



U.S. Department of Health and Human Services



Agency for Healthcare Research and Quality

Advancing Excellence in Health Care • www.ahrq.gov

The Healthcare Cost and Utilization Project (HCUP)

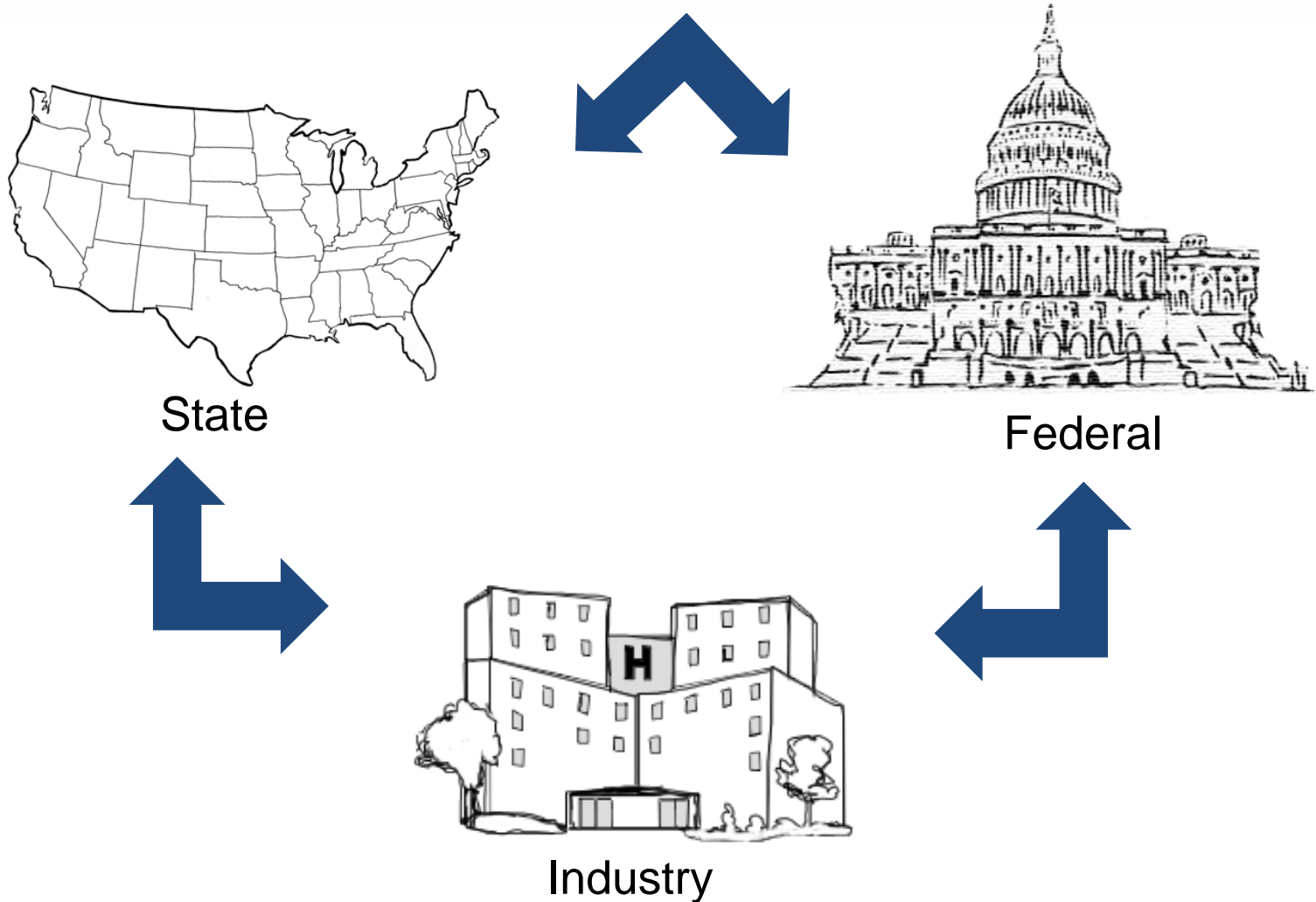
Overview of the HCUP Databases

Agency for Healthcare Research and Quality
Webinar ♦ September 16, 2015

- **Project Overview**
- **HCUP Partners**
- **The Making of HCUP Data**
- **HCUP State Databases**
- **HCUP Nationwide Databases**
- **How to Obtain HCUP Data & Access HCUP Resources**

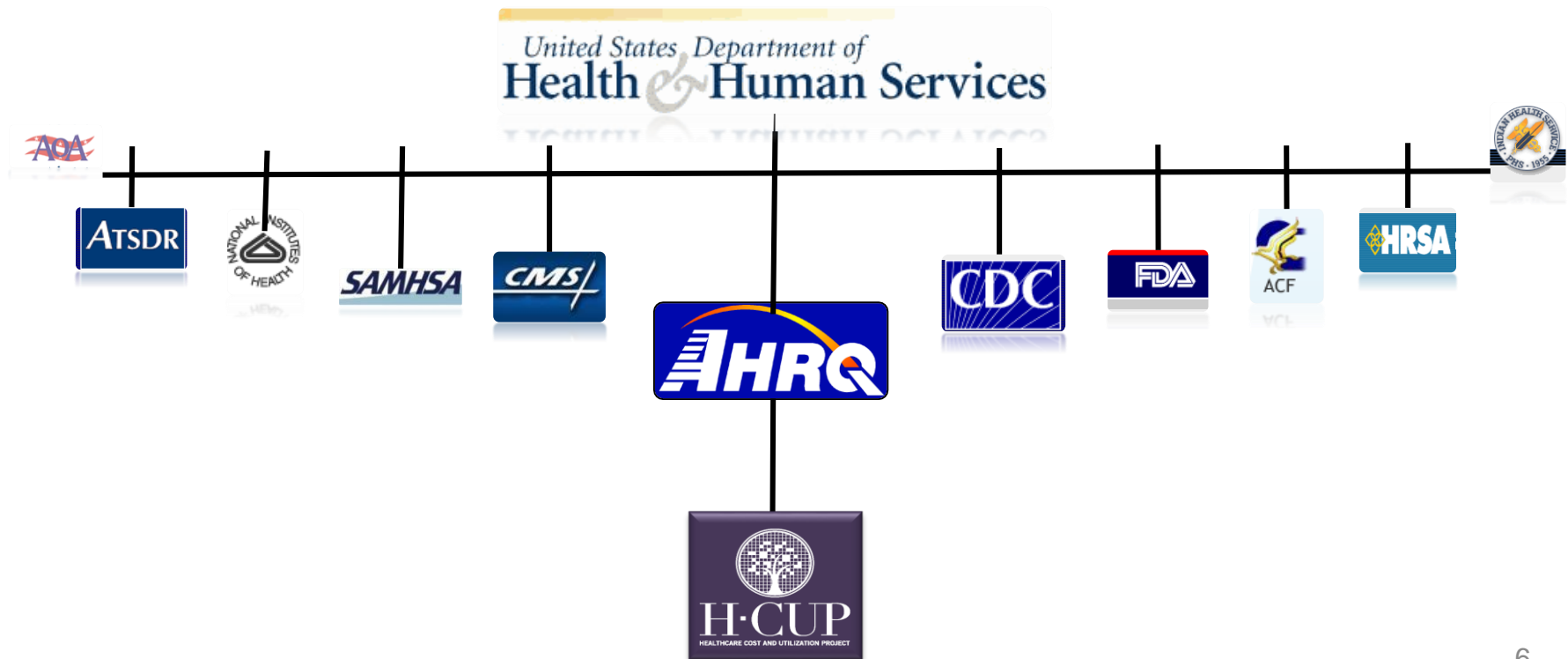
Costs of care	Septicemia was the most expensive reason for hospitalization in 2012—totaling over \$20 billion in aggregate hospital costs (NIS)
Access to care	Americans in low-income areas visit EDs at rates 90 percent higher compared to those in the highest income areas (NEDS)
Quality of care	Among women who delivered by cesarean section and were covered by Medicaid, 94.6 percent of discharges included a complicating condition (NIS)
Readmissions	For CHF, schizophrenia, and renal failure, at least 1 in 5 patients were readmitted within 30 days (SID with readmissions link)
Patient Safety	In 2011, the four most frequent causes of adverse drug events (ADEs) originating in the hospital were steroids, antibiotics, opiates and narcotics, and anticoagulants (SID)
Geographic variation	ED visits were higher in counties with fewer primary care MDs per capita (SEDD)

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What is the Agency for Healthcare Research and Quality (AHRQ)?

The Agency for Healthcare Research and Quality (AHRQ) is a federal agency under the Department of Health and Human Services.





