Healthcare Cost and Utilization Project – HCUP A Federal-State-Industry Partnership in Health Data Sponsored by the Agency for Healthcare Research and Quality

CLINICAL CLASSIFICATIONS SOFTWARE (CCS) 2004

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Table of Contents

HCUP CONTACT INFORMATION	1
ABSTRACT	2
INTRODUCTION TO THE CLININCAL CLASSIFICATIONS SOFTWARE (CCS) OVERVIEW	3 3
DESCRIPTIONSINGLE-LEVEL CCSMULTI-LEVEL CCS	4
WARNINGS ABOUT ICD-9-CM CODING CHANGESTIME PERIOD COVERED BY CCSICD-9-CM CODES REQUIRING SPECIAL TREATMENT	6
DESCRIPTION OF DOWNLOADABLE FILES. UNZIPPING FILES. SINGLE-LEVEL CCS. MULTI-LEVEL CCS. USING TRANSLATION FILES. REPRESENTATION OF ICD-9-CM DIAGNOSIS CODES. REPRESENTATION OF ICD-9-CM PROCEDURE CODES.	7 8 9
REFERENCES	11
OTHER HCUP PRODUCTS DATABASES HCUP CENTRAL DISTRIBUTOR HCUP USER SUPPORT HCUPnet TOOLS	12 13 13 13
PUBLICATIONS	14

HCUP CONTACT INFORMATION

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ABSTRACT

The Clinical Classifications Software (CCS) is a tool for clustering patient diagnoses and procedures into a manageable number of clinically meaningful categories developed at the Agency for Healthcare Research and Quality (AHRQ). CCS is used for grouping conditions and procedures without having to sort through thousands of codes. This "clinical grouper" makes it easier to quickly understand patterns of diagnoses and procedures so that health plans, policymakers, and researchers can analyze costs, utilization, and outcomes associated with particular illnesses and procedures.

CCS collapses diagnosis and procedure codes from the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM), which contains over 12,000 diagnosis codes and 3,500 procedure codes. Without CCS, the large number of ICD-9-CM codes poses difficulties in statistical analysis and reporting.

CCS consists of two related classification systems, single level and multi-level, which are designed to meet different needs. *Single-level* CCS is most useful for ranking of diagnoses and procedures and for direct integration into risk adjustment and other software. *Multi-level* CCS is most useful when evaluating larger aggregations of conditions and procedures or exploring them in greater detail.

INTRODUCTION TO THE CLINICAL CLASSIFICATIONS SOFTWARE (CCS) 2004 User's Guide

Overview

Clinical Classifications Software provides a way to classify diagnoses and procedures into a limited number of categories. CCS aggregates individual ICD-9-CM codes into broad diagnosis and procedure groups for statistical analysis and reporting. This document provides a description of the CCS categorization scheme. Electronic files containing the translation of ICD-9-CM diagnosis and procedure codes into CCS categories can be downloaded from this site. (CCS was formally called CCHPR, Clinical Classifications for Health Policy Research.)

CCS is continually updated. The current version is based on ICD-9-CM codes that are valid for January 1980 through September 2004. CCS consists of two related classification systems. The first system, called the *single level CCS*, groups diagnoses into mutually exclusive categories. The single-level diagnosis CCS aggregates illnesses and conditions into 259 mutually exclusive categories. Similarly, the single-level procedure CCS aggregates procedures into 231 mutually exclusive categories, most of which are homogeneous.

The second system expands the single-level CCS into a hierarchical system, called the *multi-level CCS*. The multi-level CCS groups single-level CCS categories into broader categories (e.g., Infectious Diseases, Mental Disorders, and Injury). It also splits single-level CCS categories to provide more detail about particular groupings of codes.

CCS documentation provides a listing of which ICD-9-CM codes are included in each CCS diagnosis and procedure category.

Purpose

CCS categories can be employed in many types of projects analyzing data on diagnoses and procedures. For example, they can be used to:

- identify cases for disease-specific or procedure-specific studies;
- gain a better understanding of an institution's or health plan's distribution of patients across disease or procedure groupings;
- provide statistical information on characteristics, such as charges and length of stay, about relatively specific conditions;
- cross-classify procedures by diagnoses to provide insight into the variety of procedures performed for particular diagnoses.

