

IMPROVING QUALITY AND EQUITY IN HEALTH CARE BY REDUCING DISPARITIES

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**Presented to the Center for Health Management and Research
Health Research and Educational Trust/American Hospital Association**

May 14, 2008

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I. Health Disparities vs. Disparities in Health Care

Disparities in health and health care are inextricably linked, however it is important to distinguish between the two in order to realize the complexities of both and also to delineate what we, in health care, are accountable for. We begin with definitions:

Health disparities are defined by the National Institutes of Health as "differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States." Cardiovascular disease, cancer, and diabetes mellitus are the most commonly reported health disparities followed by cerebrovascular diseases, unintentional injuries, and HIV/AIDS. Assessing these differences requires that a variety of factors including age, gender, nationality, family of origin, education, income, geographic location, race or ethnicity, sexual orientation, and disability be considered.¹

Health care disparities are defined by the Institute of Medicine (IOM) as "differences in the quality of health care that are not due to access-related factors or clinical needs, preferences and appropriateness of intervention." More specifically, the IOM also states that disparities in health care are "differences in treatment provided to members of different racial (or ethnic) groups that are not justified by underlying health conditions or treatment preferences of patients."²

Causes of health care disparities are multifactorial and most often relate to quality and are influenced by factors such as provider–patient relationships, provider bias and discrimination, and patient variables such as mistrust of the health care system and refusal of treatment.^{3,4,5} In addition, system-level barriers

such as health care financing, access to high quality services, availability of high quality providers also play a roll (Figure 1).

The IOM *Crossing the Quality Chasm* report⁶ states that high quality health care should be safe, effective, patient-centered, timely, efficient, and equitable. Yet, we are falling far short of our goals in two key domains of quality; equity and patient-centered care. This report will focus on improving quality and equity by reducing disparities in health care.

Figure 1: Factors Contributing to Disparities in Health Care

System Level	Individual Level
<ul style="list-style-type: none"> • Fragmentation of care • Financial barriers • Physical barriers (e.g., excessive distant) • Information barriers (on part of providers and patients) • Differential access to high-quality hospitals and other facilities 	<ul style="list-style-type: none"> • Communication barriers and lack of trust between practitioners and patients • Cultural barriers: little understanding of patients health beliefs and behaviors • Problems with health literacy • Language barriers for patients with limited English proficiency • Bias and prejudice: stereotyping and biased decision making by providers and practitioners

Source, HRET Issue Brief, 2005

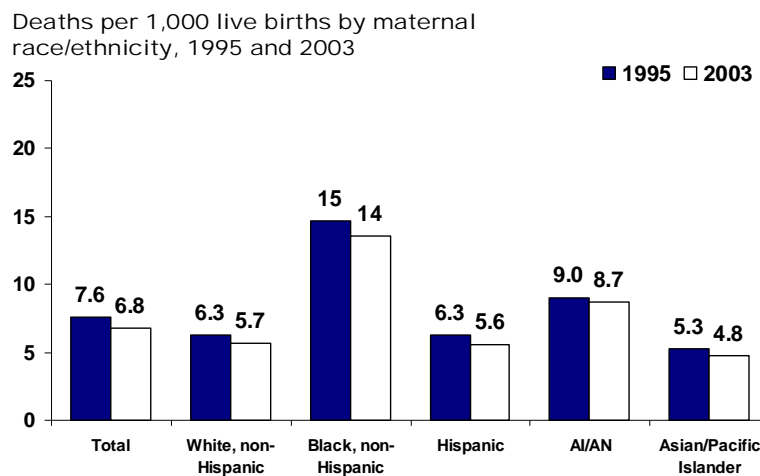
II. Why Disparities in Health Care Matter

Racial and ethnic disparities remain an unfortunate feature of our health care system landscape. Disparities in health care processes and outcomes have been well-documented For example, looking at both ends of the age spectrum, African-Americans have higher infant mortality rates (Figure 2) and higher rates of cardiovascular disease (Figure 3) than their White counterparts. These disparities are related to both lack of utilization of health care services by racial and ethnic minorities and also to lack of access to high quality care. The National Healthcare Disparities Report (NHDR) as well as a number of studies have summarized these disparities at a national level.^{7,8,9} According to the most recent