Current HCUP Data Partners



Alaska State Hospital and Nursing Home Association

Arizona Department of Health Services

Arkansas Department of Health

California Office of Statewide Health Planning & Development

Colorado Hospital Association

Connecticut Hospital Association

District of Columbia Hospital Association

Florida Agency for Health Care Administration

Georgia Hospital Association

Hawaii Health Information Corporation

Illinois Department of Public Health

Indiana Hospital Association

Iowa Hospital Association



Current HCUP Data Partners



Kansas Hospital Association

Kentucky Cabinet for Health and Family Services

Louisiana Department of Health and Hospitals

Maine Health Data Organization

Maryland Health Services Cost Review Commission

Massachusetts Center for Health Information and Analysis

Michigan Health & Hospital Association

Minnesota Hospital Association

Mississippi Department of Health

Missouri Hospital Industry Data Institute

Montana MHA – An Association of Montana Health Care Providers

Nebraska Hospital Association



Current HCUP Data Partners



Nevada Department of Health and Human Services
New Hampshire Department of Health & Human Services
New Jersey Department of Health
New Mexico Department of Health
New York State Department of Health
North Carolina Department of Health and Human Services
North Dakota Minnesota Hospital Association
Ohio Hospital Association
Oklahoma State Department of Health
Oregon Association of Hospitals and Health Systems,
Office of Health Analytics
Pennsylvania Health Care Cost Containment Council



