The Healthcare Cost and Utilization Project (HCUP)

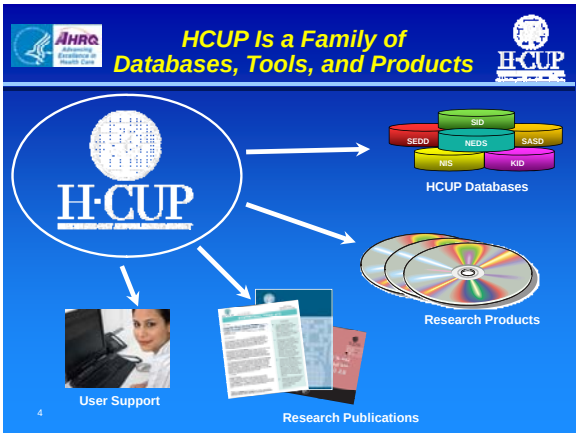
- Overview of the HCUP Databases
- Agency for Healthcare Research and Quality
- Webinar

AHRQ—Agency within DHHS

- AHRQ is a federal agency under the Department of Health and Human Services.

Healthcare Cost and Utilization Project (HCUP)

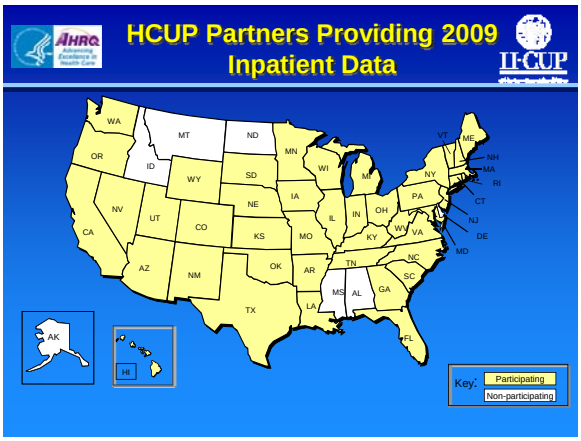
- HCUP is the largest collection of multi-year, all-payer, encounter level inpatient, emergency department, and ambulatory surgery data. It is hospital-based administrative data.



HCUP is a family of related databases, software tools, research products and user support services.

Webinar Overview

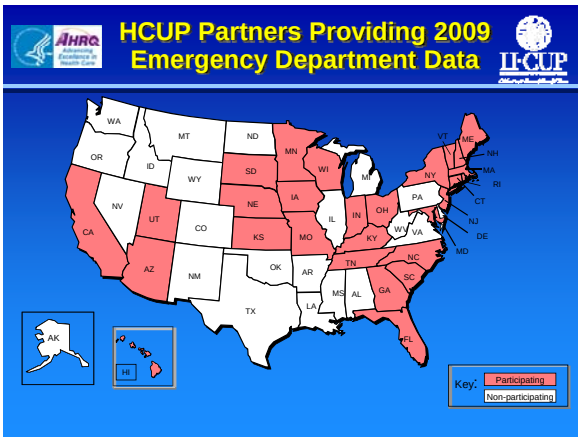
- HCUP Partners
- The Making of HCUP Data
- HCUP State Databases
- HCUP National Databases
- How to Obtain HCUP Data & Access HCUP Resources



HCUP Partners Providing 2009 Inpatient Data

- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Florida
- Georgia
- Hawaii
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Missouri
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island

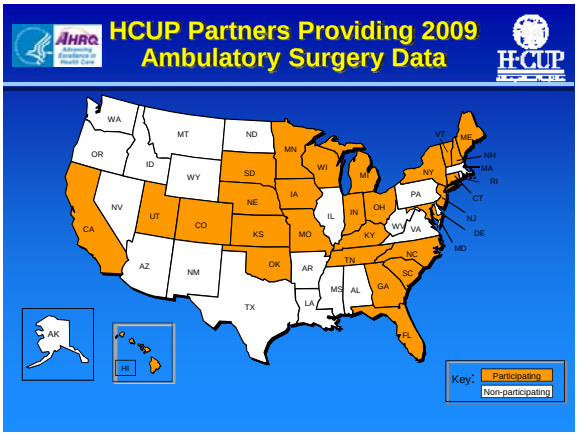
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming



HCUP Partners Providing 2009 Emergency Department Data

- Arizona
- California
- Connecticut
- Florida
- Georgia
- Hawaii
- Indiana
- Iowa
- Kansas
- Kentucky
- Maine
- Maryland
- Massachusetts
- Minnesota
- Missouri
- Nebraska
- New Hampshire
- New Jersey

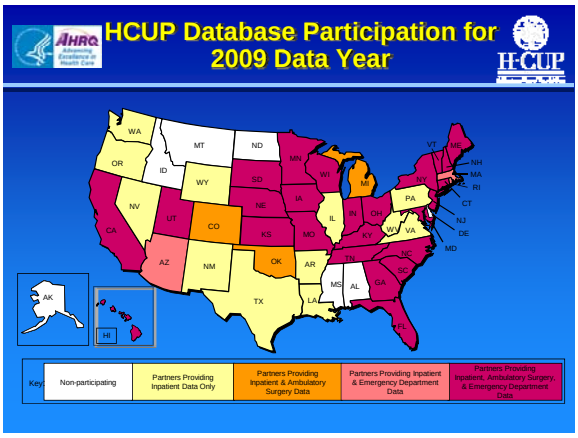
- New York
- North Carolina
- Ohio
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Utah
- Vermont
- Wisconsin



HCUP Partners Providing 2009 Ambulatory Surgery Data

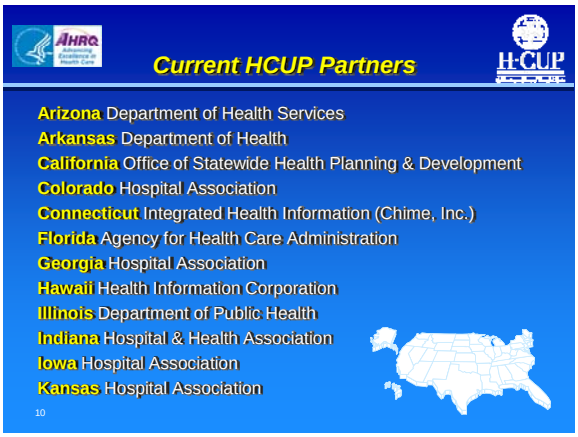
- California
- Colorado
- Connecticut
- Florida
- Georgia
- Hawaii
- Indiana
- Iowa
- Kansas
- Kentucky
- Maine
- Maryland
- Michigan
- Minnesota
- Missouri
- Nebraska
- New Hampshire
- New Jersey
- New York
- North Carolina

- Ohio
- Oklahoma
- South Carolina
- South Dakota
- Tennessee
- Utah
- Vermont
- Wisconsin



HCUP Database Participation for 2009 Data Year

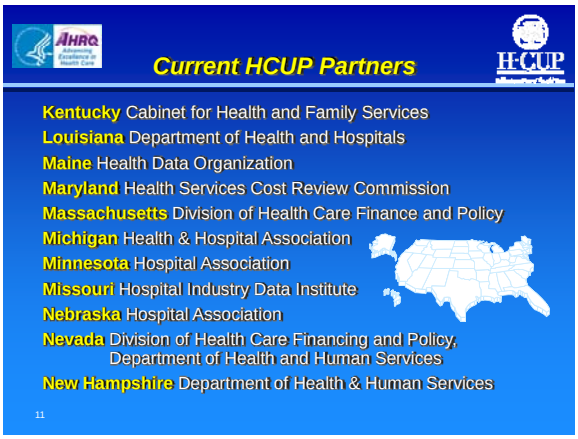
- Most states provide HCUP with data. We have strong representation of data on the inpatient side and are working to increase the number of states that provide us with ED and ambulatory surgery data.



