

**MEPS HC-033I:
Appendix to MEPS 1999 Event Files
HC-033A - HC-033H
October 2002**

**Agency for Healthcare Research and Quality
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A. Data Use Agreement

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

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

1. No one is to use the data in this data set in any way except for statistical reporting and analysis.
2. If the identity of any person or establishment should be discovered inadvertently, then (a) no use will be made of this knowledge, (b) the Director, Office of Management, AHRQ will be advised of this incident, (c) the information that would identify any individual or establishment will be safeguarded or destroyed, as requested by AHRQ, and (d) no one else will be informed of the discovered identity.
3. No one will attempt to link this data set with individually identifiable records from any data sets other than the Medical Expenditure Panel Survey or the National Health Interview Survey.

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

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

B. Background

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

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

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

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

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

1.0 Household Component

The MEPS HC, a nationally representative survey of the U.S. civilian noninstitutionalized population, collects medical expenditure data at both the person and household levels. The HC collects detailed data on demographic characteristics, health conditions, health status, use of medical care services, charges and payments, access to care, satisfaction with care, health insurance coverage, income, and employment.

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

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

2.0 Medical Provider Component

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

- were identified by the household respondent as providing care for HC respondents receiving Medicaid.
- were selected through a 75-percent sample of HC households receiving care through an HMO (health maintenance organization) or managed care plan.
- were selected through a 25-percent sample of the remaining HC households.

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

- Diagnoses coded according to ICD-9-CM (9th Revision, International Classification of Diseases) and DSM-IV (Fourth Edition, *Diagnostic and Statistical Manual of Mental Disorders*).
- Physician procedure codes classified by CPT-4 (Common Procedure Terminology, Version 4).
- Inpatient stay codes classified by DRGs (diagnosis-related groups).
- Prescriptions coded by national drug code (NDC), medication name, strength, and quantity dispensed.
- Charges, payments, and the reasons for any difference between charges and payments.

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

3.0 Insurance Component

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

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

- A list of employers or other insurance providers identified by MEPS HC respondents who report having private health insurance at the Round 1 interview.
- A Bureau of the Census list frame of private-sector business establishments.
- The Census of Governments from Bureau of the Census.
- An Internal Revenue Service list of the self-employed.

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

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

4.0 Survey Management

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

As soon as data collection and editing are completed, the MEPS survey data are released to the public in staged releases of summary reports and microdata files. Summary reports are released as printed documents and/or as electronic files on the MEPS web site (www.meps.ahrq.gov). All microdata files are available for download from the MEPS web site in compressed formats (zip and self-extracting executable files). Selected data files are available on CD-ROM from the MEPS clearinghouse.

For printed documents and CD-ROMs that are available through the AHRQ Publications Clearinghouse, write or call:

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

Be sure to specify the AHRQ number of the document or CD-ROM you are requesting.

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

C. Technical and Programming Information

1.0 General Information

This documentation describes the MEPS Public Use Release HC-033I, which is the Appendix to MEPS releases HC-033A through HC-033H. This release contains two data files, both of which are provided in ASCII and SAS versions: 1) the condition-event link file; and 2) the prescribed medicines-event link file. Also included in this release are two tables provided as PDF files: 1) the condition-event frequency table and 2) the utilization and expenditures summary table.

This documentation offers a brief overview of the content and structure of the files and the codebooks (provided as files H33IF1CB.PDF and H33IF2CB.PDF). It contains the following sections:

Data File Information

Merging MEPS Data Files

Crosswalk of Clinical Classification Code to ICD-9 Code

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 1999 event-level data files. File 1, the H33IF1 or "CLNK" file, is used for linking the MEPS condition file with the MEPS event files; File 2, the H33IF2 or "RXLK" file, is used for linking the MEPS prescribed medicines event file with other MEPS event files.

2.1 Codebook Format

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

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

End

Ending column position of variable in record

2.2 Variable Naming and Source

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

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

File 1, (H33IF1) or the CLNK file, contains the variables needed to link each record on the MEPS 1999 condition file, HC-037, with one or more records on the MEPS 1999 event files, HC-033A through HC-033H. 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 which uniquely identifies each condition for a person and corresponds to a unique record on the MEPS 1999 Condition file, HC-037. There may be more than one record on the CLNK file for a specific CONDIDX value.

EVNTIDX is the 12-digit number which uniquely identifies each event for a person and corresponds to a unique record on one of the MEPS 1999 event files, HC-033B through HC-033H. (EVNTIDX is not included on the 1999 Prescription Medicines event file, HC-033A; 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-033G
- 2 = OPAT - outpatient department visit event contained on MEPS release HC-033F
- 3 = EROM - emergency room visit event contained on MEPS release HC-033E
- 4 = STAZ - hospital inpatient stay event contained on MEPS release HC-033D
- 5 = DVIS - dental visit event contained on MEPS release HC-033B
- 7 = HVIS - home health visit event contained on MEPS release HC-033H
- 8 = PMED - prescribed medicines event contained on MEPS release HC-033A

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

File 2, (H33IF2) or the RXLK file, contains the variables needed to link each record on the MEPS

1999 prescribed medicines file, HC-033A, with one or more records on the MEPS 1999 event files, HC-033B through HC-033H. 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 1999 event files, HC-033B through HC-033H. 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-033A 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-033A 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-033G
- 2 = OPAT - outpatient department visit event contained on MEPS release HC-033F
- 3 = EROM - emergency room visit event contained on MEPS release HC-033E
- 4 = STAZ - hospital inpatient stay event contained on MEPS release HC-033D
- 5 = DVIS - dental visit event contained on MEPS release HC-033B
- 6 = OMED - other medical expense event contained on MEPS release HC-033C

2.5 1999 Condition-Event Frequency Table

The file H33IT1.PDF contains the “MEPS 1999 Condition-Event Frequency” table. This table contains unweighted and weighted counts of records on the MEPS 1999 event files, HC-033A through HC-033H, for each of the condition, procedure and clinical classification codes contained on the MEPS 1999 condition file, HC-037. Attachment 1 contains a crosswalk of the clinical classification codes to ICD-9 codes. See the HC-037 document for additional information on these codes.

2.6 1999 Utilization and Expenditures Summary Table

The file H33IT2.PDF contains the “MEPS 1999 Utilization and Expenditures Summary” table. This table contains statistics for all of the utilization and expenditure variables contained on the MEPS 1999 Full Year Use and Expenditure Data file, HC-028. For each of these variables, the following statistics are provided from the HC-028 file, and from the corresponding event-level file(s) HC-033A

through HC-033H:

Number of persons with positive person-level weight (WTDPER98) 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-028 variables from the event-level files.

3.0 Merging/Linking MEPS Data Files

This section provides information on using each of the two HC-033I files, RXLK and CLNK, to link with the files contained in MEPS releases HC-037 and HC-033A through HC-033H. 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-037), the Prescribed Medicines and Office-Based Medical Provider Visits Event Files (HC-033A and HC-033G)

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-037), the CLNK file, the office-based medical provider visit event file (HC-033G), the RXLK file, and the prescribed medicines event file (HC-033A). It includes the following major steps:

1. From HC-037 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-033G 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-033G 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-033A linked to those visits.

6. Using these record IDs obtain the linked records from the HC-033A 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-037) and the Prescribed Medicines Event File (HC-033A)

This example calculates the total expenditure for prescribed medicines associated with asthma, using the condition file (HC-037), the CLNK file and the prescribed medicines event file (HC-033A). It includes the following major steps:

1. From HC-037 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-033A 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-037) and Office-Based Medical Provider Visits Event File (HC-033G)

This example calculates the total expenditures for office-based medical provider visits associated with asthma, using the condition file (HC-037), the CLNK file and the office-based medical provider visits event file (HC-033G). It includes the following major steps:

1. From HC-037 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-033G 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-033G 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-033C)

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-033C). It includes the following major steps:

1. From HC-033C 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-033A 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 Code Crosswalk

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

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

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

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

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											
	V090	V091	V092	V093	V094	V0950	V0951	V096	V0970	V0971	V0980	V0981
	V0990	V0991	0200	0208	0209	0218	0219	0228	0229	0230	0231	0232
	0233	0238	0239	024	025	0260	0269	0270	0271	0272	0278	0279
	0300	0301	0302	0303	0308	0309	0312	0318	0319	03289	0329	0330
	0331	0338	0339	0341	0363	03681	03689	0369	037	0392	0393	0394
	0398	0399	0400	0401	0402	0403	04081	04089	0410	04100	04101	04102
	04103	04104	04105	04109	0411	04110	04111	04119	0412	0413	0414	0415
	0416	0417	0418	04181	04182	04183	04184	04185	04186	04189	0419	390
	3929	7953										
4	Mycoses											
	1100	1101	1102	1103	1104	1105	1106	1108	1109	1110	1111	1112
	1113	1118	1119	1120	1121	1122	1123	1125	11282	11284	11285	11289
	1129	1141	1143	1149	11500	11509	11510	11519	11590	11599	1160	1161
	1162	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	118
5	HIV infection											
	V08	042	0420	0421	0422	0429	0430	0431	0432	0433	0439	0440
	0449	07953	27910	27919	79571	7958						
6	Hepatitis											
	0700	0701	0702	07020	07021	07022	07023	0703	07030	07031	07032	07033
	0704	07041	07042	07043	07044	07049	0705	07051	07052	07053	07054	07059
	0706	0709	57140	57141	57149	5731	5732	5733				
7	Viral infection											
	0500	0501	0502	0509	0510	0511	0512	0519	0527	0528	0529	05310
	05311	05312	05313	05319	05371	05379	0538	0539	0540	05410	05411	05412
	05413	05419	0542	0546	05471	05473	05479	0548	0549	05579	0558	0559
	05600	05609	05679	0568	0569	0570	0578	0579	0600	0601	0609	061
	0650	0651	0652	0653	0654	0658	0659	0660	0661	0663	0668	0669
	071	0720	0723	07271	07272	07279	0728	0729	0737	0738	0739	0740
	0741	0743	0748	075	0780	0781	07810	07811	07819	0782	0783	0784
	0785	0786	0787	07881	07882	07888	07889	0790	0791	0792	0793	0794
	07950	07951	07952	07959	0796	0798	07981	07988	07989	0799	07998	07999
	7908											

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

8 Other infections, including parasitic

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

9 Sexually transmitted infections (not HIV or hepatitis)

0900	0901	0902	0903	09040	09041	09042	09049	0905	0906	0907	0909
0910	0911	0912	0913	0914	09150	09151	09152	09161	09162	09169	0917
09181	09182	09189	0919	0920	0929	0930	0931	09320	09321	09322	09323
09324	09381	09382	09389	0939	0940	0941	0942	0943	09481	09482	09483
09484	09485	09486	09487	09489	0949	0950	0951	0952	0953	0954	0955
0956	0957	0958	0959	096	0970	0971	0979	0980	09810	09811	09812
09813	09814	09815	09816	09817	09819	0982	09830	09831	09832	09833	09834
09835	09836	09837	09839	09840	09841	09842	09843	09849	09850	09851	09852
09853	09859	0986	0987	09881	09882	09883	09884	09885	09886	09889	0990
0991	0992	0993	0994	09940	09941	09949	09950	09951	09952	09953	09954
09955	09956	09959	0998	0999							

10 Immunizations and screening for infectious disease

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

11 Cancer of head and neck

V1001	V1002	V1021	1400	1401	1403	1404	1405	1406	1408	1409	1410
1411	1412	1413	1414	1415	1416	1418	1419	1420	1421	1422	1428
1429	1430	1431	1438	1439	1440	1441	1448	1449	1450	1451	1452

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

		Diagnosis category ICD-9-CM codes											
		1453	1454	1455	1456	1458	1459	1460	1461	1462	1463	1464	1465
		1466	1467	1468	1469	1470	1471	1472	1473	1478	1479	1480	1481
		1482	1483	1488	1489	1490	1491	1498	1499	1600	1601	1602	1603
		1604	1605	1608	1609	1610	1611	1612	1613	1618	1619	1950	2300
		2310											
12	Cancer of esophagus												
		V1003	1500	1501	1502	1503	1504	1505	1508	1509	2301		
13	Cancer of stomach												
		V1004	1510	1511	1512	1513	1514	1515	1516	1518	1519	2302	
14	Cancer of colon												
		V1005	1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1590
		2303											
15	Cancer of rectum and anus												
		V1006	1540	1541	1542	1543	1548	2304	2305	2306			
16	Cancer of liver and intrahepatic bile duct												
		V1007	1550	1551	1552	2308							
17	Cancer of pancreas												
		1570	1571	1572	1573	1574	1578	1579					
18	Cancer of other GI organs, peritoneum												
		V1000	V1009	1520	1521	1522	1523	1528	1529	1560	1561	1562	1568
		1569	1580	1588	1589	1591	1598	1599	2307	2309			
19	Cancer of bronchus, lung												
		V1011	1622	1623	1624	1625	1628	1629	2312				
20	Cancer, other respiratory and intrathoracic												
		V1012	V1020	V1022	1620	1630	1631	1638	1639	1650	1658	1659	2311
		2318	2319										
21	Cancer of bone and connective tissue												
		1700	1701	1702	1703	1704	1705	1706	1707	1708	1709	1710	1712
		1713	1714	1715	1716	1717	1718	1719					

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

		Diagnosis category ICD-9-CM codes											
22	Melanomas of skin	V1082	1720	1721	1722	1723	1724	1725	1726	1727	1728	1729	
23	Other non-epithelial cancer of skin	V1083	1730	1731	1732	1733	1734	1735	1736	1737	1738	1739	2320
		2321	2322	2323	2324	2325	2326	2327	2328	2329			
24	Cancer of breast	V103	1740	1741	1742	1743	1744	1745	1746	1748	1749	1750	1759
		2330											
25	Cancer of uterus	V1042	179	1820	1821	1828	2332						
26	Cancer of cervix	V1041	1800	1801	1808	1809	2331	7950					
27	Cancer of ovary	V1043	1830										
28	Cancer of other female genital organs	V1040	V1044	181	1832	1833	1834	1835	1838	1839	1840	1841	1842
		1843	1844	1848	1849	2333							
29	Cancer of prostate	V1046	185	2334									
30	Cancer of testis	V1047	1860	1869									
31	Cancer of other male genital organs	V1045	V1048	V1049	1871	1872	1873	1874	1875	1876	1877	1878	1879
		2335	2336										
32	Cancer of bladder	V1051	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	2337

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

33	Cancer of kidney and renal pelvis											
	V1052	1890	1891									
34	Cancer of other urinary organs											
	V1050	V1059	1892	1893	1894	1898	1899	2339				
35	Cancer of brain and nervous system											
	V1085	V1086	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
	1920	1921	1922	1923	1928	1929						
36	Cancer of thyroid											
	V1087	193										
37	Hodgkin's disease											
	V1072	20100	20101	20102	20103	20104	20105	20106	20107	20108	20110	20111
	20112	20113	20114	20115	20116	20117	20118	20120	20121	20122	20123	20124
	20125	20126	20127	20128	20140	20141	20142	20143	20144	20145	20146	20147
	20148	20150	20151	20152	20153	20154	20155	20156	20157	20158	20160	20161
	20162	20163	20164	20165	20166	20167	20168	20170	20171	20172	20173	20174
	20175	20176	20177	20178	20190	20191	20192	20193	20194	20195	20196	20197
	20198											
38	Non-Hodgkin's lymphoma											
	V1071	V1079	20000	20001	20002	20003	20004	20005	20006	20007	20008	20010
	20011	20012	20013	20014	20015	20016	20017	20018	20020	20021	20022	20023
	20024	20025	20026	20027	20028	20080	20081	20082	20083	20084	20085	20086
	20087	20088	20200	20201	20202	20203	20204	20205	20206	20207	20208	20210
	20211	20212	20213	20214	20215	20216	20217	20218	20220	20221	20222	20223
	20224	20225	20226	20227	20228	20280	20281	20282	20283	20284	20285	20286
	20287	20288	20290	20291	20292	20293	20294	20295	20296	20297	20298	
39	Leukemias											
	V1060	V1061	V1062	V1063	V1069	20240	20241	20242	20243	20244	20245	20246
	20247	20248	2031	20310	20311	2040	20400	20401	2041	20410	20411	2042
	20420	20421	2048	20480	20481	2049	20490	20491	2050	20500	20501	2051
	20510	20511	2052	20520	20521	2053	20530	20531	2058	20580	20581	2059
	20590	20591	2060	20600	20601	2061	20610	20611	2062	20620	20621	2068
	20680	20681	2069	20690	20691	2070	20700	20701	2071	20710	20711	2072
	20720	20721	2078	20780	20781	2080	20800	20801	2081	20810	20811	2082
	20820	20821	2088	20880	20881	2089	20890	20891				

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

40	Multiple myeloma											
	2030	20300	20301	2038	20380	20381						
41	Cancer, other and unspecified primary											
	V1029	V1081	V1084	V1088	V1089	V109	V711	1640	1641	1642	1643	1648
	1649	1760	1761	1762	1763	1764	1765	1768	1769	1900	1901	1902
	1903	1904	1905	1906	1907	1908	1909	1940	1941	1943	1944	1945
	1946	1948	1949	1951	1952	1953	1954	1955	1958	20230	20231	20232
	20233	20234	20235	20236	20237	20238	20250	20251	20252	20253	20254	20255
	20256	20257	20258	20260	20261	20262	20263	20264	20265	20266	20267	20268
	2340	2348	2349	7951								
42	Secondary malignancies											
	1960	1961	1962	1963	1965	1966	1968	1969	1970	1971	1972	1973
	1974	1975	1976	1977	1978	1980	1981	1982	1983	1984	1985	1986
	1987	19881	19882	19889								
43	Malignant neoplasm without specification of site											
	1990	1991										
44	Neoplasms of unspecified nature or uncertain behavior											
	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361
	2362	2363	2364	2365	2366	2367	23690	23691	23699	2370	2371	2372
	2373	2374	2375	2376	2377	23770	23771	23772	2379	2380	2381	2382
	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394
	2395	2396	2397	2398	2399							
45	Maintenance chemotherapy, radiotherapy											
	V580	V581	V661	V662	V671	V672						
46	Benign neoplasm of uterus											
	2180	2181	2182	2189	2190	2191	2198	2199				
47	Other and unspecified benign neoplasm											
	V1272	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110
	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122
	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134
	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2148	2149
	2150	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162
	2163	2164	2165	2166	2167	2168	2169	217	220	2210	2211	2212

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

	2218	2219	2220	2221	2222	2223	2224	2228	2229	2230	2231	2232
	2233	22381	22389	2239	2240	2241	2242	2243	2244	2245	2246	2247
	2248	2249	2250	2251	2252	2253	2254	2258	2259	226	2270	2271
	2273	2274	2275	2276	2278	2279	22800	22801	22802	22803	22804	22809
	2281	2290	2298	2299								
48	Thyroid disorders											
	2400	2409	2410	2411	2419	24200	24201	24210	24211	24220	24221	24230
	24231	24240	24241	24280	24281	24290	24291	243	2440	2441	2442	2443
	2448	2449	2450	2451	2452	2453	2454	2458	2459	2460	2461	2462
	2463	2468	2469	7945								
49	Diabetes mellitus without complication											
	25000	25001	7902	7915	7916							
50	Diabetes mellitus with complications											
	25002	25003	25010	25011	25012	25013	25020	25021	25022	25023	25030	25031
	25032	25033	25040	25041	25042	25043	25050	25051	25052	25053	25060	25061
	25062	25063	25070	25071	25072	25073	25080	25081	25082	25083	25090	25091
	25092	25093										
51	Other endocrine disorders											
	2510	2511	2512	2513	2514	2515	2518	2519	2520	2521	2528	2529
	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541
	2548	2549	2550	2551	2552	2553	2554	2555	2556	2558	2559	2560
	2561	2562	2563	2564	2568	2569	2570	2571	2572	2578	2579	2580
	2581	2588	2589	2590	2591	2592	2593	2594	2598	2599	7946	
52	Nutritional deficiencies											
	V121	260	261	262	2630	2631	2632	2638	2639	2640	2641	2642
	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2660	2661
	2662	2669	267	2680	2681	2682	2689	2690	2691	2692	2693	2698
	2699	7994										
53	Disorders of lipid metabolism											
	2720	2721	2722	2723	2724							
54	Gout and other crystal arthropathies											
	2740	27410	27411	27419	27481	27482	27489	2749	71210	71211	71212	71213
	71214	71215	71216	71217	71218	71219	71220	71221	71222	71223	71224	71225
	71226	71227	71228	71229	71230	71231	71232	71233	71234	71235	71236	71237
	71238	71239	71280	71281	71282	71283	71284	71285	71286	71287	71288	71289

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

		Diagnosis category ICD-9-CM codes											
		71290	71291	71292	71293	71294	71295	71296	71297	71298	71299		
55	Fluid and electrolyte disorders												
		2760	2761	2762	2763	2764	2765	2766	2767	2768	2769		
56	Cystic fibrosis												
		27700	27701										
57	Immunity disorders												
		27900	27901	27902	27903	27904	27905	27906	27909	27911	27912	27913	2792
		2793	2794	2798	2799								
58	Other nutritional, endocrine, and metabolic disorders												
		V122	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710
		2711	2712	2713	2714	2718	2719	2725	2726	2727	2728	2729	2730
		2731	2732	2733	2738	2739	2750	2751	2752	2753	2754	27540	27541
		27542	27549	2758	2759	2771	2772	2773	2774	2775	2776	2778	2779
		2780	27800	27801	2781	2782	2783	2784	2788	7831	7832	7833	7834
		7835	7839	7947	7957	79579							
59	Deficiency and other anemia												
		2800	2801	2808	2809	2810	2811	2812	2813	2814	2818	2819	2820
		2821	2822	2823	2824	2827	2828	2829	2830	2831	28310	28311	28319
		2832	2839	2840	2848	2849	2850	2858	2859				
60	Acute posthemorrhagic anemia												
		2851											
61	Sickle cell anemia												
		2825	28260	28261	28262	28263	28269						
62	Coagulation and hemorrhagic disorders												
		2860	2861	2862	2863	2864	2865	2866	2867	2869	2870	2871	2872
		2873	2874	2875	2878	2879	7827						
63	Diseases of white blood cells												
		2880	2881	2882	2883	2888	2889						

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

64	Other hematologic conditions											
	V123	V582	2890	2894	28950	28951	28959	2896	2897	2898	2899	7900
65	Mental retardation											
	317	3180	3181	3182	319							
66	Alcohol-related mental disorders											
	2910	2911	2912	2913	2914	2915	2918	29181	29189	2919	30300	30301
	30302	30303	30390	30391	30392	30393	30500	30501	30502	30503		
67	Substance-related mental disorders											
	V1582	2920	29211	29212	2922	29281	29282	29283	29284	29289	2929	30400
	30401	30402	30403	30410	30411	30412	30413	30420	30421	30422	30423	30430
	30431	30432	30433	30440	30441	30442	30443	30450	30451	30452	30453	30460
	30461	30462	30463	30470	30471	30472	30473	30480	30481	30482	30483	30490
	30491	30492	30493	3051	30510	30511	30512	30513	30520	30521	30522	30523
	30530	30531	30532	30533	30540	30541	30542	30543	30550	30551	30552	30553
	30560	30561	30562	30563	30570	30571	30572	30573	30580	30581	30582	30583
	30590	30591	30592	30593								
68	Senility and organic mental disorders											
	2900	29010	29011	29012	29013	29020	29021	2903	29040	29041	29042	29043
	2908	2909	2930	2931	29381	29382	29383	29384	29389	2939	2940	2941
	2948	2949	3100	3101	3102	3108	3109	3310	3311	3312	797	
69	Affective disorders											
	29600	29601	29602	29603	29604	29605	29606	29610	29611	29612	29613	29614
	29615	29616	29620	29621	29622	29623	29624	29625	29626	29630	29631	29632
	29633	29634	29635	29636	29640	29641	29642	29643	29644	29645	29646	29650
	29651	29652	29653	29654	29655	29656	29660	29661	29662	29663	29664	29665
	29666	2967	29680	29681	29682	29689	29690	29699	2980	3004	30111	30113
70	Schizophrenia and related disorders											
	29500	29501	29502	29503	29504	29505	29510	29511	29512	29513	29514	29515
	29520	29521	29522	29523	29524	29525	29530	29531	29532	29533	29534	29535
	29540	29541	29542	29543	29544	29545	29550	29551	29552	29553	29554	29555
	29560	29561	29562	29563	29564	29565	29570	29571	29572	29573	29574	29575
	29580	29581	29582	29583	29584	29585	29590	29591	29592	29593	29594	29595
	29900	29901	29910	29911	29980	29981	29990	29991				

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

		Diagnosis category ICD-9-CM codes											
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	7801		
75	Personal history of mental disorder, mental and behavioral problems, observation and screening for mental condition	V110	V111	V112	V113	V118	V119	V154	V1541	V1542	V1549	V400	V401
		V402	V403	V409	V663	V673	V701	V702	V7101	V7102	V7109	V790	V791
		V792	V793	V798	V799								
76	Meningitis (except that caused by tuberculosis or sexually transmitted disease)	00321	0360	0470	0471	0478	0479	0490	0491	0530	05472	0721	10081
		11283	1142	11501	11511	11591	3200	3201	3202	3203	3207	3208	32081
		32082	32089	3209	3210	3211	3212	3213	3214	3218	3220	3221	3222
		3229											
77	Encephalitis (except that caused by tuberculosis or sexually transmitted disease)	0361	0462	0498	0499	0520	0543	0550	05601	0620	0621	0622	0623
		0624	0625	0628	0629	0630	0631	0632	0638	0639	064	0662	0722
		1300	1390	3230	3231	3232	3234	3235	3236	3237	3238	3239	

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

78	Other CNS infection and poliomyelitis											
	V1202	04500	04501	04502	04503	04510	04511	04512	04513	04520	04521	04522
	04523	04590	04591	04592	04593	0460	0461	0463	0468	0469	048	138
	3240	3241	3249	326								
79	Parkinson's disease											
	3320											
80	Multiple sclerosis											
	340											
81	Other hereditary and degenerative nervous system conditions											
	3300	3301	3302	3303	3308	3309	3313	3314	3317	33181	33189	3319
	3330	3331	3332	3333	3334	3335	3336	3337	33381	33382	33383	33384
	33389	33390	33391	33392	33393	33399	3340	3341	3342	3343	3344	3348
	3349	3350	33510	33511	33519	33520	33521	33522	33523	33524	33529	3358
	3359	3360	3361	3362	3363	3368	3369	3370	3371	3373	3379	
82	Paralysis											
	3420	34200	34201	34202	3421	34210	34211	34212	34280	34281	34282	3429
	34290	34291	34292	3430	3431	3432	3433	3434	3438	3439	3440	34400
	34401	34402	34403	34404	34409	3441	3442	3443	34430	34431	34432	3444
	34440	34441	34442	3445	34460	3448	34481	34489	3449	7814		
83	Epilepsy, convulsions											
	3450	34500	34501	3451	34510	34511	3452	3453	3454	34540	34541	3455
	34550	34551	3456	34560	34561	3457	34570	34571	3458	34580	34581	3459
	34590	34591	7803	78031	78039							
84	Headache, including migraine											
	3460	34600	34601	3461	34610	34611	3462	34620	34621	3468	34680	34681
	3469	34690	34691	7840								
85	Coma, stupor, and brain damage											
	3481	7800	78001	78003	78009							
86	Cataract											
	V431	36600	36601	36602	36603	36604	36609	36610	36611	36612	36613	36614
	36615	36616	36617	36618	36619	36620	36621	36622	36623	36630	36631	36632
	36633	36634	36641	36642	36643	36644	36645	36646	36650	36651	36652	36653

