Healthcare Cost and Utilization Project and Race-Ethnicity Data

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NAHDO Webinar:

Collection and Use of Race and Ethnicity Data for Discharge Data Reporting Systems

July 12, 2012

Outline

- Overview of HCUP
- Race-Ethnicity Data in HCUP
- Uses of HCUP for Analyses of Disparities
- Assistance to States to Improve Race-Ethnicity Data

Overview of HCUP

Agency for Healthcare Research and Quality (AHRQ)

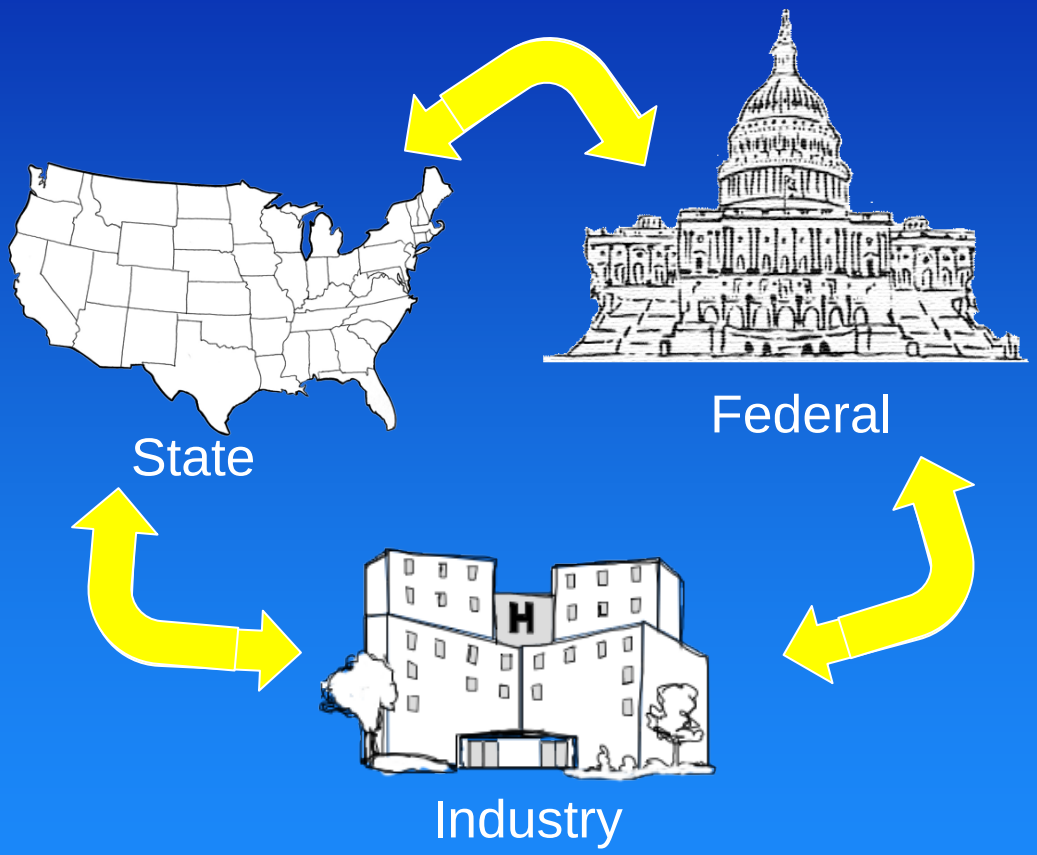
Mission:

To improve the quality, safety, efficiency, and effectiveness of health care for all Americans.

Strategic Goals:

- Support improvements in health outcomes
- Strengthen quality measurement and improvement
- Identify strategies that improve access, foster appropriate use, and reduce unnecessary expenditures

The HCUP Partnership



Multi-Year

All-Payer

Inpatient

Emergency Department

Ambulatory Surgery

Databases

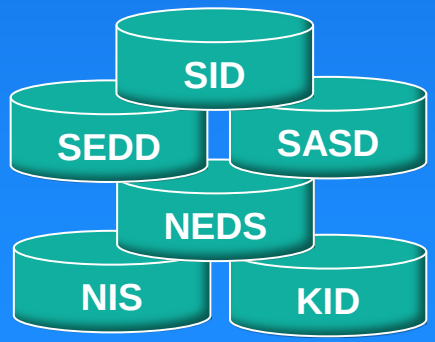
based on

Hospital Billing Data

What is HCUP?

