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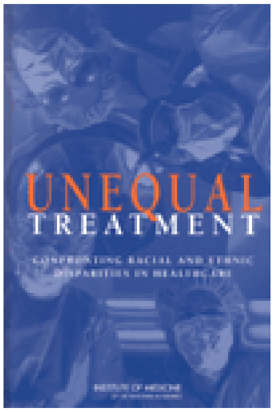

Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care (with CD)

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Assessing Potential Sources of Racial and Ethnic Disparities in Care: The Clinical Encounter

Previous chapters have assessed the extent of racial and ethnic disparities in healthcare, and have identified potential sources of these disparities. Disparities are found to arise from an historic and social context in which racial and ethnic minorities received inferior healthcare, reflecting broader socioeconomic disadvantage among minorities and societal discrimination. When seen by a healthcare provider, minorities typically have been treated in segregated healthcare systems that today remain largely segmented by socioeconomic class. When differences in treatment attributable to insurance, access to care, health status, and other factors are eliminated, however, racial and ethnic healthcare disparities still remain.

As discussed in Chapter 3, factors related to patients' needs and preferences, as well as the characteristics of health systems and the legal and regulatory contexts in which care is delivered, may explain some of the racial and ethnic differences in care that remain once access-related factors are controlled. In this chapter, aspects of the clinical encounter that may contribute to disparities—including patients' and providers' attitudes, expectations, and behavior—are assessed. When these encounters systematically produce racial and ethnic disparities, they may constitute discrimination. As noted in Chapter 1, the study committee defines *discrimination* as differences in care that emerge from biases and prejudice, stereotyping, and uncertainty in communication and clinical decision-making. It should be emphasized that this definition is not intended in a legal sense. Different sources of federal, state and international law define discrimination in varying ways, with some focusing on intent and others emphasizing disparate impact.

Three mechanisms might be operative in producing discriminatory patterns of healthcare from the provider's side of the exchange: 1) bias (or prejudice) against minorities; 2) greater clinical uncertainty when interacting with minority patients; and 3) beliefs (or stereotypes) held by the provider about the behavior or health of minorities (Balsa and McGuire, 2001a). Patients might also react to providers' behavior associated with these practices in a way that contributes to disparities. If minority patients mistrust doctors' advice, they may be less likely to follow it, potentially accounting for some part of healthcare disparities.

To many observers, the mechanism behind disparities that comes most immediately to mind is provider prejudice: doctors and other providers might have a lower regard for minority patients and treat them less well. Prejudice is the least subtle of the mechanisms likely involved in clinical disparities, and does not require a sophisticated understanding of doctor-patient interaction to see how it might work. The same is not true, however, for other mechanisms. Clinical uncertainty and stereotypes lead to disparities through processes requiring some understanding of medical decision-making. To appreciate how these second and third mechanisms might work, and how patient response affects clinical interactions, it is necessary to keep in mind some salient features of the medical encounter.

MEDICAL DECISIONS UNDER TIME PRESSURE WITH LIMITED INFORMATION

In the process of healthcare, doctors and other healthcare providers often must reach judgments about patients' conditions and make decisions about treatment without complete and accurate information. Moreover, they frequently must do so under severe time pressure and resource constraints. These conditions contribute to clinical uncertainty, as providers must weigh a vast array of information, presented both by the patient and from diagnostic test data. This uncertainty opens the possibility that medical decisions and the course of treatment will reflect subjective variability and preferences of the physician (Eisenberg, 1986; Wennberg, 1999). Under conditions of time pressure, problem complexity, and high cognitive demand, physicians' attitudes may therefore shape their interpretation of this information and their expectations for treatment, such as the likelihood of patient compliance.

To add to this uncertainty, as clinicians and their patients work together, both parties are involved in highly complex processes of decision-making, requiring the acquisition of a wide array of diverse information and the weighting of these data on various dimensions of salience. The assembly and use of these data are affected by many influences, including various heuristics that introduce significant problems for recall and weighting. In conditions such as these, it may be assumed that cognitive shortcuts have significant value to any decision-maker. Physicians, in fact, are commonly trained to rely on gestalts that functionally resemble the application of "prototypic" or stereotypic constellations. That is, physicians use clusters of information in making diagnostic and other complex judgments that must be arrived at without the luxury of the time and other resources to collect all the information that might be relevant. These conditions of time pressure and resource constraints are common to many clinical encounters, and map closely onto those identified as producing negative outcomes due to lack of information, to stereotypes, and to prejudice (van Ryn and Burke, 2000; van Ryn, 2002).

Patients may also hold stereotypes of clinicians that would come into play under these conditions of stress and demand for rapid and complex cognition. These stereotypes may paint the physician as an arrogant clinician, or as "the white man who experiments on minority patients," or as a person who cannot be trusted to provide the whole truth. Even if the parties would, upon direct inquiry, deny the reality of such stereotypes in the particular circumstance, they may still unconsciously act from these perspectives in a pressured situation. The following sections present a more detailed discussion of the mechanisms by which disparities can arise in the clinical encounter. We explain how the mechanisms work, and consider the evidence in support of the empirical importance of each mechanism.

