



Agency for Healthcare Research and Quality

Advancing Excellence in Health Care

www.ahrq.gov

Administrative Data and HCUP Tools

Healthcare Cost and Utilization Project

**Using Administrative Data to
Answer Policy Questions**



December 4-5, 2008

Introductions

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Research Medical Officer

Agency for Healthcare Research and Quality



Advancing
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Health Care

AHRQ – Agency within DHHS



H·CUP
HEALTHCARE COST AND UTILIZATION PROJECT

United States Department of
Health & Human Services



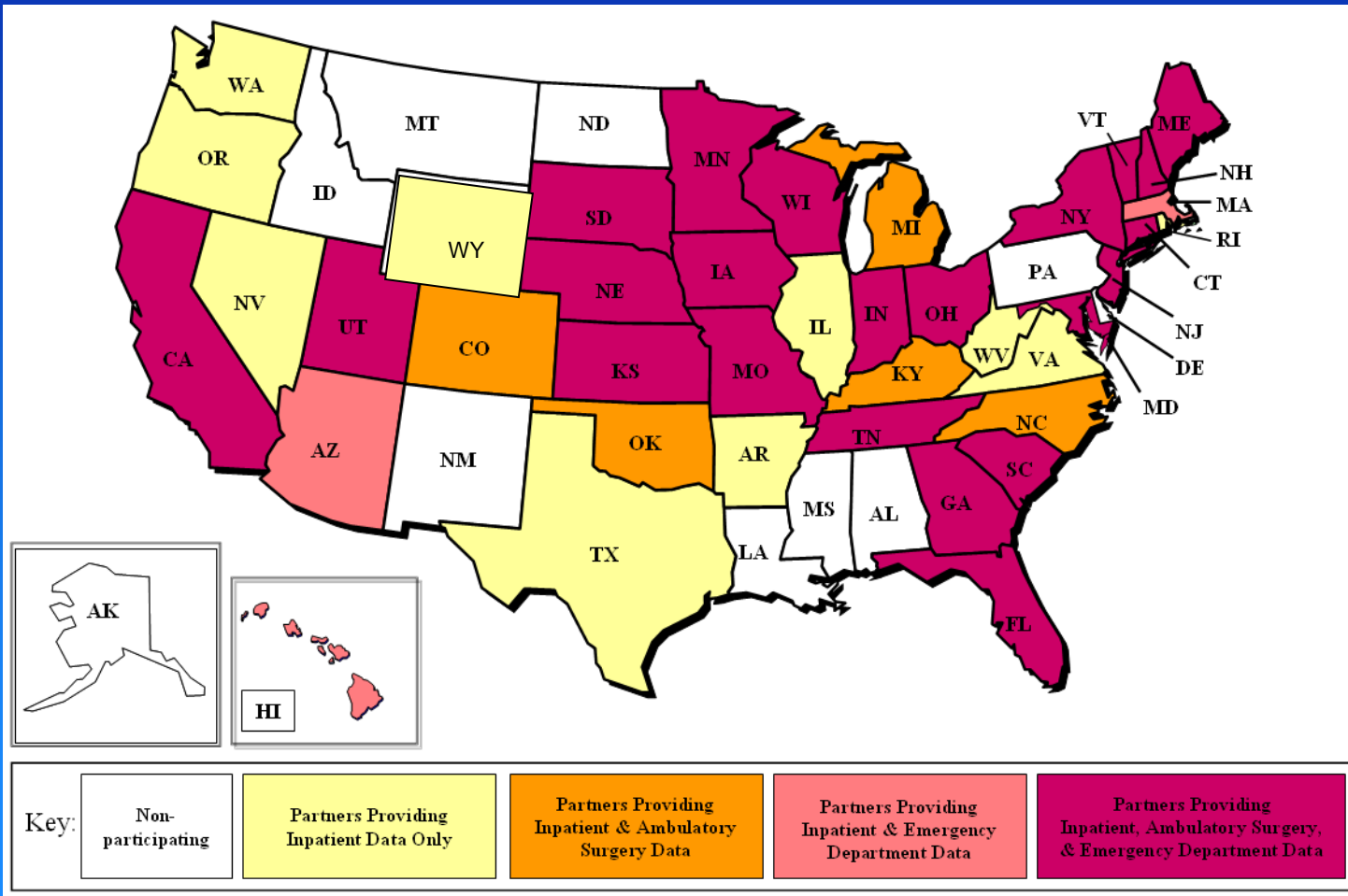
SAMHSA





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Health Care

The HCUP Partnership: A Voluntary Federal-State-Private Sector Collaboration



40 states
90% of all
discharges

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

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

New Jersey Department of Health and Senior Services



Current HCUP Partners

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

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

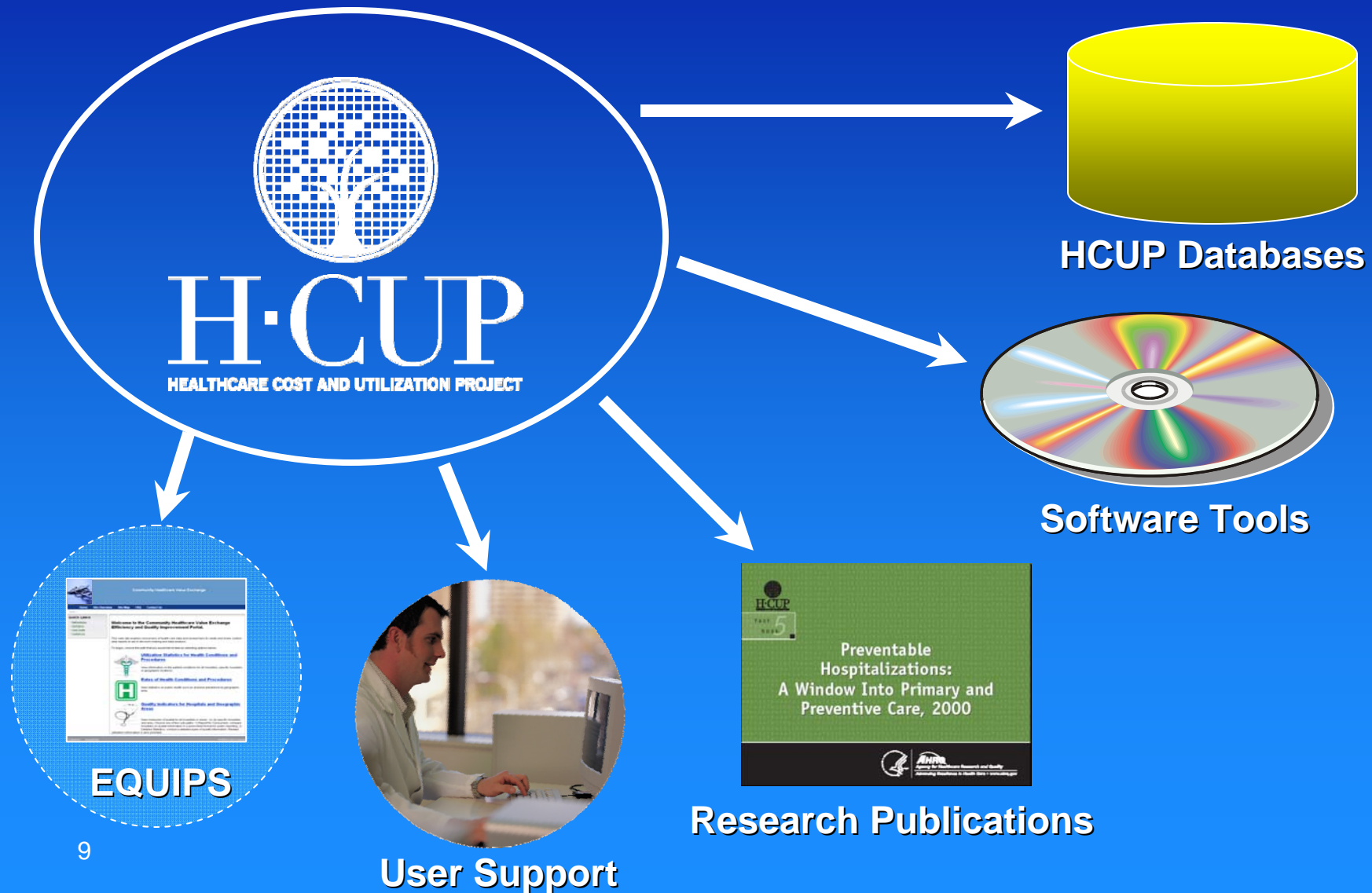
West Virginia Health Care Authority

Wisconsin Department of Health and Family Services

Wyoming Hospital Association



HCUP Is a Family of Databases, Tools, and Products



A man with dark hair, wearing a white lab coat, is shown in profile, looking down and writing in a clipboard with a pen. He is in a laboratory or clinical setting. In the background, there is a piece of medical equipment with a digital display showing various numbers and a large number '7' on its side. The background is slightly blurred.

Administrative Data



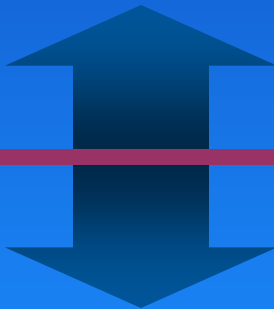
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The Foundation of Administrative Data is Billing Data



