

## Hospital Inpatient Discharge & Outpatient Services Databases (HIDOSD)



**Coordinator & Data Contact:** Allison Lile  
Office of Health Data & Analytics  
Kentucky Cabinet for Health and Family Services  
(502) 564-9592

**State Web Site:** <https://chfs.ky.gov/agencies/ohda/Pages/data-requests.aspx>

**National Web Site:** <http://www.hcup-us.ahrq.gov/>

### **Sources of Information for the Database**

The Kentucky Hospital Inpatient Discharge Database is a collection of records each of which describes a single inpatient stay in a Kentucky hospital. The Kentucky Outpatient Services Database is a collection of records each of which describes a single utilization of a service received at an Ambulatory Facility (Ambulatory Surgery Center, Ambulatory Care Center, Specialized Medical Technology Services provider, or a Mobile Health Services provider) as specified for the dates below:

- 2000 – 2007: An encounter where at least one of a list of Current Procedural Terminology (CPT) procedure codes specified was performed.
- 2008 – Current: The above with the addition of Emergency Department encounters.
- 2015 – Current: All encounters for all specified Ambulatory Facilities and Emergency Departments (not just the previous specified list of procedures).

Each Outpatient Services record represents a visit where the patient is not admitted to the hospital. These data are collected under the requirements set forth in KRS 216.2920 — 216.2947 as the basis for regular reporting of cost, quality, and outcomes measures relative to hospital inpatient events and outpatient services utilization. Actual data collection, verification, and storage is performed on a quarterly basis by an external contractor through a cooperative agreement with the Cabinet for Health and Family Services and the Kentucky Hospital Association (KHA). The Cabinet and KHA have collaborated in this effort since 2000.

### **Description of the Data Collected**

Each record in a hospital discharge data set includes demographic fields (gender, age group, state, county, race, ethnicity, and ZIP code of residence), a unique hospital identifier, hospital stay fields (admission type and source, length of stay, diagnoses codes, procedure codes, discharge status, and total charges), and grouping codes (Major Diagnostic Category, Medicare Severity - Diagnosis Related Group (MS-DRG)). Personal identifying information, such as name, address, and social security number, are not collected and therefore not included in these data. Each record in an outpatient services data set includes demographic fields (gender, age group, state, county, race and ethnicity), a unique facility identifier, and procedure information (ICD-9 codes and CPT procedure codes).

### **Strengths of the Data**

The included data items are sufficient to allow detailed demographic, diagnostic, and outcome analysis for public health reporting and research. These data are valuable in preparing chronic disease burden documents, grant proposals and justifications, resource utilization reports, and ad-hoc studies of the health status of Kentuckians. The spatial components of these data can be used to illustrate regional hospitalization patterns and trends related to conditions such as influenza, asthma, and diabetes and to show regional variation in hospital coverage and services. These data are also included in the National Inpatient Sample (NIS), a combined sample from hospitals in more than 45 states covering inpatient events in over 90% of U.S. hospitals.

### **Data Limitations**

The records comprising these data files are built from hospital-submitted or ambulatory facility-submitted claims to payers, commonly known as UB-92, 837 file format records, or HCFA-1500. The inpatient files contain all inpatient discharges from a given calendar year and must be used with caution in epidemiological analysis. Furthermore, individual records represent single admit-through-discharge events; multiple admissions of an individual patient cannot be definitively identified. For this reason, these data should not be used to directly measure the prevalence of a condition in the general population. The outpatient files prior to 2008 contain only data related to ambulatory surgery provided by hospital-related ambulatory surgery centers. Hospitals began submitting emergency department data in 2008. In 2009, other ambulatory facilities began submitting outpatient data for records that contained specific CPT codes. In 2015, facilities began submitting all of their encounter data, no matter what procedure codes might be included. State owned mental health facilities do not currently submit data. Charge amounts are the original amounts charged by the facility and do not reflect negotiated discounts for health insurance providers and/or the actual amount paid.

### **Specific Uses of Information**

- Inpatient hospitalization and outpatient services data are submitted annually to the Agency for Healthcare Research and Quality's Health Care Utilization Project (HCUP) for inclusion in the National Inpatient Sample and the Nationwide Emergency Department Sample.
- A subset of the hospitalization database plays a critical role in populating the Kentucky Birth Surveillance Registry.

## **HIDOSD**

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- Hospitalization data and emergency department data are used in preparing grant requests and status reports for Kentucky Department for Public Health's programs in asthma, cardiovascular disease, diabetes, and maternal and child health.
- Hospitalization data provide information for evaluating the improvement of health of the citizens of the commonwealth as detailed in Healthy Kentuckians 2020.
- Summaries of hospitalization data are instrumental in developing and implementing Kentucky health care policies and decisions at the state level.
- Hospitalization data and emergency department data are frequently requested by public health researchers, educators, and consultants for a variety of individual projects.

### **System Evaluation**

Data are verified as submitted, undergoing checks for presence and completeness of required fields, validity of submitted items, duplicate record checks, and timeliness. Records with errors or omissions are returned to submitting hospitals and ambulatory facilities for correction and resubmission.

### **Data Set Availability**

Kentucky inpatient hospitalization data and outpatient services data from 2000 to the present are available to the public only in calendar year data sets. Data files come with translation tables for coded data. Data users are required to sign a Data User's Agreement before data files are transferred. Files containing the previous calendar year's data are available each July.

- **Average Yearly File Size:** *Inpatient:* 600,000 records.  
*Outpatient:* Prior to 2008, the average is 700,000.  
After 2008, the average is 4,000,000.  
After 2015, the average is 10,000,000.
- **Hospital Compliance Rate:** >99%
- **Smallest Geographic Level Released:** *Inpatient:* ZIP  
*Outpatient:* ZIP
- **Data Format:** .txt files
- **Cost of Data Sets:** \$8 per yearly file
- **Other Requirements:** Signed Data User's Agreement

### **Data Release Policy**

Release of Public Use data sets is governed by 900 KAR 7:040.

### **Data Publications**

Kentucky inpatient hospitalization data and Kentucky outpatient services data are regularly summarized and published as a part of annual Administrative Claims Data Reports. Inpatient hospitalization data are used to produce inpatient hospitalization days by facility and payer, and leading 25 MS-DRGs by Area Development District of hospital. The outpatient services data are used to produce emergency department utilization reports by facility and payer and leading 25 primary diagnoses for emergency department visits. Both the inpatient hospitalization data and the outpatient services data are used to produce the number of diagnostic and therapeutic cardiac catheterizations by facility. The data are also included in annual reports for programs in the Chronic Disease Prevention and Control Branch (e.g. asthma, diabetes, cardiovascular health and etc.), data analysis provided by the Kentucky Injury Prevention and Research Center (KIPRC) as well as in responses to data requests from the public.

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**Suggested Data Citation**

*Inpatient:* Kentucky Inpatient Hospitalization Claims Files, Frankfort, KY, [year(s)]; Cabinet for Health and Family Services, Office of Health Policy.

*Outpatient Services:* Kentucky Outpatient Services Claims Files, Frankfort, KY, [year(s)]; Cabinet for Health and Family Services, Office of Health Policy.

**Contributing Authors**

Kentucky Office of Health Data and Analytics