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

	3668	3669										
87	Retinal detachments, defects, vascular occlusion, and retinopathy											
	36100	36101	36102	36103	36104	36105	36106	36107	36110	36111	36112	36113
	36114	36119	3612	36130	36131	36132	36133	36181	36189	3619	36201	36202
	36210	36211	36212	36213	36214	36215	36216	36217	36218	36221	36229	36230
	36231	36232	36233	36234	36235	36236	36237	36240	36241	36242	36243	36250
	36251	36252	36253	36254	36255	36256	36257	36260	36261	36262	36263	36264
	36265	36266	36270	36271	36272	36273	36274	36275	36276	36277	36281	36282
	36283	36284	36285	36289	3629							
88	Glaucoma											
	36500	36501	36502	36503	36504	36510	36511	36512	36513	36514	36515	36520
	36521	36522	36523	36524	36531	36532	36541	36542	36543	36544	36551	36552
	36559	36560	36561	36562	36563	36564	36565	36581	36582	36589	3659	
89	Blindness and vision defects											
	V410	3670	3671	36720	36721	36722	36731	36732	3674	36751	36752	36753
	36781	36789	3679	36800	36801	36802	36803	36810	36811	36812	36813	36814
	36815	36816	3682	36830	36831	36832	36833	36834	36840	36841	36842	36843
	36844	36845	36846	36847	36851	36852	36853	36854	36855	36859	36860	36861
	36862	36863	36869	3688	3689	36900	36901	36902	36903	36904	36905	36906
	36907	36908	36910	36911	36912	36913	36914	36915	36916	36917	36918	36920
	36921	36922	36923	36924	36925	3693	3694	36960	36961	36962	36963	36964
	36965	36966	36967	36968	36969	36970	36971	36972	36973	36974	36975	36976
	3698	3699										
90	Inflammation, infection of eye (except that caused by tuberculosis or sexually transmitted disease)											
	0213	03281	05320	05321	05322	05329	05440	05441	05442	05443	05444	05449
	05571	0760	0761	0769	0770	0771	0772	0773	0774	0778	0779	07798
	07799	11502	11512	11592	1301	1302	1391	36000	36001	36002	36003	36004
	36011	36012	36013	36014	36019	36300	36301	36303	36304	36305	36306	36307
	36308	36310	36311	36312	36313	36314	36315	36320	36321	36322	36400	36401
	36402	36403	36404	36405	36410	36411	36421	36422	36423	36424	3643	37020
	37021	37022	37023	37024	37031	37032	37033	37034	37035	37040	37044	37049
	37050	37052	37054	37055	37059	3708	3709	37200	37201	37202	37203	37204
	37205	37210	37211	37212	37213	37214	37215	37220	37221	37222	37230	37231
	37233	37239	37300	37301	37302	37311	37312	37313	37331	37332	37333	37334
	3734	3735	3736	3738	3739	37500	37501	37502	37503	37530	37531	37532
	37533	37541	37542	37543	37600	37601	37602	37603	37604	37610	37611	37612
	37613	37730	37731	37732	37733	37734	37739	37900	37901	37902	37903	37904
	37905	37906	37907	37909								

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

91 Other eye disorders

V411	V425	V430	V456	V4561	V4569	V522	V531	V720	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	3729
3732	37400	37401	37402	37403	37404	37405	37410	37411	37412	37413	37414
37420	37421	37422	37423	37430	37431	37432	37433	37434	37441	37443	37444
37445	37446	37450	37451	37452	37453	37454	37455	37456	37481	37482	37483
37484	37485	37486	37487	37489	3749	37511	37512	37513	37514	37515	37516
37520	37521	37522	37551	37552	37553	37554	37555	37556	37557	37561	37569
37581	37589	3759	37621	37622	37630	37631	37632	37633	37634	37635	37636
37640	37641	37642	37643	37644	37645	37646	37647	37650	37651	37652	3766
37681	37682	37689	3769	37700	37701	37702	37703	37704	37710	37711	37712
37713	37714	37715	37716	37721	37722	37723	37724	37741	37742	37749	37751
37752	37753	37754	37761	37762	37763	37771	37772	37773	37775	3779	37800
37801	37802	37803	37804	37805	37806	37807	37808	37810	37811	37812	37813
37814	37815	37816	37817	37818	37820	37821	37822	37823	37824	37830	37831
37832	37833	37834	37835	37840	37841	37842	37843	37844	37845	37850	37851
37852	37853	37854	37855	37856	37860	37861	37862	37863	37871	37872	37873
37881	37882	37883	37884	37885	37886	37887	3789	37911	37912	37913	37914
37915	37916	37919	37921	37922	37923	37924	37925	37926	37929	37931	37932
37933	37934	37939	37940	37941	37942	37943	37945	37946	37949	37950	37951
37952	37953	37954	37955	37956	37957	37958	37959	3798	37990	37991	37992
37993	37999										

92 Otitis media and related conditions

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

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

93	Conditions associated with dizziness or vertigo											
	38600	38601	38602	38603	38604	38610	38611	38612	38619	3862	38630	38631
	38632	38633	38634	38635	38640	38641	38642	38643	38648	38650	38651	38652
	38653	38654	38655	38656	38658	3868	3869	7804				
94	Other ear and sense organ disorders											
	V412	V413	V532	V721	38000	38001	38002	38010	38011	38012	38013	38014
	38015	38016	38021	38022	38023	38030	38031	38032	38039	3804	38050	38051
	38052	38053	38081	38089	3809	38400	38401	38409	3841	38530	38531	38532
	38533	38535	38582	38583	38589	3859	38800	38801	38802	38810	38811	38812
	3882	38830	38831	38832	38840	38841	38842	38843	38844	3885	38860	38861
	38869	38870	38871	38872	3888	3889	38900	38901	38902	38903	38904	38908
	38910	38911	38912	38914	38918	3892	3897	3898	3899			
95	Other nervous system disorders											
	V124	V1240	V1241	V1249	V415	V452	V484	V485	V493	V530	V5301	V5302
	V5309	325	3321	33720	33721	33722	33729	3410	3411	3418	3419	34461
	347	3480	3482	3483	3484	3485	3488	3489	3492	34981	34982	34989
	3499	3501	3502	3508	3509	3510	3511	3518	3519	3520	3521	3522
	3523	3524	3525	3526	3529	3530	3531	3532	3533	3534	3535	3536
	3538	3539	3540	3541	3542	3543	3544	3545	3548	3549	3550	3551
	3552	3553	3554	3555	3556	3557	35571	35579	3558	3559	3560	3561
	3562	3563	3564	3568	3569	3570	3571	3572	3573	3574	3575	3576
	3577	3578	3579	3580	3581	3582	3588	3589	3590	3591	3592	3593
	3594	3595	3596	3598	3599	7810	7811	7812	7813	7817	7818	7820
	7843	7845	78460	78461	78469	7920	7930	79400	79401	79402	79409	79410
	79411	79412	79413	79414	79415	79416	79417	79419	7961			
96	Heart valve disorders											
	V422	V433	3940	3941	3942	3949	3950	3951	3952	3959	3960	3961
	3962	3963	3968	3969	3970	3971	3979	4240	4241	4242	4243	42490
	42491	42499	7852	7853								
97	Peri-, endo-, and myocarditis, cardiomyopathy (except that caused by tuberculosis or sexually transmitted disease)											
	03282	03640	03641	03642	03643	07420	07421	07422	07423	11281	11503	11504
	11513	11514	11593	11594	1303	3910	3911	3912	3918	3919	3920	393
	3980	39890	39899	4200	42090	42091	42099	4210	4211	4219	4220	42290
	42291	42292	42293	42299	4230	4231	4232	4238	4239	4250	4251	4252
	4253	4254	4255	4257	4258	4259	4290					
98	Essential hypertension											
	4011	4019										

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

99	Hypertension with complications and secondary hypertension											
	4010	40200	40201	40210	40211	40290	40291	4030	40300	40301	4031	40310
	40311	4039	40390	40391	4040	40400	40401	40402	40403	4041	40410	40411
	40412	40413	4049	40490	40491	40492	40493	40501	40509	40511	40519	40591
	40599	4372										
100	Acute myocardial infarction											
	4100	41000	41001	41002	4101	41010	41011	41012	4102	41020	41021	41022
	4103	41030	41031	41032	4104	41040	41041	41042	4105	41050	41051	41052
	4106	41060	41061	41062	4107	41070	41071	41072	4108	41080	41081	41082
	4109	41090	41091	41092								
101	Coronary atherosclerosis and other heart disease											
	V4581	V4582	4110	4111	4118	41181	41189	412	4130	4131	4139	4140
	41400	41401	4148	4149								
102	Nonspecific chest pain											
	78650	78651	78659									
103	Pulmonary heart disease											
	4150	4151	41519	4160	4161	4168	4169	4170	4171	4178	4179	
104	Other and ill-defined heart disease											
	41410	41411	41419	4291	4292	4293	4295	4296	42971	42979	42981	42982
	42989	4299										
105	Conduction disorders											
	V450	V4500	V4501	V4502	V4509	V533	V5331	V5332	V5339	4260	42610	42611
	42612	42613	4262	4263	4264	42650	42651	42652	42653	42654	4266	4267
	42681	42689	4269									
106	Cardiac dysrhythmias											
	4270	4271	4272	42731	42732	42760	42761	42769	42781	42789	4279	7850
	7851											
107	Cardiac arrest and ventricular fibrillation											
	42741	42742	4275									

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

108	Congestive heart failure, nonhypertensive											
	39891	4280	4281	4289								
109	Acute cerebrovascular disease											
	430	431	4320	4321	4329	43301	43311	43321	43331	43381	43391	4340
	43400	43401	4341	43410	43411	4349	43490	43491	436			
110	Occlusion or stenosis of precerebral arteries											
	4330	43300	4331	43310	4332	43320	4333	43330	4338	43380	4339	43390
111	Other and ill-defined cerebrovascular disease											
	4370	4371	4373	4374	4375	4376	4377	4378	4379			
112	Transient cerebral ischemia											
	4350	4351	4352	4353	4358	4359						
113	Late effects of cerebrovascular disease											
	438	4380	43810	43811	43812	43819	43820	43821	43822	43830	43831	43832
	43840	43841	43842	43850	43851	43852	43853	43881	43882	43889	4389	
114	Peripheral and visceral atherosclerosis											
	4400	4401	4402	44020	44021	44022	44023	44029	4408	4409	4439	5570
	5571	5579										
115	Aortic, peripheral, and visceral artery aneurysms											
	4410	44100	44101	44102	44103	4411	4412	4413	4414	4415	4416	4417
	4419	4420	4421	4422	4423	44281	44282	44283	44284	44289	4429	
116	Aortic and peripheral arterial embolism or thrombosis											
	4440	4441	44421	44422	44481	44489	4449					
117	Other circulatory disease											
	V125	V1250	V1259	V151	V421	V432	V434	V717	4430	4431	44381	44389
	4460	4461	4462	44620	44621	44629	4463	4464	4465	4466	4467	4470
	4471	4472	4473	4474	4475	4476	4478	4479	4480	4481	4489	4580
	4581	4588	4589	4590	45989	4599	7859	79430	79431	79439	7962	

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

118	Phlebitis, thrombophlebitis and thromboembolism											
	V1251	V1252	4510	45111	45119	4512	45181	45182	45183	45184	45189	4519
	452	4530	4531	4532	4533	4538	4539					
119	Varicose veins of lower extremity											
	4540	4541	4542	4549								
120	Hemorrhoids											
	4550	4551	4552	4553	4554	4555	4556	4557	4558	4559		
121	Other diseases of veins and lymphatics											
	4563	4564	4565	4566	4568	4570	4571	4572	4578	4579	4591	4592
	45981											
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)											
	00322	0203	0204	0205	0212	0221	0310	0391	0521	0551	0730	0830
	1124	1140	1144	1145	11505	11515	11595	1304	1363	4800	4801	4802
	4808	4809	481	4820	4821	4822	4823	48230	48231	48232	48239	4824
	48240	48241	48249	4828	48281	48282	48283	48284	48289	4829	483	4830
	4831	4838	4841	4843	4845	4846	4847	4848	485	486	5130	5171
123	Influenza											
	4870	4871	4878									
124	Acute and chronic tonsillitis											
	463	4740	47400	47401	47402	47410	47411	47412	4742	4748	4749	475
125	Acute bronchitis											
	4660	4661	46611	46619								
126	Other upper respiratory infections											
	0320	0321	0322	0323	0340	460	4610	4611	4612	4613	4618	4619
	462	4640	46410	46411	46420	46421	46430	46431	4644	4650	4658	4659
	4730	4731	4732	4733	4738	4739						
127	Chronic obstructive pulmonary disease and bronchiectasis											
	490	4910	4911	4912	49120	49121	4918	4919	4920	4928	494	496

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

128	Asthma											
	49300	49301	49310	49311	49320	49321	49390	49391				
129	Aspiration pneumonitis, food/vomitus											
	5070											
130	Pleurisy, pneumothorax, pulmonary collapse											
	5100	5109	5110	5111	5118	5119	5120	5128	5180	5181	5182	
131	Respiratory failure, insufficiency, arrest (adult)											
	V461	5185	51881	51882	51883	51884	7991					
132	Lung disease due to external agents											
	4950	4951	4952	4953	4954	4955	4956	4957	4958	4959	500	501
	502	503	504	505	5060	5061	5062	5063	5064	5069	5071	5078
	5080	5081	5088	5089								
133	Other lower respiratory disease											
	V126	V426	5131	514	515	5160	5161	5162	5163	5168	5169	5172
	5178	5183	5184	51889	5194	5198	5199	7825	78600	78601	78602	78603
	78604	78605	78606	78607	78609	7862	7863	7864	78652	7866	7867	7868
	7869	7931	7942									
134	Other upper respiratory disease											
	V414	V440	V550	470	4710	4711	4718	4719	4720	4721	4722	4760
	4761	4770	4778	4779	4780	4781	47820	47821	47822	47824	47825	47826
	47829	47830	47831	47832	47833	47834	4784	4785	4786	47870	47871	47874
	47875	47879	4788	4789	5191	5192	5193	7841	78440	78441	78449	7847
	7848	7849	7861									
135	Intestinal infection											
	0010	0011	0019	0020	0021	0022	0023	0029	0030	00320	00329	0038
	0039	0040	0041	0042	0043	0048	0049	0050	0051	0052	0053	0054
	0058	00581	00589	0059	0060	0061	0062	0063	0064	0065	0066	0068
	0069	0070	0071	0072	0073	0074	0078	0079	0080	00800	00801	00802
	00803	00804	00809	0081	0082	0083	00841	00842	00843	00844	00845	00846
	00847	00849	0085	0086	00861	00862	00863	00864	00865	00866	00867	00869
	0088	0090	0091	0092	0093	0211	0222					

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

136	Disorders of teeth and jaw											
	V523	V534	V585	V722	5200	5201	5202	5203	5204	5205	5206	5207
	5208	5209	5210	5211	5212	5213	5214	5215	5216	5217	5218	5219
	5220	5221	5222	5223	5224	5225	5226	5227	5228	5229	5230	5231
	5232	5233	5234	5235	5236	5238	5239	5240	52400	52401	52402	52403
	52404	52405	52406	52409	5241	52410	52411	52412	52419	5242	5243	5244
	5245	5246	52460	52461	52462	52463	52469	52470	52471	52472	52473	52474
	52479	5248	5249	5250	5251	5252	5253	5258	5259	5260	5261	5262
	5263	5264	5265	52681	52689	5269						
137	Diseases of mouth, excluding dental											
	5270	5271	5272	5273	5274	5275	5276	5277	5278	5279	5280	5281
	5282	5283	5284	5285	5286	5287	5288	5289	5290	5291	5292	5293
	5294	5295	5296	5298	5299	7924						
138	Esophageal disorders											
	4561	45621	5300	5301	53010	53011	53019	5302	5303	5304	5305	5306
	5308	53081	53083	53084	53089	5309						
139	Gastroduodenal ulcer (except hemorrhage)											
	V1271	53110	53111	53130	53131	53150	53151	53170	53171	53190	53191	53210
	53211	53230	53231	53250	53251	53270	53271	53290	53291	53310	53311	53330
	53331	53350	53351	53370	53371	53390	53391	53410	53411	53430	53431	53450
	53451	53470	53471	53490	53491							
140	Gastritis and duodenitis											
	5350	53500	53501	5351	53510	53511	5352	53520	53521	5353	53530	53531
	5354	53540	53541	5355	53550	53551	5356	53560	53561			
141	Other disorders of stomach and duodenum											
	5360	5361	5362	5363	5368	5369	5370	5371	5372	5373	5374	5375
	5376	53781	53782	53783	53789	5379						
142	Appendicitis and other appendiceal conditions											
	5400	5401	5409	541	542	5430	5439					
143	Abdominal hernia											
	55000	55001	55002	55003	55010	55011	55012	55013	55090	55091	55092	55093
	55100	55101	55102	55103	5511	55120	55121	55129	5513	5518	5519	55200
	55201	55202	55203	5521	55220	55221	55229	5523	5528	5529	55300	55301
	55302	55303	5531	55320	55321	55329	5533	5538	5539			

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

144	Regional enteritis and ulcerative colitis											
	5550	5551	5552	5559	556	5560	5561	5562	5563	5564	5565	5566
	5568	5569										
145	Intestinal obstruction without hernia											
	5600	5601	5602	56030	56031	56039	56081	56089	5609			
146	Diverticulosis and diverticulitis											
	56200	56201	56202	56203	56210	56211	56212	56213				
147	Anal and rectal conditions											
	5646	5650	5651	566	5690	5691	5692	56941	56942	56949		
148	Peritonitis and intestinal abscess											
	03283	5670	5671	5672	5678	5679	5695					
149	Biliary tract disease											
	57400	57401	57410	57411	57420	57421	57430	57431	57440	57441	57450	57451
	57460	57461	57470	57471	57480	57481	57490	57491	5750	5751	57510	57511
	57512	5752	5753	5754	5755	5756	5758	5759	5760	5761	5762	5763
	5764	5765	5768	5769	7933							
150	Liver disease, alcohol-related											
	5710	5711	5712	5713								
151	Other liver diseases											
	V427	570	5715	5716	5718	5719	5720	5721	5722	5723	5724	5728
	5730	5734	5738	5739	7824	7891	7895	7904	7905	7948		
152	Pancreatic disorders (not diabetes)											
	5770	5771	5772	5778	5779	5794						
153	Gastrointestinal hemorrhage											
	4560	45620	5307	53082	53100	53101	53120	53121	53140	53141	53160	53161
	53200	53201	53220	53221	53240	53241	53260	53261	53300	53301	53320	53321
	53340	53341	53360	53361	53400	53401	53420	53421	53440	53441	53460	53461
	5693	5780	5781	5789								

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

154	Noninfectious gastroenteritis											
	5589											
155	Other gastrointestinal disorders											
	V127	V1270	V1279	V416	V441	V442	V443	V444	V453	V473	V535	V551
	V552	V553	V554	5581	5582	5640	5641	5645	5647	5648	56481	56489
	5649	5680	56881	56882	56889	5689	56981	56982	56983	56984	56985	56989
	5699	5790	5791	5792	5798	5799	7871	7872	7873	7874	7875	7876
	7877	7879	78791	78799	7892	7893	78930	78931	78932	78933	78934	78935
	78936	78937	78939	7894	78940	78941	78942	78943	78944	78945	78946	78947
	78949	7899	7921	7934	7936							
156	Nephritis, nephrosis, renal sclerosis											
	5800	5804	58081	58089	5809	5810	5811	5812	5813	58181	58189	5819
	5820	5821	5822	5824	58281	58289	5829	5830	5831	5832	5834	5836
	5837	58381	58389	5839	587							
157	Acute and unspecified renal failure											
	5845	5846	5847	5848	5849	586						
158	Chronic renal failure											
	V420	V451	V560	V561	V562	V568	585					
159	Urinary tract infections											
	03284	59000	59001	59010	59011	5902	5903	59080	59081	5909	5950	5951
	5952	5953	5954	59581	59582	59589	5959	5970	59780	59781	59789	59800
	59801	5990										
160	Calculus of urinary tract											
	V1301	5920	5921	5929	5940	5941	5942	5948	5949	7880		
161	Other diseases of kidney and ureters											
	5880	5881	5888	5889	5890	5891	5899	591	5930	5931	5932	5933
	5934	5935	5936	5937	59370	59371	59372	59373	59381	59382	59389	5939
162	Other diseases of bladder and urethra											
	5960	5961	5962	5963	5964	5965	59651	59652	59653	59654	59655	59659
	5966	5967	5968	5969	5981	5982	5988	5989	5991	5992	5993	5994
	5995	59981	59982	59983	59984							

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

163	Genitourinary symptoms and ill-defined conditions											
	V130	V1300	V1309	V417	V435	V445	V4450	V4451	V4452	V4459	V446	V474
	V475	V536	V555	V556	5996	5997	5998	59989	5999	7881	7882	78820
	78821	78829	7883	78830	78831	78832	78833	78834	78835	78836	78837	78839
	7884	78841	78842	78843	7885	7886	78861	78862	78869	7887	7888	7889
	7910	7911	7912	7913	7914	7917	7919	7935	7944			
164	Hyperplasia of prostate											
	600											
165	Inflammatory conditions of male genital organs											
	6010	6011	6012	6013	6014	6018	6019	6031	6040	60490	60491	60499
	6071	6072	6080	6084								
166	Other male genital disorders											
	6020	6021	6022	6028	6029	6030	6038	6039	605	6060	6061	6068
	6069	6070	6073	60781	60782	60783	60784	60789	6079	6081	6082	6083
	60881	60883	60884	60885	60886	60889	6089	7922				
167	Nonmalignant breast conditions											
	6100	6101	6102	6103	6104	6108	6109	6110	6111	6112	6113	6114
	6115	6116	61171	61172	61179	6118	6119					
168	Inflammatory diseases of female pelvic organs											
	6140	6141	6142	6143	6144	6145	6146	6147	6148	6149	6150	6151
	6159	6160	61610	61611	6162	6163	6164	61650	61651	6168	6169	
169	Endometriosis											
	6170	6171	6172	6173	6174	6175	6176	6178	6179			
170	Prolapse of female genital organs											
	6180	6181	6182	6183	6184	6185	6186	6187	6188	6189		
171	Menstrual disorders											
	6253	6260	6261	6262	6263	6264	6265	6266	6268	6269		
172	Ovarian cyst											
	6200	6201	6202									

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Diagnosis category
ICD-9-CM codes

173	Menopausal disorders											
	V074	6270	6271	6272	6273	6274	6278	6279				
174	Female infertility											
	6280	6281	6282	6283	6284	6288	6289					
175	Other female genital disorders											
	V132	V557	V723	6190	6191	6192	6198	6199	6203	6204	6205	6206
	6207	6208	6209	6210	6211	6212	6213	6214	6215	6216	6217	6218
	6219	6220	6221	6222	6223	6224	6225	6226	6227	6228	6229	6230
	6231	6232	6233	6234	6235	6236	6237	6238	6239	6240	6241	6242
	6243	6244	6245	6246	6248	6249	6250	6251	6252	6254	6255	6256
	6258	6259	6267	6290	6291	6298	6299					
176	Contraceptive and procreative management											
	V157	V2501	V2502	V2509	V251	V252	V253	V2540	V2541	V2542	V2543	V2549
	V255	V258	V259	V260	V261	V262	V263	V264	V2651	V2652	V268	V269
	V455	V4551	V4552	V4559								
177	Spontaneous abortion											
	63400	63401	63402	63410	63411	63412	63420	63421	63422	63430	63431	63432
	63440	63441	63442	63450	63451	63452	63460	63461	63462	63470	63471	63472
	63480	63481	63482	63490	63491	63492						
178	Induced abortion											
	63500	63501	63502	63510	63511	63512	63520	63521	63522	63530	63531	63532
	63540	63541	63542	63550	63551	63552	63560	63561	63562	63570	63571	63572
	63580	63581	63582	63590	63591	63592	63600	63601	63602	63610	63611	63612
	63620	63621	63622	63630	63631	63632	63640	63641	63642	63650	63651	63652
	63660	63661	63662	63670	63671	63672	63680	63681	63682	63690	63691	63692
	63700	63701	63702	63710	63711	63712	63720	63721	63722	63730	63731	63732
	63740	63741	63742	63750	63751	63752	63760	63761	63762	63770	63771	63772
	63780	63781	63782	63790	63791	63792	6380	6381	6382	6383	6384	6385
	6386	6387	6388	6389								
179	Postabortion complications											
	6390	6391	6392	6393	6394	6395	6396	6398	6399			
180	Ectopic pregnancy											
	6330	6331	6332	6338	6339							

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Attachment 1
Clinical Classification Software—DIAGNOSES
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Diagnosis category
ICD-9-CM codes

181	Other complications of pregnancy											
	630	631	632	64300	64301	64303	64310	64311	64313	64320	64321	64323
	64380	64381	64383	64390	64391	64393	64600	64601	64603	64610	64611	64612
	64613	64614	64620	64621	64622	64623	64624	64630	64631	64633	64640	64641
	64642	64643	64644	64650	64651	64652	64653	64654	64660	64661	64662	64663
	64664	64670	64671	64673	64680	64681	64682	64683	64684	64690	64691	64693
	64700	64701	64702	64703	64704	64710	64711	64712	64713	64714	64720	64721
	64722	64723	64724	64730	64731	64732	64733	64734	64740	64741	64742	64743
	64744	64750	64751	64752	64753	64754	64760	64761	64762	64763	64764	64780
	64781	64782	64783	64784	64790	64791	64792	64793	64794	64810	64811	64812
	64813	64814	64820	64821	64822	64823	64824	64830	64831	64832	64833	64834
	64840	64841	64842	64843	64844	64850	64851	64852	64853	64854	64860	64861
	64862	64863	64864	64870	64871	64872	64873	64874	64890	64891	64892	64893
	64894											
182	Hemorrhage during pregnancy, abruptio placenta, placenta previa											
	64000	64001	64003	64080	64081	64083	64090	64091	64093	64100	64101	64103
	64110	64111	64113	64120	64121	64123	64130	64131	64133	64180	64181	64183
	64190	64191	64193									
183	Hypertension complicating pregnancy, childbirth and the puerperium											
	64200	64201	64202	64203	64204	64210	64211	64212	64213	64214	64220	64221
	64222	64223	64224	64230	64231	64232	64233	64234	64240	64241	64242	64243
	64244	64250	64251	64252	64253	64254	64260	64261	64262	64263	64264	64270
	64271	64272	64273	64274	64290	64291	64292	64293	64294			
184	Early or threatened labor											
	64400	64403	64410	64413	64420	64421						
185	Prolonged pregnancy											
	64500	64501	64503									
186	Diabetes or abnormal glucose tolerance complicating pregnancy, childbirth, or the puerperium											
	64800	64801	64802	64803	64804	64880	64881	64882	64883	64884		
187	Malposition, malpresentation											
	65200	65201	65203	65210	65211	65213	65220	65221	65223	65230	65231	65233
	65240	65241	65243	65250	65251	65253	65260	65261	65263	65270	65271	65273
	65280	65281	65283	65290	65291	65293	66000	66001	66003			