H·CUP
HEALTHCARE COST AND UTILIZATION PROJECT

- HCUP Databases
- Research Tools
- Research Publications
- User Support



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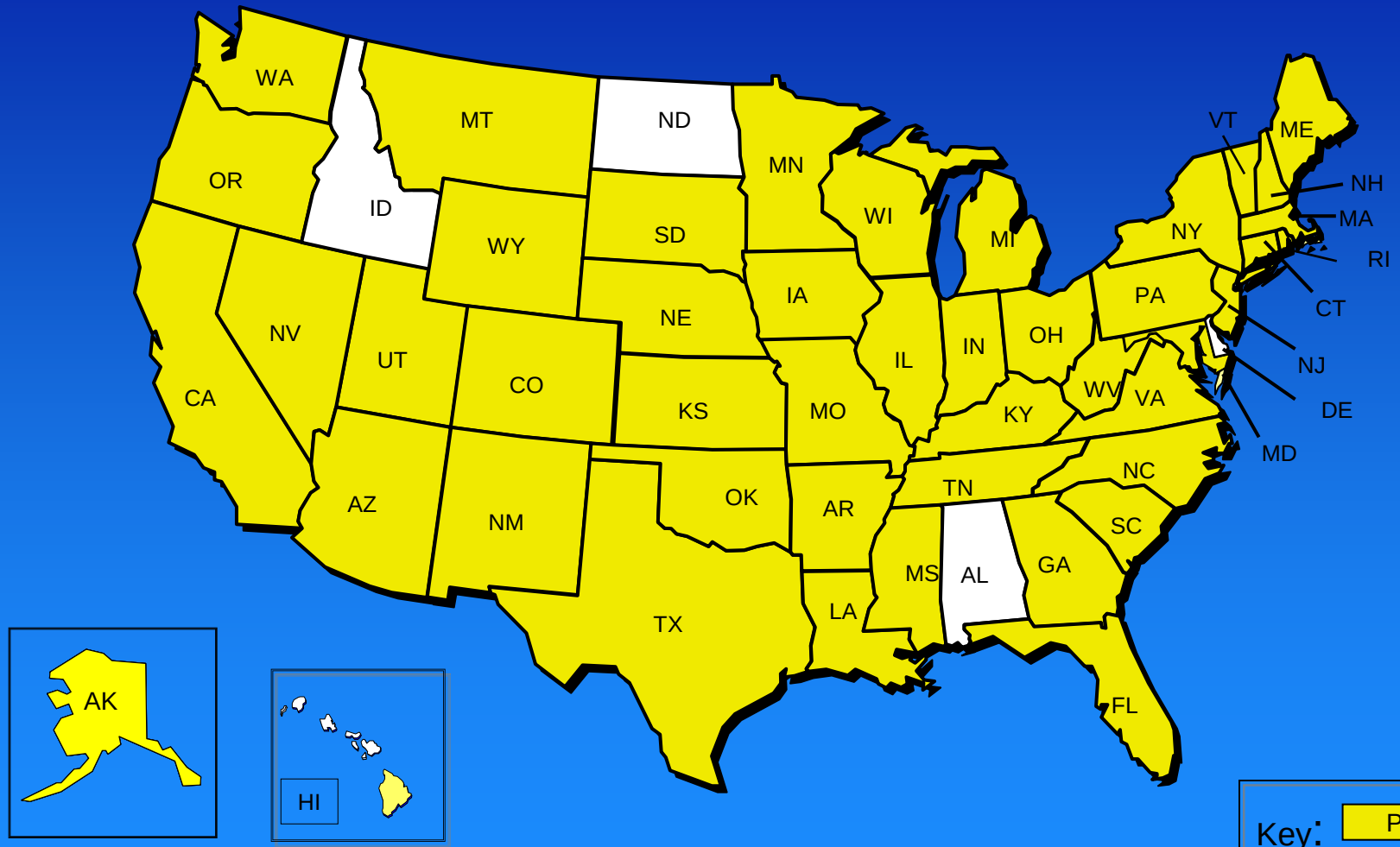
46 HCUP Partners in 2010 Data

(Records for 97% of US hospitalizations)