Current HCUP Partners

- **Arizona** Department of Health Services
- **Arkansas** Department of Health
- **California** Office of Statewide Health Planning & Development
- **Colorado** Hospital Association
- **Connecticut** Integrated Health Information (Chime, Inc.)
- **Florida** Agency for Health Care Administration
- **Georgia** Hospital Association

- **Hawaii** Health Information Corporation
- **Illinois** Department of Public Health
- **Indiana** Hospital & Health Association
- **Iowa** Hospital Association
- **Kansas** Hospital Association



Current HCUP Partners

- **Kentucky** Cabinet for Health and Family Services
- **Louisiana** Department of Health and Hospitals
- **Maine** Health Data Organization
- **Maryland** Health Services Cost Review Commission
- **Massachusetts** Division of Health Care Finance and Policy
- **Michigan** Health & Hospital Association
- **Minnesota** Hospital Association
- **Missouri** Hospital Industry Data Institute
- **Nebraska** Hospital Association
- **Nevada** Division of Health Care Financing and Policy, Department of Health and Human Services
- **New Hampshire** Department of Health & Human Services

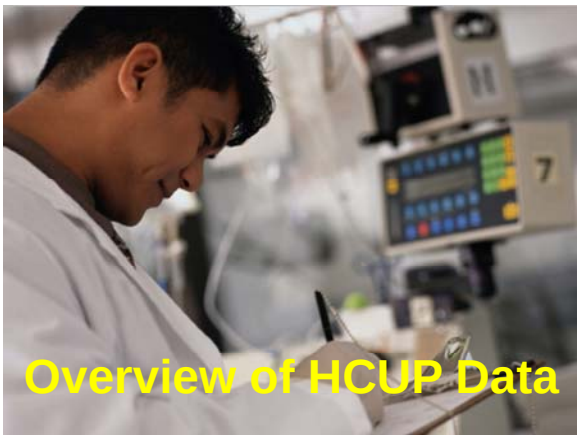
Current HCUP Partners

- **New Jersey** Department of Health and Senior Services
- **New Mexico** Health Policy Commission
- **New York** State Department of Health
- **North Carolina** Department of Health and Human Services
- **Ohio** Hospital Association
- **Oklahoma** Health Care Information Center for Health Statistics
- **Oregon** Association of Hospitals and Health Systems
- **Pennsylvania** Health Care Cost Containment Council
- **Rhode Island** Department of Health
- **South Carolina** State Budget & Control Board
- **South Dakota** Association of Health Care Organizations
- **Tennessee** Hospital Association

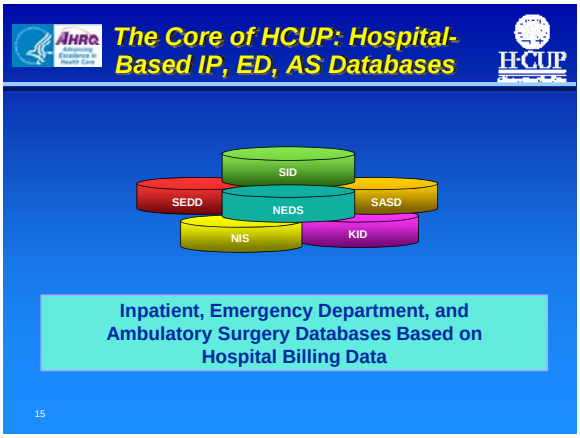
Current HCUP Partners

- **Texas** Department of State Health Services
- **Utah** Department of Health
- **Vermont** Association of Hospitals and Health Systems
- **Virginia** Health Information
- **Washington** State Department of Health
- **West Virginia** Health Care Authority
- **Wisconsin** Department of Health and Family Services
- **Wyoming** Hospital Association

Continuing to recruit additional States to join the HCUP Partnership!

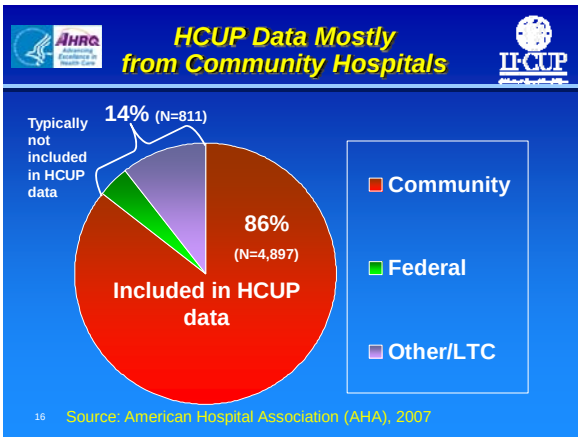


Overview of HCUP Data



The Core of HCUP: Hospital-Based IP, ED, AS Databases

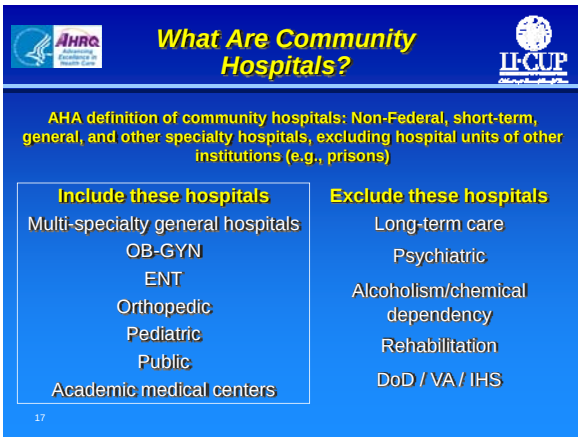
- The core of HCUP is a set of inpatient, emergency department, and ambulatory surgery databases that are based on hospital billing data.



HCUP Data Mostly from Community Hospitals.

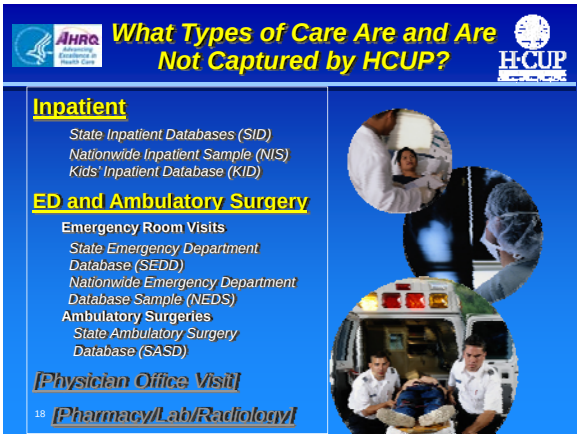
- The American Hospital Association categorizes hospitals into the following main categories: Non-Federal Community, Federal, Long-term Care, Psychiatric, and

Tuberculosis. In 2007, the total number of American Hospital Association registered hospitals was about 5,700 (n=5,708). Community hospitals comprise 86% of these hospitals. The remaining 14% of hospitals are Federal, psychiatric, non-federal long term care, or units of institutions (such as prison hospitals, college infirmaries, etc.). So, as you can see, the data in the HCUP databases are *mostly* from community hospitals



What Are Community Hospitals?

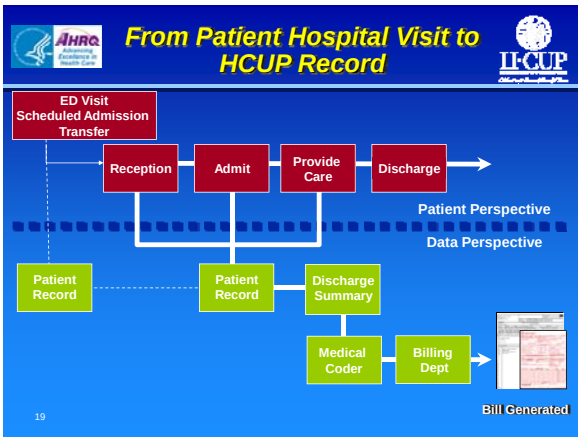
- The American Hospital Association defines community hospitals as: "Non-federal, short-term, general, and other specialty hospitals". This definition includes the types of hospitals most of us are familiar with: namely, the multi-specialty general hospitals, OB-GYN, ENT, orthopedic, pediatric and public hospitals, and academic medical centers. HCUP does <u>not</u> include long-term care hospitals, rehabilitation hospitals, psychiatric hospitals, alcoholism/chemical dependency hospitals, DOD/VA/IHS hospitals or hospital units of other institutions such as prisons.



What Types of Care Are and Are Not Captured by HCUP?

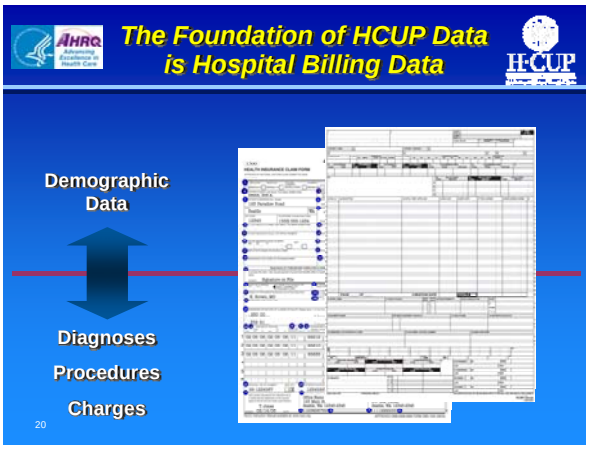
- Included in HCUP:
  - Inpatient: *State Inpatient Databases (SID), Nationwide Inpatient Sample (NIS), Kids' Inpatient Database (KID)*
  - ED and Ambulatory Surgery
    - Emergency Room Visits: *State Emergency Department Database (SEDD), Nationwide Emergency Department Database Sample (NEDS)*
    - Ambulatory Surgeries: *State Ambulatory Surgery Database (SASD)*

- Not Included in HCUP:
    - Physician Office Visit
    - Pharmacy/Lab/Radiology



From Patient Hospital Visit to HCUP Record

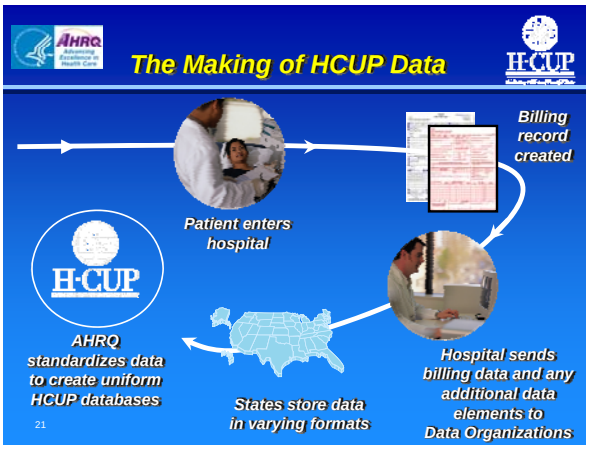
- A patient makes an appointment for inpatient care, is admitted directly from a physician's office, or is transferred from another hospital or emergency department. The patient is then admitted, receives inpatient care, and is discharged.
- While the process of recording the visit varies by hospital, generally a patient record is created that contains demographic information about the patient, as well as medical/clinical information about his or her inpatient services. From that patient record, a discharge summary is generated and given to a medical coder. The medical coder classifies the inpatient care into ICD-9-CM diagnosis and procedure codes. The billing department then uses the medical codes assigned by the coder to generate a hospital bill, such as a UB-04 form. The foundation of HCUP data is based on this type of billing data also known as administrative data.



