



Improving Health Equity Through Data Collection **AND** Use: A Guide for Hospital Leaders

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Improving Health Equity Through Data Collection AND Use: A Guide for Hospital Leaders

Executive Summary

Racial and socioeconomic inequity persists in health care quality. An exploratory interview with four hospitals substantiated by a review of the literature reveals that hospitals are collecting race, ethnicity, and primary language data about their patients. Leading hospitals are now moving beyond data collection to analyzing and using the data to develop targeted interventions for improving access to care for underserved populations. All hospitals are encouraged to follow their lead and, in an era of greater emphasis on community health improvement, devote the necessary resources and infrastructure to use their data in efforts to overcome disparities in care.

The exploratory interviews did identify key strategies that hospitals have adopted to streamline the data collection process:

Key Strategies for Collecting Patient Race, Ethnicity, and Language Data
1. Engage senior leadership
2. Define goals for data collection
3. Combine disparities data collection with existing reporting requirements
4. Track and report progress on an organization-wide basis
5. Build data collection into quality improvement initiatives
6. Utilize national, regional, and state resources available
7. Review, revise, and refine process and categories constantly

A review of literature highlighted several approaches for using the patient data collected by hospitals:

Leading Practices for Using Patient Race, Ethnicity, and Language Data
1. Use an equity scorecard or dashboard to report organizational performance
2. Inform and customize the language translation services you provide
3. Review performance indicators such as length of stay, admissions, and avoidable readmissions
4. Review process of care measures
5. Review outcomes of care
6. Analyze provision of certain preventive care

To meet the needs of their diverse populations, hospitals and health systems will need to bridge the gap between collecting meaningful patient data and reviewing the data to identify inequities in health care provision and utilization, and to implement simple yet effective interventions to improve care for patients.

I. Introduction

Racial and socioeconomic inequity persists in health care quality. The 2001 report from the Institute of Medicine (IOM), *Crossing the Quality Chasm*, stressed the importance of equity in care as one of the six pillars of quality health care, along with efficiency, effectiveness, safety, timeliness, and patient-centeredness.¹ Equity in care can be defined as provision of care that does not differ by geographic location, socioeconomic status, gender, ethnicity, and other patient characteristics. The IOM followed its 2001 report with another report in 2002, *Unequal Treatment*,² which found that multiple factors may contribute to disparities in health care. There is therefore no single solution for addressing disparities in health care. The authors of the report offered multiple recommendations for reducing disparities by increasing awareness of the issue, data collection, and research.

According to the 2010 *National Healthcare Disparities Report (NHDR)* released by the Agency for Healthcare Research and Quality (AHRQ), racial and ethnic minorities continue to receive lower quality of care, as measured by performance on core quality measures.³ Also, in the 2009 *NHDR*, AHRQ and the Department of Health and Human Services noted three major implementation strategies to accelerate the reduction of health care disparities.⁴

1. Train health care personnel to deliver culturally and linguistically competent care for diverse populations
2. Raise awareness of disparities using research and data
3. Form partnerships to identify and test solutions

For years, hospital leaders have realized that reducing disparities in care is the right thing to do. Today, it has become a necessary component of quality and, as such, will have an increasingly greater impact on reimbursement.

Effectively addressing the issue of disparities in health care will require a two-fold approach from health care leaders. The first step—collecting data on patients’ race, ethnicity, and primary language—is focused on gaining a complete understanding of the community served by the hospital and the characteristics of patient population. Data collection, if done properly, can facilitate the second step, which involves analyzing quality-of-care and health outcomes data using patient demographics to specifically identify disparities and implement actions to reduce such disparities. Hospitals that currently collect data on patients’ race, ethnicity, and primary language encounter barriers in using the data to develop evidence-based strategies for improving health equity.

According to a 2006 study, 78.4 percent of nonfederal acute care hospitals collect information on the race of their patients, and half of these hospitals collect information on patient ethnicity (50.4 percent). State mandates provide a major motivation for hospitals to collect patient data, as mandates currently are in place in 19 states. Additionally, certain culturally and linguistically appropriate services (CLAS) outlined by the Office of Minority Health are required for hospitals to qualify for certain types of federal funding. Most hospitals that currently collect patients’ race, ethnicity, and primary language data do so to

¹ Institute of Medicine, Committee on Quality of Health Care in America, *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington, DC: National Academy Press, 2001).

² Institute of Medicine, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, B. D. Smedley, A. Y. Stith, A. R. Nelson, eds (Washington, DC: National Academies Press, 2002).

³ 2010 *National Health Quality and National Healthcare Disparities Report* (Washington, DC: The Agency for Healthcare Research and Quality, 2011). <http://www.ahrq.gov/qual/nhdr10/nhdr10.pdf>

⁴ 2009 *National Health Quality and National Healthcare Disparities Report* (Washington, DC: The Agency for Healthcare Research and Quality, 2009). <http://www.ahrq.gov/qual/nhdr09/Key.htm>

fulfill reporting requirements and are unsure of how to mine the data for trends in their patient population and develop interventions to address inequities identified in care.⁵

System-level and patient-level barriers to collecting and using patient race, ethnicity, and primary language data include:⁶

- Lack of standardization of race, ethnicity, and language categories
- Lack of staff understanding of why data is collected
- Information technology limitations
- Staff discomfort about data collection
- Patient privacy concerns

Health care leaders could reap major benefits by making the reduction and elimination of health care disparities an organizational priority. In addition to being the right thing to do, eliminating inequities in health care could have implications for health outcomes, organizational finances, and regulatory compliance.