HEALTHCARE PROVIDER PREJUDICE OR BIAS

Prejudice is defined in psychology as an unjustified negative attitude based on a person's group membership (Dovidio et al., 1996). Prejudice, when held explicitly, may become part of a "reasoned" and normative pattern of behavior that becomes discriminatory. While it is reasonable to assume that the vast majority of healthcare providers find prejudice morally abhorrent and at odds with their professional values, healthcare providers, like other members of society, may not recognize manifestations of prejudice in their own behavior. Socially conditioned implicit prejudice may be manifested in healthcare providers' nonverbal behaviors reflecting anxiety (e.g., increased rate of blinking), aversion (e.g., reduced eye contact) or avoidance (e.g., more closed postures) when interacting with minority rather than white patients.

Empirical support for the presence of biased or prejudicial attitudes among healthcare providers is limited but growing. Some research suggests that differences in care may result from conscious or unconscious biases on the part of physicians and other healthcare providers. Schulman et al. (1999), for example, assessed physicians' recommendations for management of chest pain after they viewed vignettes of "patients" (actually actors) who complained of symptoms of coronary artery disease. "Patients" varied only in race (black or white), sex, age (55 or 70 years), level of coronary risk, and the results of an exercise stress test. As originally reported in the published findings, Schulman et al. found that physicians were less likely to recommend cardiac catheterization procedures for women (odds ratio = 0.6, suggesting that they were 40% less likely to be recommended for catheterization) and African Americans (odds ratio = 0.6, again suggesting that this group was 40% less likely to referred for catheterization) than for whites and men.

These results as reported, however, overstated the likelihood of referral for African Americans and women relative to whites and men. In a rebuttal to Schulman et al., Schwartz, Woloshin, and Welch (1999) demonstrated that had the study authors calculated the relative chance of referral using risk ratios, rather than odds ratios, the probability of African Americans being referred for cardiac catheterization was only 7% lower than for whites. In addition, Schwartz et al. demonstrated that significantly lower rates of referral were found only in the case of African-American women, whose rate of referral was approximately 12% less than that for white men, white women, and African-American men. There were no significant differences in rates of referral among the latter three groups, suggesting that a more accurate interpretation of the data would be that the effect of race on physician's referral patterns is modified by gender. Furthermore, Schwartz et al. contend that referral rates for catheterization alone do not constitute a "gold standard" of care; to the contrary, these authors assert, the assumption that "more testing"—i.e., catheterization for all patients who present with cardiac symptoms—represents better care is unfounded. Less testing, in some instances, may result in more appropriate care (Schwartz et al., 1999).

In a reply to Schwartz et al. (1999), Schulman, Berlin, and Escarce (1999) agree that calculation of risk ratios would have been more appropriate as a means of assessing differences in referral rates. They note, nonetheless, that the findings of the study are consistent with the hypothesis that clinical decision-making may be influenced by physicians' conscious or subconscious perceptions on the basis of patients' race and gender, rather than on objective data. And while catheterization may not be appropriate for all patients even given similar objective preliminary test results, Schulman and colleagues, referring to the robust findings of studies that indicate lower rates of referral among blacks for catheterization, write, "we doubt that the lower utilization rates observed consistently among black patients reflect an effort to provide more appropriate care to these patients" (Schulman, Berlin, and Escarce, 1999, p. 286).

In another experimental design, Abreu (1999) assessed whether conscious or non-conscious stereotypes would influence the clinical impressions of mental health professionals. Abreu "primed" these clinicians with either African-American stereotypes (e.g., "Negroes," "blacks," "blues," "rhythm") or neutral words (e.g., "water," "then," "about," "things") flashed on a computer screen for 80 milliseconds. Clinicians were then asked to evaluate the same hypothetical patient on a number of dimensions, including general impressions as well as clinical features. Abreu found that therapists primed with stereotype-laden words rated the patient significantly less favorably on hostility-related attributes than therapists exposed to neutral words, demonstrating that "therapists can be affected by African-American stereotypes in ways that produce negative or positive first impressions, depending on the nature of the attribute that is rated" (Abreu, 1999, p. 387).

Another experimental study using patient vignettes also found variations in physician recommendations when patient demographic variables were manipulated, although results were mediated by physician gender. In a study of primary care physicians' recommendations for pain management, Weisse et al. (2001) presented vignettes of patients suffering from identical symptoms of kidney stone pain, lower back pain, and as a control condition, sinusitis. Nearly 80% of the physician sample was white, while 15% were Asian American or Pacific Islander. In each case, only the race (African American or white) and gender of the "patient" was manipulated. The authors found that male physicians prescribed higher doses of hydrocodone for white "patients" than black "patients" suffering from back pain and renal colic, while female physicians prescribed higher doses of analgesic for black "patients" than white "patients." In both cases, findings were robust: male physicians prescribed twice as much hydrocodone to white patients than black patients, while female physicians prescribed the reverse. No other patient-physician race and gender interactions were observed. These findings, the authors suggest, imply that male and female physicians may react differently to gender and/or racial cues. While few other studies have replicated this finding, the study also implies that healthcare providers' perceptions of and attitudes towards patients are potentially influenced by a range of factors, and illustrates the complexity of disentangling the effects of race, ethnicity, and gender as they influence patient-provider interaction. More research is needed to better understand these processes, and to specifically assess how physicians' race, ethnicity, or gender may influence their attitudes toward and perceptions of patients.