The Foundation of HCUP Data is Hospital Billing Data

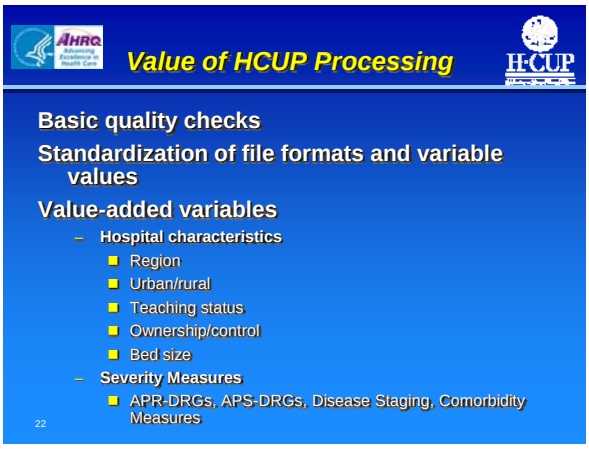
- Uniform billing forms, such as the UB-04 (UB-92), contain information used in the billing process. Basic demographic data, such as patient age and gender, are collected. More detailed information about the patient's hospital stay, such as the patient's

diagnosis and the medical procedures performed, are also included. In addition, facility charges for patient care are included.



The Making of HCUP Data

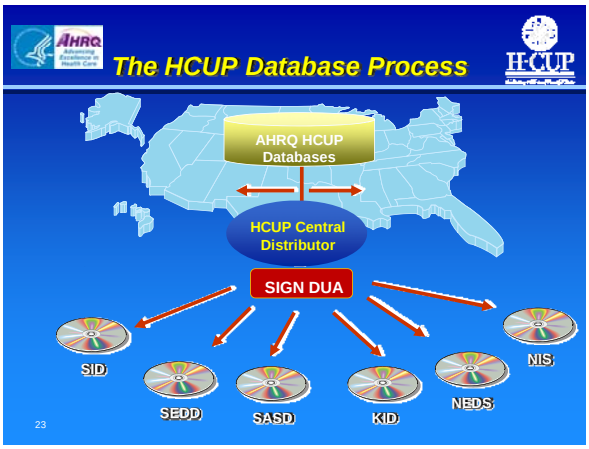
- In general, a patient enters the hospital and a billing record is generated. The hospital sends the data to their state-level Data Organization. These organizations then store the data in varying formats. From state to state, there is also some significant variation in the definition of data elements. The data is sent to AHRQ and standardized to create the uniform HCUP databases.



Value of HCUP Processing

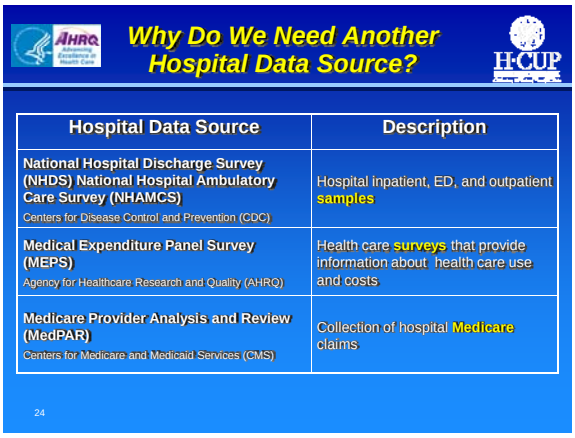
- Basic quality checks
- Standardization of file formats and variable values
- Value-added variables
    - Hospital characteristics
        - Region
        - Urban/rural
        - Teaching status
        - Ownership/control
        - Bed size
    - Severity Measures

- APR-DRGs, APS-DRGs, Disease Staging, Comorbidity Measures



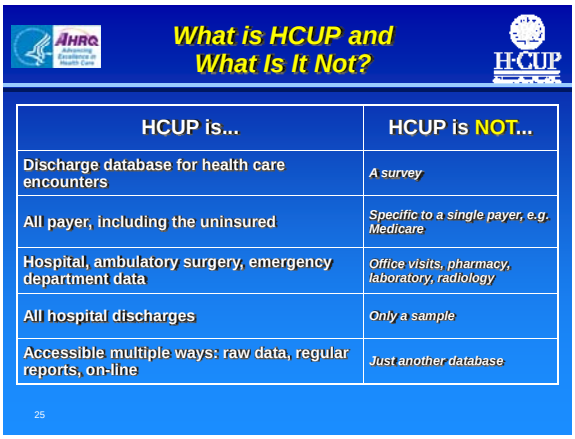
The HCUP Database Process

- After the data are processed, the data are made available back to the HCUP Partners. Some states choose to make these databases available to researchers directly. Other states make their databases available through the HCUP Central Distributor. In the latter case, researchers complete a Data Use Agreement, submit a request for specific databases, include a payment, and within a few days the database or databases are shipped.



Why Do We Need Another Hospital Data Source?

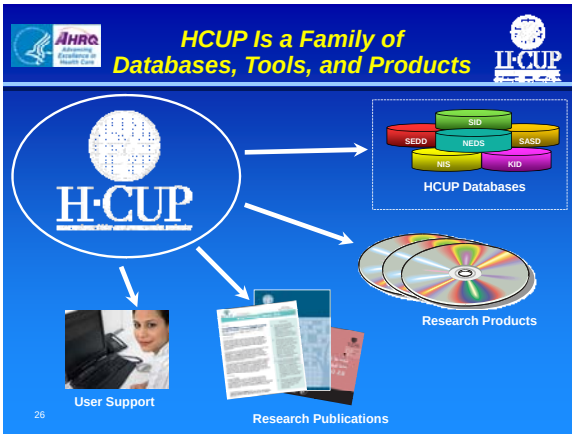
- National Hospital Discharge Survey (NHDS) National Hospital Ambulatory Care Survey (NHAMCS), Centers for Disease Control and Prevention (CDC): Hospital inpatient, ED, and outpatient samples.
- Medical Expenditure Panel Survey (MEPS), Agency for Healthcare Research and Quality (AHRQ): Health care surveys that provide information about health care use and costs.
- Medicare Provider Analysis and Review (MedPAR), Centers for Medicare and Medicaid Services (CMS): Collection of hospital Medicare claims.



What is HCUP and What Is It Not?

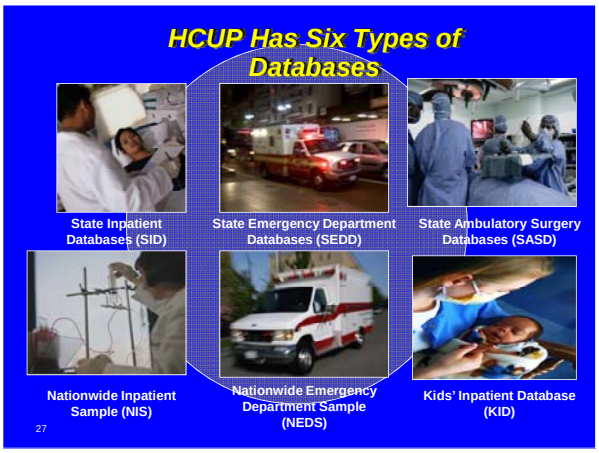
- HCUP is:
  - A discharge database for healthcare encounters
  - All payer, including the uninsured
  - Hospital, ambulatory surgery, emergency department data
  - All hospital discharges
  - Accessible multiple ways: raw data, regular reports, on-line

- HCUP is not:
  - A survey
  - Specific to a single payer, e.g. Medicare
  - Office visits, pharmacy, laboratory, radiology
  - Only a sample
  - Just another database



HCUP Is a Family of Databases, Tools, and Products

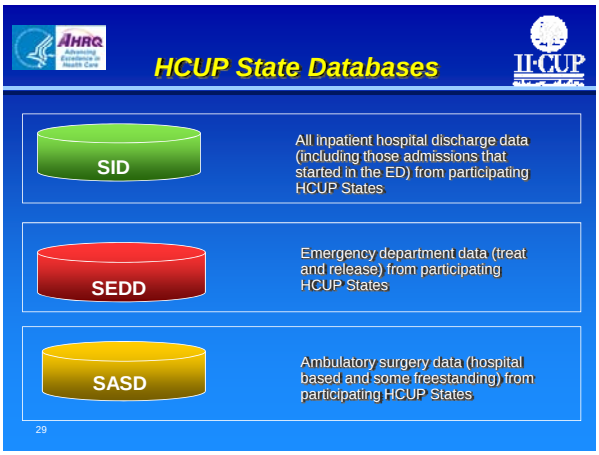
- Focus on the HCUP databases.