Current HCUP Data Partners



Rhode Island Department of Health

South Carolina Revenue and Fiscals Affairs Office

South Dakota Association of Health Care Organizations

Tennessee Hospital Association

Texas Department of State Health Services

Utah Department of Health

Vermont Association of Hospitals and Health Systems

Virginia Health Information

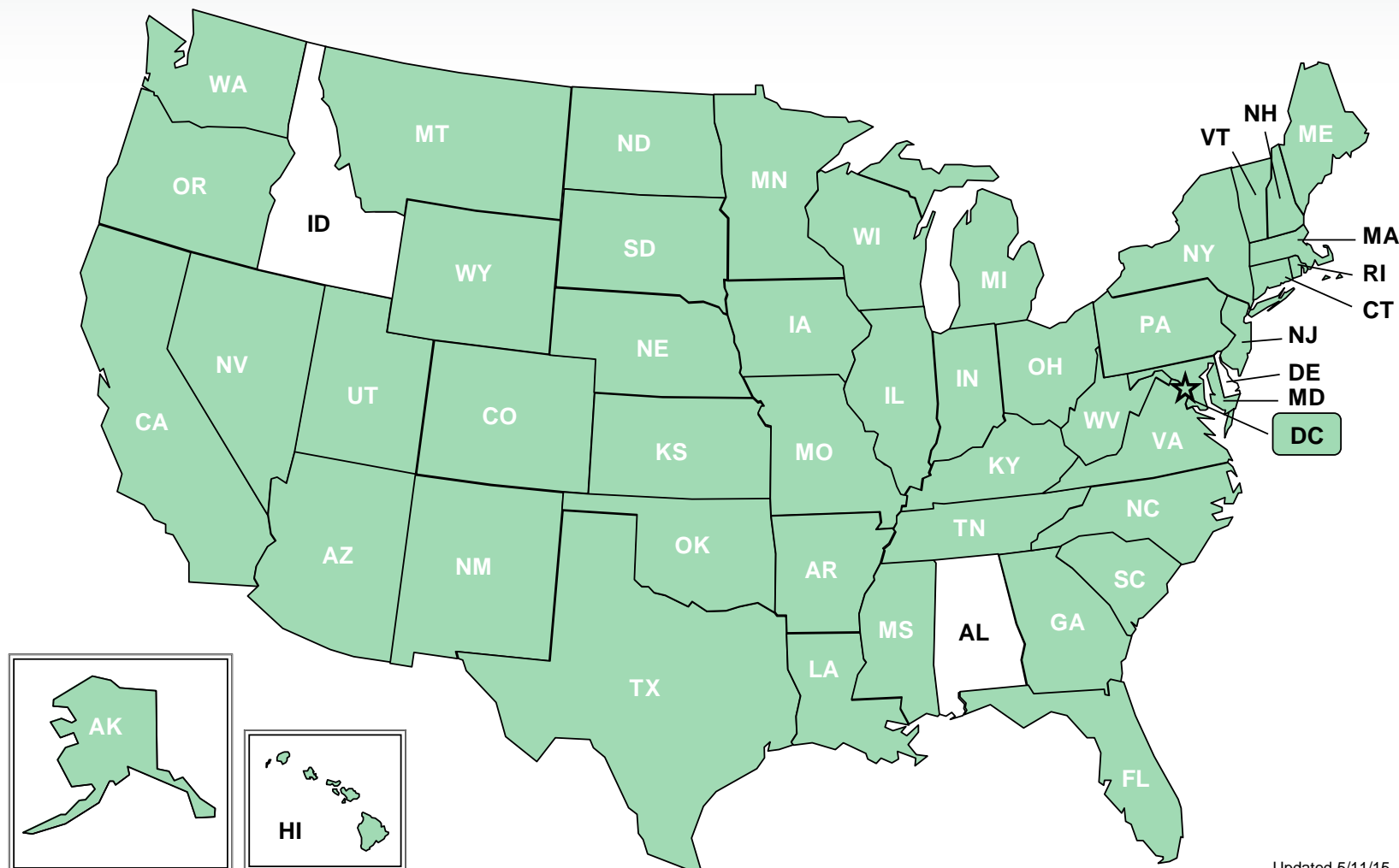
Washington State Department of Health

West Virginia Health Care Authority

Wisconsin Department of Health Services

Wyoming Hospital Association

HCUP Partners Providing Inpatient Data

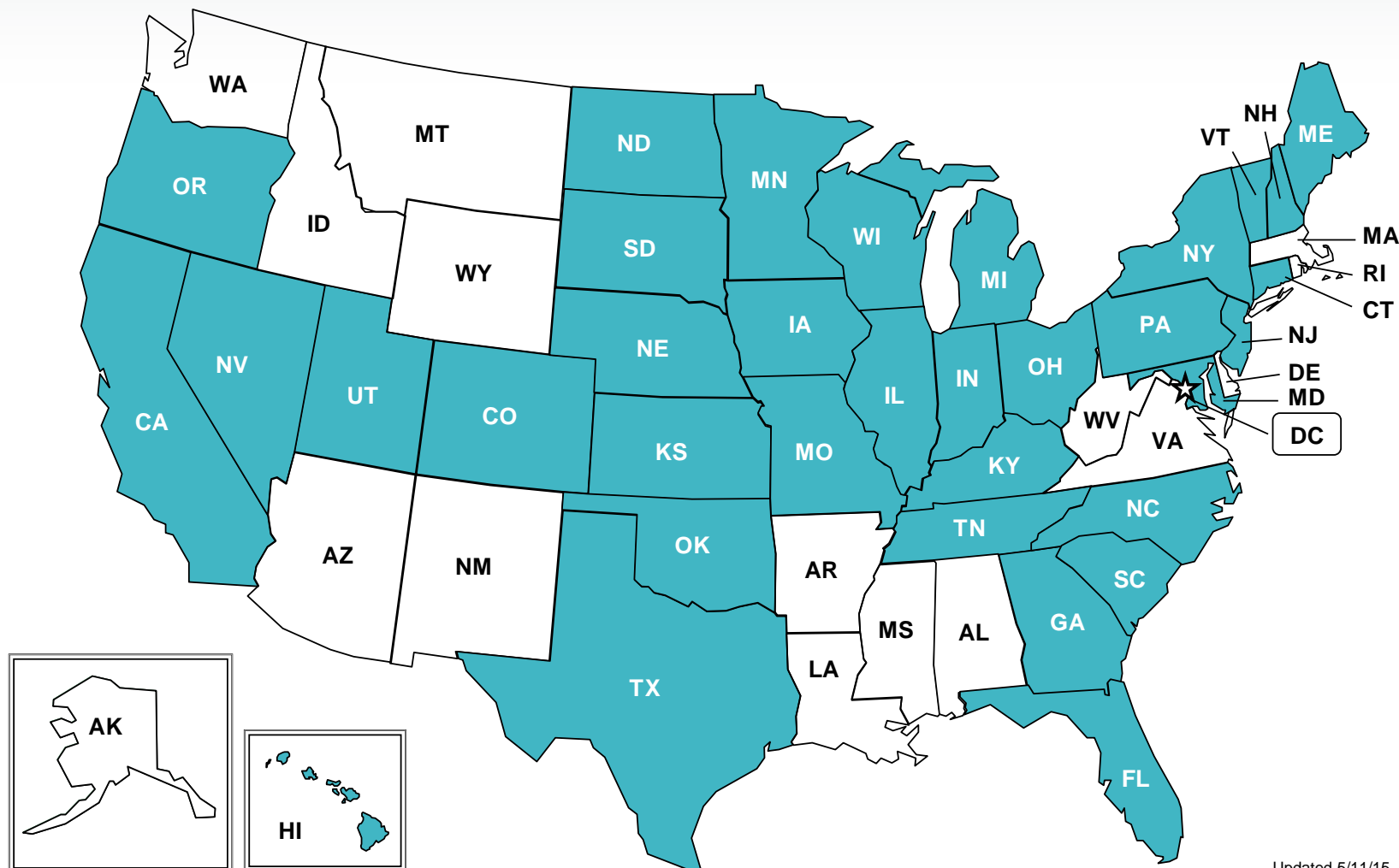


Updated 5/11/15

HCUP Partners Providing Ambulatory Surgery & Services Data

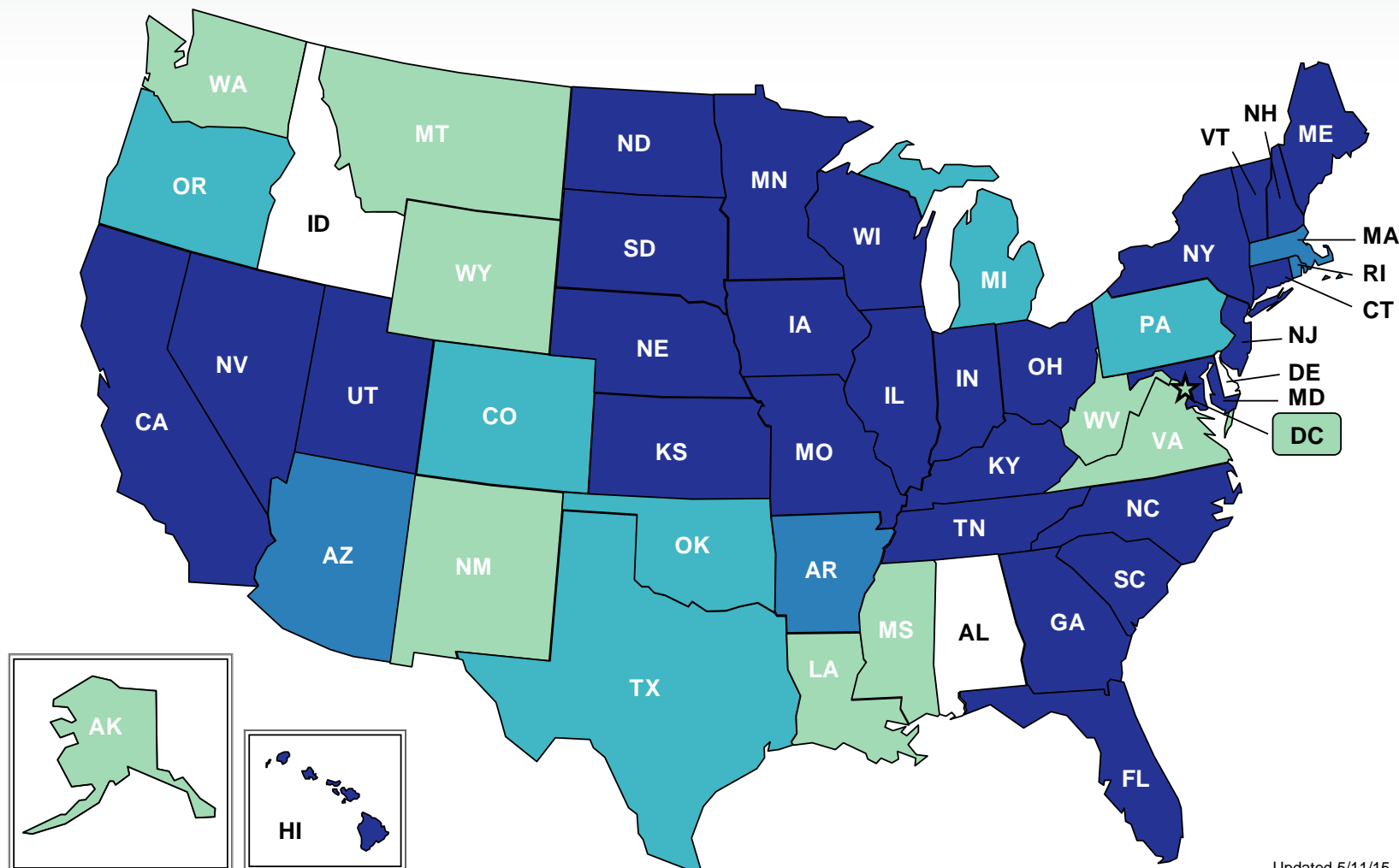


H·CUP
HEALTHCARE COST AND UTILIZATION PROJECT



Updated 5/11/15

HCUP Participation by Data Type



Updated 5/11/15

**Partners
Providing:**

Inpatient
Data

Inpatient and Ambulatory
Surgery & Services Data

Inpatient and Emergency
Department Data

Inpatient, Ambulatory
Surgery & Services, and
Emergency Department Data

Non-
participating

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Diagnoses
Procedures
Charges

UB-04
CMS 1500

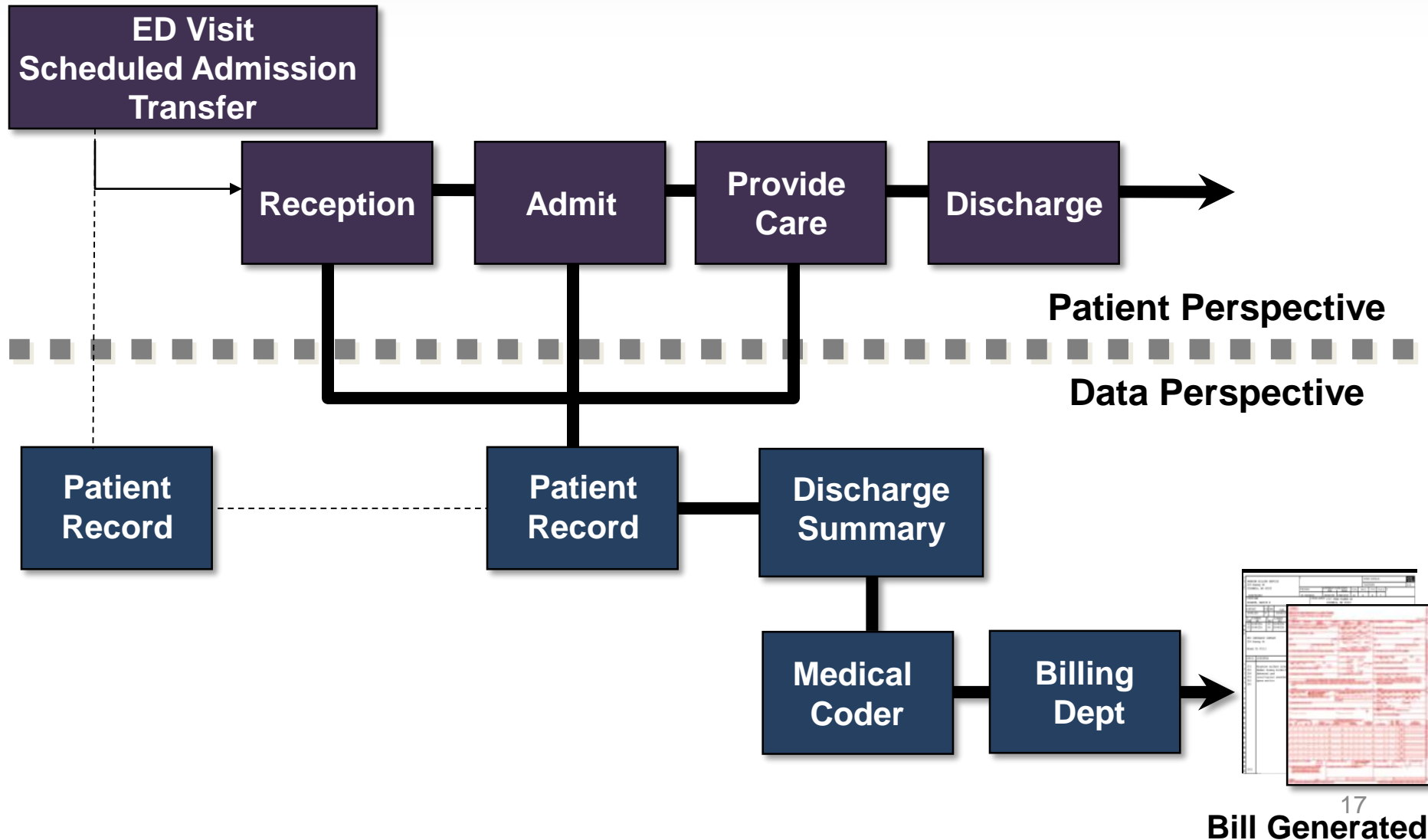
UB-04 CMS 1500

Sam
CMS-1500

1500 HEALTH INSURANCE CLAIM FORM

APPROVED BY NATIONAL UNIFORM CLAIM COMMITTEE 00/05

1 MEDICARE MEDICAD		TRICARE CHAMPVA		CHAMPVA		GRANT PLAN		OTHER	
2 PATIENT'S NAME (Last Name, First Name, Middle Initial)		3 PATIENT'S BIRTH DATE		4 PATIENT RELATIONSHIP TO YOU		5 PATIENT STATUS		6 EMPLOYER	
Smith, Bob A.		12 18 36		Spouse		Single		Full-Time	
7 PATIENT'S ADDRESS (In, Street)		8 CITY		9 STATE		10 ZIP CODE		11 TELEPHONE (Include Area Code)	
123 Paradise Road		Seattle		WA		12345		(555) 555-1234	
12 OTHER INSURED'S NAME (Last Name, First Name, Middle Initial)		13 OTHER INSURED'S POLICY OR GROUP NUMBER		14 OTHER INSURED'S DATE OF BIRTH		15 OTHER INSURED'S SEX		16 OTHER INSURED'S EMPLOYER	
17 EMPLOYER'S NAME OR SCHOOL NAME		18 TOURNAISE PLAN NAME OR PROGRAM NAME		19 READ BACK OF FORM BEFORE COMPLETING & SIGNING THIS FORM		20 SIGNATURE OF CURRENT PATIENT		21 DATE OF CURRENT PATIENT	
				I authorize the release of any medical or other information to process the claim. I also request payment of government benefits after it is paid or to the party who accepted the claim.		K. Brown, MD		02/10	
22 DIAGNOSIS OR NATURE OF ILLNESS OR INJURY (Please name 1, 2, 3 or 4 to item 24E by Line)		23 PROCEDURAL SERVICES, OR SUPPLIES (Specify Unusual Occurrences)		24 DATE OF SERVICE		25 TIME OF SERVICE		26 MODIFIER	
1. L250.00		B		02/05		06		11	
2. 85610		C		02/05		06		11	
3. 85635		D		02/05		06		11	
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Patient enters
hospital



Billing
record
created



Hospital sends
billing data and any
additional data
elements to data
organizations

744	98	749	2	79	257	5	290
745	25	614	4	84	541	4	549
746	68	195	1	78	669	3	523
747	43	726	3	46	211	4	970
748	81	533	6	98	83	8	40
749	51	418	4	69	496	1	613
750	16	574	2	77	571	1	995
751	2	326	4	44	638	2	958
752	63	521	4	18	217	8	721
753	38	867	4	44	446	2	71
754	50	418	0	59	216	4	799
755	22	806	3	46	573	2	994
756	94	740	6	55	247	1	218
757	36	852	8	8	289	3	559
758	63	386	1	94	838	5	613
759	17	766	8	92	799	5	612
760	54	735	3	29	556	6	503
761	5	263	4	78	125	8	997
762	48	100	3	94	484	8	206
763	23	916	6	15	556	9	327
764	11	251	4	17	125	6	192
765	30	976	1	9	561	6	39