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Attachment 1
Clinical Classification Software—DIAGNOSES
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Diagnosis category
ICD-9-CM codes

188	Fetopelvic disproportion, obstruction											
	65300	65301	65303	65310	65311	65313	65320	65321	65323	65330	65331	65333
	65340	65341	65343	65350	65351	65353	65360	65361	65363	65370	65371	65373
	65380	65381	65383	65390	65391	65393	66010	66011	66013	66020	66021	66023
	66030	66031	66033	66040	66041	66043	66050	66051	66053	66060	66061	66063
	66070	66071	66073	66080	66081	66083	66090	66091	66093			
189	Previous C-section											
	65420	65421	65423									
190	Fetal distress and abnormal forces of labor											
	65630	65631	65633	66100	66101	66103	66110	66111	66113	66120	66121	66123
	66130	66131	66133	66140	66141	66143	66190	66191	66193	66200	66201	66203
	66210	66211	66213	66220	66221	66223	66230	66231	66233			
191	Polyhydramnios and other problems of amniotic cavity											
	65700	65701	65703	65800	65801	65803	65810	65811	65813	65820	65821	65823
	65830	65831	65833	65840	65841	65843	65880	65881	65883	65890	65891	65893
	7923											
192	Umbilical cord complication											
	66300	66301	66303	66310	66311	66313	66320	66321	66323	66330	66331	66333
	66340	66341	66343	66350	66351	66353	66360	66361	66363	66380	66381	66383
	66390	66391	66393									
193	Trauma to perineum and vulva											
	66400	66401	66404	66410	66411	66414	66420	66421	66424	66430	66431	66434
	66440	66441	66444	66450	66451	66454	66480	66481	66484	66490	66491	66494
194	Forceps delivery											
	66950	66951										
195	Other complications of birth, puerperium affecting management of mother											
	V230	V231	V232	V233	V234	V235	V237	V238	V2381	V2382	V2383	V2384
	V2389	V239	65103	65113	65123	65130	65131	65133	65140	65141	65143	65150
	65151	65153	65160	65161	65163	65183	65193	65400	65401	65402	65403	65404
	65410	65411	65412	65413	65414	65430	65431	65432	65433	65434	65440	65441
	65442	65443	65444	65450	65451	65452	65453	65454	65460	65461	65462	65463
	65464	65470	65471	65472	65473	65474	65480	65481	65482	65483	65484	65490
	65491	65492	65493	65494	65500	65501	65503	65510	65511	65513	65520	65521
	65523	65530	65531	65533	65540	65541	65543	65550	65551	65553	65560	65561

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Clinical Classification Software—DIAGNOSES
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Diagnosis category
ICD-9-CM codes

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	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	67480	67482	67484	67490	67492	67494	67500	67501	
67502	67503	67504	67510	67511	67512	67513	67514	67520	67521	67522	67523	
67524	67580	67581	67582	67583	67584	67590	67591	67592	67593	67594	67600	
67601	67602	67603	67604	67610	67611	67612	67613	67614	67620	67621	67622	
67623	67624	67630	67631	67632	67633	67634	67640	67641	67642	67643	67644	
67650	67651	67652	67653	67654	67660	67661	67662	67663	67664	67680	67681	
67682	67683	67684	67690	67691	67692	67693	67694	677				
196	Normal pregnancy and/or delivery											
	V220	V221	V222	V240	V241	V242	V270	V271	V272	V273	V274	V275
	V276	V277	V279	V724	650	65100	65101	65110	65111	65120	65121	65180
	65181	65190	65191									
197	Skin and subcutaneous tissue infections											
	0201	0210	0220	0311	03285	035	0390	6800	6801	6802	6803	6804
	6805	6806	6807	6808	6809	68100	68101	68102	68110	68111	6819	6820
	6821	6822	6823	6824	6825	6826	6827	6828	6829	684	6850	6851
	6860	68600	68601	68609	6861	6868	6869					
198	Other inflammatory condition of skin											
	690	69010	69011	69012	69018	6908	6940	6941	6942	6943	6944	6945
	69460	69461	6948	6949	6950	6951	6952	6953	6954	69581	69589	6959
	6960	6961	6962	6963	6964	6965	6968	6970	6971	6978	6979	6980
	6981	6982	6983	6984	6988	6989						

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

199	Chronic ulcer of skin											
	7070	7071	7078	7079								
200	Other skin disorders											
	V133	V423	700	7010	7011	7012	7013	7014	7015	7018	7019	702
	7020	7021	70211	70219	7028	7030	7038	7039	70400	70401	70402	70409
	7041	7042	7043	7048	7049	7050	7051	70581	70582	70583	70589	7059
	7060	7061	7062	7063	7068	7069	7090	70900	70901	70909	7091	7092
	7093	7094	7098	7099	7808	7821	7822					
201	Infective arthritis and osteomyelitis (except that caused by tuberculosis or sexually transmitted disease)											
	00323	00324	0261	03682	05671	71100	71101	71102	71103	71104	71105	71106
	71107	71108	71109	71110	71111	71112	71113	71114	71115	71116	71117	71118
	71119	71120	71121	71122	71123	71124	71125	71126	71127	71128	71129	71130
	71131	71132	71133	71134	71135	71136	71137	71138	71139	71140	71141	71142
	71143	71144	71145	71146	71147	71148	71149	71150	71151	71152	71153	71154
	71155	71156	71157	71158	71159	71160	71161	71162	71163	71164	71165	71166
	71167	71168	71169	71170	71171	71172	71173	71174	71175	71176	71177	71178
	71179	71180	71181	71182	71183	71184	71185	71186	71187	71188	71189	71190
	71191	71192	71193	71194	71195	71196	71197	71198	71199	73000	73001	73002
	73003	73004	73005	73006	73007	73008	73009	73010	73011	73012	73013	73014
	73015	73016	73017	73018	73019	73020	73021	73022	73023	73024	73025	73026
	73027	73028	73029	73030	73031	73032	73033	73034	73035	73036	73037	73038
	73039	73070	73071	73072	73073	73074	73075	73076	73077	73078	73079	73080
	73081	73082	73083	73084	73085	73086	73087	73088	73089	73090	73091	73092
	73093	73094	73095	73096	73097	73098	73099					
202	Rheumatoid arthritis and related disease											
	7140	7141	7142	71430	71431	71432	71433	7144	71481	71489	7149	7200
203	Osteoarthritis											
	V134	71500	71504	71509	71510	71511	71512	71513	71514	71515	71516	71517
	71518	71520	71521	71522	71523	71524	71525	71526	71527	71528	71530	71531
	71532	71533	71534	71535	71536	71537	71538	71580	71589	71590	71591	71592
	71593	71594	71595	71596	71597	71598						
204	Other non-traumatic joint disorders											
	7130	7131	7132	7133	7134	7135	7136	7137	7138	71600	71601	71602
	71603	71604	71605	71606	71607	71608	71609	71620	71621	71622	71623	71624
	71625	71626	71627	71628	71629	71630	71631	71632	71633	71634	71635	71636
	71637	71638	71639	71640	71641	71642	71643	71644	71645	71646	71647	71648
	71649	71650	71651	71652	71653	71654	71655	71656	71657	71658	71659	71660
	71661	71662	71663	71664	71665	71666	71667	71668	71680	71681	71682	71683

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

71684	71685	71686	71687	71688	71689	71690	71691	71692	71693	71694	71695	
71696	71697	71698	71699	71810	71811	71812	71813	71814	71815	71817	71818	
71819	71820	71821	71822	71823	71824	71825	71826	71827	71828	71829	71850	
71851	71852	71853	71854	71855	71856	71857	71858	71859	71860	71865	71880	
71881	71882	71883	71884	71885	71886	71887	71888	71889	71890	71891	71892	
71893	71894	71895	71897	71898	71899	71900	71901	71902	71903	71904	71905	
71906	71907	71908	71909	71910	71911	71912	71913	71914	71915	71916	71917	
71918	71919	71920	71921	71922	71923	71924	71925	71926	71927	71928	71929	
71930	71931	71932	71933	71934	71935	71936	71937	71938	71939	71940	71941	
71942	71943	71944	71945	71946	71947	71948	71949	71950	71951	71952	71953	
71954	71955	71956	71957	71958	71959	71960	71961	71962	71963	71964	71965	
71966	71967	71968	71969	71970	71975	71976	71977	71978	71979	71980	71981	
71982	71983	71984	71985	71986	71987	71988	71989	71990	71991	71992	71993	
71994	71995	71996	71997	71998	71999							
205	Spondylosis, intervertebral disc disorders, other back problems											
	7201	7202	72081	72089	7209	7210	7211	7212	7213	72141	72142	7215
	7216	7217	7218	72190	72191	7220	72210	72211	7222	72230	72231	72232
	72239	7224	72251	72252	7226	72270	72271	72272	72273	72280	72281	72282
	72283	72290	72291	72292	72293	7230	7231	7232	7233	7234	7235	7236
	7237	7238	7239	72400	72401	72402	72409	7241	7242	7243	7244	7245
	7246	72470	72471	72479	7248	7249						
206	Osteoporosis											
	73300	73301	73302	73303	73309							
207	Pathological fracture											
	7331	73310	73311	73312	73313	73314	73315	73316	73319			
208	Acquired foot deformities											
	7271	734	7350	7351	7352	7353	7354	7355	7358	7359	73670	73671
	73672	73673	73674	73675	73676	73679						
209	Other acquired deformities											
	71840	71841	71842	71843	71844	71845	71846	71847	71848	71849	73600	73601
	73602	73603	73604	73605	73606	73607	73609	7361	73620	73621	73622	73629
	73630	73631	73632	73639	73641	73642	7365	7366	73681	73689	7369	7370
	73710	73711	73712	73719	73720	73721	73722	73729	73733	73734	73739	73740
	73741	73742	73743	7378	7379	7380	7381	73810	73811	73812	73819	7382
	7383	7384	7385	7386	7387	7388	7389					
210	Systemic lupus erythematosus and connective tissue disorders											
	7100	7101	7102	7103	7104	7108	7109					

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

211 Other connective tissue disease

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

212 Other bone disease and musculoskeletal deformities

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

213 Cardiac and circulatory congenital anomalies

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

214 Digestive congenital anomalies

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

215 Genitourinary congenital anomalies

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

216 Nervous system congenital anomalies

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

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

217 Other congenital anomalies

V136	V1369	74300	74303	74306	74310	74311	74312	74320	74321	74322	74330
74331	74332	74333	74334	74335	74336	74337	74339	74341	74342	74343	74344
74345	74346	74347	74348	74349	74351	74352	74353	74354	74355	74356	74357
74358	74359	74361	74362	74363	74364	74365	74366	74369	7438	7439	74400
74401	74402	74403	74404	74405	74409	7441	74421	74422	74423	74424	74429
7443	74441	74442	74443	74446	74447	74449	7445	74481	74482	74483	74484
74489	7449	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	7584	7585
7586	7587	7588	75881	75889	7589	7590	7591	7592	7593	7594	7595
7596	7597	7598	75981	75982	75983	75989	7599	7952			

218 Liveborn

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

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

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

220 Intrauterine hypoxia and birth asphyxia

7680	7681	7682	7683	7684	7685	7686	7689
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221 Respiratory distress syndrome

769

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

222	Hemolytic jaundice and perinatal jaundice											
	7730	7731	7732	7733	7734	7735	7740	7741	7742	77430	77431	77439
	7744	7745	7746	7747								
223	Birth trauma											
	7670	7671	7672	7673	7674	7675	7676	7677	7678	7679		
224	Other perinatal conditions											
	V137	V502	7600	7601	7602	7603	7604	7605	7606	76070	76071	76072
	76073	76074	76075	76076	76079	7608	7609	7610	7611	7612	7613	7614
	7615	7616	7617	7618	7619	7620	7621	7622	7623	7624	7625	7626
	7627	7628	7629	7630	7631	7632	7633	7634	7635	7636	7637	7638
	76381	76382	76383	76389	7639	7660	7661	7662	7700	7701	7702	7703
	7704	7705	7706	7707	7708	7709	7710	7711	7712	7713	7714	7715
	7716	7717	7718	7720	7721	7722	7723	7724	7725	7726	7728	7729
	7750	7751	7752	7753	7754	7755	7756	7757	7758	7759	7760	7761
	7762	7763	7764	7765								
	7766	7767	7768	7769	7771	7772	7773	7774	7775	7776	7778	7779
	7780	7781	7782	7783	7784	7785	7786	7787	7788	7789	7790	7791
	7792	7793	7794	7795	7796	7798	7799					
225	Joint disorders and dislocations, trauma-related											
	71610	71611	71612	71613	71614	71615	71616	71617	71618	71619	7170	7171
	7172	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

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Attachment 1
Clinical Classification Software—DIAGNOSES
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		Diagnosis category ICD-9-CM codes											
		82022	82030	82031	82032	8208	8209	9053					
227	Spinal cord injury												
		80600	80601	80602	80603	80604	80605	80606	80607	80608	80609	80610	80611
		80612	80613	80614	80615	80616	80617	80618	80619	80620	80621	80622	80623
		80624	80625	80626	80627	80628	80629	80630	80631	80632	80633	80634	80635
		80636	80637	80638	80639	8064	8065	80660	80661	80662	80669	80670	80671
		80672	80679	8068	8069	9072	95200	95201	95202	95203	95204	95205	95206
		95207	95208	95209	95210	95211	95212	95213	95214	95215	95216	95217	95218
		95219	9522	9523	9524	9528	9529	99655	99656	99668			
228	Skull and face fractures												
		80000	80001	80002	80003	80004	80005	80006	80009	80050	80051	80052	80053
		80054	80055	80056	80059	80100	80101	80102	80103	80104	80105	80106	80109
		80150	80151	80152	80153	80154	80155	80156	80159	8020	8021	80220	80221
		80222	80223	80224	80225	80226	80227	80228	80229	80230	80231	80232	80233
		80234	80235	80236	80237	80238	80239	8024	8025	8026	8027	8028	8029
		80300	80301	80302	80303	80304	80305	80306	80309	80350	80351	80352	80353
		80354	80355	80356	80359	80400	80401	80402	80403	80404	80405	80406	80409
		80450	80451	80452	80453	80454	80455	80456	80459	9050			
229	Fracture of upper limb												
		81000	81001	81002	81003	81010	81011	81012	81013	81100	81101	81102	81103
		81109	81110	81111	81112	81113	81119	81200	81201	81202	81203	81209	81210
		81211	81212	81213	81219	81220	81221	81230	81231	81240	81241	81242	81243
		81244	81249	81250	81251	81252	81253	81254	81259	81300	81301	81302	81303
		81304	81305	81306	81307	81308	81310	81311	81312	81313	81314	81315	81316
		81317	81318	81320	81321	81322	81323	81330	81331	81332	81333	81340	81341
		81342	81343	81344	81350	81351	81352	81353	81354	81380	81381	81382	81383
		81390	81391	81392	81393	81400	81401	81402	81403	81404	81405	81406	81407
		81408	81409	81410	81411	81412	81413	81414	81415	81416	81417	81418	81419
		81500	81501	81502	81503	81504	81509	81510	81511	81512	81513	81514	81519
		81600	81601	81602	81603	81610	81611	81612	81613	8170	8171	8180	8181
		8190	8191	9052									
230	Fracture of lower limb												
		82100	82101	82110	82111	82120	82121	82122	82123	82129	82130	82131	82132
		82133	82139	8220	8221	82300	82301	82302	82310	82311	82312	82320	82321
		82322	82330	82331	82332	82380	82381	82382	82390	82391	82392	8240	8241
		8242	8243	8244	8245	8246	8247	8248	8249	8250	8251	82520	82521
		82522	82523	82524	82525	82529	82530	82531	82532	82533	82534	82535	82539

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

	8260	8261	8270	8271	9054							
231	Other fractures											
	V540	V664	V674	80500	80501	80502	80503	80504	80505	80506	80507	80508
	80510	80511	80512	80513	80514	80515	80516	80517	80518	8052	8053	8054
	8055	8056	8057	8058	8059	80700	80701	80702	80703	80704	80705	80706
	80707	80708	80709	80710	80711	80712	80713	80714	80715	80716	80717	80718
	80719	8072	8073	8074	8075	8076	8080	8081	8082	8083	80841	80842
	80843	80849	80851	80852	80853	80859	8088	8089	8090	8091	8280	8281
	8290	8291	9051	9055								
232	Sprains and strains											
	8400	8401	8402	8403	8404	8405	8406	8408	8409	8410	8411	8412
	8413	8418	8419	84200	84201	84202	84209	84210	84211	84212	84213	84219
	8430	8431	8438	8439	8440	8441	8442	8443	8448	8449	84500	84501
	84502	84503	84509	84510	84511	84512	84513	84519	8460	8461	8462	8463
	8468	8469	8470	8471	8472	8473	8474	8479	8480	8481	8482	8483
	84840	84841	84842	84849	8485	8488	8489	9057				
233	Intracranial injury											
	80010	80011	80012	80013	80014	80015	80016	80019	80020	80021	80022	80023
	80024	80025	80026	80029	80030	80031	80032	80033	80034	80035	80036	80039
	80040	80041	80042	80043	80044	80045	80046	80049	80060	80061	80062	80063
	80064	80065	80066	80069	80070	80071	80072	80073	80074	80075	80076	80079
	80080	80081	80082	80083	80084	80085	80086	80089	80090	80091	80092	80093
	80094	80095	80096	80099	80110	80111	80112	80113	80114	80115	80116	80119
	80120	80121	80122	80123	80124	80125	80126	80129	80130	80131	80132	80133
	80134	80135	80136	80139	80140	80141	80142	80143	80144	80145	80146	80149
	80160	80161	80162	80163	80164	80165	80166	80169	80170	80171	80172	80173
	80174	80175	80176	80179	80180	80181	80182	80183	80184	80185	80186	80189
	80190	80191	80192	80193	80194	80195	80196	80199	80310	80311	80312	80313
	80314	80315	80316	80319	80320	80321	80322	80323	80324	80325	80326	80329
	80330	80331	80332	80333	80334	80335	80336	80339	80340	80341	80342	80343
	80344	80345	80346	80349	80360	80361	80362	80363	80364	80365	80366	80369
	80370	80371	80372	80373	80374	80375	80376	80379	80380	80381	80382	80383
	80384	80385	80386	80389	80390	80391	80392	80393	80394	80395	80396	80399
	80410	80411	80412	80413	80414	80415	80416	80419	80420	80421	80422	80423
	80424	80425	80426	80429	80430	80431	80432	80433	80434	80435	80436	80439
	80440	80441	80442	80443	80444	80445	80446	80449	80460	80461	80462	80463
	80464	80465	80466	80469	80470	80471	80472	80473	80474	80475	80476	80479
	80480	80481	80482	80483	80484	80485	80486	80489	80490	80491	80492	80493
	80494	80495	80496	80499	8500	8501	8502	8503	8504	8505	8509	85100

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

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

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

87342	87343	87344	87349	87350	87351	87352	87353	87354	87359	87360	87361
87362	87363	87364	87365	87369	87370	87371	87372	87373	87374	87375	87379
8738	8739	87400	87401	87402	87410	87411	87412	8742	8743	8744	8745
8748	8749	8750	8751	8760	8761	8770	8771	8780	8781	8782	8783
8784	8785	8786	8787	8788	8789	8790	8791	8792	8793	8794	8795
8796	8797	8798	8799	9060							
236	Open wounds of extremities										
88000	88001	88002	88003	88009	88010	88011	88012	88013	88019	88020	88021
88022	88023	88029	88100	88101	88102	88110	88111	88112	88120	88121	88122
8820	8821	8822	8830	8831	8832	8840	8841	8842	8850	8851	8860
8861	8870	8871	8872	8873	8874	8875	8876	8877	8900	8901	8902
8910	8911	8912	8920	8921	8922	8930	8931	8932	8940	8941	8942
8950	8951	8960	8961	8962	8963	8970	8971	8972	8973	8974	8975
8976	8977	9058	9059	9061							
237	Complication of device, implant or graft										
41402	41403	41404	41405	44030	44031	44032	56960	56961	56969	99600	99601
99602	99603	99604	99609	9961	9962	99630	99631	99632	99639	9964	99651
99652	99653	99654	99655	99656	99659	9966	99660	99661	99662	99663	99664
99665	99666	99667	99668	99669	9967	99670	99671	99672	99673	99674	99675
99676	99677	99678	99679	99680	99681	99682	99683	99684	99685	99686	99689
99690	99691	99692	99693	99694	99695	99696	99699				
238	Complications of surgical procedures or medical care										
3490	3491	41511	4294	4582	5121	5190	51900	51901	51902	51909	53640
53641	53642	53649	56962	5642	5643	5644	5696	56962	5793	9093	9954
99586	9970	99700	99701	99702	99709	9971	9972	9973	9974	9975	99760
99761	99762	99769	9979	99791	99799	9980	9981	99811	99812	99813	9982
9983	9984	9985	99851	99859	9986	9987	9988	99881	99882	99883	99889
9989	9990	9991	9992	9993	9994	9995	9996	9997	9998	9999	
239	Superficial injury, contusion										
9062	9063	9100	9101	9102	9103	9104	9105	9106	9107	9108	9109
9110	9111	9112	9113	9114	9115	9116	9117	9118	9119	9120	9121
9122	9123	9124	9125	9126	9127	9128	9129	9130	9131	9132	9133
9134	9135	9136	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

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

	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

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

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										
V155	V156	V713	V714	V715	V716	7960	7990	9071	9073	9074	9075
9079	9085	9086	9089	9092	9094	9099	9300	9301	9302	9308	9309
931	932	9330	9331	9340	9341	9348	9349	9350	9351	9352	936
937	938	9390	9391	9392	9393	9399	9500	9501	9502	9503	9509
9510	9511	9512	9513	9514	9515	9516	9517	9518	9519	9530	9531
9532	9533	9534	9535	9538	9539	9540	9541	9548	9549	9550	9551
9552	9553	9554	9555	9556	9557	9558	9559	9560	9561	9562	9563
9564	9565	9568	9569	9570	9571	9578	9579	9580	9581	9582	9583
9584	9585	9586	9587	9588	9590	95901	95909	9591	9592	9593	9594
9595	9596	9597	9598	9599	990	9910	9911	9912	9913	9914	9915
9916	9918	9919	9920	9921	9922	9923	9924	9925	9926	9927	9928
9929	9930	9931	9932	9933	9934	9938	9939	9940	9941	9942	9943
9944	9945	9946	9947	9948	9949	9951	9955	99550	99551	99552	99553
99554	99555	99559	99580	99581	99582	99583	99584	99585	99589		
245	Syncope										
	7802										

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Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
 ICD-9-CM codes

246	Fever of unknown origin											
	7806											
247	Lymphadenitis											
	2891	2892	2893	683	7856							
248	Gangrene											
	44024	7854										
249	Shock											
	78550	78551	78559									
250	Nausea and vomiting											
	7870	78701	78702	78703								
251	Abdominal pain											
	7890	78900	78901	78902	78903	78904	78905	78906	78907	78909	78960	78961
	78962	78963	78964	78965	78966	78967	78969					
252	Malaise and fatigue											
	7807	78071	78079									
253	Allergic reactions											
	V071	V140	V141	V142	V143	V144	V145	V146	V147	V148	V149	V150
	V727	5186	6910	6918	6920	6921	6922	6923	6924	6925	6926	69270
	69271	69272	69273	69274	69279	69281	69282	69283	69289	6929	6930	6931
	6938	6939	7080	7081	7082	7083	7084	7085	7088	7089	9950	9953
	99560	99561	99562	99563	99564	99565	99566	99567	99568	99569		
254	Rehabilitation care, fitting of prostheses, and adjustment of devices											
	V520	V521	V524	V528	V529	V538	V570	V571	V572	V5721	V5722	V573
	V574	V5781	V5789	V579	V5882							
255	Administrative/social admission											
	V200	V201	V202	V600	V601	V602	V603	V604	V605	V606	V608	V609

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

Attachment 1
Clinical Classification Software—DIAGNOSES
(with all coding changes valid from January 1980 through September 1999)

Diagnosis category
ICD-9-CM codes

	V610	V611	V6110	V6111	V6112	V6120	V6121	V6122	V6129	V613	V6141	V6149
	V616	V617	V618	V619	V620	V621	V622	V623	V624	V625	V626	V6281
	V6282	V6283	V6289	V629	V630	V631	V632	V638	V639	V650	V651	V652
	V653	V654	V6540	V6541	V6542	V6543	V6544	V6545	V6549	V655	V658	V659
	V680	V681	V682	V6881	V6889	V689						
256	Medical examination/evaluation											
	V290	V291	V292	V293	V298	V299	V700	V703	V704	V705	V706	V707
	V708	V709	V718	V719	V725	V726	V728	V7281	V7282	V7283	V7284	V7285
	V729											
257	Other aftercare											
	V51	V539	V548	V549	V558	V559	V583	V584	V5841	V5849	V5861	V5862
	V5869	V588	V5881	V5889	V589	V660	V665	V666	V667	V669	V670	V6751
	V6759	V676	V679									
258	Other screening for suspected conditions (not mental disorders or infectious disease)											
	V280	V281	V282	V283	V284	V285	V288	V289	V760	V761	V7610	V7611
	V7612	V7619	V762	V763	V7641	V7642	V7643	V7644	V7645	V7649	V768	V769
	V770	V771	V772	V773	V774	V775	V776	V777	V778	V779	V780	V781
	V782	V783	V788	V789	V800	V801	V802	V803	V810	V811	V812	V813
	V814	V815	V816	V820	V821	V822	V823	V824	V825	V826	V828	V829
259	Residual codes, unclassified											
	V070	V072	V073	V0731	V0739	V078	V079	V131	V138	V139	V152	V153
	V1581	V1584	V1585	V1586	V1589	V159	V160	V161	V162	V163	V164	V1640
	V1641	V1642	V1643	V1649	V165	V1651	V1659	V166	V167	V168	V169	V170
	V171	V172	V173	V174	V175	V176	V177	V178	V180	V181	V182	V183
	V184	V185	V186	V1861	V1869	V187	V188	V190	V191	V192	V193	V194
	V195	V196	V197	V198	V210	V211	V212	V218	V219	V418	V419	V428
	V4281	V4282	V4283	V4289	V429	V438	V4381	V4382	V4383	V4389	V447	V448
	V449	V4571	V4572	V4573	V4583	V4589	V460	V468	V469	V470	V471	V472
	V479	V480	V488	V489	V498	V499	V500	V501	V503	V5041	V5042	V5049
	V508	V509	V590	V5901	V5902	V5909	V591	V592	V593	V594	V595	V596
	V598	V599	V615	V640	V641	V642	V643	V644	V690	V691	V692	V693
	V698	V699	3020	78002	78050	78051	78052	78053	78054	78055	78056	78057
	78059	7809	7815	7816	7823	78261	78262	7828	7829	7830	7836	7842
	7901	7903	7906	7909	79091	79092	79093	79094	79099	7929	7932	7938
	7939	7949	7954	7963	7964	7965	7969	7980	7981	7982	7989	7992
	7993	7998	7999									

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

Attachment 2
Sample SAS Jobs for Linking Examples

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
 NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
 Licensed to SOCIAL & SCIENTIFIC SYSTEMS INC, Site 0026405003.
 NOTE: This session is executing on the WIN_95 platform.

