Unequal Treatment: Report of the Institute of Medicine on Racial and Ethnic Disparities in Healthcare

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When the Institute of Medicine (IOM) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care issued its report in March 2002 [1], it created a stir not unlike the one that greeted the announcement of two other influential, and somewhat controversial reports, the report on patient safety and that on the quality chasm. The press, by and large, reported the bottom line on the racial and ethnic disparity study: that the quality of care received by racial and ethnic minorities in this country is generally lower than that provided to the majority population.

Does this mean that the IOM report says that doctors and nurses in America are racist? The answer is “no,” and the press generally reported this accurately. The study explicitly says that there is no evidence that any significant proportion of healthcare professionals in the United States harbors overtly prejudicial attitudes. However, the study does say that our society still reflects attitudes and behaviors that can fairly be called discriminatory, which should come as no surprise to anyone. It also says that doctors and other clinicians are human and are influenced by the environment in which they live and practice, and that among the multiple complex factors that influence their decisions, bias and stereotypical behavior may play a role. But its most important contribution, in my view, is its attempt to understand and lay out how racial and ethnic disparities come about and what we, as professionals, should be doing about it. This is what I would like to focus on today.

The committee gave considerable thought to a name for the study and selected Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. The implications of the title were carefully weighed. “Unequal Treatment” stands in contrast to “equal treatment under the law,” as defined in the 14th amendment to the Constitution of the United States. The word “confronting” clearly points to a portion of its charge that the committee took equally seriously: to recommend interventions that can be undertaken to try eliminate such racial and ethnic disparities.

The study on racial and ethnic disparities was commissioned by the Congress, and had as its specific charge:

- To assess the extent of racial and ethnic differences in healthcare that are not otherwise attributable to known factors, such as access to care (e.g., ability to pay or insurance coverage);
- To evaluate potential sources of racial and ethnic disparities in healthcare, including the role of bias, discrimination, and stereotyping at the individual (provider and patient), institutional, and health system levels; and,
- To provide recommendations regarding interventions to eliminate healthcare disparities.

A word about the composition of the committee. Members included practitioners, medical educators, nurses, behavioral scientists, economists, health lawyers, sociologists, and policy experts. All of the major racial and ethnic minorities were represented on the committee. A majority was white.

Committee Methods

The committee determined, at the outset, to require a rock-solid evidence base for its findings and recommendations. The 15 member panel met five times, conducted an extensive review and analysis of the relevant health care literature, and used liaison panels, focus groups, and commissioned papers by experts in various aspects of the committee’s charge to add to its comprehensive inquiry. We received testimony from educators, accrediting organizations, representatives of managed care organizations, medical historians, organized medicine, lawyers, and economists. Liaison panels allowed us to receive information from the military, Veterans Administration (VA), and various federal agencies.

After an initial literature search that yielded more than 600 citations, the committee developed criteria for the selection of studies to reference in its findings, avoiding selection bias that might miss studies that did not demonstrate disparities. The complete literature review is contained in a 63-page annotated bibliography that is appended to the study.

The study committee defined “disparities” in healthcare as racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of inter-
vention, as depicted on this slide. The committee’s analysis was focused at two levels: the operation of healthcare systems, and the legal and regulatory climate in which health systems function; and discrimination at the individual, patient-provider level. Discrimination, as the committee used the term, refers to differences in care that result from biases, prejudices, stereotyping, and uncertainty in clinical communication and decision making.

Disparities were found across a wide range of disease areas and clinical services, even after correcting for clinical factors, such as comorbidities, stage of disease, and age. They were found in virtually all clinical settings. The committee found that the evidence for real and significant disparities extends all the way from preventive services on one end of the spectrum to pain relief at the end of life on the other. Disparities are present in cardiac care, cancer screening and treatment, diabetes management, end stage renal disease, treatment of HIV infection, pediatric care, maternal and child health, mental health, rehabilitative and nursing home services, and many surgical procedures. In some instances minorities are more likely to receive certain procedures, as in the case of bilateral orchiectomy and amputation, which African Americans undergo at rates 2.4 and 3.6 times greater than their white Medicare peers. One study reported that Latino patients with long bone fractures, cared for in emergency rooms in Los Angeles, received pain medication only half as often as non-Latino patients.