Billing UB-04 Form

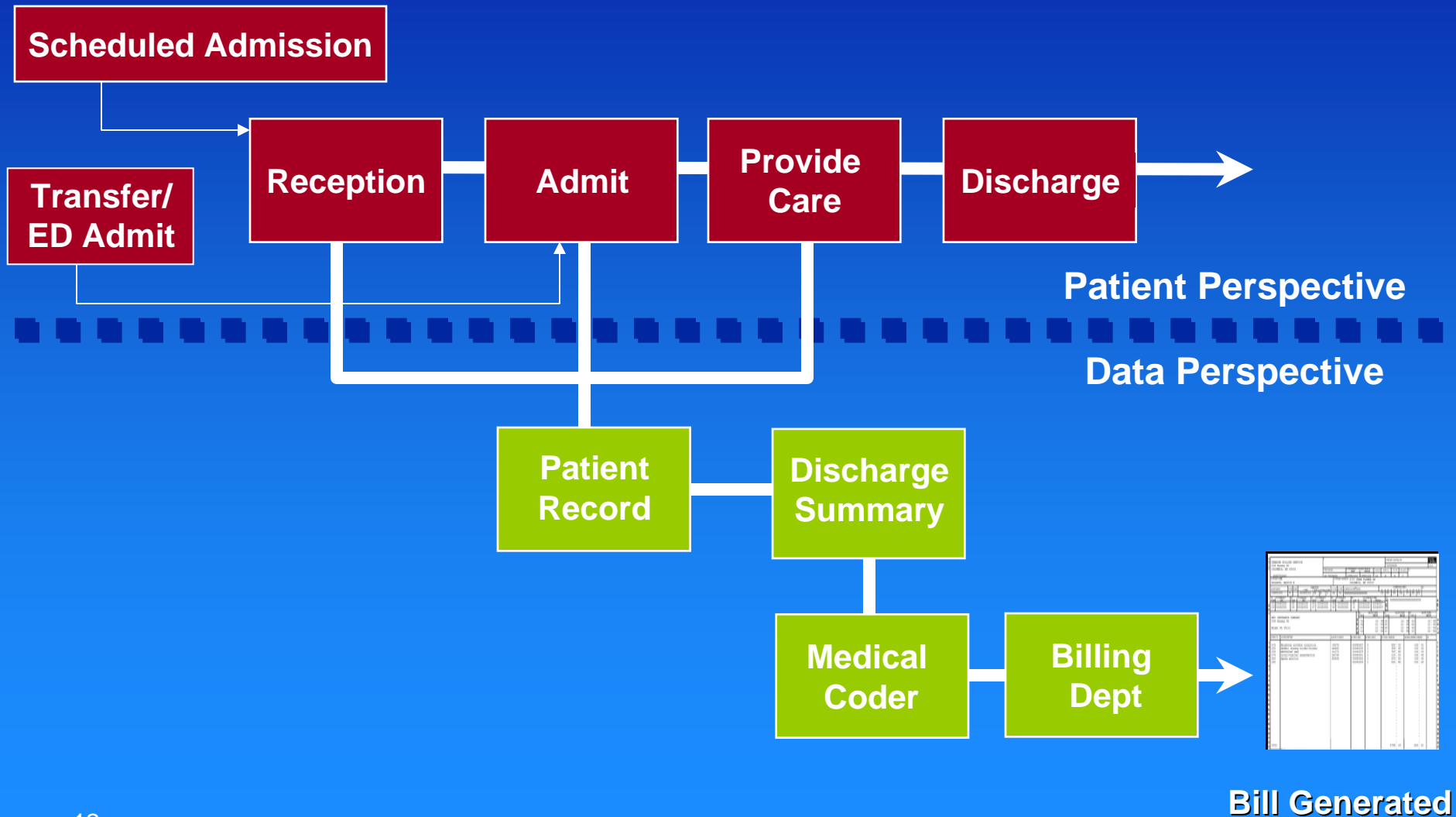
Demographic
Data



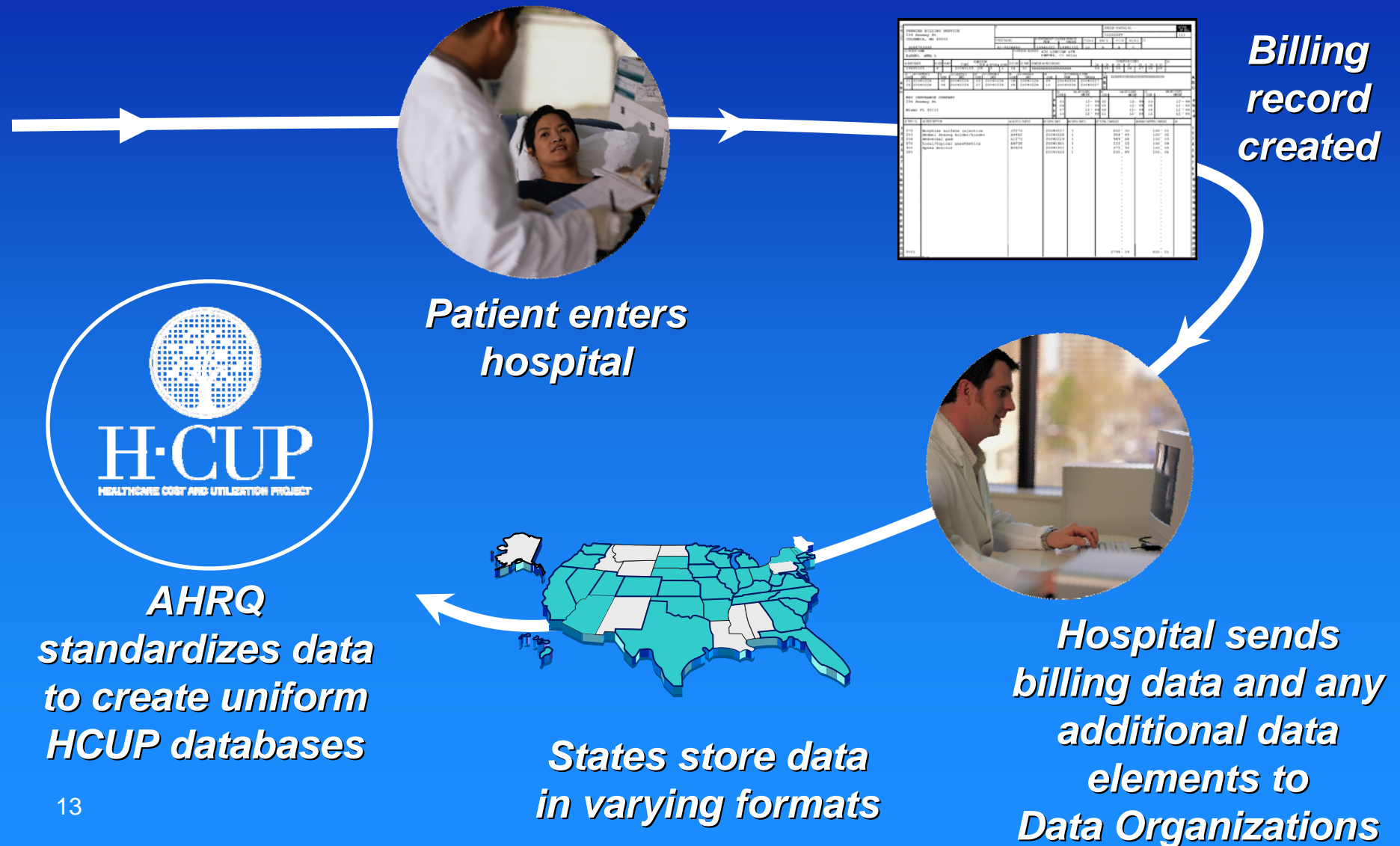
Diagnoses
Procedures
Charges

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The Flow of Inpatient Admissions



From Patient to Data



General File Structure for Hospital Administrative Data

■ **Range of file sizes**

- ~ 55,000 to 4.0 million records, depending on state

■ **Core set of variables**

- Generally available across most states

■ **State-specific variables**

- Vary by state
- Allow specific analyses to be done
 - Patient race/ethnicity – to examine disparities
 - Encrypted patient identifier – to examine readmissions

UB-04 Billing Form

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KEY INSURANCE COMPANY 234 Seaway St Miami FL 33111										39 CODE		40 VALUE CODES AMOUNT		41 CODE		42 VALUE CODES AMOUNT		43 CODE		44 VALUE CODES AMOUNT							
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d										10		12		99		11		12		99		12		12		99	
42 REV CD		43 DESCRIPTION				44 HCPCS / RATES				45 SERV DATE		46 SERV UNITS		47 TOTAL CHARGES		48 NONCOVERED CHARGES		49									
272		Morphine sulfate injection				J2275				20040227		2		802.00		100.01		01									
250		Abdominal drsgng holder/binder				A4462				20040228		1		354.49		100.02		02									
258		Abdominal pad				L1270				20040229		1		945.68		100.03		03									
270		Local/topical anesthetics				A4735				20040301		1		112.02		100.04		04									
260		Apnea monitor				E0608				20040302		1		375.50		100.05		05									
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Patient demographics (age, sex)

Diagnoses & procedures (ICD-9-CM, DRG)

Expected payer

Length of stay

Patient disposition

Admission source & type

Dates of admission and discharge

Hospital identifiers

What are Some State-Specific Data Elements?

- 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

Example: Payer Detail Varies by State

PAY1_X		PAY1 (HCUP Standard)	
Value	Description	Value	Description
M	Medicare	1	Medicare
D	Medicaid	2	Medicaid
P	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

Hospital Billing Data Have Benefits and Limitations

Benefits

- Large sample size
- Uniformity of coding
- Routine, regular collection
- Ease of access
- All-payer
- Available at local, state, regional, national level

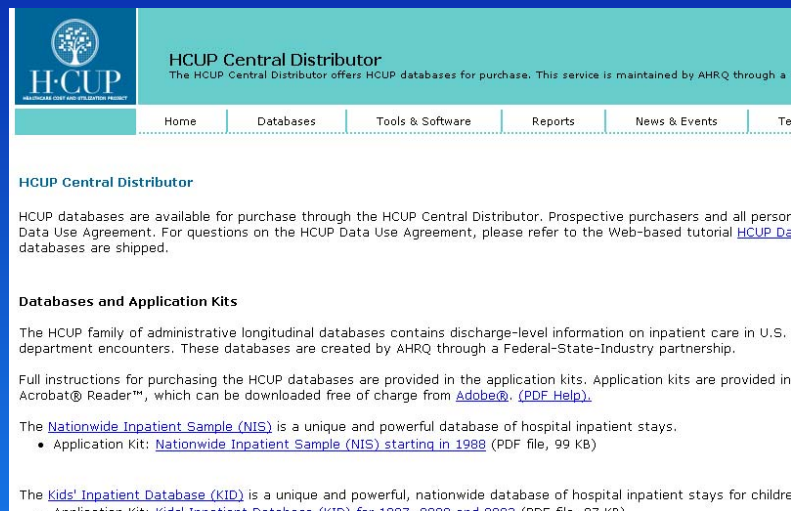
Limitations

- 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
- Sparse clinical details

Accessing Data

- Your own state data organization can provide:
 - Most recent data
 - Data elements not released outside government
 - e.g., patient identifiers, physician identifiers, linkage variables
- To compare your data with other states:
 - Obtain HCUP-formatted, uniform files through HCUP Central Distributor
 - Obtain other states' data directly from other states
 - Can access summary statistics through HCUPnet
- National benchmarks

Obtain HCUP Data – Two Methods



HCUP Central Distributor
The HCUP Central Distributor offers HCUP databases for purchase. This service is maintained by AHRQ through a Federal-State-Industry partnership.

Home | Databases | Tools & Software | Reports | News & Events | Technical Assistance

HCUP Central Distributor

HCUP databases are available for purchase through the HCUP Central Distributor. Prospective purchasers and all persons who use HCUP data must agree to the HCUP Data Use Agreement. For questions on the HCUP Data Use Agreement, please refer to the Web-based tutorial [HCUP Data Use Agreement](#). HCUP databases are shipped.

Databases and Application Kits

The HCUP family of administrative longitudinal databases contains discharge-level information on inpatient care in U.S. hospital departments and encounters. These databases are created by AHRQ through a Federal-State-Industry partnership.

