The Healthcare Cost and Utilization Project
Fact Sheet

What is the Healthcare Cost and Utilization Project (HCUP)?

HCUP is a family of health care databases, software tools, reports, and other related products developed through a Federal-State-Industry partnership and sponsored by the Agency for Healthcare Research and Quality (AHRQ). The project builds on the data collection efforts of State data organizations, hospital associations, and private data organizations (known as “HCUP Partners”). Without HCUP Partners’ voluntary data contributions, this national resource supporting health services research and policy would not be possible.

Why is HCUP important?

HCUP includes the largest collection of all-payer, encounter-level hospital care data in the United States. HCUP provides reliable, comprehensive information that can be used to answer questions about health care use, access, outcomes, and costs related to hospital inpatient stays, ambulatory surgery and services, emergency department visits, and readmissions. HCUP databases, software tools, and reports enable research on a broad range of current health care issues and trends that are useful to policy makers, researchers, administrators, and consumers.

How are the HCUP databases developed?

- AHRQ transforms administrative health care data acquired from HCUP Partners into research-ready, uniform databases with a common set of data elements.
- Currently, 49 Partners (48 States and the District of Columbia) provide HCUP with statewide inpatient data, 35 Partners provide ambulatory surgery and services data, and 41 Partners provide emergency department data. The inpatient data represent more than 97 percent of inpatient discharges from community hospitals.

What databases are available from HCUP?

- The National (Nationwide) Inpatient Sample (NIS) is the largest publicly available all-payer inpatient database in the United States, yielding national estimates of hospital inpatient stays. Released annually, the NIS approximates 20 percent of the discharges from all U.S. community hospitals and currently contains data from more than seven million hospital stays. Researchers and policy makers use the NIS to identify, track, and analyze national trends in health care utilization, access, charges, quality, and outcomes.
- The Kids' Inpatient Database (KID) is the largest publicly available, all-payer, national pediatric database in the U.S., and was designed to facilitate study of hospital services, outcomes and charges for children and adolescents. It contains a sample of two to three million hospital pediatric discharges per year. The KID database is available every three years from 1997-2012. The KID was not created in 2015 because of the ICD-9-CM to ICD-10-CM/PCS coding transition.
- The Nationwide Ambulatory Surgery Sample (NASS) is the largest all-payer ambulatory surgery database in the United States. Released annually starting with the 2016 data year, the NASS produces national estimates of major ambulatory surgery encounters in hospital-owned facilities.
- The Nationwide Emergency Department Sample (NEDS) is a unique and powerful database that yields national estimates of emergency department (ED) visits. Released annually, the NEDS database enables researchers to study a broad range of conditions and procedures related to ED use. It includes approximately 31 million records each year for patients who were either treated in the ED and released or treated in the ED and admitted to the same hospital.
• The Nationwide Readmissions Database (NRD) supports analyses of repeat hospital visits in a year, addressing the need for nationally representative information on hospital readmissions for all ages and payers, including the uninsured. The NRD is released annually.

• The State Inpatient Databases (SID) contain a powerful collection of hospital inpatient discharge information. The SID can be used to investigate questions that are unique to one State or to compare data from two or more States.

• The State Ambulatory Surgery and Services Databases (SASD) include encounter-level data for ambulatory surgery (AS) and other outpatient services from hospital-owned facilities. Some States provide data for ambulatory surgery and outpatient services from nonhospital-owned facilities.

• The State Emergency Department Databases (SEDD) contain discharge information on all ED visits that do not result in a hospital admission.

Additional information about these databases is available at www.hcup-us.ahrq.gov/databases.jsp.

How do researchers obtain HCUP databases?

Restricted-Access Public Release Nationwide Databases and Select State Databases (when permitted by HCUP Partners) may be purchased through the HCUP Central Distributor at www.hcup-us.ahrq.gov/tech_assist/centdist.jsp. The State-specific databases include data elements approved by each participating HCUP Partner while excluding data that might directly or indirectly identify a person. State-specific databases are delivered via hard copy media (DVD). All purchasers and users of HCUP data must complete a brief online Data Use Agreement (DUA) training course and sign a DUA.

What software tools and supplemental files are available from HCUP?

• Software Tools and Supplemental Files are developed by AHRQ to enhance the value of the HCUP databases. HCUP tools can be used with HCUP data as well as with non-HCUP hospital administrative databases. HCUP tools are free of charge and include Clinical Classifications Software (CCS), Chronic Condition Indicator (CCI), Elixhauser Comorbidity Software, Procedure Classes, Surgery Flags, and Utilization Flags. HCUP also offers supplemental files that can create new data elements for the HCUP databases, including HCUP Supplemental Variables for Revisits Analyses, Cost-to-Charge Ratio (CCR) Files, Hospital Market Structure (HMS) Files, American Hospital Association (AHA) Linkage Files, and NIS and KID Trend Weights Files. Additional information is available at www.hcup-us.ahrq.gov/tools_software.jsp.

• HCUPnet is a free, on-line query system that uses precalculated HCUP data to provide quick-access statistical information about hospital inpatient, ambulatory surgery, and emergency department utilization. HCUPnet delivers statistics at the national level, and for Partners that agree to participate, at the State, region, and community-levels. Users generate tables and graphs via this easy-to-use interactive tool, accessed at www.hcupnet.ahrq.gov/.

• AHRQ Quality Indicators (QIs) are measures of health care quality associated with processes of care that occur in the inpatient setting. The AHRQ QIs consist of four modules measuring various aspects of quality: Prevention Quality Indicators (PQIs), Inpatient Quality Indicators (IQIs), Patient Safety Indicators (PSIs), and Pediatric Quality Indicators (PDIs). The QIs are analyzed with free software available from AHRQ that is designed to be used with HCUP and other administrative data. Additional information is available at www.qualityindicators.ahrq.gov/.

• HCUP Fast Stats provides easy access to the latest HCUP-based statistics on health care information topics. HCUP Fast Stats uses visual statistical displays in stand-alone graphs, trend figures, or simple tables and maps to convey complex information at a glance. National and State-level information is updated regularly (quarterly or annually, as newer data become available) and is available at www.hcup-us.ahrq.gov/faststats/landing.jsp.

What reports does HCUP produce?

• HCUP Statistical Briefs are short, focused reports with descriptive statistics on hospital use and cost topics

• HCUP Infographics provide visual representations of HCUP Statistical Brief data

• HCUP Methods Series Reports address methodological issues in HCUP databases, tools, and supplemental files

Additional information is available at www.hcup-us.ahrq.gov/reports.jsp.

What support services are offered to HCUP users?

Technical Assistance is available to facilitate use of HCUP. The user-friendly HCUP-US Web site, www.hcup-us.ahrq.gov, contains extensive documentation about the project. HCUP FAQs answer commonly asked questions. HCUP’s Online Tutorial Series offer on-demand, interactive training on conducting research with HCUP data and tools. HCUP training Webinars and workshops educate users in both online and in-person settings. HCUP presentations at conferences keep researchers up-to-date on current research with HCUP data. User questions are responded to by experienced technical staff at 866-290-HCUP or hcup@ahrq.gov. More information is available at www.hcup-us.ahrq.gov/techassist.jsp and www.hcup-us.ahrq.gov/news/events.jsp.