HCUP Has Six Types of Databases

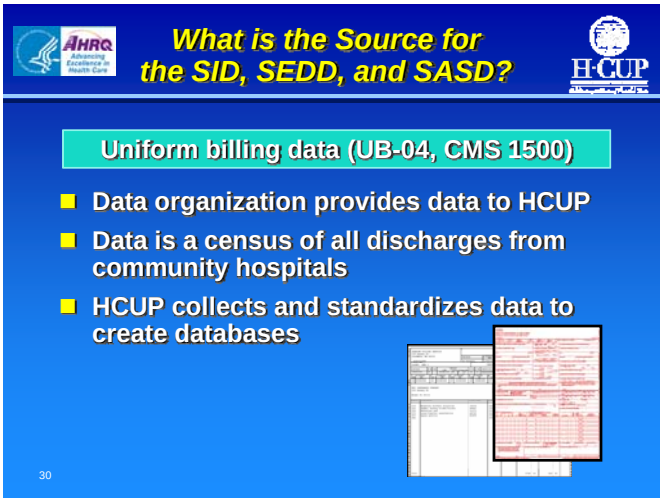
- Three state-level databases:
  1. The State Inpatient Databases, or SID
  2. The State Emergency Department Databases, or SEDD
  3. And the State Ambulatory Surgery Databases, or SASD
- And three national databases:
  1. The Nationwide Inpatient Sample, or NIS
  2. The Nationwide Emergency Department Sample, or NEDS
  3. And, the Kids' Inpatient Database, or KID

HCUP State Databases (SID, SEDD, SASD)



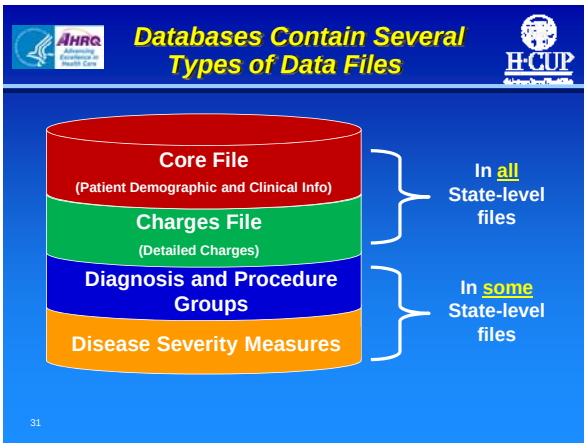
HCUP State Databases

- The SID contains all inpatient hospital discharge data, including those admissions that started in the ED, from participating HCUP States.
- The SEDD contains treat-and-release emergency department data from participating HCUP States.
- And the SASD contains hospital based and some freestanding ambulatory surgery data from participating HCUP States.



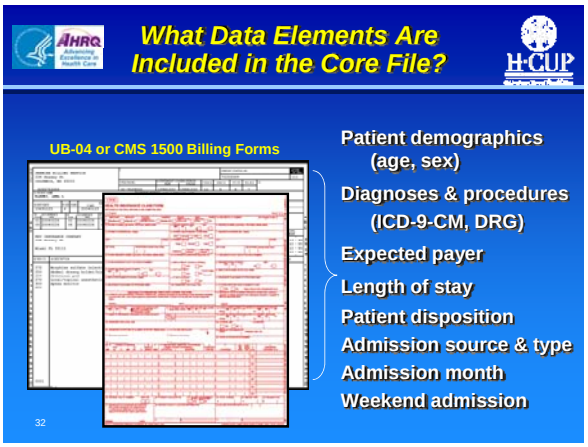
What is the Source for the SID, SEDD, and SASD?

- Uniform billing data (UB-04, CMS 1500)
  - Data organization provides data to HCUP
  - Data is a census of all discharges from community hospitals
  - HCUP collects and standardizes data to create databases



Databases Contain Several Types of Data Files

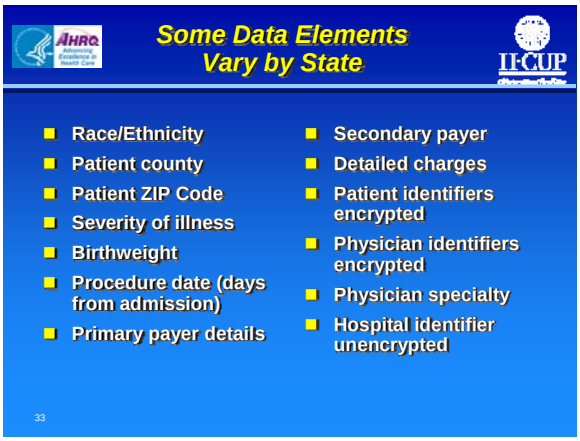
- The Core and Charges files are discharge-level files contained in all State-level databases. The Core file contains information such as diagnoses, procedures, and length of stay. The Charges file contains information about the total charges—and sometimes the detailed charges—associated with each stay.
- Some State-level databases also include a Diagnosis and Procedure Groups file and a Disease Severity Measures file.
    - Diagnosis and Procedure Groups Files are discharge-level files that contain data elements from AHRQ software tools designed to facilitate the use of the ICD-9-CM diagnostic and procedure information in the HCUP databases.
    - Disease Severity Measures Files are discharge-level files that contain information from the AHRQ Comorbidity Software. Information from these severity files is to be used in conjunction with the Inpatient Core files.



What Data Elements Are Included in the Core File?

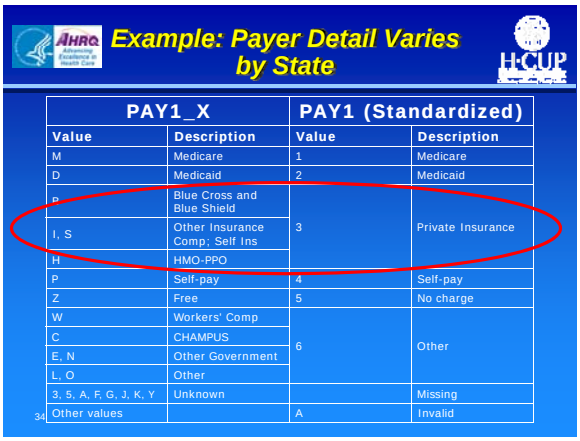
- Patient demographics (age, sex)
- Diagnoses & procedures (ICD-9-CM, DRG)
- Expected payer
- Length of stay
- Patient disposition
- Admission source & type
- Admission month

- Weekend admission



Some Data Elements Vary by State

- Race/Ethnicity
- Patient county
- Patient ZIP Code
- Severity of illness
- Birthweight
- Procedure date (days from admission)
- Primary payer details
- Secondary payer
- Detailed charges
- Patient identifiers encrypted
- Physician identifiers encrypted
- Physician specialty
- Hospital identifier unencrypted

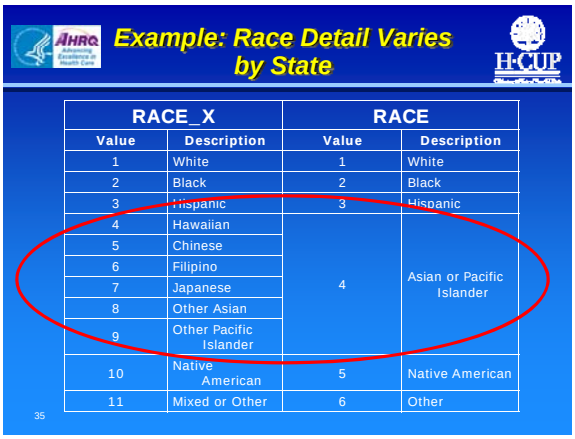


PAY1_X		PAY1 (Standardized)	
Value	Description	Value	Description
M	Medicare	1	Medicare
D	Medicaid	2	Medicaid
B	Blue Cross and Blue Shield	3	Private Insurance
I, S	Other Insurance Comp; Self Ins		
H	HMO-PPO		
P	Self-pay	4	Self-pay
Z	Free	5	No charge
W	Workers' Comp	6	Other
C	CHAMPUS		
E, N	Other Government		
L, O	Other		
3, 5, A, F, G, J, K, Y	Unknown		Missing
Other values		A	Invalid

Example: Payer Detail Varies by State

- The state-level files include many detailed variables, such as payer categories. This slide shows the detail that one state provides for its private insurers. These categories are standardized to facilitate comparisons across states and years. The original variable,

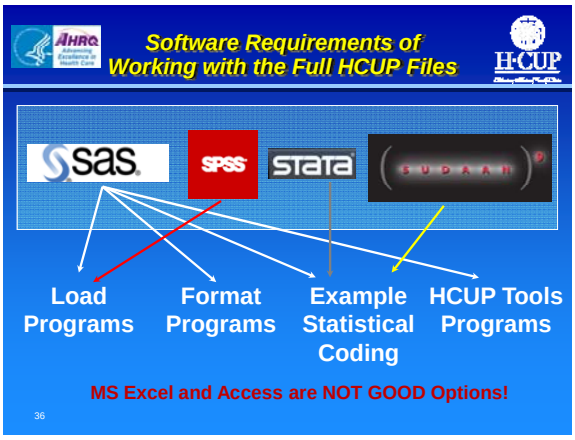
which is retained in the data file as PAY1_x, lists three different payers for private insurance. The standardized data element PAY1 collapses these into a single value.