NOTE: SAS initialization used:
 real time 0.50 seconds

```
1      OPTIONS LS=132 PS=59;
2
3      TITLE1 "HC-033I";
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 0.10 seconds

```
24
25     *-----
26     * Get condition records coded as asthma.
27     *-----;
28     DATA ASCONDS;
29         SET IN.H37 (KEEP=CONDIDX CCCODEX);
30         IF CCCODEX="128";
31
32     RUN;
```

NOTE: There were 69897 observations read from the data set IN.H37.
 NOTE: The data set WORK.ASCONDS has 1088 observations and 2 variables.
 NOTE: DATA statement used:
 real time 4.55 seconds


```

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

```

NOTE: There were 1088 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCONDS has 1088 observations and 2 variables.
NOTE: PROCEDURE SORT used:
real time 0.11 seconds

```

38
39 proc print data=asconds (obs=50);
40 title3 "sample print of work.asconds - sorted by condidx";
41 title4 "COND (H37) 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 0.32 seconds

```

43
44 PROC SORT DATA=IN.H33IF1 OUT=CLNK; BY CONDIDX; RUN;

```

NOTE: There were 208632 observations read from the data set IN.H33IF1.
NOTE: The data set WORK.CLNK has 208632 observations and 5 variables.
NOTE: PROCEDURE SORT used:
real time 3.95 seconds

```

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

```

NOTE: There were 208632 observations read from the data set WORK.CLNK.
NOTE: There were 1088 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCLNKS has 4744 observations and 3 variables.
NOTE: DATA statement used:
real time 1.37 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 0.16 seconds

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

NOTE: There were 4744 observations read from the data set WORK.ASCLNKS.
 NOTE: The data set WORK.ASCLNKS has 4744 observations and 3 variables.
 NOTE: PROCEDURE SORT used:
 real time 1.71 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 0.00 seconds

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

NOTE: There were 4744 observations read from the data set WORK.ASCLNKS.
 NOTE: The data set WORK.ASCLNKS has 4730 observations and 2 variables.
 NOTE: DATA statement used:
 real time 0.05 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 0.05 seconds

```
78
79      *-----
80      * Get non-telephone office based visits (i.e. MVIS events) for persons with positive weights.
81      *-----;
```

4

```

82 DATA MVIS;
83 SET IN.H33G (KEEP=EVNTIDX PERWT99F SEETLKPV);
84 IF PERWT99F > 0 & SEETLKPV NE 2;
85 RUN;

```

NOTE: There were 100312 observations read from the data set IN.H33G.
NOTE: The data set WORK.MVIS has 96787 observations and 3 variables.
NOTE: DATA statement used:
real time 9.44 seconds

```

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

```

NOTE: There were 96787 observations read from the data set WORK.MVIS.
NOTE: The data set WORK.MVIS has 96787 observations and 3 variables.
NOTE: PROCEDURE SORT used:
real time 0.50 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 4730 observations read from the data set WORK.ASCLNKS.
NOTE: There were 96787 observations read from the data set WORK.MVIS.
NOTE: The data set WORK.ASMVIS has 1575 observations and 2 variables.
NOTE: DATA statement used:
real time 0.32 seconds

```

98
99 proc print data=asmvis (obs=50);
100 format eventype eventype.;
101 title3 "sample print of work.asmvis";
102 title4 "unique evntidxs from work.asclnks that are non-telephone MVIS (HC-033G) 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 0.00 seconds

```

104
105 *-----
106 * Get PMED IDs linked to the MVIS events which were for asthma.
107 *-----;
108 PROC SORT DATA=IN.H33IF2 OUT=RXLK; BY EVNTIDX; RUN;

```

NOTE: There were 41276 observations read from the data set IN.H33IF2.
 NOTE: The data set WORK.RXLK has 41276 observations and 5 variables.
 NOTE: PROCEDURE SORT used:
 real time 0.82 seconds

```
109
110   proc print data=rxlk (obs=140);
111       by evntidx;
112       id evntidx;
113       var linkidx eventype;
114       format eventype eventype.;
115       title3 "sample print of work.rxlk - sorted by eventidx";
116       title4 "Rx+event link file records (HC-33IF2)";
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 0.05 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 41276 observations read from the data set WORK.RXLK.
 NOTE: There were 1575 observations read from the data set WORK.ASMVIS.
 NOTE: The data set WORK.PMEDIDS has 1356 observations and 3 variables.
 NOTE: DATA statement used:
 real time 0.22 seconds

```
125
126   proc print data=pmedids (obs=50);
127       by evntidx;
128       id evntidx;
129       format eventype eventype.;
130       title3 "sample print of work.pmedids - sorted by evntidx";
131       title4 "work.rxlk records for evntidxs in work.asmvis";
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 0.04 seconds

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

NOTE: There were 1356 observations read from the data set WORK.PMEDIDS.
 NOTE: The data set WORK.PMEDIDS has 1356 observations and 3 variables.

NOTE: PROCEDURE SORT used:
real time 0.05 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 0.00 seconds

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

NOTE: There were 1356 observations read from the data set WORK.PMEDIDS.
NOTE: The data set WORK.PMEDIDS has 1217 observations and 1 variables.
NOTE: DATA statement used:
real time 0.04 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 0.06 seconds

```
150
151     *-----
152     * Get PMED records linked to MVIS events which were for asthma.
153     *-----;
154     PROC SORT DATA=IN.H33A OUT=PMED; BY LINKIDX; RUN;
```

NOTE: There were 173950 observations read from the data set IN.H33A.
NOTE: The data set WORK.PMED has 173950 observations and 54 variables.
NOTE: PROCEDURE SORT used:
real time 2:36.30

```
155
156     DATA MVPMEDS;
157         MERGE PMED (KEEP=LINKIDX RXRECIDX RXXP99X PERWT99F RXNAME)
158             PMEDIDS (IN=A);
159         BY LINKIDX;
```

7

```
160     IF A;  
161     RUN;
```

NOTE: There were 173950 observations read from the data set WORK.PMED.
NOTE: There were 1217 observations read from the data set WORK.PMEDIDS.
NOTE: The data set WORK.MVPMEDS has 3021 observations and 5 variables.
NOTE: DATA statement used:
real time 25.09 seconds

```
162  
163     proc print data=mvpmeds (obs=200);  
164         var rxrecidx rxname RXXP99X PERWT99F;  
165         by linkidx;  
166         id linkidx;  
167         title3 "sample print of work.mvpmeds";  
168         title4 "PMED (HC-033A) 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 0.05 seconds

```
170  
171     PROC MEANS DATA=MVPMEDS N SUM;  
172         VAR RXXP99X;  
173         TITLE3 "Total Rx expenditures associated with medical visits (excluding telephone) for asthma";  
174     RUN;
```

NOTE: There were 3021 observations read from the data set WORK.MVPMEDS.
NOTE: The PROCEDURE MEANS printed page 22.
NOTE: PROCEDURE MEANS used:
real time 0.61 seconds

```
175  
176     PROC MEANS DATA=MVPMEDS N SUM;  
177         VAR RXXP99X;  
178         WEIGHT PERWT99F;  
179         TITLE3 "Total Rx expenditures associated with medical visits (excluding telephone) for asthma";  
180         TITLE5 "Weighted";  
181     RUN;
```

NOTE: There were 3021 observations read from the data set WORK.MVPMEDS.
NOTE: The PROCEDURE MEANS printed page 23.
NOTE: PROCEDURE MEANS used:
real time 0.00 seconds

```
182  
183  
184
```

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414
NOTE: The SAS System used:
real time 3:27.13

Sample SAS Job for Example A
 sample print of work.asconds - sorted by condidx
 COND (H37) records where cccodex=128

Obs	CONDIDX	CCCODEX
1	600090220017	128
2	600360220012	128
3	600500330031	128
4	600560180037	128
5	600700270076	128
6	600830270054	128
7	601020320041	128
8	601180130063	128
9	601180200034	128
10	601690160045	128
11	601790390019	128
12	602020250012	128
13	602040160013	128
14	602060290010	128
15	602860160024	128
16	602900380013	128
17	603100110047	128
18	603100280018	128
19	603250160020	128
20	603340280010	128
21	603360400017	128
22	603380290021	128
23	603560390011	128
24	603620120096	128
25	603880170017	128
26	603880310015	128
27	603890190047	128
28	603960450021	128
29	603990100018	128
30	604240290017	128
31	604260470018	128
32	604410490026	128
33	604490500013	128
34	604720360045	128
35	604840190067	128
36	604920340020	128
37	605020240135	128
38	605040160066	128
39	605180210045	128
40	605180350053	128
41	605190380015	128
42	605430190045	128
43	605630210055	128
44	606150370025	128
45	606180270049	128
46	606310190023	128
47	606510300073	128
48	606970190010	128
49	606970260047	128
50	606990460051	128

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

CONDIDX	EVNTIDX	EVENTYPE
600500330031	600500330143	1 MVIS
	600500330150	1 MVIS
	600500330174	1 MVIS
	600500330181	1 MVIS
600560180037	600560180207	1 MVIS
	600560180214	1 MVIS
	600560180252	8 PMED
	600560180269	8 PMED
	600560180283	8 PMED
	600560180290	8 PMED
	600560180389	8 PMED
	600560180396	8 PMED
	600560180454	8 PMED
	600700270076	600700270121
600700270145		8 PMED
600700270169		8 PMED
600700270176		8 PMED
601020320041	601020320101	1 MVIS
	601020320118	8 PMED
	601020320125	8 PMED
601180130063	601180130264	8 PMED
601180200034	601180200240	1 MVIS
	601180200288	1 MVIS
	601180200322	8 PMED
	601180200339	8 PMED
	601180200480	8 PMED
	601180200555	8 PMED
	601180200562	8 PMED
601790390019	601790390062	1 MVIS
	601790390079	8 PMED
	601790390086	8 PMED
602020250012	602020250122	8 PMED
	602020250177	8 PMED
	602020250235	8 PMED
602040160013	602040160317	8 PMED
	602040160324	8 PMED
	602040160331	8 PMED
602860160024	602860160170	8 PMED
	602860160207	8 PMED
	602860160214	8 PMED

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

CONDIDX	EVNTIDX	EVENTYPE
602860160024	602860160221	8 PMED
	602860160238	1 MVIS
	602860160245	1 MVIS
	602860160252	1 MVIS
	602860160269	1 MVIS
	602860160276	1 MVIS
	602860160283	8 PMED
	602860160303	8 PMED
602900380013	602900380465	1 MVIS
	602900380472	1 MVIS
	602900380489	1 MVIS
	602900380554	8 PMED
	602900380561	8 PMED
	602900380578	8 PMED
	602900380585	8 PMED
603100110047	603100110046	3 EROM
	603100110084	1 MVIS
	603100110091	8 PMED
	603100110128	8 PMED
603100280018	603100280077	8 PMED
603250160020	603250160344	1 MVIS
	603250160351	1 MVIS
	603250160399	8 PMED
603340280010	603340280336	1 MVIS
	603340280343	1 MVIS
	603340280350	1 MVIS
	603340280418	8 PMED
	603340280432	8 PMED
	603340280456	8 PMED
	603340280463	8 PMED
	603340280470	8 PMED
	603340280521	1 MVIS
	603340280583	8 PMED
603360400017	603360400078	8 PMED
603380290021	603380290349	8 PMED

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

Obs	CONDIDX	EVNTIDX	EVENTYPE
1	600500330031	600500330143	1 MVIS
2	600500330031	600500330150	1 MVIS
3	600500330031	600500330174	1 MVIS
4	600500330031	600500330181	1 MVIS
5	600560180037	600560180207	1 MVIS
6	600560180037	600560180214	1 MVIS
7	600560180037	600560180252	8 PMED
8	600560180037	600560180269	8 PMED
9	600560180037	600560180283	8 PMED
10	600560180037	600560180290	8 PMED
11	600560180037	600560180389	8 PMED
12	600560180037	600560180396	8 PMED
13	600560180037	600560180454	8 PMED
14	600700270076	600700270121	1 MVIS
15	600700270076	600700270145	8 PMED
16	600700270076	600700270169	8 PMED
17	600700270076	600700270176	8 PMED
18	601020320041	601020320101	1 MVIS
19	601020320041	601020320118	8 PMED
20	601020320041	601020320125	8 PMED
21	601180130063	601180130264	8 PMED
22	601180200034	601180200240	1 MVIS
23	601180200034	601180200288	1 MVIS
24	601180200034	601180200322	8 PMED
25	601180200034	601180200339	8 PMED
26	601180200034	601180200480	8 PMED
27	601180200034	601180200555	8 PMED
28	601180200034	601180200562	8 PMED
29	601790390019	601790390062	1 MVIS
30	601790390019	601790390079	8 PMED
31	601790390019	601790390086	8 PMED
32	602020250012	602020250122	8 PMED
33	602020250012	602020250177	8 PMED
34	602020250012	602020250235	8 PMED
35	602040160013	602040160317	8 PMED
36	602040160013	602040160324	8 PMED
37	602040160013	602040160331	8 PMED
38	602860160024	602860160170	8 PMED
39	602860160024	602860160207	8 PMED
40	602860160024	602860160214	8 PMED
41	602860160024	602860160221	8 PMED
42	602860160024	602860160238	1 MVIS
43	602860160024	602860160245	1 MVIS
44	602860160024	602860160252	1 MVIS
45	602860160024	602860160269	1 MVIS
46	602860160024	602860160276	1 MVIS
47	602860160024	602860160283	8 PMED
48	602860160024	602860160303	8 PMED
49	602900380013	602900380465	1 MVIS
50	602900380013	602900380472	1 MVIS

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

Obs	EVNTIDX	EVENTYPE
1	600500330143	1 MVIS
2	600500330150	1 MVIS
3	600500330174	1 MVIS
4	600500330181	1 MVIS
5	600560180207	1 MVIS
6	600560180214	1 MVIS
7	600560180252	8 PMED
8	600560180269	8 PMED
9	600560180283	8 PMED
10	600560180290	8 PMED
11	600560180389	8 PMED
12	600560180396	8 PMED
13	600560180454	8 PMED
14	600700270121	1 MVIS
15	600700270145	8 PMED
16	600700270169	8 PMED
17	600700270176	8 PMED
18	601020320101	1 MVIS
19	601020320118	8 PMED
20	601020320125	8 PMED
21	601180130264	8 PMED
22	601180200240	1 MVIS
23	601180200288	1 MVIS
24	601180200322	8 PMED
25	601180200339	8 PMED
26	601180200480	8 PMED
27	601180200555	8 PMED
28	601180200562	8 PMED
29	601790390062	1 MVIS
30	601790390079	8 PMED
31	601790390086	8 PMED
32	602020250122	8 PMED
33	602020250177	8 PMED
34	602020250235	8 PMED
35	602040160317	8 PMED
36	602040160324	8 PMED
37	602040160331	8 PMED
38	602860160170	8 PMED
39	602860160207	8 PMED
40	602860160214	8 PMED
41	602860160221	8 PMED
42	602860160238	1 MVIS
43	602860160245	1 MVIS
44	602860160252	1 MVIS
45	602860160269	1 MVIS
46	602860160276	1 MVIS
47	602860160283	8 PMED
48	602860160303	8 PMED
49	602900380465	1 MVIS
50	602900380472	1 MVIS

Sample SAS Job for Example A
 sample print of work.asmvis
 unique evntidxs from work.asclnks that are non-telephone MVIS (HC-033G) events

Obs	EVNTIDX	EVENTYPE
1	600500330150	1 MVIS
2	600500330174	1 MVIS
3	600500330181	1 MVIS
4	600560180207	1 MVIS
5	600560180214	1 MVIS
6	601020320101	1 MVIS
7	601180200240	1 MVIS
8	601180200288	1 MVIS
9	601790390062	1 MVIS
10	602860160238	1 MVIS
11	602860160245	1 MVIS
12	602860160252	1 MVIS
13	602860160269	1 MVIS
14	602860160276	1 MVIS
15	602900380465	1 MVIS
16	602900380472	1 MVIS
17	602900380489	1 MVIS
18	603250160344	1 MVIS
19	603250160351	1 MVIS
20	603340280336	1 MVIS
21	603340280343	1 MVIS
22	603340280350	1 MVIS
23	603340280521	1 MVIS
24	603560390075	1 MVIS
25	603990100131	1 MVIS
26	604260470036	1 MVIS
27	604260470050	1 MVIS
28	604260470081	1 MVIS
29	604840190276	1 MVIS
30	604840190492	1 MVIS
31	604920340146	1 MVIS
32	604920340160	1 MVIS
33	604920340177	1 MVIS
34	605040160146	1 MVIS
35	605040160184	1 MVIS
36	605040160191	1 MVIS
37	605040160204	1 MVIS
38	605180210153	1 MVIS
39	605180210184	1 MVIS
40	605180350132	1 MVIS
41	605190380163	1 MVIS
42	605190380214	1 MVIS
43	605190380221	1 MVIS
44	605430190120	1 MVIS
45	605630210638	1 MVIS
46	605630210854	1 MVIS
47	605630211117	1 MVIS
48	605630211124	1 MVIS
49	605630211131	1 MVIS
50	605630211148	1 MVIS

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2)

EVNTIDX	LINKIDX	EVENTYPE
600010100183	600010100203	1 MVIS
	600010100210	1 MVIS
	600010100227	1 MVIS
600010100190	600010100203	1 MVIS
	600010100210	1 MVIS
	600010100227	1 MVIS
600010100241	600010100296	1 MVIS
600010100258	600010100309	1 MVIS
600010100265	600010100296	1 MVIS
600010100392	600010100405	1 MVIS
	600010100412	1 MVIS
600010270323	600010270347	1 MVIS
600010270361	600010270467	1 MVIS
600010270385	600010270474	1 MVIS
600010270429	600010270481	2 OPAT
600010270436	600010270474	1 MVIS
600010270676	600010270710	1 MVIS
600020460030	600020460078	1 MVIS
600020520055	600020520079	1 MVIS
600050170027	600050170041	1 MVIS
	600050170058	1 MVIS
600050480034	600050480041	1 MVIS
600110190116	600110190123	1 MVIS
	600110190130	1 MVIS
600110260130	600110260185	1 MVIS
	600110260192	1 MVIS
	600110260205	1 MVIS
	600110260212	1 MVIS
	600110260229	1 MVIS
600110260154	600110260161	6 OMED

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2)

EVNTIDX	LINKIDX	EVENTYPE
600110260178	600110260185	6 OMED
600110260236	600110260243	1 MVIS
	600110260250	1 MVIS
	600110260267	1 MVIS
600110260274	600110260332	1 MVIS
	600110260349	1 MVIS
	600110260356	1 MVIS
600110260298	600110260301	6 OMED
600110260318	600110260325	6 OMED
600140180135	600140180166	1 MVIS
600150150365	600150150430	4 STAZ
600150150543	600150150632	1 MVIS
600150220372	600150220416	1 MVIS
600170100089	600170100109	1 MVIS
600170270065	600170270089	1 MVIS
600170340041	600170340065	1 MVIS
600170340089	600170340096	1 MVIS
600170410027	600170410034	1 MVIS
600170410058	600170410065	1 MVIS
600170410072	600170410096	5 DVIS
600170410089	600170410096	1 MVIS
600180200218	600180200225	6 OMED
600180200232	600180200249	6 OMED
600190270062	600190270079	1 MVIS
	600190270086	1 MVIS
600190340093	600190340106	1 MVIS
600200200040	600200200057	1 MVIS
	600200200064	1 MVIS

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2)

EVNTIDX	LINKIDX	EVENTYPE
600210180247	600210180343	1 MVIS
	600210180350	1 MVIS
600210180292	600210180367	1 MVIS
	600210180374	1 MVIS
	600210180381	1 MVIS
	600210180398	1 MVIS
600210180401	600210180425	1 MVIS
	600210180432	1 MVIS
600210180418	600210180449	1 MVIS
	600210180456	1 MVIS
600210180470	600210180507	1 MVIS
	600210180514	1 MVIS
600210250432	600210250456	1 MVIS
	600210250463	1 MVIS
	600210250470	1 MVIS
600220210087	600220210107	5 DVIS
600220210094	600220210114	1 MVIS
600240110148	600240110155	1 MVIS
600250170054	600250170085	1 MVIS
	600250170092	1 MVIS
600250170061	600250170092	1 MVIS
	600250170105	1 MVIS
	600250170112	1 MVIS
600250170078	600250170129	1 MVIS
600260270049	600260270063	3 EROM
600260270056	600260270070	1 MVIS
600290210139	600290210146	1 MVIS
	600290210153	1 MVIS
	600290210160	1 MVIS
600290380026	600290380057	5 DVIS
600290380033	600290380064	1 MVIS
600290380040	600290380071	1 MVIS

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2)

EVNTIDX	LINKIDX	EVENTYPE
600290450146	600290450177	1 MVIS
	600290450184	1 MVIS
600290450204	600290450211	1 MVIS
600290450266	600290450280	1 MVIS
600290450273	600290450297	1 MVIS
	600290450300	1 MVIS
600290510147	600290510192	1 MVIS
	600290510205	1 MVIS
600290510229	600290510243	1 MVIS
	600290510250	1 MVIS
	600290510267	1 MVIS
600290510236	600290510274	1 MVIS
600300180033	600300180040	1 MVIS
600310140048	600310140062	1 MVIS
600310140079	600310140086	1 MVIS
600310210086	600310210144	1 MVIS
600310210106	600310210151	1 MVIS
	600310210168	1 MVIS
600310210175	600310210240	1 MVIS
600310210182	600310210257	1 MVIS
600310210202	600310210264	1 MVIS
	600310210271	1 MVIS
600310380024	600310380031	1 MVIS
600310450055	600310450144	1 MVIS
600310450106	600310450151	1 MVIS
	600310450168	1 MVIS
600310450113	600310450151	4 STAZ
	600310450168	4 STAZ
600320260062	600320260093	5 DVIS

Sample SAS Job for Example A
 sample print of work.rxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2)

EVNTIDX	LINKIDX	EVENTYPE
600320260113	600320260144	5 DVIS
600320260120	600320260151	1 MVIS
600320260137	600320260168	1 MVIS
600320260175	600320260199	1 MVIS
600320330079	600320330086	1 MVIS
	600320330093	1 MVIS
600320530011	600320530028	1 MVIS
600320530035	600320530042	1 MVIS
600350190081	600350190101	1 MVIS
600350190098	600350190118	1 MVIS
600350260036	600350260043	1 MVIS
600350390136	600350390174	1 MVIS
600390200170	600390200252	1 MVIS
600390370485	600390370529	5 DVIS
600390370776	600390370803	1 MVIS
600390370827	600390370858	1 MVIS
600390440067	600390440098	1 MVIS
600410130337	600410130433	1 MVIS
600410130560	600410130604	1 MVIS
600420140086	600420140106	1 MVIS
600420140137	600420140182	1 MVIS

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

EVNTIDX	LINKIDX	EVENTYPE
600560180207	600560180252	1 MVIS
	600560180269	1 MVIS
600560180214	600560180276	1 MVIS
601020320101	601020320118	1 MVIS
	601020320125	1 MVIS
601180200240	601180200322	1 MVIS
601790390062	601790390079	1 MVIS
602860160238	602860160283	1 MVIS
	602860160290	1 MVIS
	602860160303	1 MVIS
	602860160310	1 MVIS
602900380465	602900380554	1 MVIS
	602900380561	1 MVIS
	602900380578	1 MVIS
	602900380585	1 MVIS
603250160344	603250160399	1 MVIS
603250160351	603250160399	1 MVIS
603340280521	603340280545	1 MVIS
603560390075	603560390082	1 MVIS
	603560390099	1 MVIS
603990100131	603990100213	1 MVIS
	603990100220	1 MVIS
	603990100237	1 MVIS
604260470050	604260470067	1 MVIS
	604260470074	1 MVIS
604260470081	604260470098	1 MVIS
604840190276	604840190290	1 MVIS
	604840190303	1 MVIS
	604840190310	1 MVIS
	604840190327	1 MVIS
	604840190334	1 MVIS
	604840190341	1 MVIS
	604840190358	1 MVIS
	604840190365	1 MVIS
604840190372	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
604840190492	604840190536	1 MVIS
	604840190543	1 MVIS
	604840190550	1 MVIS
	604840190567	1 MVIS
	604840190574	1 MVIS
	604840190581	1 MVIS
	604840190598	1 MVIS
	604840190601	1 MVIS
	604840190618	1 MVIS
604920340146	604920340153	1 MVIS
604920340160	604920340184	1 MVIS
	604920340191	1 MVIS
	604920340204	1 MVIS
605040160146	605040160228	1 MVIS
605180210153	605180210204	1 MVIS

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

Obs	EVNTIDX	LINKIDX	EVENTYPE
1	600560180207	600560180252	1 MVIS
2	600560180207	600560180269	1 MVIS
3	600560180214	600560180276	1 MVIS
4	601020320101	601020320118	1 MVIS
5	601020320101	601020320125	1 MVIS
6	601180200240	601180200322	1 MVIS
7	601790390062	601790390079	1 MVIS
8	602860160238	602860160283	1 MVIS
9	602860160238	602860160290	1 MVIS
10	602860160238	602860160303	1 MVIS
11	602860160238	602860160310	1 MVIS
12	602900380465	602900380554	1 MVIS
13	602900380465	602900380561	1 MVIS
14	602900380465	602900380578	1 MVIS
15	602900380465	602900380585	1 MVIS
16	603250160344	603250160399	1 MVIS
17	603250160351	603250160399	1 MVIS
18	603340280521	603340280545	1 MVIS
19	603560390075	603560390082	1 MVIS
20	603560390075	603560390099	1 MVIS
21	603990100131	603990100213	1 MVIS
22	603990100131	603990100220	1 MVIS
23	603990100131	603990100237	1 MVIS
24	604260470050	604260470067	1 MVIS
25	604260470050	604260470074	1 MVIS
26	604260470081	604260470098	1 MVIS
27	604840190276	604840190290	1 MVIS
28	604840190276	604840190303	1 MVIS
29	604840190276	604840190310	1 MVIS
30	604840190276	604840190327	1 MVIS
31	604840190276	604840190334	1 MVIS
32	604840190276	604840190341	1 MVIS
33	604840190276	604840190358	1 MVIS
34	604840190276	604840190365	1 MVIS
35	604840190276	604840190372	1 MVIS
36	604840190492	604840190536	1 MVIS
37	604840190492	604840190543	1 MVIS
38	604840190492	604840190550	1 MVIS
39	604840190492	604840190567	1 MVIS
40	604840190492	604840190574	1 MVIS
41	604840190492	604840190581	1 MVIS
42	604840190492	604840190598	1 MVIS
43	604840190492	604840190601	1 MVIS
44	604840190492	604840190618	1 MVIS
45	604920340146	604920340153	1 MVIS
46	604920340160	604920340184	1 MVIS
47	604920340160	604920340191	1 MVIS
48	604920340160	604920340204	1 MVIS
49	605040160146	605040160228	1 MVIS
50	605180210153	605180210204	1 MVIS

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

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Obs	LINKIDX
1	600560180252
2	600560180269
3	600560180276
4	601020320118
5	601020320125
6	601180200322
7	601790390079
8	602860160283
9	602860160290
10	602860160303
11	602860160310
12	602900380554
13	602900380561
14	602900380578
15	602900380585
16	603250160399
17	603340280545
18	603560390082
19	603560390099
20	603990100213
21	603990100220
22	603990100237
23	604260470067
24	604260470074
25	604260470098
26	604840190290
27	604840190303
28	604840190310
29	604840190327
30	604840190334
31	604840190341
32	604840190358
33	604840190365
34	604840190372
35	604840190536
36	604840190543
37	604840190550
38	604840190567
39	604840190574
40	604840190581
41	604840190598
42	604840190601
43	604840190618
44	604920340153
45	604920340184
46	604920340191
47	604920340204
48	605040160228
49	605180210204
50	605180210211

