STATE USES OF HOSPITAL DISCHARGE DATABASES TO REDUCE RACIAL AND ETHNIC DISPARITIES

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EXECUTIVE SUMMARY

High quality health care has been defined as care that is safe, effective, patient-centered, timely, efficient, and equitable. However, it is widely documented that Americans often do not receive quality care, and certain populations, particularly racial and ethnic minority groups, receive lower quality care on average than others. There is increasing national, state, and hospital-level attention to minority health and racial and ethnic disparities in health and health care, including how to improve the collection of race/ethnicity data, as well as the health status and quality of care for racial and ethnic minority populations.

The Agency for Healthcare Research and Quality (AHRQ) is the Federal agency responsible for improving the quality, safety, efficiency, and effectiveness of health care for Americans. AHRQ sponsors the Healthcare Cost and Utilization Project (HCUP), a family of health care databases and related software tools and products developed through a Federal-State-Industry partnership with state government organizations, hospital associations and private data organizations known as HCUP Partners. HCUP databases allow for research about an array of health policy issues and include patient race/ethnicity data. HCUP data can provide national information and they allow for state comparisons using uniformly defined data.

This report summarizes how leading HCUP Partners and clients in their states are using discharge data on patient race/ethnicity to inform state activities about minority health and/or reducing disparities in health and health care. In supporting the HCUP Partners' Workgroup on Analyzing State Discharge Data on Race-Ethnicity, the National Academy for State Health Policy (NASHP) conducted an environmental scan to identify activities (including publications) in Partner States in which:

- The activity uses patient race/ethnicity data from hospital discharge databases, especially those available from Partner organizations.
- The Partner organization is/was actively involved in the state activity beyond receiving or providing data, by leading the activity (as evidenced by lead authorship on a report) or supporting the entity leading the activity.
- The activity includes special analysis of race/ethnicity data, particularly those that go beyond using race as one of many demographic variables or crosstabs for analysis.

Five leading Partners were identified and interviewed. These Partners support state disparities reduction activities that use discharge data on patient race/ethnicity:

- **California’s** Office of Statewide Health Planning & Development has produced a statewide health disparities report that will be updated, a hospital mortality report that uses race/ethnicity data, and a conference presentation of a geographic analysis of ambulatory care sensitive conditions. Non-Partners have created reports about asthma.
- **The Florida** Center for Health Information and Policy Analysis within the Agency for Health Care Administration has produced two reports about emergency department visits, with one particularly focused on pediatric visits. A non-Partner created a report about cardiovascular health that included race/ethnicity discharge data.
- **Massachusetts’** Division of Health Care Finance and Policy has produced reports about emergency department visits (and plans to publish several more in the near future), participated in a statewide effort to standardize data collection and quality for client use, and supports MassHealth (Medicaid) in a Pay-for-Performance Initiative that uses patient race/ethnicity data. Non-Partner utilization of race/ethnicity data includes a report with...
region-level hospitalization and ED data as well as the recommendation for future technical reports providing information about quality and cost measurement.

- The Center for Health Data and Analysis within the Rhode Island Department of Health has consulted with clients on two state road maps for reducing the burden of chronic conditions (asthma and heart disease/stroke). The Partner has also conducted its own analyses and helped clients analyze race/ethnicity data to understand disparities in chronic conditions such as diabetes and pediatric asthma.
- The Health Care Information Section of the Office of Health Informatics within the Wisconsin Department of Health Services consulted with the Office of the Secretary in support of statewide health performance measures including providing statistics on diabetes disparities. It also is collaborating with the Wisconsin Hospital Association and others to improve data collection and data quality for client use. Non-Partner entities have published reports about asthma, heart disease/stroke prevention, and minority health using Partner race/ethnicity data.

In most of these states, as well as in four additional Partner States (Connecticut, Georgia, New Jersey, and South Carolina), non-Partner entities also analyze race/ethnicity discharge data for activities such as publicly available reports.

Several key themes and lessons emerged during the environmental scan of Partner activity and subsequent communication and interviews with Partners.

- Patient race/ethnicity information in hospital discharge data is an important resource for state plans, reports, and general activities concerning health and health care, including disparities reduction.
- Increased federal and state attention to disparities in health and health care provides opportunities for HCUP Partners and their clients to use patient race/ethnicity data from hospital discharge databases.
- State Public Health agencies are key clients for patient race/ethnicity data.
- Entities in Partner States often produce reports about disparities in health and health care that draw from a variety of data sources but not hospital discharge data. Future research and outreach to Partner clients is needed to determine why discharge data are not as commonly used and how more states might use discharge data for disparities reduction activities.
- Absent consultation or leadership from Partners, some clients use patient race/ethnicity data, but Partner collaboration with clients helps ensure the most appropriate data are used.
- Partners or clients can use race/ethnicity data that are currently available while simultaneously committing to improve the quality of the data.
- Due perhaps in part to limited Partner resources, it is difficult to assess the impact of reports that use Partner race/ethnicity data.
- Few Partners release reports focused on disparities in health and health care or participate in related state activities, but those that do can serve as models for other Partners through HCUP.