Full instructions for purchasing the HCUP databases are provided in the application kits. Application kits are provided in Adobe® Reader™, which can be downloaded free of charge from [Adobe®](#). ([PDF Help](#)).

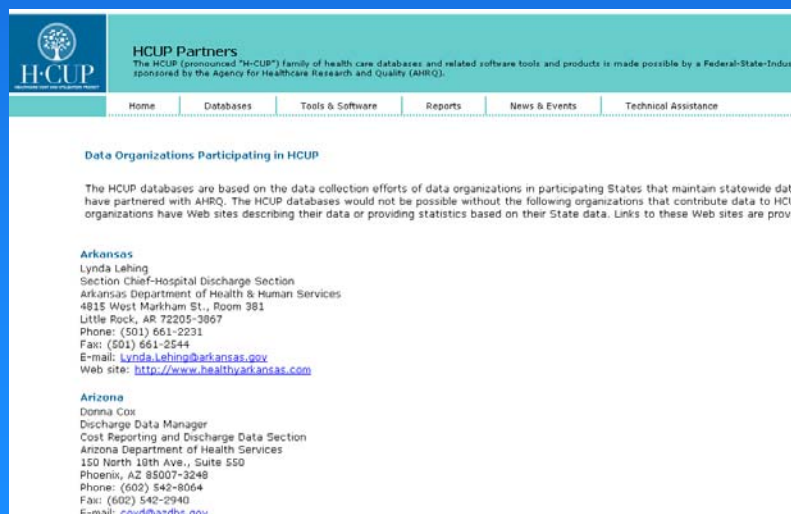
The [Nationwide Inpatient Sample \(NIS\)](#) is a unique and powerful database of hospital inpatient stays.

- Application Kit: [Nationwide Inpatient Sample \(NIS\) starting in 1988](#) (PDF file, 99 KB)

The [Kids' Inpatient Database \(KID\)](#) is a unique and powerful, nationwide database of hospital inpatient stays for children.

Application Kit: [Kids' Inpatient Database \(KID\) for 1997, 1999, and 2003](#) (PDF file, 97 KB)

HCUP Central Distributor
www.hcup-us.ahrq.gov/tech_assist/centdist.jsp



HCUP Partners
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).

Home | Databases | Tools & Software | Reports | News & Events | Technical Assistance

Data Organizations Participating in HCUP

The HCUP databases are based on the data collection efforts of data organizations in participating States that maintain statewide data. These organizations have Web sites describing their data or providing statistics based on their State data. Links to these Web sites are provided below.

Arkansas
Lynda Lehing
Section Chief-Hospital Discharge Section
Arkansas Department of Health & Human Services
4815 West Markham St., Room 381
Little Rock, AR 72205-3807
Phone: (501) 661-2231
Fax: (501) 661-2544
E-mail: Lynda.Lehing@arkansas.gov
Web site: <http://www.healthysarkansas.com>

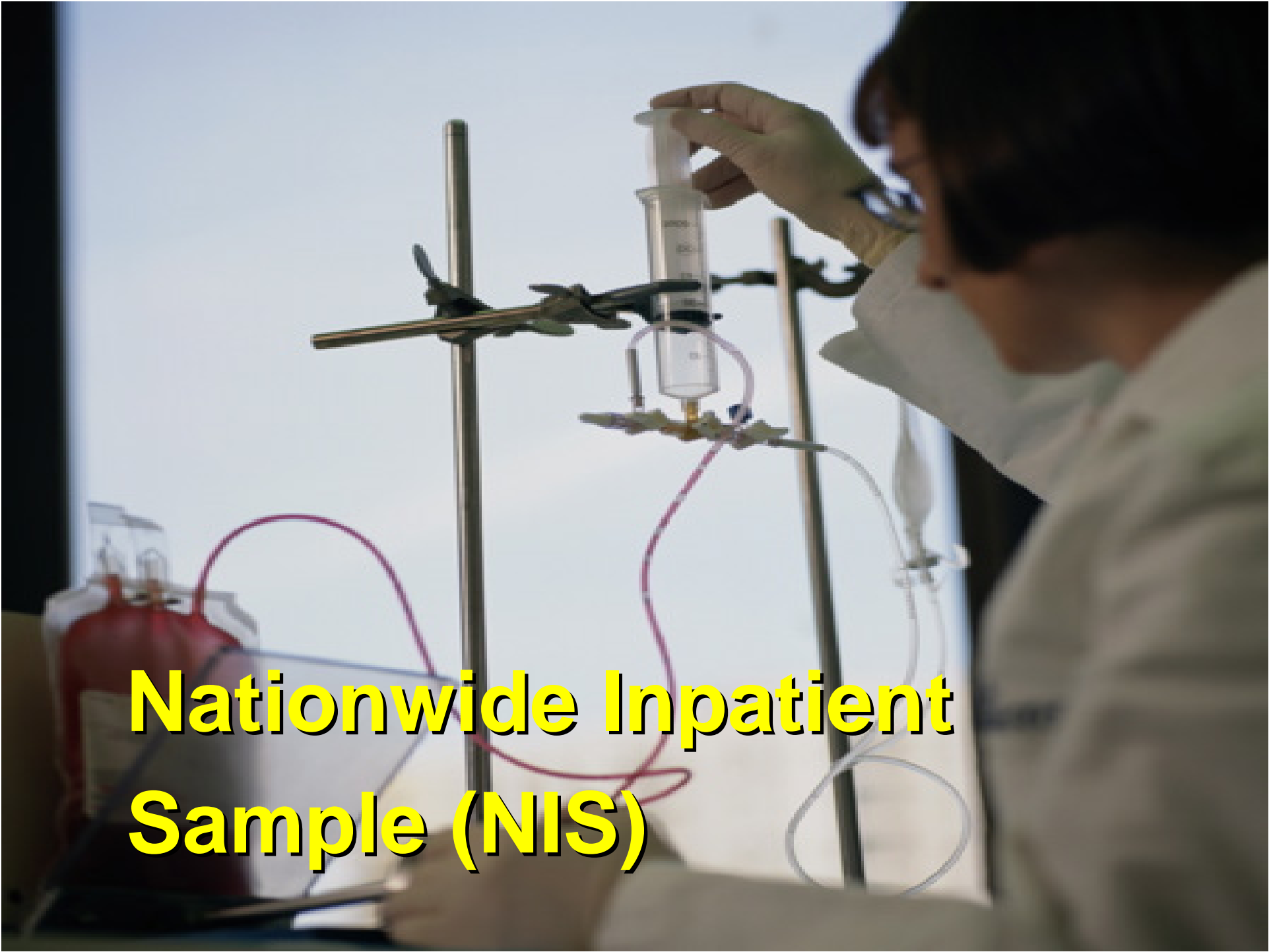
Arizona
Donna Cox
Discharge Data Manager
Cost Reporting and Discharge Data Section
Arizona Department of Health Services
150 North 19th Ave., Suite 550
Phoenix, AZ 85007-3248
Phone: (602) 542-8064
Fax: (602) 542-2940
E-mail: coxdbazdhs.gov

HCUP Partner States
<http://www.hcup-us.ahrq.gov/partners.jsp>

States Releasing SID through HCUP Central Distributor

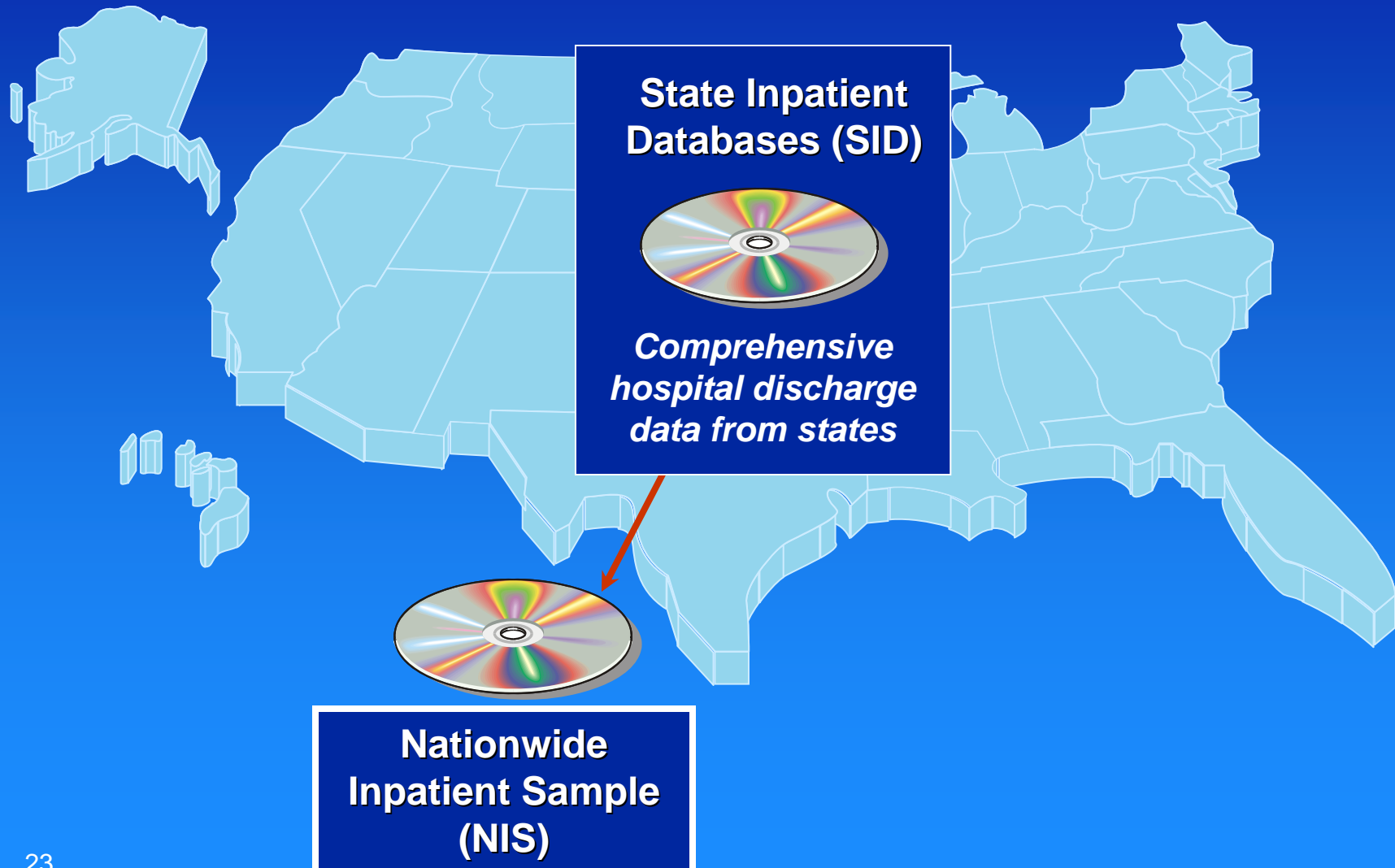
1990 – 2007*

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

A scientist wearing a white lab coat and a white face mask is working in a laboratory. They are holding a clear plastic syringe with their right hand, positioned over a complex apparatus. The apparatus consists of a metal stand with a horizontal bar, from which a syringe is suspended. Below the syringe, there are various tubes and connectors. A red reservoir is visible on the left side of the apparatus, connected by a red tube. The background is a plain, light-colored wall.