States store data in
varying formats

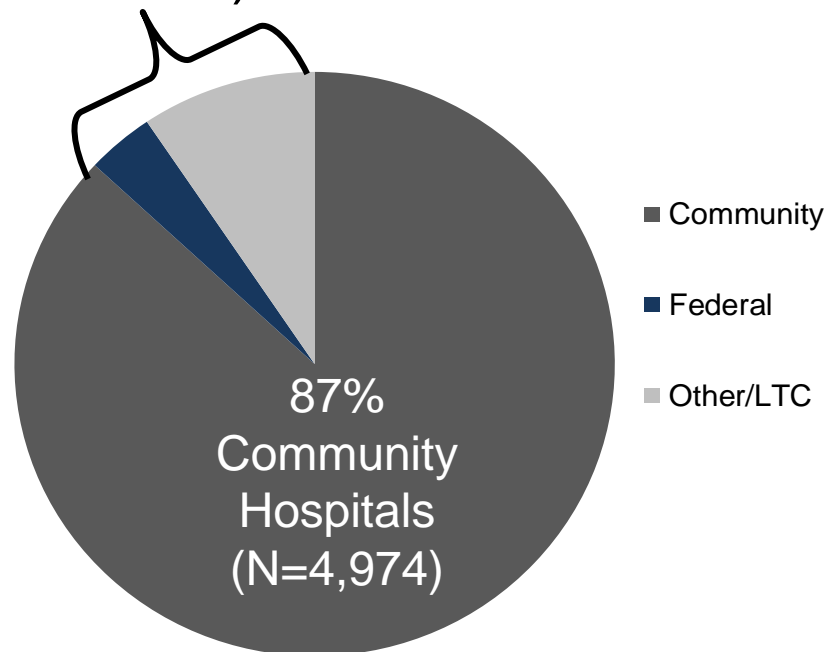


AHRQ standardizes
data to create
uniform HCUP
databases

- State data is mapped to a standardized HCUP format which allows for consistent data elements and values for comparison across States
- Additional data elements are added:
 - ▶ Value-added variables – injury indicators, chronic condition indicators, procedure class
 - ▶ Hospital characteristics – teaching status, ownership/control, bed size
 - ▶ Diagnostic related groups and severity measures –
 - AHRQ's Clinical Classifications Software (CCS)
 - 3M's All Patient Refined DRGs (APR-DRGs)
- Quality checks are performed

- 87% of hospitals in the U.S. are community hospitals

13% Non-community hospitals (Federal (DOD/VA/IHS), psychiatric, non-federal long term care, etc.)



What Are Community Hospitals?

American Hospital Association Definition:

Non-Federal, short-term, general, and other specialty hospitals, excluding hospital units of other institutions (e.g., prisons)

Included	Excluded
Multi-specialty general hospitals	Long-term care
OB-GYN	Psychiatric
ENT	Alcoholism/Chemical dependency
Orthopedic	Rehabilitation
Pediatric	DoD / VA / IHS
Public	
Academic medical centers	

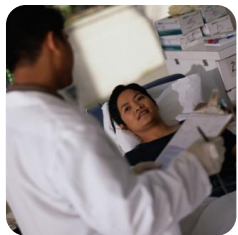
What are Community Hospitals?

- HCUP generally does not receive data from non-community hospitals.
- However, if a patient is treated in a community hospital, their information is included.

Most Frequent Principal Diagnosis	Number of Discharges (thousands)
1. Newborns	3,795
2. Septicemia	1,133
3. Pneumonia	1,007
4. Osteoarthritis	968
5. Congestive Heart Failure	876
Mood disorders	847
7. Cardiac dysrhythmias	749

HCUP Has 6 Types of Databases

- Three state-level databases



State Inpatient Databases
(SID)



State Ambulatory Surgery & Services Databases
(SASD)



State Emergency Department Databases
(SEDD)

- Three nationwide databases



National (Nationwide) Inpatient Sample
(NIS)



Nationwide Emergency Department Sample
(NEDS)



Kids' Inpatient Database
(KID)

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State Inpatient
Databases
(SID)

All inpatient hospital discharge data (including those admissions that started in the ED) from participating HCUP States

State Ambulatory
Surgery & Services Databases
(SASD)

Ambulatory surgery data (hospital based and some freestanding) and other outpatient services from participating HCUP States

State Emergency Department
Databases
(SEDD)

Emergency department data (treat and release) from participating HCUP States

What Data Elements are included in the HCUP databases?

Data Elements:

- Patient demographics (age, sex)
- Diagnoses & procedures
- Expected payer
- Length of stay
- Patient disposition
- Admission type
- Point of origin
- 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)
- Health plan details
- Additional expected payers
- Detailed charges
- Patient identifiers encrypted
- Physician identifiers encrypted
- Physician specialty
- Hospital identifier unencrypted



Example: Payer Detail Varies by State

PAY1_X		PAY1 (Standardized)	
Value	Description	Value	Description
010	Medicare	1	Medicare
011	Medicare (HMO)		
012	Medicare (Managed care - Other)		
013	Medicare (fee for service)		
020	Medi-Cal	2	Medi-Cal
021	Medi-Cal (HMO)		
022	Medi-Cal (Managed care - Other)		
023	Medi-Cal (fee for service)		
030	Private Coverage	3	Private insurance
031	Private Coverage (HMO)		
032	Private Coverage (Managed care - Other)		
033	Private Coverage (fee for service)		
08n, where n=0-3	Self-pay	4	Self-pay
--		5	No charge

Example: Race Detail Varies by State

RACE_X		RACE (Standardized)	
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

Partner State Files vs. HCUP State Files

- HCUP State Files vs. Data Files received directly from the State

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



States Releasing Databases through HCUP Central Distributor



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

Remember:

**Not all states
participate in all
years and for all
databases**

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National (Nationwide)
Inpatient Sample
(NIS)

Inpatient discharge data for a **sample of discharges from all hospitals** in SID

NIS
Redesign

Kids' Inpatient
Database
(KID)

Pediatric inpatient hospital discharge data from a **sample of pediatric discharges** in SID

Nationwide Emergency
Department Sample
(NEDS)

Emergency department data (treat and release & admitted) from a sample of hospitals in SID and SEDD

- The 2012 NIS was redesigned to improve national estimates with reductions in sampling error, and to enhance data confidentiality.
- To highlight the design change, beginning with 2012 data, AHRQ renamed the NIS from the "***Nationwide*** Inpatient Sample" to the "***National*** Inpatient Sample"

2012 NIS is a Stratified Sample of Discharges from the SID

2012 State Inpatient Databases (SID)

~ 4,380 hospitals
~ 34.3M records

Strata

- U.S. Division
- Urban/Rural Location
- Teaching Status
- Ownership/Control
- Bed Size

Stratified Sample of Discharges

*State not included in the stratum

Within strata sort by
hospital, DRG, and
admission month and
select 1 in 5 records

2012 National Inpatient Sample (NIS)

N = ~ 4,380 hospitals
~ 7.3M records



KID is a Stratified Sample of Discharges from the SID

2012 State Inpatient Databases (SID)

~ 4,380 hospitals
~ 34.3M records

Strata

- Uncomplicated Births
- Complicated Births
- Pediatric Non-Births

Stratified Sample of Discharges

*State not included in the stratum

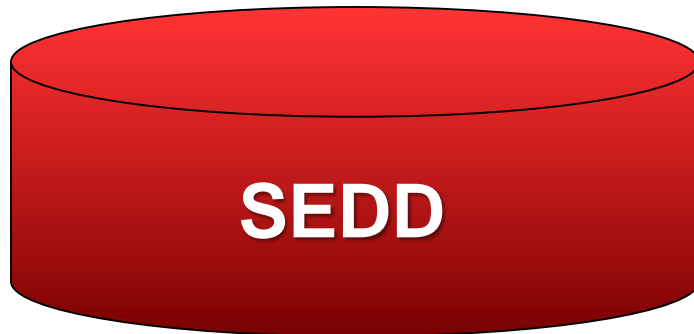
• 10% uncomplicated births

• 80% pediatric discharges

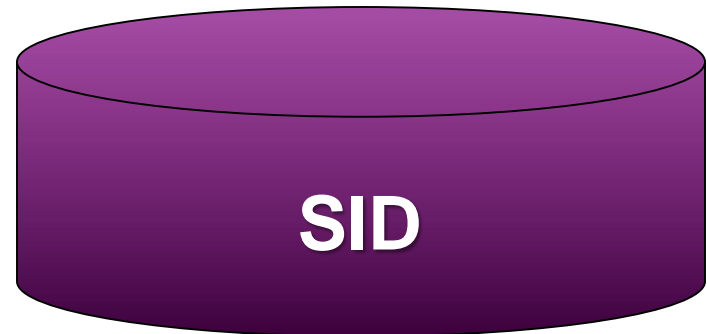
2012 Kids' Inpatient Database (KID)

N = ~ 4K hospitals
~ 3M records

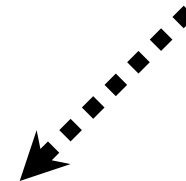
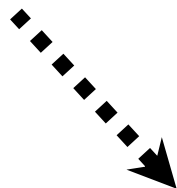




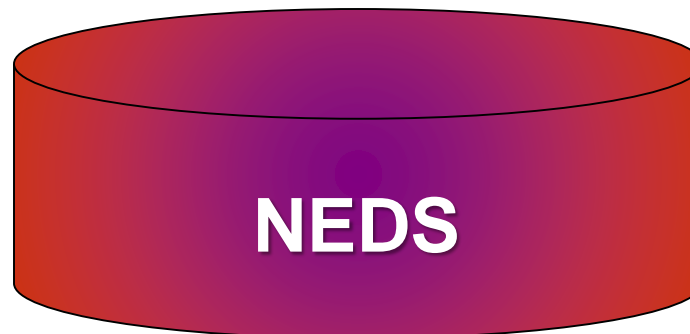
Treat-and-Release ED Visits



Admitted ED Visits



**About 84% of ED
visits are treat-
and-release**



**About 16% of ED
visits result in a
hospital stay**



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



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**State
Inpatient
Databases
(SID)**

