
85         IF INASCLNK & PERWT03F>0;
86     RUN;
```

NOTE: There were 304324 observations read from the data set WORK.PMED.

NOTE: There were 7382 observations read from the data set WORK.ASCLNKS.

NOTE: The data set WORK.ASPMEDS has 10833 observations and 5 variables.

NOTE: DATA statement used:

```
real time      0.51 seconds
cpu time       0.48 seconds
```

```
87
88     proc print data=aspmeds (obs=300);
89         by linkidx;
90         id linkidx;
91         var rxrecidx rxname RXXP03X PERWT03F;
92         title3 "sample print of work.aspmeds";
93         title4 "PMED (HC-077A) records which link to condition records coded as asthma";
94     run;
```

NOTE: There were 300 observations read from the data set WORK.ASPMEDS.

NOTE: The PROCEDURE PRINT printed pages 6-14.

NOTE: PROCEDURE PRINT used:
real time 0.01 seconds
cpu time 0.01 seconds

```
95
96     PROC MEANS DATA=ASPMEDS N SUM;
97         VAR RXXP03X;
98         TITLE3 "Total Rx expenditures associated with asthma";
99     RUN;
```

NOTE: There were 10833 observations read from the data set WORK.ASPMEDS.

NOTE: The PROCEDURE MEANS printed page 15.

NOTE: PROCEDURE MEANS used:
real time 0.07 seconds
cpu time 0.00 seconds