NHDR report, over 60% of disparities in quality of care have stayed the same or worsened for Blacks, Asians, Hispanics and poor populations in the last three years. In addition, on subjective measures, minority patients report their health status as fair or poor compared to their White counterparts (Figure 4) (Charts from the Commonwealth Fund: Racial and Ethnic Disparities in U.S. Health Care: A Chartbook).¹⁰

We have done an excellent job documenting disparities in health care and evidence of this work is in the literature in the form of over 1000 peer-reviewed articles and national reports. However, we have to move beyond documentation to action to reduce disparities in care by understanding the underlying causes and then appropriately targeting interventions. However the lack of accurate race, ethnicity, and primary language data available to health care providers is a major barrier.¹¹

Figure 2: Infant mortality rates are still more than two times higher for blacks than for whites, despite a slight decline for all groups in the past eight years. 28



AI/AN = American Indian/Alaska Native.

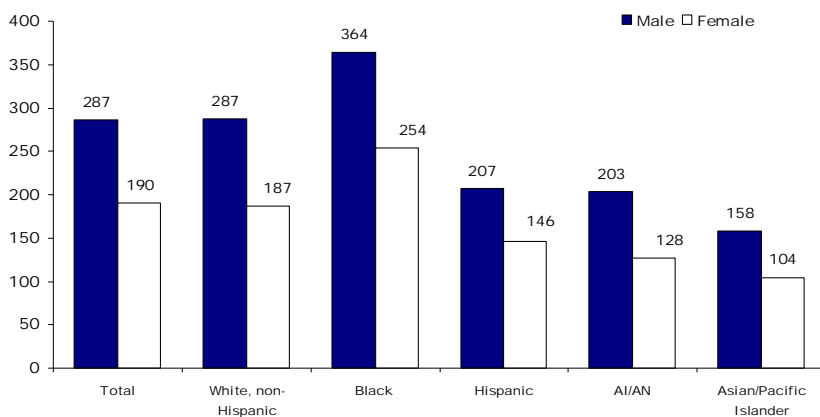
Note: Infant is defined as a child under one year of age.

Source: T. J. Matthews and M. F. MacDorman, "Infant Mortality Statistics from the 2003 Period Linked Birth/Infant Death Data Set," *National Vital Statistics Reports*, May 3, 2006 54(16):1-29.



Figure 3. Black men and women are more likely to die from heart disease than all other racial/ethnic groups.

Heart disease deaths per 100,000 resident population (all ages), 2003



AI/AN = American Indian/Alaska Native.

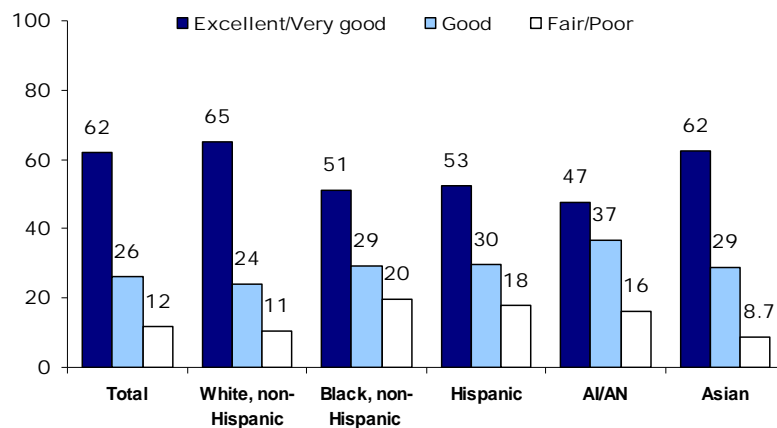
Note: Data are age adjusted.

Source: National Center for Health Statistics. *Health, United States, 2006: With Chartbook on Trends in the Health of Americans*. 2006.



Figure 4: Minority groups (except Asians) are more likely than whites to report their health status as fair or poor.