Diagnoses and procedures for hospital inpatient stays are coded using the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), Fifth Edition (Public Health Service and Health Care Financing Administration, 1994). ICD-9-CM consists of about 12,000 diagnosis codes and 3,500 procedure codes. Although it is possible to present descriptive statistics for individual ICD-9-CM codes, it is often useful to aggregate codes into clinically meaningful categories that group similar conditions or procedures. For examples of the use of CCS categories, see Elixhauser and Steiner (1999); Cowen et al., (1998); Elixhauser, Steiner, Whittington, et al. (1998); Elixhauser

and McCarthy (1996); Duffy, Elixhauser, and Sommers (1996); and Agency for Health Care Policy and Research (1996). These reports aggregate individual hospital stays into larger diagnosis and procedure groups for statistical analysis and reporting. CCS is distinguished from other grouping schemes because it does not confound diagnosis with treatment, but keeps diagnoses and procedures separate in two different classifications.

History of Development

Clinical Classifications for Health Policy Research (CCHPR) Version 1 was the initial endeavor to construct clinically meaningful categories of diagnoses and procedures. The determining factor in creating these categories was the extent to which conditions and procedures could be grouped into relatively homogeneous clusters of interest to public policy researchers. CCHPR Version 1 consisted of 185 summary diagnosis categories and 172 summary procedure categories (Elixhauser, Andrews, and Fox, 1993).

CCHPR Version 2 was derived from the Version 1 summary diagnosis and procedure categories. Version 1 categories were modified on the basis of clinical homogeneity, frequency of occurrence in inpatient discharge data, and ICD-9-CM coding changes. The number of discharges in all categories was computed using 1991 California hospital inpatient data on all-listed diagnoses and all-listed procedures from the Healthcare Cost and Utilization Project State Inpatient Databases (SID).

The modified CCHPR schemes went through reviews during which the categories and ICD-9-CM code assignments were evaluated for accuracy and clinical significance. The reviews were conducted by trained medical records personnel and a physician with experience in medical classification. During this review process, additional categories were created, other categories were collapsed, and codes were reassigned when appropriate.

Version 2 contained more categories than Version 1. Some conglomerate categories (e.g., "Other gastrointestinal procedures") and high-frequency categories (e.g., "Pregnancy-related conditions") were divided into smaller, more clinically homogeneous groups.

Beginning with the 1999 update, an additional classification scheme (the multi-level CCS) was introduced, E codes (external causes of injury) received special treatment, and the name was changed to Clinical Classification Software (CCS), reflecting the broader use of the classifications beyond health policy research.

DESCRIPTION

Single-Level CCS

The single-level diagnosis classification scheme aggregates illnesses and conditions into 259 mutually exclusive categories, most of which are clinically homogeneous. Some heterogeneous categories were necessary; these combine several less common individual conditions within a body system.

All codes in the diagnosis section of ICD-9-CM are classified. In previous versions of the system, E codes (External Causes of Injury and Poisoning) were not classified because they are used sporadically in inpatient data; hence they were lumped into a single category (CCS 260). Beginning with the 1999 version of the CCS, a classification system for E codes was incorporated. The E code classification was developed by staff at the Centers for Disease and Control and Prevention (Centers for Disease Control, 1997).

The single-level procedure classification scheme contains 231 mutually exclusive categories. Many of the categories represent single procedures; however, some procedures that occur infrequently are grouped according to the body system on which they are performed, whether they are used for diagnostic or therapeutic purposes, and whether they are considered operating room or non-operating room procedures according to diagnosis related groups definitions (DRGs: Diagnosis related groups definitions manual, 1994).

ICD-9-CM codes for the single-level diagnosis and procedure CCS categories are presented in Appendix A and Appendix B. The ICD-9-CM code assignments to each category are viewable in the accompanying executable files that provide the crosswalk from ICD-9-CM to CCS categories.

Multi-level CCS

The multi-level CCS is a hierarchical system based on the single-level CCS. Single-level CCS categories are grouped into broad categories and are split further into more detailed categories. The multi-level diagnosis CCS is split into four levels, while the multi-level procedure CCS is split into three levels. A multi-digit numbering system is used to identify the level of each hierarchical category.

For example, CCS category 99. Hypertension with complications and secondary hypertension is grouped with 98. Essential hypertension to form a broader category, called simply Hypertension. In addition, 99. Hypertension with complications and secondary hypertension is broken into several more homogeneous groups as shown below.

- 7 Diseases of the circulatory system
 - 7.1 Hypertension
 - 7.1.1 Essential hypertension [98.]
 - 7.1.2 Hypertension with complications and secondary hypertension [99.]
 - 7.1.2.1 Hypertensive heart and/or renal disease
 - 7.1.2.2 Other hypertensive complications
 - 7.2 Diseases of the heart

. . . .