```
100
101     PROC MEANS DATA=ASPMEDS N SUM;
102         VAR RXXP03X;
103         WEIGHT PERWT03F;
104         TITLE3 "Total Rx expenditures associated with asthma";
105         TITLE5 "Weighted";
106     RUN;
```

NOTE: There were 10833 observations read from the data set WORK.ASPMEDS.

NOTE: The PROCEDURE MEANS printed page 16.

NOTE: PROCEDURE MEANS used:
real time 0.03 seconds
cpu time 0.01 seconds

107
108

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

NOTE: The SAS System used:
real time 56.51 seconds
cpu time 7.93 seconds

Sample SAS Job for Example B
 sample print of work.asconds - sorted by condidx
 COND (H78) records where cccodex=128

Obs	CONDIDX	CCCODEX
1	200260120036	128
2	200300100028	128
3	200340280018	128
4	200390220116	128
5	200410170097	128
6	200530380017	128
7	200540110059	128
8	200540230019	128
9	200640100022	128
10	200640100141	128
11	200680340054	128
12	200760300018	128
13	200880360010	128
14	200940110030	128
15	201090290010	128
16	201150170015	128
17	201290280019	128
18	201550320028	128
19	201790290043	128
20	201790320052	128
21	201790360014	128
22	201790590029	128
23	201840320043	128
24	201860330010	128
25	201930150013	128
26	201980300032	128
27	202170150026	128
28	202170290028	128
29	202240300029	128
30	202350170021	128
31	202600660049	128
32	202620130056	128
33	202650560036	128
34	202680360017	128
35	202680360051	128
36	202680430038	128
37	202680590038	128
38	202700210038	128
39	202740110040	128
40	202760300046	128
41	202900140013	128
42	203080160025	128
43	203600120037	128
44	203600290042	128
45	203650120019	128
46	203740440015	128
47	203840180080	128
48	203840250120	128
49	203840250142	128
50	204040400082	128

Sample SAS Job for Example B
 sample print of work.asclnks - sorted by condidx
 events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
200260120036	200260121148	8 PMED
	200260121155	8 PMED
	200260121299	8 PMED
	200260121326	8 PMED
	200260121333	8 PMED
200340280018	200340280112	8 PMED
	200340280143	8 PMED
	200340280150	8 PMED
	200340280218	8 PMED
	200340280225	8 PMED
	200340280270	8 PMED
200390220116	200390220541	8 PMED
200410170097	200410170370	8 PMED
	200410170387	8 PMED
200540110059	200540110241	1 MVIS
	200540110258	1 MVIS
	200540110265	1 MVIS
	200540110272	8 PMED
	200540110296	8 PMED
	200540110309	8 PMED
	200540110316	8 PMED
	200540110323	8 PMED
	200540110330	8 PMED
	200540110347	8 PMED
	200540110378	8 PMED
200540230019	200540230215	1 MVIS
	200540230239	8 PMED
	200540230246	8 PMED
	200540230253	8 PMED
	200540230284	8 PMED
200640100022	200640100883	8 PMED
	200640100890	8 PMED
	200640101139	1 MVIS
	200640101146	1 MVIS
	200640101153	1 MVIS
	200640101177	8 PMED
	200640101273	8 PMED
	200640101280	8 PMED
	200640101317	8 PMED
	200640101324	8 PMED
	200640101331	1 MVIS
	200640101348	1 MVIS
	200640101355	1 MVIS

Sample SAS Job for Example B
 sample print of work.asclnks - sorted by condidx
 events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
200640100022	200640101362	1 MVIS
	200640101379	1 MVIS
	200640101386	1 MVIS
	200640101393	1 MVIS
	200640101406	1 MVIS
	200640101413	1 MVIS
	200640101420	1 MVIS
	200640101437	1 MVIS
	200640101444	1 MVIS
	200640101451	1 MVIS
	200640101468	1 MVIS
	200640101475	1 MVIS
	200640101482	1 MVIS
200680340054	200680340170	8 PMED
	200680340187	8 PMED
200760300018	200760300161	8 PMED
200940110030	200940110140	8 PMED
	200940110164	8 PMED
201090290010	201090290040	8 PMED
	201090290095	8 PMED
201150170015	201150170507	8 PMED
	201150170514	8 PMED
	201150170665	8 PMED
	201150170716	8 PMED
201790290043	201790290410	1 MVIS
	201790290650	8 PMED
	201790290674	8 PMED
	201790290821	1 MVIS
	201790290838	1 MVIS
	201790290845	1 MVIS
	201790290852	1 MVIS
201790290869	1 MVIS	

Sample SAS Job for Example B
 sample print of work.asclnks - sorted by evtntidx

Obs	CONDIDX	EVNTIDX	EVENTYPE
1	200260120036	200260121148	8 PMED
2	200260120036	200260121155	8 PMED
3	200260120036	200260121299	8 PMED
4	200260120036	200260121326	8 PMED
5	200260120036	200260121333	8 PMED
6	200340280018	200340280112	8 PMED
7	200340280018	200340280143	8 PMED
8	200340280018	200340280150	8 PMED
9	200340280018	200340280218	8 PMED
10	200340280018	200340280225	8 PMED
11	200340280018	200340280270	8 PMED
12	200390220116	200390220541	8 PMED
13	200410170097	200410170370	8 PMED
14	200410170097	200410170387	8 PMED
15	200540110059	200540110241	1 MVIS
16	200540110059	200540110258	1 MVIS
17	200540110059	200540110265	1 MVIS
18	200540110059	200540110272	8 PMED
19	200540110059	200540110296	8 PMED
20	200540110059	200540110309	8 PMED
21	200540110059	200540110316	8 PMED
22	200540110059	200540110323	8 PMED
23	200540110059	200540110330	8 PMED
24	200540110059	200540110347	8 PMED
25	200540110059	200540110378	8 PMED
26	200540230019	200540230215	1 MVIS
27	200540230019	200540230239	8 PMED
28	200540230019	200540230246	8 PMED
29	200540230019	200540230253	8 PMED
30	200540230019	200540230284	8 PMED
31	200640100022	200640100883	8 PMED
32	200640100022	200640100890	8 PMED
33	200640100022	200640101139	1 MVIS
34	200640100022	200640101146	1 MVIS
35	200640100022	200640101153	1 MVIS
36	200640100022	200640101177	8 PMED
37	200640100022	200640101273	8 PMED
38	200640100022	200640101280	8 PMED
39	200640100022	200640101317	8 PMED
40	200640100022	200640101324	8 PMED
41	200640100022	200640101331	1 MVIS
42	200640100022	200640101348	1 MVIS
43	200640100022	200640101355	1 MVIS
44	200640100022	200640101362	1 MVIS
45	200640100022	200640101379	1 MVIS
46	200640100022	200640101386	1 MVIS
47	200640100022	200640101393	1 MVIS
48	200640100022	200640101406	1 MVIS
49	200640100022	200640101413	1 MVIS
50	200640100022	200640101420	1 MVIS

Sample SAS Job for Example B
 sample print of unique evtidxs from work.asclnks

Obs	EVNTIDX	EVENTYPE
1	200260121148	8 PMED
2	200260121155	8 PMED
3	200260121299	8 PMED
4	200260121326	8 PMED
5	200260121333	8 PMED
6	200340280112	8 PMED
7	200340280143	8 PMED
8	200340280150	8 PMED
9	200340280218	8 PMED
10	200340280225	8 PMED
11	200340280270	8 PMED
12	200390220541	8 PMED
13	200410170370	8 PMED
14	200410170387	8 PMED
15	200540110241	1 MVIS
16	200540110258	1 MVIS
17	200540110265	1 MVIS
18	200540110272	8 PMED
19	200540110296	8 PMED
20	200540110309	8 PMED
21	200540110316	8 PMED
22	200540110323	8 PMED
23	200540110330	8 PMED
24	200540110347	8 PMED
25	200540110378	8 PMED
26	200540230215	1 MVIS
27	200540230239	8 PMED
28	200540230246	8 PMED
29	200540230253	8 PMED
30	200540230284	8 PMED
31	200640100883	8 PMED
32	200640100890	8 PMED
33	200640101139	1 MVIS
34	200640101146	1 MVIS
35	200640101153	1 MVIS
36	200640101177	8 PMED
37	200640101273	8 PMED
38	200640101280	8 PMED
39	200640101317	8 PMED
40	200640101324	8 PMED
41	200640101331	1 MVIS
42	200640101348	1 MVIS
43	200640101355	1 MVIS
44	200640101362	1 MVIS
45	200640101379	1 MVIS
46	200640101386	1 MVIS
47	200640101393	1 MVIS
48	200640101406	1 MVIS
49	200640101413	1 MVIS
50	200640101420	1 MVIS

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
200260121148	200260121148001	ATROVENT	58.37	17683.329086
	200260121148002	ATROVENT	58.37	17683.329086
200260121155	200260121155001	ADVAIR DISKUS	177.84	17683.329086
	200260121155002	ADVAIR DISKUS	177.84	17683.329086
200260121299	200260121299001	SINGULAR	107.07	17683.329086
200260121326	200260121326001	ATROVENT	58.37	17683.329086
200260121333	200260121333001	ADVAIR DISKUS	135.60	17683.329086
200340280112	200340280112001	ADVAIR DISKUS	177.84	4221.140660
200340280143	200340280143001	ALBUTEROL	25.95	4221.140660
	200340280143002	ALBUTEROL	25.95	4221.140660
200340280150	200340280150001	AZMACORT	65.24	4221.140660
	200340280150002	AZMACORT	65.24	4221.140660
200340280218	200340280218001	ALBUTEROL	21.41	4221.140660
200340280225	200340280225001	NASONEX	79.81	4221.140660
200340280270	200340280270001	ADVAIR DISKUS 100/50	287.72	4221.140660
200390220541	200390220541001	ADVAIR DISKUS	177.84	8837.632649
200410170370	200410170370001	BECONASE AQ	70.00	4180.514701
200410170387	200410170387001	ALBUTEROL	14.50	4180.514701
200540110272	200540110272001	ORAPRED	28.52	5774.720123
	200540110272002	ORAPRED	28.52	5774.720123
	200540110272003	ORAPRED	28.52	5774.720123
	200540110272004	ORAPRED	28.52	5774.720123
200540110296	200540110296001	REGLAN	35.20	5774.720123
	200540110296002	REGLAN	35.20	5774.720123
	200540110296003	REGLAN	35.20	5774.720123
	200540110296004	REGLAN	35.20	5774.720123
200540110309	200540110309001	PULMICORT	129.85	5774.720123
	200540110309002	PULMICORT	129.85	5774.720123
	200540110309003	PULMICORT	129.85	5774.720123
	200540110309004	PULMICORT	129.85	5774.720123
200540110316	200540110316001	ALBUTEROL	21.41	5774.720123
	200540110316002	ALBUTEROL	21.41	5774.720123

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
200540110316	200540110316003	ALBUTEROL	21.41	5774.720123
	200540110316004	ALBUTEROL	21.41	5774.720123
	200540110316005	ALBUTEROL	21.41	5774.720123
200540110323	200540110323001	FLOVENT	81.06	5774.720123
	200540110323002	FLOVENT	81.06	5774.720123
	200540110323003	FLOVENT	81.06	5774.720123
	200540110323004	FLOVENT	81.06	5774.720123
	200540110323005	FLOVENT	81.06	5774.720123
200540110330	200540110330001	SINGULAIR	82.75	5774.720123
	200540110330002	SINGULAIR	82.75	5774.720123
	200540110330003	SINGULAIR	82.75	5774.720123
	200540110330004	SINGULAIR	82.75	5774.720123
	200540110330005	SINGULAIR	82.75	5774.720123
200540110347	200540110347001	PULMICORT	129.85	5774.720123
	200540110347002	PULMICORT	129.85	5774.720123
	200540110347003	PULMICORT	129.85	5774.720123
	200540110347004	PULMICORT	129.85	5774.720123
200540110378	200540110378001	SINGULAIR	82.75	5774.720123
	200540110378002	SINGULAIR	82.75	5774.720123
	200540110378003	SINGULAIR	82.75	5774.720123
	200540110378004	SINGULAIR	82.75	5774.720123
200540230239	200540230239001	FLOVENT	81.06	7793.388531
	200540230239002	FLOVENT	81.06	7793.388531
	200540230239003	FLOVENT	81.06	7793.388531
	200540230239004	FLOVENT	81.06	7793.388531
	200540230239005	FLOVENT	81.06	7793.388531
200540230246	200540230246001	NEBULIZER	187.02	7793.388531
	200540230246002	NEBULIZER	187.02	7793.388531
	200540230246003	NEBULIZER	187.02	7793.388531
200540230253	200540230253001	ALBUTEROL	21.41	7793.388531
	200540230253002	ALBUTEROL	21.41	7793.388531
	200540230253003	ALBUTEROL	21.41	7793.388531
	200540230253004	ALBUTEROL	21.41	7793.388531
	200540230253005	ALBUTEROL	21.41	7793.388531
200540230284	200540230284001	ALBUTEROL	21.41	7793.388531
200640100883	200640100883001	ALBUTEROL	52.40	12752.916659
	200640100883002	ALBUTEROL	52.40	12752.916659
200640100890	200640100890001	CLARITIN	84.36	12752.916659
	200640100890002	CLARITIN	84.36	12752.916659

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
200640101177	200640101177001	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177002	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177003	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177004	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177005	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177006	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177007	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177008	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177009	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177010	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177011	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177012	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177013	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177014	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177015	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177016	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177017	WE ALLERGY (GRAPE)	17.76	12752.916659
	200640101177018	WE ALLERGY (GRAPE)	17.76	12752.916659
200640101273	200640101273001	SINGULAIR	91.61	12752.916659
	200640101273002	SINGULAIR	91.61	12752.916659
	200640101273003	SINGULAIR	91.61	12752.916659
	200640101273004	SINGULAIR	91.61	12752.916659