As the experiences of leading HCUP Partners in California, Florida, Massachusetts, Rhode Island, and Wisconsin show, patient race/ethnicity data are an important tool for informing state initiatives and producing policy-relevant publications. By participating in state disparities reduction activities, such as authoring reports that use race/ethnicity data and fostering collaboration to improve data collection, Partners facilitate the usefulness of patient race/ethnicity data.
INTRODUCTION AND BACKGROUND

High quality care has been defined as care that is safe, effective, patient-centered, timely, efficient, and equitable, meaning the care “does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.”\(^1\) However, it is widely documented that Americans often do not receive appropriate, evidence-based health care, and certain populations, particularly racial and ethnic minority groups, receive lower quality care on average than others.\(^2\)

There is increasing national, state, and hospital-level attention to minority health care and racial and ethnic disparities in health and health care, including how to improve the collection of race/ethnicity data as well as the health status and quality of care for racial and ethnic minority populations. Recent federal health reform legislation offers new opportunities to help address these disparities.\(^3\)

Key national initiatives that have focused on disparities in health and health care and equity for racial and ethnic minority groups include the following:

- In 2000, the United States Department of Health and Human Services (DHHS) established Healthy People 2010, a comprehensive agenda to improve quality and longevity of life and eliminate health disparities.\(^4\) Healthy People 2010 identifies consensus, measurable objectives for improving the health of Americans; it established a framework for states to measure and track progress for achievement by 2010 across 28 focus areas, such as diabetes, cancer, and respiratory diseases. Some focus area goals include reducing preventable hospitalizations.

- The Institute of Medicine’s (IOM) Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care confirmed that health care disparities exist, as racial and ethnic minorities, on average, receive lower quality care than whites, even after controlling for factors such as income and insurance status.\(^5\) IOM defined these disparities as “racial or ethnic differences in the quality of health care that are not due to access related factors or clinical needs, preferences, and appropriateness of intervention.”\(^6\) IOM made multiple recommendations for improving the health care system, including collecting and reporting health care access and utilization data by race, ethnicity, and primary language, and including health care disparities measures in performance measurement.

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\(^6\) Ibid, 3-4.
• For the past seven years, the Agency for Healthcare Research and Quality (AHRQ) has analyzed and summarized information about U.S. health care quality and access among various populations, including racial and ethnic minorities, in the National Healthcare Disparities Report (NHDR). The NHDR shows that health care quality varies by population; disparities vary within different minority groups and some disparities affect multiple racial and ethnic minority groups. The 2009 NHDR concludes that nearly two-thirds of quality of care measures are not improving for Blacks, Asians, and Hispanics. AHRQ also provides state-specific information on disparities in health care via its State Snapshots website under the recently added “Focus on Disparities” section.

• IOM’s Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement summarizes current practices in the collection and coding of race, ethnicity and language data and calls for a standardized approach across the country to help improve health care quality. The report recommends the collection of national (Office of Management and Budget or OMB) categories for race plus granular ethnicities.

• DHHS’ Advisory Committee on Minority Health (ACMH) released a report entitled Ensuring that Health Care Reform Will Meet the Health Care Needs of Minority Communities and Eliminate Health Disparities, A Statement of Principles and Recommendations. It recommends that Congress evaluate health care reform proposals using 14 principles to ensure reform meets the needs of racial and ethnic minorities, but it also sets the groundwork needed to eliminate disparities in health and health care. The report also recommends the establishment of a Federal Health Equity Commission to focus on eradicating disparities.

• The National Quality Forum’s A Comprehensive Framework and Preferred Practices for Measuring and Reporting Cultural Competency provides a road map for measuring and reporting cultural competency. It endorses 45 practices for providing culturally competent care.

In recent years, states also have begun to allocate more time and resources to minority health, health care disparities, and health equity. Some activity is directly tied to federal or national initiatives. For example, the Arizona Department of Health Services’ Center for Health Disparities, a Healthy People 2020 grant awardee, is creating health indicators of minority populations focused on the Healthy People Objectives. From 2004 to 2009, the number of states with offices of minority health grew tremendously. As of February 2009, 40 states have

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8 Ibid, 6.
HCUP (09/09/10)  3  State Uses of Hospital Discharge Databases to Reduce Racial and Ethnic Disparities

offices of minority health. Additionally, more HCUP Partners are receiving either patient race or race and ethnicity data as part of their hospital discharge data. As of 2008, HCUP Partners in 38 of 42 participating states received these data (See Figure 1).

Figure 1: HCUP Partner States in which Hospitals Submit Race Data, 2008

The American Hospital Association released *Health Research and Educational Trust Disparities Toolkit* in 2007, with an update in 2009. The toolkit is intended to help hospitals and other users implement a system to collect race/ethnicity/primary language data efficiently, effectively and


respectfully. Additionally, the Disparities Solutions Center at Massachusetts General Hospital published *Creating Equity Reports: A Guide for Hospitals.* This resource guides hospitals in the collection of race, ethnicity, language, and socioeconomic status data to create reports that facilitate the improvement of providing meaningful racial/ethnic data.

The multitude of national, state, and hospital-level resources related to disparities in health and health care demonstrates the increased awareness of and commitment to 1) making health care equitable and 2) ensuring that accurate data are available to assess quality of care and health status for all populations.

The Agency for Healthcare Research and Quality (AHRQ) is the Federal agency responsible for improving the quality, safety, efficiency, and effectiveness of health care for Americans. AHRQ sponsors the Healthcare Cost and Utilization Project (HCUP), a family of health care databases and related software tools and products developed through a Federal-State-Industry partnership with state government organizations, hospital associations and private data organizations known as HCUP Partners. HCUP databases bring together the data collection efforts of HCUP Partners and the Federal government to create a national information resource of patient-level health care data that allow for research about an array of health policy issues, such as health service costs and quality, health care access, and treatment outcomes at the national, state, and local levels. HCUP data can provide national information and they allow for state comparisons using uniformly defined data.

In addition, the state discharge databases which underlie HCUP data generally include patient race/ethnicity data, which serve multiple purposes:

- Support measurement of health care disparities by providing more accurate comparisons of data across regions, states, and hospitals and by providing the means to highlight gaps in care;
- Demonstrate state-level variations in quality of care by racial and ethnic minority populations, which informs state policy making;
- Help data organizations develop and plan race/ethnicity data collection;
- Equip hospitals with the information they need to make quality of care improvements for specific populations, track organizational progress in care improvement, ensure language assistance and educational materials match the needs of patient populations, and meet reporting requirements;
- Inform health care delivery at the local level by showing where improvements are needed in prevention, diagnosis and treatment.