RACE_X		RACE	
Value	Description	Value	Description
1	White	1	White
2	Black	2	Black
3	Hispanic	3	Hispanic
4	Hawaiian	4	Asian or Pacific Islander
5	Chinese		
6	Filipino		
7	Japanese		
8	Other Asian		
9	Other Pacific Islander		
10	Native American	5	Native American
11	Mixed or Other	6	Other

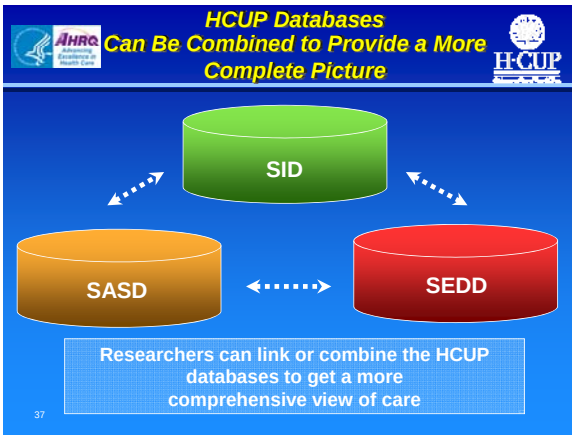
Example: Race Detail Varies by State

- Some state-level files also contain detailed race categories which differ by state. We also provide a standardized version of these variables on the Central Distributor files to allow for cross-state comparisons.



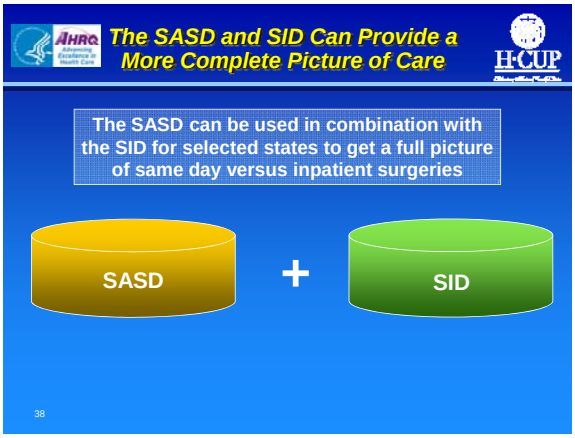
Software Requirements of Working with the Full HCUP Files

- AHRQ provides example programs in SAS, SPSS, Stata, and SUDAAN including database load programs, format programs, examples of statistical coding, and programs. Most of the programs are available in SAS. Desktop spreadsheet and database applications such as Microsoft Excel and Access are not equipped to handle the size and complexity of the HCUP data files.



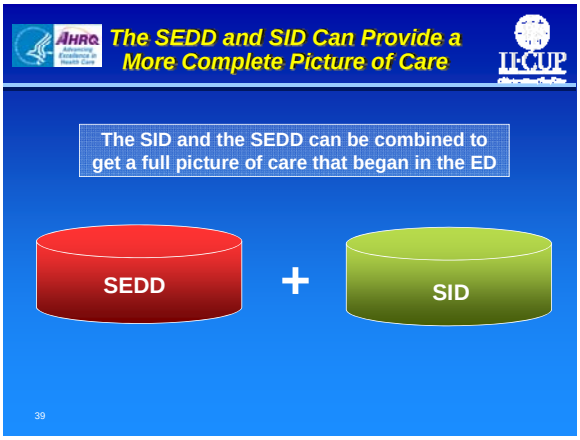
HCUP Databases Can Be Combined to Provide a More Complete Picture

- Researchers can link or combine the HCUP state databases to get a more comprehensive view of care.



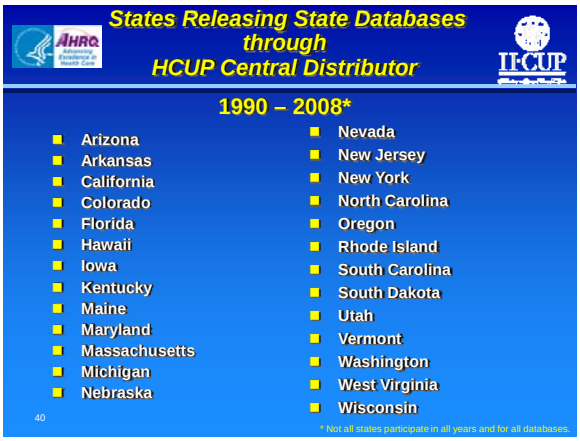
The SASD and SID Can Provide a More Complete Picture of Care

- The SASD can be used in combination with the SID for selected states to get a full picture of same day versus inpatient surgeries



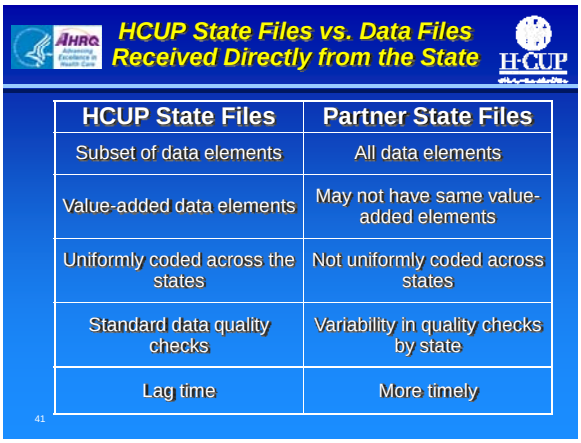
The SEDD and SID Can Provide a More Complete Picture of Care

- The SID and the SEDD can be combined to get a full picture of care that began in the ED



States Releasing State Databases through HCUP Central Distributor

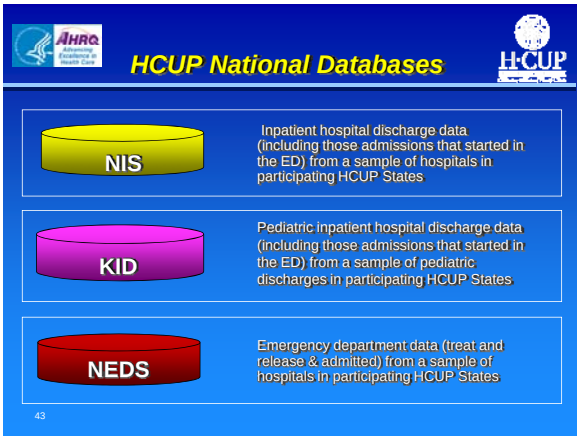
- 1990 – 2008*
- Arizona, Arkansas, California, Colorado, Florida, Hawaii, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Nebraska, Nevada, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin



HCUP State Files vs. Data Files Received Directly from the State

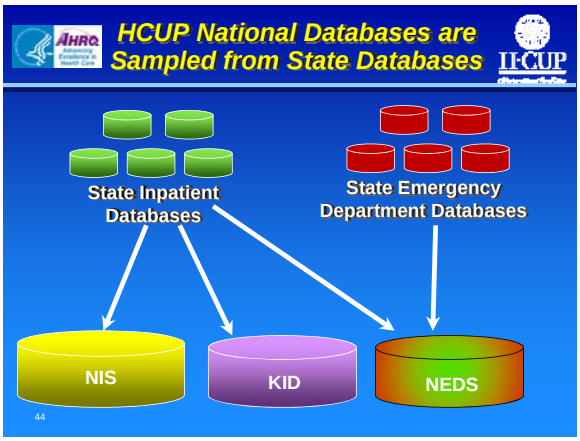
- HCUP State Files
  - Subset of data elements
  - Value-added data elements
  - Uniformly coded across the states
  - Standard data quality checks
  - Lag time
- Partner State Files
  - All data elements
  - May not have same value-added elements
  - Not uniformly coded across states
  - Variability in quality checks by state
  - More timely

HCUP National Databases (NIS, KID, NEDS)



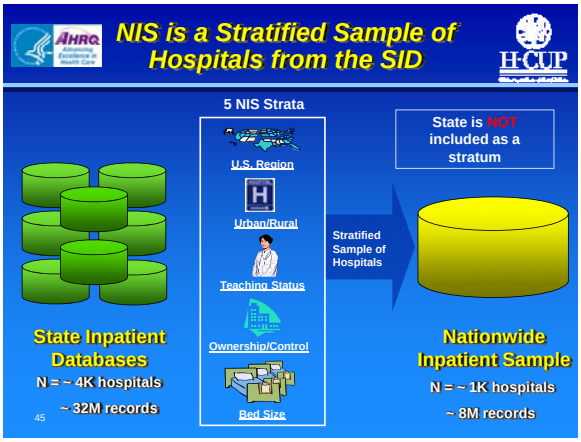
HCUP National Databases

- The NIS contains hospital discharge data from a sample of hospitals in participating HCUP States. It contains data on all types of inpatient admissions—including those which started in the emergency department.
- The KID contains pediatric inpatient hospital discharge data from a sample of pediatric discharges in participating HCUP States. It also contains data on all types of inpatient admissions—including those which started in the emergency department.
- The NEDS contains emergency department data from a sample of hospitals in participating HCUP States. It includes data on emergency department treat and release visits and on emergency department visits which resulted in an inpatient admission.