Nationwide Inpatient Sample (NIS)

What Is the Nationwide Inpatient Sample (NIS)?



Purpose of the NIS

**Allows national
and regional
studies of inpatient
hospital utilization
and charges –
generates national
estimates**



Not recommended for state-level analyses



Advancing
Excellence in
Health Care

Statewide Data Systems Participating in NIS



H-CUP
HEALTHCARE COST AND UTILIZATION PROJECT

Data Year	# of States	States
1988	8	CA, CO, FL, IA, IL, MA, NJ, WA
1989-1992	11	+ AZ, PA, WI
1993-1994	17	+ CT, KS, MD, NY, OR, SC
1995-1996	19	+ MO, TN
1997-1998	22	+ HI, UT, GA
1999	24	+ ME, VA
2000	28	+ KY, NC, TX, WV
2001	33	+ MI*, MN, NE, RI, VT
2002	35	+ NV, OH, SD [AZ not available]
2003	37	+ AZ, IN, NH [ME not available]
2004	37	+ AR [PA not available]
2005	37	+OK [VA not available]
2006	38	+VA

The NIS Can Be Used for Many Purposes

- **Use of and charges for hospital services**
- **Medical practice variation**
- **Medical treatment effectiveness**
- **Quality of care and patient safety**
- **Impact of health policy changes**
- **Diffusion of medical technology**

**Provides national and regional benchmarks to
compare your own experience**

Coming Soon...

**National Emergency
Department Sample (NEDS)**



A photograph of a newborn baby being held by a person, likely a healthcare worker, wearing a blue apron and a white face mask. The baby is lying in a white container, possibly a bassinet or a weighing scale. The text "Software Tools for Use with Administrative Data" is overlaid in yellow with a black outline.

Software Tools for Use with Administrative Data

HCUP Software Tools

Clinical Classification
System (CCS)