Quality implications. Disparities in care can have a detrimental effect on the quality of care that is provided to patients. Patients who are racial and ethnic minorities may be more prone to medical errors; they may also have longer hospital stays and more frequent avoidable rehospitalizations, and experience other adverse health outcomes.⁷ According to the Joint Commission, language barriers, coupled with low health rates and cultural barriers, contribute to adverse events.⁸ Racial and ethnic minorities are also less likely to receive evidence-based care for certain conditions, which explains the disparities in health outcomes and management of patients with conditions such as diabetes, congestive heart failure, and community-acquired pneumonia.⁹

Financial implications. Disparities may increase the cost of care, including through excessive tests to compensate for communication barriers, medical errors, increased length of hospital stay, and avoidable rehospitalizations. The financial implication is further compounded in that payers are linking financial penalties to these outcomes. For example, pay-for-performance contracts now include provisions to address racial and ethnic disparities, a trend that is expected to gain widespread acceptance over time. Additionally, payment reform also features a disincentive for readmissions for certain conditions if they occur within a certain period of time.

Regulatory and accreditation implications. The Joint Commission has released new disparities and cultural competence accreditation standards, and the National Quality Forum has released cultural competence quality measures. Several provisions to reduce disparities were included in the Affordable Care Act. All these national efforts have further enhanced the need for providers to take another look at health care disparities in their organizations and identify solutions to provide more equitable care.

⁵ M. Regenstein, D. Sickler, *Race, Ethnicity, and Language of Patients: Hospital Practices Regarding Collection of Information to Address Disparities in Health Care*, National Public Health and Hospital Institute, 2006.

⁶ Institute of Medicine, Subcommittee on Standardized Collection of Race/Ethnicity Data for Healthcare Quality Improvement Board on Health Care Services, *Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement*, C. Ulmer, B. McFadden, D. R. Nerenz, eds. (Washington, DC: National Academies Press, 2002).

⁷ J. R. Betancourt, A. R. Green, R. R. King, A. Tan-McGrory, M. Cervantes, M. Renfrew, *Improving Quality and Achieving Equity: A Guide for Hospital Leaders*, The Disparities Solutions Center, Massachusetts General Hospital, 2009.
<http://www.rwjf.org/pr/product.jsp?id=38208>

⁸ P. M. Schyve, "Language Differences as a Barrier to Quality and Safety in Health Care: The Joint Commission Perspective," *Journal of Internal Medicine*, November 2007; 22 Suppl 2:360-361.

⁹ Betancourt et al., *Improving Quality and Achieving Equity*.

A growing collection of resources—in the form of guides, toolkits, research studies and other content—is now available to assist hospital leaders in the development and execution of targeted interventions to improve access to care for underserved populations. *Hospitals in Pursuit of Excellence*, the AHA’s strategic platform for accelerating performance improvement and delivery system transformation, has collected these resources and is making them available on a dedicated web page at <http://www.hpoe.org/topic-areas/health-care-equity.shtml>.

II. Key Strategies for Collecting Patient Race, Ethnicity, and Language Data

In an effort to provide health care leaders with examples of how hospitals with different characteristics and varying patient populations have overcome barriers to collecting and using patient race, ethnicity, and primary language data, we interviewed and profiled the activities of four hospitals. Several of the hospitals profiled stated similar concerns about having limited resources and staff available at their institutions to dedicate to disparities data collection and analysis. However, this barrier did not prevent the organizations from moving forward with efforts to examine and improve the processes for collecting meaningful data about their patients.

The hospitals interviewed identified multiple challenges in using the data they collect to develop and implement targeted interventions for their patients. There were multiple reasons for this. First, several of the hospitals were still in the process of strengthening their data collection systems to collect meaningful patient demographics data. Second, the process of mining the data for trends required more resources than most of the hospitals had. Similarly, these hospitals recognized that developing system-wide interventions is resource-intensive and requires consideration during the regular strategic and operational planning process. All the hospitals did express interest in simple, actionable interventions that they could implement in response to disparities in health outcomes identified in their patient population. Although only one hospital has made significant progress in analyzing patient data for trends in utilization and health care outcomes, all the hospitals provided lessons for hospitals that are currently looking to standardize their data collection process and develop an organization-wide culture around collecting patient race, ethnicity, and primary language data.

Common key strategies emerged from the hospitals profiled as shown in the following table.