Percentage of adults age 18 and over, 2005



AI/AN = American Indian/Alaska Native.

Note: Data are age adjusted.

Source: National Center for Health Statistics. National Health Interview Survey. 2005.



III. A Framework for Reducing Disparities in Health Care

Our focus here is in reducing disparities within the health care system.

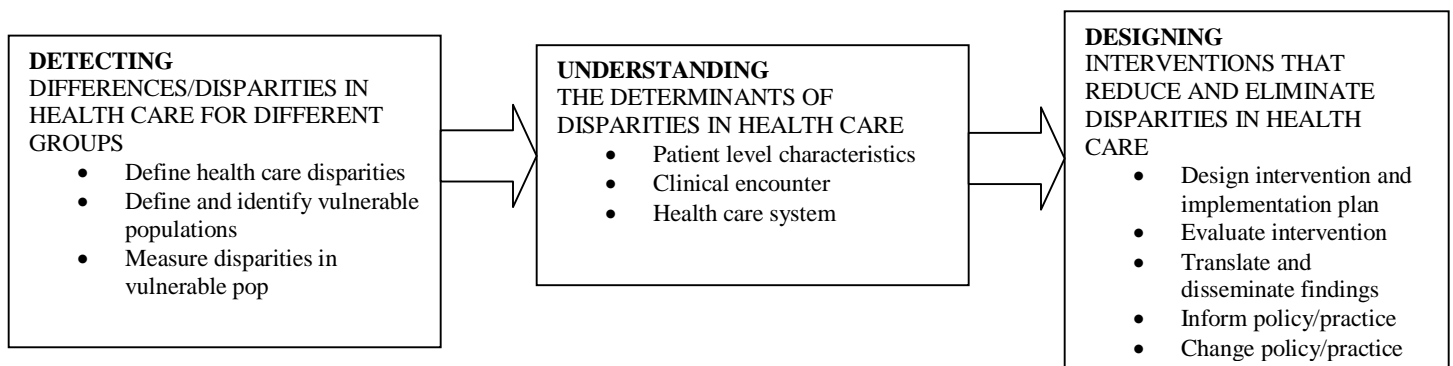
A framework for reducing disparities in health care, developed by Kilbourne and colleagues,¹² consists of three critical phases: detection of disparities; understanding of factors; and developing/implementing interventions. Each phase is described in detail below and is shown in Figure 5.

- Detection:
 - Defining health care disparities
 - Identifying vulnerable populations
 - Developing valid measures for studying both
- Understanding:
 - Why do disparities exist?
 - What identifying factors explain these disparities?
- Reduce/Eliminate by intervention:
 - Develop
 - Implement
 - Evaluate

This framework is relevant within the context of the health care system because it allows for the greatest opportunity for change in policy, administration, and practice. It is relatively simple in terms of its practical application since it allows health systems to see where to begin to address disparities reduction and provides specific action steps to do so. To date, we have done a relatively good job of defining health care disparities and documenting that disparities exist. However, one of the biggest challenges and barriers most health systems face in reducing disparities and improving equity within their own walls is systematically identifying vulnerable populations (DetectingPhase). This step requires organizations to first systematically collect race, ethnicity, and primary language data and then link these data to clinical and patient satisfaction measures of quality. Linking patient race, ethnicity, and language data to these metrics brings health systems one step closer to understanding where the disparities exist,

which can then lead to understanding why they exist, and identifying some of the causal factors (Understanding Phase). Finally, once the first two phases are accomplished (Detecting and Understanding Phases), health systems can move to developing and implementing targeted interventions to reduce disparities (Designing Intervention Phase). However, the foundation for being able to carry out all the phases of the framework successfully is first systematically collecting race, ethnicity, and primary language data. In the next two sections we describe data collection and linkage to quality measures in greater detail.