Another experimental study, using first- and second-year medical students as subjects, assessed whether the race and gender of hypothetical patients influenced students' perceptions of presenting symptoms. Rathore et al. (2000) randomly assigned 164 medical students to view a video of either a black female or white male actor who presented with the same symptoms of angina. Students were then asked to rate the patients' health status, based on their assessment of how the patients' presenting symptoms would affect their quality of life. They were also asked to provide a diagnosis of "definite" or "probable" angina. The authors found that students were more likely to provide a diagnosis of "definite" angina for the white male patient than the black female patient, but rated the health status of the black female patient as lower than that of the white male. Thus, these subjects assessed the while male patient's cardiac symptoms to be more severe, yet perceived the black female patient's quality of life to be lower, despite objectively similar presentations from the two "patients." Minority students, however, did not rate the health status of the black female patient as significantly different than that of the white patient. When examined by students' gender, Rathore et al. found that the male students tended to rate the black female's health status as lower than the white male, while female students did not rate the two patients' heath status differently (Rathore et al., 2000).

In a study conducted in a clinical setting, Finucane and Carrese (1990) assessed when and how patients' race was referenced during house staff case presentations. In this study, the chief medical resident surreptitiously recorded oral case presentations during a 2-month period, and assessed, using *a priori* criteria, whether and how often the patient's race was mentioned, and whether potentially "unflattering characteristics" (e.g., low intelligence, uncooperativeness, unkemptness) were also noted. Race was noted in the vast majority (16 of 18) of cases involving black patients, but only in about half (19 of 36) of cases involving white patients. Among patients to whom house staff ascribed unfavorable characteristics, race was mentioned in 10 of 10 cases involving black patients, but in only 4 of 9 cases involving white patients. Findings of this study must be interpreted with caution, however, as the study suffers from a very small sample size and is limited by the single study setting. In addition, the authors employed no objective means of assessing whether the unfavorable characteristics ascribed to patients resulted from a true difference in the prevalence of these characteristics, rather than from racial bias.

In another study based on actual clinical encounters, van Ryn and Burke (2000) surveyed 193 physicians to assess their perceptions of 842 patients (57% white and 43% African American) following post-angiogram hospital visits. The authors asked physicians to rate their patients on a variety of personal characteristics such as intelligence, self-control, education level, pleasantness, rationality, independence, and responsibility. In addition, the authors asked physicians to rate their feelings of affiliation toward the patient and their perceptions of their patients' degree of social support, tendencies to exaggerate discomfort, likelihood of complying with medical advice, likelihood of drug or alcohol abuse, as well as other characteristics. van Ryn and Burke also surveyed patients and assessed their frailty/sickness, depressive symptoms, social assertiveness, feelings of self-efficacy, and perceived social support. These variables, along with information about physicians' age, sex, race, and medical specialty were entered into logistic regression analyses to control for the impact of these variables on physicians' assessments of patients. The results supported the authors' hypotheses that patient race and socioeconomic background do influence physicians' perceptions, even when controlling for differences in patients' socioeconomic status, personality attributes and degree of illness. African-American patients were rated as less intelligent, less educated, more likely to abuse drugs and alcohol, more likely to fail to comply with medical advice, more likely to lack social support, and less likely to participate in cardiac rehabilitation than white patients. Furthermore, African-American patients were two-thirds as likely as whites to be perceived as the kind of person with whom the physician could see him/herself being friends. Finally, a significant interaction of race and socioeconomic status was found, in that at low socioeconomic (SES) levels, black patients were rated as less pleasant and less rational than whites.

These studies lend support to the hypothesis that physicians' diagnostic and treatment decisions are influenced by patient race. In addition, they suggest that these influences are complex, and that both patient and provider gender may significantly influence physicians' perceptions. They do not, however, elucidate the mechanisms by which these attitudes, biases, and stereotypes may result in differences in clinical treatment, or the degree to which these attitudes might affect the outcome of patient care. It therefore remains unclear what degree of racial and ethnic disparities may be explained by this mechanism.

As noted above, there is no evidence that any significant proportion of healthcare professionals in the United States harbors overtly prejudicial attitudes. Health professionals in general are well educated and subscribe to a professional ethic that should mitigate against discrimination on the basis of race or ethnicity. How then, could a well-meaning group of healthcare professionals, working in their usual circumstances with diverse populations of patients, create a pattern of care that appears (on the now substantial weight of available scientific evidence) to be discriminatory? In other words, is it possible for physicians and other healthcare professionals to act in a racially biased manner without knowing it?

To begin to address this question, the following section offers a hypothesis about clinical uncertainty, and how it may affect healthcare providers' decision-making, and ultimately influence the care provided to minority patients.

Clinical Uncertainty

Theory and research on clinical decision-making suggest that ambiguities in physicians' understanding and interpretation of information from patients may contribute to disparities in care (Balsa and McGuire, 2001a). Any degree of uncertainty a physician has about the condition of a patient may, by itself, result in disparities in treatment. A doctor's decision-making process is nested in uncertainty. Doctors must depend on inferences about severity based on what they can see about the illness and on what else they observe about the patient (e.g., race). The exact same symptom information can lead the physician to make different clinical decisions depending on the other characteristics of the patient. Physicians can therefore be viewed as operating with prior beliefs about the likelihood of their patient's conditions, "priors" that will be different according to age, gender, SES, and possibly race/ethnicity. These priors—which are taught as a cognitive heuristic to medical students—as well as the information gained in a clinical encounter both influence medical decisions.