Key Strategies for Collecting Patient Race, Ethnicity, and Language Data	
Strategy	Rationale
1. Engage senior leadership	<ul style="list-style-type: none"> - Helps to make efforts a priority for the organization - Maintains sustainability and accountability
2. Define goals for data collection	<ul style="list-style-type: none"> - Communicates to clinicians and staff that the effort does not end with data collection
3. Combine disparities data collection with existing reporting requirements	<ul style="list-style-type: none"> - Streamlines activities across multiple departments - Builds on existing hospital/system efforts - Ensures broad-based input
4. Track and report progress on an organization-wide basis	<ul style="list-style-type: none"> - Periodically disseminating information on patient demographics serves to further engage leadership and staff as they see the diversity in the patient population increase
5. Build data collection into quality improvement initiatives	<ul style="list-style-type: none"> - Ensures accountability for accuracy and consistency in collecting data
6. Utilize national, regional, and state resources available	<ul style="list-style-type: none"> - Eliminates the need to start from scratch and presents a learning opportunity, with tools and guidance from various national organizations, such as HRET, NQF, and the Joint Commission, and state governmental agencies, such as state departments of public health
7. Review, revise, and refine process and categories constantly	<ul style="list-style-type: none"> - Ensures that data collected is relevant - Helps facilitate incremental changes, which could include moving from data collection to data analysis and use

Case Study I: Heywood Hospital Gardner, Massachusetts

Overview

134 beds

Not-for-profit

General, medical, surgical

Annual admissions: 5,768

Annual emergency visits: 18,101

Diversity of patient population: 96% White, 3% Hispanic or Latino, 2% Black or African American, 1% Other

Contact: Barbara Nealon (nea.b@heywood.org)

Background

Heywood Hospital is a medium-sized facility located in an urban area about two hours west of Boston, Massachusetts. Unlike other hospitals in the Boston area, Heywood's geographic area of Gardner, Massachusetts, has very little racial and ethnic diversity. Despite the apparent lack of diversity in its patient population, the hospital has actively collected and used racial, ethnic, language, and religious data and preferences of their patients. Through this collection effort, Heywood has discovered pockets of socioeconomic and minority groups who can benefit from specialized services.

In 1999, the hospital established a multicultural task force with interdisciplinary representation from executive management, information services, telecommunication, nutrition, plumbing services, mental health, social work, and food service. In addition to being multidisciplinary, the task force is also multiracial and multicultural. The executive champion of the task force is the human resource director. The multicultural task force was interested in assessing diversity in the hospital's patient population and determining if the organization's staff reflected the diversity of its patient base.

Heywood Hospital views collection of race, ethnicity, and primary language data as a part of care provision and a critical component of the performance improvement process. As such, the effort has received widespread support from senior management.

Progress

Prior to 1999, when the task force was established, Heywood Hospital only provided interpreter services for American Sign Language. Since then, the diversity of residents in the hospital's geographic area has changed as more people migrated to the area. In 2002, Heywood developed an in-house interpreter program, which offers video relay for deaf and hard-of-hearing patients, a phone interpreter, and in-house interpretation. In the past few years, multicultural services at Heywood Hospital have had a tremendous impact:

Service Provision

- Prior to establishing its in-house interpreter program, Heywood had 56 hospital encounters with the deaf or hard-of-hearing population. A year after establishing the program, the hospital had 252 encounters, followed by 556 and 800 encounters in subsequent years. Last year, the hospital serviced 1,422 encounters with limited English proficiency patients, including deaf patients. The primary language of Heywood patients, after English, is Spanish, followed by American Sign Language.
- Once Heywood started providing Spanish interpretation, it received more demand for the service. Through serving patients, the hospital's staff has become culturally sensitive to the array of dialects within the Spanish language. The hospital provides interpreter services for Vietnamese, the third most frequently used language by its patients, and has just linked up with

the executive director of a Hmong community group to interact and determine the group's needs.

- Heywood has generated attention for increased education in specific patient populations. For example, in 2008, the hospital found that all admissions for one of its smallest minority groups were for chemical exposure. Staff and clinicians were able to link the admissions to workplace conditions and collaborate with community leaders to promote healthy behaviors in the workplace.

Process Change

- To diversify the hospital's staff base, multicultural services worked with human resources staff, volunteer services, and medical staff to self-identify, just as with patients. This information is also used to determine potential staff to be trained as interpreters.
- Heywood Hospital mandates cultural competency training for all new hires and trains its staff on cultural competency issues on an annual basis. The hospital also provides interpreter training annually. For example, April is diversity month at Heywood, and the hospital uses the opportunity to educate staff on specific topics impacting various patient populations.
- The work of the multicultural team is tied to the quality improvement process, so the team reports progress to senior management.

Successes

- The greatest success is establishing a program that is recognized by executive management.
- As staff members have become culturally competent, the hospital has seen an increase in the number of minority patients who seek care at Heywood. The hospital is also able to attract diverse staff and volunteers.
- The local community respects Heywood Hospital and looks to the hospital as a resource for cultural competency issues.

Challenges

- Financial limitations prevent allocating more resources to equity efforts.
- Staff stereotypes about patients still exist; additional staff training is needed to sensitize staff to the importance of providing optimal customer service to all patients regardless of background.
- The "unknown" category in patient race and ethnicity data currently hovers around two percent. The hospital is improving efforts to decrease this number so no patient will be unknown.
- Moving to the next step after identifying trends in patient race, ethnicity, and primary language data is required. It will involve a combination of translating materials into patients' preferred languages, providing specific services for patients, and going out into the community to connect with community leaders and provide education.
- Getting the information technology department on board and convincing them to prioritize the data collection efforts is also a continuing challenge.