200640101280	200640101280001	ALBUTEROL	29.95	12752.916659
	200640101280002	ALBUTEROL	29.95	12752.916659
	200640101280003	ALBUTEROL	29.95	12752.916659
	200640101280004	ALBUTEROL	29.95	12752.916659
200640101317	200640101317001	SEREVENT	183.78	12752.916659
	200640101317002	SEREVENT	183.78	12752.916659
	200640101317003	SEREVENT	183.78	12752.916659
	200640101317004	SEREVENT	183.78	12752.916659
200640101324	200640101324001	FLOVENT	20.00	12752.916659
	200640101324002	FLOVENT	20.00	12752.916659
	200640101324003	FLOVENT	20.00	12752.916659
	200640101324004	FLOVENT	20.00	12752.916659
200680340170	200680340170001	FLOVENT	73.48	3578.972297
200680340187	200680340187001	FLONASE NASAL SPRAY	65.01	3578.972297
200760300161	200760300161001	ALBUTEROL	17.30	2059.152215
200940110140	200940110140001	ALBUTEROL	25.95	1214.643497
200940110164	200940110164001	XOPENEX	108.22	1214.643497

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
201090290040	201090290040001	SEREVENT	242.28	2068.683012
201090290095	201090290095001	SEREVENT	82.51	2068.683012
201150170507	201150170507001	COMBIVENT	57.06	7928.833801
	201150170507002	COMBIVENT	57.06	7928.833801
201150170514	201150170514001	FLOVENT	81.06	7928.833801
201150170665	201150170665001	ALBUTEROL/IPRATROPIUM	108.58	7928.833801
	201150170665002	ALBUTEROL/IPRATROPIUM	108.58	7928.833801
	201150170665003	ALBUTEROL/IPRATROPIUM	108.58	7928.833801
201150170716	201150170716001	FLUTICASONE PROP	85.65	7928.833801
201790290650	201790290650001	ALBUTEROL	42.82	2626.868553
	201790290650002	ALBUTEROL	42.82	2626.868553
	201790290650003	ALBUTEROL	42.82	2626.868553
201790290674	201790290674001	SINGULAIR	86.56	2626.868553
	201790290674002	SINGULAIR	86.56	2626.868553
	201790290674003	SINGULAIR	86.56	2626.868553
	201790290674004	SINGULAIR	86.56	2626.868553
201790290965	201790290965001	ALBUTEROL	42.82	2626.868553
	201790290965002	ALBUTEROL	42.82	2626.868553
	201790290965003	ALBUTEROL	42.82	2626.868553
	201790290965004	ALBUTEROL	42.82	2626.868553
	201790290965005	ALBUTEROL	42.82	2626.868553
	201790290965006	ALBUTEROL	42.82	2626.868553
	201790290965007	ALBUTEROL	42.82	2626.868553
	201790290965008	ALBUTEROL	42.82	2626.868553
	201790290965009	ALBUTEROL	42.82	2626.868553
	201790290965010	ALBUTEROL	42.82	2626.868553
	201790290965011	ALBUTEROL	42.82	2626.868553
	201790290965012	ALBUTEROL	42.82	2626.868553
201790290996	201790290996001	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996002	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996003	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996004	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996005	SINGULAIR (UNIT OF USE)	91.61	2626.868553
	201790290996006	SINGULAIR (UNIT OF USE)	91.61	2626.868553
201790291153	201790291153001	ALBUTEROL	42.82	2626.868553
	201790291153002	ALBUTEROL	42.82	2626.868553
	201790291153003	ALBUTEROL	42.82	2626.868553
201790291184	201790291184001	SINGULAIR	86.56	2626.868553

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
201790291184	201790291184002	SINGULAIR	86.56	2626.868553
	201790291184003	SINGULAIR	86.56	2626.868553
201790360181	201790360181001	SINGULAIR	79.86	4144.408785
	201790360181002	SINGULAIR	79.86	4144.408785
	201790360181003	SINGULAIR	79.86	4144.408785
201790360198	201790360198001	THEOPHYLLINE	39.18	4144.408785
	201790360198002	THEOPHYLLINE	39.18	4144.408785
201790360201	201790360201001	ALBUTEROL	29.00	4144.408785
	201790360201002	ALBUTEROL	29.00	4144.408785
201790360249	201790360249001	THEOPHYLLINE	39.18	4144.408785
	201790360249002	THEOPHYLLINE	39.18	4144.408785
	201790360249003	THEOPHYLLINE	39.18	4144.408785
201790360256	201790360256001	ALBUTEROL	29.00	4144.408785
	201790360256002	ALBUTEROL	29.00	4144.408785
	201790360256003	ALBUTEROL	29.00	4144.408785
	201790360256004	ALBUTEROL	29.00	4144.408785
	201790360256005	ALBUTEROL	29.00	4144.408785
	201790360256006	ALBUTEROL	29.00	4144.408785
	201790360256007	ALBUTEROL	29.00	4144.408785
	201790360256008	ALBUTEROL	29.00	4144.408785
	201790360256009	ALBUTEROL	29.00	4144.408785
	201790360256010	ALBUTEROL	29.00	4144.408785
	201790360256011	ALBUTEROL	29.00	4144.408785
	201790360256012	ALBUTEROL	29.00	4144.408785
	201790360256013	ALBUTEROL	29.00	4144.408785
	201790360256014	ALBUTEROL	29.00	4144.408785
	201790360256015	ALBUTEROL	29.00	4144.408785
	201790360256016	ALBUTEROL	29.00	4144.408785
	201790360256017	ALBUTEROL	29.00	4144.408785
	201790360256018	ALBUTEROL	29.00	4144.408785
201790360263	201790360263001	SINGULAR	107.07	4144.408785
	201790360263002	SINGULAR	107.07	4144.408785
201790360270	201790360270001	ALBUTEROL	42.82	4144.408785
	201790360270002	ALBUTEROL	42.82	4144.408785
	201790360270003	ALBUTEROL	42.82	4144.408785
201790360287	201790360287001	SINGULAR	107.07	4144.408785
	201790360287002	SINGULAR	107.07	4144.408785
	201790360287003	SINGULAR	107.07	4144.408785
201840320196	201840320196001	NEBULIZER	187.02	4518.276232

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
201840320343	201840320343001	ALBUTEROL	13.69	4518.276232
201860330274	201860330274001	ALBUTEROL	29.79	3205.761224
201930150025	201930150025001	CUTIVATE	42.89	3820.382576
201930150032	201930150032001	ALBUTEROL	24.90	3820.382576
201930150049	201930150049001	ZITHROMAX	43.20	3820.382576
201930150056	201930150056001	CUTIVATE	61.58	3820.382576
201930150063	201930150063001	ALBUTEROL	24.90	3820.382576
202170150595	202170150595001	FLOVENT	66.60	10143.491415
	202170150595002	FLOVENT	66.60	10143.491415
	202170150595003	FLOVENT	66.60	10143.491415
	202170150595004	FLOVENT	66.60	10143.491415
202170150608	202170150608001	ALBUTEROL	21.41	10143.491415
	202170150608002	ALBUTEROL	21.41	10143.491415
	202170150608003	ALBUTEROL	21.41	10143.491415
202170150653	202170150653001	ALBUTEROL	21.41	10143.491415
	202170150653002	ALBUTEROL	21.41	10143.491415
	202170150653003	ALBUTEROL	21.41	10143.491415
202170150660	202170150660001	ADVAIR DISKUS	122.96	10143.491415
	202170150660002	ADVAIR DISKUS	122.96	10143.491415
202350170439	202350170439001	ALBUTEROL	44.84	6373.202393
202350170600	202350170600001	ALBUTEROL	44.84	6373.202393
	202350170600002	ALBUTEROL	44.84	6373.202393
	202350170600003	ALBUTEROL	44.84	6373.202393
202350170775	202350170775001	ALBUTEROL	26.90	6373.202393
	202350170775002	ALBUTEROL	26.90	6373.202393
	202350170775003	ALBUTEROL	26.90	6373.202393
	202350170775004	ALBUTEROL	26.90	6373.202393
	202350170775005	ALBUTEROL	26.90	6373.202393
	202350170775006	ALBUTEROL	26.90	6373.202393
	202350170775007	ALBUTEROL	26.90	6373.202393
	202350170775008	ALBUTEROL	26.90	6373.202393
202350170802	202350170802001	RESCON MX	36.42	6373.202393
	202350170802002	RESCON MX	36.42	6373.202393
202600660146	202600660146001	ALBUTEROL	11.42	4378.300587

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
202620130737	202620130737001	COMBIVENT	70.23	6639.386741
202620130744	202620130744001	XX-SALMETEROL	70.44	6639.386741
202620130768	202620130768001	QVAR	52.69	6639.386741
202620130775	202620130775001	G/P	22.18	6639.386741
202620130826	202620130826001	COMBIVENT	59.91	6639.386741
202620130864	202620130864001	G/P	22.18	6639.386741
202650560423	202650560423001	ALBUTEROL	42.82	3495.424052
	202650560423002	ALBUTEROL	42.82	3495.424052
	202650560423003	ALBUTEROL	42.82	3495.424052
	202650560423004	ALBUTEROL	42.82	3495.424052
	202650560423005	ALBUTEROL	42.82	3495.424052
	202650560423006	ALBUTEROL	42.82	3495.424052
202650560536	202650560536001	ALBUTEROL	42.82	3495.424052
	202650560536002	ALBUTEROL	42.82	3495.424052
	202650560536003	ALBUTEROL	42.82	3495.424052
202680360239	202680360239001	STERAPRED DS	25.78	2106.116391
202680360373	202680360373001	ADVAIR DISKUS	107.75	2106.116391
202680360380	202680360380001	SINGULAIR	78.06	2106.116391
	202680360380002	SINGULAIR	78.06	2106.116391
202680360506	202680360506001	SINGULAIR	82.75	2106.116391
	202680360506002	SINGULAIR	82.75	2106.116391
202680360513	202680360513001	ADVAIR DISKUS	107.75	2106.116391
	202680360513002	ADVAIR DISKUS	107.75	2106.116391
202680360520	202680360520001	BRONCHO SALINE	9.90	2106.116391
	202680360520002	BRONCHO SALINE	9.90	2106.116391
202700210138	202700210138001	ALBUTEROL	17.30	4510.391596
202740110637	202740110637001	AZMACORT	68.12	4496.367476
	202740110637002	AZMACORT	68.12	4496.367476
202740110644	202740110644001	ALBUTEROL	22.50	4496.367476
	202740110644002	ALBUTEROL	22.50	4496.367476
202740110651	202740110651001	ALBUTEROL	154.50	4496.367476
	202740110651002	ALBUTEROL	154.50	4496.367476

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
202740111041	202740111041001	AZMACORT	68.12	4496.367476
	202740111041002	AZMACORT	68.12	4496.367476
	202740111041003	AZMACORT	68.12	4496.367476
	202740111041004	AZMACORT	68.12	4496.367476
	202740111041005	AZMACORT	68.12	4496.367476
202740111058	202740111058001	ALBUTEROL	22.50	4496.367476
	202740111058002	ALBUTEROL	22.50	4496.367476
	202740111058003	ALBUTEROL	22.50	4496.367476
	202740111058004	ALBUTEROL	22.50	4496.367476
	202740111058005	ALBUTEROL	22.50	4496.367476
202740111065	202740111065001	ALBUTEROL	154.50	4496.367476
	202740111065002	ALBUTEROL	154.50	4496.367476
	202740111065003	ALBUTEROL	154.50	4496.367476
	202740111065004	ALBUTEROL	154.50	4496.367476
	202740111065005	ALBUTEROL	154.50	4496.367476
202760300132	202760300132001	ALBUTEROL	29.79	13551.349815
202760300149	202760300149001	QVAR	52.69	13551.349815
203080160284	203080160284001	NASACORT AQ	63.14	3192.465247
203600120232	203600120232001	ALBUTEROL	22.49	16689.535921
	203600120232002	ALBUTEROL	22.49	16689.535921
203600290225	203600290225001	IPRATROPIUM BROMIDE	661.32	15542.911419
203600290294	203600290294001	NEBULIZER	2.94	15542.911419
203600290307	203600290307001	DIOVAN HCT	51.12	15542.911419
203740440216	203740440216001	PREDNISONE	3.06	12507.699207
203740440223	203740440223001	TRIMOX	8.93	12507.699207
203740440230	203740440230001	ALLEGRA	73.93	12507.699207
203740440247	203740440247001	ALBUTEROL	27.85	12507.699207
	203740440247002	ALBUTEROL	27.85	12507.699207
203740440278	203740440278001	ALBUTEROL	40.59	12507.699207
203840180220	203840180220001	ALBUTEROL	29.00	28194.096575
203840250371	203840250371001	ORAPRED (DYE-FREE, GRAPE)	25.00	25235.151951
203840250395	203840250395001	PRELONE	18.05	25235.151951

Sample SAS Job for Example B
sample print of work.aspmeds

PMED (HC-077A) records which link to condition records coded as asthma

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
203840250408	203840250408001	ALBUTEROL SULFATE (PF)	74.16	25235.151951
204040400269	204040400269001	QVAR	49.42	5146.238970
	204040400269002	QVAR	49.42	5146.238970
204060130368	204060130368001	ALBUTEROL	14.89	21126.427199
204190191191	204190191191001	FLOVENT	85.65	16375.493603
	204190191191002	FLOVENT	85.65	16375.493603
	204190191191003	FLOVENT	85.65	16375.493603
	204190191191004	FLOVENT	85.65	16375.493603
204190191280	204190191280001	PROVENTIL HFA	42.89	16375.493603
204190191297	204190191297001	FLONASE	46.44	16375.493603
	204190191297002	FLONASE	46.44	16375.493603
204340120109	204340120109001	ALBUTEROL	17.50	17838.278713
	204340120109002	ALBUTEROL	17.50	17838.278713
204350100100	204350100100001	AEROBID-M (MENTHOL)	62.38	18470.946812
204350100148	204350100148001	SEREVENT	76.38	18470.946812

Sample SAS Job for Example B
Total Rx expenditures associated with asthma

The MEANS Procedure

Analysis Variable : RXXP03X SUM OF PAYMENTS RXSF03X-RXOU03X(IMPUTED)

N	Sum
10833	736783.09

Sample SAS Job for Example B
Total Rx expenditures associated with asthma

Weighted

The MEANS Procedure

Analysis Variable : RXXP03X SUM OF PAYMENTS RXSF03X-RXOU03X(IMPUTED)

N	Sum
10833	6255664604

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
NOTE: This session is executing on the WIN_PRO platform.

NOTE: This installation is running Base SAS hot fix bundle 82BX09.

NOTE: SAS initialization used:
real time 2.17 seconds
cpu time 0.37 seconds

NOTE: AUTOEXEC processing beginning; file is C:\progra-1\sasins-1\sas\v8\autoexec.sas.

NOTE: AUTOEXEC processing completed.