A doctor starting with a prior and supplementing this with new clinical information must weigh both in coming to an initial hypothesis about the source of the patient's problem. Formal models of medical decision-making view this as an application of the rules of probability (Weinstein et al., 1980).[1] In particular, "Bayes' rule" describes how a decision-maker combines prior beliefs with new information to make the best guess about the likelihood of some phenomenon. Among other things, Bayes' rule says that the relative weights placed on the prior and the new information depend on the strength of the evidence behind the prior and on the quality of the new information.

As an example, consider the case of a Latino male patient and a white male patient, both 50 years old and otherwise healthy. Suppose their doc-

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[1] A number of other explicit decision-theoretic approaches explore clinical decision-making. For other examples, see Mushlin et al. (1997) or Fendrick et al. (1995).

tor believes that the prior probability of either patient having heart problems is low and regards it to be the same for both patients. Now, suppose the Latino and the white patient both experience exactly the same symptom(s) and describe their pain to the doctor. Will the doctor come to the same clinical decision for the Latino and the white? Expression of pain symptoms differs among cultural and racial groups (Bonham, 2001). White doctors may simply understand pain reports better from members of their own racial group. When the white male talks to the doctor, the doctor relates easily to the patient's report; when the Latino tells his story, the doctor follows less well, and picks up fewer implicit clues. If we apply the terms of the Bayesian model of medical decision-making to the Latino patient, the reliability is lower because the potential error in the symptom report is higher than in the case of the white patient. With more uncertainty in the symptom report from the Latino, the Bayesian doctor puts more weight on his or her prior. The consequence could be that the white patient is referred for testing, and the Latino patient is not. Differences in medical decisions from the uncertainty mechanism can arise when the doctor has the same regard for each patient (no prejudice) and when there is no difference in the prior beliefs (stereotypes or clinical heuristics) the doctor holds for patients from the two groups. Differential treatment can therefore result from greater uncertainty associated with clinical information alone.

The effect of elevated uncertainty intervening between the patient's symptoms and the doctor's understanding of those symptoms depends on several factors (Balsa and McGuire, 2001a) and can lead to minorities getting either more or less care than whites. Suppose a psychiatrist in an emergency situation must decide whether to commit a patient after a failed suicide attempt. Unless the psychiatrist can get sufficient information to be assured that the patient is no longer a threat to harm himself, hospitalization is indicated. A black or Latino patient who is less well understood by the doctor is, in this case, more likely to be hospitalized because without sufficient information, the doctor must go with the prior that the patient might be a danger to himself.

Although the uncertainty hypothesis does not always imply that minorities receive less care, it can explain why they might sometimes receive less (and sometimes not). It also leads to the prediction that although the quantity of care for minorities may be more or less, the *match of care to need* will in general be worse for minorities because doctors have less good information with which to modify their priors about the patient's problem. Thus, the uncertainty hypothesis implies that outcomes will be worse for minorities (because of the poor match), and it also implies that minorities will rationally demand less healthcare, seek care at lower rates, and comply less frequently, since they anticipate that the care will be less well-matched to their needs.

Provider Beliefs and Stereotypes

The mechanism of stereotypes is the most complicated of the three discussed in this chapter. We begin by briefly examining the functions of stereotypes and attitudes in general, exploring their origins, and then considering the interpersonal consequences of stereotypes in a health context. The mechanisms are illustrated by examples from the extensive body of psychological research on these processes.

Functions of Stereotypes and Attitudes

Stereotyping can be defined as the process by which people use social categories (e.g., race, sex) in acquiring, processing, and recalling information about others. The beliefs (stereotypes) and general orientations (attitudes) that people bring to their interactions serve important functions. Primarily, they help organize and simplify complex or uncertain situations and give perceivers greater confidence in their ability to understand a situation and respond in efficient and effective ways. People tend to categorize others into social groups because of the complexity of the social environment and our limited cognitive resources to organize and manage this complexity. These categories are often based on readily apparent, salient similarities, such as physical characteristics associated with sex or race (Dovidio, 1999).

The development of social stereotypes results from an individual's need to understand, to predict, and potentially to control one's environment (Mackie, Hamilton, Susskind, and Rosselli, 1996). Studies indicate that once categorization occurs, members of a group tend to be viewed as more similar to one another (the out-group homogeneity effect) and as having common characteristics. Personal traits (dispositional attributions), rather than situational or environmental attributions, are often overemphasized in stereotypes because they offer more stable explanations for the group's behavior and enhance feelings of predictability (Dovidio, 1999).