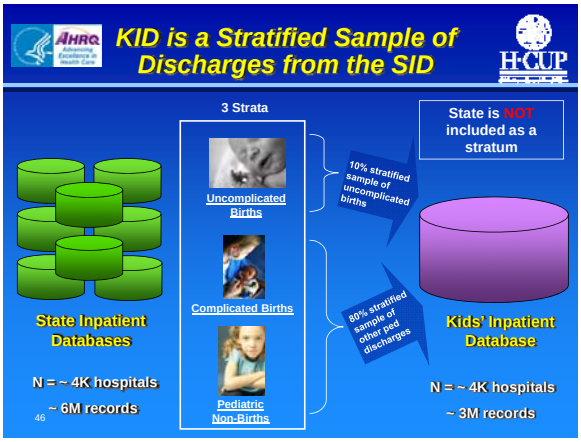
HCUP National Databases are Sampled from State Databases

- The NIS and the KID are derived from the SID, while the NEDS is sampled from both the SID and the SEDD.



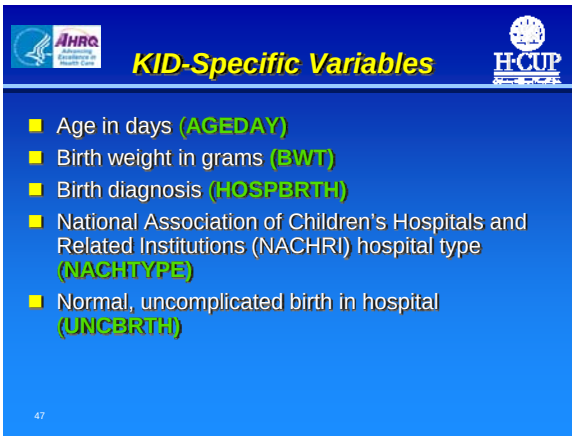
NIS is a Stratified Sample of Hospitals from the SID

- Each SID contains a census of hospitals in the state with all of their discharges. In 2007, there were about 4,000 hospitals and 32 million records in the SID.
- The NIS is created from a stratified, random sample of hospitals in the SID. The NIS approximates a 20% sample of the roughly 5,000 community hospitals in the U.S., even though it is drawn from a sampling frame of less than all the community hospitals.
- Stratification variables are:
  - *Geographic Region*
  - *Location*
  - *Teaching Status*
  - *Control*
  - *Bed Size*
- About 1,000 hospitals are included in the NIS. From each selected hospital, all of the discharges for that data year are included. In the 2007 NIS database, there are over 8 million discharge records.
- State is not included as a sampling stratum. The NIS cannot be used for state-level analyses.



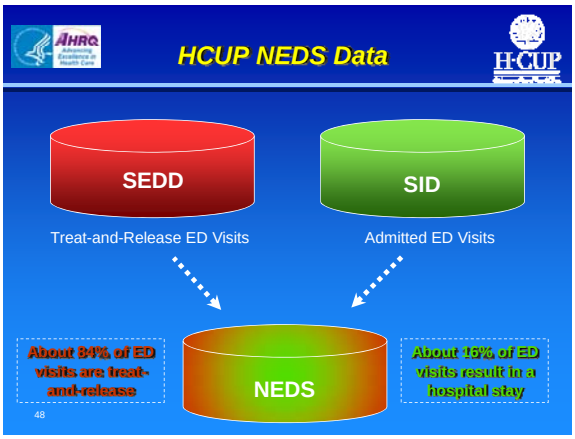
KID is a Stratified Sample of Discharges from the SID

- The SID is the starting point for the creation of the KID.
- The KID is a sample of pediatric discharges. Pediatric discharges are stratified by three strata: uncomplicated in-hospital births, complicated in-hospital births, and pediatric non-births. Using a systematic random sampling design, ten percent of uncomplicated in-hospital births and 80 percent of other pediatric discharges are sampled from the stratum.
- State is not included as a sampling stratum. The KID cannot be used for state-level analyses.



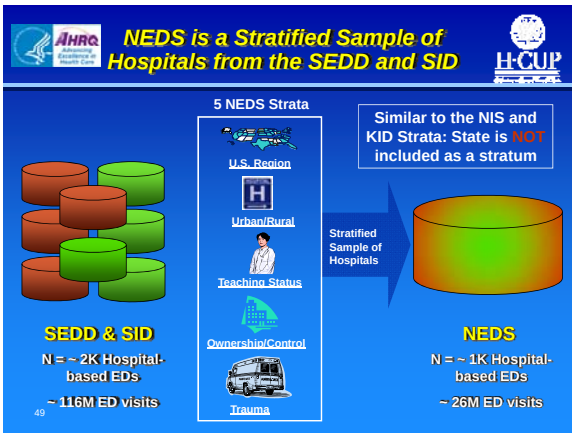
KID-Specific Variables

- Age in days (AGEDAY)
- Birth weight in grams (BWT)
- Birth diagnosis (HOSPBRTH)
- National Association of Children's Hospitals and Related Institutions (NACHRI) hospital type (NACHTYPE)
- Normal, uncomplicated birth in hospital (UNCBRTH)



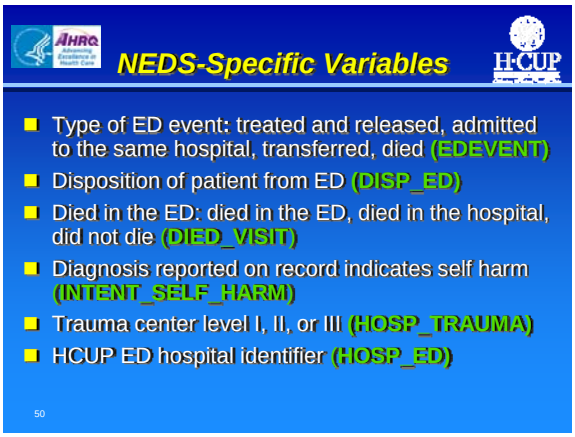
HCUP NEDS Data

- The NEDS is sampled from both the SEDD and the SID. As a result, the NEDS includes all ED visits – those that were treat and release (included in the SEDD) and those ED visits that resulted in hospitalization (included in the SID).



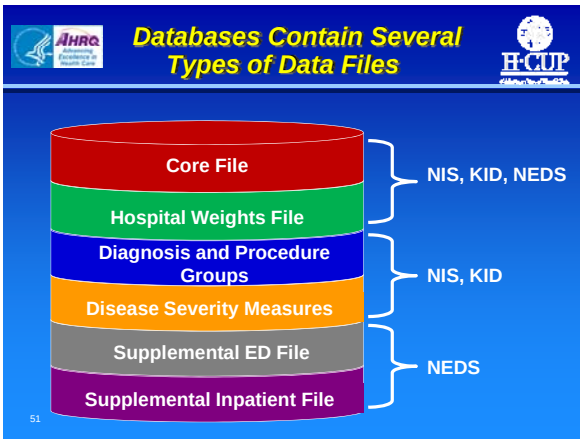
NEDS is a Stratified Sample of Hospitals from the SEDD and SID

- There are approximately 2,000 hospital based emergency departments and 116 million emergency department visits in the SEDD and SID.
- The NEDS is built using a 20% stratified sample of U.S. hospital-based emergency departments.
- Stratification variables are:
  - *Geographic Region*
  - *Location*
  - *Teaching Status*
  - *Control*
  - *Trauma*
- About 1,000 hospital-based emergency departments are included in the NEDS. From each selected emergency department, all of the visits for that data year are included. In the 2006 NEDS database, there are over 26 million visit records.
- State is not included as a sampling stratum. The NEDS cannot be used for state-level analyses.