ICD-9-CM CCS

ICD-10 CCS

CPT CCS

Mental Health CCS

Comorbidity Software

Chronic Condition
Indicators

Procedure Classes

Cost-to-Charge Ratios

HCUPnet

Hospital Market Structure
(HMS) Flags

Utilization Flags

Quality Indicators

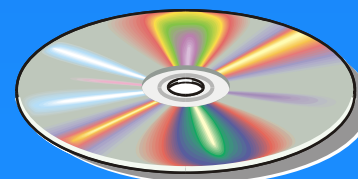
Prevention QIs

Inpatient QIs

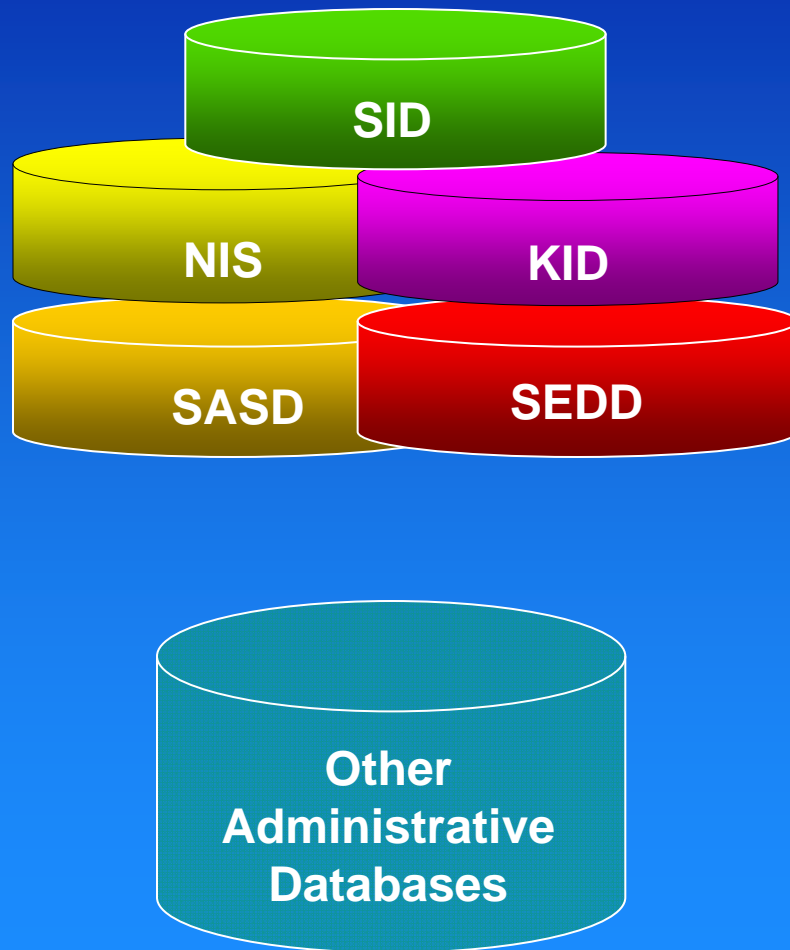
Patient Safety QIs

Pediatric QIs

Number of HCUP-related
Software Tools: 15



Most AHRQ HCUP Tools Can Be Applied to Any Administrative Database



CCS Tools

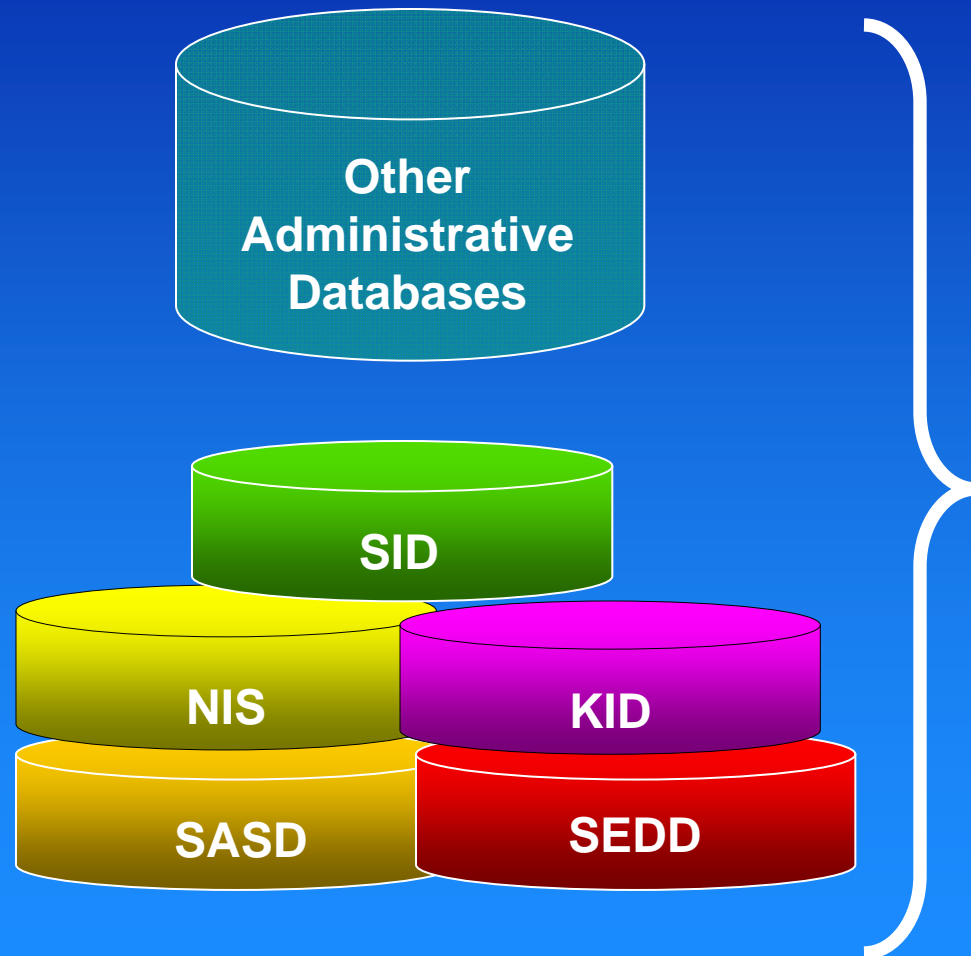
Comorbidity

**Procedure
Classes**

**Chronic
Condition
Indicator**

AHRQ QIs

Most AHRQ HCUP Tools Aid to Summarize Data



CCS Tools

ICD-9-CM CCS

ICD-10 CCS

CPT CCS

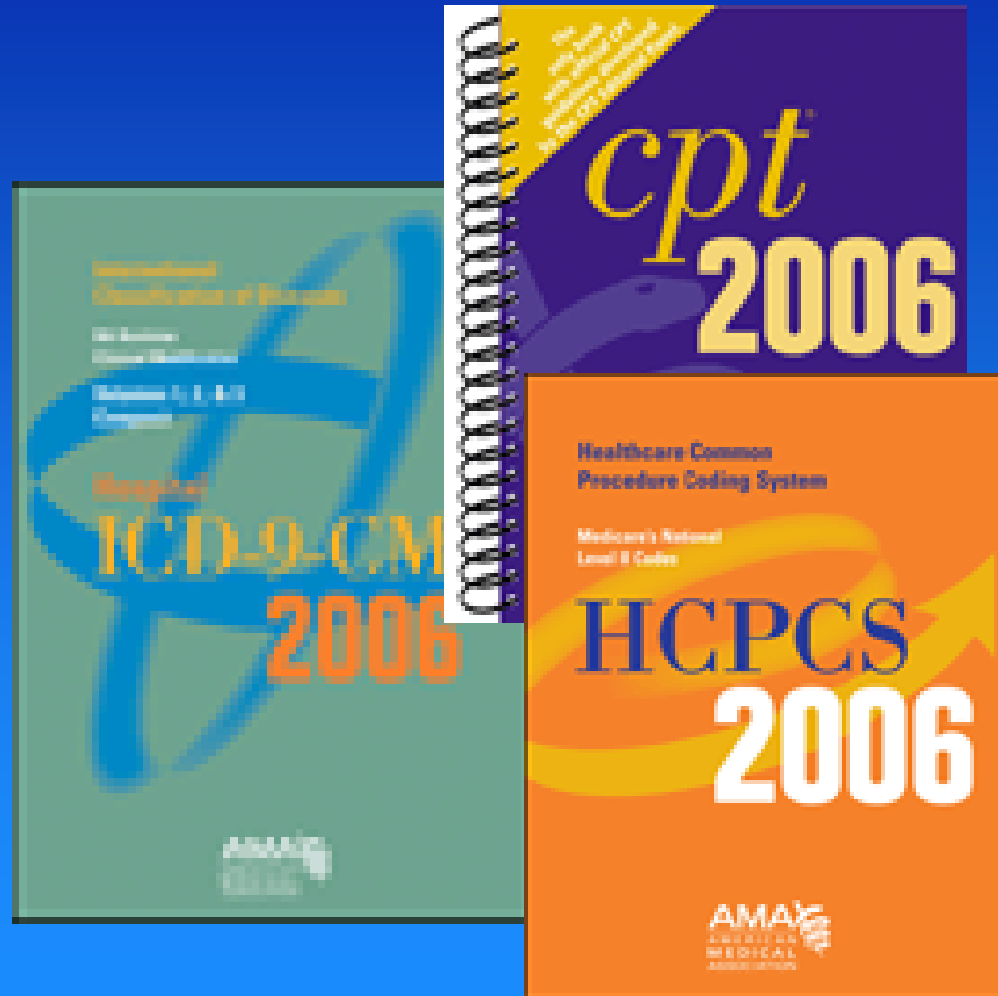
MH CCS

Procedure
Classes

Chronic
Condition
Indicator

Most Tools Based On Medical Coding Classifications

- ICD-9-CM
- CPT
- HCPCS
- DRGs
- MDC
- CCS



Multiple Coding Systems

■ ICD-9-CM

■ CPT

■ HCPCS

} Individual
Codes

■ DRGs

■ MDC

■ CCS

} Groupers

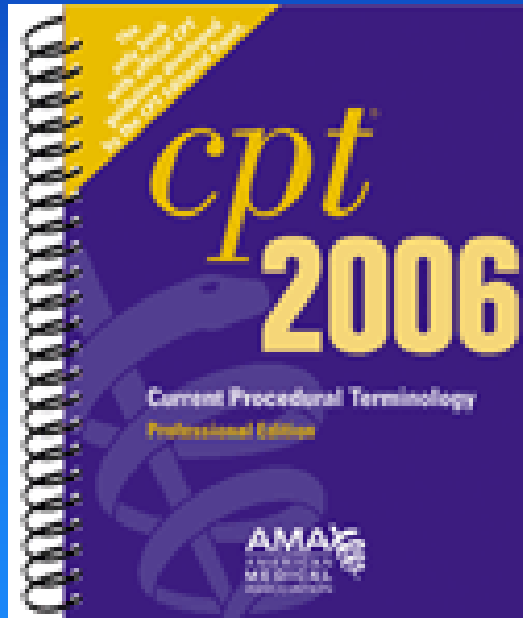
**Which coding system is appropriate for your
policy analysis?**

ICD-9-CM

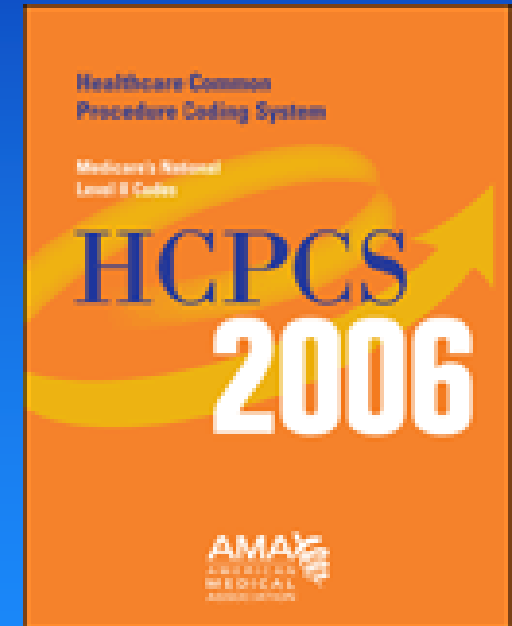
- ICD-9-CM Diagnosis Codes
- ICD-9-CM Procedure Codes
- Included in both inpatient and outpatient databases



Common Procedural Coding System – CPT & HCPCS



CPT
HCPCS
Local Codes



Clinical Classifications Software (CCS)

ICD-9-CM
Diagnosis Codes

12,600 Diagnosis
Codes and 3,500
Procedure Codes



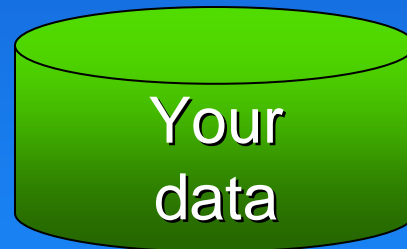
Clinical
Classifications

The CCS collapses ICD-9-CM codes into a smaller number of clinically meaningful categories that can be more useful for presenting descriptive statistics than are individual ICD-9-CM codes.

CCS for ICD-9-CM

Groups ICD-9-CM codes into clinically meaningful categories

CCS for
ICD-9-CM



ICD-9-CM
Codes

0031 0202 0223 0362
0380 0381 03810
03811 03819 0382
0383 03840 03841
03842 03843 03844
03849 0388 0389 0545
449 7907

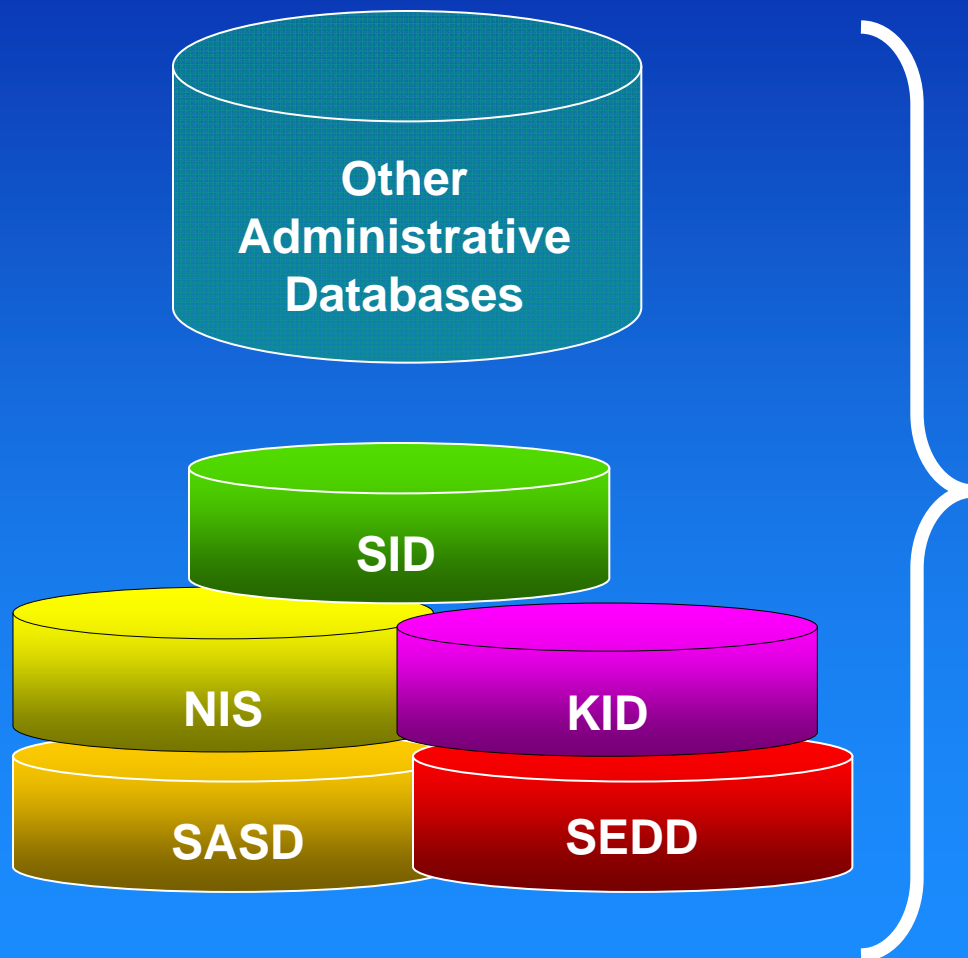
0700 0701 0702
07020 07021 07022
07023 0703 07030
07031 07032 07033
0704 07041 07042
07043 07044 07049
0705 07051 07052
07053 07054 07059
0706 07070 07071
0709 57140 57141
57149 5731 5732
5733

CCS
Codes

CCS 2:
Septicemia

CCS 6:
Hepatitis

Most AHRQ HCUP Tools Aid to Summarize Data



CCS Tools

ICD-9-CM CCS

ICD-10 CCS

CPT CCS

MH CCS

Procedure
Classes

Chronic Condition
Indicator

Kansas - 2006

Rank	ICD-9-CM diagnosis code and name		Total number of discharges
1.	V30.00	Single Lb In-Hosp W/O Cs	27,705
2.	V30.01	Single Lb In-Hosp W Cs	11,466
3.	486	Pneumonia, Organism Nos	10,417
4.	428.0	Chf Nos (after Oct 1, 2002)	7,536
5.	414.01	Crnry Athrscl Natve Vssl	6,615
6.	654.21	Prev C-Delivery-Delivrd	4,888
7.	276.51	Dehydration	4,100
8.	786.59	Chest Pain Nec	4,057
9.	715.36	Loc Osteoarth Nos-L/Leg	3,949
10.	664.11	Del W 2 Deg Lacerat-Del	3,610

Colorado - 2006

State statistics - 2006 Colorado

Rank order of CCS principal diagnosis category

			Total number
Rank	CCS principal diagnosis category and name		of discharges
1	218	Liveborn	66,845
2	193	Trauma to perineum and vulva	17,261
3	195	Other complications of birth, puerperium affecting management of the mother	13,733
4	203	Osteoarthritis	13,178
5	122	Pneumonia (except that caused by tuberculosis and sexually transmitted diseases)	12,922
6	205	Spondylosis, intervertebral disc disorders, other back problems	9,639
7	108	Congestive heart failure, nonhypertensive	8,042
8	237	Complication of device, implant or graft	7,885
9	101	Coronary atherosclerosis	7,879
10	69	Affective disorders	7,311