Biases in Social Stereotypes and Attitudes

Although functional, social stereotypes and attitudes also tend to be systematically biased. Humans are social animals, and people tend automatically to classify others into important, essential social categories, typically relating to dimensions such as age, gender, and skin color. These biases may exist in overt forms, as represented by traditional forms of bigotry. However, because of their origins in virtually universal social categorization processes, they may also exist, often unconsciously, among people who strongly endorse egalitarian principles and truly believe that they are not prejudiced (Dovidio and Gaertner, 1998). For example, Devine (1989) assessed the reactions of both high- and low-prejudiced (as assessed by a pre-test) white college students to ambiguous behavior described in a vignette (e.g., an individual demanding money back from a sales clerk) after subliminally priming the students with words reflecting both African American stereotypes (e.g., "Negroes," "lazy," "blues," "ghetto") and neutral words. Both the high- and low-prejudiced participants interpreted the described behavior as more hostile after being primed with stereotype-laden words than when primed with neutral words. Other studies reveal that among people who endorse egalitarian principles, racial bias may be expressed in subtle and indirect ways that can be rationalized on the basis of factors apparently other than race, or in the form of discomfort and uncertainty in interactions involving racial and ethnic minorities (Dovidio, 1999).

Other studies of social categorization reveal that when people or objects are categorized into groups, actual differences between members of the same category tend to be perceptually minimized and often ignored in making decisions or forming impressions (Fiske, 1998). Members of the same category seem to be more similar than they actually are, and more similar than they were before they were categorized together. This forms the basis for the development of stereotypes. In addition, although members of a social category may be different in some ways from members of other categories, studies show that these differences tend to become exaggerated and overgeneralized (Fiske, 1998). Thus, categorization enhances perceptions of similarities within groups and differences between groups (particularly with respect to one's own group), which emphasizes social difference and group distinctiveness. This process is not benign because these within- and between-group distortions have a tendency to generalize to additional dimensions (e.g., character traits) beyond those that differentiated the categories originally. Furthermore, as the salience of the categorization increases, the magnitude of these distortions also increases (Turner et al., 1987).

Moreover, in the process of categorizing people into two different groups, people typically classify themselves *into* one of the social categories and *out of* the other (Operario and Fiske, 2001; Fiske, 1998). Upon social categorization of individuals into in-groups and out-groups, people spontaneously experience more positive feelings toward the in-group. They also favor in-group members directly in terms of evaluations and resource allocations. In addition, in-group membership increases the psychological bond and feelings of "oneness" that facilitate the arousal of empathy in response to others' needs or problems. As a consequence, assistance is offered more readily to in-group than to out-group members. Furthermore, studies indicate that people are more likely to be cooperative and exercise more personal restraint when using endangered common resources when these are shared with in-group members than with others, and they work harder for groups they identify as their in-group (Tajfel and Turner, 1979). Self-categorization in terms of collective identity, in turn, increases the likelihood of the development of intergroup biases and conflict.

A number of studies demonstrate just how powerfully mere social categorization can influence differential thinking, feeling and behaving toward in-group versus out-group members. Mackie, Devos, and Smith (2000), for example, assessed whether college students who were assigned membership to a social group would develop feelings of anger, fear, and contempt toward students in other, similarly assigned groups. The investigators manipulated interactions between the groups, and found that collective support for the in-group was associated with increased feelings of anger toward the out-group and a willingness to argue, confront, oppose, and attack the out-group (Mackie, Devos, and Smith, 2000).

Consequences of Stereotypes

Stereotypes and attitudes toward members of social groups, such as those based on race and ethnicity, significantly shape the outcomes of interpersonal interactions with members of these groups. In general, individual differences in both racial stereotypes and prejudice systematically predict whites' discriminatory actions toward blacks (Dovidio, Brigham, Johnson, and Gaertner, 1996). They do so in a variety of convergent ways and different mechanisms. For instance, studies show that people not only tend to interpret the behaviors of others in ways that are consistent with their stereotypes and attitudes about the group, but these biases also influence the way that information is subsequently recalled. When people do not have a strong memory for particular information about a group member, they "recall" information in stereotype-consistent ways (Dovidio, 1999).

People also develop expectations about others substantially on the basis of their group membership and the associated stereotypes and attitudes. Stereotypes are particularly likely to influence expectations, inferences, and impressions when people are not motivated to attend to individuating information or are limited in their capacity to process information due to other demands on their attention and thoughts (for review of this research, see Biernat and Dovidio, 2000). Because stereotypes shape interpretations, influence how information is recalled, and guide expectations and inferences in systematic ways, they tend to be self-perpetuating. They also can produce self-fulfilling prophecies in social interaction, in which the stereotypes of the perceiver influence the interaction in ways that conform to stereotypical expectations (Jussim, 1991).

Recent evidence indicates that people do not have to be aware of their attitudes or consciously endorse stereotypes for these factors to influence their thoughts, feelings, and behaviors. Whereas "explicit" stereotypes and attitudes operate in a conscious mode, "implicit" stereotypes commonly function in an unconscious fashion (Fiske, 1998). Implicit stereotypes and attitudes develop with repeated pairings, either through direct experience or social learning of the association, between the category or object and evaluative and descriptive characteristics. In the United States, because of shared socialization influences, there is considerable research evidence that even well-meaning whites who are not overtly biased and who may not believe that they are prejudiced typically demonstrate, on average, unconscious implicit negative racial attitudes and stereotypes (Dovidio, 1999). For example, an experiment by Dovidio, Kawakami, and Gaertner (2002) found that white college students' egalitarian explicit racial attitudes were reflected in a bias of their verbal behavior toward black compared with white confederates and their perception of their own friendliness toward white as compared with black partners. In contrast, white subjects' implicit attitudes (as measured following subliminal presentation of black or white faces) reflected a systematic bias against blacks, particularly when spontaneous, non-verbal behaviors were assessed.