In the multi-level CCS, original single-level CCS categories are labeled with the original CCS number in brackets following the CCS category name, e.g., "[98.]" and "[99.]" above.

ICD-9-CM codes for the multi-level diagnosis and procedure CCS categories are presented in Appendix C and Appendix D. Note that multi-level CCS categories are

comprised of single-level CCS categories or ICD-9-CM codes. Construction of multi-level CCS requires that ICD-9-CM codes first be assigned to single-level CCS.

WARNINGS ABOUT ICD-9-CM CODING CHANGES

Time period covered by CCS

In order to keep abreast of yearly changes in the ICD-9-CM codes, the CCS categories are updated annually after code assignments are reviewed and agreement is reached among the developers and medical records personnel.

The ICD-9-CM codes are revised every October. New codes are added, existing codes are deleted, and definitions of current codes are changed. CCS categories are revised in response to ICD-9-CM changes. The 2004 version of the CCS is valid for the time period January 1980 through September 2004. Using these CCS categories with data outside this time period will result in misclassification of ICD-9-CM codes.

ICD-9-CM codes requiring special treatment

CCS accounts for all changes in ICD-9-CM coding definitions during this time period except for two codes whose meaning changed to such an extent that their CCS category assignment changed as well. These two codes must be explicitly assigned by the user when using older data. If you use more recent data (as described below) no special treatment is necessary. The codes are correctly assigned in the CCS program.

Assignment of these two codes requires information on the year and quarter of service. When using data that span the time periods described below, these ICD-9-CM codes must be assigned to CCS categories explicitly according to the year and quarter of the data.

Special treatment is required for the following diagnosis code:

From January 1980 to September 1993, ICD-9-CM diagnosis code '2510' should appear in CCS diagnosis category 50 (Diabetes mellitus with complications).

Beginning in October 1993, ICD-9-CM diagnosis code '2510' appears in CCS diagnosis category 51 (Other endocrine disorders). The current CCS program assigns this code to category 51.

Special treatment is required for the following procedure code:

From January 1980 to September 1989, ICD-9-CM procedure code '8159' should appear in CCS procedure category 153 (Hip replacement, total and partial).

Beginning in October 1989, ICD-9-CM procedure code '8159' appears in CCS procedure category 154 (Arthroplasty, other than hip or knee). The current CCS program assigns this code to category 154.

Special treatment is required for the following procedure codes:

From January 1980 to September 1989, ICD-9-CM procedure codes '8162', '8163', and '8164' should appear in CCS procedure category 153 (Hip replacement, total and partial).

Beginning in October 2003, ICD-9-CM procedure codes '8162', '8163', and '8164' appear in CCS procedure category 158 (Spinal fusion). The current CCS program assigns these codes to category 158.

DESCRIPTION OF DOWNLOADABLE FILES

"Unzipping" files

There are two downloadable files, both self-extracting zipped files, called Single_Level_CCS_2004.zip (for the single-level CCS) and MultiCCSprograms2004.zip (for the multi-level CCS).

Single-level CCS

Single_Level_CCS_2004.zip contains two comma delimited files (.csv) (Microsoft Excel text) that translate ICD-9-CM codes into single-level CCS categories and two comma delimited files (.csv) (Microsoft Excel text) that provide descriptive labels for the single-level CCS categories. To use these zipped files, you must do the following:

- 1. Create a subdirectory (or folder) on your hard drive (e.g., C:\CCS). You will need a total of approximately 1,500,000 bytes free to accommodate all the files once they are unzipped.
- 2. Download and save Single_Level_CCS_2004.zip to this subdirectory.
- 3. Using WinZip (or comparable program) double click on Single_Level_CCS_2004.zip to expand the files.

The zipped file will unzip (expand for normal use) the following files. Note that the original file (Single_Level_CCS_2004.zip) will remain intact.

Filename	Purpose
Diagnosis CCS	
\$DXREF 2004.csv	Translation file that maps ICD-9-CM diagnosis codes into single-level CCS diagnosis categories, with full information about each ICD-9-CM code and brief CCS labels.
DXLABEL 2004.csv	Label file that contains the full descriptive single-level CCS diagnosis category names to use when reporting the diagnosis categories.
Procedure CCS	
\$PRREF 2004.csv	Translation file that maps ICD-9-CM procedure codes into single-level CCS procedure categories, with full information about each ICD-9-CM code and brief CCS labels.
PRLABEL 2004.csv	Label file contains the full descriptive single-level CCS procedure category names to use when reporting the procedure categories.