Race-Ethnicity Data in HCUP

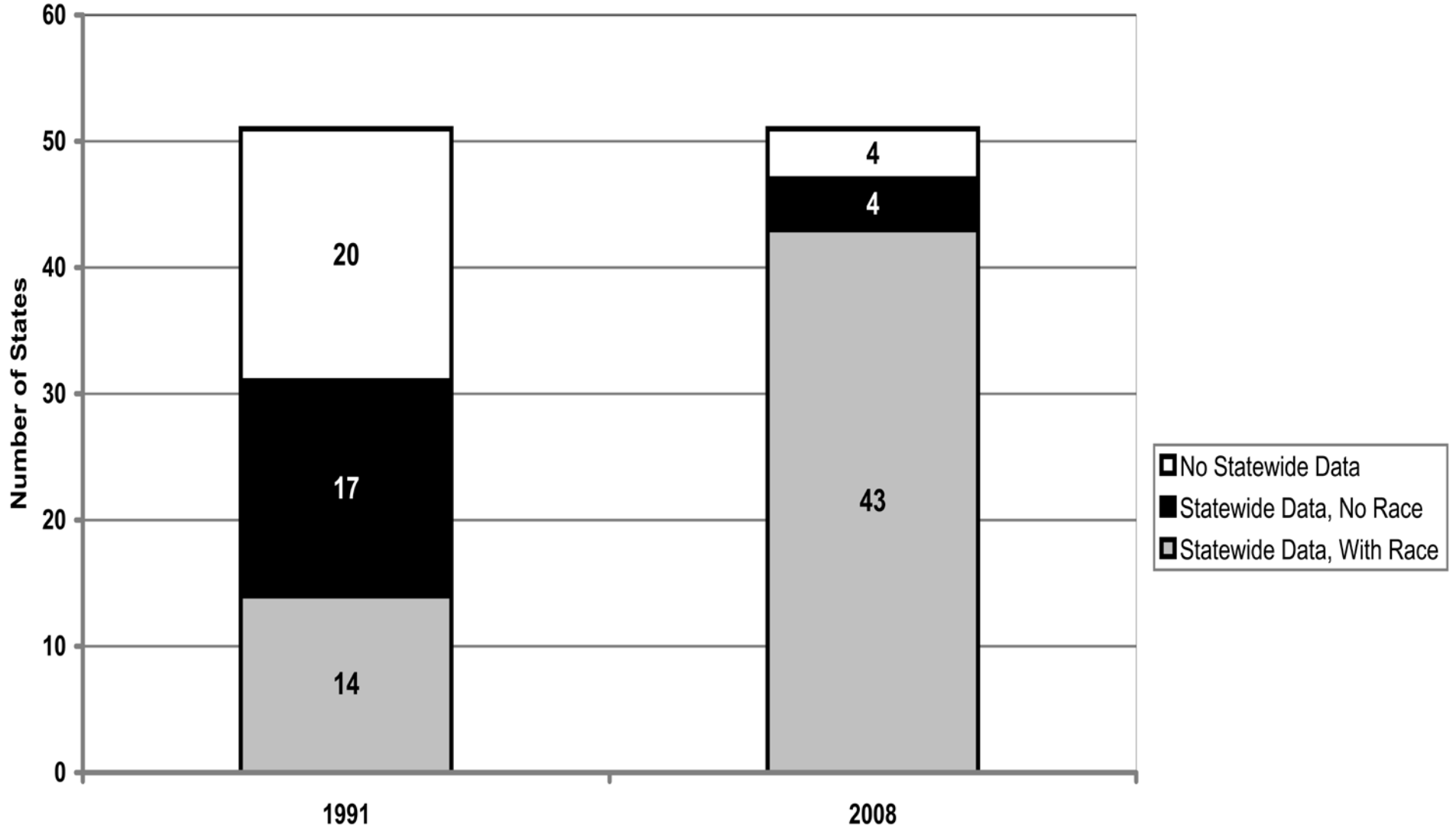
State Collection of Race-Ethnicity: 2010

- 39 (out of 46) HCUP states had fairly complete collection of race and ethnicity data
  - Half use 1977 OMB standard
  - Half collect categories that can be mapped to the 1997 OMB standard
  - Many do not collect a separate field for ethnicity
- 4 states collect granular racial/ethnic categories
- 3 collect multiple race fields
- 13 include a race category for "multi-race".

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

Progress in Collection of Race Data: 1991-2008



Hospital-Level Quality Checks by State: 2009

Description of Race/Ethnicity Edit Check	Race/ethnicity edit checks across the 40 states		
	Average percentage of hospitals	Lowest percentage of hospitals	Highest percentage of hospitals
No race coding issues identified	89.4	13.8	100.0
Percent White Equal to 100	2.3	0.2	9.5
Percent Other Greater Than or Equal to 30	4.1	0.4	15.2
Percent Missing Greater Than or Equal to 50	12.2	0.4	85.1
All Records Coded as White, Other, or Missing	2.9	0.7	10.1
No White Discharges and total discharges greater than 10,000	0.4	0.4	0.5

Multi-Race Undercoding in Discharge Data

Percent Multi-Race Coding:

2009 HCUP vs 2010 U.S. Census

Age	State 1		State 2		State 3		State 4	
	SID	Census	SID	Census	SID	Census	SID	Census
0 - 4	0.9	5.2	0.4	4.5	1.2	6.8	0.36	10.10
20 - 44	0.7	1.8	0.3	1.7	0.7	2.2	0.04	3.9
65 +	0.3	0.5	0.2	0.6	0.2	0.6	0.02	1.0
Total	0.5	1.9	0.3	1.8	0.5	2.3	0.11	4.1

Use of HCUP for Analyses of Disparities

Results

- Display a printer-friendly version (Try printing in landscape for best results)
- Save as an Excel spreadsheet
- Repeat this query on another database
- Run a new query

State statistics - 2010 New Mexico - principal diagnosis only

Outcomes by patient and hospital characteristics for CCS principal diagnosis category 100 Acute myocardial infarction