Figure 5: A Framework for Reducing Disparities in Health Care Systems



IV. Race, Ethnicity, and Primary Language Data: Basic Building Blocks for Improving Quality and Equity for Diverse Populations

Valid and reliable data are the fundamental building blocks for identifying differences in care and developing targeted interventions to improve the quality of care delivered to specific populations. Experts in the field, national organizations, policy makers, and national reports have called for the systematic collection of patient race, ethnicity, and primary language data by health care organizations. The drive to measure quality is based on the idea that performance measures can help patients, providers, and purchasers understand what high quality health care is. The capacity to measure and monitor quality of care for different racial, ethnic, and linguistic groups rests on the ability to both measure quality in general and to conduct similar measurements across different populations.^{13,14} Many experts have called for health care organizations to stratify their quality reports by patients' race, ethnicity, and language to identify problems in care, if they exist, and to then target interventions in a more effective and efficient manner to address them.¹⁵

Despite the importance of collecting and using reliable data to reduce disparities in care, most health care organizations do not systematically collect this information. A 2004 report found that even though 78 percent of hospitals reported collecting race/ethnicity data, the data were collected inconsistently both across and within hospitals. Over half the time, registration staff guessed a person's racial/ethnic background by observation. Also, because race/ethnicity information may often be a "mandatory" field that registration staff are required to fill to complete the registration process, often the information recorded in the field is entered as "unknown" or "other" and, therefore, doesn't serve a practical purpose.¹⁶ The majority of medical group practices (78%) reported not collecting race/ethnicity information because they thought it was unnecessary¹⁷, and the majority of health plans also reported not routinely collecting this information or collecting it inconsistently. Health care organizations reported a number of barriers to collecting race, ethnicity and primary language data including discomfort of staff, fear that it was illegal to ask patients or enrollees about their

racial/ethnic background, and system-level barriers such as changes in workflow, time, and a lack of consistent categories.¹⁸ Despite all these barriers our fieldwork and research enabled us to also identify facilitators to data collection. We provide a list of both barriers and facilitators to race/ethnicity and language data collection in Table 1 below.

Table 1: Barriers and Facilitators to Data Collection

Barriers
Staff sensitivity around collecting these data from patients
Worries about conflicting with Title VI and legality issues
Staff do not understand why they have to collect these data
Staff feel very uncomfortable asking patients about race/ethnicity
Staff make assumptions about patients' race because it is easier than asking
Patients believe it is "none of our business" and "why do we care"
The size of the registration staff makes it difficult to standardize this practice
Monitoring the quality of these data is difficult
It is not always easy to capture this information from transfer patients
Concerns about the amount of time it takes to ask questions and record information
Lack of space on the registration screen and adding fields or categories is difficult
Need leadership support as well as support throughout the organization
Need to engage the doctors who become upset with staff over potential time delays
Lack of consistent categories
Time and work flow concerns
Lack of focus on training staff to collect race/ethnicity/language data
Facilitators
At times, this information is already integrated into the registration systems by the vendors
IT can be a huge facilitator (or a huge barrier)
The presence of a registration quality unit within the hospital responsible for the quality of data collected at patient registration. Helps to centralize staff training
Engage staff early-on in the process and provide on-going staff training
Staff can function as the best facilitators. If they understand why information is being collected and they can communicate this message to patients and families with confidence and understanding, a major barrier can be overcome
Bilingual (multilingual) staff
Resources for systematic data collection
Clear communication from the CEO and leadership about the importance of doing this to improve patient care across ALL groups
Nurses may be the best source of understanding why this is important from a clinical perspective

Hasnain-Wynia and colleagues have conducted a number of studies and developed practical tools to help health care organizations systematically collect this information and overcome the barriers.^{19,20} Below, we outline the processes that health care organizations should standardize for systematic and accurate data collection as well as first steps within an organization to get started (Figures 5 and 6).