Multi-level CCS

MultiCCSprograms2004.zip contains nine comma delimited files (.csv) (Microsoft Excel text) that translate ICD-9-CM codes into multi-level CCS categories and two comma delimited files (.csv) (Microsoft Excel text) that provide descriptive labels for the multi-level CCS categories. To use these zipped files, you must do the following:

- 1. Create a new subdirectory (or folder) on your hard drive. You will need a total of approximately 1,100,000 bytes free to accommodate all the files once they are unzipped.
- 2. Download and save MultiCCSprograms2004.zip to this subdirectory.
- 3. Using WinZip (or comparable program) double click on MultiCCSprograms2004.zip to expand the files.

The self-extracting zipped file will unzip (expand for normal use) the following files. Note that the original file (MultiCCSprograms2004.zip) will remain intact.

File name	Purpose			
Multi-level Diagnosis CCS				
DXLEVL1-01.csv	Translation file that maps level 2 multi-level CCS categories into level 1 multi-level CCS categories			
DXLEVL2-01.csv	Translation file that maps single-level CCS categories into level 2 multi-level CCS categories			
DXLEVL3-01.csv	Translation file that maps single-level CCS categories into level 3 multi-level CCS categories			
\$DXLVL3L-01.csv	Translation file that maps ICD-9-CM codes into level 3 multi-level CCS categories			
\$DXLVL4L-01.csv	Translation file that maps ICD-9-CM codes into level 4 multi-level CCS categories			
DXMLABEL-01.csv.	Label file contains the full descriptive multi-level CCS diagnosis category names to use when reporting the diagnosis categories.			
Multi-level Procedure CCS				
PRLEVL1-01.csv	Translation file that maps level 2 multi-level CCS categories into level 1 multi-level CCS categories			
PRLEVL2-01.csv	Translation file that maps single-level CCS categories into level 2 multi-level CCS categories			
PRLEVL3-01.csv	Translation file that maps single-level CCS categories into level 3 multi-level CCS categories			
\$PRLVL3L-01.csv	Translation file that maps ICD-9-CM codes into level 3 multi-level CCS categories			
PRMLABEL-01.csv	Label file contains the full descriptive multi-level CCS procedure category names to use when reporting the procedure categories.			

Using translation files

For the single-level CCS, the translation files translate specific ICD-9-CM codes into CCS categories. The multi-level CCS is based upon the single-level CCS, so you must first assign single-level CCS categories in your data; then multi-level CCS categories can be created. (This process is used to avoid redundancy in ICD codes and massive translation files.)

How you use these files will depend on the software system being used. For example, if you are using SAS, you can adapt these translations to create a SAS PROC FORMAT. If you are using SPSS, you can adapt these translations into VALUE LABELS or into a series of recodes.

Representation of ICD-9-CM diagnosis codes

In practice, ICD-9-CM diagnoses are represented by 3- to 5-character codes with explicit decimals. In the files you downloaded and in the vast majority of data files, ICD-9-CM

diagnoses are represented as 5-character alphanumeric codes with implicit decimals. (Alphanumeric codes are always enclosed in quotation marks.) Examples are given below.

Condition	ICD-9-CM diagnosis code	Alpha code (implicit decimals)
Pneumococcal pneumonia	481	'481 '
Pneumonia due to Klebsiella pneumoniae	482.0	'4820 '
Pneumonia due to Escherichia coli	482.82	'48282'
Single liveborn infant, born in hospital, delivered by cesarean delivery	V30.01	'V3001'

For proper handling of diagnosis codes:

- ♦ Alphanumeric diagnosis codes must be left-justified so that there are 2 spaces following a 3-character diagnosis code and 1 space following a 4-character diagnosis code.
- ◆ Trailing blanks should never be zero-padded (filled with zeroes so that all 5 characters are filled for codes that should be 3 or 4 characters long).
- ♦ Lending zeroes must be preserved; they are significant.

Representation of ICD-9-CM procedure codes

In practice, ICD-9-CM procedures are represented by 3- or 4-character codes with explicit decimals. In the accompanying files and in the vast majority of data files, ICD-9-CM procedures are represented as 4-character alphanumeric codes with implicit decimals. (Alphanumeric codes are always enclosed in quotation marks.) Examples are given below.