**State Emergency
Department
Databases
(SEDD)**

Strata

- U.S. Region
- Urban/Rural Location
- Teaching Status
- Ownership/Control
- Trauma center

**Stratified Sample
of Discharges**

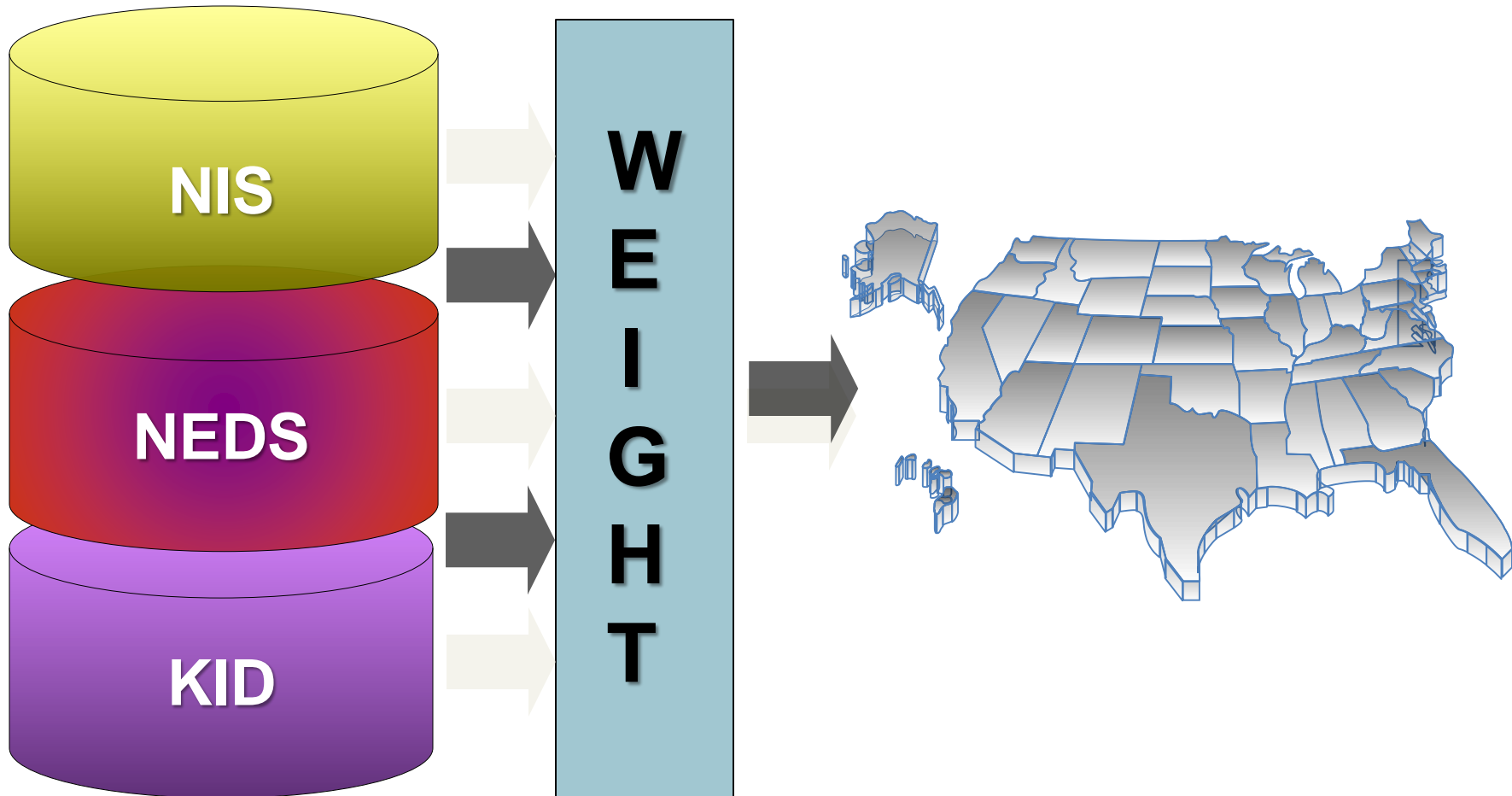
*State not included in the stratum



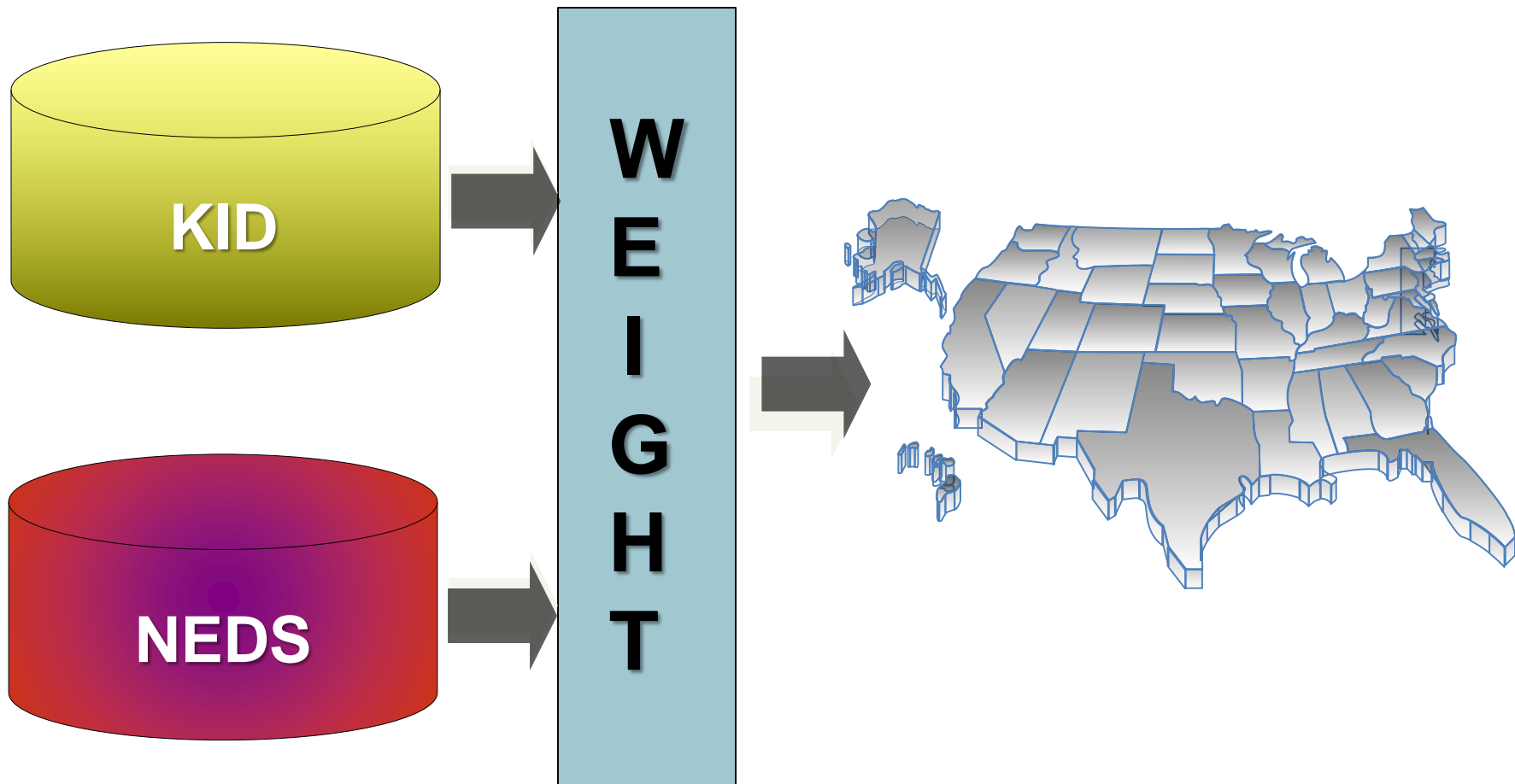
**Nationwide
Emergency
Department
Sample
(NEDS)**

N = ~ 1K hospitals
~ 31M records

Must be Weighted to Produce National and Regional Estimates



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



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

Included in HCUP

Inpatient Care	State Inpatient Databases (SID) National (Nationwide) Inpatient Sample (NIS) Kids' Inpatient Database (KID)
Emergency Department	State Emergency Department Databases (SEDD) Nationwide Emergency Department Sample (NEDS)
Ambulatory Surgery & Services	State Ambulatory Surgery & Services Databases (SASD)