This report stems from AHRQ’s interest in improving the quality of information about patient race/ethnicity in state discharge databases both for state uses and to enhance HCUP data. The report summarizes how leading HCUP Partners and clients in their states are using discharge data on patient race/ethnicity to support state activities about minority health and reducing disparities in health and health care.

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Project Methodology

In supporting the HCUP Partners' Workgroup on Analyzing State Discharge Data on Race-Ethnicity, the National Academy for State Health Policy (NASHP) conducted an environmental scan of HCUP Partners to identify leaders in the use of patient race/ethnicity data from statewide hospital discharge databases. NASHP sought to identify and highlight activities (including publications) in Partner States that met three criteria:

- The activity uses patient race/ethnicity data from hospital discharge databases, especially those available from Partner organizations.
- The Partner organization is/was actively involved in the state activity beyond collecting or providing data, by leading the activity (as evidenced by lead authorship on a report) or supporting the entity leading the activity.
- The activity includes special analysis of race/ethnicity data, particularly those that go beyond using race as one of many demographic variables or crosstabs for analysis.

The environmental scan drew from three sources: (1) Case Studies of Uses of Data on Patient Race/Ethnicity from Statewide Hospital Discharge Databases,\(^{17}\) which documented Partner activity several years ago; (2) results from two electronic surveys assessing Partner interest areas and experience in the collection and analysis of these data, which were sent to all Partners as part of the HCUP Partners' Workgroup on Analyzing State Discharge Data on Race-Ethnicity in November 2008 and March 2009; and (3) internet searches of websites for Partners and state agencies in Partner States to identify initiatives or publications that incorporate patient race/ethnicity data from statewide hospital discharge databases.

After identifying Partner States with activity that appeared to meet the above criteria, NASHP sent e-mails to the Partners to clarify their role(s) in the activities. Based on responses to those e-mails, NASHP identified five leading Partners and conducted open-ended interviews with each one. Those Partner States are California, Florida, Massachusetts, Rhode Island, and Wisconsin. The environmental scan also revealed interesting ways that race/ethnicity data are being used in Connecticut, Georgia, New Jersey and South Carolina without additional Partner involvement.

Organization of this Report

This report first provides information about the five leading Partners that support statewide disparities activities using race/ethnicity data (California, Florida, Massachusetts, Rhode Island, and Wisconsin). There is a brief description of each Partner followed by how it, or others in the state, use patient race/ethnicity data. This report then highlights noteworthy activity in four additional states in which non-Partners (defined as entities, including state agency subdivisions, that do not receive discharge data) are using discharge data for activities related to disparities in health and health care (Connecticut, Georgia, New Jersey, and South Carolina). (See Figure 2 for a map of Partner States included in this report). A summary of themes and lessons learned from interviews with leading Partners concludes the report.

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SUPPORT OF STATE ACTIVITIES TO REDUCE DISPARITIES

In five leading HCUP Partner States, race/ethnicity data from hospitals has been used to support disparities reduction activities. Table 1 summarizes how leading Partner States are supporting state disparities reduction activities. Data uses range from publication of reports to consultation on or special analyses of data to collaboration with clients to improve collection or use of race/ethnicity data for specific purposes. A common example of state data use across states (including Partner States) is analysis of race/ethnicity from discharge data to inform state plans or disease burden documents created by states participating in CDC-funded chronic disease control programs (e.g., asthma, diabetes). CDC guidance for these state plans explicitly references and encourages the use of hospital discharge data. However, not all state plans include information about disparities and, among those that do, Partner

organizations are not necessarily involved beyond providing data. Partner organizations have been directly involved in the examples of activities included in this section.

### Table 1: Summary of Activity in Leading HCUP Partner States

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<th>HCUP Partner State</th>
<th>Use of Data</th>
<th>By Non-Partners</th>
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| California         | • Statewide health care disparities report with information on preventable hospital admission rates and mortality after hospitalization  
                      • Hospital mortality report  
                      • Analysis of ambulatory care sensitive conditions                                              | • Report about asthma |
| Florida            | • Two reports about ED visits, one focused on pediatric visits                                   | • Report about cardiovascular health |
| Massachusetts      | • Reports about ED visits  
                      • Collaboration with other agencies on standardization of discharge data collection and participation in a Medicaid Pay-for-Performance Initiative with two disparities measures | • Report with region-level hospitalization and ED data  
                                                                                       • Possible future technical reports about quality and cost measurement |
| Rhode Island       | • Consultation with clients on data analysis for two state road maps for reducing the burden of chronic conditions (asthma, heart disease and stroke)  
                      • Analyses (or support to clients in their analyses) of race/ethnicity data to understand disparities in chronic conditions (diabetes and pediatric asthma) | |
| Wisconsin          | • Consultation with client in support of statewide health performance measures including statistics on diabetes disparities Collaboration with clients and the Wisconsin Hospital Association to improve race-ethnicity collection and quality in discharge data | • Reports about asthma, heart disease/stroke prevention, and minority health |

### California

California’s Office of Statewide Health Planning & Development (OSHPD) serves as the HCUP Partner organization for the state. Among other duties, OSHPD analyzes and distributes information about the state’s health care infrastructure; publishes outcome data; ensures seismic, fire and life safety for health care facilities; and promotes a competent and diverse health care workforce. OSHPD has received race data since the 1980s, and it began receiving the Hispanic indicator as an ethnicity data element in 1995.

#### HCUP Partner reports

OSHPD has produced (or plans to produce) the following reports or presentations incorporating race/ethnicity data:

 preventable hospital admission rates for 16 measures, and mortality after hospitalization for several cardiac and respiratory conditions. In the forthcoming update, OSHPD plans to include time series data from 1999-2007, inpatient quality indicators, and outpatient rates for cardiac conditions. It may also include county-level data from Los Angeles to provide more contextual information.