Figure 6: Recommendations for Standardizing Race, Ethnicity, and Primary Language Data Collection

- **Who provides the information**—should always be patients or their caretakers. Should never be done by observation alone
- **When to collect**—upon admission or patient registration to ensure appropriate fields are completed when patient begins treatment (for plans, at enrollment).
- **What racial and ethnic categories should be used**---start with the OMB* categories. Hospitals can provide more “fine-grained” categories if needed
- **Where should data be stored**—in a standard format for easy linking to clinical data and patient satisfaction measures
- **Patient Concerns**—should be addressed upfront and clearly prior to obtaining information
- **Staff training**--- provide on-going training and evaluation

*Office of Management and Budget Categories. See hretdisparities.org for details

Figure 7: How to Get Started--Collecting Race, Ethnicity, and Primary Language Data in Your Organization—Question to Ask

- Does your hospital, medical practice, health plan collect data?
- How are data collected?
- Which categories are used?
- What does your registration/enrollment system look like?
- What are your organizational structures (number of registration staff, number of clinical sites outside the hospital responsible for patient registration, patient registration and information systems)?
- Who is your patient/enrollee population and what is your hospital’s relationship with the community?
- What will it take to link data to quality measures?

V. How to Use the Data to Improve Quality and Equity and Reduce Disparities

Data collection alone is not enough to reduce disparities. It is a necessary first step, but it is not sufficient. Once data are collected, it is important to make the information actionable. Our healthcare system should work toward: 1) **ensuring the health of the population**--this is the ability to provide consistent and reliable epidemiological data on the incidence and prevalence of various health conditions across all population groups; 2) **equitable access to high quality care**--access to care is a prerequisite for entering and staying in the health care system. Available racial and ethnic data have been used to document important differences in access to high quality care. More accurate data can also be used to document differences in access to high quality care within racial groups where there is heterogeneity (e.g., Puerto Rican, Mexican, Somali, Jamaican, etc.); and 3) **ensuring high quality of care**--language and cultural barriers can have a negative impact on quality of care. For example, African Americans are twice as likely to report being treated with disrespect during health care visits compared to Whites; Hispanics, regardless of language skills, are more likely than other patients to report having difficulty communicating with and understanding their doctors. These findings underscore the importance of knowing your patients and providing patient-centered care.

Linking Data to Utilization and Process Measures **(Source: Creating an Equity Report: a Guide for Hospitals)²¹**

It is important to link race, ethnicity, and language data to both utilization and process measures. Examples of such measures include the amount of primary and specialty care received; hospital admissions and length of stay; preventive screening tests conducted; and measures of other types of testing and treatment. Some of the questions these types of measures can answer include:

- Are children receiving the recommended number of well-child visits?

- How often and for how long are asthmatic patients hospitalized?
- Are patients who meet the criteria for different preventive screening tests receiving those tests?
- Are hospitalized pneumonia patients receiving the recommended course of treatment?

Observed differences in utilization may reflect differential need, if, for example, one racial or ethnic group has a younger patient population than another, or they may demonstrate significant inequalities in how the hospital meets the needs of different patient groups. Process of care measures provide information about which groups of patients received recommended services, when these services were received, and whether there were gaps for specific populations, which could be due to cultural barriers, communication barriers, lack of trust, or other such factors. Gaps in care indicate targets for disentangling the story---understanding why the gaps exist—and then targeting interventions appropriately.

Link Data to Outcome Measures

In addition to measuring utilization and process measures, outcome measures should be monitored by race, ethnicity, and language when possible. Outcome measures include mortality and morbidity. Typical mortality measures may include deaths in the hospital or within 30 days after discharge. Morbidity measures cover a broad range of outcomes, including the status of a disease or condition, or the result of a treatment or procedure. Examples of morbidity measures include:

- Birth trauma rate for neonates
- Central venous catheter-related bloodstream infections
Per 1,000 patient days
- Postsurgical infection rates
- Hemoglobin A1C levels for diabetic patients

Additionally, measures related to patient safety and to sentinel safety events, such as wrong surgeries or foreign objects retained after surgery, can be considered as potential outcome measures. If data show that health outcomes differ for groups of patients from different racial, ethnic, language, or socioeconomic groups, more investigation may be needed to determine the causes and subsequent action steps. When such inequalities in outcomes are discovered, they should automatically trigger close attention to address any problems that are identified.