Not Included in HCUP

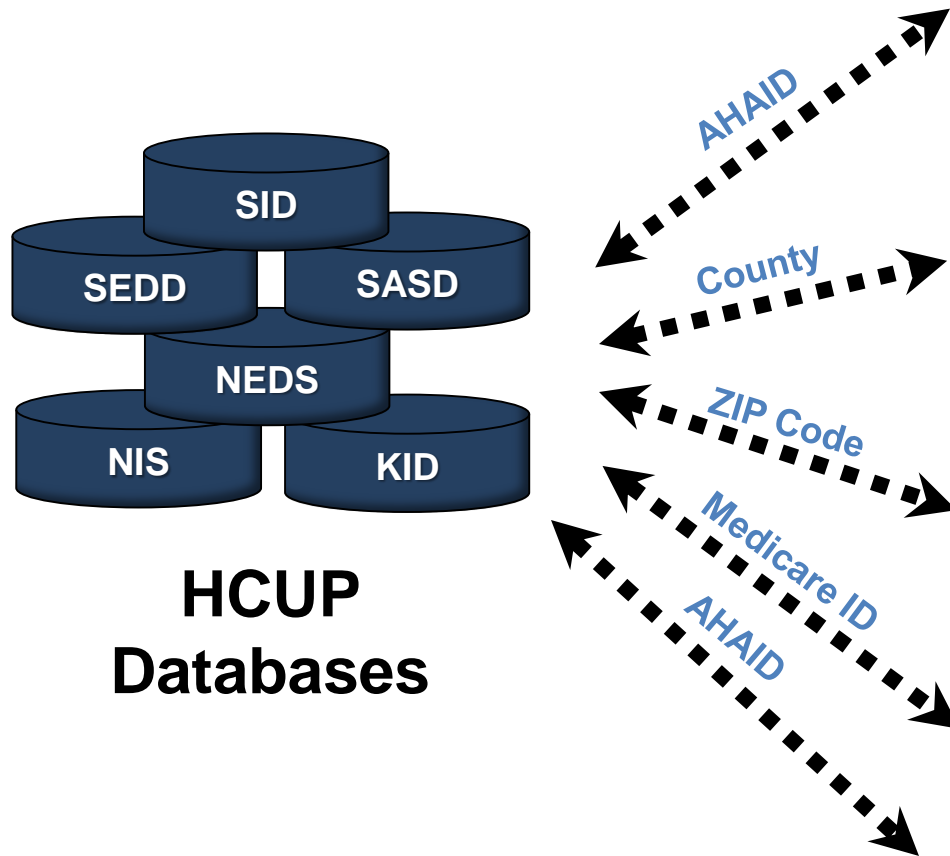
Physician office visits

Pharmacy

Labs/Radiology



Some Limitations Can be Addressed by Linking to Other Databases



American Hospital Association
(AHA) Annual Survey

Health Resources and Services
Administration's (HRSA) Area
Health Resource File (AHRF)

Zip Code Files from Census
or Vendor

Medicare Cost Reports

Trauma Information Exchange
Program (TIEP)



What HCUP Is and What HCUP Is Not?



HCUP is...

Discharge database for health care encounters

All payer, including the uninsured

Hospital, ambulatory surgery, emergency department data

All hospital discharges

Accessible multiple ways: raw data, regular reports, online

HCUP is NOT...

A survey

Specific to a single payer, e.g. Medicare

Office visits, pharmacy, laboratory, radiology

Only a sample

Just another database

Hospital Billing Data Have Benefits and Limitations

Benefits

Large number of visit records

Uniformity of coding

Routine, regular collection

Ease of access

All-payer

Available at local, state, regional and national level

Supplemental files available to facilitate research

Limitations

Differences in coding across hospitals

Limited clinical details

Lack revenue information

May not include all hospitals

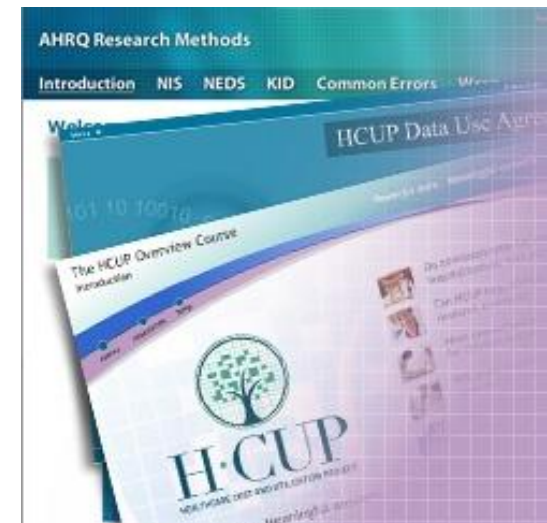
May not show complete experience of care

No data on individuals in the primary care setting

- Six types of HCUP databases
- Databases are based on administrative hospital data: inpatient, ED, and ambulatory surgery and services
- Available for multiple years
 - ▶ National
 - NIS (1988-2012)
 - NEDS (2006-2012)
 - KID (1997, 2000, 2003, 2006, 2009, 2012)
 - ▶ State
 - SID (1990-2013)
 - SASD (1997-2013)
 - SEDD (1999-2013)
- Can look at breadth of health care issues
- Can be linked to external files

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- Processed data sent to HCUP Partners
- State databases may become available to public through:
 - ▶ State Data Organization
 - OR
 - ▶ HCUP Central Distributor



To Purchase HCUP Data Two Methods



Method 1

HCUP Central Distributor

www.hcup-us.ahrq.gov/tech_assist/centdist.jsp

Method 2

HCUP Partner States

www.hcup-us.ahrq.gov/partners.jsp



Purchase Data Online Through the HCUP Central Distributor



Step 1: Take Data Use Agreement (DUA) online training
http://www.hcup-us.ahrq.gov/tech_assist/dua.jsp

Step 2: Login or register for an account
http://www.hcup-us.ahrq.gov/tech_assist/centdist.jsp

Step 3: Create your profile under “My Account”

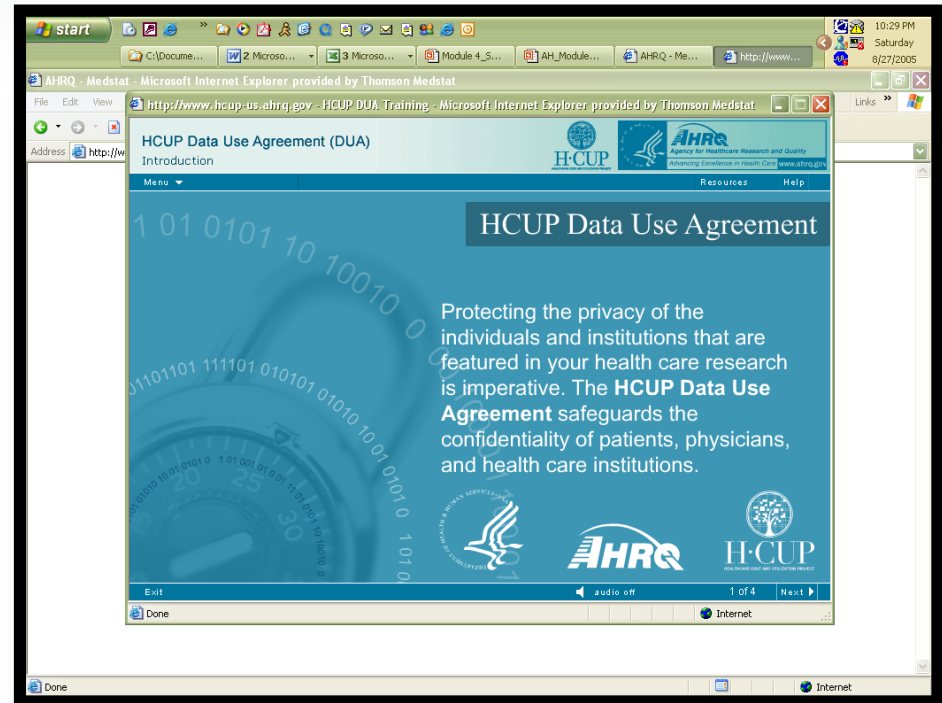
Step 4: Submit online order and complete further instructions listed on the “Thank You” page

For assistance, contact the HCUP Central Distributor:

- ▶ Phone: 866-556-HCUP (4287) toll free
- ▶ Email: HCUPDistributor@ahrq.gov

Additional Requirement: Electronic Data Use Agreement (DUA) Course

- **Purpose of the Course:**
 - ▶ Emphasize the importance of **data protection**
 - ▶ Reduce the risk of **inadvertent violations**
 - ▶ Describe your **individual responsibility** when using HCUP data



Takes 15 minutes to Complete

http://www.hcup-us.ahrq.gov/DUA/dua_interactive_2014/index.htm

Pricing Information Per Data Year

Nationwide Databases (NIS, KID, NEDS)

- ▶ **NIS**: \$350 (2007-2012; student price \$50)
\$160-200 (earlier years; student price \$20)
- ▶ **KID**: \$350 (2009 and 2012; student price \$50)
\$200 (earlier years; student price \$20)
- ▶ **NEDS**: \$500 (student price \$75)



National data
free to
Government
agencies





State Databases (SID, SASD, SEDD)

- ▶ Varies by state, database, year, and type of applicant
- ▶ \$35 - \$3,185



All funds for
State data
sales returned
to State
partners

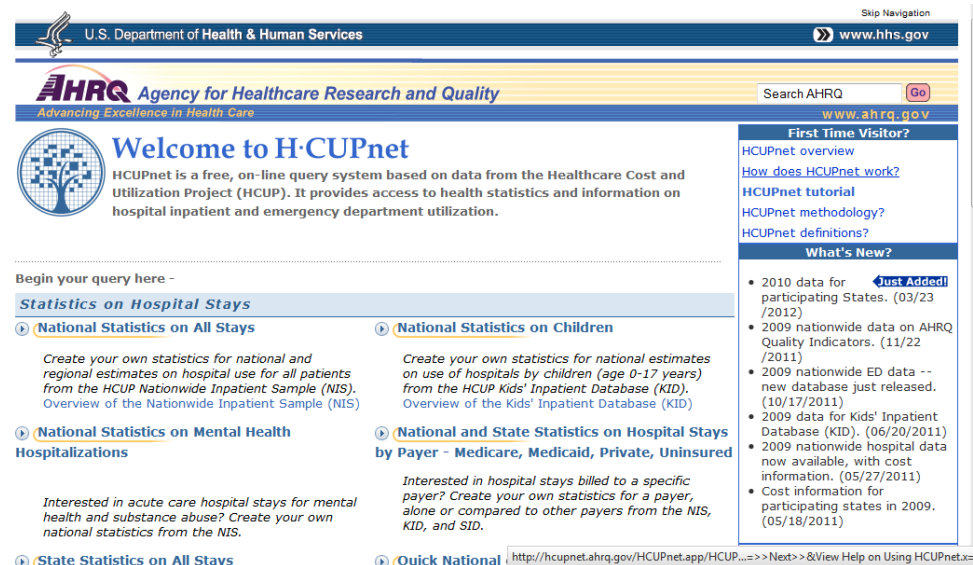
Software Requirements of Working with the Full HCUP Files

Software Package	Load Programs	Format Programs	Example Statistical Coding	HCUP Tools Programs
	X	X	X	X
	X		X	X
	X			X
			X	

MS Excel and Access are NOT GOOD Options!