Procedure	ICD-9-CM procedure code	Alpha code (implicit decimals)
Incision of prostate	60.0	'600 '

For proper handling of procedure codes:

- ♦ Alphanumeric procedure codes must be left-justified, so that there is always 1 space following a 3-character procedure code.
- ◆ Trailing blanks should never be zero-padded (filled with zeroes so that all 4 characters are filled for codes that should be 3 characters long).
- ♦ Lending zeroes must be preserved; they are significant.

REFERENCES

Agency for Health Care Policy and Research. Statistics from the HCUP-3 Nationwide Inpatient Sample for 1992: Principal diagnoses. Healthcare Cost and Utilization Project (HCUP-3) Pocket Guide. Rockville, MD: Agency for Health Care Policy and Research; 1996. AHCPR Pub. No. 96-0029.

Centers for Disease Control and Prevention. Recommended framework for presenting injury mortality data. Morbidity and Mortality Weekly Report, 1997, Aug 29; 46(no. RR14): 1-30.

Cowen ME, Dusseau DJ, Toth BG, et al. Casemix adjustment of managed care claims data using the clinical classifications for health policy research method. Medical Care; 1998, 36:1108-1113.

DRGs: Diagnosis related groups definitions manual, version 12.0. Wallingford, CT: 3M Health Information Systems; 1994.

Duffy SQ, Elixhauser A, Sommers JP. Diagnosis and procedure combinations in hospital inpatient data. Healthcare Cost and Utilization Project (HCUP-3) Research Note 5. Rockville, MD: Agency for Health Care Policy and Research; 1996. AHCPR Pub. No. 96-0047.

Elixhauser A, Andrews RM, Fox, S. Clinical classifications for health policy research: Discharge statistics by principal diagnosis and procedure. Provider Studies Research Note 17. Rockville, MD: Agency for Health Care Policy and Research; 1993. AHCPR Pub. No. 93-0043.

Elixhauser A, McCarthy EM. Clinical classifications for health policy research, version 2: Hospital inpatient statistics. Healthcare Cost and Utilization Project (HCUP-3) Research Note 1. Rockville, MD: Agency for Health Care Policy and Research; 1996. AHCPR Pub. No. 96-0017.

Elixhauser A, Steiner CA, Whittington C, et al. Clinical classifications for health policy research: Hospital inpatient statistics, 1995. Healthcare Cost and Utilization Project, HCUP-3 Research Note. Rockville, MD: Agency for Health Care Policy and Research; 1998. AHCPR Pub. No. 98-0049.

Elixhauser A, Steiner CA. Hospital inpatient statistics, 1996. Healthcare Cost and Utilization Project (HCUP) Research Note. Rockville, MD: Agency for Health Care Policy and Research; 1999. AHCPR Pub. No. 99-0034.

Public Health Service and Health Care Financing Administration. International classification of diseases, 9th revision, clinical modification. Vols. 1, 2, and 3; fifth edition. Washington, DC: Public Health Service; 1994. DHHS Publication No. (PHS) 94-1260.

PUBLICATIONS USING THE CCS

Elixhauser A, Klemstine K, Steiner C, Bierman A. *Procedures in U.S. Hospitals, 1997.* Rockville (MD): Agency for Healthcare Research and Quality; 2001. HCUP Fact Book No. 2; AHRQ Publication No. 01-0016. ISBN 1-58763-029-X.

Elixhauser A, Yu K, Steiner C, Bierman AS. *Hospitalization in the United States, 1997.* Rockville (MD): Agency for Healthcare Research and Quality; 2000. HCUP Fact Book No. 1; AHRQ Publication No. 00-0031. ISBN 1-58763-005-2.

Jiang HJ, Elixhauser A, Nicholas J, et al. *Care of Women in U.S. Hospitals, 2000*. Rockville (MD): Agency for Healthcare Research and Quality; 2002. HCUP Fact Book No. 3; AHRQ Publication No. 02-0044. ISBN 1-58763-124-5.

OTHER HCUP PRODUCTS

Information on HCUP products and services is available on the World Wide Web on the AHRQ Website http://www.ahrq.gov/data/hcup/. HCUP User Support is available at http://www.hcup-us.ahrq.gov.

Databases

Nationwide Inpatient Sample (NIS) is a nationwide database of hospital inpatient stays. The NIS is the largest all-payer inpatient care database that is publicly available in the United States, containing data from 5 to 8 million hospital stays from about 1000 hospitals sampled to approximate a 20-percent stratified sample of U.S. community hospitals. The NIS is available for a 14-year time period, from 1988 to 2001, allowing analysis of trends over time. For more information, visit the HCUP User Support Website at http://www.hcup-us.ahrq.gov or contact the HCUP Central Distributor (detailed below).