```
1
2      OPTIONS LS=132 PS=59;
3
4      TITLE1 "HC-077I";
5      TITLE2 'Sample SAS Job for Example C';
6
7      LIBNAME IN 'C:\DATA';
```

NOTE: Libref IN was successfully assigned as follows:
Engine: V8
Physical Name: C:\DATA

```
8
9      *****
10     * Calculate the expenditures for medical visits associated with asthma.
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     RUN;
```

NOTE: PROCEDURE FORMAT used:
real time 0.14 seconds
cpu time 0.00 seconds

```
23
24     *-----
```

2

```

25      * Get conditions records coded as asthma.
26      *-----;
27      DATA ASCONDS;
28          SET IN.H78 (KEEP=CONDIDX CCCODEX);
29          IF CCCODEX="128";
30      RUN;

```

NOTE: There were 106279 observations read from the data set IN.H78.
NOTE: The data set WORK.ASCONDS has 1839 observations and 2 variables.
NOTE: DATA statement used:

real time	1.40 seconds
cpu time	0.14 seconds

```

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

```

NOTE: There were 1839 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCONDS has 1839 observations and 2 variables.
NOTE: PROCEDURE SORT used:

real time	0.06 seconds
cpu time	0.03 seconds

```

36
37      proc print data=asconds (obs=50);
38          title3 "sample print of work.asconds - sorted by condidx";
39          title4 "COND (HC-078) records where cccodex=128";
40      run;

```

NOTE: There were 50 observations read from the data set WORK.ASCONDS.
NOTE: The PROCEDURE PRINT printed page 1.
NOTE: PROCEDURE PRINT used:

real time	0.46 seconds
cpu time	0.00 seconds

```

41
42      PROC SORT DATA=IN.H77IF1 OUT=CLNK; BY CONDIDX; RUN;

```

NOTE: There were 343747 observations read from the data set IN.H77IF1.
NOTE: The data set WORK.CLNK has 343747 observations and 5 variables.
NOTE: PROCEDURE SORT used:

real time	18.68 seconds
cpu time	2.10 seconds

```

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

```

NOTE: There were 343747 observations read from the data set WORK.CLNK.
NOTE: There were 1839 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCLNKS has 7392 observations and 3 variables.
NOTE: DATA statement used:
real time 0.39 seconds
cpu time 0.37 seconds

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

NOTE: There were 75 observations read from the data set WORK.ASCLNKS.
NOTE: The PROCEDURE PRINT printed pages 2-3.
NOTE: PROCEDURE PRINT used:
real time 0.06 seconds
cpu time 0.03 seconds

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

NOTE: There were 7392 observations read from the data set WORK.ASCLNKS.
NOTE: The data set WORK.ASCLNKS has 7392 observations and 3 variables.
NOTE: PROCEDURE SORT used:
real time 0.01 seconds
cpu time 0.01 seconds

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

NOTE: There were 50 observations read from the data set WORK.ASCLNKS.
NOTE: The PROCEDURE PRINT printed page 4.
NOTE: PROCEDURE PRINT used:
real time 0.01 seconds
cpu time 0.00 seconds

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

NOTE: There were 7392 observations read from the data set WORK.ASCLNKS.
NOTE: The data set WORK.ASCLNKS has 7382 observations and 2 variables.

NOTE: DATA statement used:
 real time 0.01 seconds
 cpu time 0.01 seconds

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

NOTE: There were 50 observations read from the data set WORK.ASCLNKS.

NOTE: The PROCEDURE PRINT printed page 5.

NOTE: PROCEDURE PRINT used:
 real time 0.01 seconds
 cpu time 0.00 seconds

```
76
77     *-----
78     * Get non-telephone office based visits (i.e. MVIS events) for persons with positive weights.
79     *-----;
80     DATA MVIS;
81         SET IN.H77G (KEEP=EVNTIDX PERWT03F SEETLKPV OBXP03X);
82         IF PERWT03F > 0 & SEETLKPV NE 2;
83     RUN;
```

NOTE: There were 154853 observations read from the data set IN.H77G.

NOTE: The data set WORK.MVIS has 149794 observations and 4 variables.

NOTE: DATA statement used:
 real time 4.03 seconds
 cpu time 0.51 seconds

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

NOTE: There were 149794 observations read from the data set WORK.MVIS.

NOTE: The data set WORK.MVIS has 149794 observations and 4 variables.

NOTE: PROCEDURE SORT used:
 real time 0.93 seconds
 cpu time 0.57 seconds

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

NOTE: There were 7382 observations read from the data set WORK.ASCLNKS.

NOTE: There were 149794 observations read from the data set WORK.MVIS.

NOTE: The data set WORK.ASMVIS has 2219 observations and 5 variables.

NOTE: DATA statement used:

```
real time      0.17 seconds
cpu time       0.17 seconds
```

```
96
97   proc print data=asmvis (obs=50);
98       format eventype eventype.;
99       title3 "sample print of work.asmvis";
100      title4 "unique evtidxs from work.asclnks that are non-telephone MVIS (HC-077G) events";
101      run;
```

NOTE: There were 50 observations read from the data set WORK.ASMVIS.

NOTE: The PROCEDURE PRINT printed page 6.

NOTE: PROCEDURE PRINT used:

```
real time      0.03 seconds
cpu time       0.01 seconds
```

```
102
103   PROC MEANS DATA=ASMVIS N SUM;
104       VAR OBP03X;
105       TITLE3 "Total medical visit expenditures (excluding telephone) associated with asthma";
106       RUN;
```

NOTE: There were 2219 observations read from the data set WORK.ASMVIS.

NOTE: The PROCEDURE MEANS printed page 7.

NOTE: PROCEDURE MEANS used:

```
real time      0.31 seconds
cpu time       0.01 seconds
```

```
107
108   PROC MEANS DATA=ASMVIS SUM;
109       VAR OBP03X;
110       WEIGHT PERWT03F;
111       TITLE3 "Total medical visit expenditures (excluding telephone) associated with asthma";
112       TITLE5 "Weighted";
113       RUN;
```

NOTE: There were 2219 observations read from the data set WORK.ASMVIS.

NOTE: The PROCEDURE MEANS printed page 8.

NOTE: PROCEDURE MEANS used:

```
real time      0.01 seconds
cpu time       0.00 seconds
```

```
114
115
116
```

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

NOTE: The SAS System used:

```
real time      29.42 seconds
cpu time       4.49 seconds
```


Sample SAS Job for Example C
 sample print of work.asconds - sorted by condidx
 COND (HC-078) records where cccodex=128

Obs	CONDIDX	CCCODEX
1	200260120036	128
2	200300100028	128
3	200340280018	128
4	200390220116	128
5	200410170097	128
6	200530380017	128
7	200540110059	128
8	200540230019	128
9	200640100022	128
10	200640100141	128
11	200680340054	128
12	200760300018	128
13	200880360010	128
14	200940110030	128
15	201090290010	128
16	201150170015	128
17	201290280019	128
18	201550320028	128
19	201790290043	128
20	201790320052	128
21	201790360014	128
22	201790590029	128
23	201840320043	128
24	201860330010	128
25	201930150013	128
26	201980300032	128
27	202170150026	128
28	202170290028	128
29	202240300029	128
30	202350170021	128
31	202600660049	128
32	202620130056	128
33	202650560036	128
34	202680360017	128
35	202680360051	128
36	202680430038	128
37	202680590038	128
38	202700210038	128
39	202740110040	128
40	202760300046	128
41	202900140013	128
42	203080160025	128
43	203600120037	128
44	203600290042	128
45	203650120019	128
46	203740440015	128
47	203840180080	128
48	203840250120	128
49	203840250142	128
50	204040400082	128

Sample SAS Job for Example C
 sample print of work.asclnks - sorted by condidx
 events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
200260120036	200260121148	8 PMED
	200260121155	8 PMED
	200260121299	8 PMED
	200260121326	8 PMED
	200260121333	8 PMED
200340280018	200340280112	8 PMED
	200340280143	8 PMED
	200340280150	8 PMED
	200340280218	8 PMED
	200340280225	8 PMED
200340280270	8 PMED	
200390220116	200390220541	8 PMED
200410170097	200410170370	8 PMED
	200410170387	8 PMED
200540110059	200540110241	1 MVIS
	200540110258	1 MVIS
	200540110265	1 MVIS
	200540110272	8 PMED
	200540110296	8 PMED
	200540110309	8 PMED
	200540110316	8 PMED
	200540110323	8 PMED
	200540110330	8 PMED
	200540110347	8 PMED
200540110378	8 PMED	
200540230019	200540230215	1 MVIS
	200540230239	8 PMED
	200540230246	8 PMED
	200540230253	8 PMED
	200540230284	8 PMED
200640100022	200640100883	8 PMED
	200640100890	8 PMED
	200640101139	1 MVIS
	200640101146	1 MVIS
	200640101153	1 MVIS
	200640101177	8 PMED
	200640101273	8 PMED
	200640101280	8 PMED
	200640101317	8 PMED
	200640101324	8 PMED
	200640101331	1 MVIS
	200640101348	1 MVIS
	200640101355	1 MVIS

Sample SAS Job for Example C
 sample print of work.asclnks - sorted by condidx
 events linked to asthma condition records

CONDIDX	EVNTIDX	EVENTYPE
200640100022	200640101362	1 MVIS
	200640101379	1 MVIS
	200640101386	1 MVIS
	200640101393	1 MVIS
	200640101406	1 MVIS
	200640101413	1 MVIS
	200640101420	1 MVIS
	200640101437	1 MVIS
	200640101444	1 MVIS
	200640101451	1 MVIS
	200640101468	1 MVIS
	200640101475	1 MVIS
	200640101482	1 MVIS
200680340054	200680340170	8 PMED
	200680340187	8 PMED
200760300018	200760300161	8 PMED
200940110030	200940110140	8 PMED
	200940110164	8 PMED
201090290010	201090290040	8 PMED
	201090290095	8 PMED
201150170015	201150170507	8 PMED
	201150170514	8 PMED
	201150170665	8 PMED
	201150170716	8 PMED
201790290043	201790290410	1 MVIS
	201790290650	8 PMED
	201790290674	8 PMED
	201790290821	1 MVIS
	201790290838	1 MVIS
	201790290845	1 MVIS
	201790290852	1 MVIS
201790290869	1 MVIS	

Sample SAS Job for Example C
 sample print of work.asclnks - sorted by evtntidx

Obs	CONDIDX	EVNTIDX	EVENTYPE
1	200260120036	200260121148	8 PMED
2	200260120036	200260121155	8 PMED
3	200260120036	200260121299	8 PMED
4	200260120036	200260121326	8 PMED
5	200260120036	200260121333	8 PMED
6	200340280018	200340280112	8 PMED
7	200340280018	200340280143	8 PMED
8	200340280018	200340280150	8 PMED
9	200340280018	200340280218	8 PMED
10	200340280018	200340280225	8 PMED
11	200340280018	200340280270	8 PMED
12	200390220116	200390220541	8 PMED
13	200410170097	200410170370	8 PMED
14	200410170097	200410170387	8 PMED
15	200540110059	200540110241	1 MVIS
16	200540110059	200540110258	1 MVIS
17	200540110059	200540110265	1 MVIS
18	200540110059	200540110272	8 PMED
19	200540110059	200540110296	8 PMED
20	200540110059	200540110309	8 PMED
21	200540110059	200540110316	8 PMED
22	200540110059	200540110323	8 PMED
23	200540110059	200540110330	8 PMED
24	200540110059	200540110347	8 PMED
25	200540110059	200540110378	8 PMED
26	200540230019	200540230215	1 MVIS
27	200540230019	200540230239	8 PMED
28	200540230019	200540230246	8 PMED
29	200540230019	200540230253	8 PMED
30	200540230019	200540230284	8 PMED
31	200640100022	200640100883	8 PMED
32	200640100022	200640100890	8 PMED
33	200640100022	200640101139	1 MVIS
34	200640100022	200640101146	1 MVIS
35	200640100022	200640101153	1 MVIS
36	200640100022	200640101177	8 PMED
37	200640100022	200640101273	8 PMED
38	200640100022	200640101280	8 PMED
39	200640100022	200640101317	8 PMED
40	200640100022	200640101324	8 PMED
41	200640100022	200640101331	1 MVIS
42	200640100022	200640101348	1 MVIS
43	200640100022	200640101355	1 MVIS
44	200640100022	200640101362	1 MVIS
45	200640100022	200640101379	1 MVIS
46	200640100022	200640101386	1 MVIS
47	200640100022	200640101393	1 MVIS
48	200640100022	200640101406	1 MVIS
49	200640100022	200640101413	1 MVIS
50	200640100022	200640101420	1 MVIS

Sample SAS Job for Example C
 sample print of unique evtidxs from work.asclnks

Obs	EVNTIDX	EVENTYPE
1	200260121148	8 PMED
2	200260121155	8 PMED
3	200260121299	8 PMED
4	200260121326	8 PMED
5	200260121333	8 PMED
6	200340280112	8 PMED
7	200340280143	8 PMED
8	200340280150	8 PMED
9	200340280218	8 PMED
10	200340280225	8 PMED
11	200340280270	8 PMED
12	200390220541	8 PMED
13	200410170370	8 PMED
14	200410170387	8 PMED
15	200540110241	1 MVIS
16	200540110258	1 MVIS
17	200540110265	1 MVIS
18	200540110272	8 PMED
19	200540110296	8 PMED
20	200540110309	8 PMED
21	200540110316	8 PMED
22	200540110323	8 PMED
23	200540110330	8 PMED
24	200540110347	8 PMED
25	200540110378	8 PMED
26	200540230215	1 MVIS
27	200540230239	8 PMED
28	200540230246	8 PMED
29	200540230253	8 PMED
30	200540230284	8 PMED
31	200640100883	8 PMED
32	200640100890	8 PMED
33	200640101139	1 MVIS
34	200640101146	1 MVIS
35	200640101153	1 MVIS
36	200640101177	8 PMED
37	200640101273	8 PMED
38	200640101280	8 PMED
39	200640101317	8 PMED
40	200640101324	8 PMED
41	200640101331	1 MVIS
42	200640101348	1 MVIS
43	200640101355	1 MVIS
44	200640101362	1 MVIS
45	200640101379	1 MVIS
46	200640101386	1 MVIS
47	200640101393	1 MVIS
48	200640101406	1 MVIS
49	200640101413	1 MVIS
50	200640101420	1 MVIS

Sample SAS Job for Example C
 sample print of work.asmvis

unique evtntidxs from work.asclinks that are non-telephone MVIS (HC-077G) events

Obs	EVNTIDX	EVENTYPE	SEETLKPV	OBP03X	PERWT03F
1	200540110241	1 MVIS	1	60.00	5774.72
2	200540110258	1 MVIS	1	0.00	5774.72
3	200540110265	1 MVIS	1	52.00	5774.72
4	200540230215	1 MVIS	1	66.45	7793.39
5	200640101139	1 MVIS	1	68.00	12752.92
6	200640101146	1 MVIS	1	52.00	12752.92
7	200640101153	1 MVIS	1	52.00	12752.92
8	200640101331	1 MVIS	1	52.00	12752.92
9	200640101348	1 MVIS	1	52.00	12752.92
10	200640101355	1 MVIS	1	52.00	12752.92
11	200640101362	1 MVIS	1	52.00	12752.92
12	200640101379	1 MVIS	1	52.00	12752.92
13	200640101386	1 MVIS	1	52.00	12752.92
14	200640101393	1 MVIS	1	52.00	12752.92
15	200640101406	1 MVIS	1	52.00	12752.92
16	200640101413	1 MVIS	1	52.00	12752.92
17	200640101420	1 MVIS	1	52.00	12752.92
18	200640101437	1 MVIS	1	52.00	12752.92
19	200640101444	1 MVIS	1	52.00	12752.92
20	200640101451	1 MVIS	1	52.00	12752.92
21	200640101468	1 MVIS	1	34.49	12752.92
22	200640101475	1 MVIS	1	34.49	12752.92
23	200640101482	1 MVIS	1	34.49	12752.92
24	201790290410	1 MVIS	1	90.00	2626.87
25	201790290821	1 MVIS	1	509.00	2626.87
26	201790290838	1 MVIS	1	691.00	2626.87
27	201790290845	1 MVIS	1	110.00	2626.87
28	201790290852	1 MVIS	1	61.00	2626.87
29	201790290869	1 MVIS	1	120.00	2626.87
30	201790290876	1 MVIS	1	128.32	2626.87
31	201790290903	1 MVIS	1	50.40	2626.87
32	201790360232	1 MVIS	1	30.00	4144.41
33	201860330161	1 MVIS	1	49.74	3205.76
34	201860330229	1 MVIS	1	49.74	3205.76
35	201860330236	1 MVIS	1	49.74	3205.76
36	201860330243	1 MVIS	1	49.74	3205.76
37	201860330250	1 MVIS	1	36.31	3205.76
38	201930150018	1 MVIS	1	76.00	3820.38
39	202170150639	1 MVIS	1	43.20	10143.49
40	202170150646	1 MVIS	1	58.50	10143.49
41	202620130491	1 MVIS	1	51.39	6639.39
42	202620130504	1 MVIS	1	192.89	6639.39
43	202620130511	1 MVIS	1	51.39	6639.39
44	202620130528	1 MVIS	1	59.66	6639.39
45	202620130542	1 MVIS	1	59.66	6639.39
46	202620130782	1 MVIS	1	80.16	6639.39
47	202650560365	1 MVIS	1	26.84	3495.42
48	202650560430	1 MVIS	1	39.54	3495.42
49	202650560447	1 MVIS	1	39.54	3495.42
50	202650560454	1 MVIS	1	0.00	3495.42

Sample SAS Job for Example C

Total medical visit expenditures (excluding telephone) associated with asthma

The MEANS Procedure

Analysis Variable : OBXP03X SUM OF OBSF03X - OBOT03X (IMPUTED)

N	Sum
2219	223503.09

Sample SAS Job for Example C

Total medical visit expenditures (excluding telephone) associated with asthma

Weighted

The MEANS Procedure

Analysis Variable : OBP03X SUM OF OBSF03X - OBOT03X (IMPUTED)

Sum

1740213361

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
NOTE: This session is executing on the WIN_PRO platform.

NOTE: This installation is running Base SAS hot fix bundle 82BX09.

NOTE: SAS initialization used:
real time 2.51 seconds
cpu time 0.43 seconds

NOTE: AUTOEXEC processing beginning; file is C:\progra-1\sasins-1\sas\v8\autoexec.sas.

NOTE: AUTOEXEC processing completed.