HCUPnet: Quick, Free Access to HCUP Data

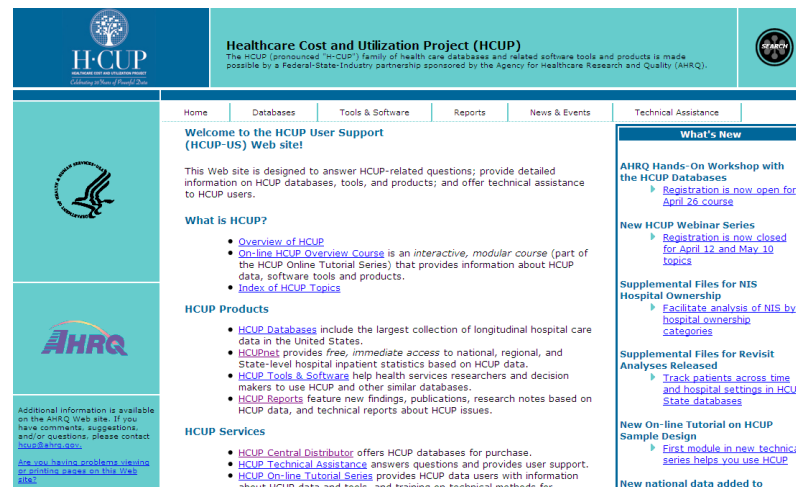
- Free online query system
- Users generate tables of outcomes by diagnoses and procedures
- Data can be cross-classified by patient and hospital characteristics



The screenshot shows the HCUPnet website interface. At the top, there is a navigation bar with the U.S. Department of Health & Human Services logo and the AHRQ logo. Below this, the main heading reads "Welcome to H-CUPnet". A brief description states: "HCUPnet is a free, on-line query system based on data from the Healthcare Cost and Utilization Project (HCUP). It provides access to health statistics and information on hospital inpatient and emergency department utilization." The page is divided into sections for "Begin your query here -", "Statistics on Hospital Stays", "National Statistics on All Stays", "National Statistics on Children", "National Statistics on Mental Health Hospitalizations", and "National and State Statistics on Hospital Stays by Payer - Medicare, Medicaid, Private, Uninsured". A sidebar on the right contains links for "First Time Visitor?" and "What's New?". The "What's New?" section lists recent updates, including 2010 data for participating states, 2009 nationwide data on AHRQ Quality Indicators, 2009 nationwide ED data, 2009 data for Kids' Inpatient Database (KID), and 2009 nationwide hospital data now available with cost information.

<http://hcupnet.ahrq.gov>

- Find detailed information on HCUP databases, tools, and products
- Access HCUPnet
- Find comprehensive list of HCUP-related publications, database reports, and fact books
- Access technical assistance



The screenshot shows the homepage of the HCUP User Support Web Site. The header includes the H-CUP logo and the title "Healthcare Cost and Utilization Project (HCUP)". Below the header is a navigation bar with links: Home, Databases, Tools & Software, Reports, News & Events, Technical Assistance, and What's New. The main content area is divided into several sections: "Welcome to the HCUP User Support (HCUP-US) Web site!", "What is HCUP?", "HCUP Products", "HCUP Services", and "What's New". The "What's New" section highlights recent updates, including AHRQ Hands-On Workshops, HCUPnet registration, and new HCUP databases.

Healthcare Cost and Utilization Project (HCUP)
The HCUP (pronounced "H-CUP") family of health care databases and related software tools and products is made possible by a Federal-State-Industry partnership sponsored by the Agency for Healthcare Research and Quality (AHRQ).

Welcome to the HCUP User Support (HCUP-US) Web site!

This Web site is designed to answer HCUP-related questions; provide detailed information on HCUP databases, tools, and products; and offer technical assistance to HCUP users.

What is HCUP?

- [Overview of HCUP](#)
- [On-line HCUP Overview Course](#) is an interactive, modular course (part of the HCUP Online Tutorial Series) that provides information about HCUP data, software tools and products.
- [Index of HCUP Topics](#)

HCUP Products

- [HCUP Databases](#) include the largest collection of longitudinal hospital care data in the United States.
- [HCUPnet](#) provides free, immediate access to national, regional, and State-level hospital inpatient statistics based on HCUP data.
- [HCUP Tools & Software](#) help health services researchers and decision makers to use HCUP and other similar databases.
- [HCUP Reports](#) feature new findings, publications, research notes based on HCUP data, and technical reports about HCUP issues.

HCUP Services

- [HCUP Central Distributor](#) offers HCUP databases for purchase.
- [HCUP Technical Assistance](#) answers questions and provides user support.
- [HCUP On-line Tutorial Series](#) provides HCUP data users with information about HCUP data and tools, and training on technical methods for

What's New

AHRQ Hands-On Workshop with the HCUP Databases
▶ [Registration is now open for April 26 course](#)

New HCUP Webinar Series
▶ [Registration is now closed for April 12 and May 10 topics](#)

Supplemental Files for NIS Hospital Ownership
▶ [Facilitate analysis of NIS by hospital ownership categories](#)

Supplemental Files for Revisit Analyses Released
▶ [Track patients across time and hospital settings in HCUP State databases](#)

New On-line Tutorial on HCUP Sample Design
▶ [First module in new technical series helps you use HCUP](#)

New national data added to

Additional information is available on the AHRQ Web site. If you have comments, suggestions, and/or questions, please contact hcup@ahrq.gov.
[Are you having problems viewing or printing pages on this Web site?](#)

<http://www.hcup-us.ahrq.gov>



Visit HCUP's Virtual Exhibit Booth



- The HCUP Virtual Exhibit Booth provides materials typically offered at the HCUP conference exhibit booths.
- Includes brochures, participation maps, an overview presentation of HCUP, and additional information that provides general project information.

HCUP Virtual Exhibit Booth
The HCUP Virtual Exhibit Booth provides materials typically offered at HCUP conference exhibit booths. HCUP databases and products are developed by AHRQ through a Federal-State-Industry partnership.

Home Databases Tools & Software Reports Fast Stats News & Events Purchase HCUP Data Technical Assistance Data Innovations

HCUP Virtual Exhibit Booth

The HCUP Virtual Exhibit Booth provides materials typically offered at the HCUP informational booths that conference attendees can visit. A complete listing of HCUP events and activities, including workshops, podium and poster presentations, and exhibit booths, is available on the [Events](#) page.

General Project Information

- New to HCUP? Get to know us and stay connected. ([PDF file](#), 159 KB); ([HTML](#))
- What is HCUP? HCUP Fact Sheet ([PDF file](#), 62 KB; [HTML](#))

HCUP Brochures

Nationwide Databases

- National (Nationwide) Inpatient Sample (NIS) ([PDF file](#), 262 KB; [HTML](#))
- Kids' Inpatient Database (KID) ([PDF file](#), 90 KB; [HTML](#))
- Nationwide Emergency Department Sample (NEDS) ([PDF file](#), 220 KB; [HTML](#))

State Databases

- State Inpatient Databases (SID) ([PDF file](#), 267 KB; [HTML](#))
- State Ambulatory Surgery and Services Databases (SASD) ([PDF file](#), 272 KB; [HTML](#))
- State Emergency Department Databases (SEDD) ([PDF file](#), 273 KB; [HTML](#))

HCUPnet

- Want immediate access to statistics from HCUP data? Learn about HCUPnet ([PDF file](#), 309 KB; [HTML](#))

AHRQ Quality Indicators

Individual brochures available on Quality Indicator pages below.

- [Inpatient Quality Indicators \(IQI\)](#)
- [Prevention Quality Indicators \(PQI\)](#)
- [Patient Safety Indicators \(PSI\)](#)
- [Pediatric Quality Indicators \(PDI\)](#)

State Participation in HCUP

HCUP includes inpatient data provided by [35 HCUP Partners](#). In addition, 34 Partners provided ambulatory surgery and services data, and 32 provided emergency department data. The nationwide databases are sampled from the State-level data.

- HCUP Participation Maps ([PDF file](#), 80 KB; [HTML](#))

HCUP Databases Available for Purchase

All of the nationwide HCUP databases and many of the State databases are available for purchase through the [HCUP Central Distributor](#).

- State Databases Available for Purchase through the HCUP Central Distributor ([PDF file](#), 23 KB; [HTML](#))

Note that database availability varies by year. This map represents State participation in the HCUP Central Distributor regardless of year.

A [summary table](#) shows the availability of State-level data by database and year. Complete database availability and pricing information is provided in the Database Catalog, which is found by navigating to the online [HCUP Central Distributor](#).

HCUP Overview Presentation

The overview presentation provides an introduction to HCUP's databases, tools, and software. The slide deck is adapted for audiences at individual conferences throughout the year. This version was presented at the 2014 AcademyHealth Annual Research Meeting.