Lessons Learned

- Be willing to learn. Heywood Hospital has utilized available resources from the Joint Commission, American Hospital Association/Health Research & Educational Trust, the Massachusetts Department of Public Health, and other state collaborators.
- Combine the disparities data collection and use with existing reporting requirements. This process will ensure streamlining efforts across multiple departments and facilitate broad buy-in. State initiatives, regional programs, and payer policies have also served as facilitators to data collection and use at Heywood Hospital.
- Continually engage executive leadership. The CEO of the hospital is a member of the multicultural task force and reports back to the hospital's board of trustees.

Case Study 2: San Mateo Medical Center

San Mateo, California

Overview

350–400 beds

County hospital and clinics

General, medical, surgical, primary, and long-term care

Annual admissions: 4,000

Annual emergency visits: 35,500

Annual outpatient visits: 240,000

Diversity of patient population: 59% Hispanic or Latino, 15% White, 9% Asian/Pacific Islander, 5% Black or African American

Contact: Jonathan Mesinger (jmesinger@co.sanmateo.ca.us)

Background

San Mateo Medical Center (SMMC) is a large public health care system that operates outpatient clinics throughout San Mateo County, including an acute care hospital and long-term care facilities. The medical center is also one of 19 member hospitals of the California Association of Public Hospitals and Health Systems (CAPH).

Until a year ago, SMMC collected basic race and ethnicity data required to meet state and federal requirements and used the race and ethnicity classifications required by the Health Resources and Services Administration (HRSA) and the state. In the past year, SMMC has been focused on moving toward collecting patient race, ethnicity, and primary language data (referred to as R.E.A.L. data by the hospital and CAPH) and has worked to modify patient registration to ensure that the medical center is collecting patient demographic information that will yield meaningful data. As part of the new model, SMMC defined a list of 30 granular race and ethnicity classifications. The revised list will help capture the information needed for reporting purposes and, most importantly, capture meaningful patient demographics information that can be used for assessing and improving quality of care and reducing disparities.

Progress

To identify the list of race and ethnicities to be included in the registration process, SMMC sought the input of its cultural competency committee, a multistakeholder group. This committee was able to provide guidance on the appropriate ethnicities to include in the list and solicit feedback and recommendations from various departments and the community.

Process Change

- SMMC will revise the registration process to move away from front-line staff verbally asking patients about their race and ethnicity. The process caused problems because patients are reluctant to divulge information and staff is hesitant to invade patients' privacy. The medical center plans to shift to a self-administered questionnaire, so patients have more privacy and confidence in responding to the questions.
- To allow patients to self-identify, SMMC selected a list of races and ethnicities from among an Office of Management and Budget list of 300, which was representative of the community it serves. The new list is comprehensive but not burdensome for patients or the SMMC data system. The granular list was also informed by the languages included in patients' requests for interpretation.

Challenges

- Staff training is essential, since the data collected is only as good as those collecting it. Staff training will enable staff to overcome reservations about collecting R.E.A.L. data from patients and motivate staff to participate in quality improvement.
- The new system involved changing the online system for registering patients, which required considerable work from the information technology department. Getting IT to prioritize the project has been challenging but also is improving gradually as the initiative gains system-wide focus.

Lessons Learned

- Set a well-defined goal for collecting patient race, ethnicity, and primary language data. SMMC was able to define the goal for the R.E.A.L. data initiative as an approach to collecting patient demographics that will enable the medical center to compare patient health outcomes and reduce disparities. This approach facilitated leadership buy-in.
- Solicit broad multistakeholder and multidepartmental involvement in data collection efforts. SMMC involved multiple departments in identifying the granular list of races and ethnicities to be collected, ensuring the categories are relevant and representative. Multistakeholder involvement also helped ensure that the effort fulfilled the needs of departments involved in data collection and reporting requirements to the state and other funding sources. And involving multiple departments eliminated duplicative efforts.
- Build on momentum established by state and regional initiatives. The California Health Care Safety Net Institute, quality improvement partner of CAPH, has been actively pushing the initiative to collect and use R.E.A.L. data. This effort has elevated the initiative to the attention of the senior leadership of SMMC, who are associated with the CAPH and very aware of the need to collect the data.
- Establish and report metrics for R.E.A.L. data collection and use. The quality leadership team at SMMC is actively involved in pushing data collection and use and has included written data collection as a metric to be reported as part of the Medi-Cal (California's Medicaid program) waiver application. As such, SMMC has to meet specific metrics for data collection and for qualifying for certain kinds of federal funding. This reporting requirement has been effective in garnering system-wide attention to data collection.

Case Study 3: Lehigh Valley Hospital/Lehigh Valley Health Network Allentown, Pennsylvania

Overview

500 or more beds

General, medical, surgical

Annual admissions: 65,400

Annual emergency visits: 163,000

Annual outpatient visits: 1.7 million

Diversity of patient population (including newborns): 80.8% White, 8.6% Hispanic or Latino, 4.7% Unavailable or refused, 3.6% Black or African American, 1.2% Multiracial, 0.9% Asian/Pacific Islander, 0.1% Native American

Contact: Judith Sabino (Judith.Sabino@lvhn.org)

Background

Lehigh Valley Health Network (LVHN) includes two full-service hospitals—Lehigh Valley Hospital with two clinical campuses in Allentown, Pennsylvania, and Lehigh Valley Hospital-Muhlenberg in Bethlehem, Pennsylvania—as well as several community health centers, a network of primary and specialty physicians, and other services. The health network is located in east central Pennsylvania, approximately 50 miles north of Philadelphia and 80 miles west of New York City. The largest municipality in the health network’s service area is home to a large Hispanic population and currently has a majority minority population distribution.

