



H·CUP

HEALTHCARE COST AND UTILIZATION PROJECT

**HEALTHCARE COST AND UTILIZATION PROJECT (HCUP)
KIDS' INPATIENT DATABASE:
CHANGE IN STRUCTURE DUE TO ICD-10-CM/PCS
BEGINNING WITH 2016 DATA**

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INTRODUCTION

This document provides an overview of how the Healthcare Cost and Utilization Project (HCUP) KIDS' Inpatient Database (KID) has changed in file structure beginning with data year 2016.

The KID is the largest publicly available all-payer pediatric inpatient care database in the United States. These inpatient data include clinical and resource use information typically available from discharge abstracts. The unique design of the KID enables national and regional studies of common and rare pediatric conditions. Researchers and policymakers use the KID to make national estimates of healthcare utilization, cost, quality, and outcomes. Beginning in data year 2016, the KID includes diagnosis and procedure codes reported using only the International Classification of Diseases, Tenth Revision, Clinical Modification/Procedure Coding System (ICD-10-CM/PCS). The names of diagnosis- and procedure-related data elements under the ICD-10-CM/PCS coding system begin with the prefix "I10_" to identify the coding scheme.

REVISED FILE STRUCTURE OF THE KID BEGINNING WITH DATA YEAR 2016

KID data are available every three years from 1997 through 2012; then every three years beginning with 2016, which allows researchers to analyze trends over time. The KID was not produced for 2015 because of the transition from ICD-9-CM to ICD-10-CM/PCS coding. The KID product is downloaded in a single zipped file for each year which contains several data-related files and accompanying documentation. For 2019, there are three discharge-level files and one hospital-level file:

Discharge-level files

- **Core File** is a single file containing commonly used data elements (e.g., age, expected primary payer, discharge status, ICD-10-CM/PCS codes, total charges).
 - This file is available in all years of the KID.
 - The HCUP unique record identifier (RECNUM) provides the linkage between the discharge-level files.
- **Severity File** is a single file containing additional data elements to aid in identifying the severity of the condition for a specific discharge.
 - This file is available beginning with the 2003 KID.
- **Diagnosis and Procedure Groups File** is a single file containing additional information on the ICD-10-CM diagnoses and ICD-10-PCS procedures that is created by the Agency for Healthcare Research and Quality (AHRQ) software tools.
 - This file is available beginning with the 2006 KID.
 - For data year 2016, this file was not available in the KID. Data elements derived from the ICD-10-CM/PCS AHRQ software tools were not included in the KID because they were still in development and testing.
 - Beginning with data year 2019, this file is available in the KID and includes data elements derived from the Clinical Classifications Software Refined (CCSR) for ICD-10-CM diagnoses, the CCSR for ICD-10-PCS procedures, and Procedure Classes Refined for ICD-10-CM.

Hospital-level file

- **Hospital File** is a single file containing information on hospital characteristics.
 - This file is available in all years of the KID.
 - Linkage between the Inpatient Core File and the Hospital File
 - Prior to the 2012 KID, the HCUP hospital identifier (HOSPID) provided the linkage between the KID Inpatient Core File and the Hospital File.
 - Beginning with the 2012 KID, the KID hospital number (HOSP_KID) provides the linkage between the KID Inpatient Core File and the Hospital File. The HOSP_KID values are reassigned each year, so they cannot be used to link hospitals across years.

Users interested in applying AHRQ software tools to the KID for data years including ICD-10-CM/PCS-coded data to produce data elements currently unavailable in the database files may do so by downloading the respective tool(s) from the [Research Tools](#) section of the HCUP User Support (HCUP-US) website. Additionally, users may wish to review the [HCUP Software Tools Tutorial](#), which provides instructions on how to apply the AHRQ software tools to HCUP or other administrative databases.

A complete list of data element changes in the KID beginning with data year 2016 is available in Appendix A.

RESOURCES FOR USING ADMINISTRATIVE DATA WITH ICD-10-CM/PCS DIAGNOSIS AND PROCEDURE CODES

The HCUP-US website has an [ICD-10-CM/PCS Resources](#) section that summarizes key issues for researchers using HCUP and other administrative databases that include ICD-10-CM/PCS coding.