- **Mortality in California Hospitals, 2006** focuses on factors associated with increased risk of in-hospital mortality. It includes the percent of hospital cases with in-hospital death by age and race/ethnicity. Findings include: African American children had twice the mortality rate of Asian/Pacific Islanders; among middle-aged adults, Native Americans had the highest mortality rate; and Asian/Pacific Islanders had the highest mortality rate among seniors.

### Other data uses

California has produced publications about asthma disparities using discharge data for several years. Recently, the Department of Public Health (including its California Breathing project, which addresses asthma disparities through grants to local community organizations, statewide meetings, and collaboration with state organizations focused on disparities in health and health care) became responsible for several asthma-related publications using hospital discharge data. **The Burden of Asthma in California: A Surveillance Report** includes a section on asthma disparities by race/ethnicity that shows hospitalizations, ED visits, and mortality. It informed the **Strategic Plan for Asthma in California**, which has specific goals and objectives for improvement, including a focus on reducing asthma disparities. In the plan, outcome assessment is based in part on hospitalizations and ED visits.

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Florida

The Agency for Health Care Administration (AHCA) (http://ahca.myflorida.com/) is the Florida HCUP Partner organization. It is responsible for health policy and planning; it administers the state’s Medicaid program, licenses and regulates health facilities, and provides quality of care information. The Florida Center for Health Information and Policy Analysis within AHCA (http://ahca.myflorida.com/SCHS/index.shtml) maintains and disseminates an array of patient data, including hospital discharge data. It began receiving ED data in 2005.

HCUP Partner reports

AHCA has produced the following reports using discharge data:

- **Pediatric Emergency Department Visits, 2006** includes AHCA ED data and hospital discharge data.25 Among its findings: the rates of pediatric ED visits for blacks and Hispanics were significantly greater than their proportion of the 2006 Florida pediatric population; the rate of pediatric ED visits for whites was significantly less than their proportion of the pediatric population. The rate of ED visits for black and Hispanic children was also significantly higher than the rate for black and Hispanic adults.

- **Emergency Department Utilization Report 2006** and **Emergency Department Utilization Report for Calendar Year 2005** include data such as percentage of ED visits by race and percent of ED visits resulting in inpatient hospitalization by race and age. Among the findings in the report for 2005: Hispanics of all ages were more likely to be admitted as an inpatient than any other racial group.26 The subsequent report found that a higher percentage of ED visits by blacks and Hispanics were avoidable compared to whites; the rate of avoidable ED visits for blacks was 63% percent higher than the rate for the state.27

Other data uses

State hospital discharge data provided by AHCA’s Florida Center for Health Information and Policy Analysis have informed the following reports by divisions of the Department of Health:

- **Cardiovascular Surveillance Summary 2007**, which compiles information about the burden of heart disease and stroke in Florida. It has a section with discharge rates for heart disease, stroke, and heart failure by race. This document helped to inform the Florida Heart Disease and Stroke Prevention State Plan for 2009-2012.28

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Florida Annual Cancer Report: 2005 Incidence and Mortality, which includes average lengths of stay and charges for hospitalization for cancer by race.

Massachusetts

The HCUP Partner organization in Massachusetts is the Division of Health Care Finance and Policy (DHCFP) within the Executive Office of Health and Human Services (EOHHS). The mission of DHCFP is to “improve the delivery and financing of health care by providing information, developing policies, and promoting efficiencies that benefit the people of Massachusetts.” DHCFP develops, calculates and reports on performance measures, relative to benchmarks, for providers, delivery systems, and the state overall; it also develops a statewide all-payer claims database. Additional DHCFP responsibilities relate to sweeping health care reform legislation passed in 2006 to provide residents of the state with access to quality, accountable, and affordable health care. For example, DHCFP monitors health care reform progress and facilitates its implementation by gathering, analyzing, and disseminating information; it also analyzes health care cost trends and cost containment options to support the sustainability of health care reform.

Highlighted activities involving HCUP Partner

ED reports. Using its emergency department (ED) database, DHCFP has released several reports that analyze patient race/ethnicity data. Frequent Users of Massachusetts EDs, Non-Emergent and Preventable ED Visits, FY05, and Outpatient ED Utilization in MA, FY04 examine ED utilization patterns across various data elements, including race/ethnicity. The reports show that blacks had more outpatient ED visits of any kind than other minority groups in the state. They also demonstrate that Hispanics and blacks had the highest proportion of outpatient ED visits for preventable or avoidable conditions in the state. DHCFP is planning several additional reports using patient race/ethnicity discharge data, including a study of preventable hospitalizations and an update to the Non-Emergent and Preventable ED Visits report.

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31 Chapter 58 of the Acts of 2006


MassHealth Pay-for-Performance Initiative. As a result of state health reform legislation in 2006, Massachusetts created the MassHealth Hospital Pay-for-Performance (P4P) Initiative, which is administered by the EOHHS Medicaid Office of Acute and Ambulatory Care. The P4P Initiative relies on a set of measures selected using standardized criteria, along with standards for reporting and validating data, and a scoring methodology to assess hospital performance. The P4P Initiative includes two health disparities measures: a composite measure (currently in test phase) that aggregates 14 clinical measures and stratifies them by race/ethnicity group to show any disparities in care, and a measure that assesses the consistency of a hospital’s organizational practices with the National Standards for Cultural and Linguistic Appropriate Service (CLAS). As author of state regulations for collecting race/ethnicity data, DHCFP participates in a hospital performance team for this initiative with other state agencies and vendors. The team coordinates resources and helps strengthen relationships across entities.