Link Data to Patient Satisfaction Measures

The American College of Physicians position paper on Racial and Ethnic Disparities in Health Care calls for an ongoing dialogue between hospitals and other health care organizations and surrounding communities to help integrate cultural beliefs and perspectives into health care practices and health promotion activities.²² Accurate information about race, ethnicity, and primary language can be used to ensure adequate interpreter services, provide relevant patient information materials, and understand dietary practices. Pressing problems in the communities, such as disparities in care, can be addressed more effectively if health care providers and practitioners build the trust of the community by documenting their accomplishments. Measures of patients' experiences with care can help the hospital understand how patients view and understand what happens to them during their care, how satisfied they were with the care they received such as, did they feel respected, and how long did they have to wait before being seen.

VI. Equity and Patient-Centeredness

Disparities in quality of care imply underperformance of processes of care considered to be best practices, which result in worse health outcomes for racial/ethnic and linguistic patient populations.²³ The IOM states that both **Equity** and **Patient-Centered Care** are two of the six key domains of high quality health

care. Both these domains should be recognized as key quality indicators and not just sub-elements of quality.

Equity within health care organizations is a quality of care issue since disparities represent poor quality of care and inequities in the health care delivery system. Therefore measures of health care disparities are, in fact, quality of care measures. Bringing health care disparities into the mainstream quality of care and quality improvement arena suggests an important organizational culture shift requiring equity in health care be treated within a mainstream quality improvement framework rather than being marginalized or treated as separate entity. Bringing health care disparities measurement into the mainstream quality arena requires using the language and tools of the quality movement to address health care inequities.²⁴ One way to accomplish measurement goals to assess disparities in care is by focusing on measurement and linking patient demographic data with quality measures, as described above in Section V.

Patient-centered Care within health care organizations, at the *system level*, means providing services that are aligned to meet patients' needs and preferences (e.g. interpreter services for patients with limited English proficiency). A major challenge health care organizations face is communicating complex information to a wide range of people and setting up the right systems to do this. Patient-centered care, within *interpersonal interactions*, means that clinicians understand each patient as a unique human being. Organizational performance to accomplish both patient centered care system-wide and at the interpersonal levels requires focusing on six key domains, which include:

1. Understanding your organization's commitment
2. Collecting information/data to understand the patient/community demographics
3. Engaging communities
4. Developing the workforce
5. Engaging individuals (staff, patients, and community)

6. Evaluating performance.

A guide developed by the Ethnical Force Program, *Improving Communication—Improving Care*²⁵ lists a number of specific, measurable expectations for performance in each of these six areas. Organizations can use these performance expectations as a framework for evaluating performance and as a guide for quality improvement within a patient-centered context (the report with the measurable expectations is available on line, for free, at http://www.amaassn.org/ama1/pub/upload/mm/369/ef_imp_comm.pdf)

We Treat All Our Patients the Same

Measuring equity and patient-centeredness needs to be embraced at all levels of the organization. Yet the perceptions of clinical and administrative leaders pose barriers because of the “not in my backyard” phenomenon. When asked about disparities in health care, health care leaders and clinicians believe that disparities exist, overall, but they happen “somewhere out there” and “not within my hospital or my practice.” For example, Bruce Siegel MD, MPH, Director of the Robert Wood Johnson National demonstration program to reduce disparities in cardiac care, *Expecting Success: Excellence in Cardiac Care*, interviewed health care leaders throughout the country about disparities and equity and found that the predominant response to questions about disparities was “We treat all our patients the same; we believe in high quality care for all.” But when asked, “How do you know?” leaders responded only with their perceptions, not with data.²⁶ Similarly, a survey of cardiologists by Lurie and colleagues²⁷ found that 33 percent believe that disparities occur overall, only 12 percent believe that disparities occur within their own hospital, and less than 5 percent believe that disparities occur within their own practice. Another recent study of primary care physicians²⁸ found that 88 percent believe that disparities in

diabetes care occur within the US health care system but only half (44%) believe that disparities in diabetes care occur within their own practice.