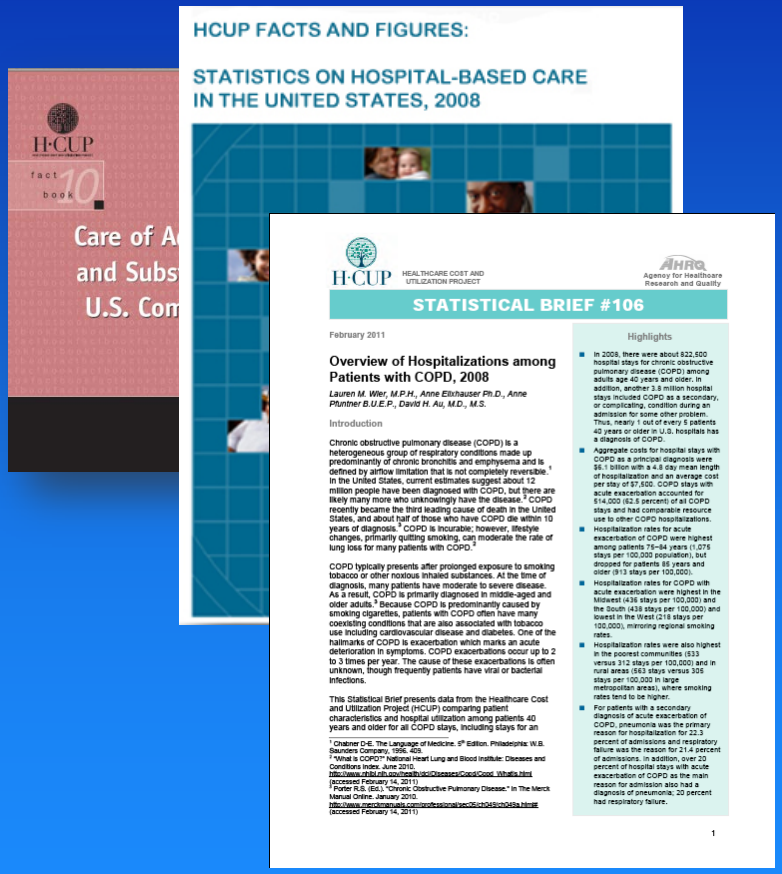
		Total number of discharges	LOS (length of stay), days (mean)
All discharges		2,930 (100.00%)	4.2
Race/ethnicity	White	1,644 (56.11%)	4.0
	Black	45 (1.54%)	3.4
	Hispanic	898 (30.65%)	4.3
	Asian/Pacific Islander	*	*
	Native American	169 (5.77%)	4.7
	Other	82 (2.80%)	4.5
	Missing	82 (2.80%)	4.7

State statistics from HCUP State Inpatient Databases 2010, Agency for Healthcare Research and Quality (AHRQ), based on data collected by the New Mexico Department of Health and provided to AHRQ. Values based on 10 or fewer discharges or fewer than 2 hospitals in the State statistics (SID) are suppressed to protect confidentiality of patients and are designated with an asterisk (*).

See the ICD codes that comprise CCS categories.

HCUP Publications

- Statistical Briefs
- Annual Reports
- Special Analysis Reports
- Fact Books



HCUP Statistical Briefs

H·CUP HEALTHCARE COST AND UTILIZATION PROJECT

AHRQ Agency for Healthcare Research and Quality

STATISTICAL BRIEF #61

October 2008

Potentially Preventable Hospitalizations among Hispanic Adults, 2006

Elizabeth Stranges, M.S., Rosanna Coffey, Ph.D., Roxanne M. Andrews, Ph.D.

Introduction

A major aim of U.S. health care policy is to improve the quality of care in the nation. To accomplish this, the socioeconomic, racial, ethnic and gender inequalities which exist in access, treatment and outcomes of care must be addressed. The most recent National Healthcare Disparities Report found that Hispanics had lower quality of care than non-Hispanic whites on two-thirds of its 32 core quality measures and lower levels of access to care on 6 of 10 core access measures.[1]

Rates of potentially preventable hospitalizations—inpatient stays that might be avoided through high quality outpatient treatment and disease management—are one dimension of the quality of outpatient treatment received by Hispanic adults that can be explored through hospital records. High quality outpatient treatment may reduce the need for hospitalization for conditions that can be controlled on an outpatient basis.

This Statistical Brief presents data from the Healthcare Cost and Utilization Project (HCUP) on rates of potentially preventable hospitalizations among Hispanic adults. The Agency for Healthcare Research and Quality (AHRQ)'s Prevention Quality Indicators (PQIs) were used to develop hospitalization rates[2] for selected chronic and acute conditions in adults for 2001 and 2006. Rates of hospitalization for chronic conditions were based on admissions for diabetes, specific respiratory conditions and specific circulatory conditions. Rates of hospitalization for acute conditions were based on admissions for dehydration, bacterial pneumonia and urinary tract infections. All differences between estimates noted in the text are statistically significant at the 0.05 level or better.

Highlights

- Potentially preventable stays for chronic conditions were 42 percent higher among Hispanic adults than among non-Hispanic white adults.
- Between 2001 and 2006, there was essentially no change in the preventable hospitalization rates for Hispanics even though these rates improved significantly for non-Hispanic whites.
- Disparities between Hispanics and non-Hispanic whites were greater for diabetes (37 versus 17 hospitalizations per 10,000 population, respectively) than for other chronic conditions.
- Disparities exist in both low income and high income communities. Hispanics living in high income communities had about twice the rate of potentially preventable hospitalizations for diabetes as non-Hispanic whites. A similar gap existed for those in low income communities.