Overall, considering all conditions, studies that did not demonstrate disparities were conspicuous by their rarity. Some that indicated equal quality were reporting on VA and military populations. We were not successful in identifying specific factors to account for this fact.

**Evidence in Cardiovascular Disease**

According to the report some of the strongest and most consistent evidence for the existence of racial and ethnic disparities in care is found in studies of cardiovascular care. The committee referenced, in its annotated bibliography, 26 studies that looked at disparities in diagnosis or treatment of cardiovascular diseases. All met the criteria set for inclusion: the studies were published in the past 10 years, publication was in peer-reviewed journals, contained original findings, and met generally established principles of scientific research. Studies that focused on racial and ethnic differences in health status (except as it is affected by the quality of health care) and health care access were eliminated.

The most rigorous studies in this area assess both potential underuse and overuse of services and appropriateness of care using well-established clinical and diagnostic criteria. Several studies, for example, have assessed racial and ethnic differences in cardiovascular care relative to RAND criteria for the necessity of revascularization procedures. Therefore, these studies have been able to demonstrate that differences in treatment are not due to factors such as racial differences in the severity of coronary disease.

No one study reviewed by the committee simultaneously controlled for all of the variables likely to confound the relationship between race and the receipt of care. In addition, in almost all articles, studies that use rigorous measures of potential confounding variables find that disparities diminish once these variables are included in the multivariate analysis. Most, however, find that significant disparities remain.

Some studies use large administrative databases, such as the Medicare database. Although these data provide little or no information regarding comorbid illness, the severity of disease, or the stage at which illness was detected, the large sample sizes (up to 4 million patients) and consistency of the findings is striking. One analysis of more than 86,000 Medicare patients found that whites were nearly four times more likely than African Americans to receive coronary artery bypass grafting (CABG) after adjusting for age- and gender-related differences in rates of myocardial infarction. When data were analyzed by state, the authors found greater racial differences in CABG rates in the Southeast, particularly in nonmetropolitan areas. For whites, CABG rates were significantly associated with the availability of thoracic surgeons and location in the Southeast, but physician availability and location were not correlated with CABG rates for African Americans.

Black patients were less likely to receive thrombolytic therapy and bypass surgery, even when only high-risk coronary anatomic subgroups were assessed [2] and were less likely to be catheterized when presenting to an emergency room with chest pain [3]. In a study of more than 13,000 New Jersey residents, the likelihood of receiving catheterization within 90 days of an acute myocardial infarction was significantly greater if the patient was white [4]. And the very large national study with patients from the National Registry of Myocardial Infarction 2, comprising 275,000 patients [5], and the prospective controlled studies [6] revealed clear differences in the likelihood of receipt of procedures during nearly every phase of diagnosis and treatment of coronary artery disease, with minority patients usually coming up short.

However, one study indicated that whites were more likely to receive inappropriate angiography, although the racial difference in rates of inappropriate percutaneous transluminal coronary angioplasty was not sufficiently large to account for more than a small fraction of the substantial disparities in rates of revascularization between white patients and African-American patients [7].

And, in one study, although cardiac catheterization was performed less often in nonwhites when compared with whites, angioplasty and bypass grafting were received equally often in white and nonwhite patients among those catheterized who had indications for revascularization [8].

The literature reviewed illustrates that racial and ethnic disparities in cardiovascular care are robust and consistent across a range of studies conducted in different geographic regions with diverse patient populations seen in a range of clinical settings.

We further noted that disparities in the care of cardio-
vascular conditions exist in other developed countries, such as the United Kingdom. For example, in a prospective study of 2552 patients seen in London hospitals who were deemed appropriate for cardiovascular procedures according to standardized criteria, Hemingway and co-workers [9] found that nonwhite patients were more likely to receive only medical treatment, rather than CABG, after controlling for demographic and clinical variables. These differences were not found among white patients similarly deemed appropriate for invasive treatment.