If you are unfamiliar with ICD-10-CM/PCS coding, please refer to the following two documents available on the web page:

- [Brief Introduction to ICD-10-CM/PCS Codes](#)
- HCUP Methods Series Report #2016-02: [Impact of ICD-10-CM/PCS on Research Using Administrative Databases](#)

If you are considering using the KID to examine clinical conditions that will be defined using both International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and ICD-10-CM/PCS coding, please refer to the following important resource:

- [Healthcare Cost and Utilization Project \(HCUP\) Recommendations for Reporting Trends Using ICD-9-CM and ICD-10-CM/PCS Data](#)

These recommendations apply to reporting trends that span the October 1, 2015, transition date (before and after the introduction of ICD-10-CM/PCS).

The HCUP [ICD-10-CM/PCS Resources](#) web page also includes short reports on specific topics related to the ICD-10-CM/PCS transition.

APPENDIX A: COMPLETE LIST OF DATA ELEMENT CHANGES BEGINNING WITH THE 2016 KID

This appendix includes a complete list of data element changes beginning with the 2016 KIDS' Inpatient Database (KID). Table A1 lists discontinued data elements, and Table A2 lists newly added data elements.

Table A1. Discontinued Data Elements

Data Element Name	Description	KID File	Year Discontinued
DXVER	Diagnosis codes ICD version indicator	Core	2019
I10_ECAUSE ^a	External cause of morbidity code n	Core	2019
I10_NECAUSE ^a	Number of ICD-10-CM external cause of morbidity codes on this record	Core	2019
PRVER	Procedure codes ICD version indicator	Core	2019

Abbreviations: HCUP, Healthcare Cost and Utilization Project; ICD-10-CM, International Classification of Diseases, Tenth Revision, Clinical Modification; KID, KIDS' Inpatient Database.

^a Beginning with the 2019 KID, separate reporting of external cause codes is discontinued (formerly HCUP data element I10_ECAUSEⁿ). External cause codes have been added to the end of the ICD-10-CM diagnosis array (I10_DXⁿ).

Table A2. Newly Added Data Elements

Data Element Name	Description	KID File	Year Added
DXCCSR_aaann ^c	Indication that at least one ICD-10-CM diagnosis on the record is included in CCSR aaann	Diagnosis and Procedure Groups	2019
DXCCSR_DEFAULT_DX1	Default CCSR for principal diagnosis	Diagnosis and Procedure Groups	2019
DXCCSR_VERSION	Version of CCSR for ICD-10-CM diagnoses	Diagnosis and Procedure Groups	2019
I10_BIRTH	ICD-10-CM birth indicator	Core	2019
I10_DELIVERY	ICD-10-CM delivery indicator	Core	2019
I10_INJURY	Injury ICD-10-CM diagnosis reported on record	Core	2019
I10_MULTINJURY	Multiple ICD-10-CM injuries reported on record	Core	2019
I10_SERVICELINE	ICD-10-CM/PCS hospital service line indicator	Core	2019
PCLASS ⁿ ^d	Procedure Classes Refined for ICD-10-PCS procedures	Diagnosis and Procedure Groups	2019
PCLASS_ORPROC	ICD-10-PCS major operating room procedure indicator	Core	2019
PCLASS_VERSION	Version of the Procedure Classes Refined for ICD-10-PCS procedures	Diagnosis and Procedure Groups	2019
PRCCSR_aaann ^e	Indication that at least one ICD-10-PCS procedure code on the record is included in CCSR aaann	Diagnosis and Procedure Groups	2019
PRCCSR_VERSION	Version of the CCSR for ICD-10-PCS procedures	Diagnosis and Procedure Groups	2019

Abbreviations: AHRQ, Agency for Healthcare Research and Quality; CCSR, Clinical Classifications Software Refined; ICD-9-CM, International Classification of Diseases, Ninth Revision, Clinical Modification; ICD-10-CM/PCS, International Classification of Diseases, Tenth Revision, Clinical Modification/Procedure Coding System; KID, KIDS' Inpatient Database.

^b Where aaa denotes the specific comorbidity measure.

^c Where aaa denotes the body system and nnn denotes the CCSR number within the body system.

^d PCLASSn was also available on the KID through data year 2012 and was specific to the coding of ICD-9-CM procedures.

^e Where aaa denotes the clinical domain and nnn denotes the CCSR number within the clinical domain.