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STATISTICAL BRIEF #53

June 2008

Racial and Ethnic Disparities in Hospital Patient Safety Events, 2005

C. Allison Russo, M.P.H., Roxanne M. Andrews, Ph.D., and Marguerite Barrett, M.S.

Introduction

The quality of health care has been and continues to be a focal point of both past and current U.S. health care policy, particularly as it relates to the hospital setting, where nearly 30 percent of personal health care spending is directed.[1] However, recent reports indicate that significant disparities in health care quality between whites and minorities exist and have not been reduced over the last several years.[2] One critical insight into the quality of inpatient care is the number of complications or adverse events that patients experience as a result of exposure to hospital care. An important first step in developing interventions to reduce disparities and achieve high quality care for all patients is identifying which types of patient safety problems exist for different sub-groups of patients.

This Statistical Brief presents data from the Healthcare Cost and Utilization Project (HCUP) on racial and ethnic disparities in rates of hospital patient safety events that are potentially preventable. It is based on a special analysis file created to develop national estimates for the National Healthcare Disparities Report. Selected Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicators (PSIs) are used to develop rates for postoperative complications, medical and other surgical complications, as well as obstetrical complications, among four racial and ethnic groups—whites (non-Hispanic), blacks (non-Hispanic), Hispanics, and Asian-Pacific Islanders (non-Hispanic).[3] The results are presented as the patient safety event rate of the racial/ethnic minority group relative to the rate for whites. All differences between estimates noted in the text are statistically significant at the 0.05 level or better. In addition, we generally focus on those differences that are at least 10 percent different.

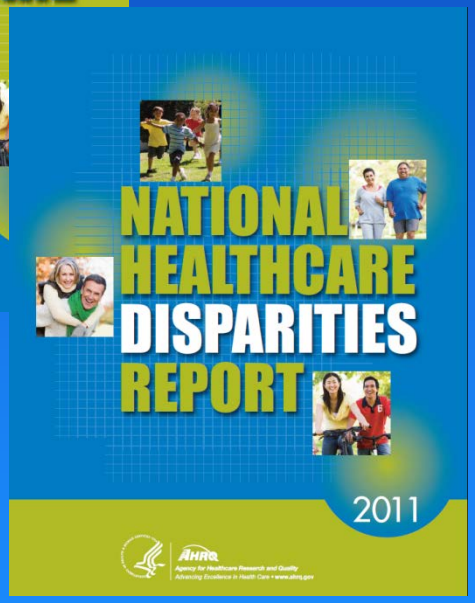
[1]Centers for Medicare and Medicaid Services. National Healthcare Expenditure

Highlights

- Overall, Asian-Pacific Islanders had worse rates of patient safety events than whites for nine of the 14 patient safety indicators, including four indicators for postoperative complications and three indicators of obstetrical complications.
- Compared to whites, blacks had higher rates of hospital complications and adverse events for five patient safety indicators; four involved postoperative complications. However, blacks had lower rates than whites for three of the four obstetrical complications examined.
- Hispanics had better outcomes of care than whites for seven of the 14 measures of patient safety—more than any other minority group. However, they had higher rates than whites for two postoperative complications.
- For postoperative complications, minority groups generally had higher rates than whites, with Asian-Pacific Islanders having the greatest single disparity with a rate of postoperative sepsis that was 42 percent higher than the rate among whites.
- For medical and other surgical complications, the largest disparity between whites and minorities occurred for blacks, who had a rate of selected infections due to medical care that was 29 percent higher than the rate among whites.
- In general, both blacks and Hispanics had better, i.e., lower, obstetrical complication rates