For the P4P Initiative, MassHealth uses data submitted directly by hospitals according to revised DHCFP guidelines for the collection of race/ethnicity data developed collaboratively and are used across state and city agencies to ensure data accuracy and quality; the race/ethnicity data elements and values for a given patient admission are the same in MassHealth and DHCFP discharge data. Therefore, the initiative provides a strong example of how Partner data could be used to assess hospital performance in reducing racial/ethnic health care disparities. MassHealth and DHCFP continue to meet to discuss areas of potential future collaboration for this initiative. An annual report with P4P Initiative progress and accomplishments will be created for internal EOHHS use, and an executive summary of the report with first-year results will go to the state legislature.

Other data uses

Other state agencies in Massachusetts use race/ethnicity data as well. In 2007, the Department of Public Health released Racial and Ethnic Health Disparities by EOHHS Regions in Massachusetts. The report compiles baseline data about health status among racial and ethnic groups in the state and will be used to measure progress in reducing disparities in health and health care. The report includes hospital discharge rates for a variety of conditions, including diabetes, hypertension, injury and assault, as well as ED visit rates for conditions such as asthma and substance abuse. Among the findings:

- Black Non-Hispanics and Hispanics in all regions had higher hypertension hospitalization rates than the state overall for the 2003-2005 period. Black Non-Hispanics in Boston have a hypertension hospitalization rate that is more than five times the state average.

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35 Chapter 58, Section 25 of the Acts of 2006
36 These measures are effective for discharge data from April 1, 2009 through March 31, 2010. For more details about the measures see: RY2010 EOHHS Technical Specifications Manual for MassHealth Acute Hospital Quality Measures (Version 3.0).
37 Ibid. 48. The CLAS measure is based on a hospital’s responses to a required document called the Cultural Competence Organizational Self-Assessment (CCOSA) Checklist, which evaluates hospital governance, administrative/ management, service delivery, and customer relations.
• Black Non-Hispanic children (ages 0 to 14) in three regions have higher asthma emergency visit rates than the overall state.
• Hispanics had the highest opioid-related ED visit rates in the state for any race or ethnicity group.

The Massachusetts Health Care Quality and Cost Council (HCQCC), a public entity within but not under the control of EOHHS, sets goals for quality and cost performance and maintains a consumer website (www.MyHealthCareOptions.org) with hospital-level cost and quality performance data. Several population-wide measures to be reported on the website will be based on DHCFP data. In July 2009, recommendations were released for a three-year reporting plan for HCQCC that include creating technical reports about "quality and cost performance by race, ethnicity and language" as well as "quality measures for reporting performance by race and ethnicity." Both cite DHCFP discharge data. The reports would, for example, stratify performance measures by race and ethnicity.

Rhode Island

In Rhode Island, the Department of Health (known as HEALTH) is the HCUP Partner organization. More specifically, the Center for Health Data and Analysis (CHDA) within HEALTH collects and analyzes statewide health data to identify health problems and supports health programs to meet their health planning, evaluation, and/or decision-making needs. CHDA aims to make data requests a collaborative process by striving to understand why a user is requesting data or what the purpose of the data is. CHDA has found that sometimes users or clients think they know exactly what data they need, but with its knowledge base, CHDA is able to recommend alternate data or different reports to better meet users’ needs. By communicating with users at the outset, HEALTH is able to link them up with the most appropriate and useful data.

Highlighted activities involving HCUP Partner

State plans for chronic conditions. CHDA has consulted with HEALTH divisions to help develop two state plans that use discharge data on patient race/ethnicity. Specifically, CHDA staff worked closely with a consultant epidemiologist to the two HEALTH programs responsible for the plans. CHDA helped identify baseline data for state plan objectives and offered ongoing support as needed.

Reducing the Burden of Asthma in Rhode Island: Asthma State Plan, 2009-2014 includes goals and statistics directly informed by discharge data, such as hospitalization rates by race/ethnicity. A product of the Rhode Island Asthma Control Coalition (a group of more than 40 partners) and HEALTH’s Asthma Control Program, the plan is a “road map” for improving asthma control, reducing related hospitalizations and ED visits, and decreasing disparities in asthma. The plan incorporates data from multiple sources, such as the state’s Behavioral Risk

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Factor Surveillance Survey (BRFSS), Youth Risk Behavioral Survey (YRBS), ED data, vital statistics (or death certificates), and the Partner’s hospital discharge data. One set of goals in the plan focuses explicitly on disparities; examples include (by August 2014): 42

- Reducing the percent of Black non-Hispanic people hospitalized for asthma from 35.6% in 2007 to 30.2%.
- Reducing the percent of Hispanic people hospitalized for asthma from 22.3% in 2007 to 19.3%.
- Reducing the percent of Black non-Hispanic children hospitalized for asthma from 42.0% in 2007 to 31.7%.
- Reducing the percent of Hispanic children hospitalized for asthma from 29.8% in 2007 to 24.6%.

A second state plan, *Heart Disease and Stroke Prevention Rhode Island State Plan*, a “road map for reducing the burden of heart disease and stroke in the state” also includes racial/ethnic disparity information and improvement goals based on discharge data. 43 Although published by HEALTH, the plan is a product of the Rhode Island Heart Disease and Stroke Prevention Steering Committee, which represents over 60 organizations and individuals. Like the asthma plan, this document uses data from various sources to illustrate disparities in health and health care. For example, citing vital statistics data, the plan notes that in Rhode Island, non-Hispanic Whites over 65 are more likely to die from heart disease than non-Hispanic Blacks and Hispanics of the same age group; using discharge data, the report points out that despite this, between 2000 and 2007, non-Hispanic Blacks had a higher age-adjusted hospitalization rate for heart disease and stroke than did non-Hispanic Whites or Hispanics. 44 The plan includes goals for reducing the impact of heart disease and stroke on hospitalizations. Two such goals are to reduce the age-adjusted hospitalization rate for cardiovascular disease among Non-Hispanic Blacks from 221 per 10,000 to 210 per 10,000 and the rate among Hispanics from 112 per 10,000 to 106 per 10,000. 45 Discharge data from 2005 serve as the baseline and targets will be measured using 2012 discharge data.