Sample SAS Job for Example A
 sample print of work.mvpmeds
 PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
600560180252	600560180252001	AZMACORT	49.88	10969.95
	600560180252002	AZMACORT	49.88	10969.95
600560180269	600560180269001	ATROVENT	34.62	10969.95
600560180276	600560180276001	BACITRACIN-POLYMYXIN	5.98	10969.95
601020320118	601020320118001	ALBUTEROL	27.69	2417.03
601020320125	601020320125001	AEROBID	69.79	2417.03
601180200322	601180200322001	SEREVENT	61.88	12830.77
601790390079	601790390079001	ERYZOLE	29.63	3796.15
602860160283	602860160283001	SEREVENT (REFILL)	61.70	9438.57
	602860160283002	SEREVENT (REFILL)	61.70	9438.57
	602860160283003	SEREVENT (REFILL)	61.70	9438.57
	602860160283004	SEREVENT (REFILL)	58.39	9438.57
	602860160283005	SEREVENT (REFILL)	58.39	9438.57
	602860160283006	SEREVENT (REFILL)	61.70	9438.57
	602860160283007	SEREVENT (REFILL)	61.70	9438.57
	602860160283008	SEREVENT (REFILL)	61.70	9438.57
602860160290	602860160290001	LANOXIN	18.34	9438.57
	602860160290002	LANOXIN	18.34	9438.57
	602860160290003	LANOXIN	18.34	9438.57
	602860160290004	LANOXIN	18.34	9438.57
	602860160290005	LANOXIN	18.34	9438.57
	602860160290006	LANOXIN	18.34	9438.57
	602860160290007	LANOXIN	18.34	9438.57
	602860160290008	LANOXIN	18.34	9438.57
602860160303	602860160303001	ALBUTEROL (REFILL)	19.44	9438.57
	602860160303002	ALBUTEROL (REFILL)	19.44	9438.57
	602860160303003	ALBUTEROL (REFILL)	19.44	9438.57
	602860160303004	ALBUTEROL (REFILL)	19.44	9438.57
	602860160303005	ALBUTEROL (REFILL)	19.44	9438.57
	602860160303006	ALBUTEROL (REFILL)	19.44	9438.57
	602860160303007	ALBUTEROL (REFILL)	19.44	9438.57
	602860160303008	ALBUTEROL (REFILL)	19.44	9438.57
602860160310	602860160310001	DILTIA XT	28.41	9438.57
	602860160310002	DILTIA XT	34.53	9438.57
	602860160310003	DILTIA XT	34.53	9438.57
	602860160310004	DILTIA XT	34.53	9438.57
	602860160310005	DILTIA XT	34.53	9438.57
	602860160310006	DILTIA XT	34.53	9438.57
	602860160310007	DILTIA XT	34.53	9438.57

Sample SAS Job for Example A
 sample print of work.mvpmeds
 PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
602860160310	602860160310008	DILTIA XT	44.29	9438.57
602900380554	602900380554001 602900380554002	CLARITIN CLARITIN	59.72 61.15	13953.92 13953.92
602900380561	602900380561001	FLONASE	48.69	13953.92
602900380578	602900380578001 602900380578002	VANCERIL VANCERIL	38.99 38.99	13953.92 13953.92
602900380585	602900380585001	PREDNISONE	3.40	13953.92
603250160399	603250160399001	PROVENTIL	28.65	12151.94
603340280545	603340280545001	LESCOL	39.74	16770.81
603560390082	603560390082001	ALLEGRA	76.98	27387.18
603560390099	603560390099001	MAXAIR	65.98	27387.18
603990100213	603990100213001 603990100213002	SINGULAIR (UNIT OF USE) SINGULAIR (UNIT OF USE)	20.00 20.00	33402.48 33402.48
603990100220	603990100220001 603990100220002	AZMACORT AZMACORT	153.42 153.42	33402.48 33402.48
603990100237	603990100237001 603990100237002	ALBUTEROL ALBUTEROL	128.46 128.46	33402.48 33402.48
604260470067	604260470067001	VENTOLIN	31.80	13814.68
604260470074	604260470074001	ALLEGRA	53.45	13814.68
604260470098	604260470098001	VENTOLIN	31.80	13814.68
604840190290	604840190290001	K-DUR 20	45.76	6609.35
604840190303	604840190303001	FELDENE	221.79	6609.35
604840190310	604840190310001	BUMEX	25.87	6609.35
604840190327	604840190327001	NITROSTAT	5.48	6609.35
604840190334	604840190334001	LANOXIN	13.52	6609.35
604840190341	604840190341001	ZESTRIL	87.34	6609.35
604840190358	604840190358001	LIPITOR	264.64	6609.35

Sample SAS Job for Example A
 sample print of work.mvpmeds
 PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
604840190365	604840190365001	PROVENTIL	28.65	6609.35
	604840190365002	PROVENTIL	28.65	6609.35
604840190372	604840190372001	AEROBID-M (MENTHOL)	105.56	6609.35
	604840190372002	AEROBID-M (MENTHOL)	105.56	6609.35
604840190536	604840190536001	K-DUR 20	45.76	6609.35
	604840190536002	K-DUR 20	45.76	6609.35
604840190543	604840190543001	FELDENE	221.79	6609.35
604840190550	604840190550001	BUMETANIDE	17.95	6609.35
	604840190550002	BUMETANIDE	17.95	6609.35
604840190567	604840190567001	LANOXIN	15.61	6609.35
	604840190567002	LANOXIN	15.61	6609.35
604840190574	604840190574001	ZESTRIL	93.01	6609.35
	604840190574002	ZESTRIL	93.01	6609.35
604840190581	604840190581001	LIPITOR	264.64	6609.35
	604840190581002	LIPITOR	264.64	6609.35
604840190598	604840190598001	PROVENTIL	33.78	6609.35
	604840190598002	PROVENTIL	33.78	6609.35
	604840190598003	PROVENTIL	33.78	6609.35
	604840190598004	PROVENTIL	33.78	6609.35
604840190601	604840190601001	AEROBID-M (MENTHOL)	124.60	6609.35
	604840190601002	AEROBID-M (MENTHOL)	124.60	6609.35
	604840190601003	AEROBID-M (MENTHOL)	124.60	6609.35
	604840190601004	AEROBID-M (MENTHOL)	124.60	6609.35
604840190618	604840190618001	MEPROBAMATE	31.29	6609.35
	604840190618002	MEPROBAMATE	31.29	6609.35
604920340153	604920340153001	PROVENTIL	31.56	8559.76
604920340184	604920340184001	PROVENTIL	31.56	8559.76
604920340191	604920340191001	AMOXICILLIN	5.00	8559.76
604920340204	604920340204001	BROMFENEX	24.33	8559.76
605040160228	605040160228001	ZITHROMAX	47.05	22242.49
605180210204	605180210204001	PREDNISOLONE	9.91	4222.85
605180210211	605180210211001	BECLOVENT	61.33	4222.85

Sample SAS Job for Example A
 sample print of work.mvpmeds
 PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
605180350149	605180350149001	AMOXICILLIN	5.00	5740.98
605180350156	605180350156001	PREDNISOLONE	5.00	5740.98
605180350163	605180350163001	ALBUTEROL	21.57	5740.98
605190380170	605190380170001	VENTOLIN INHALER	29.61	17324.05
	605190380170002	VENTOLIN INHALER	29.61	17324.05
605190380187	605190380187001	ZYBAN	83.74	17324.05
605190380194	605190380194001	PREDNISONE	6.75	17324.05
605190380238	605190380238001	VENTOLIN INHALER	29.61	17324.05
605190380245	605190380245001	PERCOCET	31.69	17324.05
605190380252	605190380252001	ZYBAN	83.74	17324.05
605190380269	605190380269001	PREDNISONE	2.99	17324.05
605430190137	605430190137001	BRONCHO SALINE	8.48	10412.02
605430190151	605430190151001	BRONCHO SALINE	8.48	10412.02
607130230407	607130230407001	ALBUTEROL	18.99	18005.26
607130230469	607130230469001	PREDNISONE	5.29	18005.26
607130230476	607130230476001	CEPHALEXIN	15.00	18005.26
607180140365	607180140365001	ACCOLATE	80.69	9832.99
	607180140365002	ACCOLATE	80.69	9832.99
	607180140365003	ACCOLATE	80.69	9832.99
	607180140365004	ACCOLATE	80.69	9832.99
	607180140365005	ACCOLATE	80.69	9832.99
	607180140365006	ACCOLATE	80.69	9832.99
	607180140365007	ACCOLATE	80.69	9832.99
607180140372	607180140372001	SYNTHROID	16.69	9832.99
	607180140372002	SYNTHROID	16.69	9832.99
	607180140372003	SYNTHROID	16.69	9832.99
607180140389	607180140389001	LASIX	13.98	9832.99
	607180140389002	LASIX	13.98	9832.99
	607180140389003	LASIX	13.98	9832.99
	607180140389004	LASIX	13.98	9832.99
	607180140389005	LASIX	13.98	9832.99
	607180140389006	LASIX	13.98	9832.99

Sample SAS Job for Example A
 sample print of work.mvpmeds
 PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
607180140396	607180140396001	AMITRIPTYLINE	10.35	9832.99
	607180140396002	AMITRIPTYLINE	10.35	9832.99
	607180140396003	AMITRIPTYLINE	10.35	9832.99
607180140409	607180140409001	PREVACID	106.85	9832.99
	607180140409002	PREVACID	106.85	9832.99
	607180140409003	PREVACID	106.85	9832.99
	607180140409004	PREVACID	106.85	9832.99
	607180140409005	PREVACID	106.85	9832.99
607180140416	607180140416001	VENTOLIN INHALER	29.61	9832.99
	607180140416002	VENTOLIN INHALER	29.61	9832.99
	607180140416003	VENTOLIN INHALER	29.61	9832.99
	607180140416004	VENTOLIN INHALER	29.61	9832.99
	607180140416005	VENTOLIN INHALER	29.61	9832.99
	607180140416006	VENTOLIN INHALER	29.61	9832.99
	607180140416007	VENTOLIN INHALER	29.61	9832.99
607180140423	607180140423001	FLOVENT	85.96	9832.99
	607180140423002	FLOVENT	85.96	9832.99
	607180140423003	FLOVENT	85.96	9832.99
	607180140423004	FLOVENT	85.96	9832.99
607180140430	607180140430001	PROVENTIL	31.56	9832.99
	607180140430002	PROVENTIL	31.56	9832.99
	607180140430003	PROVENTIL	31.56	9832.99
	607180140430004	PROVENTIL	31.56	9832.99
	607180140430005	PROVENTIL	31.56	9832.99
607180140485	607180140485001	SYNTHROID	16.69	9832.99
	607180140485002	SYNTHROID	16.69	9832.99
	607180140485003	SYNTHROID	16.69	9832.99
607180140492	607180140492001	PREVACID	106.85	9832.99
	607180140492002	PREVACID	106.85	9832.99
	607180140492003	PREVACID	106.85	9832.99
607180140505	607180140505001	AMITRIPTYLINE	10.35	9832.99
	607180140505002	AMITRIPTYLINE	10.35	9832.99
	607180140505003	AMITRIPTYLINE	10.35	9832.99
607180140512	607180140512001	LASIX	16.69	9832.99
	607180140512002	LASIX	16.69	9832.99
	607180140512003	LASIX	16.69	9832.99
607180140529	607180140529001	VENTOLIN INHALER	29.61	9832.99
	607180140529002	VENTOLIN INHALER	29.61	9832.99
	607180140529003	VENTOLIN INHALER	29.61	9832.99

HC-033I
 Sample SAS Job for Example A
 sample print of work.mvpmeds
 PMED (HC-033A) records for unique linkidxs in work.pmedids

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LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
607180140536	607180140536001	VANCERIL	40.18	9832.99
	607180140536002	VANCERIL	40.18	9832.99
	607180140536003	VANCERIL	40.18	9832.99
607180140543	607180140543001	ACCOLATE	80.69	9832.99
	607180140543002	ACCOLATE	80.69	9832.99
	607180140543003	ACCOLATE	80.69	9832.99
607180140598	607180140598001	ACCOLATE	80.69	9832.99
	607180140598002	ACCOLATE	80.69	9832.99
607180140601	607180140601001	SYNTHROID	16.69	9832.99
	607180140601002	SYNTHROID	16.69	9832.99
607180140618	607180140618001	LASIX	16.69	9832.99
	607180140618002	LASIX	16.69	9832.99
607180140625	607180140625001	VENTOLIN INHALER	29.11	9832.99
	607180140625002	VENTOLIN INHALER	29.11	9832.99
607180140632	607180140632001	FLOVENT	85.96	9832.99
	607180140632002	FLOVENT	85.96	9832.99
607180140649	607180140649001	PROVENTIL	31.56	9832.99
	607180140649002	PROVENTIL	31.56	9832.99
607180140656	607180140656001	VANCERIL	40.18	9832.99
	607180140656002	VANCERIL	40.18	9832.99
607180140663	607180140663001	EVISTA	72.55	9832.99
	607180140663002	EVISTA	72.55	9832.99
607480251053	607480251053001	AZMACORT	65.98	13441.20
	607480251053002	AZMACORT	64.69	13441.20
607480251060	607480251060001	ALBUTEROL	21.98	13441.20
607690100332	607690100332001	PROMETH/COD	14.40	27271.24
607690100349	607690100349001	ALLEGRA	59.65	27271.24
607690100356	607690100356001	CEPHALEXIN	9.12	27271.24
607870270088	607870270088001	ALBUTEROL	21.41	11692.55
608750280202	608750280202001	MINOCYCLINE	44.99	6819.65
608750280219	608750280219001	ALUPENT	25.33	6819.65

Sample SAS Job for Example A

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

The MEANS Procedure

Analysis Variable : RXXP99X SUM OF PAYMENTS RXSF99X-RXOU99X(IMPUTED)

N	Sum
3021	129776.76

Sample SAS Job for Example A

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

Weighted

The MEANS Procedure

Analysis Variable : RXXP99X SUM OF PAYMENTS RXSF99X-RXOU99X(IMPUTED)

N	Sum
3021	1269547970

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
Licensed to SOCIAL & SCIENTIFIC SYSTEMS INC, Site 0026405003.
NOTE: This session is executing on the WIN_95 platform.

NOTE: SAS initialization used:
real time 3.50 seconds

```
1      OPTIONS LS=132 PS=59;  
2  
3      TITLE1 "HC-033I";  
4      TITLE2 'Sample SAS Job for Example B';  
5  
6      LIBNAME IN 'C:\data';
```

NOTE: Directory for library IN contains files of mixed engine types.
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 0.26 seconds

```
22  
23     *-----  
24     * Get condition records coded as asthma.  
25     *-----;  
26     DATA ASCONDS;  
27         SET IN.H37 (KEEP=CONDIDX CCCODEX);  
28         IF CCCODEX="128";  
29     RUN;
```

NOTE: There were 69897 observations read from the data set IN.H37.
NOTE: The data set WORK.ASCONDS has 1088 observations and 2 variables.
NOTE: DATA statement used:
real time 9.23 seconds

30

2

```

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 1088 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCONDS has 1088 observations and 2 variables.
NOTE: PROCEDURE SORT used:
real time 0.10 seconds

```

35
36 proc print data=asconds (obs=50);
37 title3 "sample print of work.asconds - sorted by condidx";
38 title4 "COND (H37) 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 0.61 seconds

```

40
41 PROC SORT DATA=IN.H33IF1 OUT=CLNK; BY CONDIDX; RUN;

```

NOTE: There were 208632 observations read from the data set IN.H33IF1.
NOTE: The data set WORK.CLNK has 208632 observations and 5 variables.
NOTE: PROCEDURE SORT used:
real time 4.00 seconds

```

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

```

NOTE: There were 208632 observations read from the data set WORK.CLNK.
NOTE: There were 1088 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCLNKS has 4744 observations and 3 variables.
NOTE: DATA statement used:
real time 1.31 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 1.98 seconds

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

NOTE: There were 4744 observations read from the data set WORK.ASCLNKS.

NOTE: The data set WORK.ASCLNKS has 4744 observations and 3 variables.

NOTE: PROCEDURE SORT used:
real time 0.04 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 0.06 seconds

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

NOTE: There were 4744 observations read from the data set WORK.ASCLNKS.

NOTE: The data set WORK.ASCLNKS has 4730 observations and 2 variables.

NOTE: DATA statement used:
real time 0.04 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 0.00 seconds

```
75
76 *-----
77 * Get PMED records linked to asthma condition records.
78 *-----;
79 PROC SORT DATA=IN.H33A OUT=PMED; BY LINKIDX; RUN;
```


NOTE: There were 173950 observations read from the data set IN.H33A.
NOTE: The data set WORK.PMED has 173950 observations and 54 variables.
NOTE: PROCEDURE SORT used:
real time 2:43.24

```
80
81 DATA ASPMEDS;
82 MERGE PMED (KEEP=LINKIDX RXRECIDX RXNAME RXXP99X PERWT99F)
83 ASCLNKS (IN=INASCLNK KEEP=EVNTIDX RENAME=(EVNTIDX=LINKIDX));
84 BY LINKIDX;
85 IF INASCLNK & PERWT99F>0;
86 RUN;
```

NOTE: There were 173950 observations read from the data set WORK.PMED.
NOTE: There were 4730 observations read from the data set WORK.ASCLNKS.
NOTE: The data set WORK.ASPMEDS has 6325 observations and 5 variables.
NOTE: DATA statement used:
real time 27.46 seconds

```
87
88 proc print data=aspmeds (obs=300);
89 by linkidx;
90 id linkidx;
91 var rxrecidx rxname RXXP99X PERWT99F;
92 title3 "sample print of work.aspmeds";
93 title4 "PMED (HC-033A) 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 6-15.
NOTE: PROCEDURE PRINT used:
real time 0.16 seconds

```
95
96 PROC MEANS DATA=ASPMEDS N SUM;
97 VAR RXXP99X;
98 TITLE3 "Total Rx expenditures associated with asthma";
99 RUN;
```

NOTE: There were 6325 observations read from the data set WORK.ASPMEDS.
NOTE: The PROCEDURE MEANS printed page 16.
NOTE: PROCEDURE MEANS used:
real time 0.72 seconds