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Excellence in
Health Care

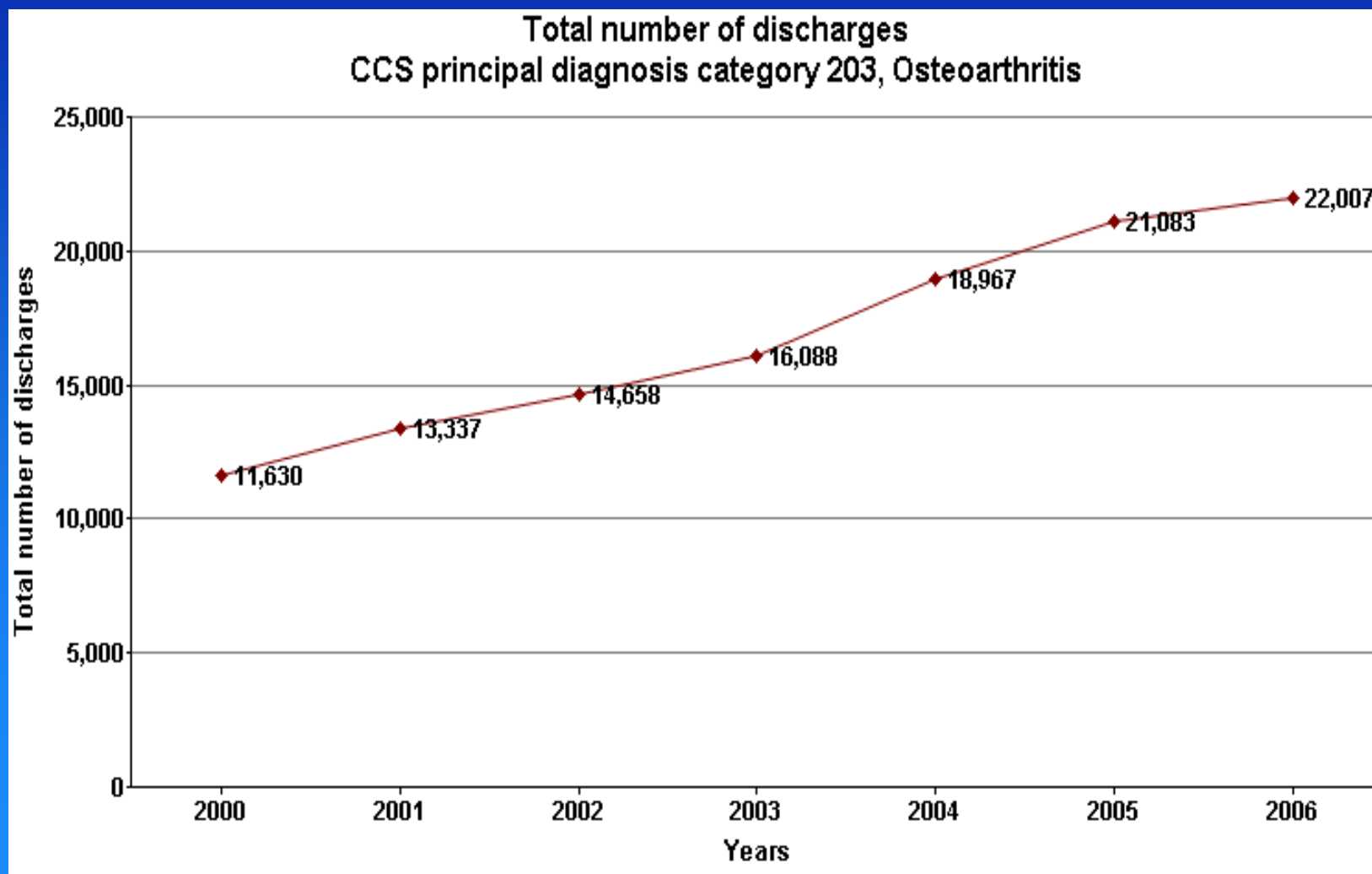
U.S. - 2006



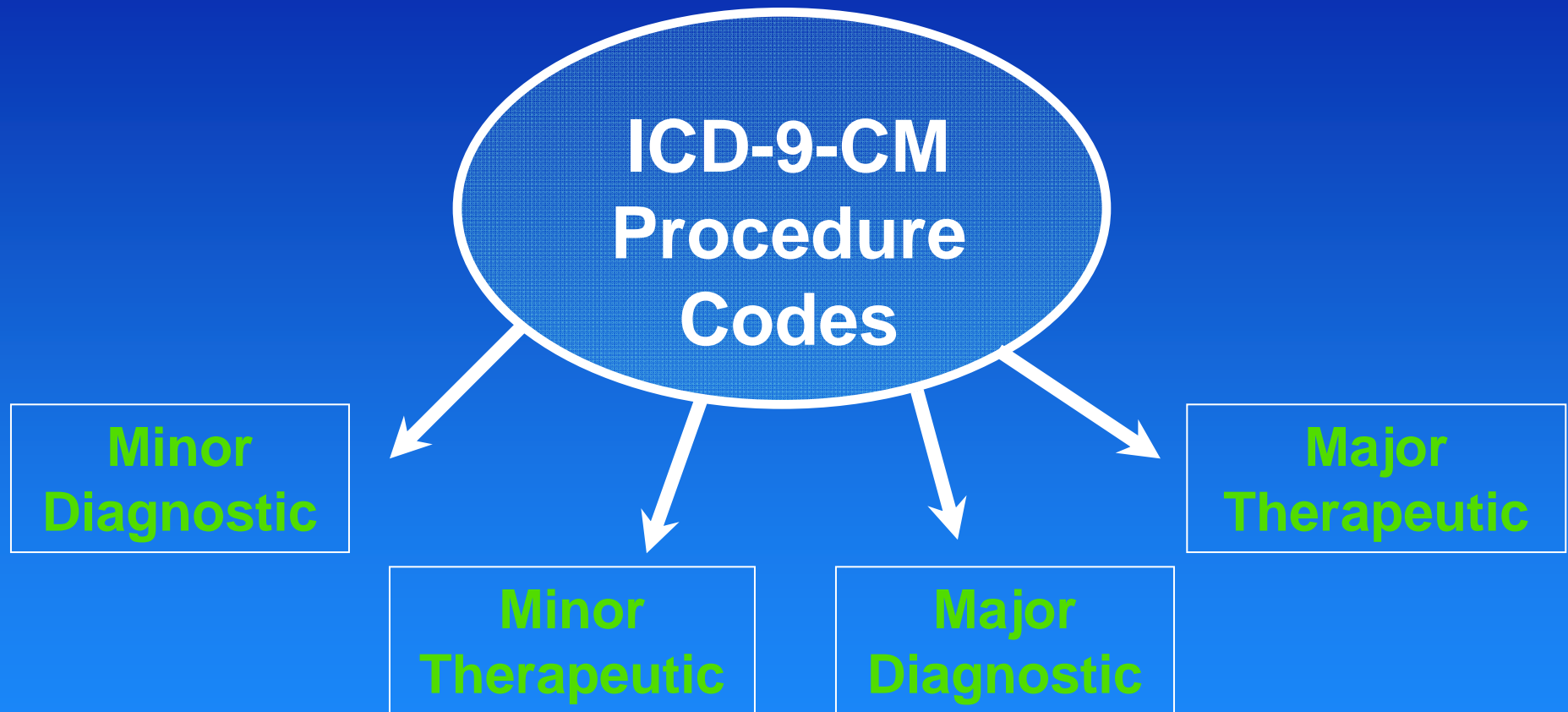
H·CUP
HEALTHCARE COST AND UTILIZATION PROJECT

			Total number of discharges
Rank	CCS principal diagnosis category and name		
1.	218	Liveborn	4,288,954
2.	122	Pneumonia (except that caused by tuberculosis and sexually transmitted diseases)	1,218,467
3.	101	Coronary atherosclerosis	1,198,274
4.	108	Congestive heart failure, nonhypertensive	1,098,573
5.	102	Nonspecific chest pain	856,948
6.	193	Trauma to perineum and vulva	817,848
7.	195	Other complications of birth, puerperium affecting management of the mother	767,357
8.	106	Cardiac dysrhythmias	749,182
9.	203	Osteoarthritis	735,087
10.	100	Acute myocardial infarction	675,121