**Special analyses of chronic conditions.** CHDA also has provided assistance for HEALTH Divisions to analyze race/ethnicity data and conducted its own analyses of these data to better understand disparities in chronic conditions such as asthma and diabetes.

The CHDA epidemiologist working with HEALTH’s Asthma Control and Heart Disease and Stroke Prevention programs has linked race/ethnicity discharge data to other data sources with proxies for socioeconomic status (e.g. neighborhood, primary payer) to determine the role of socioeconomic circumstances in disparities in health and health care. For example, because the state's hospital administrative records include census tracts, HEALTH was able to link its discharge data to U.S. Census neighborhood data to analyze repeat asthma hospitalizations for children under 19. HEALTH found that neighborhood and Medicaid coverage were both associated with pediatric asthma readmission rates. Although not all Partners have the ability to link detailed census data the same way as Rhode Island, the Partner’s experience shows that

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42 Ibid, 7.
44 Ibid, 12.
incorporating factors that are correlated with race/ethnicity, such as neighborhood and socioeconomic status, can provide further insights into disparities for states. In addition, using race/ethnicity data is important because of what it reveals about these disparities, including its role as a marker for related factors that are not well measured by available data, e.g., stigma.

Several policy initiatives have grown out of Rhode Island’s asthma burden and planning documents that show disparities. For example, Breathe Easy at Home, a pilot project of HEALTH’s Asthma Control Program, enables health care providers treating children with asthma to request housing inspections to resolve environmental factors that trigger asthma.\footnote{Rhode Island Department of Health. "Breathe Easy at Home Project." \url{http://www.health.ri.gov/projects/breatheeasyathome/index.php}}

HEALTH’s Diabetes Prevention and Control Program has also used discharge data on patient race/ethnicity. \textit{Disparities in Diabetes in Rhode Island} demonstrates that non-Hispanic Black patients have much higher discharge rates for diabetes or non-traumatic lower extremity amputations than non-Hispanic Whites or Hispanics.\footnote{Gjelsvik, A. \textit{Disparities in Diabetes in Rhode Island}. Providence, RI: Rhode Island Department of Health, November 2008. \url{http://www.health.ri.gov/publications/epidemiologicalprofiles/DiabetesDisparities.pdf}} Non-Hispanic Blacks are more than two times as likely as Non-Hispanic Whites to have an amputation.

\section*{Wisconsin}

The Wisconsin Department of Health Services (DHS) is the state’s HCUP Partner; the Health Care Information Section of the Office of Health Informatics located within the DHS Division of Public Health provides access to hospital discharge data and maintains other health data (e.g., cancer registry data).\footnote{Wisconsin Department of Health Services. Home Page. \url{http://dhs.wi.gov/}} In 2003, the state legislature shifted the responsibility for receiving discharge data from DHS to the Wisconsin Hospital Association; however the data are still given to DHS, which serves as the data steward and ensures that the data are used appropriately. As a result of the 2003 change, the Section provides state and local government entities (e.g., other DHS divisions, local public health departments) with access to hospital discharge data, while non-governmental entities such as insurance companies or research groups access the data through the Wisconsin Hospital Association.

\section*{Highlighted activities involving HCUP Partner}

\textbf{Disparities in Diabetes.} The DHS Secretary’s Office is creating health performance measure goals and objectives for conditions like diabetes for release in 2010; disparities in health and health care are a topic of particular interest. The Secretary’s Office learned about and reviewed the diabetes performance measures in the Focus on Disparities part of AHRQ’s NHQR (National Healthcare Quality Report) State Snapshot for Wisconsin and contacted the Section for more information. The Section helped them analyze more recent discharge data applying the same AHRQ Quality Indicators software used to generate measures for State Snapshots; the diabetes measure using race/ethnicity discharge data will likely be included in the Secretary’s final performance measures.
Stakeholder collaboration to improve data. Additionally, numerous Section clients such as community organizations and local health departments that are required to collect health information have expressed interest in having more detailed race and ethnicity data about their communities. As a result, the Section collaborates with clients interested in improved race/ethnicity data and has come to serve as a liaison between those and the Wisconsin Hospital Association. Wisconsin has the third largest Hmong population in the country but does not separate its discharge (or other health) data to capture information about the state’s Hmong population. (Hmong patients often are coded as Asian). Similarly, clients are requesting discharge data for Native Americans and American Indians to understand health needs specific to these populations. Through collaboration with clients and a hospital survey, DHS discovered that many patients are reluctant to report race/ethnicity because of perceived past discrimination.

To improve data collection at the hospital admission/registration level, increase patient comfort with providing race/ethnicity data, and ultimately be able to provide the race/ethnicity data clients are requesting, DHS has collaborated on various state efforts. Cancer organizations in the state are particularly interested in race/ethnicity data. DHS has collaborated with Native Tribes to cross-reference tribal clinic data with the state’s cancer database and is working to access additional information about Tribes that will enrich race/ethnicity in discharge data. DHS found that hospitalization rates for certain cancers are very high among Hmong populations in other states and wants similar data for Wisconsin. DHS programs, the Wisconsin Cancer Reporting System and the Wisconsin Comprehensive Cancer Control Program worked with the Wisconsin United Coalition of Mutual Assistance Associations, Inc. (the statewide Hmong organization) to create and distribute a patient brochure in English and Hmong about the importance of self-reporting as Hmong. DHS is providing technical assistance to hospitals and also working with them to create reports about Hmong populations. Based on client and community interest, DHS is in discussions with the Wisconsin Hospital Association for it to ask hospitals to collect additional subsets of race/ethnicity data. The overall goal is to improve reporting to allow for analysis of the health and health care needs of racial and ethnic minority populations in Wisconsin.