State Inpatient Databases (SID) are hospital inpatient databases from Data Organizations participating in HCUP. The SID contain the universe of the inpatient discharge abstracts in the participating HCUP States, translated into a uniform format to facilitate multi-State comparisons and analyses. Together, the SID encompass about 80 percent of all U.S. community hospital discharges. For more information, visit the HCUP User Support Website at http://www.hcup-us.ahrq.gov or contact the HCUP Central Distributor (see below).

State Ambulatory Surgery Databases (SASD) are outpatient databases from Data Organizations in participating HCUP States, which capture surgeries performed on the same day in which patients are admitted and released. The SASD contain the ambulatory surgery encounter abstracts in participating States, translated into a uniform format to facilitate multi-State comparisons and analyses. All of the databases include abstracts from hospital-affiliated ambulatory surgery sites. Some contain the universe of ambulatory surgery encounter abstracts for that State, including records from both hospital-affiliated and freestanding surgery centers. Composition and completeness of data files may vary from State to State. For more information, visit the HCUP User Support Website at http://www.hcup-us.ahrq.gov or contact the HCUP Central Distributor (see below).

Kids' Inpatient Database (KID) is a unique database of hospital inpatient stays for children 18 years of age and younger. The 1997 and 200 KID was specifically designed to permit researchers to study a broad range of conditions and procedures related to child health issues. For more information, visit the HCUP User Support Website at http://www.hcup-us.ahrq.gov or contact the HCUP Central Distributor (see below).

HCUP Central Distributor

HCUP databases are available for purchase through the AHRQ-sponsored HCUP Central Distributor. All years of the NIS and KID are released through the HCUP Central Distributor. In addition, many of the HCUP State Partners allow the public release of the HCUP State Inpatient Databases (SID) and State Ambulatory Surgery Databases (SASD) through the HCUP Central Distributor. Application Kits for purchasing the HCUP databases are available online at http://www.hcup-us.ahrq.gov or contact the HCUP Central Distributor directly. Information on how to obtain uniformly-formatted HCUP files from States not participating in the HCUP Central Distributor is also available from the

HCUP Central Distributor: HCUP Central Distributor Social & Scientific Systems, Inc. Phone: (866) 556-4287 (toll-free)

FAX: (301) 628-3201 E-mail: <u>hcup@s-3.com</u>

HCUP User Support

HCUP User Support (HCUP-US) provides technical assistance to all HCUP users and is designed to facilitate the use of HCUP data, software tools, and products. The goals of this service are to increase awareness of the strengths and uses of HCUP data and to enhance the skills of individuals using the data for research, education, and policy analysis. A user-friendly Website for HCUP-US is located at http://www.hcup-us.ahrq.gov. This site includes links to information on how to purchase and understand the HCUP databases, as well as links to HCUP User Support Services and Frequently Asked Questions. For further information, consultants are available via both telephone and E-mail to help in planning analytic research and to offer advice about appropriate uses of HCUP data.

HCUPnet

HCUPnet is a Web-based query tool for identifying, tracking, analyzing, and comparing statistics on hospitals at the national, regional, and state level. With HCUPnet you have easy access to national statistics and trends and selected state statistics about hospital stays. HCUPnet guides you step-by-step to obtain the statistics you need. HCUPnet generates statistics using the Nationwide Inpatient Sample (NIS), the Kids' Inpatient Database (KID), and the State Inpatient Databases (SID) for those states that have agreed to participate. HCUPnet can be found at: http://www.ahrq.gov/data/hcup/hcupnet.htm.

Tools

AHRQ Quality Indicators (QIs) are clinical performance measures for use with readily available inpatient data. Methods and software for the AHRQ Quality Indicators can be downloaded from http://www.ahrq.gov/data/hcup/ginext.htm.

Comorbidity Software assigns variables that identify comorbidities in hospital discharge records using ICD-9-CM diagnosis codes (International Classification of Diseases, Ninth Revision, Clinical Modification). Methods and software can be downloaded from http://www.ahrq.gov/data/hcup/comorbid.htm.

Publications

HCUP Research Notes report aggregate statistics and detailed analyses using HCUP data. To request copies, contact the AHRQ Publications Clearinghouse at (800) 358-9295 or send a postcard to: AHRQ Publications Clearinghouse, P.O. Box 8547, Silver Spring, MD 20907 or visit the AHRQ Website http://www.ahrq.gov/data/hcup/.

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