These are important perceptions because they relate to the ability of organizations to gain traction and commitment at all levels to systematically reduce disparities and improve quality and equity. Researchers have been publishing papers for the last 20 years demonstrating that disparities in health care exist, and clearly there is recognition that they exist. However, organizational responsibility and accountability are lagging behind because of prevailing perceptions that disparities occur “someplace other than my hospital, health system, or health plan.” Therefore education of administrators, leaders, boards, and clinicians is an important part of the process to gain organizational commitment at all levels. One of the strongest leverage points for accomplishing this goal is for each organization to collect race/ethnicity and language data and link these data to quality measures. The data may support the premise that we treat all our patients the same and provide the highest quality of care to everyone, or they will delineate where interventions are necessary because quality of care is falling short of recognized standards of care. However, the availability of accurate data is a necessary first step.

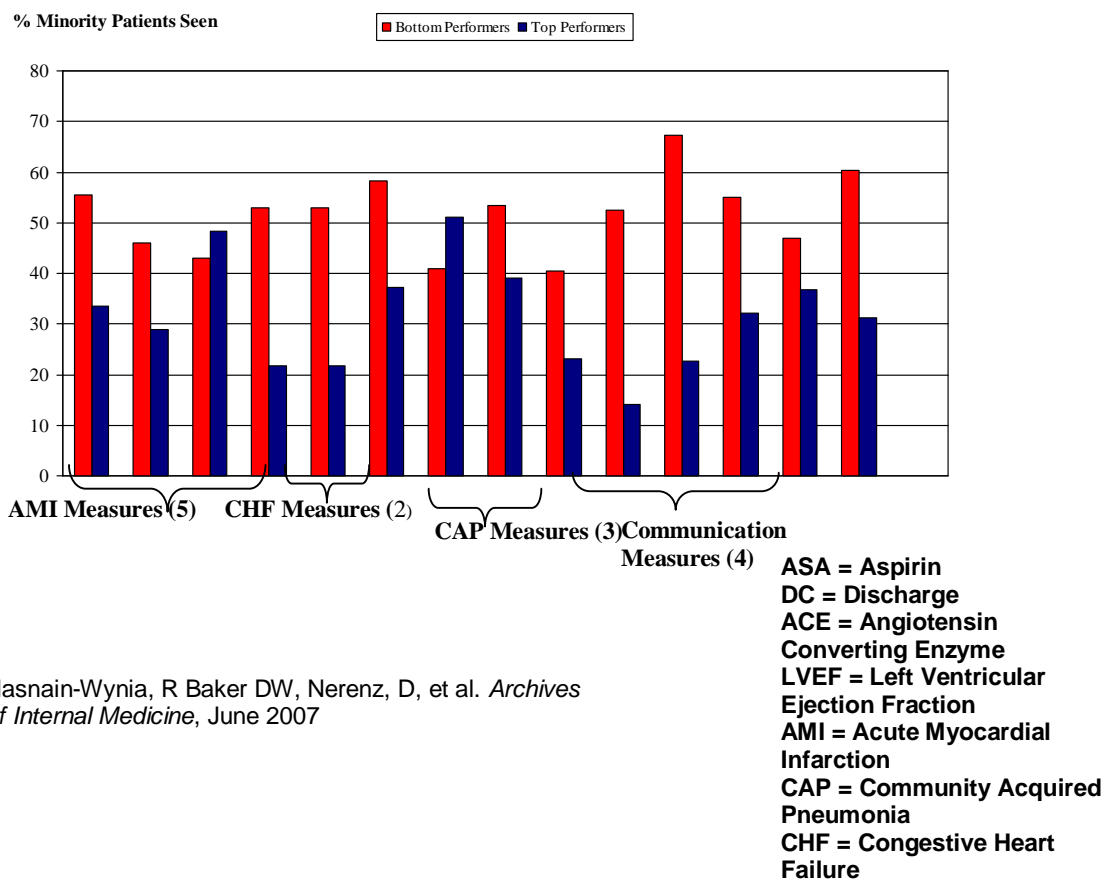
VII. Improving Equity Within Institutions May Not Be Enough: The Who You Are Versus Where You Go Question