HCUP Supports High Impact Health Services, Policy & Clinical Research

HCUP Contributes QI Statistics to NHQR/DR & State Snapshots

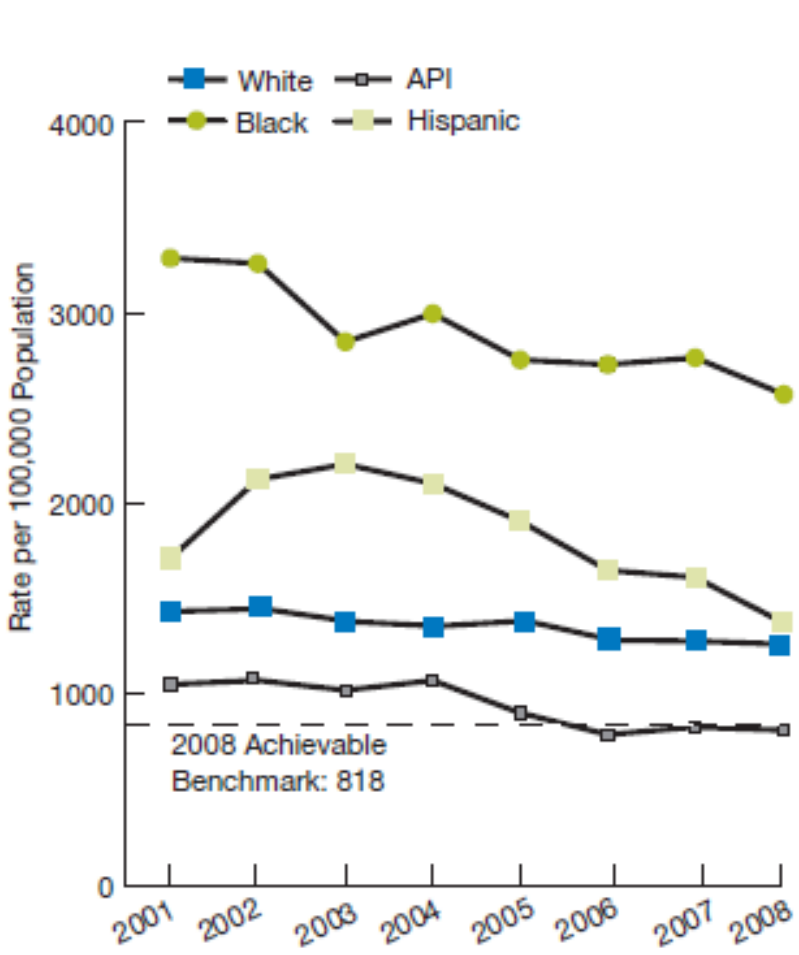


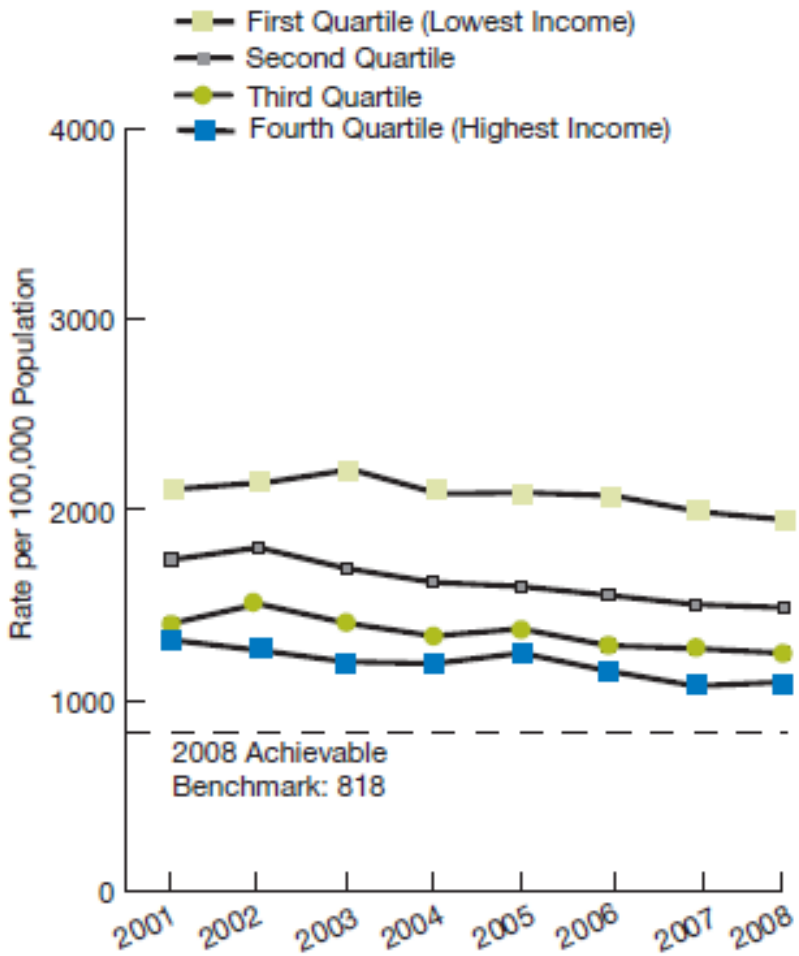
http://statesnapshots.ahrq.gov

http://www.ahrq.gov/qual/qrdr10.htm

HCUP Data in the NHDR