In 2006, the senior leadership of LVHN organized a patient-centered experience retreat for hospital staff and providers, community organizations, and former patients and family members to speak honestly about their hospital experience in the network. Feedback from the community revealed that despite the high quality of care provided by the network, patients’ cultural, religious and ethnic needs were not being met. The retreat served as a tipping point for the cultural competency work of the network and also garnered senior leadership buy-in. Under the guidance of senior leadership, the organization endorsed a strategic plan, which included as objectives understanding the importance of collecting patient demographics to identify disparities and standardizing the collection of patient race, ethnicity, and primary language data.

In October 2008, the organization standardized collection of patient race and ethnicity data. LVHN also provided registrar education and worked with information services to identify the race and ethnicity categories to collect. In January 2011, LVHN revised the data collection process for patient race and ethnicity data to comply with new federal requirements.

Progress

The change made to the registration process enabled LVHN to collect race and ethnicity in separate fields. Prior to that change, the organization had one field for both patient race and ethnicity. The revised categories gave patients the option of refusing to answer the question or indicating that they are unsure of their racial background.

Process Change

- The health network eliminated the use of the “some other race” category in order to collect meaningful data. Prior to 2008, the “some other race” category received the second largest

response for certain quality indicators that were tracked. Currently, the “unavailable or refused” category represents 4.7 percent of health network admissions.

Challenges

- Getting staff buy-in was challenging but critical. LVHN engaged Health Research & Educational Trust consultants to provide training to the supervisors of registrars to help supervisors understand the standardized process for patient data collection and the rationale for change, and answer questions about legality. Several in-house training sessions were held to educate the registrars about the new process.
- Refining the race and ethnicity category descriptions to help members of minority populations (specifically Latino, Arabic, and Caribbean populations) self-identify the appropriate category for them.
- Currently, the network has limited resources for reviewing and analyzing the data for trends. A small collaborative was assembled, including members of the health network’s health studies and quality departments, to identify methodologies to analyze these data.

Lessons Learned

- Provide staff training, especially registrar education, which is critical for collecting meaningful data. Training registrars to understand the rationale for data collection will better prepare them to field questions from patients and encourage patients to provide accurate and complete responses.
- Work with community partners to gain insight into the cultural differences and diversity that exist between various ethnic groups. LVHN has several partnerships with community residents and organizations that provide insights to the health network regarding cross-cultural care delivery.
- Use various approaches to facilitate leadership buy-in. LVHN’s leadership council continues to make cross-cultural care a priority of the organization and has senior leaders who serve as executive champions for the cultural competency work. Also, the senior management council has annual goals tied to equitable health care delivery.
- Learn from other departments and units that have successfully incorporated cultural competency in a cross-cultural environment. For example, the HIV unit at LVHN is much further along in having bilingual and cross-cultural staff deliver care to their patients.
- Recognize that it takes time to attain the kind of organizational culture change that makes providing cross-cultural care a part of everyday operations at an organization.

Case Study 4: Baylor Health Care System Dallas, Texas

Overview

North Texas integrated health care system with:

- 26 owned, leased, affiliated, and short-stay hospitals
- 130+ primary care, specialty care, and senior health centers
- 17 ambulatory surgery centers
- 450+ employed physicians in HealthTexas, BCHS-affiliated physician network

Not-for-profit

Annual admissions: 120,000

Contact: James Walton (jameswa@baylorhealth.edu)

Background

Baylor Health Care System (BHCS) is a large, integrated health care system based in Dallas, Texas. It includes 26 owned, leased, affiliated and short-stay hospitals as well as more than 100 ambulatory facilities that serve northern Texas. The system has more than 4,500 affiliated physicians, including more than 450 employed physicians who are part of HealthTexas, its affiliated physician network.

In 2006, BHCS established the Office of Health Equity (OHE) with the purpose of reducing variation in health care access, care delivery, and health outcomes due to:

- Race and ethnicity
- Income and education (i.e., socioeconomic status)
- Age
- Gender
- Other personal characteristics (e.g., primary language skills)

OHE identifies and tracks these variations by producing an annual “BHCS Health Equity Performance Analysis” (HEPA) that reports data on:

Inpatient performance measures:

- Quality of care measures (Joint Commission core measures)
- Experience of care measures (patient experience/satisfaction)
- Outcomes measures (inpatient mortality and 30-day readmission)

Outpatient performance measures:

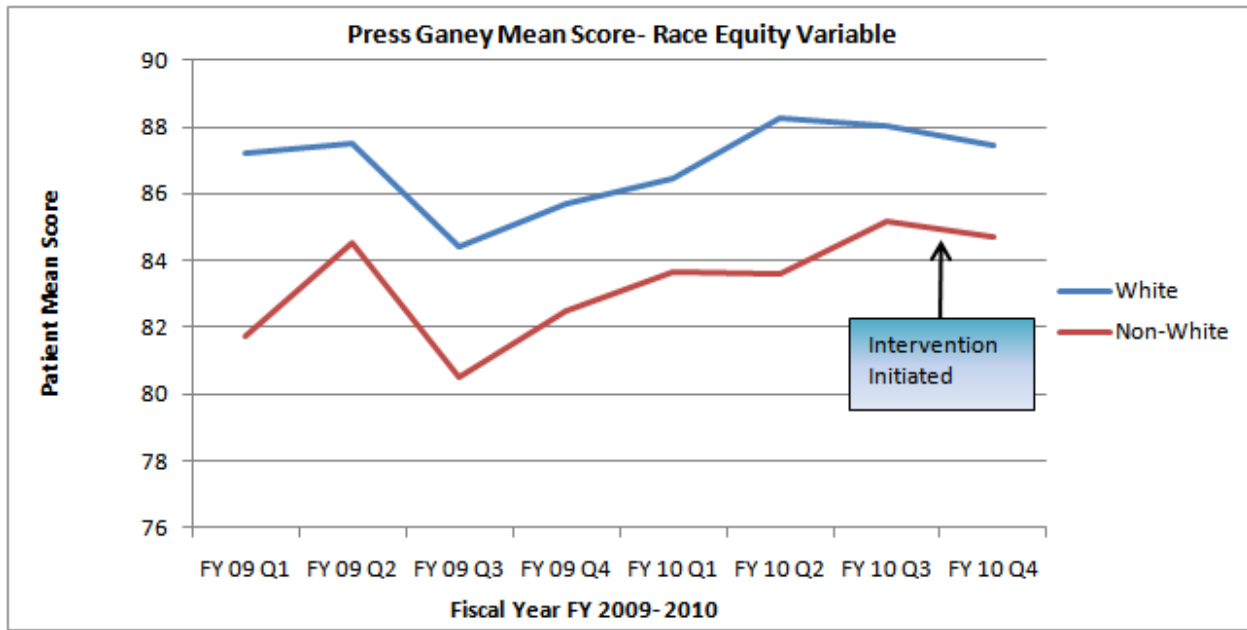
- Quality of care measures (diabetes, asthma, and chronic heart failure processes of care)

To produce the BHCS HEPA, the first step is to accurately collect race, ethnicity, and primary language data within BHCS hospitals and ambulatory care points of care. Additional variables are routinely collected including insurance status, age, and gender.

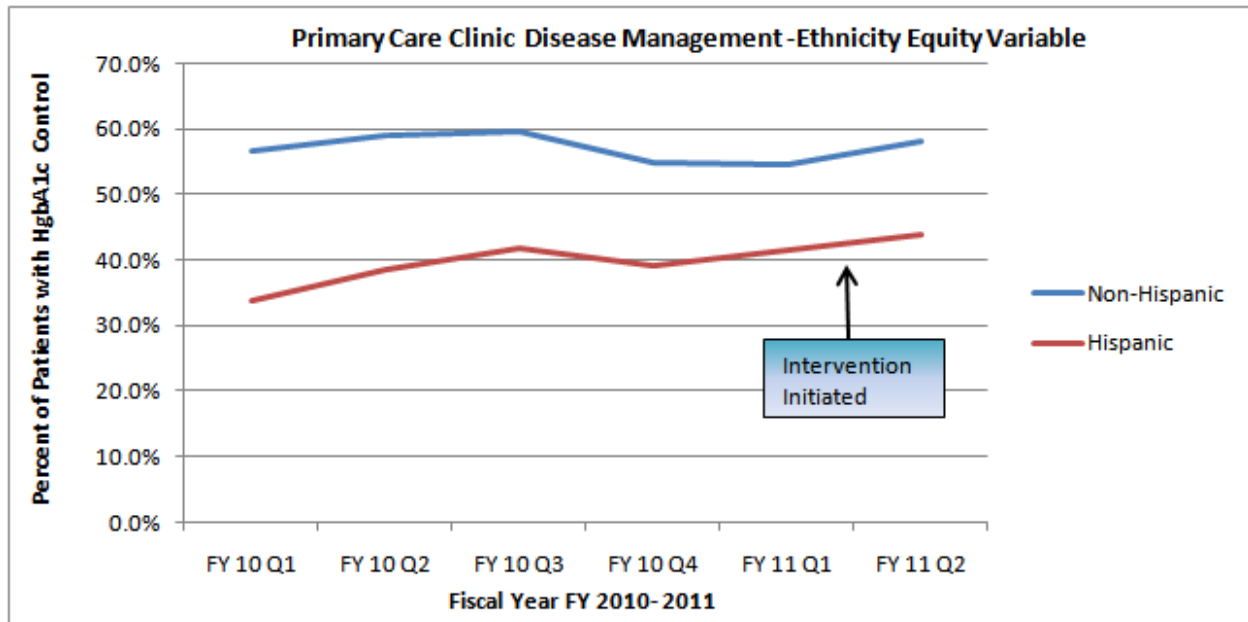
Subsequently, the equity measures are aggregated into several dichotomous variables:

- Race: white vs. nonwhite
- Ethnicity: Hispanic vs. non-Hispanic
- SES (socioeconomic status) proxy: commercially-insured vs. self-pay/Medicaid

For each variable, the percentages of eligible patients and the differences between each dichotomous variable are calculated. Differences are tested for statistical significance at a $p \leq .05$. The OHE produces and reports the HEPA in easy-to-read graphics, trending performance over time. For illustration purposes, the following sample graphs are provided from the 2010 BHCS HEPA report showing (1) BHCS ED patient satisfaction by race and (2) BHCS diabetes care management for Baylor's ambulatory clinics by ethnicity (diabetes control: HgbA1c<7%).