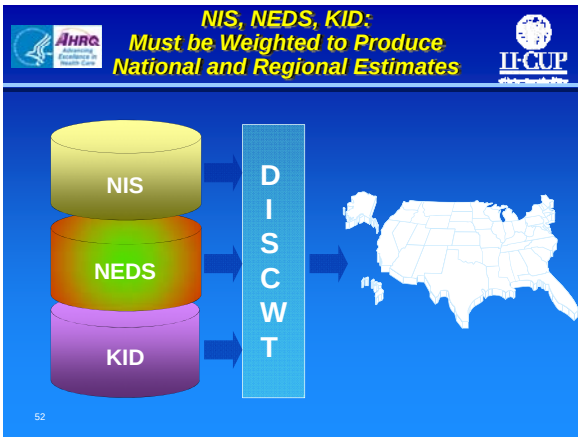
NEDS-Specific Variables

- Type of ED event: treated and released, admitted to the same hospital, transferred, died (EDEVENT)
- Disposition of patient from ED (DISP_ED)
- Died in the ED: died in the ED, died in the hospital, did not die (DIED_VISIT)
- Diagnosis reported on record indicates self harm (INTENT_SELF_HARM)
- Trauma center level I, II, or III (HOSP_TRAUMA)
- HCUP ED hospital identifier (HOSP_ED)



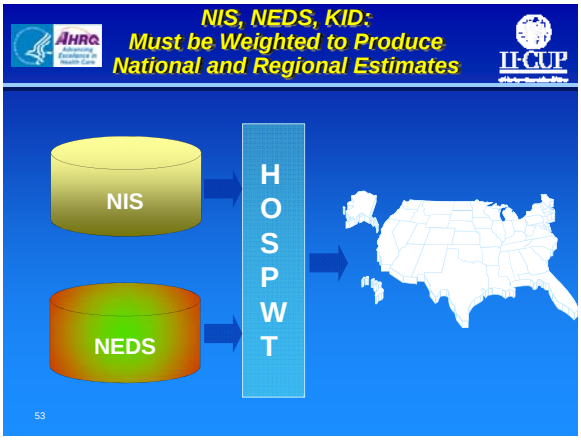
Databases Contain Several Types of Data Files

- All three of the national databases include a core file, composed of discharge-level data about the stay. They also all include a hospital weights file which contains hospital-level data linkable to the core file.
- The NIS and the KID databases also include the Diagnosis and Procedure Groups file and the Disease Severity Measures file.
- The NEDS database includes a supplemental ED file which provides additional, discharge-level information on treat and release ED visits, and a supplemental inpatient file which provides additional, discharge-level information on visits resulting in an inpatient stay.



NIS, NEDS, KID: Must be Weighted to Produce National and Regional Estimates

- With all three HCUP national databases, users must apply DISCWT, the discharge weight variable, to weight the raw data from these files to produce national and regional discharge-level estimates.



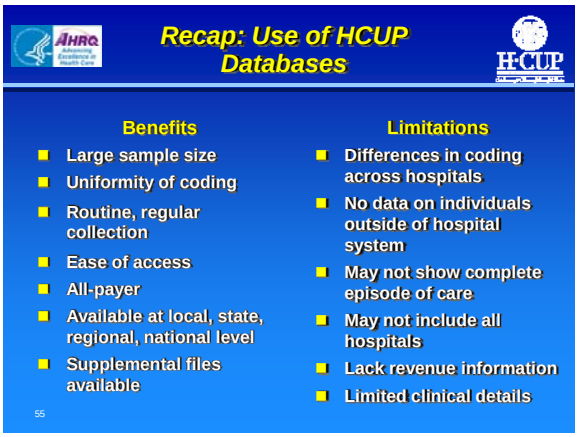
NIS, NEDS, KID: Must be Weighted to Produce National and Regional Estimates

- Users can also produce national and regional hospital-level estimates using the NIS and NEDS hospital weights file and HOSPWT, the hospital weight variable.

Types of Research the National Databases Can Support

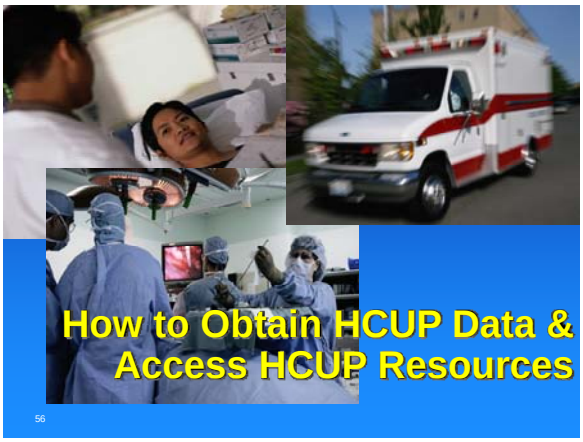
- Utilization and cost of hospital inpatient, ED, and ambulatory care

- Trends in healthcare utilization and costs
- Quality of care analyses
- Impact of health policy changes
- Diffusion of medical technology
- Medical practice variation
- Medical treatment effectiveness

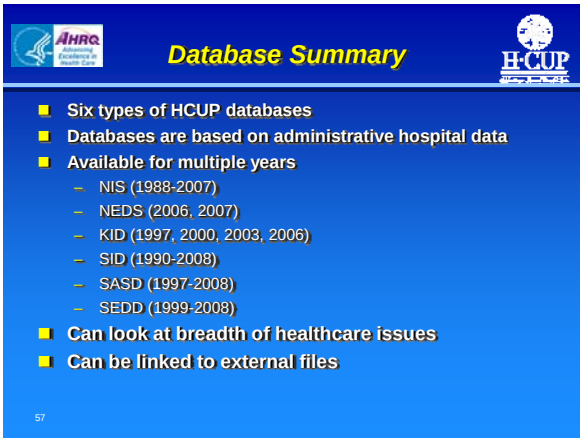


Recap: Use of HCUP Databases

- Benefits
  - Large sample size
  - Uniformity of coding
  - Routine, regular collection
  - Ease of access
  - All-payer
  - Available at local, state, regional, national level
  - Supplemental files available
- Limitations
  - Differences in coding across hospitals
  - No data on individuals outside of hospital system
  - May not show complete episode of care
  - May not include all hospitals
  - Lack revenue information
  - Limited clinical details

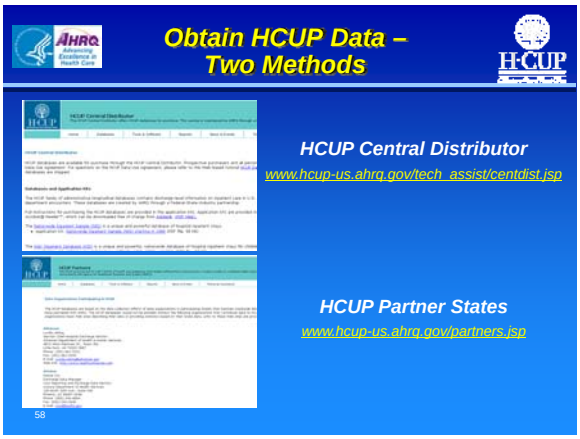


How to Obtain HCUP Data & Access HCUP Resources



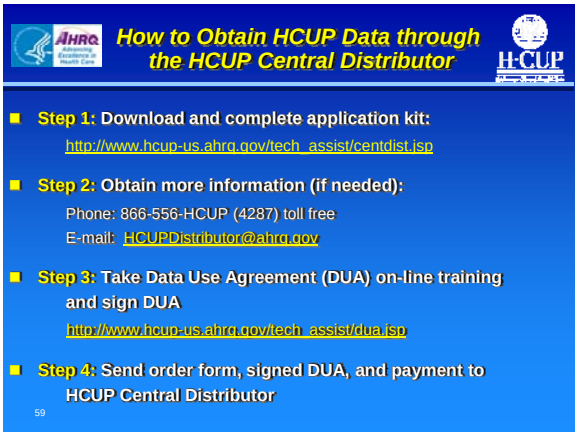
Database Summary

- Six types of HCUP databases
- Databases are based on administrative hospital data
- Available for multiple years
    - NIS (1988-2007)
    - NEDS (2006, 2007)
    - KID (1997, 2000, 2003, 2006)
    - SID (1990-2008)
    - SASD (1997-2008)
    - SEDD (1999-2008)
- Can look at breadth of healthcare issues
- Can be linked to external files



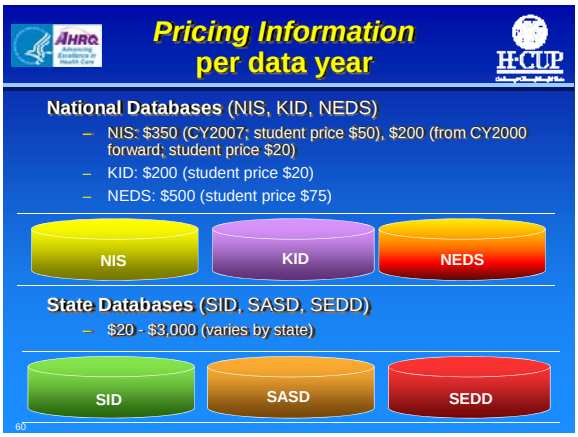
Obtain HCUP Data –Two Methods

- HCUP Central Distributor at www.hcup-us.ahrq.gov/tech_assist/centdist.jsp
- HCUP Partner States at www.hcup-us.ahrq.gov/partners.jsp