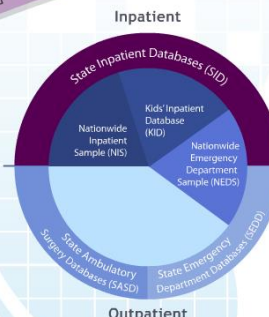
Interactive Online HCUP Overview Course Available

- Provides information about HCUP data, software tools, and products
- Length 90 min

The HCUP Overview Course
Overview of HCUP Data

Powerful data. Meaningful answers.

menu resources help exit



The diagram shows a circular structure of HCUP databases. The top half is labeled 'Inpatient' and includes 'State Inpatient Databases (SID)', 'Nationwide Inpatient Sample (NIS)', and 'Kids' Inpatient Database (KID)'. The bottom half is labeled 'Outpatient' and includes 'State Ambulatory Surgery Databases (SASD)', 'State Emergency Department Database (SEDD)', and 'Nationwide Emergency Department Sample (NEDS)'. Navigation buttons 'Map', 'Next', 'Back', and 'Home' are visible at the bottom.


The State Inpatient Databases (SID)
are a set of state-level hospital databases capturing inpatient care in participating states. Researchers and policymakers can use the SID to study many state-level issues surrounding health care utilization, access, charges and costs, quality, and outcomes.

Roll over each of the six databases for a brief description.

The HCUP Overview Course
Introduction


Powerful data. Meaningful answers.

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HEALTHCARE COST AND UTILIZATION PROJECT

Powerful data. Meaningful answers.

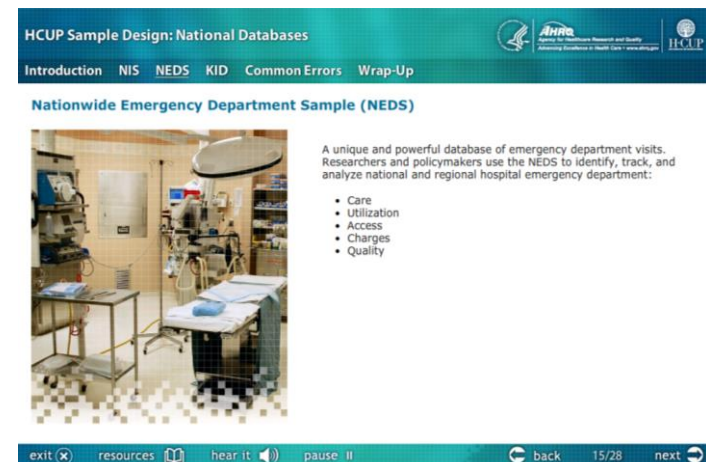


- Do admission rates for preventable hospitalizations vary across the U.S.?
- What percentage of hospitalizations for children are uninsured in my state?
- What are the most common conditions treated in the Emergency Department?
- Will there be enough cases for my analysis?
- What are the latest trends in ambulatory surgery for knee injuries?
- What tools are available to help me in my research?

Map Next Back Home

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

- Tutorial explains the sampling strategy of the three nationwide databases – the NIS, KID, and NEDS
- Length 30 min



http://www.hcup-us.ahrq.gov/tech_assist/tutorials.jsp

- Provides instructions on how to unzip HCUP data, save it on your computer, and load data into a statistical software package
- Length 20 min

Load and Check HCUP Data

Introduction Load Check Wrap-Up



Healthcare Cost and Utilization Project

Load and Check

exit (X) resources hear it play back 1/16 next

Load and Check HCUP Data

Introduction Load Check Wrap-Up

Running Check Programs

My NIS Data Means and Frequencies:

AGE (Age)	Frequency	Percent of Total
0		
1		

LOS (Length of Stay)

Frequency	Percent of Total
0 days	
1 day	

Wait's Expected Primary Payer

Frequency	Percent of Total
1: Medicare	
2: Medicaid	

HCUP-US Summary Statistics Means and Frequencies:

AGE (Age)	Frequency	Percent of Total
0		
1		

LOS (Length of Stay)

Frequency	Percent of Total
0 days	
1 day	

Wait's Expected Primary Payer

Frequency	Percent of Total
1: Medicare	
2: Medicaid	

Create tables of means and of frequency distributions from the data on your computer.

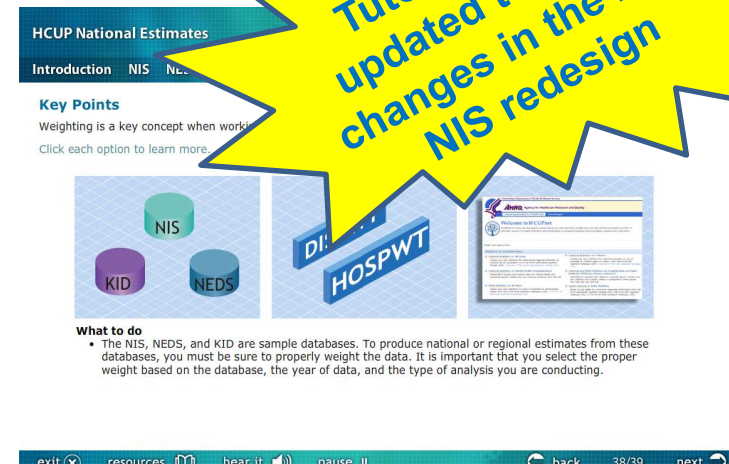
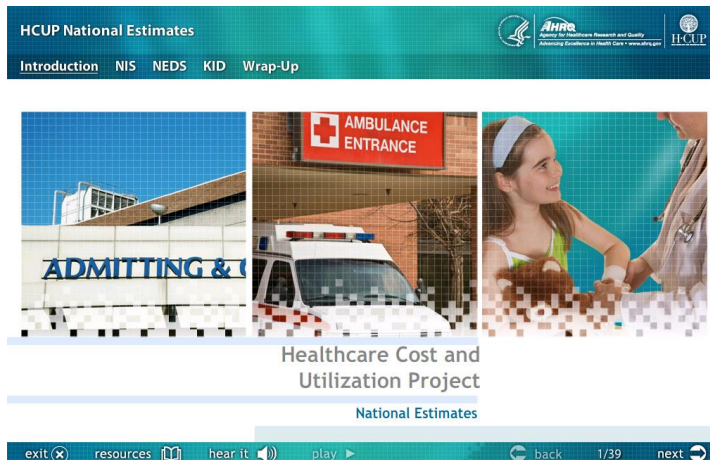
Compare those statistics to the summary statistics available on HCUP-US.

exit (X) resources hear it pause back 13/16 next

http://www.hcup-us.ahrq.gov/tech_assist/tutorials.jsp

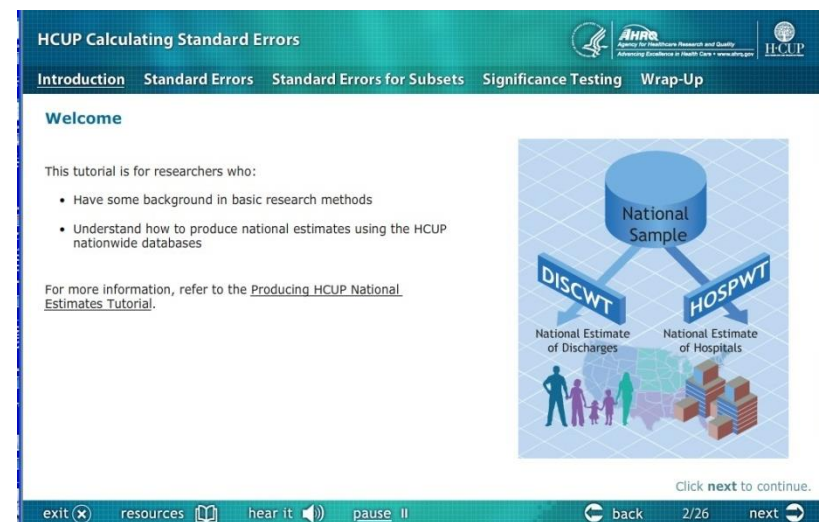
Producing National HCUP Estimates

- Explains how to produce national estimates from the three nationwide databases (NIS, NEDS, KID)
- Length 45 min



http://www.hcup-us.ahrq.gov/tech_assist/tutorials.jsp

- Explains how to accurately determine the precision of the estimates produced from the HCUP nationwide databases
- Length 30 min



http://www.hcup-us.ahrq.gov/tech_assist/tutorials.jsp

- Describe problems that may arise when using multiple years of HCUP data and provides solutions for addressing these issues
- Length 30 min

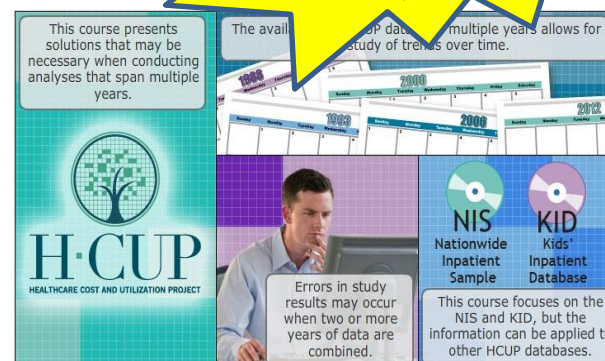


Healthcare Cost and
Utilization Project
Trend Analysis

HCUP Using Multiple Years

menu resources

Introduction



This course presents solutions that may be necessary when conducting analyses that span multiple years.

The available HCUP data for multiple years allows for study of trends over time.

H-CUP
HEALTHCARE COST AND UTILIZATION PROJECT

NIS
Nationwide Inpatient Sample

KID
Kids' Inpatient Database

Errors in study results may occur when two or more years of data are combined.

This course focuses on the NIS and KID, but the information can be applied to other HCUP databases.

Tutorial will be updated to reflect changes in the 2012 NIS redesign

http://www.hcup-us.ahrq.gov/tech_assist/tutorials.jsp

Active Technical Assistance

- Responds to inquiries about HCUP data, products, and tools
- Collects user feedback and suggestions for improvement

E-mail: hcup@ahrq.gov







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HealthCare Cost and Utilization Project (HCUP)



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**Time for Questions
and/or Comments.**