Other data uses

Other entities in Wisconsin (including several DHS subdivisions) that do not receive discharge data directly from hospitals have produced reports using discharge data on patient race/ethnicity from the Section:

- **Burden of Asthma in Wisconsin—2007**, an update to a 2004 report, includes the number of asthma hospitalizations and average length of stay and charge per hospitalization by race and ethnicity. The report informed the *Wisconsin Asthma Plan 2009-2014*, which offers a blueprint to decrease the burden of asthma, with a particular focus on the needs of populations disproportionately affected, including racial and ethnic minority groups.50
- **Wisconsin Minority Health Report, 2001-2005** compiles DHS information about the health of African American, American Indian, Asian, and Hispanic/Latino populations in Wisconsin and is intended to be a resource for communities and policymakers working

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on disparities in health and health care.\textsuperscript{51} It documents disparities in hospitalization rates for heart disease, stroke, cancer, diabetes, and injury.

- \textit{Burden of Diabetes in Wisconsin 2008} shows the prevalence and costs associated with diabetes. Statewide data include an analysis of race/ethnicity based in part on discharge data.\textsuperscript{52}
- \textit{The Wisconsin Plan for Heart Disease and Stroke Prevention 2005-2009}\textsuperscript{53} is a blueprint for improving cardiovascular health in the state. Discharge data are cited as one of several possible data sources for evaluating plan progress, and the inclusion of disparities in hospital performance measures is listed as a quality improvement goal.

\textbf{NOTEWORTHY USE OF RACE/ETHNICITY DATA IN ADDITIONAL STATES}

The environmental scan revealed that in four additional states patient race/ethnicity data reported to the Partner organization is used by other individuals or organizations independent of the Partner organization to better understand and reduce disparities in health and health care in the state. These states are Connecticut, Georgia, New Jersey and South Carolina. Although these entities are not HCUP Partners, they may be producing similar publications as HCUP Partners and their uses of discharge data may be of interest to other states.

\textbf{Connecticut}

The HCUP Partner organization in Connecticut is the Connecticut Hospital Association (\url{http://www.chime.org}), which aims to improve health by leading, representing, and serving hospitals and their health care organizations. Using discharge data from the Connecticut Hospital Association, the Department of Public Health published the following:

- \textit{2009 Connecticut Health Disparities Report}, which includes hospitalization data by race/ethnicity for circulatory diseases, diabetes (with and without amputation), and asthma.\textsuperscript{54} The report is one of the products of \textit{The Connecticut Health Disparities Project 2006-2008} that was created to improve the statewide infrastructure for identifying, reporting, and addressing disparities in health and health care among racial and ethnic minority groups.\textsuperscript{55} Other project objectives were making recommendations for improving


the collection of race/ethnicity data and developing a group to measure disparities in health and health care in the state.

Georgia

The Georgia Hospital Association (GHA) ([http://www.gha.org/](http://www.gha.org/)) is the HCUP Partner organization in Georgia. Its mission is to promote public health and welfare by developing better hospital care for state citizens. Using discharge data from the Georgia Hospital Association, the Department of Community Health published the following:

- *Health Disparities Report 2008: A County-Level Look at Health Outcomes for Minorities in Georgia,*[^56] was the first part of the DCH's Georgia Health Equity Initiative. The Initiative also included town hall meetings across the state to discuss the report, and the Georgia Health Equity Grant Program to support community organizations working to improve minority health. Community activities are targeting areas of need identified in the report.

New Jersey

Reporting facilities in New Jersey submit discharge data to the Office of Health Care Quality Assessment within the Department of Health and Senior Services (DHSS) ([http://www.state.nj.us/health/index.shtml](http://www.state.nj.us/health/index.shtml)). DHSS works to foster accessible and high-quality services through disease prevention and encouragement of informed patient decision-making. DHSS encompasses tobacco and cancer control programs, epidemiology, and minority health; it also receives health care data and manages mandatory hospital data reporting. The following publications were created independently of the Office but include race/ethnicity data:

- *Asthma in New Jersey Update 2006* was published by two DHSS divisions under a CDC grant; it includes discharge rates by age and ED visits stratified by race/ethnicity to help demonstrate the effects of asthma.[^57] Previous editions were published in 2002, 2003 and 2005.
- *New Jersey Asthma Strategic Plan 2008-2013,* the state’s second such plan, contains disparities objectives and recommends the continued analysis and reporting of discharge data.[^58] Annual updates are planned.
- *Strategic Plan to Eliminate Health Disparities,* a legislatively mandated report, discusses the importance of health data and the need to streamline data collection; it cites DHSS discharge data on patient race/ethnicity.[^59]


• Race and Ethnicity Coding Guidelines is a product of the above strategic plan; the guidelines were developed by DHHS for its divisions and grantees.\textsuperscript{59} DHSS collaborated with the New Jersey Hospital Association to standardize patient race/ethnicity reporting; revised codes for race and ethnicity went into effect in 2007.