```
100
101 PROC MEANS DATA=ASPMEDS N SUM;
102 VAR RXXP99X;
103 WEIGHT PERWT99F;
104 TITLE3 "Total Rx expenditures associated with asthma";
105 TITLE5 "Weighted";
106 RUN;
```

NOTE: There were 6325 observations read from the data set WORK.ASPMEDS.

NOTE: The PROCEDURE MEANS printed page 17.

NOTE: PROCEDURE MEANS used:

real time 0.00 seconds

107

108

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

NOTE: The SAS System used:

real time 3:33.76

Sample SAS Job for Example B
 sample print of work.asconds - sorted by condidx
 COND (H37) records where cccodex=128

Obs	CONDIDX	CCCODEX
1	600090220017	128
2	600360220012	128
3	600500330031	128
4	600560180037	128
5	600700270076	128
6	600830270054	128
7	601020320041	128
8	601180130063	128
9	601180200034	128
10	601690160045	128
11	601790390019	128
12	602020250012	128
13	602040160013	128
14	602060290010	128
15	602860160024	128
16	602900380013	128
17	603100110047	128
18	603100280018	128
19	603250160020	128
20	603340280010	128
21	603360400017	128
22	603380290021	128
23	603560390011	128
24	603620120096	128
25	603880170017	128
26	603880310015	128
27	603890190047	128
28	603960450021	128
29	603990100018	128
30	604240290017	128
31	604260470018	128
32	604410490026	128
33	604490500013	128
34	604720360045	128
35	604840190067	128
36	604920340020	128
37	605020240135	128
38	605040160066	128
39	605180210045	128
40	605180350053	128
41	605190380015	128
42	605430190045	128
43	605630210055	128
44	606150370025	128
45	606180270049	128
46	606310190023	128
47	606510300073	128
48	606970190010	128
49	606970260047	128
50	606990460051	128

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

CONDIDX	EVNTIDX	EVENTYPE
600500330031	600500330143	1 MVIS
	600500330150	1 MVIS
	600500330174	1 MVIS
	600500330181	1 MVIS
600560180037	600560180207	1 MVIS
	600560180214	1 MVIS
	600560180252	8 PMED
	600560180269	8 PMED
	600560180283	8 PMED
	600560180290	8 PMED
	600560180389	8 PMED
	600560180396	8 PMED
	600560180454	8 PMED
	600700270076	600700270121
600700270145		8 PMED
600700270169		8 PMED
600700270176		8 PMED
601020320041	601020320101	1 MVIS
	601020320118	8 PMED
	601020320125	8 PMED
601180130063	601180130264	8 PMED
601180200034	601180200240	1 MVIS
	601180200288	1 MVIS
	601180200322	8 PMED
	601180200339	8 PMED
	601180200480	8 PMED
	601180200555	8 PMED
	601180200562	8 PMED
601790390019	601790390062	1 MVIS
	601790390079	8 PMED
	601790390086	8 PMED
602020250012	602020250122	8 PMED
	602020250177	8 PMED
	602020250235	8 PMED
602040160013	602040160317	8 PMED
	602040160324	8 PMED
	602040160331	8 PMED
602860160024	602860160170	8 PMED
	602860160207	8 PMED
	602860160214	8 PMED

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

CONDIDX	EVNTIDX	EVENTYPE
602860160024	602860160221	8 PMED
	602860160238	1 MVIS
	602860160245	1 MVIS
	602860160252	1 MVIS
	602860160269	1 MVIS
	602860160276	1 MVIS
	602860160283	8 PMED
	602860160303	8 PMED
602900380013	602900380465	1 MVIS
	602900380472	1 MVIS
	602900380489	1 MVIS
	602900380554	8 PMED
	602900380561	8 PMED
	602900380578	8 PMED
	602900380585	8 PMED
603100110047	603100110046	3 EROM
	603100110084	1 MVIS
	603100110091	8 PMED
	603100110128	8 PMED
603100280018	603100280077	8 PMED
603250160020	603250160344	1 MVIS
	603250160351	1 MVIS
	603250160399	8 PMED
603340280010	603340280336	1 MVIS
	603340280343	1 MVIS
	603340280350	1 MVIS
	603340280418	8 PMED
	603340280432	8 PMED
	603340280456	8 PMED
	603340280463	8 PMED
	603340280470	8 PMED
	603340280521	1 MVIS
	603340280583	8 PMED
603360400017	603360400078	8 PMED
603380290021	603380290349	8 PMED

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

Obs	CONDIDX	EVNTIDX	EVENTTYPE
1	600500330031	600500330143	1 MVIS
2	600500330031	600500330150	1 MVIS
3	600500330031	600500330174	1 MVIS
4	600500330031	600500330181	1 MVIS
5	600560180037	600560180207	1 MVIS
6	600560180037	600560180214	1 MVIS
7	600560180037	600560180252	8 PMED
8	600560180037	600560180269	8 PMED
9	600560180037	600560180283	8 PMED
10	600560180037	600560180290	8 PMED
11	600560180037	600560180389	8 PMED
12	600560180037	600560180396	8 PMED
13	600560180037	600560180454	8 PMED
14	600700270076	600700270121	1 MVIS
15	600700270076	600700270145	8 PMED
16	600700270076	600700270169	8 PMED
17	600700270076	600700270176	8 PMED
18	601020320041	601020320101	1 MVIS
19	601020320041	601020320118	8 PMED
20	601020320041	601020320125	8 PMED
21	601180130063	601180130264	8 PMED
22	601180200034	601180200240	1 MVIS
23	601180200034	601180200288	1 MVIS
24	601180200034	601180200322	8 PMED
25	601180200034	601180200339	8 PMED
26	601180200034	601180200480	8 PMED
27	601180200034	601180200555	8 PMED
28	601180200034	601180200562	8 PMED
29	601790390019	601790390062	1 MVIS
30	601790390019	601790390079	8 PMED
31	601790390019	601790390086	8 PMED
32	602020250012	602020250122	8 PMED
33	602020250012	602020250177	8 PMED
34	602020250012	602020250235	8 PMED
35	602040160013	602040160317	8 PMED
36	602040160013	602040160324	8 PMED
37	602040160013	602040160331	8 PMED
38	602860160024	602860160170	8 PMED
39	602860160024	602860160207	8 PMED
40	602860160024	602860160214	8 PMED
41	602860160024	602860160221	8 PMED
42	602860160024	602860160238	1 MVIS
43	602860160024	602860160245	1 MVIS
44	602860160024	602860160252	1 MVIS
45	602860160024	602860160269	1 MVIS
46	602860160024	602860160276	1 MVIS
47	602860160024	602860160283	8 PMED
48	602860160024	602860160303	8 PMED
49	602900380013	602900380465	1 MVIS
50	602900380013	602900380472	1 MVIS

HC-033I
Sample SAS Job for Example B
sample print of unique evtntidxs from work.asclnks

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Obs	EVNTIDX	EVENTYPE
1	600500330143	1 MVIS
2	600500330150	1 MVIS
3	600500330174	1 MVIS
4	600500330181	1 MVIS
5	600560180207	1 MVIS
6	600560180214	1 MVIS
7	600560180252	8 PMED
8	600560180269	8 PMED
9	600560180283	8 PMED
10	600560180290	8 PMED
11	600560180389	8 PMED
12	600560180396	8 PMED
13	600560180454	8 PMED
14	600700270121	1 MVIS
15	600700270145	8 PMED
16	600700270169	8 PMED
17	600700270176	8 PMED
18	601020320101	1 MVIS
19	601020320118	8 PMED
20	601020320125	8 PMED
21	601180130264	8 PMED
22	601180200240	1 MVIS
23	601180200288	1 MVIS
24	601180200322	8 PMED
25	601180200339	8 PMED
26	601180200480	8 PMED
27	601180200555	8 PMED
28	601180200562	8 PMED
29	601790390062	1 MVIS
30	601790390079	8 PMED
31	601790390086	8 PMED
32	602020250122	8 PMED
33	602020250177	8 PMED
34	602020250235	8 PMED
35	602040160317	8 PMED
36	602040160324	8 PMED
37	602040160331	8 PMED
38	602860160170	8 PMED
39	602860160207	8 PMED
40	602860160214	8 PMED
41	602860160221	8 PMED
42	602860160238	1 MVIS
43	602860160245	1 MVIS
44	602860160252	1 MVIS
45	602860160269	1 MVIS
46	602860160276	1 MVIS
47	602860160283	8 PMED
48	602860160303	8 PMED
49	602900380465	1 MVIS
50	602900380472	1 MVIS

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
600560180252	600560180252001	AZMACORT	49.88	10969.95
	600560180252002	AZMACORT	49.88	10969.95
600560180269	600560180269001	ATROVENT	34.62	10969.95
600560180283	600560180283001	ALBUTEROL	13.10	10969.95
	600560180283002	ALBUTEROL	13.10	10969.95
600560180290	600560180290001	SEREVENT	61.88	10969.95
	600560180290002	SEREVENT	57.46	10969.95
600560180389	600560180389001	SEREVENT	57.46	10969.95
600560180396	600560180396001	AZMACORT	49.88	10969.95
600560180454	600560180454001	AZMACORT	51.75	10969.95
600700270145	600700270145001	-9	34.15	9618.51
600700270169	600700270169001	-9	59.65	9618.51
600700270176	600700270176001	-9	34.15	9618.51
601020320118	601020320118001	ALBUTEROL	27.69	2417.03
601020320125	601020320125001	AEROBID	69.79	2417.03
601180130264	601180130264001	ALBUTEROL	21.99	10483.07
601180200322	601180200322001	SEREVENT	61.88	12830.77
601180200339	601180200339001	ALBUTEROL	21.41	12830.77
601180200480	601180200480001	SEREVENT	61.88	12830.77
601180200555	601180200555001	SEREVENT	61.88	12830.77
	601180200555002	SEREVENT	61.88	12830.77
601180200562	601180200562001	ALBUTEROL	21.41	12830.77
601790390079	601790390079001	ERYZOLE	29.63	3796.15
601790390086	601790390086001	ALBUTEROL	17.09	3796.15
602020250122	602020250122001	BRONCHO SALINE	10.69	17379.85
602020250177	602020250177001	BRONCHO SALINE	10.69	17379.85
	602020250177002	BRONCHO SALINE	10.69	17379.85

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
602020250235	602020250235001	BRONCHO SALINE	10.70	17379.85
	602020250235002	BRONCHO SALINE	10.69	17379.85
	602020250235003	BRONCHO SALINE	10.69	17379.85
602040160317	602040160317001	ACCOLATE	61.19	8913.37
	602040160317002	ACCOLATE	61.19	8913.37
602040160324	602040160324001	SEREVENT	60.94	8913.37
	602040160324002	SEREVENT	60.94	8913.37
602040160331	602040160331001	PROVENTIL HFA (M.D.I.)	27.99	8913.37
	602040160331002	PROVENTIL HFA (M.D.I.)	27.99	8913.37
	602040160331003	PROVENTIL HFA (M.D.I.)	27.99	8913.37
	602040160331004	PROVENTIL HFA (M.D.I.)	27.99	8913.37
	602040160331005	PROVENTIL HFA (M.D.I.)	27.99	8913.37
	602040160331006	PROVENTIL HFA (M.D.I.)	27.99	8913.37
602860160170	602860160170001	PROVENTIL HFA (M.D.I.)	28.18	9438.57
602860160207	602860160207001	SEREVENT	61.88	9438.57
	602860160207002	SEREVENT	61.88	9438.57
	602860160207003	SEREVENT	61.88	9438.57
602860160214	602860160214001	FLOVENT	57.89	9438.57
	602860160214002	FLOVENT	57.89	9438.57
602860160221	602860160221001	ALBUTEROL	9.47	9438.57
602860160283	602860160283001	SEREVENT (REFILL)	61.70	9438.57
	602860160283002	SEREVENT (REFILL)	61.70	9438.57
	602860160283003	SEREVENT (REFILL)	61.70	9438.57
	602860160283004	SEREVENT (REFILL)	58.39	9438.57
	602860160283005	SEREVENT (REFILL)	58.39	9438.57
	602860160283006	SEREVENT (REFILL)	61.70	9438.57
	602860160283007	SEREVENT (REFILL)	61.70	9438.57
	602860160283008	SEREVENT (REFILL)	61.70	9438.57
	602860160303	602860160303001	ALBUTEROL (REFILL)	19.44
602860160303002	ALBUTEROL (REFILL)	19.44	9438.57	
602860160303003	ALBUTEROL (REFILL)	19.44	9438.57	
602860160303004	ALBUTEROL (REFILL)	19.44	9438.57	
602860160303005	ALBUTEROL (REFILL)	19.44	9438.57	
602860160303006	ALBUTEROL (REFILL)	19.44	9438.57	
602860160303007	ALBUTEROL (REFILL)	19.44	9438.57	
602860160303008	ALBUTEROL (REFILL)	19.44	9438.57	
602900380554	602900380554001	CLARITIN	59.72	13953.92
	602900380554002	CLARITIN	61.15	13953.92

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
602900380561	602900380561001	FLONASE	48.69	13953.92
602900380578	602900380578001	VANCERIL	38.99	13953.92
	602900380578002	VANCERIL	38.99	13953.92
602900380585	602900380585001	PREDNISONE	3.40	13953.92
603100110091	603100110091001	BRONCHO SALINE	10.69	24703.59
	603100110091002	BRONCHO SALINE	10.69	24703.59
603100110128	603100110128001	BRONCHO SALINE	6.93	24703.59
603100280077	603100280077001	BRONCHO SALINE	10.69	20234.81
603250160399	603250160399001	PROVENTIL	28.65	12151.94
603340280418	603340280418001	SEREVENT	61.88	16770.81
603340280432	603340280432001	SINGULAIR	69.50	16770.81
	603340280432002	SINGULAIR	69.50	16770.81
603340280456	603340280456001	ZYRTEC	76.98	16770.81
603340280463	603340280463001	NASACORT	39.90	16770.81
603340280470	603340280470001	AZMACORT	85.98	16770.81
603340280583	603340280583001	SINGULAIR	71.17	16770.81
603360400078	603360400078001	SODIUM CHLORIDE (P.F.)	24.20	18809.56
603380290349	603380290349001	ALBUTEROL	9.06	12825.57
603560390082	603560390082001	ALLEGRA	76.98	27387.18
603560390099	603560390099001	MAXAIR	65.98	27387.18
603620120365	603620120365001	FLOVENT	50.67	10917.34
	603620120365002	FLOVENT	50.67	10917.34
603620120372	603620120372001	PROVENTIL	42.82	10917.34
	603620120372002	PROVENTIL	42.82	10917.34
603880170210	603880170210001	AZMACORT	51.14	8694.36
603880170272	603880170272001	FLOVENT	45.14	8694.36
603880170289	603880170289001	PROVENTIL	29.77	8694.36

HC-033I
 Sample SAS Job for Example B
 sample print of work.aspmeds
 PMED (HC-033A) records which link to condition records coded as asthma

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LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
603880170323	603880170323001	MAXAIR	79.56	8694.36
603880170347	603880170347001	AZMACORT	62.20	8694.36
603880310121	603880310121001	VENTOLIN	35.54	10382.67
603890190093	603890190093001	ALBUTEROL	27.03	8436.84
603960450139	603960450139001	WESTCORT	30.28	14945.46
603960450146	603960450146001	CROLOM	32.78	14945.46
603960450153	603960450153001	ALBUTEROL	10.21	14945.46
603960450160	603960450160001	VANCERIL DS	46.34	14945.46
603960450177	603960450177001	NASACORT AQ	35.71	14945.46
603960450184	603960450184001	CLARITIN	31.05	14945.46
603990100213	603990100213001	SINGULAIR (UNIT OF USE)	20.00	33402.48
	603990100213002	SINGULAIR (UNIT OF USE)	20.00	33402.48
603990100220	603990100220001	AZMACORT	153.42	33402.48
	603990100220002	AZMACORT	153.42	33402.48
603990100237	603990100237001	ALBUTEROL	128.46	33402.48
	603990100237002	ALBUTEROL	128.46	33402.48
603990100251	603990100251001	SINGULAIR (UNIT OF USE)	20.00	33402.48
603990100282	603990100282001	AZMACORT	51.14	33402.48
603990100299	603990100299001	ALBUTEROL	21.41	33402.48
603990100302	603990100302001	SINGULAIR (UNIT OF USE)	20.00	33402.48
604240290151	604240290151001	PANFIL G	18.68	3875.88
604240290168	604240290168001	VENTOLIN	31.80	3875.88
604260470043	604260470043001	CHLORPHENIRAMINE MALEATE	53.01	13814.68
	604260470043002	CHLORPHENIRAMINE MALEATE	53.01	13814.68
	604260470043003	CHLORPHENIRAMINE MALEATE	53.01	13814.68
	604260470043004	CHLORPHENIRAMINE MALEATE	53.01	13814.68
	604260470043005	CHLORPHENIRAMINE MALEATE	53.01	13814.68
604260470067	604260470067001	VENTOLIN	31.80	13814.68

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
604260470098	604260470098001	VENTOLIN	31.80	13814.68
604720360099	604720360099001	BETASERON	72.00	7718.86
604840190365	604840190365001	PROVENTIL	28.65	6609.35
	604840190365002	PROVENTIL	28.65	6609.35
604840190372	604840190372001	AEROBID-M (MENTHOL)	105.56	6609.35
	604840190372002	AEROBID-M (MENTHOL)	105.56	6609.35
604840190454	604840190454001	PROVENTIL	57.30	6609.35
	604840190454002	PROVENTIL	57.30	6609.35
604840190461	604840190461001	AEROBID-M (MENTHOL)	124.60	6609.35
	604840190461002	AEROBID-M (MENTHOL)	113.80	6609.35
604840190598	604840190598001	PROVENTIL	33.78	6609.35
	604840190598002	PROVENTIL	33.78	6609.35
	604840190598003	PROVENTIL	33.78	6609.35
	604840190598004	PROVENTIL	33.78	6609.35
604840190601	604840190601001	AEROBID-M (MENTHOL)	124.60	6609.35
	604840190601002	AEROBID-M (MENTHOL)	124.60	6609.35
	604840190601003	AEROBID-M (MENTHOL)	124.60	6609.35
	604840190601004	AEROBID-M (MENTHOL)	124.60	6609.35
604920340153	604920340153001	PROVENTIL	31.56	8559.76
604920340184	604920340184001	PROVENTIL	31.56	8559.76
605020240337	605020240337001	PROVENTIL	28.65	10886.90
	605020240337002	PROVENTIL	28.65	10886.90
	605020240337003	PROVENTIL	28.65	10886.90
	605020240337004	PROVENTIL	28.65	10886.90
605020240440	605020240440001	PROVENTIL	28.65	10886.90
	605020240440002	PROVENTIL	28.65	10886.90
	605020240440003	PROVENTIL	28.65	10886.90
605040160228	605040160228001	ZITHROMAX	47.05	22242.49
605040160297	605040160297001	ALBUTEROL	11.20	22242.49
605180210204	605180210204001	PREDNISOLONE	9.91	4222.85
605180210211	605180210211001	BECLOVENT	61.33	4222.85
605180350149	605180350149001	AMOXICILLIN	5.00	5740.98

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
605180350156	605180350156001	PREDNISOLONE	5.00	5740.98
605180350163	605180350163001	ALBUTEROL	21.57	5740.98
605190380149	605190380149001	VENTOLIN INHALER	29.11	17324.05
	605190380149002	VENTOLIN INHALER	29.11	17324.05
605190380156	605190380156001	DURATEX	10.00	17324.05
605190380170	605190380170001	VENTOLIN INHALER	29.61	17324.05
	605190380170002	VENTOLIN INHALER	29.61	17324.05
605190380194	605190380194001	PREDNISONE	6.75	17324.05
605190380207	605190380207001	SODIUM CHLORIDE (P.F.)	24.20	17324.05
605190380238	605190380238001	VENTOLIN INHALER	29.61	17324.05
605190380252	605190380252001	ZYBAN	83.74	17324.05
605190380269	605190380269001	PREDNISONE	2.99	17324.05
605430190137	605430190137001	BRONCHO SALINE	8.48	10412.02
605430190151	605430190151001	BRONCHO SALINE	8.48	10412.02
605630210587	605630210587001	COMBIVENT	35.93	7075.73
605630210741	605630210741001	COMBIVENT	38.23	7075.73
	605630210741002	COMBIVENT	38.23	7075.73
605630210765	605630210765001	FLOVENT	51.99	7075.73
	605630210765002	FLOVENT	51.99	7075.73
605630210823	605630210823001	CATAFLAM	37.23	7075.73
	605630210823002	CATAFLAM	37.23	7075.73
605630211004	605630211004001	FLOVENT	56.93	7075.73
	605630211004002	FLOVENT	56.93	7075.73
	605630211004003	FLOVENT	56.93	7075.73
	605630211004004	FLOVENT	56.93	7075.73
605630211059	605630211059001	COMBIVENT	39.68	7075.73
	605630211059002	COMBIVENT	39.68	7075.73
	605630211059003	COMBIVENT	39.68	7075.73
	605630211059004	COMBIVENT	39.68	7075.73
606150370018	606150370018001	PANFIL G	18.68	8425.28
	606150370018002	PANFIL G	18.68	8425.28

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
606510300119	606510300119001	ALBUTEROL	42.82	21543.55
606510300140	606510300140001	ALBUTEROL	42.82	21543.55
606990460126	606990460126001	ALBUTEROL INHALER	21.41	11232.56
607130230407	607130230407001	ALBUTEROL	18.99	18005.26
607130230469	607130230469001	PREDNISONE	5.29	18005.26
607130230476	607130230476001	CEPHALEXIN	15.00	18005.26
607180140365	607180140365001	ACCOLATE	80.69	9832.99
	607180140365002	ACCOLATE	80.69	9832.99
	607180140365003	ACCOLATE	80.69	9832.99
	607180140365004	ACCOLATE	80.69	9832.99
	607180140365005	ACCOLATE	80.69	9832.99
	607180140365006	ACCOLATE	80.69	9832.99
	607180140365007	ACCOLATE	80.69	9832.99
607180140416	607180140416001	VENTOLIN INHALER	29.61	9832.99
	607180140416002	VENTOLIN INHALER	29.61	9832.99
	607180140416003	VENTOLIN INHALER	29.61	9832.99
	607180140416004	VENTOLIN INHALER	29.61	9832.99
	607180140416005	VENTOLIN INHALER	29.61	9832.99
	607180140416006	VENTOLIN INHALER	29.61	9832.99
	607180140416007	VENTOLIN INHALER	29.61	9832.99
607180140423	607180140423001	FLOVENT	85.96	9832.99
	607180140423002	FLOVENT	85.96	9832.99
	607180140423003	FLOVENT	85.96	9832.99
	607180140423004	FLOVENT	85.96	9832.99
607180140430	607180140430001	PROVENTIL	31.56	9832.99
	607180140430002	PROVENTIL	31.56	9832.99
	607180140430003	PROVENTIL	31.56	9832.99
	607180140430004	PROVENTIL	31.56	9832.99
	607180140430005	PROVENTIL	31.56	9832.99
607180140447	607180140447001	VANCERIL	40.18	9832.99
	607180140447002	VANCERIL	40.18	9832.99
607180140529	607180140529001	VENTOLIN INHALER	29.61	9832.99
	607180140529002	VENTOLIN INHALER	29.61	9832.99
	607180140529003	VENTOLIN INHALER	29.61	9832.99
607180140536	607180140536001	VANCERIL	40.18	9832.99
	607180140536002	VANCERIL	40.18	9832.99
	607180140536003	VANCERIL	40.18	9832.99

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
607180140543	607180140543001	ACCOLATE	80.69	9832.99
	607180140543002	ACCOLATE	80.69	9832.99
	607180140543003	ACCOLATE	80.69	9832.99
607180140574	607180140574001	PROVENTIL	31.56	9832.99
	607180140574002	PROVENTIL	31.56	9832.99
	607180140574003	PROVENTIL	31.56	9832.99
607180140598	607180140598001	ACCOLATE	80.69	9832.99
	607180140598002	ACCOLATE	80.69	9832.99
607180140625	607180140625001	VENTOLIN INHALER	29.11	9832.99
	607180140625002	VENTOLIN INHALER	29.11	9832.99
607180140632	607180140632001	FLOVENT	85.96	9832.99
	607180140632002	FLOVENT	85.96	9832.99
607180140649	607180140649001	PROVENTIL	31.56	9832.99
	607180140649002	PROVENTIL	31.56	9832.99
607180140656	607180140656001	VANCERIL	40.18	9832.99
	607180140656002	VANCERIL	40.18	9832.99
607480251053	607480251053001	AZMACORT	65.98	13441.20
	607480251053002	AZMACORT	64.69	13441.20
607480251060	607480251060001	ALBUTEROL	21.98	13441.20
607480251255	607480251255001	ALBUTEROL	22.69	13441.20
	607480251255002	ALBUTEROL	22.69	13441.20
	607480251255003	ALBUTEROL	22.69	13441.20
607480251262	607480251262001	AZMACORT	66.69	13441.20
	607480251262002	AZMACORT	66.69	13441.20
	607480251262003	AZMACORT	66.69	13441.20
607480251495	607480251495001	ALBUTEROL	22.98	13441.20
	607480251495002	ALBUTEROL	22.98	13441.20
607480251515	607480251515001	AZMACORT	65.98	13441.20
	607480251515002	AZMACORT	65.98	13441.20
607480490074	607480490074001	ALBUTEROL	27.69	14091.47
	607480490074002	ALBUTEROL	27.98	14091.47
	607480490074003	ALBUTEROL	28.69	14091.47
607550160256	607550160256001	VANCERIL	38.82	17065.43
	607550160256002	VANCERIL	38.82	17065.43

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
607550160263	607550160263001	COMBIVENT	41.51	17065.43
	607550160263002	COMBIVENT	41.51	17065.43
	607550160263003	COMBIVENT	41.51	17065.43
607550160345	607550160345001	VOLMAX	47.47	17065.43
	607550160345002	VOLMAX	47.47	17065.43
	607550160345003	VOLMAX	47.47	17065.43
	607550160345004	VOLMAX	47.47	17065.43
607550160352	607550160352001	VANCERIL	38.82	17065.43
	607550160352002	VANCERIL	38.82	17065.43
	607550160352003	VANCERIL	38.82	17065.43
	607550160352004	VANCERIL	38.82	17065.43
607550160376	607550160376001	VANCERIL	38.82	17065.43
	607550160376002	VANCERIL	38.82	17065.43
	607550160376003	VANCERIL	38.82	17065.43
	607550160376004	VANCERIL	38.82	17065.43
607550160465	607550160465001	VANCERIL	38.82	17065.43
	607550160465002	VANCERIL	38.82	17065.43
	607550160465003	VANCERIL	38.82	17065.43
607550160472	607550160472001	COMBIVENT	36.69	17065.43
	607550160472002	COMBIVENT	36.69	17065.43
	607550160472003	COMBIVENT	36.69	17065.43
607690100332	607690100332001	PROMETH/COD	14.40	27271.24
607690100356	607690100356001	CEPHALEXIN	9.12	27271.24
607690100503	607690100503001	OXYMETAZOLINE	2.00	27271.24
607870270057	607870270057001	ALBUTEROL	21.99	11692.55
	607870270057002	ALBUTEROL	21.99	11692.55
	607870270057003	ALBUTEROL	21.99	11692.55
607870270088	607870270088001	ALBUTEROL	21.41	11692.55
608150530218	608150530218001	-9	4.76	24381.10
608150530225	608150530225001	AZMACORT	153.42	24381.10
608750280219	608750280219001	ALUPENT	25.33	6819.65
	608750280219002	ALUPENT	25.33	6819.65
608860270086	608860270086001	COMBIVENT	39.68	25436.20
608900170269	608900170269001	AK-SPORE	31.80	10462.65

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

PMED (HC-033A) records which link to condition records coded as asthma

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
608900170269	608900170269002	AK-SPORE	31.80	10462.65
	608900170269003	AK-SPORE	31.80	10462.65
	608900170269004	AK-SPORE	31.80	10462.65
	608900170269005	AK-SPORE	31.80	10462.65
	608900170269006	AK-SPORE	31.80	10462.65
	608900170269007	AK-SPORE	31.80	10462.65
	608900170269008	AK-SPORE	31.80	10462.65
	608900170269009	AK-SPORE	31.80	10462.65
	608900170269010	AK-SPORE	31.80	10462.65
	608900170269011	AK-SPORE	31.80	10462.65
	608900170269012	AK-SPORE	31.80	10462.65
	608900170269013	AK-SPORE	31.80	10462.65

HC-033I
Sample SAS Job for Example B
Total Rx expenditures associated with asthma

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The MEANS Procedure

Analysis Variable : RXXP99X SUM OF PAYMENTS RXSF99X-RXOU99X(IMPUTED)

N	Sum
6325	265042.47

HC-033I
Sample SAS Job for Example B
Total Rx expenditures associated with asthma

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Weighted

The MEANS Procedure

Analysis Variable : RXXP99X SUM OF PAYMENTS RXSF99X-RXOU99X(IMPUTED)

N	Sum
6325	2967041557

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
 NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
 Licensed to SOCIAL & SCIENTIFIC SYSTEMS INC, Site 0026405003.
 NOTE: This session is executing on the WIN_95 platform.

NOTE: SAS initialization used:
 real time 3.24 seconds

```

1
2     OPTIONS LS=132 PS=59;
3
4     TITLE1 "HC-033I";
5     TITLE2 'Sample SAS Job for Example C';
6
7     LIBNAME IN 'C:\DATA';

```

NOTE: Directory for library IN contains files of mixed engine types.
 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 0.27 seconds

```

23
24    *-----
25    * Get conditions records coded as asthma.
26    *-----;
27    DATA ASCONDS;
28        SET IN.H37 (KEEP=CONDIDX CCCODEX);
29        IF CCCODEX="128";
30    RUN;

```

NOTE: There were 69897 observations read from the data set IN.H37.
 NOTE: The data set WORK.ASCONDS has 1088 observations and 2 variables.
 NOTE: DATA statement used:
 real time 8.78 seconds

2

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

NOTE: There were 1088 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCONDS has 1088 observations and 2 variables.
NOTE: PROCEDURE SORT used:
real time 0.17 seconds

```
36  
37 proc print data=asconds (obs=50);  
38 title3 "sample print of work.asconds - sorted by condidx";  
39 title4 "COND (HC-037) 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 0.54 seconds

```
41  
42 PROC SORT DATA=IN.H33IF1 OUT=CLNK; BY CONDIDX; RUN;
```

NOTE: There were 208632 observations read from the data set IN.H33IF1.
NOTE: The data set WORK.CLNK has 208632 observations and 5 variables.
NOTE: PROCEDURE SORT used:
real time 4.23 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 208632 observations read from the data set WORK.CLNK.
NOTE: There were 1088 observations read from the data set WORK.ASCONDS.
NOTE: The data set WORK.ASCLNKs has 4744 observations and 3 variables.
NOTE: DATA statement used:
real time 2.97 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 0.17 seconds

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

NOTE: There were 4744 observations read from the data set WORK.ASCLNKS.
 NOTE: The data set WORK.ASCLNKS has 4744 observations and 3 variables.
 NOTE: PROCEDURE SORT used:
 real time 0.04 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 0.00 seconds

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

NOTE: There were 4744 observations read from the data set WORK.ASCLNKS.
 NOTE: The data set WORK.ASCLNKS has 4730 observations and 2 variables.
 NOTE: DATA statement used:
 real time 0.04 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 0.00 seconds

```
76
77      *-----
78      * Get non-telephone office based visits (i.e. MVIS events) for persons with positive weights.
79      *-----;
80      DATA MVIS;
```

4

```

81      SET IN.H33G (KEEP=EVNTIDX PERWT99F SEETLKPV OBP99X);
82      IF PERWT99F > 0 & SEETLKPV NE 2;
83      RUN;

```

NOTE: There were 100312 observations read from the data set IN.H33G.
NOTE: The data set WORK.MVIS has 96787 observations and 4 variables.
NOTE: DATA statement used:
real time 9.87 seconds

```

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

```

NOTE: There were 96787 observations read from the data set WORK.MVIS.
NOTE: The data set WORK.MVIS has 96787 observations and 4 variables.
NOTE: PROCEDURE SORT used:
real time 0.61 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 4730 observations read from the data set WORK.ASCLNKS.
NOTE: There were 96787 observations read from the data set WORK.MVIS.
NOTE: The data set WORK.ASMVIS has 1575 observations and 5 variables.
NOTE: DATA statement used:
real time 0.48 seconds

```

96
97      proc print data=asmvis (obs=50);
98          format eventype eventype.;
99          title3 "sample print of work.asmvis";
100         title4 "unique evntidxs from work.asclnks that are non-telephone MVIS (HC-033G) 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 0.06 seconds

```

102
103      PROC MEANS DATA=ASMVIS N SUM;
104          VAR OBP99X;
105          TITLE3 "Total medical visit expenditures (excluding telephone) associated with asthma";
106      RUN;

```

NOTE: There were 1575 observations read from the data set WORK.ASMVIS.

NOTE: The PROCEDURE MEANS printed page 7.

NOTE: PROCEDURE MEANS used:
real time 0.31 seconds

```
107
108 PROC MEANS DATA=ASMVIS SUM;
109     VAR OBP99X;
110     WEIGHT PERWT99F;
111     TITLE3 "Total medical visit expenditures (excluding telephone) associated with asthma";
112     TITLE5 "Weighted";
113     RUN;
```

NOTE: There were 1575 observations read from the data set WORK.ASMVIS.

NOTE: The PROCEDURE MEANS printed page 8.

NOTE: PROCEDURE MEANS used:
real time 0.06 seconds