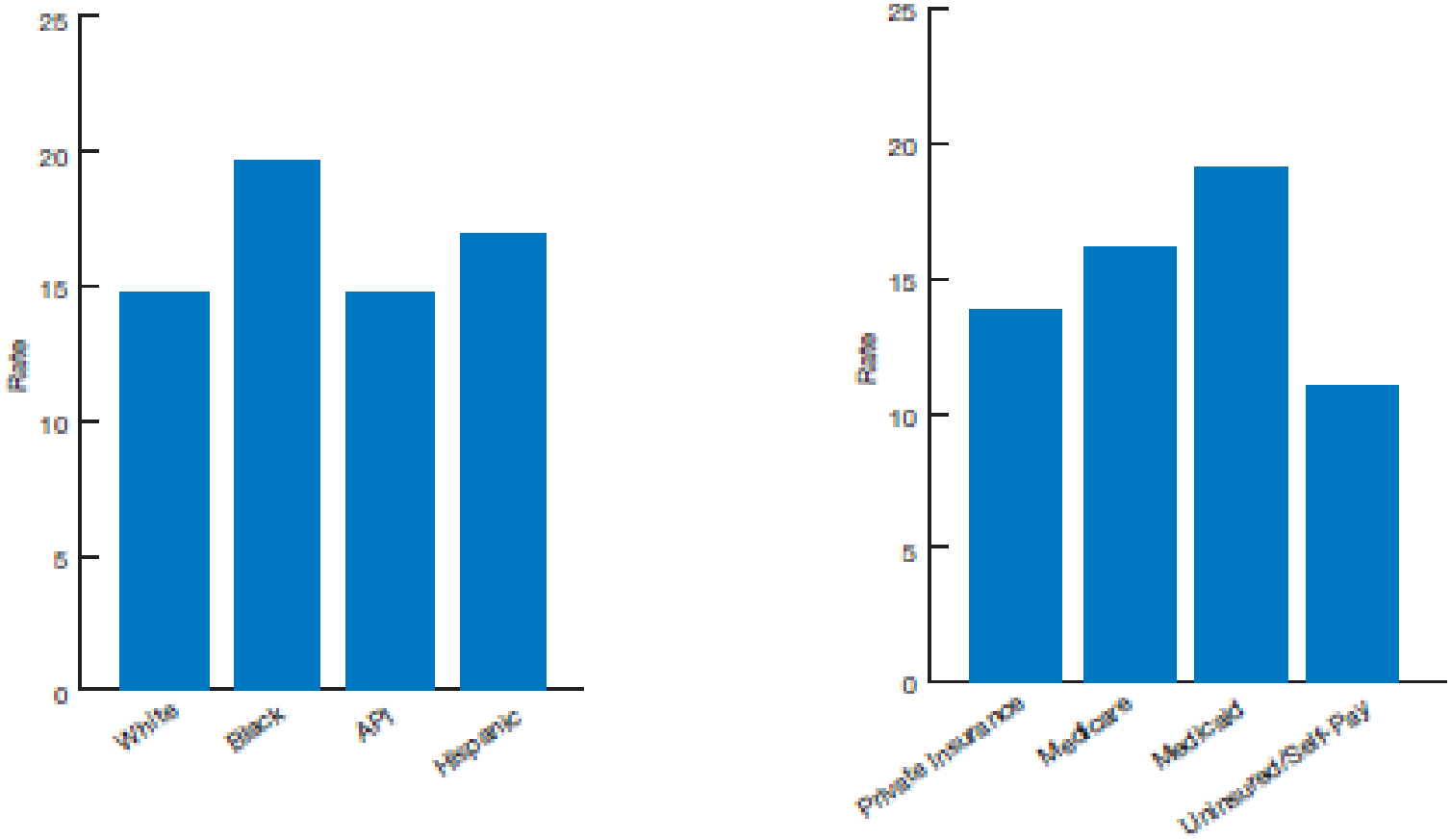
Figure 7.2. Potentially avoidable hospitalization rates, by race/ethnicity and area income, 2001-2008





HCUP Data in the NHDR

Figure 3.3. Postoperative sepsis per 1,000 elective-surgery discharges with an operating room procedure, by race/ethnicity and insurance status, 2008