The literature does not provide a clear account of the sources of these disparities; rather, these studies provide clues regarding the types of factors that are not likely to fully explain disparities in cardiovascular care.

Racial differences in clinical presentation or disease severity does not fully explain differences in receipt of services. White patients have been found to use some clinical services at higher rates than minorities, even when not necessarily indicated. But this “overuse” of cardiovascular procedures by whites does not fully explain disparities in care. Racial and ethnic disparities in services are found among patients insured by Medicare and among patients in VA settings, although these findings are not consistent. Several studies find that African-American patients are more likely than whites to refuse invasive procedures, but when the relative contribution of patient refusal to racial differences in care is assessed, this factor is not found to account completely for these disparities. Further, physician recommendation appears to be the major factor in determining whether patients receive invasive cardiac procedures.

So, what are the causes of the disparities that so clearly exist?

As noted earlier, we were specifically asked by congress to evaluate the role of bias, discrimination and stereotyping at the individual provider and patient level. We determined that clinical uncertainty, stereotypical behavior and bias—both conscious and unconscious—may be among the multiple factors that result in disparities, but it also became clear that the evidence base is, in large part, indirect, and that greater understanding of the influence of such factors is needed through research. It became clear that a number of additional factors are also in play, and disparities appear to arise from a complex interaction of historic, environmental, and behavioral influences.

We found that these disparities are associated with socioeconomic differences and diminish when socioeconomic factors are controlled, but they do not disappear. Disparities are found even when clinical factors, such as stage of disease presentation, comorbidities, age, and severity of disease are taken into account. They are found across a range of clinical settings, including public and private hospitals, teaching and nonteaching hospitals.

The committee subdivided the factors contributing to disparities into these categories:

- Health system-level factors: financing, structure of care; cultural and linguistic barriers;
- Patient-level factors: patient preferences, refusal of treatment, poor adherence, biological differences;
- Disparities arising from the clinical encounter.

This led the committee to a core paradox. How could well-meaning and highly educated health professionals, working in their usual circumstances with diverse populations of patients, create a pattern of care that appears to be discriminatory?

In order to answer this question, we must examine the nature and the role played by bias (prejudice), uncertainty, and stereotyping. Let me expand on these factors that are of critical interest to clinicians.

With respect to bias, there is no evidence to suggest that providers are more likely than the general public to express biases, and some evidence suggests that unconscious biases may exist. Uncertainty is a plausible contributing factor, particularly when providers treat patients that are dissimilar in cultural or linguistic background. As for stereotyping, evidence suggests that physicians and other clinicians, like everyone else, use these “cognitive shortcuts.”

What do we mean by “stereotyping?” Stereotyping can be defined as the process by which people use social categories (such as race or sex) in acquiring, processing, and recalling information about others.

Stereotyping is not necessarily bad. Stereotyping beliefs may serve important functions, such as organizing and simplifying complex situations, and giving people greater confidence in their ability to understand, predict, and potentially control situations and people. But, does stereotyping present risks? The committee believes that the potential is there because stereotyping can exert powerful effects on thinking and actions at an implicit, unconscious level, even among well-meaning, well-educated persons who are not overtly biased. It also can influence how information is processed and recalled. Finally, stereotyping can exert “self-fulfilling” effects, as patients’ behavior may be affected by providers’ overt or subtle attitudes and behaviors.

Situations characterized by time pressure, resource constraints, and high cognitive demand promote stereotyping due to the need for cognitive “shortcuts” and lack of full information. This is a description of the environment in which many physicians must provide care.

Let me now summarize a review of the major findings and recommendations of the report.

Findings
Racial and ethnic disparities in health care exist and, because they are associated with worse outcomes in many patients, they are unacceptable.

Racial and ethnic disparities in health care occur in the context of broader historic and contemporary social and economic inequality, and evidence of persistent racial and ethnic discrimination in many sectors of American life.