```
114
115
116
```

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

NOTE: The SAS System used:
real time 32.57 seconds

Sample SAS Job for Example C
 sample print of work.asconds - sorted by condidx
 COND (HC-037) records where cccodex=128

Obs	CONDIDX	CCCODEX
1	600090220017	128
2	600360220012	128
3	600500330031	128
4	600560180037	128
5	600700270076	128
6	600830270054	128
7	601020320041	128
8	601180130063	128
9	601180200034	128
10	601690160045	128
11	601790390019	128
12	602020250012	128
13	602040160013	128
14	602060290010	128
15	602860160024	128
16	602900380013	128
17	603100110047	128
18	603100280018	128
19	603250160020	128
20	603340280010	128
21	603360400017	128
22	603380290021	128
23	603560390011	128
24	603620120096	128
25	603880170017	128
26	603880310015	128
27	603890190047	128
28	603960450021	128
29	603990100018	128
30	604240290017	128
31	604260470018	128
32	604410490026	128
33	604490500013	128
34	604720360045	128
35	604840190067	128
36	604920340020	128
37	605020240135	128
38	605040160066	128
39	605180210045	128
40	605180350053	128
41	605190380015	128
42	605430190045	128
43	605630210055	128
44	606150370025	128
45	606180270049	128
46	606310190023	128
47	606510300073	128
48	606970190010	128
49	606970260047	128
50	606990460051	128

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

CONDIDX	EVNTIDX	EVENTYPE
600500330031	600500330143	1 MVIS
	600500330150	1 MVIS
	600500330174	1 MVIS
	600500330181	1 MVIS
600560180037	600560180207	1 MVIS
	600560180214	1 MVIS
	600560180252	8 PMED
	600560180269	8 PMED
	600560180283	8 PMED
	600560180290	8 PMED
	600560180389	8 PMED
	600560180396	8 PMED
	600560180454	8 PMED
	600700270076	600700270121
600700270145		8 PMED
600700270169		8 PMED
600700270176		8 PMED
601020320041	601020320101	1 MVIS
	601020320118	8 PMED
	601020320125	8 PMED
601180130063	601180130264	8 PMED
601180200034	601180200240	1 MVIS
	601180200288	1 MVIS
	601180200322	8 PMED
	601180200339	8 PMED
	601180200480	8 PMED
	601180200555	8 PMED
	601180200562	8 PMED
601790390019	601790390062	1 MVIS
	601790390079	8 PMED
	601790390086	8 PMED
602020250012	602020250122	8 PMED
	602020250177	8 PMED
	602020250235	8 PMED
602040160013	602040160317	8 PMED
	602040160324	8 PMED
	602040160331	8 PMED
602860160024	602860160170	8 PMED
	602860160207	8 PMED
	602860160214	8 PMED

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

CONDIDX	EVNTIDX	EVENTYPE
602860160024	602860160221	8 PMED
	602860160238	1 MVIS
	602860160245	1 MVIS
	602860160252	1 MVIS
	602860160269	1 MVIS
	602860160276	1 MVIS
	602860160283	8 PMED
	602860160303	8 PMED
602900380013	602900380465	1 MVIS
	602900380472	1 MVIS
	602900380489	1 MVIS
	602900380554	8 PMED
	602900380561	8 PMED
	602900380578	8 PMED
	602900380585	8 PMED
603100110047	603100110046	3 EROM
	603100110084	1 MVIS
	603100110091	8 PMED
	603100110128	8 PMED
603100280018	603100280077	8 PMED
603250160020	603250160344	1 MVIS
	603250160351	1 MVIS
	603250160399	8 PMED
603340280010	603340280336	1 MVIS
	603340280343	1 MVIS
	603340280350	1 MVIS
	603340280418	8 PMED
	603340280432	8 PMED
	603340280456	8 PMED
	603340280463	8 PMED
	603340280470	8 PMED
	603340280521	1 MVIS
	603340280583	8 PMED
603360400017	603360400078	8 PMED
603380290021	603380290349	8 PMED

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

Obs	CONDIDX	EVNTIDX	EVENTYPE
1	600500330031	600500330143	1 MVIS
2	600500330031	600500330150	1 MVIS
3	600500330031	600500330174	1 MVIS
4	600500330031	600500330181	1 MVIS
5	600560180037	600560180207	1 MVIS
6	600560180037	600560180214	1 MVIS
7	600560180037	600560180252	8 PMED
8	600560180037	600560180269	8 PMED
9	600560180037	600560180283	8 PMED
10	600560180037	600560180290	8 PMED
11	600560180037	600560180389	8 PMED
12	600560180037	600560180396	8 PMED
13	600560180037	600560180454	8 PMED
14	600700270076	600700270121	1 MVIS
15	600700270076	600700270145	8 PMED
16	600700270076	600700270169	8 PMED
17	600700270076	600700270176	8 PMED
18	601020320041	601020320101	1 MVIS
19	601020320041	601020320118	8 PMED
20	601020320041	601020320125	8 PMED
21	601180130063	601180130264	8 PMED
22	601180200034	601180200240	1 MVIS
23	601180200034	601180200288	1 MVIS
24	601180200034	601180200322	8 PMED
25	601180200034	601180200339	8 PMED
26	601180200034	601180200480	8 PMED
27	601180200034	601180200555	8 PMED
28	601180200034	601180200562	8 PMED
29	601790390019	601790390062	1 MVIS
30	601790390019	601790390079	8 PMED
31	601790390019	601790390086	8 PMED
32	602020250012	602020250122	8 PMED
33	602020250012	602020250177	8 PMED
34	602020250012	602020250235	8 PMED
35	602040160013	602040160317	8 PMED
36	602040160013	602040160324	8 PMED
37	602040160013	602040160331	8 PMED
38	602860160024	602860160170	8 PMED
39	602860160024	602860160207	8 PMED
40	602860160024	602860160214	8 PMED
41	602860160024	602860160221	8 PMED
42	602860160024	602860160238	1 MVIS
43	602860160024	602860160245	1 MVIS
44	602860160024	602860160252	1 MVIS
45	602860160024	602860160269	1 MVIS
46	602860160024	602860160276	1 MVIS
47	602860160024	602860160283	8 PMED
48	602860160024	602860160303	8 PMED
49	602900380013	602900380465	1 MVIS
50	602900380013	602900380472	1 MVIS

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

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Obs	EVNTIDX	EVENTYPE
1	600500330143	1 MVIS
2	600500330150	1 MVIS
3	600500330174	1 MVIS
4	600500330181	1 MVIS
5	600560180207	1 MVIS
6	600560180214	1 MVIS
7	600560180252	8 PMED
8	600560180269	8 PMED
9	600560180283	8 PMED
10	600560180290	8 PMED
11	600560180389	8 PMED
12	600560180396	8 PMED
13	600560180454	8 PMED
14	600700270121	1 MVIS
15	600700270145	8 PMED
16	600700270169	8 PMED
17	600700270176	8 PMED
18	601020320101	1 MVIS
19	601020320118	8 PMED
20	601020320125	8 PMED
21	601180130264	8 PMED
22	601180200240	1 MVIS
23	601180200288	1 MVIS
24	601180200322	8 PMED
25	601180200339	8 PMED
26	601180200480	8 PMED
27	601180200555	8 PMED
28	601180200562	8 PMED
29	601790390062	1 MVIS
30	601790390079	8 PMED
31	601790390086	8 PMED
32	602020250122	8 PMED
33	602020250177	8 PMED
34	602020250235	8 PMED
35	602040160317	8 PMED
36	602040160324	8 PMED
37	602040160331	8 PMED
38	602860160170	8 PMED
39	602860160207	8 PMED
40	602860160214	8 PMED
41	602860160221	8 PMED
42	602860160238	1 MVIS
43	602860160245	1 MVIS
44	602860160252	1 MVIS
45	602860160269	1 MVIS
46	602860160276	1 MVIS
47	602860160283	8 PMED
48	602860160303	8 PMED
49	602900380465	1 MVIS
50	602900380472	1 MVIS

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

unique evntidxs from work.asclnks that are non-telephone MVIS (HC-033G) events

Obs	EVNTIDX	EVENTYPE	SEETLKPV	OBOXP99X	PERWT99F
1	600500330150	1 MVIS	1	36.00	9877.66
2	600500330174	1 MVIS	1	36.00	9877.66
3	600500330181	1 MVIS	1	236.00	9877.66
4	600560180207	1 MVIS	1	56.00	10969.95
5	600560180214	1 MVIS	1	85.00	10969.95
6	601020320101	1 MVIS	1	35.00	2417.03
7	601180200240	1 MVIS	1	50.00	12830.77
8	601180200288	1 MVIS	1	50.00	12830.77
9	601790390062	1 MVIS	1	27.78	3796.15
10	602860160238	1 MVIS	1	35.58	9438.57
11	602860160245	1 MVIS	1	35.58	9438.57
12	602860160252	1 MVIS	1	23.94	9438.57
13	602860160269	1 MVIS	1	61.94	9438.57
14	602860160276	1 MVIS	1	44.88	9438.57
15	602900380465	1 MVIS	1	400.00	13953.92
16	602900380472	1 MVIS	1	242.67	13953.92
17	602900380489	1 MVIS	1	242.67	13953.92
18	603250160344	1 MVIS	1	85.06	12151.94
19	603250160351	1 MVIS	1	146.00	12151.94
20	603340280336	1 MVIS	1	47.00	16770.81
21	603340280343	1 MVIS	1	47.00	16770.81
22	603340280350	1 MVIS	1	47.00	16770.81
23	603340280521	1 MVIS	1	47.00	16770.81
24	603560390075	1 MVIS	1	573.90	27387.18
25	603990100131	1 MVIS	1	53.00	33402.48
26	604260470036	1 MVIS	1	46.05	13814.68
27	604260470050	1 MVIS	1	69.11	13814.68
28	604260470081	1 MVIS	1	46.05	13814.68
29	604840190276	1 MVIS	1	428.30	6609.35
30	604840190492	1 MVIS	1	1203.99	6609.35
31	604920340146	1 MVIS	1	15.00	8559.76
32	604920340160	1 MVIS	1	15.00	8559.76
33	604920340177	1 MVIS	1	15.00	8559.76
34	605040160146	1 MVIS	1	15.81	22242.49
35	605040160184	1 MVIS	1	19.84	22242.49
36	605040160191	1 MVIS	1	19.84	22242.49
37	605040160204	1 MVIS	1	10.67	22242.49
38	605180210153	1 MVIS	1	50.00	4222.85
39	605180210184	1 MVIS	1	85.37	4222.85
40	605180350132	1 MVIS	1	78.29	5740.98
41	605190380163	1 MVIS	1	30.00	17324.05
42	605190380214	1 MVIS	1	70.00	17324.05
43	605190380221	1 MVIS	1	70.00	17324.05
44	605430190120	1 MVIS	1	36.39	10412.02
45	605630210638	1 MVIS	1	40.00	7075.73
46	605630210854	1 MVIS	1	40.00	7075.73
47	605630211117	1 MVIS	1	41.31	7075.73
48	605630211124	1 MVIS	1	83.97	7075.73
49	605630211131	1 MVIS	1	83.97	7075.73
50	605630211148	1 MVIS	1	33.50	7075.73

Sample SAS Job for Example C

Total medical visit expenditures (excluding telephone) associated with asthma

The MEANS Procedure

Analysis Variable : OBP99X SUM OF OBSF99X-OBOT99X

N	Sum
1575	105032.00

HC-033I October 9, 2002 8
Sample SAS Job for Example C
Total medical visit expenditures (excluding telephone) associated with asthma

Weighted

The MEANS Procedure

Analysis Variable : OBP99X SUM OF OBSF99X-OBOT99X

Sum
----- 1228222996 -----

1

NOTE: Copyright (c) 1999-2001 by SAS Institute Inc., Cary, NC, USA.
 NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)
 Licensed to SOCIAL & SCIENTIFIC SYSTEMS INC, Site 0026405003.
 NOTE: This session is executing on the WIN_95 platform.

NOTE: SAS initialization used:
 real time 0.50 seconds

```

1
2     OPTIONS LS=132 PS=59;
3
4     TITLE1 "HC-033I";
5     TITLE2 'Sample SAS Job for Example D';
6
7     LIBNAME IN 'C:\DATA';

```

NOTE: Directory for library IN contains files of mixed engine types.
 NOTE: Libref IN was successfully assigned as follows:

```

Engine:      V8
Physical Name: C:\DATA

```

```

8     *****
9     * Calculate the expenditures for prescribed medicines associated
10    * with insulin reported by the household as an other medical expense.
11    *****;

```

```

12
13    PROC FORMAT;
14        VALUE EVENTYPE
15            1 = "1 MVIS"
16            2 = "2 OPAT"
17            3 = "3 EROM"
18            4 = "4 STAZ"
19            5 = "5 DVIS"
20            6 = "6 OMED"
21            7 = "7 HVIS"
22            8 = "8 PMED";

```

NOTE: Format EVENTYPE has been output.

```

23
24        VALUE OMTYPE
25            -9 = '-9 NOT ASCERTAINED'
26            -8 = '-8 DK'
27            -7 = '-7 REFUSED'
28            -1 = '-1 INAPPLICABLE'
29            1 = '1 GLASSES OR CONTACT LENSES'
30            2 = '2 INSULIN'
31            3 = '3 DIABETIC EQUIPMENT/SUPPLIES'
32            4 = '4 AMBULANCE SERVICES'
33            5 = '5 ORTHOPEDIC ITEMS'
34            6 = '6 HEARING DEVICES'
35            7 = '7 PROSTHESIS'
36            8 = '8 BATHROOM AIDS'
37            9 = '9 MEDICAL EQUIPMENT'
38            10 = '10 DISPOSABLE SUPPLIES'
39            11 = '11 ALTERATIONS/MODIFICATIONS'
40            91 = '91 OTHER'
41

```

NOTE: Format OMTYPE has been output.

2

42 RUN;

NOTE: PROCEDURE FORMAT used:
real time 0.10 seconds

```

43
44 *-----
45 * Get other medical records for insulin for persons with positive weights.
46 *-----;
47
48 DATA OMED;
49 SET IN.H33C (KEEP=EVNTIDX PERWT99F OMTYPEX);
50 IF PERWT99F > 0 & OMTYPEX = 2;
51 RUN;

```

NOTE: There were 6079 observations read from the data set IN.H33C.
NOTE: The data set WORK.OMED has 378 observations and 3 variables.
NOTE: DATA statement used:
real time 0.22 seconds

```

52
53 proc print data=omed (obs=100);
54 var evntidx OMTYPEX PERWT99F;
55 format OMTYPEX omtype.;
56 title3 "sample print of OMED (HC-033C) records where OMTYPEX=2";
57 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 0.22 seconds

```

58
59 *-----
60 * Get PMED IDs linked to the OMED events which were for insulin.
61 *-----;
62
63 PROC SORT DATA=IN.H33IF2 OUT=RXLK; BY EVNTIDX; RUN;

```

NOTE: There were 41276 observations read from the data set IN.H33IF2.
NOTE: The data set WORK.RXLK has 41276 observations and 5 variables.
NOTE: PROCEDURE SORT used:
real time 0.76 seconds

```

64
65 proc print data=rxlk (obs=150);
66 by evntidx;
67 id evntidx;
68 var linkidx eventype;
69 format eventype eventype.;
70 title3 "sample print of Rx+event link file records (HC-33IF2) - sorted by eventidx";
71 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 0.06 seconds

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

NOTE: There were 1056 observations read from the data set WORK.RXLK.
 WHERE eventype=6;
 NOTE: The data set WORK.OMEDRXLK has 1056 observations and 5 variables.
 NOTE: DATA statement used:
 real time 0.17 seconds

```
76     proc print data=omedrxlk (obs=120);
77         by evtidx;
78         id evtidx;
79         var linkidx eventype;
80         format eventype eventype.;
81         title3 "sample print of work.omedrxlk - sorted by evtidx";
82         title4 "Rx+event link file records (HC-33IF2) where eventype=6 (omed)";
83     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 0.04 seconds

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

NOTE: There were 41276 observations read from the data set WORK.RXLK.
 NOTE: There were 378 observations read from the data set WORK.OMED.
 NOTE: The data set WORK.PMEDIDS has 365 observations and 3 variables.
 NOTE: DATA statement used:
 real time 0.16 seconds

```
91
92     proc print data=pmedids (obs=50);
93         by evtidx;
94         id evtidx;
95         format eventype eventype.;
96         title3 "sample print of work.pmedids - sorted by evtidx";
97         title4 "work.rxlk records for omed events for insulin";
98     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 0.05 seconds

```
99
100      PROC SORT DATA=PMEDIDS; BY LINKIDX; RUN;
```

NOTE: There were 365 observations read from the data set WORK.PMEDIDS.
 NOTE: The data set WORK.PMEDIDS has 365 observations and 3 variables.
 NOTE: PROCEDURE SORT used:
 real time 0.05 seconds

```
101
102      proc print data=pmedids (obs=50);
103          format eventype eventype.;
104          title3 "sample print of work.pmedids - sorted by linkidx";
105      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 0.04 seconds

```
106
107      DATA PMEDIDS;
108          SET PMEDIDS (KEEP=LINKIDX);
109          BY LINKIDX;
110          IF FIRST.LINKIDX;
111          KEEP LINKIDX;
112      RUN;
```

NOTE: There were 365 observations read from the data set WORK.PMEDIDS.
 NOTE: The data set WORK.PMEDIDS has 365 observations and 1 variables.
 NOTE: DATA statement used:
 real time 0.05 seconds

```
113
114      proc print data=pmedids (obs=50);
115          title3 "sample print of unique linkidxs in work.pmedids";
116      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

```
117
118
119      *-----
120      * Get PMED records for OMED event which were for insulin.
121      *-----;
```

```
122 PROC SORT DATA=IN.H33A OUT=PMED; BY LINKIDX; RUN;
```

```
NOTE: There were 173950 observations read from the data set IN.H33A.
NOTE: The data set WORK.PMED has 173950 observations and 54 variables.
NOTE: PROCEDURE SORT used:
      real time          2:19.67
```

```
123
124 DATA OMPMEDS;
125 MERGE PMED (KEEP=LINKIDX RXRECIDX RXXP99X PERWT99F RXNAME)
126 PMEDIDS (IN=A);
127 BY LINKIDX;
128 IF A & PERWT99F>0;
129 RUN;
```

```
NOTE: There were 173950 observations read from the data set WORK.PMED.
NOTE: There were 365 observations read from the data set WORK.PMEDIDS.
NOTE: The data set WORK.OMPAMEDS has 1323 observations and 5 variables.
NOTE: DATA statement used:
      real time          25.25 seconds
```

```
130
131 proc print data=ompmeds (obs=200);
132 by linkidx;
133 id linkidx;
134 var rxrecidx rxname RXXP99X PERWT99F;
135 title3 "sample print of work.pmeds";
136 title4 "PMED (HC-033A) records for unique linkidxs in work.pmedids";
137 run;
```

```
NOTE: There were 200 observations read from the data set WORK.OMPAMEDS.
NOTE: The PROCEDURE PRINT printed pages 17-22.
NOTE: PROCEDURE PRINT used:
      real time          0.06 seconds
```

```
138
139 PROC MEANS DATA=OMPAMEDS N SUM;
140 VAR RXXP99X;
141 TITLE3 "Total Rx expenditures associated with other medical expenses for insulin";
142 RUN;
```

```
NOTE: There were 1323 observations read from the data set WORK.OMPAMEDS.
NOTE: The PROCEDURE MEANS printed page 23.
NOTE: PROCEDURE MEANS used:
      real time          0.61 seconds
```