Assistance to States to Improve Race-Ethnicity Data

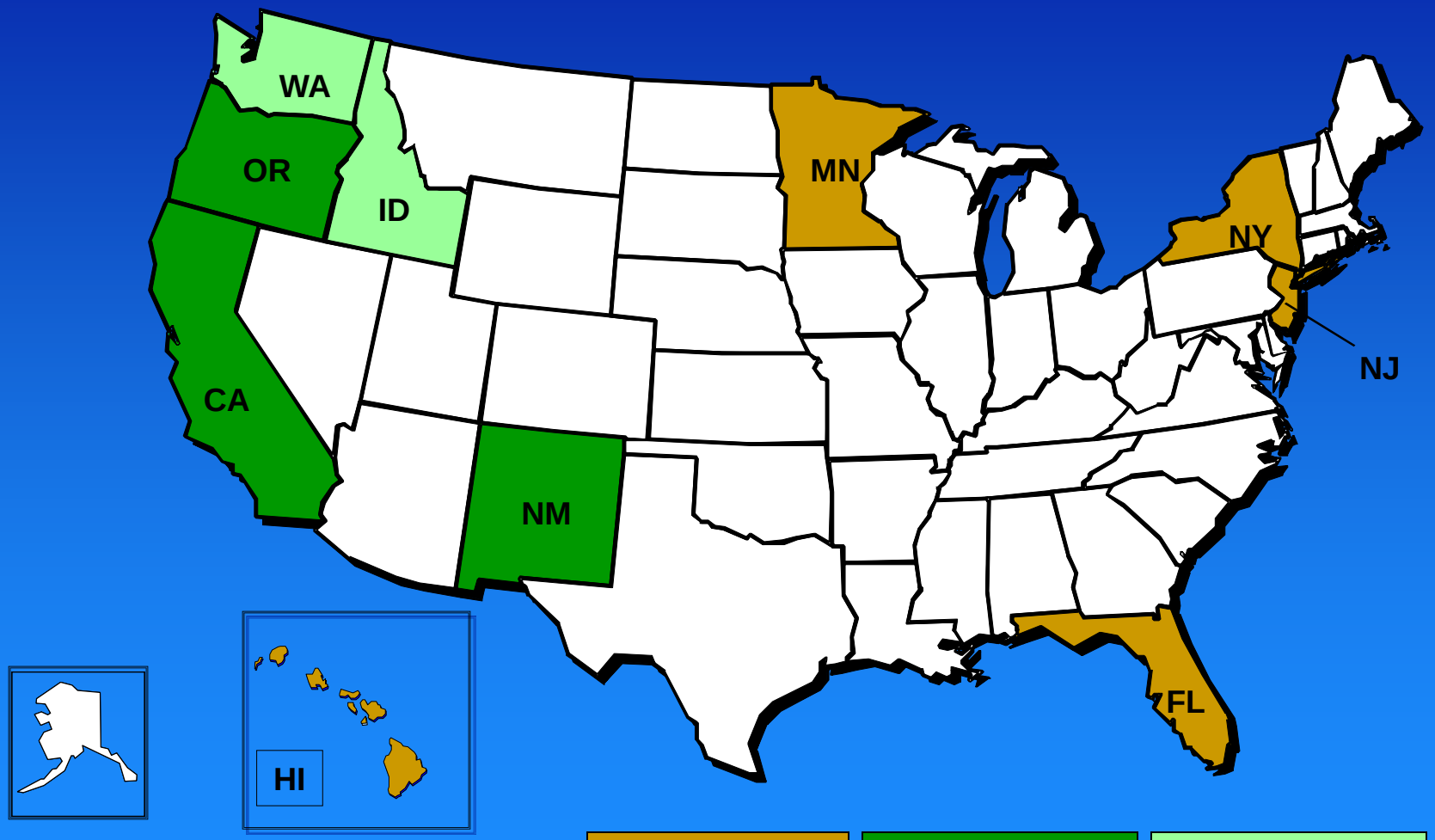
ARRA Grants to Enhance State Data

- "Enhancing State Data for Analysis and Tracking of Comparative Effectiveness Impact: Improved Clinical Content and Race-Ethnicity Data"
- Total of $10M ARRA (Recovery Act) funds
  - Part of funding to improve data infrastructure for comparative effectiveness research (CER)
- Enhances the data infrastructure of statewide data organizations
- Support contract convenes grantees and disseminate slessons learned to HCUP Partners & others

3-Year Grants Awarded Sept 2010

	Clinical	Race-Ethnicity
Number of Awards	5	3
Total Amount	$ 6.1M	$ 3.9M

ARRA Grants to Enhance State Data



Key:

Clinical Data Grant	Race/Ethnicity Data Grant	Race/Ethnicity Data - Covered State

Race-Ethnicity Data Grants

State	PI	Data Improvement
CA	David Zingmond UCLA	Improve accuracy of race-ethnicity and language data through improved auditing methods, training and indirect (statistical) methods.
NM	Michael Landen NM Dept of Health	Improve the quality of race and ethnicity data, including use of OMB categories. Collect tribal identifier data.
ID, OR, WA	Victoria Warren-Mears Northwest Portland Area Indian Health Board	Using the roster of AI/AN in the Northwest, correct inaccurate AI/AN data in hospital discharge, vital statistics, STD/HIV, cancer & trauma registries.

Enhanced State Data Grants

Improving Clinical Content and Race/Ethnicity Data in All-Payer Statewide Hospital Discharge Data

AHRQ has initiated a research program that awarded eight grants in September 2010 to improve statewide all-payer, hospital-based encounter-level data (inpatient, emergency department, and ambulatory surgery) for the purpose of both producing the evidence base for comparative effectiveness and evaluating efforts to implement comparative effectiveness where the evidence already exists. Two types of grants have been implemented under this research program to improve state data by:

- Enhancing the clinical content of the state databases in Hawaii, Florida, New Jersey, New York, and Minnesota
- Improving the race/ethnicity data in state databases in California, New Mexico, and the Northwest region (Idaho, Oregon, and Washington)

The grant projects will be conducted over a 3-year period. During that time, AHRQ (with assistance from contractor Social & Scientific Systems) will disseminate information about the projects as they progress. Upon completion of the projects, AHRQ will disseminate information about lessons learned and tools for other state data organizations to adopt the improvements.

Enhancing clinical content

For the clinical enhancement data grants, organizations will link existing core state data to a choice of additional database enhancements, including: electronic laboratory data, hospital-based electronic pharmacy data, electronic pre-hospital emergency care data, and vital record birth and death certificates. The organizations will employ the enhanced data set to conduct comparative effectiveness analyses. Grant abstracts are provided for Florida (PDF file, 18 KB; HTML), Hawaii (PDF file, 16 KB; HTML), Minnesota (PDF file, 10 KB; HTML), New Jersey (PDF file, 16 KB; HTML), and New York (PDF file, 16 KB; HTML).

Improving race and ethnicity data

The grants for improvement of race and ethnicity data will generate better data for comparative effectiveness research to improve health care outcomes, including less disparate outcomes for different racial and ethnic groups. Data organizations may improve their collection of data on race and ethnicity by providing formal training and educational resources. The organizations will provide evidence that the quality of race and ethnicity data has improved as a result of implementation of new initiatives under the grants. Grant abstracts are provided for California (PDF file, 16 KB; HTML), New Mexico (PDF file, 10 KB; HTML), and the Northwest region (PDF file, 17 KB; HTML) (Idaho, Oregon, and Washington).

Internet Citation: Data Innovations. Healthcare Cost and Utilization Project (HCUP). October 2010. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/datainnovations/grants.jsp.

http://www.hcup-us.ahrq.gov/datainnovations/grants.jsp

For more information…

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