Stereotypes and Healthcare Disparities

Negative stereotypes about minorities, held explicitly or implicitly by physicians, can contribute to healthcare disparities in a number of ways. In some cases, healthcare providers may be consciously aware of their negative stereotypes of minorities, but may nonetheless view these stereotypes as accurate, functional, and appropriate for their clinical work. In these cases, the research cited above suggests that these providers will selectively attend to and recall information that confirms their stereotypes, and will tend to allow such stereotypes to enter into clinical decisions regarding the diagnosis and appropriate course of treatment.

Such cases, however, likely represent only a small minority of healthcare professionals. While the study committee could find no survey data to elucidate racial attitudes of providers, it is likely that the vast majority endorse egalitarian and non-racist attitudes. But even among these individuals, research suggests that stereotyping and social categorization are prevalent, universal processes. Subtle and unintentional types of biases exist even among highly educated whites who support egalitarian ideals and are not consciously racially prejudiced (Biernat and Dovidio, 2000). These biases have their origins in normal and pervasive processes associated with social categorization and thus can operate without conscious awareness or control. Stereotypes, whether consciously endorsed or not, are heuristics that typically efficiently guide the perception, interpretation, storage, and retrieval of information, particularly under conditions of high cognitive demand (Mackie et al., 1996). Similarly, when individuals do not have the time, capacity, opportunity, or motivation to assess situations fully and deliberately, implicit attitudes automatically shape people's responses to objects, individuals, and groups. These conditions of time pressure, high cognitive demand, and stress are common to many healthcare settings, making these settings "ripe" for the activation of stereotypes.

van Ryn and Burke's (2000) work shows that physicians believe blacks are less likely to comply with treatment and more likely to engage in destructive health behaviors (e.g., drug abuse) that may interfere with the value of treatment. When doctors hold these beliefs, they may be less likely to recommend treatment to blacks (e.g., "it is wasteful if the patient fails to follow the treatment regimen"), or less likely to put as much effort into discerning the nature of the black patient's problem if the patient will not take care of himself (e.g., "why should I work hard for a self-destructive patient?"). These stereotypes do not have to be consciously endorsed to influence such decisions (Devine, 1989), and they typically may influence decisions without physicians being aware of their presence. These stereotypical expectations, in turn, can shape the nature of interactions in ways that lead patients to respond in stereotype-confirming ways (Sibicky and Dovidio, 1986).

Questions remain, however, about the nature of these stereotypes and how they affect clinical decisions. For example, do healthcare professionals sometimes make more benevolent, but nonetheless stereotyped assessments of minority patients, such as assuming that co-morbid factors such as alcohol or drug use are present and may complicate treatment, or that minority patients will not comply with treatment regimens? Stereotypes may also reflect well-meaning, but nonetheless harmful judgments on the part of healthcare providers. For example, physicians may be less aggressive in seeking minority patients' consent for certain medical procedures, out of a heightened (but nonetheless stereotyped) concern that minority patients' wishes to avoid aggressive or new healthcare technologies should be respected, or because of a desire to foster a sense of empowerment among minority patients relative to treatment decisions.

A general issue in the stereotyping literature is the question of whether the stereotypes are "accurate." What if the doctors studied by van Ryn and Burke (2000) are correct in their belief that African Americans are less likely to comply with treatment? If this is true, how can a "stereotype" held by providers be regarded as a "cause" of the disparities? Is it not more correct to say that the provider's belief is the result of racial differences in underlying patterns of health behavior? This important question can be answered at two levels. First, based on the general literature on stereotyping, we would expect that any "true" differences among racial/ethnic groups would tend to be exaggerated, particularly if the belief is negative. This "exaggeration of negative attributes" would tend to be reinforced through selective attention and recall of stereotype-confirming evidence.

Second, stereotypes can lead to unfavorable treatment of minorities, even when there are no underlying differences in healthcare attitudes of minorities and whites (Balsa and McGuire, 2001a). Providers' expressions of implicit or explicit stereotypes can evoke responses in minority patients that can "cause" the stereotypes to be confirmed. Thus, doctors might believe that "blacks comply less frequently," and this belief might be confirmed in their own experience. Nonetheless, the *cause* of the problem could be the belief itself, in the sense that acting with this belief, doctors may treat African-American patients differently, and this differential (less favorable) treatment may lead African Americans to comply with treatment less frequently. Thus, even without the "exaggeration/bias" feature of stereotyping behavior by the perceiver, stereotyping can persist and be harmful. This can be demonstrated with the tools of game theory (Balsa and McGuire, 2001b) to illustrate that even when two groups (blacks and whites) are objectively identical, a differential belief held by doctors may lead to differential patterns of treatment recommendations and compliance that is rational for all parties, but leads to disparities in treatment. Stereotypes—beliefs held by the doctor—can therefore turn a situation of *a priori* equality into one of *ex post* disparity.