North Carolina – 2000 - 2006

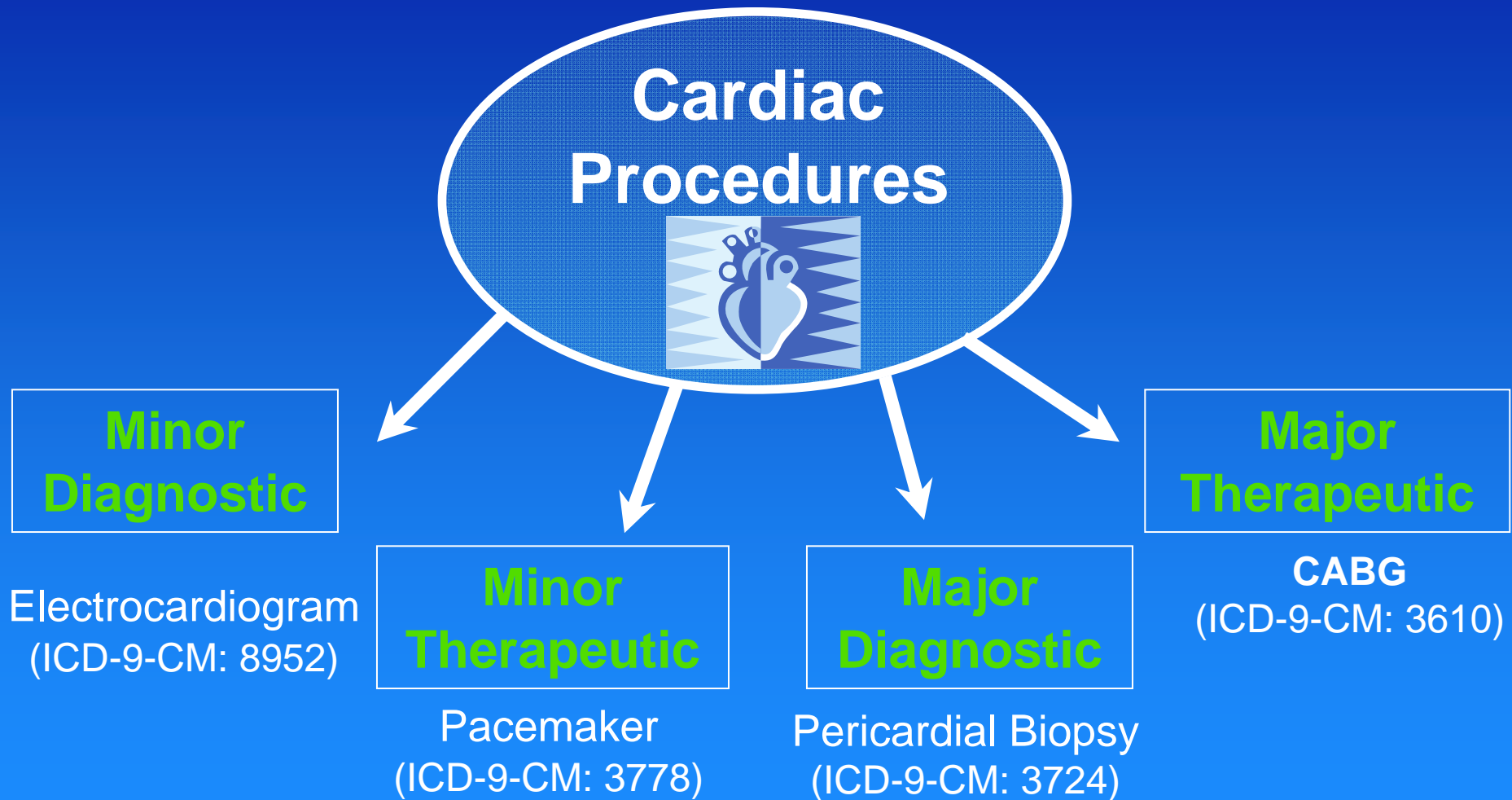


Procedure Classes

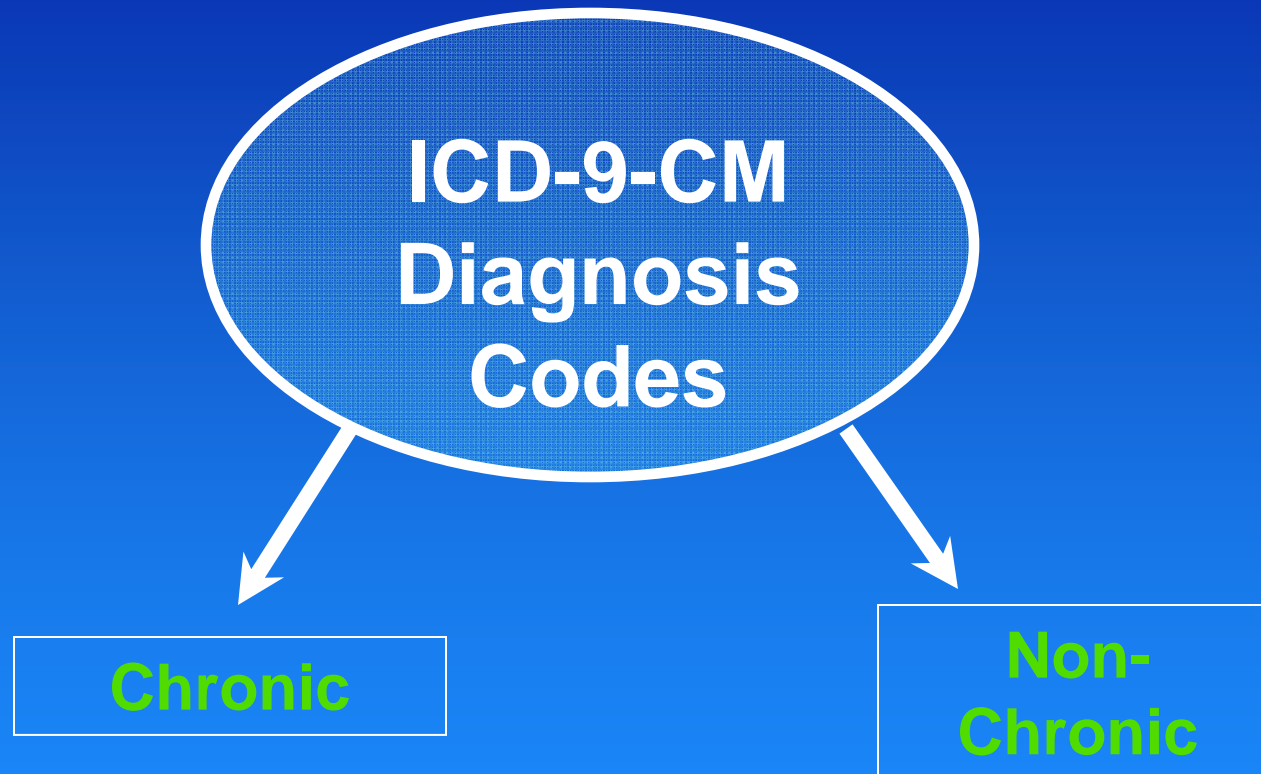


Groups ICD-9-CM Codes into One of Four Categories to Distinguish Between Diagnostic/Therapeutic Procedures

Procedure Classes

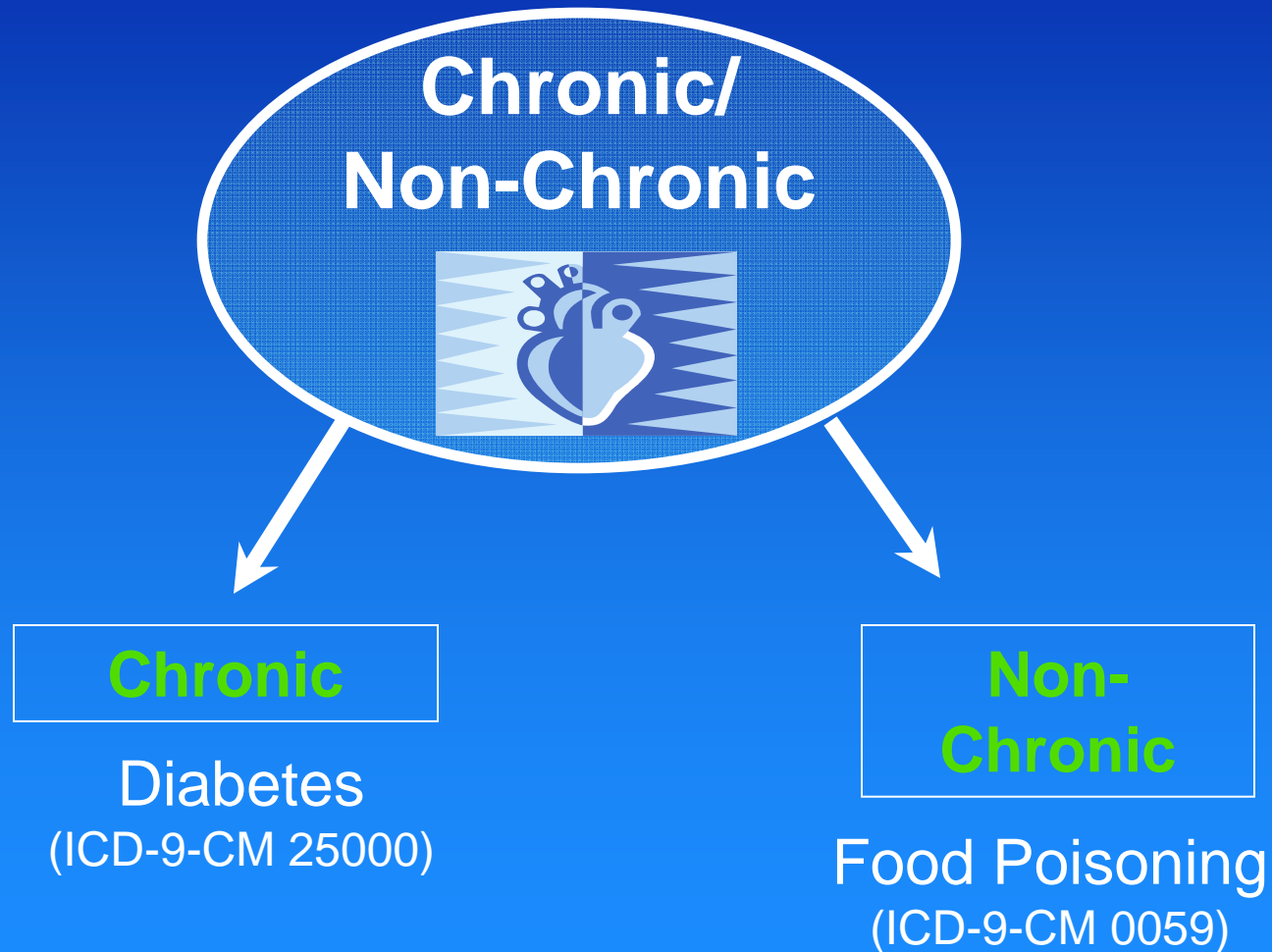


Chronic/Non-Chronic Indicator



Groups ICD-9-CM Diagnosis Codes into Chronic or Non-Chronic Categories

Chronic/Non-Chronic Indicator



Probability of Readmission 6 HCUP SID, 2002



Principal condition category				
Malignant neoplasms	.394	.015	25.69**	1.482
Mental disorders	.192	.023	8.23**	1.212
Congestive heart failure	.427	.015	28.71**	1.532
Coronary atherosclerosis	.107	.018	6.09**	1.112
Pneumonia	.015	.015	1.00	1.015
Asthma or COPD	.311	.016	19.09**	1.364
Acute cerebrovascular disease	-.228	.016	13.97**	.796
Dysrhythmias	.022	.017	1.32	1.022
Acute myocardial infarction	.089	.020	4.43**	1.093
Non-specific chest pain	-.334	.020	17.12**	.716
Complication of device, graft, implant	.427	.024	18.98**	1.532
Diabetes or complications	.166	.022	7.61**	1.180
Fluid and electrolyte disorders	.241	.021	11.29**	1.272
Urinary tract infections	.034	.024	1.44	1.034
Back or intervertebral disk disorders	-.234	.023	12.00**	.761
1 chronic condition	.479	.017	28.02**	1.614
2 chronic conditions	.686	.017	39.87**	1.985
3 chronic conditions	.796	.018	44.49**	2.216
4 chronic conditions	.890	.018	48.87**	2.436
5 chronic conditions	.952	.020	48.2**	2.591
6 chronic conditions	1.030	.020	51.03**	2.788
7+ chronic conditions	1.070	.021	51.17**	2.925

Comorbidity Software*



The Comorbidity Software is based on the ICD-9-CM coding scheme. This software creates about 30 variables that identify major comorbidities.

* Elixhauser A, et al. *Medical Care*, Jan. 1998.