```
1
2     OPTIONS LS=132 PS=59;
3
4     TITLE1 "HC-077I";
5     TITLE2 'Sample SAS Job for Example D';
6
7     LIBNAME IN 'C:\DATA';
```

NOTE: Libref IN was successfully assigned as follows:
Engine: V8
Physical Name: C:\DATA

```
8
9     *****
10    * Calculate the expenditures for prescribed medicines associated
11    * with insulin reported by the household as an other medical expense.
12    *****;
13
14    PROC FORMAT;
15        VALUE EVENTYPE
16            1 = "1 MVIS"
17            2 = "2 OPAT"
18            3 = "3 EROM"
19            4 = "4 STAZ"
20            5 = "5 DVIS"
21            6 = "6 OMED"
22            7 = "7 HVIS"
23            8 = "8 PMED";
```

NOTE: Format EVENTYPE has been output.

```
24
25    VALUE OMTYPE
26        -9 = "-9 NOT ASCERTAINED"
27        -8 = "-8 DK"
28        -7 = "-7 REFUSED"
29        -1 = "-1 INAPPLICABLE"
30        1 = "1 GLASSES OR CONTACT LENSES"
```

```

31      2 = "2 INSULIN"
32      3 = "3 DIABETIC EQUIPMENT/SUPPLIES"
33      4 = "4 AMBULANCE SERVICES"
34      5 = "5 ORTHOPEDIC ITEMS"
35      6 = "6 HEARING DEVICES"
36      7 = "7 PROSTHESIS"
37      8 = "8 BATHROOM AIDS"
38      9 = "9 MEDICAL EQUIPMENT"
39     10 = "10 DISPOSABLE SUPPLIES"
40     11 = "11 ALTERATIONS/MODIFICATIONS"
41     91 = "91 OTHER"
42      ;

```

NOTE: Format OMTYPE has been output.

```
43      RUN;
```

NOTE: PROCEDURE FORMAT used:

```

real time      0.10 seconds
cpu time       0.04 seconds

```

```

44
45      *-----
46      * Get other medical records for insulin for persons with positive weights.
47      *-----;
48
49      DATA OMED;
50          SET IN.H77C (KEEP=EVNTIDX PERWT03F OMTYPEX);
51          IF PERWT03F > 0 & OMTYPEX = 2;
52      RUN;

```

NOTE: There were 9671 observations read from the data set IN.H77C.

NOTE: The data set WORK.OMED has 565 observations and 3 variables.

NOTE: DATA statement used:

```

real time      0.67 seconds
cpu time       0.10 seconds

```

```

53
54      proc print data=omed (obs=100);
55          var evntidx OMTYPEX PERWT03F;
56          format OMTYPEX omtype.;
57          title3 "sample print of OMED (HC-077C) records where OMTYPEX=2";
58      run;

```

NOTE: There were 100 observations read from the data set WORK.OMED.

NOTE: The PROCEDURE PRINT printed pages 1-2.

NOTE: PROCEDURE PRINT used:

```

real time      0.23 seconds
cpu time       0.03 seconds

```

```

59
60      *-----
61      * Get PMED IDs linked to the OMED events which were for insulin.
62      *-----;
63
64      PROC SORT DATA=IN.H77IF2 OUT=RXLK; BY EVNTIDX; RUN;

```

NOTE: There were 64605 observations read from the data set IN.H77IF2.

NOTE: The data set WORK.RXLK has 64605 observations and 5 variables.

NOTE: PROCEDURE SORT used:

real time	0.51 seconds
cpu time	0.45 seconds

```

65
66     proc print data=rxlk (obs=150);
67         by evtidx;
68         id evtidx;
69         var linkidx eventype;
70         format eventype eventype.;
71         title3 "sample print of Rx+event link file records (HC-77IF2) - sorted by evtidx";
72     run;

```

NOTE: There were 150 observations read from the data set WORK.RXLK.

NOTE: The PROCEDURE PRINT printed pages 3-7.

NOTE: PROCEDURE PRINT used:

real time	0.09 seconds
cpu time	0.04 seconds

```

73
74     data omedrxlk;
75         set rxlk (where=(eventype=6));
76     run;

```

NOTE: There were 1867 observations read from the data set WORK.RXLK.

WHERE eventype=6;

NOTE: The data set WORK.OMEDRXLK has 1867 observations and 5 variables.

NOTE: DATA statement used:

real time	0.03 seconds
cpu time	0.01 seconds

```

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

```

NOTE: There were 120 observations read from the data set WORK.OMEDRXLK.

NOTE: The PROCEDURE PRINT printed pages 8-12.

NOTE: PROCEDURE PRINT used:

real time	0.03 seconds
cpu time	0.01 seconds

```

85
86     DATA PMEDIDS;
87         MERGE RXLK (IN=INRXLK KEEP=EVNTIDX LINKIDX EVENTYPE)
88             OMED (IN=INOMED KEEP=EVNTIDX);

```

```
89      BY EVNTIDX;
90      IF INRXLK & INOMED;
91      RUN;
```

NOTE: There were 64605 observations read from the data set WORK.RXLK.

NOTE: There were 565 observations read from the data set WORK.OMED.

NOTE: The data set WORK.PMEDIDS has 525 observations and 3 variables.

NOTE: DATA statement used:

```
real time      0.07 seconds
cpu time       0.07 seconds
```

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

NOTE: There were 50 observations read from the data set WORK.PMEDIDS.

NOTE: The PROCEDURE PRINT printed pages 13-14.

NOTE: PROCEDURE PRINT used:

```
real time      0.06 seconds
cpu time       0.00 seconds
```

```
100
101      PROC SORT DATA=PMEDIDS; BY LINKIDX; RUN;
```

NOTE: There were 525 observations read from the data set WORK.PMEDIDS.

NOTE: The data set WORK.PMEDIDS has 525 observations and 3 variables.

NOTE: PROCEDURE SORT used:

```
real time      0.00 seconds
cpu time       0.00 seconds
```

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

NOTE: There were 50 observations read from the data set WORK.PMEDIDS.

NOTE: The PROCEDURE PRINT printed page 15.

NOTE: PROCEDURE PRINT used:

```
real time      0.01 seconds
cpu time       0.00 seconds
```

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

113 RUN;

NOTE: There were 525 observations read from the data set WORK.PMEDIDS.
 NOTE: The data set WORK.PMEDIDS has 525 observations and 1 variables.
 NOTE: DATA statement used:
 real time 0.01 seconds
 cpu time 0.00 seconds

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

NOTE: There were 50 observations read from the data set WORK.PMEDIDS.
 NOTE: The PROCEDURE PRINT printed page 16.
 NOTE: PROCEDURE PRINT used:
 real time 0.00 seconds
 cpu time 0.00 seconds

118
 119
 120 *-----
 121 * Get PMED records for OMED event which were for insulin.
 122 *-----;
 123 PROC SORT DATA=IN.H77A OUT=PMED; BY LINKIDX; RUN;

NOTE: There were 304324 observations read from the data set IN.H77A.
 NOTE: The data set WORK.PMED has 304324 observations and 13 variables.
 NOTE: PROCEDURE SORT used:
 real time 37.21 seconds
 cpu time 4.06 seconds

124
 125 DATA OMPMEDS;
 126 MERGE PMED (KEEP=LINKIDX RXRECIDX RXXP03X PERWT03F RXNAME)
 127 PMEDIDS (IN=A);
 128 BY LINKIDX;
 129 IF A & PERWT03F>0;
 130 RUN;

NOTE: There were 304324 observations read from the data set WORK.PMED.
 NOTE: There were 525 observations read from the data set WORK.PMEDIDS.
 NOTE: The data set WORK.OMPAMEDS has 2051 observations and 5 variables.
 NOTE: DATA statement used:
 real time 0.46 seconds
 cpu time 0.46 seconds

131
 132 proc print data=ompmeds (obs=200);
 133 by linkidx;
 134 id linkidx;
 135 var rxrecidx rxname RXXP03X PERWT03F;
 136 title3 "sample print of work.pmeds";

```
137         title4 "PMED (HC-077A) records for unique linkidxs in work.pmedids";
138         run;
```

NOTE: There were 200 observations read from the data set WORK.OMPMEDES.

NOTE: The PROCEDURE PRINT printed pages 17-22.

NOTE: PROCEDURE PRINT used:

```
real time          0.01 seconds
cpu time           0.01 seconds
```

```
139
140         PROC MEANS DATA=OMPMEDES N SUM;
141             VAR RXXP03X;
142             TITLE3 "Total Rx expenditures associated with other medical expenses for insulin";
143         RUN;
```

NOTE: There were 2051 observations read from the data set WORK.OMPMEDES.

NOTE: The PROCEDURE MEANS printed page 23.

NOTE: PROCEDURE MEANS used:

```
real time          0.07 seconds
cpu time           0.03 seconds
```

```
144
145         PROC MEANS DATA=OMPMEDES N SUM;
146             VAR RXXP03X;
147             WEIGHT PERWT03F;
148             TITLE3 "Total Rx expenditures associated with other medical expenses for insulin";
149             TITLE5 "Weighted";
150         RUN;
```

NOTE: There were 2051 observations read from the data set WORK.OMPMEDES.

NOTE: The PROCEDURE MEANS printed page 24.

NOTE: PROCEDURE MEANS used:

```
real time          0.03 seconds
cpu time           0.03 seconds
```

151

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

NOTE: The SAS System used:

```
real time          42.79 seconds
cpu time           5.93 seconds
```

Sample SAS Job for Example D
 sample print of OMED (HC-077C) records where OMTYPEX=2

Obs	EVNTIDX	OMTYPEX	PERWT03F
1	201070130735	2 INSULIN	21413.85
2	201150170552	2 INSULIN	7928.83
3	201290110356	2 INSULIN	10556.52
4	201510150554	2 INSULIN	3903.95
5	201510150698	2 INSULIN	3903.95
6	202750160855	2 INSULIN	13836.14
7	203300140473	2 INSULIN	9605.82
8	203520150313	2 INSULIN	13605.28
9	204910230937	2 INSULIN	16641.94
10	205150110452	2 INSULIN	4405.72
11	205320130826	2 INSULIN	3312.15
12	205560200235	2 INSULIN	4821.82
13	205560200300	2 INSULIN	4821.82
14	205690140894	2 INSULIN	2794.05
15	205780101202	2 INSULIN	2040.93
16	206840120413	2 INSULIN	7362.00
17	206860190264	2 INSULIN	798.41
18	207220190423	2 INSULIN	4945.80
19	207240280143	2 INSULIN	7933.93
20	207630150433	2 INSULIN	38628.28
21	207930280950	2 INSULIN	10995.12
22	207930281179	2 INSULIN	10995.12
23	208110150249	2 INSULIN	8831.47
24	208890670356	2 INSULIN	1110.85
25	208890670818	2 INSULIN	1110.85
26	209490130282	2 INSULIN	2778.32
27	209490130528	2 INSULIN	2778.32
28	209860130318	2 INSULIN	10957.00
29	209860130483	2 INSULIN	10957.00
30	209860130630	2 INSULIN	10957.00
31	210130260536	2 INSULIN	6000.26
32	210130260947	2 INSULIN	6000.26
33	210710260503	2 INSULIN	1734.55
34	211140160389	2 INSULIN	22401.30
35	211140160492	2 INSULIN	22401.30
36	211240120458	2 INSULIN	10438.07
37	211240120592	2 INSULIN	10438.07
38	211280120752	2 INSULIN	13169.79
39	211550110510	2 INSULIN	1264.83
40	211550110798	2 INSULIN	1264.83
41	211810130907	2 INSULIN	9521.53
42	212870141165	2 INSULIN	4247.04
43	213150200704	2 INSULIN	5720.47
44	213150201050	2 INSULIN	5720.47
45	213370190415	2 INSULIN	13226.39
46	213780230241	2 INSULIN	11078.17
47	213780230354	2 INSULIN	11078.17
48	213840270629	2 INSULIN	10618.12
49	214240110555	2 INSULIN	10619.27
50	214240110795	2 INSULIN	10619.27
51	214990270366	2 INSULIN	5440.46
52	215110133095	2 INSULIN	5884.96
53	215550100918	2 INSULIN	6925.32

Sample SAS Job for Example D

sample print of OMED (HC-077C) records where OMTYPEX=2

Obs	EVNTIDX	OMTYPEX	PERWT03F
54	216010140657	2 INSULIN	14141.64
55	216130261213	2 INSULIN	7410.55
56	216130262021	2 INSULIN	7410.55
57	216820150334	2 INSULIN	27920.25
58	216820150454	2 INSULIN	27920.25
59	217020400195	2 INSULIN	2267.32
60	217020400246	2 INSULIN	2267.32
61	218200230609	2 INSULIN	17132.56
62	218200230767	2 INSULIN	17132.56
63	218820370239	2 INSULIN	9350.96
64	218820370311	2 INSULIN	9350.96
65	219490270160	2 INSULIN	5034.77
66	220010110645	2 INSULIN	1835.86
67	220780120789	2 INSULIN	2036.68
68	221090240331	2 INSULIN	2568.63
69	221220172064	2 INSULIN	2630.68
70	221220172711	2 INSULIN	2630.68
71	221870141240	2 INSULIN	6347.16
72	221870141562	2 INSULIN	6347.16
73	223030390587	2 INSULIN	3625.48
74	223060180100	2 INSULIN	9146.64
75	223060180162	2 INSULIN	9146.64
76	223360170313	2 INSULIN	9670.09
77	223360170522	2 INSULIN	9670.09
78	223590220422	2 INSULIN	6031.66
79	223640100516	2 INSULIN	4948.44
80	223640100787	2 INSULIN	4948.44
81	224010200106	2 INSULIN	1410.01
82	224090141095	2 INSULIN	8743.18
83	224100100579	2 INSULIN	6949.70
84	224100270853	2 INSULIN	6962.06
85	224340150776	2 INSULIN	14942.06
86	224720190371	2 INSULIN	11239.17
87	225420150512	2 INSULIN	3130.50
88	225420150707	2 INSULIN	3130.50
89	226120200398	2 INSULIN	3354.79
90	226120200521	2 INSULIN	3354.79
91	227780171194	2 INSULIN	2413.94
92	228140130787	2 INSULIN	9285.28
93	229000260507	2 INSULIN	14920.83
94	229000260696	2 INSULIN	14920.83
95	229350191376	2 INSULIN	2539.02
96	230840100344	2 INSULIN	13641.03
97	230840100488	2 INSULIN	13641.03
98	230900220632	2 INSULIN	7418.58
99	230900220865	2 INSULIN	7418.58
100	231420180529	2 INSULIN	8229.01

Sample SAS Job for Example D

sample print of Rx+event link file records (HC-77IF2) - sorted by evtidx

EVNTIDX	LINKIDX	EVENTYPE
200020380044	200020380051	3 EROM
	200020380068	3 EROM
200030110018	200030110049	1 MVIS
200030190154	200030190161	1 MVIS
200030260332	200030260363	1 MVIS
200040180290	200040180327	1 MVIS
200040180303	200040180334	1 MVIS
200040180341	200040180365	1 MVIS
200040180358	200040180372	1 MVIS
200070160070	200070160107	5 DVIS
200070160121	200070160169	1 MVIS
200140110148	200140110131	1 MVIS
200140240440	200140240471	1 MVIS
200150190081	200150190101	1 MVIS
	200150190118	1 MVIS
	200150190125	1 MVIS
	200150190132	1 MVIS
200150190194	200150190245	2 OPAT
200150190207	200150190252	1 MVIS
200150190290	200150190303	1 MVIS
	200150190310	1 MVIS
	200150190327	1 MVIS
	200150190334	1 MVIS
	200150190341	1 MVIS
	200150190358	1 MVIS
200150260012	200150260043	1 MVIS
200160130011	200160130073	1 MVIS
200170120180	200170120217	1 MVIS
200170120231	200170120286	2 OPAT
	200170120293	2 OPAT

Sample SAS Job for Example D

sample print of Rx+event link file records (HC-77IF2) - sorted by evtidx

EVNTIDX	LINKIDX	EVENTYPE
200190140130	200190140147	1 MVIS
	200190140154	1 MVIS
	200190140161	1 MVIS
200190140192	200190140212	1 MVIS
200200160278	200200160312	1 MVIS
200210100083	200210100141	1 MVIS
	200210100158	1 MVIS
	200210100165	1 MVIS
200210270103	200210270110	1 MVIS
	200210270127	1 MVIS
200210340134	200210340158	1 MVIS
200210410045	200210410076	1 MVIS
200220220026	200220220033	1 MVIS
200230100063	200230100107	1 MVIS
	200230100114	1 MVIS
200230100070	200230100121	1 MVIS
200230100138	200230100152	1 MVIS
	200230100169	1 MVIS
200260290809	200260290861	1 MVIS
200270100088	200270100139	1 MVIS
200270100095	200270100146	1 MVIS
200320100192	200320100243	1 MVIS
	200320100250	1 MVIS
	200320100267	1 MVIS
	200320100274	1 MVIS
	200320100281	1 MVIS
	200320100298	1 MVIS
200320270058	200320270089	1 MVIS
200320340041	200320340089	1 MVIS
200330150118	200330150125	3 EROM
200340110218	200340110249	1 MVIS

Sample SAS Job for Example D

sample print of Rx+event link file records (HC-77IF2) - sorted by evtidx

EVNTIDX	LINKIDX	EVENTYPE
200340280167	200340280181	1 MVIS
	200340280198	1 MVIS
200340280232	200340280249	1 MVIS
200350180068	200350180082	5 DVIS
	200350180099	5 DVIS
200390150096	200390150123	5 DVIS
	200390150130	5 DVIS
200390220325	200390220356	1 MVIS
200390220407	200390220476	1 MVIS
	200390220483	1 MVIS
	200390220490	1 MVIS
200390220445	200390220510	1 MVIS
200390220534	200390220541	1 MVIS
200410170407	200410170510	1 MVIS
	200410170527	1 MVIS
200450150111	200450150159	1 MVIS
200450150200	200450150217	1 MVIS
	200450150224	1 MVIS
200460470063	200460470070	1 MVIS
200460470094	200460470107	1 MVIS
200480150114	200480150532	4 STAZ
	200480150549	4 STAZ
	200480150556	4 STAZ
200480150474	200480150563	1 MVIS
200480150607	200480150621	1 MVIS
200490150117	200490150131	1 MVIS
	200490150148	1 MVIS
200490150124	200490150155	3 EROM
200490150162	200490150179	4 STAZ
200490460011	200490460028	1 MVIS

Sample SAS Job for Example D

sample print of Rx+event link file records (HC-77IF2) - sorted by evtidx

EVNTIDX	LINKIDX	EVENTYPE
200490460035	200490460059	1 MVIS
200490460042	200490460066	5 DVIS
200510130171	200510130208	1 MVIS
200510130222	200510130239	1 MVIS
200520110035	200520110042	5 DVIS
200520140070	200520140094	1 MVIS
200530140031	200530140106	2 OPAT
	200530140113	2 OPAT
200530380137	200530380144	2 OPAT
200540110241	200540110272	1 MVIS
	200540110289	1 MVIS
	200540110296	1 MVIS
	200540110309	1 MVIS
	200540110316	1 MVIS
	200540110323	1 MVIS
	200540110330	1 MVIS
200540160260	200540160304	1 MVIS
200540160277	200540160311	1 MVIS
200540160328	200540160373	1 MVIS
	200540160380	1 MVIS
	200540160397	1 MVIS
200540230133	200540230195	1 MVIS
	200540230208	1 MVIS
200540230215	200540230239	1 MVIS
	200540230246	1 MVIS
	200540230253	1 MVIS
	200540230260	1 MVIS
200540230222	200540230277	1 MVIS
200560180053	200560180077	3 EROM
200590180045	200590180052	3 EROM
200590180083	200590180134	3 EROM
	200590180141	3 EROM

Sample SAS Job for Example D

sample print of Rx+event link file records (HC-77IF2) - sorted by evtidx

EVNTIDX	LINKIDX	EVENTYPE
200600100227	200600100258	1 MVIS
	200600100265	1 MVIS
	200600100272	1 MVIS
200610130137	200610130151	1 MVIS
	200610130168	1 MVIS
	200610130175	1 MVIS
200640101122	200640101160	1 MVIS
200640101139	200640101177	1 MVIS
200680270043	200680270074	5 DVIS
	200680270081	5 DVIS
200680340101	200680340132	1 MVIS
	200680340149	1 MVIS
200700260345	200700260383	1 MVIS
200700330054	200700330061	1 MVIS
200700480176	200700480190	1 MVIS
200700480210	200700480227	1 MVIS
200720190272	200720190323	4 STAZ
	200720190330	4 STAZ
200720190450	200720190481	1 MVIS
	200720190498	1 MVIS
	200720190501	1 MVIS
	200720190518	1 MVIS
	200720190525	1 MVIS
	200720190532	1 MVIS
	200720190549	1 MVIS
200720190556	1 MVIS	
200740260214	200740260221	4 STAZ

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
201070130735	201070130742	6 OMED
201070130759	201070130766	6 OMED
201150170552	201150170569	6 OMED
201160190278	201160190285	6 OMED
201160190367	201160190374	6 OMED
201290110356	201290110363	6 OMED
201290110370	201290110387	6 OMED
201290110452	201290110469	6 OMED
201510150554	201510150561	6 OMED
201510150578	201510150585	6 OMED
201540110030	201540110047	6 OMED
201620290820	201620290837	6 OMED
202010190260	202010190277	6 OMED
202240230374	202240230381	6 OMED
202620130686	202620130693	6 OMED
202750160831	202750160848	6 OMED
202750160855	202750160862	6 OMED
202900140947	202900140954	6 OMED
202900141173	202900141180	6 OMED
203130180202	203130180219	6 OMED
203130180315	203130180322	6 OMED
203210190346	203210190353	6 OMED
203300140404	203300140411	6 OMED
203300140473	203300140480	6 OMED
203300140497	203300140500	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
203450100524	203450100531	6 OMED
203520150217	203520150224	6 OMED
203630110195	203630110208	6 OMED
203960100375	203960100382	6 OMED
203980200537	203980200544	6 OMED
204580280256	204580280263	6 OMED
204910230759	204910230766	6 OMED
205070150653	205070150660	6 OMED
205150110452	205150110469	6 OMED
205150110476	205150110483	6 OMED
205320130826	205320130833	6 OMED
205320130840	205320130857	6 OMED
205320130922	205320130939	6 OMED
205560200235	205560200242	6 OMED
205560200259	205560200266	6 OMED
205560200300	205560200317	6 OMED
205560200324	205560200331	6 OMED
205690140558	205690140565	6 OMED
205690140894	205690140907	6 OMED
205690140914	205690140921	6 OMED
205780100970	205780100987	6 OMED
205780101202	205780101219	6 OMED
205780101226	205780101233	6 OMED
205860130234	205860130241	6 OMED
206050140504	206050140511	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
206150150494	206150150507	6 OMED
206840120324	206840120331	6 OMED
206840120413	206840120420	6 OMED
206840120437	206840120444	6 OMED
206860190264	206860190271	6 OMED
206860190288	206860190295	6 OMED
207220190423	207220190430	6 OMED
207240280143	207240280150	6 OMED
207240280167	207240280174	6 OMED
207240280198	207240280201	6 OMED
207410200455	207410200462	6 OMED
207540190451	207540190468	6 OMED
207630150351	207630150368	6 OMED
207630150433	207630150440	6 OMED
207630150457	207630150464	6 OMED
207930280950	207930280967	6 OMED
207930280974	207930280981	6 OMED
207930281179	207930281186	6 OMED
207930281193	207930281206	6 OMED
207940210524	207940210531	6 OMED
208110150249	208110150256	6 OMED
208110150263	208110150270	6 OMED
208110150307	208110150314	6 OMED
208320230650	208320230667	6 OMED
208890110148	208890110155	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
208890670356	208890670363	6 OMED
208890670370	208890670387	6 OMED
208890670818	208890670825	6 OMED
209020160461	209020160478	6 OMED
209120290389	209120290396	6 OMED
209120290512	209120290529	6 OMED
209490130282	209490130299	6 OMED
209490130302	209490130319	6 OMED
209490130528	209490130535	6 OMED
209490130542	209490130559	6 OMED
209860130318	209860130325	6 OMED
209860130332	209860130349	6 OMED
209860130469	209860130476	6 OMED
209860130483	209860130490	6 OMED
209860130630	209860130647	6 OMED
209860130654	209860130661	6 OMED
209940131177	209940131184	6 OMED
210130260536	210130260543	6 OMED
210130260550	210130260567	6 OMED
210130260947	210130260954	6 OMED
210130260961	210130260978	6 OMED
210710260503	210710260510	6 OMED
210710260527	210710260534	6 OMED
210900100806	210900100813	6 OMED
211040110301	211040110318	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by evtidx
 Rx+event link file records (HC-77IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
211040110476	211040110483	6 OMED
211140160389	211140160396	6 OMED
211140160409	211140160416	6 OMED
211140160492	211140160505	6 OMED
211140160512	211140160529	6 OMED
211240120458	211240120465	6 OMED
211240120472	211240120489	6 OMED
211240120578	211240120585	6 OMED
211240120592	211240120605	6 OMED
211280120752	211280120769	6 OMED
211550110510	211550110527	6 OMED
211550110541	211550110558	6 OMED
211550110798	211550110801	6 OMED
211550110818	211550110825	6 OMED
211640120749	211640120756	6 OMED
211640120787	211640120794	6 OMED
211810130907	211810130914	6 OMED
211810130921	211810130938	6 OMED
212510151729	212510151736	6 OMED
212530250574	212530250581	6 OMED

Sample SAS Job for Example D
 sample print of work.pmedids - sorted by evtidx
 work.rxlk records for omed events for insulin

EVNTIDX	LINKIDX	EVENTYPE
201070130735	201070130742	6 OMED
201150170552	201150170569	6 OMED
201290110356	201290110363	6 OMED
201510150554	201510150561	6 OMED
202750160855	202750160862	6 OMED
203300140473	203300140480	6 OMED
205150110452	205150110469	6 OMED
205320130826	205320130833	6 OMED
205560200235	205560200242	6 OMED
205560200300	205560200317	6 OMED
205690140894	205690140907	6 OMED
205780101202	205780101219	6 OMED
206840120413	206840120420	6 OMED
206860190264	206860190271	6 OMED
207220190423	207220190430	6 OMED
207240280143	207240280150	6 OMED
207630150433	207630150440	6 OMED
207930280950	207930280967	6 OMED
207930281179	207930281186	6 OMED
208110150249	208110150256	6 OMED
208890670356	208890670363	6 OMED
208890670818	208890670825	6 OMED
209490130282	209490130299	6 OMED
209490130528	209490130535	6 OMED
209860130318	209860130325	6 OMED

Sample SAS Job for Example D
 sample print of work.pmedids - sorted by evtidx
 work.rx1k records for omed events for insulin

EVNTIDX	LINKIDX	EVENTYPE
209860130483	209860130490	6 OMED
209860130630	209860130647	6 OMED
210130260536	210130260543	6 OMED
210130260947	210130260954	6 OMED
210710260503	210710260510	6 OMED
211140160389	211140160396	6 OMED
211140160492	211140160505	6 OMED
211240120458	211240120465	6 OMED
211240120592	211240120605	6 OMED
211280120752	211280120769	6 OMED
211550110510	211550110527	6 OMED
211550110798	211550110801	6 OMED
211810130907	211810130914	6 OMED
212870141165	212870141172	6 OMED
213150200704	213150200711	6 OMED
213150201050	213150201067	6 OMED
213370190415	213370190422	6 OMED
213780230241	213780230258	6 OMED
213780230354	213780230361	6 OMED
213840270629	213840270636	6 OMED
214240110555	214240110562	6 OMED
214240110795	214240110808	6 OMED
214990270366	214990270373	6 OMED