PATIENT RESPONSE: MISTRUST AND REFUSAL

As noted above, racial and ethnic minority patients' responses to healthcare providers are also a potential source of disparities. Little research has been conducted on how patients may influence the clinical encounter. It is reasonable to speculate, however, that if patients convey mistrust, refuse treatment, don't adhere or comply poorly with treatment, providers may become less engaged in the treatment process, and patients are less likely to be provided alternative treatments and services. As noted in Chapter 3, some evidence suggests that patient refusal may contribute to disparities in care. For example, African American and other minority patients may be more likely to refuse invasive procedures. This higher rate of refusal of recommended treatments may reflect patients' experiences of discrimination in other sectors or mistrust of authority. Some mistrust and refusal, however, might be a "rational" reaction to explicit discrimination, aversion, or disregard displayed by the provider. If minority patients perceive that their provider has a lower regard for them, they will be less likely to comply with treatment recommendations.

It should be noted, however, that despite ethnic minority patients' generally higher levels of mistrust of the medical and research establishment, most minority patients appear to be satisfied with and have confidence in their healthcare providers (Shi, 1999). Further, as Geiger (this volume) and others have noted, mistrust or perceived discrimination alone is unlikely to cause ethnic minority patients to reject potentially life-saving or highly recommended procedures that promise to improve health and decrease symptoms of illness. Therefore, future analyses of patient attributes that may be related to healthcare disparities must carefully consider the roots of these attitudes in historic and contemporary social and cultural forces, in and outside medical practice, that play a role in minority patients' perceptions of healthcare institutions.

In the absence of careful study as to how patients may influence the clinical encounter and contribute to disparities in healthcare, the committee is reluctant to speculate on how and to what extent such processes occur. It may be reasonable to assume, however, that patients' and providers' behavior and attitudes influence each other reciprocally and reflect the attitudes, expectations, and perceptions that each has developed in a context where race and ethnicity are often more salient than these participants recognize. In addition, it is clear that the healthcare provider, rather than the patient, is the more powerful actor in clinical encounters. Providers' expectations, beliefs, attitudes, and behaviors are therefore likely to be a more important target for intervention efforts.

CONCLUSION

In the previous sections, we have considered factors arising out of doctor-patient interactions that may account, at least in part, for racial and ethnic disparities in healthcare. The committee's focus has been on understanding the *processes* that may underlie these biases. We propose that these processes have their origins in pervasive and normal distinctions based in social categorization (stereotypes, prejudice, and uncertainties in intergroup communication) and do not necessarily involve either awareness or conscious motivations to discriminate. Thus, even highly educated and socially conscious individuals, such as doctors, are susceptible to these biases. Moreover, the types of situations that promote these biases—time pressure, incomplete information, high demand on attention and cognitive resources—are those that frequently occur in the context of doctor-patient interactions. We supported these propositions with research and illustrated their likely effects.

Beyond identifying the pervasiveness and importance of these factors in healthcare outcomes, this perspective emphasizes two other fundamental issues. First, this approach highlights the fact that disparities in healthcare services may not necessarily be a matter of "less." Within the models of bias, with the exception of the simple prejudice mechanism, the implications of the other mechanisms may be more or less in terms of quality of services. The importance of disparities in services is that minorities may have healthcare services poorly matched to their needs. A focus on the issue of matching needs to services is a more general and pertinent framework than simply focusing on equal amounts of services.

A second implication of this perspective is that it suggests different types of policies and interventions to address disparities based on different processes. The research on healthcare disparities to date does not consistently differentiate among the various mechanisms that may operate in doctor-patient interactions and underlie the disparities. At a general level, making good choices about alleviating disparities should be based on a good idea as to what causes disparities.

In summary, the committee found no direct evidence that racism, bias, or prejudice among healthcare professionals affects the quality of care for minority patients, such as that which might be available from audit studies where "testers" from different racial or ethnic groups present in clinical settings with similar clinical complaints, histories, and symptoms to assess possible differences in the quality of their treatment. In addition, no survey data suggest that even a small minority of physicians, nurses, or other healthcare professionals harbors biases or prejudices against minorities. Both of these forms of evidence present methodologic (and in the case of paired testers, ethical and legal) challenges to investigators, making it unlikely that such evidence will be available in the near future.

In the meantime, the committee is confronted with several "streams" of evidence that, while not definitive, collectively provide a sufficient base from which to draw inferences. To summarize the evidence presented in this chapter and the previous two chapters that provider prejudice, stereotyping, and biases may influence clinical care:

1. With increasing sophistication, several recent studies of racial and ethnic disparities in receipt of health services have controlled for possible confounding variables or other possible explanations for racial and ethnic differences in care, including patient preferences, overuse of services by whites, health insurance status, type of health system, patient income and education, severity or stage of disease, co-morbidity, hospital type, and

resources. These studies generally find that disparities remain and cannot be fully explained by these variables. While this literature does not provide any measure of evidence that provider biases and stereotyping explain disparities, they do illustrate that disparities cannot be "reduced" to patients' preferences or other explanations.

2. Racial and ethnic disparities in healthcare emerge from an historic context in which healthcare has been differentially allocated on the basis of social class, race, and ethnicity. Unfortunately, despite public laws and sentiment to the contrary, vestiges of this history remain and negatively affect the current context of healthcare delivery. And despite the considerable economic, social, and political progress of racial and ethnic minorities, evidence of racism and discrimination remain in many sectors of American life.