• Racial and Ethnic Health Disparities in New Jersey provides a snapshot of disparities in health and health care for conditions such as HIV/AIDS and asthma; it includes asthma hospitalization rates.\textsuperscript{61}

South Carolina

South Carolina’s State Budget and Control Board (Board) (\url{www.bcb.sc.gov/}) is the state Partner organization. It offers general management of state government and has administrative and regulatory functions. Its divisions span state budget, retirement and information technology. The Health and Demographics Section of the Board’s Office of Research and Statistics (ORS) conducts research projects, educates policy makers, and manages, interprets, and provides access to state demographic, census, and health data, including discharge data. Discharge data provided by ORS informed the following activities:

• The Medical University of South Carolina (MUSC) has several initiatives to eliminate disparities in health and health care, and it publishes county-level racial health data reports that compare hospitalization rates for chronic diseases among blacks and whites.\textsuperscript{62}

• Two MUSC researchers have conducted studies using ORS’s hospital discharge data. One measured pediatric conditions in ED settings preferentially managed by a primary care provider rather than in the ED or hospital.\textsuperscript{63} A second study examined how racial disparities in maternal and infant health relate to gestational diabetes and maternal obesity.\textsuperscript{64}

• Burden of Diabetes in South Carolina 2009 Edition, a collaborative effort by several entities (the Chronic Disease Epidemiology, the South Carolina Diabetes Prevention and Control Program of the Bureau of Community Health and Chronic Disease Prevention, and the Diabetes Initiative of South Carolina), includes hospitalization rates and charges for several conditions by race, as well as diabetes ER visits by race.\textsuperscript{65}


\textsuperscript{62} Medical University of South Carolina. “MUSC Initiatives to Eliminate Health Disparities.” \url{http://www.musc.edu/healthdisparities/health_disparities/health_disparities.htm}

\textsuperscript{63} McElligott, J. “Assessing health disparities for South Carolina children: The use of marker conditions in the hospital and the emergency department.” Medical University of South Carolina.

\textsuperscript{64} Hunt, K. “Impact of maternal obesity and diabetes on racial disparities in infant health,” Medical University of South Carolina, Department of Biostatistics, Bioinformatics and Epidemiology.

THEMES AND LESSONS LEARNED

Several key themes and lessons emerged during the environmental scan of Partner activity and subsequent communication and interviews with Partners.

- Patient race/ethnicity information in hospital discharge data is an important resource for state plans, reports, and activities about health and health care, including disparities reduction. Leading Partners stressed that community organizations, state agencies, and researchers rely on their data to understand disparities in health care and the health needs of racial and ethnic minority groups. Guidance to states participating in CDC-funded chronic disease control programs explicitly references and encourages the use of hospital discharge data. Partner experience shows that race/ethnicity discharge data provide a way for states to examine disparities in these planning and burden documents.

- Increased federal and state attention to disparities in health and health care provides opportunities for HCUP Partners and their clients to use patient race/ethnicity data from hospital discharge databases. Reports and activities that incorporate these data in leading Partner States frequently reference state health reform or national health promotion initiatives such as Healthy People 2010 or 2020. These initiatives provide the necessary tools, momentum or a requirement (for legislatively mandated reports) for clients to request or reference data in reports. Reports can incorporate race/ethnicity data to illustrate outcomes; charge data by race/ethnicity can help demonstrate the costs associated with health care disparities.

- Units within state public health agencies are key clients for patient race/ethnicity data. Based on these case studies, the Partner organizations that participate in or support state initiatives to reduce disparities in health or health care by offering consultation or publishing reports are located in state agencies with broad public health missions; these Partners also tend to have sister divisions that work on minority health and frequently request Partner data.

- Entities in Partner States often produce reports about disparities in health and health care that draw from a variety of data sources but not hospital discharge data. In conducting the environmental scan, it was demonstrated that state agencies and others in Partner States regularly turn to BRFSS data, other surveys, and vital records for information about disparities in health and health care. Future research and outreach to Partner clients is needed to determine why discharge data is not as common as a source and how more states might use discharge data for reports about disparities in health and health care.

- Absent consultation or leadership from Partners, some clients use patient race/ethnicity data, but Partner collaboration with clients helps ensure the most appropriate data are used. Drawing from their unique and comprehensive understanding of statewide administrative data, Partners can refer clients to the data or analyses that will best meet their needs. Partner involvement in client use of data also can lead to changes in race/ethnicity data collection and reporting practices that improve the quality of data available to clients (see below).

- Partners or clients can use race/ethnicity data that are currently available while simultaneously committing to improve the quality of the data. Several leading Partners noted that small numbers of racial and ethnic minority hospital discharges, coding errors, and low self-reporting of race/ethnicity present challenges to using the data. In response, Partners have standardized data coding and collection guidelines, worked with hospitals to improve collection processes and, in one case, aggregated data over multiple years to get sufficient sample sizes.
• **It is difficult to assess the impact of reports that use Partner race/ethnicity data.** Because of limited resources, most Partners do not track the outcomes of data requests or the effects of their own publications. Most Partners do not have a mechanism in place to learn how their reports are used. Outreach to Partner clients is needed to determine the effects of Partner data.

• **Few Partners release reports focused on disparities in health and health care or participate in related state activities, but those that do can serve as models for others.** Partners fulfill their primary role to collect or provide data; for the vast majority of them affecting change by reducing disparities is not a part of their primary mission or responsibilities. The fact that some Partners are providing consultation and leading efforts to produce reports shows that Partners are able to play an important role in facilitating the use of hospital discharge data by race/ethnicity.

## CONCLUSION

Health equity is an important component of quality care, and federal agencies, states, and others are increasing their focus on addressing disparities in health and health care. As the experiences of leading HCUP Partners in California, Florida, Massachusetts, Rhode Island, and Wisconsin show, hospital discharge data on patient race/ethnicity are an important tool for informing state initiatives and producing policy- and practice-relevant publications. By participating in statewide disparities initiatives, fostering collaboration among entities to improve data collection, and authoring reports that use race/ethnicity data, Partners facilitate the usefulness of patient race/ethnicity data. Additional work is needed to understand the impact of these activities and products and how the hospital discharge data are most useful to potential users for disparities reduction activities.

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**Colorado** Hospital Association  
**Connecticut** 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
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 Division of Health Care Finance and Policy
Michigan Health & Hospital Association
Minnesota Hospital Association
Missouri Hospital Industry Data Institute
Nebraska Hospital Association
Nevada Department of Health and Human Services
New Hampshire Department of Health & Human Services
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 State Department of Health
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 Healthcare 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