Though it is important to collect data and measure health care disparities within institutions to target quality improvement initiatives, provide interpreter services, translate patient education materials, and provide informed consent forms and signage within hospitals in appropriate languages, it may not be enough to address disparities nationally. A number of recent studies have shown that disparities may be driven by variations in quality of care across different settings rather than variations within institutions. For example, Schneider et al found that clinical quality for Medicare beneficiaries in managed

care plans was significantly lower for Black patients compared to White patients and the enrollment of Black patients in poor performing health plans was a driver.²⁹ Another study by Bach and colleagues noted that Black patients and White patients were treated by different physicians. Physicians treating Black patients were less well trained and had fewer resources than physicians who treated White patients.³⁰ A more recent study by researchers at the Center for Studying Health System Change found that physicians with greater portions of minority patients were more likely to report greater quality related difficulties such as lack of access to specialty care for their patients as well as their own inability to spend adequate time with their patients.³¹ Lucas, et al found that Black patients had higher mortality rates across a range of surgical procedures because of higher mortality rates at the hospitals in which they received care.³² Finally, our own work demonstrated that quality of care for minority patients is often lower than for non-minority patients and that hospitals that were lower performers on inpatient quality of care measures for acute myocardial infarction (AMI), congestive heart failure (CHF) and community acquired pneumonia (CAP) tended to serve a larger percentage of minority patients (Figure 8).³³

However, it is important to realize that a number of factors can characterize lower performing hospitals and physician practices such as lack of resources including nurse staffing shortages, inadequate budgets, lack of technical support such as electronic health record systems, and lack of capital.^{34,35} Even more relevant when considering equity and disparities reduction, these hospitals and practices may be the very ones that are caring for the most vulnerable and diverse patient populations.

Figure 8: Percent minority patients seen for care in top and bottom performing hospitals, by measure



Hasnain-Wynia, R Baker DW, Nerenz, D, et al. *Archives of Internal Medicine*, June 2007

Conversely, a number of studies have also shown disparities in care within settings because of lack of understanding, communication barriers, or even because of bias and stereotyping.³⁶ Clearly, one cannot point to one culprit as the only driver of disparities in health care. It is not necessarily an “either-or” phenomenon and there is considerable overlap between factors that drive disparities within settings and those that drive disparities between settings. However, understanding at which level we are directing, or should be directing, our limited resources to reduce disparities in care is of utmost importance.

VIII. Policy Implications

Hospitals that predominantly serve minority patients are frequently poor.

Segregation in health care and place-based disparities can not be ignored; 85 percent of Black AMI patients were admitted to only 1000 of 4640 acute care hospitals nationwide.³⁷ Blustein asserts that this segregation involves the confluence of patient race, patient income, and health care financing.³⁸ Where care is administered clearly has a role in the quality of care received. From a policy perspective, should we be targeting resources to facilities that serve a high percentage of minority patients or direct them toward reducing potentially biased treatment patterns within facilities? We would argue that we need to do both—doing each one is necessary, but not sufficient. For both scenarios, it is necessary to know who our patient populations are.

Health care organizations should be using assessments of race/ethnicity and language of patient populations to drive quality improvement within institutions for diverse populations to: 1) monitor quality of care for all groups; 2) design innovative programs to eliminate disparities and rigorously test them; 3) know patients, better meet their needs and work with the community to deliver the best care possible; 4) satisfy legal, regulatory and accreditation requirements (i.e., JCAHO, CMS, NCQA etc.); and 4) take a leadership position in eliminating health care disparities and providing patient-centered care.

However, variations in quality across settings are pervasive. We need to recognize that there is continued segregation in health care and under-resourced institutions serve minority communities. Pay for performance programs may have the unintended consequence of driving the disparities gap even further by rewarding the better resourced institutions and penalizing the under-resourced institutions that are caring for racial and ethnic minority populations. Given this backdrop, we should consider focusing incentives toward institutions serving a large percentage of minority patients in order to reduce disparities nationally. Disparities are multi-factorial—who you are and where you go both play a role. We need to better understand these drivers of disparities and target our resources to get the greatest impact to improve quality and equity for all populations.

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