3. Evidence from patient surveys indicates that racial and ethnic minority patients are far more likely than white patients to believe that discrimination is a problem in healthcare, and that they have personally experienced discriminatory treatment. Data from the focus groups conducted by the study committee suggest that minority patients may perceive both overt, as well as subtle forms of discrimination when seeking care.

4. There is considerable evidence that even well-meaning whites who are not overtly biased and who do not believe that they are prejudiced typically demonstrate, on average, unconscious implicit negative racial attitudes and stereotypes (e.g., Dovidio, Brigham, Johnson, and Gaertner, 1996). Both implicit and explicit stereotypes significantly shape interpersonal interactions, influencing how information is recalled and guiding expectations and inferences in systematic ways. They also can produce self-fulfilling prophecies in social interactions, in which the stereotypes of the perceiver influence the interaction with others in ways that conform to stereotypical expectations (e.g., Jussim, 1991).

5. Experimental evidence indicates that healthcare providers are influenced by patients' race or ethnicity, and possibly gender (Schulman et al., 1999; Weisse et al., 2001), or when providers are "primed" with racial stereotypes (Abreu, 1999). Preliminary evidence also suggests that female physicians may respond to racial cues differently than male physicians (Weisse et al., 2001; Rathore et al., 2000). Minority race or ethnicity is found to be associated with generally more negative evaluations or lower rates of referral for clinical services, even when "patients" present with the same clinical condition. In addition, a survey of physicians following actual clinical encounters demonstrates that physicians endorse stereotypes about their African-American patients (who were characterized as "less intelligent, less educated, more likely to abuse drugs and alcohol, more likely to fail to comply with medical advice," and less likely "to be . . . the kind of person the physician could see him/herself being

friends with"), even after controlling for patients' socioeconomic status, personality variables, and perceived social support (van Ryn and Burke, 2000).

6. The conditions in which many medical encounters take place—characterized by time pressure, resource constraints, and high cognitive demand—have been identified in the social psychological literature as conditions that may promote stereotyping due to the need for cognitive "shortcuts" and lack of full information to adequately assess patients.

These streams of evidence lead the committee to conclude that bias, stereotyping, prejudice, and uncertainty on the part of healthcare professionals cannot be ruled out—and indeed, appear among the many patient-level, system-level, and clinical encounter-level factors to contribute to racial and ethnic disparities in healthcare.

> **Finding 4-1: Bias, stereotyping, prejudice, and clinical uncertainty on the part of healthcare providers may contribute to racial and ethnic disparities in healthcare. 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.**
>
> **Indirect evidence indicates that bias, stereotyping, prejudice, and clinical uncertainty on the part of healthcare providers may be contributory factors to racial and ethnic disparities in healthcare. Prejudice may stem from conscious bias, while stereotyping and biases may be conscious or unconscious, even among the well intentioned. Ambiguities in the interpretation of clinical data, barriers to patient-provider communication, and gaps in evidence of the efficacy of clinical interventions contribute to uncertainty, and therefore may promote the activation of prejudice and stereotypes. However, few studies have attempted to assess these mechanisms, and therefore direct evidence bearing on the possible role of these factors, especially prejudice, is not yet available. The committee finds strong, but circumstantial evidence for the role of bias, stereotyping, prejudice, and clinical uncertainty from a range of sources, including studies of social cognition and "implicit" stereotyping, but urges more research to identify how and when these processes occur.**

Patients' refusal or acceptance of recommendations for treatment, like other patient decisions, is the result of many influences, including information about their condition, information about treatment effectiveness and risks, trust of the clinician, preferences for treatment type and outcome, and advice of significant others. Overall, such preferences for care should be developed by patients and their families on the basis of full and accurate information presented by a healthcare provider, but the acquisition and use of such information may be influenced by the quality of patient-provider communication and interaction, patients' expectations, values and beliefs, as well as the values and beliefs of patients' communities. To the extent that minority patients are more likely than whites to refuse treatment, such behaviorally expressed preferences may be considered a source of healthcare disparities. A small number of studies suggest that racial and ethnic minorities are slightly more likely than whites to refuse treatment, but this research has yet to distinguish the sources of minority patients' higher rates of refusal (i.e., general mistrust of healthcare providers, real or perceived experiences of discrimination in healthcare settings, or patient treatment decisions based on incomplete information from providers). These sources must be better understood to fully understand the role of patient preferences in healthcare disparities.

> **Finding 4-2: A small number of studies suggest that racial and ethnic minority patients are more likely than white patients to refuse treatment. These studies find that differences in refusal rates are generally small and that minority patient refusal does not fully explain healthcare disparities.**
> **A small number of studies suggest that racial and ethnic minorities are more likely to refuse treatment. These studies find that differences in refusal rates are generally small and that minority patient refusal does not fully explain healthcare disparities. However, research has yet to distinguish the sources of minority patients' higher rates of refusal (i.e., general mistrust of healthcare providers, real or perceived experiences of discrimination in healthcare settings, or patient treatment decisions based on incomplete information from providers). These sources must be better understood to fully comprehend the role of patient preferences in healthcare disparities.**