Being able to track measures over time allows for documenting performance trends. In the patient satisfaction example, the consistency of the disparity in satisfaction between white and nonwhite patients over two fiscal years points to an opportunity for developing health equity improvement initiatives to reduce the disparity.



In the diabetes care management example, the graphic illustrates a persisting disparity in diabetes care within a cohort of Baylor's primary care practices. When presented to the physicians' quality improvement committee, these data became a powerful tool for creating organizational prioritization and improvement momentum.

The annual HEPA report resides on the BHCS intranet, and the system uses the report to focus resources and efforts to reduce observed disparities and improve the quality of care among the patients and communities it serves.

Progress

In 2010, the OHE launched its first hospital-based health equity improvement strategy. This pilot intervention is a collaboration between OHE and the leadership and staff of two hospitals within the health care system. As part of this work, the staffs are using a continuous quality improvement process with rapid cycle improvement identifying possible causes of observed racial and ethnic differences in patient experience and testing workflow solutions to reduce and eliminate the disparity.

Additionally, in 2011 OHE launched its ambulatory care health equity improvement work with Baylor's employed physician organization, HealthTexas Provider Network. Since 2009, patients have self-declared their race, ethnicity, and primary language at the point of service, and the data have been analyzed to identify disparities in care. In 2010, data on diabetes care management pointed to significant differences in the percentage of non-Hispanic and Hispanic patients with superior diabetes control (HgbA1c levels less than 7%), with Hispanics meeting the management goal significantly less often than non-Hispanics. Within the last 24 months, physicians within the network were placed at financial risk for selected quality of care measures. One outcome has been an expressed interest in understanding if a physician's or clinic's overall performance in diabetes care is affected by disparities in a particular subpopulation's achievement of key diabetes care management measures.

As a result of this work, an important and promising project has been launched exporting lessons learned from a successful OHE health equity pilot, the Diabetes Equity Project (DEP). The DEP, funded

by the Merck Foundation for the past two years, is providing diabetes self-management education and patient advocacy for some of the area's underserved populations in partnership with five Dallas County charity clinics. Early results have been encouraging, significantly increasing the number of nonwhite patients attaining superior diabetes control (HgbA1c<7%). Leveraging these results, a recent decision by the HealthTexas Provider Network Quality Committee extended the DEP to four private practice clinics experiencing low diabetes care management performance among Hispanic patients, launching this initiative during the second quarter of 2011.

III. Leading Practices for Using Patient Race, Ethnicity, and Language Data

Even though the majority of hospitals and health care systems collect patient race, ethnicity, and primary language data, many organizations are challenged in using the data to provide equitable patient-centered care. Several valid reasons exist for why organizations have been unable to mine their current data to identify trends in care patterns and provide targeted interventions for specific groups of patients.

The following table highlights leading practices that some organizations have adopted for using the demographics data that they collect about their patients.

Leading Practices for Using Patient Race, Ethnicity, and Language Data	
Practice	Details
1. Use an equity scorecard or dashboard to report organizational performance	- Using a dashboard that captures performance on key quality indicators stratified by patient race, ethnicity, and socioeconomic status is an effective tool if updated and reported regularly to senior leadership of the hospital. The dashboard is able to capture progress made in certain areas as well as identify areas of focus. The dashboard also serves to identify patient populations that may be at increased risk for adverse outcomes.
2. Provide interpreter services	- Communication gaps between providers and patients are often a source of medical errors and may lead to costly and excessive testing. They can also result in delay of necessary care. Collection of patient data can help identify areas where trained and professional interpreter services are needed.
3. Review performance indicators such as length of stay, admissions, and avoidable readmissions	- Stratifying average length of stay, admissions, and readmissions by patient demographics can help identify any trends associated with specific patient groups, which then can be addressed to improve key performance indicators and quality of care.
4. Review process of care measures	- Analyzing performance on key process of care measures can identify gaps in care, which could be linked to specific patient groups.
5. Review outcomes of care	- Reviewing outcomes will help identify any trends, especially poor outcomes that are linked to certain patient groups.
6. Analyze provision of certain preventive care	- Analyzing delivery of certain services by race and ethnicity will help identify areas where specific groups are receiving less preventive care, especially screening.