Appends Indicator Flags for Each Comorbidity to Records

- Congestive heart failure → **CM_CHF = 0 or 1**
 - Valvular disease → **CM_VALVE = 0 or 1**
 - Pulmonary circulation disorders
 - Peripheral vascular disorders
 - Hypertension (uncomplicated and complicated)
 - Paralysis
 - Other neurological disorders
 - Chronic pulmonary disease
 - Diabetes without chronic complications
 - Diabetes with chronic complications
 - Hypothyroidism
 - Renal failure
 - Liver disease
 - Chronic peptic ulcer disease
- 30 flags
created and
appended to
each record

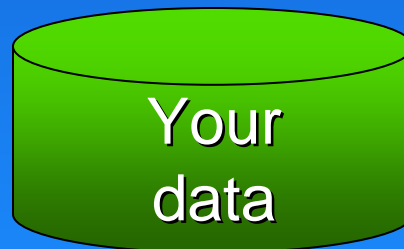
Appends Indicator Flags for Each Comorbidity

- HIV and AIDS
- Lymphoma
- Metastatic cancer
- Solid tumor without metastasis
- Rheumatoid arthritis/collagen vascular diseases
- Coagulation deficiency
- Obesity
- Weight loss
- Fluid and electrolyte disorders
- Blood loss anemia
- Deficiency anemia
- Alcohol abuse
- Drug Abuse
- Psychoses
- Depression

Utilization Flags

Reveals additional information about use
of health care services

**Utilization
Flag Software**



**ICD-9-CM
codes**

+

**UB-92
codes**



Emergency
Room

Chest
X-ray /
CT Scan

Intensive
Care Unit

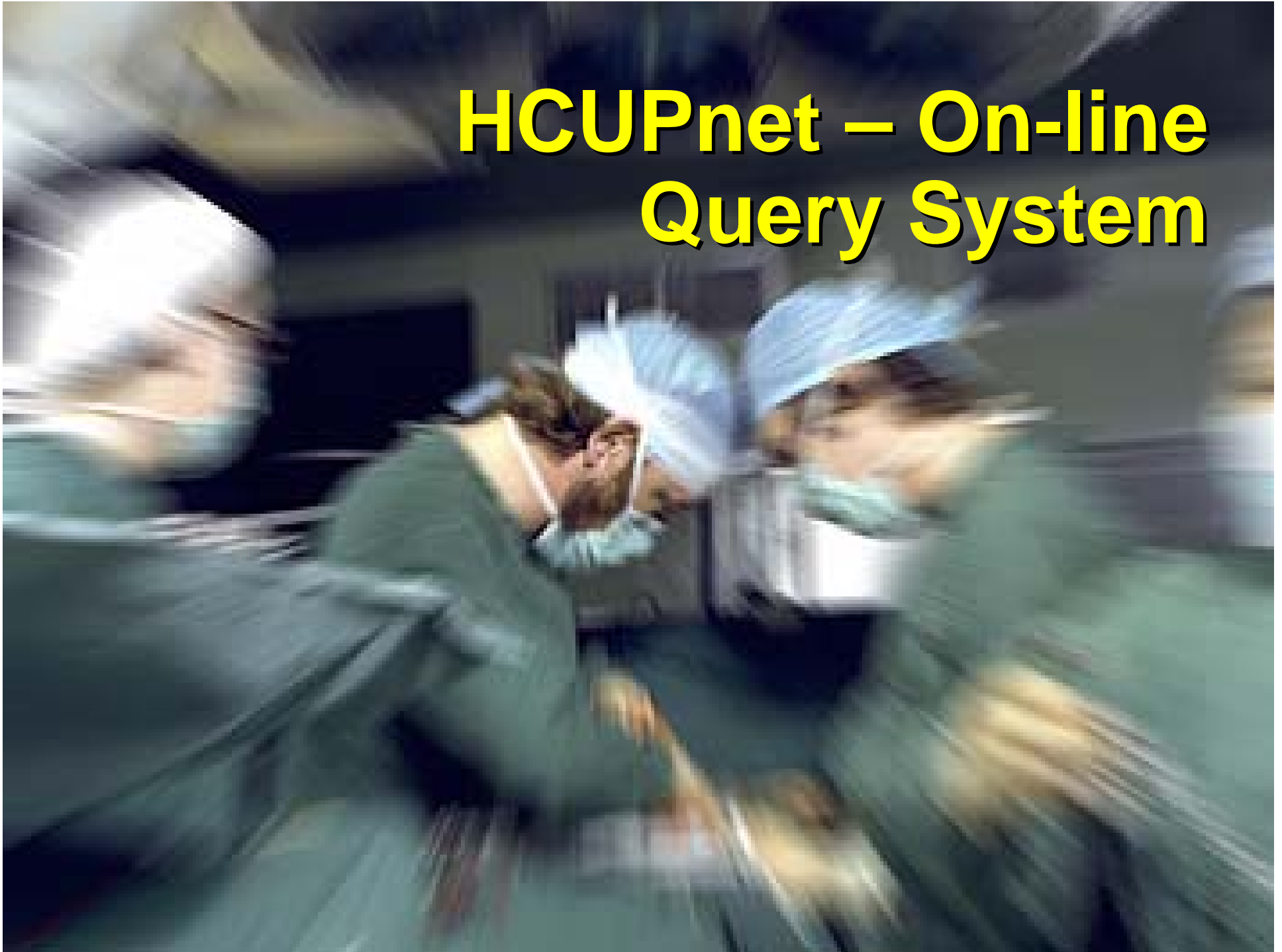
30 Utilization Flags

Table 2. Utilization Flags

Accommodation	
Intensive Care Unit (ICU)	Coronary Care Unit (CCU)
Newborn Level II	Newborn Level III
Newborn Level IV	
Cardiac Services	
Cardiac Catheterization Lab	Cardiac Stress Test
Echocardiogram	Electrocardiogram (EKG)
Imaging and Diagnostic Tests	
Computed Tomography (CT) Scan	Chest X-Ray
Electroencephalogram (EEG)	Ultrasound
Magnetic Resonance Technology (MRT)	Nuclear Medicine
Devices	
Pacemaker	Other Implants
Therapeutic Services	
Lithotripsy	Occupational Therapy
Physical Therapy	Respiratory Therapy
Therapeutic Radiology and Chemotherapy	Renal Dialysis
Speech-Language Pathology	Erythropoietin (EPO)
Mental Health and Substance Abuse	Blood
Other	
Emergency Department	Observation Room
Organ Acquisition	

ICD-9-CM codes are not available for all services – there is some concern that some diagnostic procedures may be under-reported

HCUPnet – On-line Query System



HCUPnet: Quick, Free Access to HCUP Data

- Free, interactive online query system
- Users generate tables of outcomes by diagnoses and procedures
- Data can be cross-classified by patient and hospital characteristics
- Includes national, regional, and state data (for states that choose to participate)

<http://hcup.ahrq.gov/hcupnet>

HCUPnet Can Answer a Variety of Questions

- What percentage of hospitalizations for children are uninsured, by state?
- What are the most expensive conditions treated in U.S. hospitals?
- What is the trend in admissions for depression?
- Will there be sufficient cases to do my analysis?
- How do my estimates compare with HCUPnet (validation)?



United States Department of Health & Human Services



Agency for Healthcare Research and Quality

Advancing Excellence in Health Care

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Go



Welcome to HCUPnet

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.

HCUPnet Demonstration

Begin your query here -

Statistics on Hospital Stays

National Statistics on All Stays

Create your own statistics for national and regional estimates on hospital use for all patients from the HCUP Nationwide Inpatient Sample (NIS). Overview of the Nationwide Inpatient Sample (NIS)

National Statistics on Mental Health Hospitalizations

Interested in acute care hospital stays for mental health and substance abuse? Create your own national statistics from the NIS.

State Statistics on All Stays

Create your own statistics on stays in hospitals for participating States from the HCUP State Inpatient Databases (SID). Overview of the State Inpatient Databases (SID)

National Statistics on Children

Create your own statistics for national estimates on use of hospitals by children (age 0-17 years) from the HCUP Kids' Inpatient Database (KID). Overview of the Kids' Inpatient Database (KID)

National and State Statistics on Hospital Stays by Payer - Medicare, Medicaid, Private, Uninsured

Interested in hospital stays billed to a specific payer? Create your own statistics for a payer, alone or compared to other payers from the NIS, KID, and SID.

Quick National or State Statistics

Ready-to-use tables on commonly requested information from the HCUP Nationwide Inpatient Sample (NIS), the HCUP Kids' Inpatient Database (KID), or the HCUP State Inpatient Databases (SID).

Statistics on Emergency Department Use

State Statistics on All ED Visits

Create your own statistics on emergency department visits for participating States from the HCUP State Emergency Department Databases (SEDD) and the SID. Overview of the State Emergency Department Databases (SEDD)

Quick State Statistics

Ready-to-use tables on commonly requested information from the SEDD and SID.

Hospitals Like Mine (Beta Version)

Statistics on U.S. Hospitals


Create your own statistics on various types of hospitals that resemble the hospital you visit or the hospital you study - What types of patients are

First Time Visitor?

- [HCUPnet overview](#)
- [How does HCUPnet work?](#)
- [HCUPnet tutorial](#)
- [HCUPnet methodology?](#)

What's New?

- 2005 nationwide data on AHRQ Quality Indicators.
- 2006 data for Kids' Inpatient Database (KID).
- New cost information for national hospital stays for 2006.
- 2006 nationwide data now available.
- Hospitals Like Mine - new query path provides information by hospital type.
- 2006 data for selected States.
- 1997 and 2005 data on hospital stays for mental health and substance abuse.
- Information on use of Emergency Departments from selected States.



More information on HCUP data, tools, and reports

What is HCUP?

Brief description - what is HCUP?

Want to purchase data to do your own analysis?

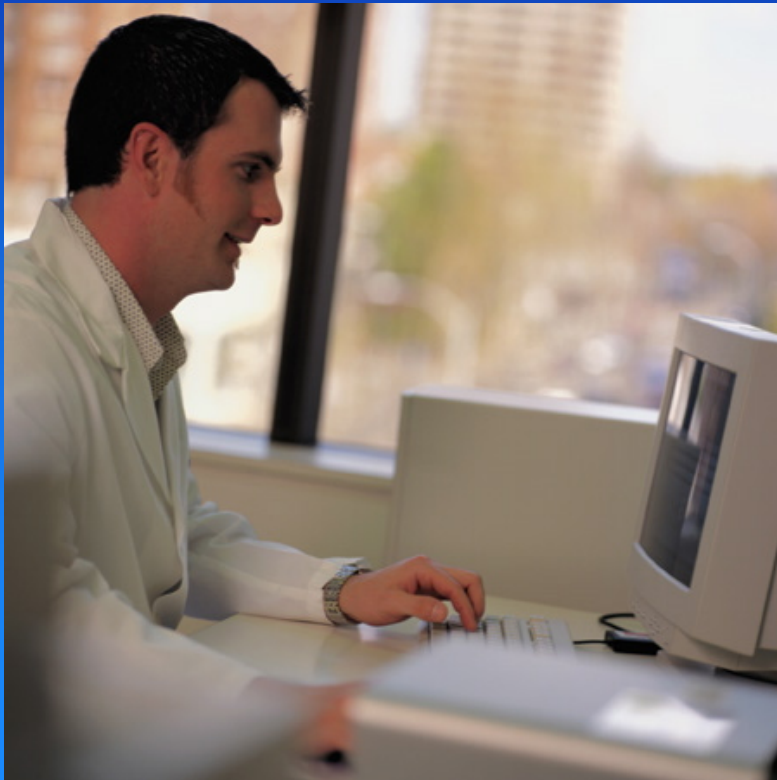
The statistics in HCUPnet would not be possible without statewide data collection projects that provide data to HCUP.

- 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

Phone: (866) 290-HCUP