```
143
144 PROC MEANS DATA=OMPAMEDS N SUM;
145 VAR RXXP99X;
146 WEIGHT PERWT99F;
147 TITLE3 "Total Rx expenditures associated with other medical expenses for insulin";
148 TITLE5 "Weighted";
149 RUN;
```

NOTE: There were 1323 observations read from the data set WORK.OMPMEDS.
NOTE: The PROCEDURE MEANS printed page 24.
NOTE: PROCEDURE MEANS used:
real time 0.00 seconds

150
151

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414
NOTE: The SAS System used:
real time 2:48.68

Sample SAS Job for Example D
 sample print of OMED (HC-033C) records where OMTYPEX=2

Obs	EVNTIDX	OMTYPEX	PERWT99F
1	600110260154	2 INSULIN	6026.89
2	600110260298	2 INSULIN	6026.89
3	600180200112	2 INSULIN	5250.25
4	600180200218	2 INSULIN	5250.25
5	600440100368	2 INSULIN	20642.52
6	600950160287	2 INSULIN	20531.71
7	603130220521	2 INSULIN	12356.94
8	603130220672	2 INSULIN	12356.94
9	603450140674	2 INSULIN	29084.63
10	603450140876	2 INSULIN	29084.63
11	604090140191	2 INSULIN	9172.62
12	604090140266	2 INSULIN	9172.62
13	604420240399	2 INSULIN	3234.62
14	605720140633	2 INSULIN	6988.48
15	605720210633	2 INSULIN	6995.28
16	605970410192	2 INSULIN	7651.08
17	605970410250	2 INSULIN	7651.08
18	606370150525	2 INSULIN	14527.20
19	606720190505	2 INSULIN	11135.72
20	606860200079	2 INSULIN	9408.74
21	607330100160	2 INSULIN	8366.18
22	607330100242	2 INSULIN	8366.18
23	608270110365	2 INSULIN	5724.97
24	608390120129	2 INSULIN	7847.06
25	608390120198	2 INSULIN	7847.06
26	608390120232	2 INSULIN	7847.06
27	608410130038	2 INSULIN	14690.01
28	608860100151	2 INSULIN	29135.03
29	608860100219	2 INSULIN	29135.03
30	608860100473	2 INSULIN	29135.03
31	609000160197	2 INSULIN	8332.99
32	609650290398	2 INSULIN	6882.13
33	610210190207	2 INSULIN	8376.77
34	610210190365	2 INSULIN	8376.77
35	610210190492	2 INSULIN	8376.77
36	610350290338	2 INSULIN	15538.62
37	610350290530	2 INSULIN	15538.62
38	610350290667	2 INSULIN	15538.62
39	610580110255	2 INSULIN	10100.96
40	610580110382	2 INSULIN	10100.96
41	611340320077	2 INSULIN	7524.25
42	611340320111	2 INSULIN	7524.25
43	611680170275	2 INSULIN	6602.92
44	611680170395	2 INSULIN	6602.92
45	611680170477	2 INSULIN	6602.92
46	611790100290	2 INSULIN	8753.26
47	612110140433	2 INSULIN	7635.15
48	612110140628	2 INSULIN	7635.15
49	612160300646	2 INSULIN	16747.88
50	612160300893	2 INSULIN	16747.88
51	612340260346	2 INSULIN	7074.42
52	612870250687	2 INSULIN	30516.34
53	612870250889	2 INSULIN	30516.34

Sample SAS Job for Example D
 sample print of OMED (HC-033C) records where OMTYPEX=2

Obs	EVNTIDX	OMTYPEX	PERWT99F
54	613880131093	2 INSULIN	6720.33
55	613910370251	2 INSULIN	17393.95
56	613910370326	2 INSULIN	17393.95
57	613910540176	2 INSULIN	19188.83
58	613930290200	2 INSULIN	11528.92
59	613950130263	2 INSULIN	8434.81
60	614500180057	2 INSULIN	17045.29
61	614500180095	2 INSULIN	17045.29
62	614910270323	2 INSULIN	3441.64
63	614910270467	2 INSULIN	3441.64
64	616060100222	2 INSULIN	19579.04
65	616060100291	2 INSULIN	19579.04
66	616130200277	2 INSULIN	18562.67
67	617200150354	2 INSULIN	16093.89
68	617520241198	2 INSULIN	8537.65
69	617710120331	2 INSULIN	6890.87
70	618090160144	2 INSULIN	9549.31
71	618090160271	2 INSULIN	9549.31
72	618090230086	2 INSULIN	4772.89
73	618090230182	2 INSULIN	4772.89
74	618120380383	2 INSULIN	10348.62
75	618200120285	2 INSULIN	24300.29
76	618300190661	2 INSULIN	7669.82
77	618300190825	2 INSULIN	7669.82
78	618300191051	2 INSULIN	7669.82
79	618420260255	2 INSULIN	11044.82
80	618420260344	2 INSULIN	11044.82
81	618770100345	2 INSULIN	13581.65
82	620050100119	2 INSULIN	15375.01
83	620120130764	2 INSULIN	7374.26
84	620330260302	2 INSULIN	30203.98
85	620330260371	2 INSULIN	30203.98
86	620980140441	2 INSULIN	4021.31
87	620980140701	2 INSULIN	4021.31
88	620980140869	2 INSULIN	4021.31
89	622360270350	2 INSULIN	13024.26
90	622360270610	2 INSULIN	13024.26
91	622690120862	2 INSULIN	11397.23
92	622690121163	2 INSULIN	11397.23
93	622690121341	2 INSULIN	11397.23
94	622790220405	2 INSULIN	5880.80
95	622840190396	2 INSULIN	15182.62
96	622840190529	2 INSULIN	15182.62
97	622950160487	2 INSULIN	10337.78
98	622950160576	2 INSULIN	10337.78
99	622950160689	2 INSULIN	10337.78
100	623040200325	2 INSULIN	12479.45

Sample SAS Job for Example D
 sample print of Rx+event link file records (HC-33IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
600010100183	600010100203	1 MVIS
	600010100210	1 MVIS
	600010100227	1 MVIS
600010100190	600010100203	1 MVIS
	600010100210	1 MVIS
	600010100227	1 MVIS
600010100241	600010100296	1 MVIS
600010100258	600010100309	1 MVIS
600010100265	600010100296	1 MVIS
600010100392	600010100405	1 MVIS
	600010100412	1 MVIS
600010270323	600010270347	1 MVIS
600010270361	600010270467	1 MVIS
600010270385	600010270474	1 MVIS
600010270429	600010270481	2 OPAT
600010270436	600010270474	1 MVIS
600010270676	600010270710	1 MVIS
600020460030	600020460078	1 MVIS
600020520055	600020520079	1 MVIS
600050170027	600050170041	1 MVIS
	600050170058	1 MVIS
600050480034	600050480041	1 MVIS
600110190116	600110190123	1 MVIS
	600110190130	1 MVIS
600110260130	600110260185	1 MVIS
	600110260192	1 MVIS
	600110260205	1 MVIS
	600110260212	1 MVIS
	600110260229	1 MVIS
600110260154	600110260161	6 OMED
600110260178	600110260185	6 OMED

Sample SAS Job for Example D
 sample print of Rx+event link file records (HC-33IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
600110260236	600110260243	1 MVIS
	600110260250	1 MVIS
	600110260267	1 MVIS
600110260274	600110260332	1 MVIS
	600110260349	1 MVIS
	600110260356	1 MVIS
600110260298	600110260301	6 OMED
600110260318	600110260325	6 OMED
600140180135	600140180166	1 MVIS
600150150365	600150150430	4 STAZ
600150150543	600150150632	1 MVIS
600150220372	600150220416	1 MVIS
600170100089	600170100109	1 MVIS
600170270065	600170270089	1 MVIS
600170340041	600170340065	1 MVIS
600170340089	600170340096	1 MVIS
600170410027	600170410034	1 MVIS
600170410058	600170410065	1 MVIS
600170410072	600170410096	5 DVIS
600170410089	600170410096	1 MVIS
600180200218	600180200225	6 OMED
600180200232	600180200249	6 OMED
600190270062	600190270079	1 MVIS
	600190270086	1 MVIS
600190340093	600190340106	1 MVIS
600200200040	600200200057	1 MVIS
	600200200064	1 MVIS
600210180247	600210180343	1 MVIS
	600210180350	1 MVIS

Sample SAS Job for Example D
 sample print of Rx+event link file records (HC-33IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
600210180292	600210180367	1 MVIS
	600210180374	1 MVIS
	600210180381	1 MVIS
	600210180398	1 MVIS
600210180401	600210180425	1 MVIS
	600210180432	1 MVIS
600210180418	600210180449	1 MVIS
	600210180456	1 MVIS
600210180470	600210180507	1 MVIS
	600210180514	1 MVIS
600210250432	600210250456	1 MVIS
	600210250463	1 MVIS
	600210250470	1 MVIS
600220210087	600220210107	5 DVIS
600220210094	600220210114	1 MVIS
600240110148	600240110155	1 MVIS
600250170054	600250170085	1 MVIS
	600250170092	1 MVIS
600250170061	600250170092	1 MVIS
	600250170105	1 MVIS
	600250170112	1 MVIS
600250170078	600250170129	1 MVIS
600260270049	600260270063	3 EROM
600260270056	600260270070	1 MVIS
600290210139	600290210146	1 MVIS
	600290210153	1 MVIS
	600290210160	1 MVIS
600290380026	600290380057	5 DVIS
600290380033	600290380064	1 MVIS
600290380040	600290380071	1 MVIS
600290450146	600290450177	1 MVIS
	600290450184	1 MVIS

Sample SAS Job for Example D
 sample print of Rx+event link file records (HC-33IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
600290450204	600290450211	1 MVIS
600290450266	600290450280	1 MVIS
600290450273	600290450297 600290450300	1 MVIS 1 MVIS
600290510147	600290510192 600290510205	1 MVIS 1 MVIS
600290510229	600290510243 600290510250 600290510267	1 MVIS 1 MVIS 1 MVIS
600290510236	600290510274	1 MVIS
600300180033	600300180040	1 MVIS
600310140048	600310140062	1 MVIS
600310140079	600310140086	1 MVIS
600310210086	600310210144	1 MVIS
600310210106	600310210151 600310210168	1 MVIS 1 MVIS
600310210175	600310210240	1 MVIS
600310210182	600310210257	1 MVIS
600310210202	600310210264 600310210271	1 MVIS 1 MVIS
600310380024	600310380031	1 MVIS
600310450055	600310450144	1 MVIS
600310450106	600310450151 600310450168	1 MVIS 1 MVIS
600310450113	600310450151 600310450168	4 STAZ 4 STAZ
600320260062	600320260093	5 DVIS
600320260113	600320260144	5 DVIS
600320260120	600320260151	1 MVIS

Sample SAS Job for Example D
 sample print of Rx+event link file records (HC-33IF2) - sorted by eventidx

EVNTIDX	LINKIDX	EVENTYPE
600320260137	600320260168	1 MVIS
600320260175	600320260199	1 MVIS
600320330079	600320330086	1 MVIS
	600320330093	1 MVIS
600320530011	600320530028	1 MVIS
600320530035	600320530042	1 MVIS
600350190081	600350190101	1 MVIS
600350190098	600350190118	1 MVIS
600350260036	600350260043	1 MVIS
600350390136	600350390174	1 MVIS
600390200170	600390200252	1 MVIS
600390370485	600390370529	5 DVIS
600390370776	600390370803	1 MVIS
600390370827	600390370858	1 MVIS
600390440067	600390440098	1 MVIS
600410130337	600410130433	1 MVIS
600410130560	600410130604	1 MVIS
600420140086	600420140106	1 MVIS
600420140137	600420140182	1 MVIS
	600420140199	1 MVIS
600420140202	600420140219	1 MVIS
	600420140226	1 MVIS
600430160234	600430160316	4 STAZ
	600430160323	4 STAZ
600440100262	600440100286	1 MVIS
	600440100293	1 MVIS
	600440100306	1 MVIS
	600440100313	1 MVIS
	600440100320	1 MVIS

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
600110260154	600110260161	6 OMED
600110260178	600110260185	6 OMED
600110260298	600110260301	6 OMED
600110260318	600110260325	6 OMED
600180200218	600180200225	6 OMED
600180200232	600180200249	6 OMED
600440100368	600440100375	6 OMED
600440100382	600440100399	6 OMED
600530220221	600530220238	6 OMED
600950160287	600950160294	6 OMED
600950160307	600950160314	6 OMED
601290100305	601290100312	6 OMED
601480210229	601480210236	6 OMED
601590290399	601590290402	6 OMED
601710160572	601710160589	6 OMED
602040300280	602040300297	6 OMED
602340170155	602340170162	6 OMED
602380290325	602380290332	6 OMED
602660220370	602660220387	6 OMED
602840250322	602840250339	6 OMED
603130220521	603130220538	6 OMED
603130220672	603130220689	6 OMED
603130220696	603130220709	6 OMED
603450140674	603450140681	6 OMED
603450140698	603450140701	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
603450140852	603450140869	6 OMED
603450140876	603450140883	6 OMED
603530151036	603530151043	6 OMED
603530151194	603530151207	6 OMED
603530230145	603530230152	6 OMED
604090140191	604090140204	6 OMED
604090140211	604090140228	6 OMED
604090140266	604090140273	6 OMED
604090140280	604090140297	6 OMED
604420240399	604420240402	6 OMED
604420240419	604420240426	6 OMED
605100290080	605100290097	6 OMED
605190210574	605190210581	6 OMED
605190210670	605190210687	6 OMED
605190211046	605190211053	6 OMED
605480190323	605480190330	6 OMED
605480190392	605480190405	6 OMED
605720140633	605720140640	6 OMED
605720140657	605720140664	6 OMED
605720210633	605720210640	6 OMED
605720210657	605720210664	6 OMED
605740230318	605740230325	6 OMED
605970270527	605970270534	6 OMED
605970410192	605970410205	6 OMED
605970410212	605970410229	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
605970410250	605970410267	6 OMED
605970410274	605970410281	6 OMED
606110200372	606110200389	6 OMED
606370150525	606370150532	6 OMED
606370150549	606370150556	6 OMED
606720190505	606720190512	6 OMED
606720190529	606720190536	6 OMED
606860200079	606860200086	6 OMED
606860200093	606860200106	6 OMED
607250190366	607250190373	6 OMED
607250190431	607250190448	6 OMED
607330100160	607330100177	6 OMED
607330100242	607330100259	6 OMED
607330100266	607330100273	6 OMED
608210300194	608210300207	6 OMED
608270110365	608270110372	6 OMED
608270110389	608270110396	6 OMED
608390120129	608390120136	6 OMED
608390120143	608390120150	6 OMED
608390120198	608390120201	6 OMED
608390120218	608390120225	6 OMED
608390120232	608390120249	6 OMED
608410130014	608410130021	6 OMED
608410130038	608410130045	6 OMED
608840210428	608840210435	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
608860100151	608860100168	6 OMED
608860100175	608860100182	6 OMED
608860100219	608860100226	6 OMED
608860100233	608860100240	6 OMED
608860100473	608860100480	6 OMED
608860100497	608860100500	6 OMED
608940220632	608940220649	6 OMED
608940220803	608940220810	6 OMED
609000160197	609000160200	6 OMED
609000160217	609000160224	6 OMED
609310100445	609310100452	6 OMED
609500210533	609500210540	6 OMED
609510120143	609510120150	6 OMED
609650290398	609650290401	6 OMED
609650290418	609650290425	6 OMED
609880140766	609880140773	6 OMED
610000121047	610000121054	6 OMED
610000121345	610000121352	6 OMED
610210190207	610210190214	6 OMED
610210190221	610210190238	6 OMED
610210190365	610210190372	6 OMED
610210190389	610210190396	6 OMED
610210190492	610210190505	6 OMED
610210190512	610210190529	6 OMED
610350290338	610350290345	6 OMED

Sample SAS Job for Example D
 sample print of work.omedrxlk - sorted by eventidx
 Rx+event link file records (HC-33IF2) where eventype=6 (omed)

EVNTIDX	LINKIDX	EVENTYPE
610350290352	610350290369	6 OMED
610350290530	610350290547	6 OMED
610350290554	610350290561	6 OMED
610350290667	610350290674	6 OMED
610350290681	610350290698	6 OMED
610530360511	610530360528	6 OMED
610580110255	610580110262	6 OMED
610580110279	610580110286	6 OMED
610580110382	610580110399	6 OMED
611340320077	611340320084	6 OMED
611340320091	611340320104	6 OMED
611340320111	611340320128	6 OMED
611340320135	611340320142	6 OMED
611510100152	611510100169	6 OMED
611510100234	611510100241	6 OMED
611510100309	611510100316	6 OMED
611510340107	611510340114	6 OMED
611620120526	611620120533	6 OMED
611680170275	611680170282	6 OMED
611680170299	611680170302	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
600110260154	600110260161	6 OMED
600110260298	600110260301	6 OMED
600180200218	600180200225	6 OMED
600440100368	600440100375	6 OMED
600950160287	600950160294	6 OMED
603130220521	603130220538	6 OMED
603130220672	603130220689	6 OMED
603450140674	603450140681	6 OMED
603450140876	603450140883	6 OMED
604090140191	604090140204	6 OMED
604090140266	604090140273	6 OMED
604420240399	604420240402	6 OMED
605720140633	605720140640	6 OMED
605720210633	605720210640	6 OMED
605970410192	605970410205	6 OMED
605970410250	605970410267	6 OMED
606370150525	606370150532	6 OMED
606720190505	606720190512	6 OMED
606860200079	606860200086	6 OMED
607330100160	607330100177	6 OMED
607330100242	607330100259	6 OMED
608270110365	608270110372	6 OMED
608390120129	608390120136	6 OMED
608390120198	608390120201	6 OMED
608390120232	608390120249	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
608410130038	608410130045	6 OMED
608860100151	608860100168	6 OMED
608860100219	608860100226	6 OMED
608860100473	608860100480	6 OMED
609000160197	609000160200	6 OMED
609650290398	609650290401	6 OMED
610210190207	610210190214	6 OMED
610210190365	610210190372	6 OMED
610210190492	610210190505	6 OMED
610350290338	610350290345	6 OMED
610350290530	610350290547	6 OMED
610350290667	610350290674	6 OMED
610580110255	610580110262	6 OMED
610580110382	610580110399	6 OMED
611340320077	611340320084	6 OMED
611340320111	611340320128	6 OMED
611680170275	611680170282	6 OMED
611680170395	611680170408	6 OMED
611680170477	611680170484	6 OMED
611790100290	611790100303	6 OMED
612110140433	612110140440	6 OMED
612110140628	612110140635	6 OMED
612160300646	612160300653	6 OMED
612160300893	612160300906	6 OMED
612340260346	612340260353	6 OMED

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

Obs	EVNTIDX	LINKIDX	EVENTYPE
1	600110260154	600110260161	6 OMED
2	600110260298	600110260301	6 OMED
3	600180200218	600180200225	6 OMED
4	600440100368	600440100375	6 OMED
5	600950160287	600950160294	6 OMED
6	603130220521	603130220538	6 OMED
7	603130220672	603130220689	6 OMED
8	603450140674	603450140681	6 OMED
9	603450140876	603450140883	6 OMED
10	604090140191	604090140204	6 OMED
11	604090140266	604090140273	6 OMED
12	604420240399	604420240402	6 OMED
13	605720140633	605720140640	6 OMED
14	605720210633	605720210640	6 OMED
15	605970410192	605970410205	6 OMED
16	605970410250	605970410267	6 OMED
17	606370150525	606370150532	6 OMED
18	606720190505	606720190512	6 OMED
19	606860200079	606860200086	6 OMED
20	607330100160	607330100177	6 OMED
21	607330100242	607330100259	6 OMED
22	608270110365	608270110372	6 OMED
23	608390120129	608390120136	6 OMED
24	608390120198	608390120201	6 OMED
25	608390120232	608390120249	6 OMED
26	608410130038	608410130045	6 OMED
27	608860100151	608860100168	6 OMED
28	608860100219	608860100226	6 OMED
29	608860100473	608860100480	6 OMED
30	609000160197	609000160200	6 OMED
31	609650290398	609650290401	6 OMED
32	610210190207	610210190214	6 OMED
33	610210190365	610210190372	6 OMED
34	610210190492	610210190505	6 OMED
35	610350290338	610350290345	6 OMED
36	610350290530	610350290547	6 OMED
37	610350290667	610350290674	6 OMED
38	610580110255	610580110262	6 OMED
39	610580110382	610580110399	6 OMED
40	611340320077	611340320084	6 OMED
41	611340320111	611340320128	6 OMED
42	611680170275	611680170282	6 OMED
43	611680170395	611680170408	6 OMED
44	611680170477	611680170484	6 OMED
45	611790100290	611790100303	6 OMED
46	612110140433	612110140440	6 OMED
47	612110140628	612110140635	6 OMED
48	612160300646	612160300653	6 OMED
49	612160300893	612160300906	6 OMED
50	612340260346	612340260353	6 OMED

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

Obs	LINKIDX
1	600110260161
2	600110260301
3	600180200225
4	600440100375
5	600950160294
6	603130220538
7	603130220689
8	603450140681
9	603450140883
10	604090140204
11	604090140273
12	604420240402
13	605720140640
14	605720210640
15	605970410205
16	605970410267
17	606370150532
18	606720190512
19	606860200086
20	607330100177
21	607330100259
22	608270110372
23	608390120136
24	608390120201
25	608390120249
26	608410130045
27	608860100168
28	608860100226
29	608860100480
30	609000160200
31	609650290401
32	610210190214
33	610210190372
34	610210190505
35	610350290345
36	610350290547
37	610350290674
38	610580110262
39	610580110399
40	611340320084
41	611340320128
42	611680170282
43	611680170408
44	611680170484
45	611790100303
46	612110140440
47	612110140635
48	612160300653
49	612160300906
50	612340260353

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

PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
600110260161	600110260161001	ILETIN REGULAR I (VIAL)	51.66	6026.89
600110260301	600110260301001	ILETIN REGULAR I (VIAL)	27.08	6026.89
600180200225	600180200225001	HUMULIN N (VIAL)	22.94	5250.25
	600180200225002	HUMULIN N (VIAL)	22.94	5250.25
	600180200225003	HUMULIN N (VIAL)	22.94	5250.25
600440100375	600440100375001	ILETIN REGULAR I (VIAL)	45.23	20642.52
	600440100375002	ILETIN REGULAR I (VIAL)	51.66	20642.52
	600440100375003	ILETIN REGULAR I (VIAL)	45.23	20642.52
	600440100375004	ILETIN REGULAR I (VIAL)	45.23	20642.52
	600440100375005	ILETIN REGULAR I (VIAL)	45.23	20642.52
600950160294	600950160294001	ILETIN REGULAR I (VIAL)	27.08	20531.71
603130220538	603130220538001	ILETIN REGULAR I (VIAL)	53.82	12356.94
603130220689	603130220689001	ILETIN REGULAR I (VIAL)	24.97	12356.94
603450140681	603450140681001	HUMALOG (VIAL)	24.09	29084.63
	603450140681002	HUMALOG (VIAL)	24.09	29084.63
	603450140681003	HUMALOG (VIAL)	24.09	29084.63
	603450140681004	HUMALOG (VIAL)	24.09	29084.63
603450140883	603450140883001	HUMALOG (VIAL)	28.39	29084.63
	603450140883002	HUMALOG (VIAL)	28.39	29084.63
	603450140883003	HUMALOG (VIAL)	28.39	29084.63
	603450140883004	HUMALOG (VIAL)	28.39	29084.63
	603450140883005	HUMALOG (VIAL)	28.39	29084.63
604090140204	604090140204001	HUMULIN 70/30 (VIAL)	37.78	9172.62
	604090140204002	HUMULIN 70/30 (VIAL)	37.78	9172.62
	604090140204003	HUMULIN 70/30 (VIAL)	37.78	9172.62
	604090140204004	HUMULIN 70/30 (VIAL)	37.78	9172.62
	604090140204005	HUMULIN 70/30 (VIAL)	37.78	9172.62
604090140273	604090140273001	HUMULIN 70/30 (VIAL)	40.98	9172.62
	604090140273002	HUMULIN 70/30 (VIAL)	39.58	9172.62
	604090140273003	HUMULIN 70/30 (VIAL)	39.58	9172.62
	604090140273004	HUMULIN 70/30 (VIAL)	39.58	9172.62
604420240402	604420240402001	HUMULIN	45.88	3234.62
	604420240402002	HUMULIN	45.88	3234.62
	604420240402003	HUMULIN	45.88	3234.62
	604420240402004	HUMULIN	45.88	3234.62
	604420240402005	HUMULIN	45.88	3234.62
	604420240402006	HUMULIN	45.88	3234.62
	604420240402007	HUMULIN	45.88	3234.62

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

PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
604420240402	604420240402008	HUMULIN	45.88	3234.62
	604420240402009	HUMULIN	45.88	3234.62
	604420240402010	HUMULIN	45.88	3234.62
605720140640	605720140640001	HUMULIN N (VIAL)	68.82	6988.48
	605720140640002	HUMULIN N (VIAL)	68.82	6988.48
	605720140640003	HUMULIN N (VIAL)	68.82	6988.48
605720210640	605720210640001	HUMULIN N (VIAL)	68.82	6995.28
	605720210640002	HUMULIN N (VIAL)	68.82	6995.28
	605720210640003	HUMULIN N (VIAL)	68.82	6995.28
605970410205	605970410205001	ILETIN REGULAR I (VIAL)	27.08	7651.08
	605970410205002	ILETIN REGULAR I (VIAL)	27.08	7651.08
605970410267	605970410267001	ILETIN REGULAR I (VIAL)	27.08	7651.08
	605970410267002	ILETIN REGULAR I (VIAL)	53.82	7651.08
	605970410267003	ILETIN REGULAR I (VIAL)	53.82	7651.08
606370150532	606370150532001	ILETIN REGULAR I (VIAL)	53.82	14527.20
	606370150532002	ILETIN REGULAR I (VIAL)	53.82	14527.20
606720190512	606720190512001	HUMULIN R (VIAL)	24.15	11135.72
	606720190512002	HUMULIN R (VIAL)	24.15	11135.72
	606720190512003	HUMULIN R (VIAL)	24.15	11135.72
	606720190512004	HUMULIN R (VIAL)	24.15	11135.72
606860200086	606860200086001	HUMULIN N (VIAL)	35.98	9408.74
	606860200086002	HUMULIN N (VIAL)	35.98	9408.74
	606860200086003	HUMULIN N (VIAL)	35.98	9408.74
	606860200086004	HUMULIN N (VIAL)	22.94	9408.74
	606860200086005	HUMULIN N (VIAL)	22.94	9408.74
607330100177	607330100177001	HUMULIN 70/30 (VIAL)	46.70	8366.18
	607330100177002	HUMULIN 70/30 (VIAL)	46.70	8366.18
	607330100177003	HUMULIN 70/30 (VIAL)	46.70	8366.18
607330100259	607330100259001	HUMULIN 70/30 (VIAL)	48.88	8366.18
	607330100259002	HUMULIN 70/30 (VIAL)	46.70	8366.18
	607330100259003	HUMULIN 70/30 (VIAL)	48.88	8366.18
	607330100259004	HUMULIN 70/30 (VIAL)	48.88	8366.18
	607330100259005	HUMULIN 70/30 (VIAL)	48.88	8366.18
	607330100259006	HUMULIN 70/30 (VIAL)	48.88	8366.18
608270110372	608270110372001	ILETIN REGULAR I (VIAL)	45.23	5724.97
	608270110372002	ILETIN REGULAR I (VIAL)	51.66	5724.97
608390120136	608390120136001	ILETIN REGULAR I (VIAL)	24.97	7847.06

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

PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
608390120201	608390120201001	ILETIN REGULAR I (VIAL)	24.97	7847.06
	608390120201002	ILETIN REGULAR I (VIAL)	24.97	7847.06
608390120249	608390120249001	ILETIN REGULAR I (VIAL)	24.97	7847.06
608410130045	608410130045001	ILETIN REGULAR I (VIAL)	24.97	14690.01
	608410130045002	ILETIN REGULAR I (VIAL)	24.97	14690.01
	608410130045003	ILETIN REGULAR I (VIAL)	24.97	14690.01
	608410130045004	ILETIN REGULAR I (VIAL)	24.97	14690.01
	608410130045005	ILETIN REGULAR I (VIAL)	24.97	14690.01
	608410130045006	ILETIN REGULAR I (VIAL)	24.97	14690.01
	608410130045007	ILETIN REGULAR I (VIAL)	24.97	14690.01
608860100168	608860100168001	ILETIN REGULAR I (VIAL)	27.08	29135.03
	608860100168002	ILETIN REGULAR I (VIAL)	53.82	29135.03
	608860100168003	ILETIN REGULAR I (VIAL)	53.82	29135.03
	608860100168004	ILETIN REGULAR I (VIAL)	27.08	29135.03
608860100226	608860100226001	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100226002	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100226003	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100226004	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100226005	ILETIN REGULAR I (VIAL)	24.97	29135.03
608860100480	608860100480001	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100480002	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100480003	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100480004	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100480005	ILETIN REGULAR I (VIAL)	24.97	29135.03
	608860100480006	ILETIN REGULAR I (VIAL)	24.97	29135.03
609000160200	609000160200001	ILETIN REGULAR I (VIAL)	24.97	8332.99
	609000160200002	ILETIN REGULAR I (VIAL)	24.97	8332.99
	609000160200003	ILETIN REGULAR I (VIAL)	24.97	8332.99
609650290401	609650290401001	ILETIN REGULAR I (VIAL)	51.66	6882.13
	609650290401002	ILETIN REGULAR I (VIAL)	51.66	6882.13
	609650290401003	ILETIN REGULAR I (VIAL)	45.23	6882.13
	609650290401004	ILETIN REGULAR I (VIAL)	45.23	6882.13
610210190214	610210190214001	ILETIN REGULAR I (VIAL)	27.08	8376.77
610210190372	610210190372001	ILETIN REGULAR I (VIAL)	27.08	8376.77
610210190505	610210190505001	ILETIN REGULAR I (VIAL)	53.82	8376.77
	610210190505002	ILETIN REGULAR I (VIAL)	53.82	8376.77
	610210190505003	ILETIN REGULAR I (VIAL)	53.82	8376.77
	610210190505004	ILETIN REGULAR I (VIAL)	53.82	8376.77

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

PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
610350290345	610350290345001	ILETIN REGULAR I (VIAL)	27.08	15538.62
	610350290345002	ILETIN REGULAR I (VIAL)	27.08	15538.62
	610350290345003	ILETIN REGULAR I (VIAL)	27.08	15538.62
	610350290345004	ILETIN REGULAR I (VIAL)	53.82	15538.62
	610350290345005	ILETIN REGULAR I (VIAL)	53.82	15538.62
	610350290345006	ILETIN REGULAR I (VIAL)	53.82	15538.62
	610350290345007	ILETIN REGULAR I (VIAL)	27.08	15538.62
610350290547	610350290547001	ILETIN REGULAR I (VIAL)	24.97	15538.62
	610350290547002	ILETIN REGULAR I (VIAL)	24.97	15538.62
	610350290547003	ILETIN REGULAR I (VIAL)	24.97	15538.62
610350290674	610350290674001	HUMULIN 70/30 (VIAL)	21.50	15538.62
	610350290674002	HUMULIN 70/30 (VIAL)	21.50	15538.62
	610350290674003	HUMULIN 70/30 (VIAL)	21.50	15538.62
610580110262	610580110262001	NOVOLIN N PREFILLED (SRN)	91.50	10100.96
	610580110262002	NOVOLIN N PREFILLED (SRN)	91.50	10100.96
	610580110262003	NOVOLIN N PREFILLED (SRN)	89.52	10100.96
	610580110262004	NOVOLIN N PREFILLED (SRN)	89.52	10100.96
	610580110262005	NOVOLIN N PREFILLED (SRN)	91.50	10100.96
	610580110262006	NOVOLIN N PREFILLED (SRN)	89.52	10100.96
610580110399	610580110399001	ILETIN REGULAR I (VIAL)	51.66	10100.96
	610580110399002	ILETIN REGULAR I (VIAL)	45.23	10100.96
	610580110399003	ILETIN REGULAR I (VIAL)	51.66	10100.96
	610580110399004	ILETIN REGULAR I (VIAL)	45.23	10100.96
	610580110399005	ILETIN REGULAR I (VIAL)	51.66	10100.96
	610580110399006	ILETIN REGULAR I (VIAL)	51.66	10100.96
	610580110399007	ILETIN REGULAR I (VIAL)	45.23	10100.96
	610580110399008	ILETIN REGULAR I (VIAL)	45.23	10100.96
	610580110399009	ILETIN REGULAR I (VIAL)	51.66	10100.96
611340320084	611340320084001	INSULIN NPH HUMAN	18.75	7524.25
611340320128	611340320128001	ILETIN REGULAR I (VIAL)	27.08	7524.25
	611340320128002	ILETIN REGULAR I (VIAL)	27.08	7524.25
	611340320128003	ILETIN REGULAR I (VIAL)	27.08	7524.25
	611340320128004	ILETIN REGULAR I (VIAL)	53.82	7524.25
611680170282	611680170282001	ILETIN REGULAR I (VIAL)	27.08	6602.92
	611680170282002	ILETIN REGULAR I (VIAL)	53.82	6602.92
	611680170282003	ILETIN REGULAR I (VIAL)	53.82	6602.92
	611680170282004	ILETIN REGULAR I (VIAL)	27.08	6602.92
	611680170282005	ILETIN REGULAR I (VIAL)	53.82	6602.92
611680170408	611680170408001	ILETIN REGULAR I (VIAL)	53.82	6602.92
	611680170408002	ILETIN REGULAR I (VIAL)	53.82	6602.92
	611680170408003	ILETIN REGULAR I (VIAL)	53.82	6602.92

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

PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
611680170484	611680170484001	ILETIN REGULAR I (VIAL)	53.82	6602.92
611790100303	611790100303001	HUMULIN 70/30 (VIAL)	40.46	8753.26
	611790100303002	HUMULIN 70/30 (VIAL)	40.46	8753.26
	611790100303003	HUMULIN 70/30 (VIAL)	40.46	8753.26
612110140440	612110140440001	HUMULIN R	22.98	7635.15
	612110140440002	HUMULIN R	22.98	7635.15
	612110140440003	HUMULIN R	22.98	7635.15
	612110140440004	HUMULIN R	22.98	7635.15
	612110140440005	HUMULIN R	22.98	7635.15
	612110140440006	HUMULIN R	22.98	7635.15
	612110140440007	HUMULIN R	22.98	7635.15
	612110140440008	HUMULIN R	22.98	7635.15
	612110140440009	HUMULIN R	22.98	7635.15
	612110140440010	HUMULIN R	22.98	7635.15
612110140635	612110140635001	HUMULIN R	22.98	7635.15
	612110140635002	HUMULIN R	22.98	7635.15
	612110140635003	HUMULIN R	22.98	7635.15
612160300653	612160300653001	HUMULIN R (VIAL)	43.25	16747.88
	612160300653002	HUMULIN R (VIAL)	20.99	16747.88
	612160300653003	HUMULIN R (VIAL)	43.25	16747.88
612160300906	612160300906001	HUMALOG PEN (PREFILLED DISPOSABLE)	82.80	16747.88
	612160300906002	HUMALOG PEN (PREFILLED DISPOSABLE)	82.80	16747.88
612340260353	612340260353001	ILETIN REGULAR I (VIAL)	51.66	7074.42
612870250694	612870250694001	ILETIN REGULAR I (VIAL)	27.08	30516.34
	612870250694002	ILETIN REGULAR I (VIAL)	53.82	30516.34
	612870250694003	ILETIN REGULAR I (VIAL)	53.82	30516.34
	612870250694004	ILETIN REGULAR I (VIAL)	27.08	30516.34
	612870250694005	ILETIN REGULAR I (VIAL)	53.82	30516.34
	612870250694006	ILETIN REGULAR I (VIAL)	27.08	30516.34
612870250896	612870250896001	ILETIN REGULAR I (VIAL)	27.08	30516.34
	612870250896002	ILETIN REGULAR I (VIAL)	27.08	30516.34
	612870250896003	ILETIN REGULAR I (VIAL)	27.08	30516.34
	612870250896004	ILETIN REGULAR I (VIAL)	53.82	30516.34
613880131106	613880131106001	ILETIN REGULAR I (VIAL)	53.82	6720.33
	613880131106002	ILETIN REGULAR I (VIAL)	27.08	6720.33
613910370268	613910370268001	ILETIN REGULAR I (VIAL)	53.82	17393.95
	613910370268002	ILETIN REGULAR I (VIAL)	27.08	17393.95
613910370333	613910370333001	ILETIN REGULAR I (VIAL)	24.97	17393.95

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

PMED (HC-033A) records for unique linkidxs in work.pmedids

LINKIDX	RXRECIDX	RXNAME	RXXP99X	PERWT99F
613910540183	613910540183001	HUMULIN R (VIAL)	22.46	19188.83
	613910540183002	HUMULIN R (VIAL)	22.46	19188.83
613930290217	613930290217001	NOVOLIN N (VIAL)	5.00	11528.92
613950130270	613950130270001	NOVOLIN 70/30	119.76	8434.81
614500180064	614500180064001	ILETIN REGULAR I (VIAL)	27.08	17045.29
	614500180064002	ILETIN REGULAR I (VIAL)	27.08	17045.29
	614500180064003	ILETIN REGULAR I (VIAL)	27.08	17045.29
	614500180064004	ILETIN REGULAR I (VIAL)	27.08	17045.29

Sample SAS Job for Example D

Total Rx expenditures associated with other medical expenses for insulin

The MEANS Procedure

Analysis Variable : RXXP99X SUM OF PAYMENTS RXSF99X-RXOU99X(IMPUTED)

N	Sum
1323	51993.92

Sample SAS Job for Example D

Total Rx expenditures associated with other medical expenses for insulin

Weighted

The MEANS Procedure

Analysis Variable : RXXP99X SUM OF PAYMENTS RXSF99X-RXOU99X(IMPUTED)

N	Sum
1323	559002126