IV. Conclusion

Federal, state, and regional activities over the past few years have highlighted the importance of collecting and using patient race, ethnicity, and primary language data to improve health care equity. Though hospitals have collected this data for years, new requirements have necessitated another look at how the data is collected and the quality of the data collected. The exploratory interviews outlined here reveal several key lessons for organizations looking to improve their data collection and utilization processes:

- Focus on improving registration and information systems to capture more comprehensive demographic information about patients
- Consolidate and standardize efforts across departments to reduce duplicative activities
- Identify internal champions to help advance equity strategy goals and engage effective management
- Develop partnerships with community organizations that can provide insights into the cultural differences in the community served, to better inform strategies to reduce disparities
- Identify and track inpatient and outpatient performance measures and aggregate the measures in dichotomous variables based on race, ethnicity and, if desired, socioeconomic status
- Use a continuous improvement process to identify possible causes of observed racial and ethnic differences in patient care and test workflow solutions to eliminate the disparity

The recurring theme echoed by the hospitals interviewed and others in the field highlights the need for more guidance on how to review data for trends and develop simple interventions that can be implemented immediately to improve care for patients.

Appendix: Resources

- *Assuring Healthcare Quality: A Healthcare Equity Blueprint*. National Public Health and Hospital Institute, September 2008. <http://www.naph.org/Main-Menu-Category/Our-Work/Health-Care-Disparities/Equity-Blueprint.aspx?FT=.pdf>
Recommended strategies and practices that can be tailored to individual hospitals as a starting point for designing and implementing interventions
- Betancourt, J.R., Green, A.R., King, R.R., Tan-McGrory, A., Cervantes, M., Renfrew, M. *Improving Quality and Achieving Equity: A Guide for Hospital Leaders*. [The Disparities Solutions Center, Massachusetts General Hospital](http://www.rwjf.org/pr/product.jsp?id=38208), 2009. <http://www.rwjf.org/pr/product.jsp?id=38208>
A guide that presents the rationale for addressing racial and ethnic disparities in health care and highlights model practices from hospitals and leaders who are actively engaged in addressing disparities.
- Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. National Academies Press: Washington, DC, 2001. <http://www.nap.edu/openbook.php?isbn=030908265X>
Institute of Medicine report that explores how racial/ethnic minorities experience the health care environment and examines how disparities in treatment may arise in health care systems. Offers recommendations for improvements in medical care financing, allocation of care, availability of language translation, community-based care, and other areas.
- *Cultural Sensitivity: A Pocket Guide for Health Care Professionals*. Oakbrook Terrace, IL: Joint Commission Resources, January 2008. <http://www.jcrinc.com/Books-and-E-books/CULTURAL-SENSITIVITY-A-POCKET-GUIDE-FOR-HC-PROFESS-PK-OF-5/1370/>
Quick guide to health care needs, expectations, and perceptions of a variety of racial/ethnic groups.
- Hasnain-Wynia, R., Pierce, D., Haque, A., Hedges Greising, C., Prince, V., Reiter, J. (2007). *Health Research & Educational Trust Disparities Toolkit*. www.hretdisparities.org
Free web-based tool that provides hospitals, health systems, clinics, and health plans information and resources for systematically collecting race, ethnicity and primary language data from patients. Includes scripts, rationale, and a section focused on deaf and hard-of-hearing populations.
- Hasnain-Wynia, R., Yonek, J., Pierce, D., Kang, R., Greising, C. H. *Hospital Language Services for Patients with Limited English Proficiency: Results from a National Survey*, 2006. <http://www.hret.org/resources/1550998119>
Describes current practices and common barriers as well as the specific resources and tools needed to provide language services to LEP patients.
- Hospitals in Pursuit of Excellence – American Hospital Association. Web page on health care equity. <http://www.hpoe.org/topic-areas/health-care-equity.shtml>. This web page lists a variety of resources to assist hospital leaders in the development and execution of targeted interventions to improve access to care.

- The Joint Commission. *Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care: A Roadmap for Hospitals*. Oakbrook Terrace, IL: The Joint Commission, 2010. <http://www.jointcommission.org/assets/1/6/ARoadmapforHospitalsfinalversion727.pdf>
This guide is designed to assist hospitals in integrating concepts and ideas from the fields of communication, cultural competence, and patient- and family-centered care in order to improve their efforts to delivery high quality care.
- Mead, H., Cartwright-Smith, L., Jones, K., Ramos, C., Woods, K., and Siegel, B. *Racial and Ethnic Disparities in U.S. Health Care: A Chartbook*. The Commonwealth Fund, March 2008. <http://www.commonwealthfund.org/Content/Publications/Chartbooks/2008/Mar/Racial-and-Ethnic-Disparities-in-U-S--Health-Care--A-Chartbook.aspx>
Provides data on the U.S. population by race/ethnicity, income and language and identifies disparities in health status and mortality, access to health care, and quality. Also documents strategies that may lessen or eliminate disparities in health and health care.
- *National Standards for Culturally and Linguistically Appropriate Services in Health Care*. U.S. Department of Health and Human Services, Office of Minority Health, March 2001. <http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlid=15>
National standards developed to ensure that all people entering the health care system receive equitable and effective treatment in a culturally and linguistically appropriate manner.
- Weinick, R. M., Flaherty, K., Bristol, S. J. *Creating Equity Reports: A Guide for Hospitals*. The Disparities Solutions Center, Massachusetts General Hospital, 2008. <http://www.massgeneral.org/disparitiessolutions/resources.html>
A guide that provides a framework for equity reporting and shares lessons learned from the experiences of several U.S. hospitals.