215110133095	215110133108	6 OMED
215550100918	215550100925	6 OMED

Sample SAS Job for Example D
sample print of work.pmedids - sorted by linkidx

Obs	EVNTIDX	LINKIDX	EVENTYPE
1	201070130735	201070130742	6 OMED
2	201150170552	201150170569	6 OMED
3	201290110356	201290110363	6 OMED
4	201510150554	201510150561	6 OMED
5	202750160855	202750160862	6 OMED
6	203300140473	203300140480	6 OMED
7	205150110452	205150110469	6 OMED
8	205320130826	205320130833	6 OMED
9	205560200235	205560200242	6 OMED
10	205560200300	205560200317	6 OMED
11	205690140894	205690140907	6 OMED
12	205780101202	205780101219	6 OMED
13	206840120413	206840120420	6 OMED
14	206860190264	206860190271	6 OMED
15	207220190423	207220190430	6 OMED
16	207240280143	207240280150	6 OMED
17	207630150433	207630150440	6 OMED
18	207930280950	207930280967	6 OMED
19	207930281179	207930281186	6 OMED
20	208110150249	208110150256	6 OMED
21	208890670356	208890670363	6 OMED
22	208890670818	208890670825	6 OMED
23	209490130282	209490130299	6 OMED
24	209490130528	209490130535	6 OMED
25	209860130318	209860130325	6 OMED
26	209860130483	209860130490	6 OMED
27	209860130630	209860130647	6 OMED
28	210130260536	210130260543	6 OMED
29	210130260947	210130260954	6 OMED
30	210710260503	210710260510	6 OMED
31	211140160389	211140160396	6 OMED
32	211140160492	211140160505	6 OMED
33	211240120458	211240120465	6 OMED
34	211240120592	211240120605	6 OMED
35	211280120752	211280120769	6 OMED
36	211550110510	211550110527	6 OMED
37	211550110798	211550110801	6 OMED
38	211810130907	211810130914	6 OMED
39	212870141165	212870141172	6 OMED
40	213150200704	213150200711	6 OMED
41	213150201050	213150201067	6 OMED
42	213370190415	213370190422	6 OMED
43	213780230241	213780230258	6 OMED
44	213780230354	213780230361	6 OMED
45	213840270629	213840270636	6 OMED
46	214240110555	214240110562	6 OMED
47	214240110795	214240110808	6 OMED
48	214990270366	214990270373	6 OMED
49	215110133095	215110133108	6 OMED
50	215550100918	215550100925	6 OMED

Sample SAS Job for Example D
 sample print of unique linkidxs in work.pmedids

Obs	LINKIDX
1	201070130742
2	201150170569
3	201290110363
4	201510150561
5	202750160862
6	203300140480
7	205150110469
8	205320130833
9	205560200242
10	205560200317
11	205690140907
12	205780101219
13	206840120420
14	206860190271
15	207220190430
16	207240280150
17	207630150440
18	207930280967
19	207930281186
20	208110150256
21	208890670363
22	208890670825
23	209490130299
24	209490130535
25	209860130325
26	209860130490
27	209860130647
28	210130260543
29	210130260954
30	210710260510
31	211140160396
32	211140160505
33	211240120465
34	211240120605
35	211280120769
36	211550110527
37	211550110801
38	211810130914
39	212870141172
40	213150200711
41	213150201067
42	213370190422
43	213780230258
44	213780230361
45	213840270636
46	214240110562
47	214240110808
48	214990270373
49	215110133108
50	215550100925

Sample SAS Job for Example D
sample print of work.pmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
201070130742	201070130742001	HUMULIN R (VIAL)	91.57	21413.847955
201150170569	201150170569001	INSULIN	103.83	7928.833801
	201150170569002	INSULIN	103.83	7928.833801
	201150170569003	INSULIN	103.83	7928.833801
	201150170569004	INSULIN	103.83	7928.833801
	201150170569005	INSULIN	103.83	7928.833801
	201150170569006	INSULIN	103.83	7928.833801
	201150170569007	INSULIN	103.83	7928.833801
	201150170569008	INSULIN	103.83	7928.833801
201290110363	201290110363001	HUMULIN 70/30 (VIAL)	25.59	10556.524398
	201290110363002	HUMULIN 70/30 (VIAL)	25.59	10556.524398
	201290110363003	HUMULIN 70/30 (VIAL)	25.59	10556.524398
201510150561	201510150561001	HUMULIN 70/30 (VIAL)	49.63	3903.946581
	201510150561002	HUMULIN 70/30 (VIAL)	49.63	3903.946581
	201510150561003	HUMULIN 70/30 (VIAL)	49.63	3903.946581
	201510150561004	HUMULIN 70/30 (VIAL)	49.63	3903.946581
202750160862	202750160862001	INSULIN GLARGINE	103.83	13836.137339
	202750160862002	INSULIN GLARGINE	103.83	13836.137339
	202750160862003	INSULIN GLARGINE	103.83	13836.137339
203300140480	203300140480001	INSULIN	103.83	9605.816176
	203300140480002	INSULIN	103.83	9605.816176
	203300140480003	INSULIN	103.83	9605.816176
	203300140480004	INSULIN	103.83	9605.816176
	203300140480005	INSULIN	103.83	9605.816176
205150110469	205150110469001	HUMULIN N (VIAL)	55.78	4405.721708
	205150110469002	HUMULIN N (VIAL)	55.78	4405.721708
	205150110469003	HUMULIN N (VIAL)	55.78	4405.721708
	205150110469004	HUMULIN N (VIAL)	55.78	4405.721708
	205150110469005	HUMULIN N (VIAL)	55.78	4405.721708
	205150110469006	HUMULIN N (VIAL)	55.78	4405.721708
205320130833	205320130833001	INSULIN	103.83	3312.146873
	205320130833002	INSULIN	103.83	3312.146873
	205320130833003	INSULIN	103.83	3312.146873
	205320130833004	INSULIN	103.83	3312.146873
	205320130833005	INSULIN	103.83	3312.146873
	205320130833006	INSULIN	103.83	3312.146873
	205320130833007	INSULIN	103.83	3312.146873
205560200242	205560200242001	INSULIN	103.83	4821.824005
	205560200242002	INSULIN	103.83	4821.824005
	205560200242003	INSULIN	103.83	4821.824005
	205560200242004	INSULIN	103.83	4821.824005

Sample SAS Job for Example D
sample print of work.pmeds

PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
205560200317	205560200317001	INSULIN	103.83	4821.824005
	205560200317002	INSULIN	103.83	4821.824005
	205560200317003	INSULIN	103.83	4821.824005
205690140907	205690140907001	INSULIN	103.83	2794.048924
	205690140907002	INSULIN	103.83	2794.048924
	205690140907003	INSULIN	103.83	2794.048924
	205690140907004	INSULIN	103.83	2794.048924
	205690140907005	INSULIN	103.83	2794.048924
	205690140907006	INSULIN	103.83	2794.048924
	205690140907007	INSULIN	103.83	2794.048924
	205690140907008	INSULIN	103.83	2794.048924
205780101219	205780101219001	HUMULIN N VIAL	55.49	2040.928435
206840120420	206840120420001	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	35.00	7362.001510
	206840120420002	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	35.00	7362.001510
	206840120420003	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	35.00	7362.001510
206860190271	206860190271001	INSULIN	103.83	798.413705
	206860190271002	INSULIN	103.83	798.413705
207220190430	207220190430001	INSULIN	103.83	4945.800401
207240280150	207240280150001	INSULIN	103.83	7933.934395
	207240280150002	INSULIN	103.83	7933.934395
	207240280150003	INSULIN	103.83	7933.934395
207630150440	207630150440001	INSULIN	103.83	38628.283327
	207630150440002	INSULIN	103.83	38628.283327
	207630150440003	INSULIN	103.83	38628.283327
	207630150440004	INSULIN	103.83	38628.283327
	207630150440005	INSULIN	103.83	38628.283327
	207630150440006	INSULIN	103.83	38628.283327
	207630150440007	INSULIN	103.83	38628.283327
	207630150440008	INSULIN	103.83	38628.283327
207930280967	207930280967001	HUMALOG	56.19	10995.118391
	207930280967002	HUMALOG	56.19	10995.118391
207930281186	207930281186001	HUMULIN	53.18	10995.118391
	207930281186002	HUMULIN	53.18	10995.118391
	207930281186003	HUMULIN	53.18	10995.118391
	207930281186004	HUMULIN	53.18	10995.118391
208110150256	208110150256001	HUMALOG (VIAL)	138.22	8831.466725
	208110150256002	HUMALOG (VIAL)	138.22	8831.466725
208890670363	208890670363001	INSULIN	103.83	1110.845283

Sample SAS Job for Example D
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PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
208890670363	208890670363002	INSULIN	103.83	1110.845283
208890670825	208890670825001	INSULIN	103.83	1110.845283
	208890670825002	INSULIN	103.83	1110.845283
	208890670825003	INSULIN	103.83	1110.845283
	208890670825004	INSULIN	103.83	1110.845283
	208890670825005	INSULIN	103.83	1110.845283
	208890670825006	INSULIN	103.83	1110.845283
	208890670825007	INSULIN	103.83	1110.845283
	208890670825008	INSULIN	103.83	1110.845283
209490130299	209490130299001	LANTUS	52.01	2778.320542
	209490130299002	LANTUS	52.01	2778.320542
	209490130299003	LANTUS	52.01	2778.320542
	209490130299004	LANTUS	52.01	2778.320542
	209490130299005	LANTUS	52.01	2778.320542
	209490130299006	LANTUS	52.01	2778.320542
	209490130299007	LANTUS	52.01	2778.320542
209490130535	209490130535001	INSULIN	103.83	2778.320542
	209490130535002	INSULIN	103.83	2778.320542
	209490130535003	INSULIN	103.83	2778.320542
209860130325	209860130325001	LANTUS	51.21	10956.996571
209860130490	209860130490001	LANTUS	51.21	10956.996571
	209860130490002	LANTUS	51.21	10956.996571
	209860130490003	LANTUS	51.21	10956.996571
	209860130490004	LANTUS	51.21	10956.996571
209860130647	209860130647001	LANTUS	51.21	10956.996571
	209860130647002	LANTUS	51.21	10956.996571
	209860130647003	LANTUS	51.21	10956.996571
	209860130647004	LANTUS	51.21	10956.996571
210130260543	210130260543001	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260543002	HUMULIN 70/30 (VIAL)	27.89	6000.264925
210130260954	210130260954001	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260954002	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260954003	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260954004	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260954005	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260954006	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260954007	HUMULIN 70/30 (VIAL)	27.89	6000.264925
	210130260954008	HUMULIN 70/30 (VIAL)	27.89	6000.264925
210710260510	210710260510001	INSULIN	103.83	1734.549821
	210710260510002	INSULIN	103.83	1734.549821

Sample SAS Job for Example D
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PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
211140160396	211140160396001	LANTUS	51.21	22401.303900
	211140160396002	LANTUS	51.21	22401.303900
	211140160396003	LANTUS	51.21	22401.303900
	211140160396004	LANTUS	51.21	22401.303900
	211140160396005	LANTUS	51.21	22401.303900
	211140160396006	LANTUS	51.21	22401.303900
211140160505	211140160505001	INSULIN	103.83	22401.303900
211240120465	211240120465001	INSULIN	103.83	10438.072776
	211240120465002	INSULIN	103.83	10438.072776
	211240120465003	INSULIN	103.83	10438.072776
	211240120465004	INSULIN	103.83	10438.072776
211240120605	211240120605001	INSULIN NPH (HUMAN)	114.99	10438.072776
	211240120605002	INSULIN NPH (HUMAN)	114.99	10438.072776
	211240120605003	INSULIN NPH (HUMAN)	114.99	10438.072776
	211240120605004	INSULIN NPH (HUMAN)	114.99	10438.072776
	211240120605005	INSULIN NPH (HUMAN)	114.99	10438.072776
211280120769	211280120769001	INSULIN	103.83	13169.794345
211550110527	211550110527001	INSULIN	103.83	1264.826974
	211550110527002	INSULIN	103.83	1264.826974
	211550110527003	INSULIN	103.83	1264.826974
	211550110527004	INSULIN	103.83	1264.826974
	211550110527005	INSULIN	103.83	1264.826974
211550110801	211550110801001	INSULIN	103.83	1264.826974
	211550110801002	INSULIN	103.83	1264.826974
	211550110801003	INSULIN	103.83	1264.826974
211810130914	211810130914001	INSULIN	103.83	9521.526170
	211810130914002	INSULIN	103.83	9521.526170
	211810130914003	INSULIN	103.83	9521.526170
212870141172	212870141172001	INSULIN	103.83	4247.035759
	212870141172002	INSULIN	103.83	4247.035759
	212870141172003	INSULIN	103.83	4247.035759
	212870141172004	INSULIN	103.83	4247.035759
213150200711	213150200711001	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	118.66	5720.466564
	213150200711002	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	118.66	5720.466564
	213150200711003	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	118.66	5720.466564
	213150200711004	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	118.66	5720.466564
	213150200711005	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	118.66	5720.466564
213150201067	213150201067001	INSULIN	103.83	5720.466564
	213150201067002	INSULIN	103.83	5720.466564

Sample SAS Job for Example D
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PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
213150201067	213150201067003	INSULIN	103.83	5720.466564
213370190422	213370190422001	INSULIN	103.83	13226.386080
	213370190422002	INSULIN	103.83	13226.386080
213780230258	213780230258001	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	268.14	11078.170128
	213780230258002	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	268.14	11078.170128
213780230361	213780230361001	HUMALOG MIX 75/25 PEN (PREFILLED DISPOSABLE)	292.00	11078.170128
213840270636	213840270636001	INSULIN	103.83	10618.122267
214240110562	214240110562001	INSULIN REG	138.99	10619.273513
214240110808	214240110808001	INSULIN	103.83	10619.273513
214990270373	214990270373001	INSULIN	103.83	5440.456183
215110133108	215110133108001	HUMULIN R (VIAL)	25.00	5884.958199
215550100925	215550100925001	HUMULIN N (VIAL)	27.93	6925.319204
	215550100925002	HUMULIN N (VIAL)	27.93	6925.319204
	215550100925003	HUMULIN N (VIAL)	27.93	6925.319204
	215550100925004	HUMULIN N (VIAL)	27.93	6925.319204
216010140664	216010140664001	INSULIN	103.83	14141.643143
	216010140664002	INSULIN	103.83	14141.643143
216130261220	216130261220001	HUMULIN N PEN (PREFILLED DISPOSABLE)	145.99	7410.547658
216130262038	216130262038001	HUMALOG PEN (PREFILLED DISPOSABLE)	110.11	7410.547658
	216130262038002	HUMALOG PEN (PREFILLED DISPOSABLE)	110.11	7410.547658
	216130262038003	HUMALOG PEN (PREFILLED DISPOSABLE)	110.11	7410.547658
216820150341	216820150341001	INSULIN	103.83	27920.253994
	216820150341002	INSULIN	103.83	27920.253994
216820150461	216820150461001	NOVOLIN R PENFILL (SRN)	163.40	27920.253994
217020400208	217020400208001	INSULIN	103.83	2267.315815
	217020400208002	INSULIN	103.83	2267.315815
	217020400208003	INSULIN	103.83	2267.315815
	217020400208004	INSULIN	103.83	2267.315815
	217020400208005	INSULIN	103.83	2267.315815
	217020400208006	INSULIN	103.83	2267.315815
217020400253	217020400253001	INSULIN	103.83	2267.315815
	217020400253002	INSULIN	103.83	2267.315815
	217020400253003	INSULIN	103.83	2267.315815

Sample SAS Job for Example D
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PMED (HC-077A) records for unique linkidxs in work.pmedids

linkidx	rxrecidx	RXNAME	RXXP03X	PERWT03F
217020400253	217020400253004	INSULIN	103.83	2267.315815
	217020400253005	INSULIN	103.83	2267.315815
218200230616	218200230616001	HUMULIN 70/30 (VIAL)	72.62	17132.561258
	218200230616002	HUMULIN 70/30 (VIAL)	72.62	17132.561258
218200230774	218200230774001	HUMULIN 70/30 (VIAL)	79.28	17132.561258
	218200230774002	HUMULIN 70/30 (VIAL)	79.28	17132.561258
218820370246	218820370246001	HUMULIN N (VIAL)	33.50	9350.958142
	218820370246002	HUMULIN N (VIAL)	33.50	9350.958142
	218820370246003	HUMULIN N (VIAL)	33.50	9350.958142

Sample SAS Job for Example D

Total Rx expenditures associated with other medical expenses for insulin

The MEANS Procedure

Analysis Variable : RXXP03X SUM OF PAYMENTS RXSF03X-RXOU03X(IMPUTED)

N	Sum
2051	174317.49

Sample SAS Job for Example D

Total Rx expenditures associated with other medical expenses for insulin

Weighted

The MEANS Procedure

Analysis Variable : RXXP03X SUM OF PAYMENTS RXSF03X-RXOU03X(IMPUTED)

N	Sum
2051	1429152836