Many sources (health systems, healthcare providers,
patients, and utilization managers) contribute to racial and ethnic disparities in health care. Bias, stereotyping, prejudice, and clinical uncertainty on the part of health-care providers may contribute to racial and ethnic disparities in health care. While indirect evidence from several lines of research supports this statement, a greater understanding of the prevalence and influence of these processes is needed and should be sought through research.

A small number of studies suggest that racial and ethnic minority patients are more likely than white patients to refuse treatment. These studies, however, find that differences in refusal rates are generally small and that minority patient refusal does not fully explain healthcare disparities.

Recommendations

The committee devoted a great deal of attention to recommendations that might be expected to reduce and eventually eliminate disparities in the United States.

First, the committee believes that the existence of disparities is still largely unrecognized, and that public and professional awareness is an essential starting point for efforts at reduction, so one of our most important recommendations is to increase awareness of racial and ethnic disparities in health care among the general public and key stakeholders, and increase healthcare providers' awareness of disparities.

The committee was persuaded by evidence gathered at workshops and liaison panels, as well as through commissioned papers, that contributions to disparities are made by the current complex, economic-driven healthcare environment and that a number of legal, regulatory and policy interventions are indicated. These include efforts to avoid fragmentation of health plans along socioeconomic lines and strengthen the stability of patient-provider relationships in publicly-funded health plans; to increase the proportion of underrepresented U.S. racial and ethnic minorities among health professionals; to apply the same managed care protections to publicly-funded HMO enrollees that apply to private plans; to increase the proportion of underrepresented U.S. racial and ethnic minorities among health professionals; to apply the same managed care protections to publicly-funded HMO enrollees that apply to private plans; to support the use of interpretation services to ensure an adequate supply of services to minority patients; to limit provider incentives that may promote disparities; to enhance patient-provider communication and trust by providing financial incentives for practices that reduce barriers and encourage evidence-based practice; and to support the use of interpretation services where community need exists, support the use of community health workers, and implement multidisciplinary treatment and preventive care teams.

In making this recommendation, the committee was aware of the practical difficulties in assuring that such services are available and avoided a position that would call for unfunded mandates.

Because education of the professions and of the public plays such a key role in reducing disparities by promoting cultural competence, the committee recommended that steps be taken to implement patient education programs to increase patients' knowledge of how to best access care and participate in treatment decisions, and integrate cross-cultural education into the training of all current and future health professionals.

The committee was very much aware of concerns about privacy and confidentiality, and the impediments to acquiring the kind of data that are necessary for tracking the nation's progress in better understanding the causes of disparities and reducing them. Nonetheless, data are necessary to know where we are and where we are going. The committee developed four recommendations with respect to data collection and monitoring:

- Collect and report data on healthcare access and utilization by patients' race, ethnicity, socioeconomic status, and where possible, primary language;
- Include measures of racial and ethnic disparities in performance measurement;
- Monitor progress toward the elimination of healthcare disparities;
- Report racial and ethnic data by OMB categories, but use subpopulation groups where possible.

Finally, the committee made two recommendations that are intended to advance the research agenda in understanding and reducing disparities: to conduct further research to identify sources of racial and ethnic disparities and assess promising intervention strategies, and to conduct research on ethical issues and other barriers to eliminating disparities.

Conclusions

The committee was acutely aware, at each stage of its work, of the value-laden and sensitive nature of the subject of its charge. Some of us were shocked at the extent of evidence that exhibits broad and unacceptable disparities in health care in this country. Although disparities in the quality of care may be reflective of inequalities in other aspects of American life, such as housing, jobs, and education, healthcare workers are professionals and beneficence, as an element of professionalism, is supposed to be color blind. At the end, the committee determined that our country has made a great deal of progress in reducing disparities in the past 50 years, but that we have yet a long way to go before "treatment is equal under the law." The real challenge before us is to implement changes that will reduce and
eventually eliminate the disparities that are so clearly present.

References