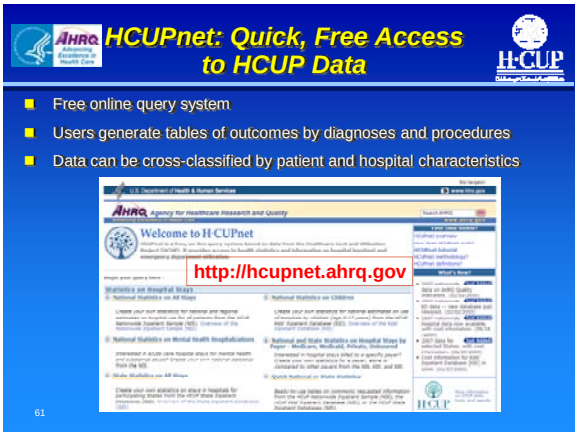
How to Obtain HCUP Data through the HCUP Central Distributor

- Step 1: Download and complete application kit from http://www.hcup-us.ahrq.gov/tech_assist/centdist.jsp
- Step 2: Obtain more information (if needed):
  - Phone: 866-556-HCUP (4287) toll free
  - E-mail: HCUPDistributor@ahrq.gov
- Step 3: Take Data Use Agreement (DUA) on-line training at http://www.hcup-us.ahrq.gov/tech_assist/dua.jsp and sign DUA
- Step 4: Send order form, signed DUA, and payment to HCUP Central Distributor



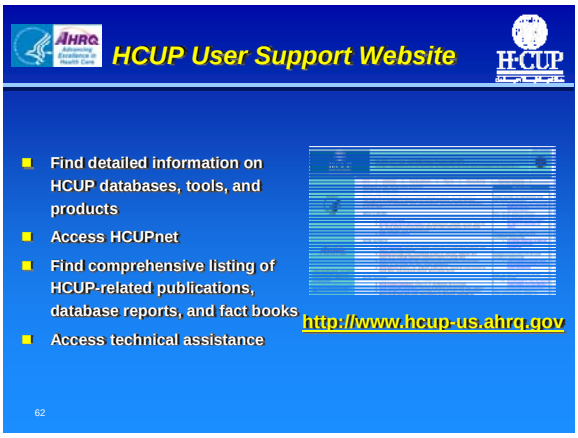
Pricing Information per data year

- National Databases (NIS, KID, NEDS)
  - NIS: $350 (CY2007; student price $50), $200 (from CY2000 forward; student price $20)
  - KID: $200 (student price $20)
  - NEDS: $500 (student price $75)
- State Databases (SID, SASD, SEDD)
  - $20 - $3,000 (varies by state)



HCUPnet: Quick, Free Access to HCUP Data

- Free online query system
- Users generate tables of outcomes by diagnoses and procedures
- Data can be cross-classified by patient and hospital characteristics
- http://hcupnet.ahrq.gov

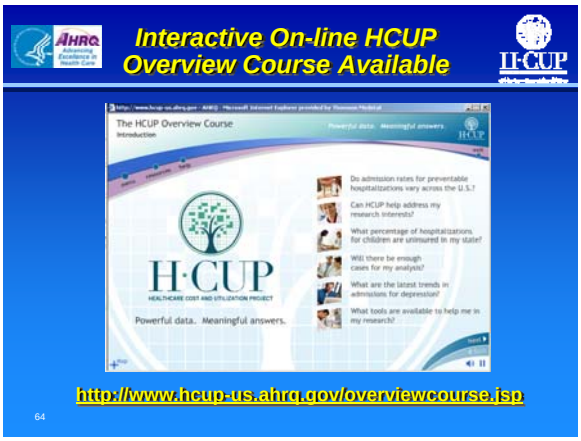


HCUP User Support Website

- Find detailed information on HCUP databases, tools, and products
- Access HCUPnet
- Find comprehensive listing of HCUP-related publications, database reports, and fact books
- Access technical assistance
- http://www.hcup-us.ahrq.gov

Using HCUP Technical Assistance

- Active Technical Assistance
  - Responds to inquiries about HCUP data, products, and tools
  - Collects user feedback and suggestions for improvement
- E-mail: hcup@ahrq.gov

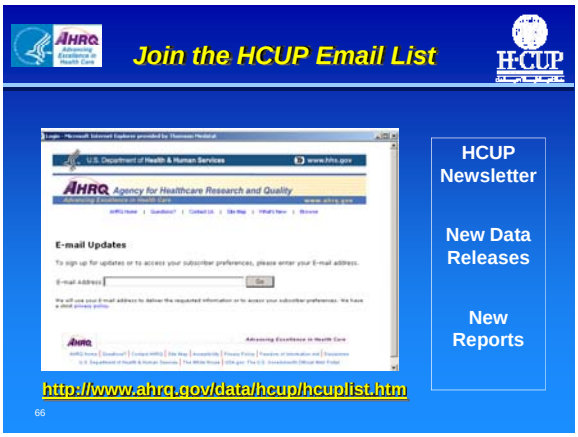


Interactive On-line HCUP Overview Course Available

- http://www.hcup-us.ahrq.gov/overviewcourse.jsp

Additional HCUP Online Courses: Methods Focus

- Now available:
  - HCUP Sample Design Tutorial
- Coming soon:
  - Loading and Checking HCUP Data Files
  - Producing National Estimates with HCUP Data
- And more…
  - http://www.hcup-us.ahrq.gov/tech_assist/tutorials.jsp

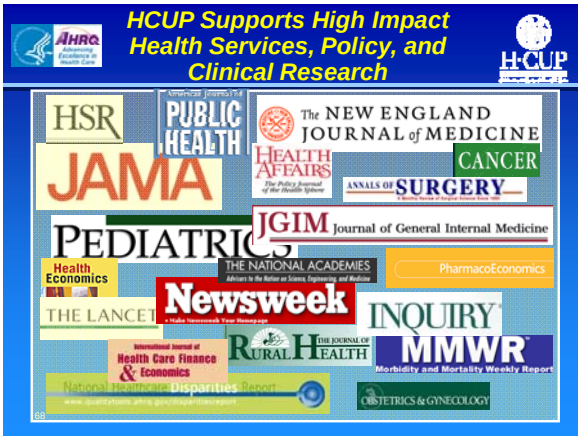


Join the HCUP Email List

- HCUP Newsletter
- New Data Releases
- New Reports
- http://www.ahrq.gov/data/hcup/hcuplist.htm

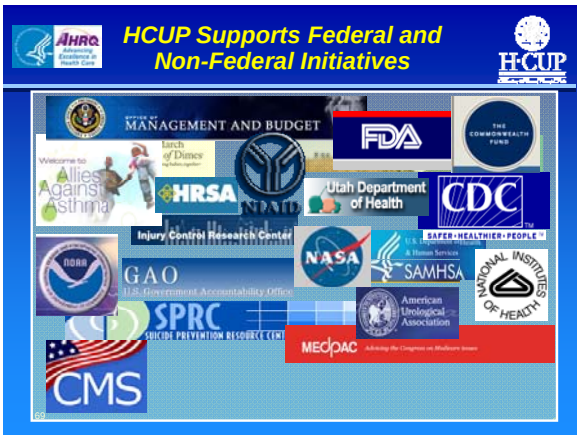
HCUP 20th Anniversary!

- Celebrating 20 years of powerful data.



HCUP Supports High Impact Health Services, Policy, and Clinical Research

- Over the years, HCUP data have been used in more than 1,100 research articles published in prestigious journals, such as The New England Journal of Medicine (NEJM), The Journal of the American Medical Association (JAMA), and Pediatrics. These publications reflect the broad applications of the data—from clinical to public health to health services research to economics.

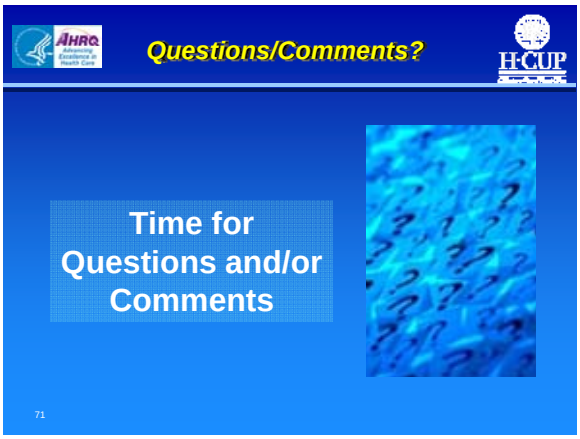


HCUP Supports Federal and Non-Federal Initiatives

- HCUP data have also supported congressionally mandated reports, such as the National Healthcare Disparities Report and the National Healthcare Quality Report and other federal and non-federal initiatives.

Healthcare Cost and Utilization Project (HCUP)

- The largest collection of multi-year, all-payer, encounter-level, health care data.



Questions/Comments

- Time for questions and/or comments.