Race, Ethnicity, and the Health Care System: Public Perceptions and Experiences

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To assess the public's perceptions and attitudes about racial and ethnic differences in health care, the Kaiser Family Foundation surveyed a nationally representative sample of 3,884 whites, African Americans, and Latinos in 1999. The survey found that the majority of Americans are uninformed about health care disparities—many were unaware that blacks fare worse than whites on measures susch as infant mortality and life expectancy, and that Latinos are less likely than whites to have health insurance. Views on whether the health system treats people equally were strikingly different by race. For example, most minority Americans perceive that they get lower quality care than whites, but most whites think otherwise. Nonetheless, more minority Americans were concerned about the cost of care than racial barriers. Efforts to eliminate disparities will need to improve public awareness of the problems as well as address racial and financial barriers to care.

Since the mid-1960s, the United States has made tremendous progress in reducing barriers to health care facing racial and ethnic minority Americans. Separate and very unequal systems of health care that were commonplace a few decades ago are now only a part of this nation's history. This progress is largely attributable to enforcement of provisions of the Civil Rights Act of 1964, which prohibited discrimination in institutions receiving federal funds, and the enactment of Medicare and Medicaid in 1965, which reduced financial bar-

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riers to care for minority and nonminority elderly and low-income Americans. Despite these achievements, there is mounting evidence that racial and ethnic disparities persist in the use of preventive and life-saving medical technologies. A recently released review and synthesis of the literature on the topic (Mayberry et al. 1999) as well as several studies released since that report (Bach et al. 1999; Ayanian, Cleary, et al. 1999; Ayanian, Weissman, et al. 1999) provide considerable evidence that racial disparities in medical care persist even among persons with similar health coverage, income, and health status.

This article provides insights on the public's perceptions of the health and health care experiences of two of this nation's largest racial and ethnic minority population groups: African Americans and Latinos. With an estimated one in four Americans (about 67 million) now classified by the U.S. Census as a member of a racial or ethnic minority group, disparities in access to health care take on a broader level of national importance. Higher birth rates and immigration among minority populations are reshaping the face of America. By the year 2025, the U.S. Census estimates that people of color will represent about one third of all Americans. As such, the health of minority Americans is a critical component of the nation's health.

Public perceptions and misperceptions about racial and ethnic differences in health and access to health care can shape public opinion about whether a problem exists and influence the actions of policy makers in addressing the problem. To explore the public's perceptions of the linkages between race and medical care and whether these views differ depending on respondents' racial and ethnic background, this article reviews findings from a national survey to answer the following questions: (1) To what extent is the public aware of racial/ethnic differences in health and health care access? (2) Do whites, African Americans, and Latinos differ in their perceptions of how race and/or racism affect the health care system? (3) To what extent do individuals perceive that they (or someone they know) have been treated unfairly because of their race or ethnic background? and (4) What do African Americans and Latinos perceive as major problems facing them in the health care system?

NEW CONTRIBUTION

This study presents new data on the public's knowledge of and attitudes about racial and ethnic differences in health and health care. To our knowledge, it is the first national survey focused on these issues. Several studies and national surveys have explored racial/ethnic differences in satisfaction with health services and the health system overall (Blendon et al. 1989, 1995; Harris and Associates 1993). In addition, a 1995 survey conducted by the Kaiser Family Foundation, Harvard University's School of Public Health, and *The*

Washington Post (1996) assessed racial differences in perceptions of the economic realities facing Africans Americans and Latinos in areas such as employment, education, and health. This survey expands on that earlier work with a focus on health and health care issues. The survey asks whites about their perceptions of the health care experiences of African Americans and Latinos, and African Americans and Latinos are asked to give a self-assessment of their own experiences. The survey data, therefore, allow a comparison of the extent to which whites and these two minority population groups agree or disagree on their perceptions about the impact of race in the health care system.

DATA AND METHODS

The survey results are based on telephone interviews with a nationally representative sample of 3,884 adults 18 and older living in telephone households in the continental United States, including interviews with 1,479 white non-Latinos, 1,189 African Americans, and 983 Latinos. Some questions in this survey were asked only of a random half sample of respondents (the unweighted numbers of respondents are noted on the tables). Interviews were completed in both English and Spanish according to the preferences of the respondent. The survey was designed and analyzed by the authors, and the fieldwork was conducted from July 7, 1999, through September 19, 1999, by Princeton Survey Research Associates.

The sample was designed to produce a representative sample of telephone households in the continental United States. The sample is based on a disproportionately stratified random-digit sample of telephone numbers. A disproportionate rather than a proportionate stratified sample was used so that the final sample of completed interviews would contain a disproportionately large number of African American and Latino respondents. Of the residential numbers in the sample, 72 percent were contacted by an interviewer, and 69 percent agreed to cooperate with the screener questions. Ninety-three percent were found eligible for the interview. Furthermore, 98 percent of eligible respondents completed the interview. Therefore, the final response rate is 49 percent.

The data are weighted in analysis to remove the disproportionality of the selection rates by stratum and to make the data fully representative. The demographic weighting parameters are derived from a special analysis of the most recently available Census Bureau Annual Demographic File (from the March 1998 Current Population Survey). This analysis produced population parameters for the demographic characteristics of households with adults 18 or older, which are then compared with the sample characteristics to construct

sample weights. The results have been weighted to adjust for variations in the sample relating to region of residence, sex, age, race, and education. (The analysis only included households in the continental United States where there is a telephone in the household for comparability to the sample design used for this survey.) The weights are derived using an iterative technique that simultaneously balances the distributions of all weighting parameters.

The stratification of the sample, the unequal probabilities of selection, and poststratification preclude us from using simple random sampling formulas to estimate the precision or variance of the survey estimates. We calculated the effects of the complex sample design on the statistical efficiency of the sample so that an adjustment can be incorporated into tests of statistical significance when using these data. This so-called general design effect represents the loss in statistical efficiency that results from systematically undersampling (through sample design and nonresponse) parts of the population of interest.[1] We multiply the standard error of a statistic by the square root of the design effect when computing tests of statistical significance to account for the greater error we introduce by our sampling strategy. Thus, for example, the formula for computing the 95 percent confidence interval around a percentage is

$$1.96 \times \sqrt{\text{design effect}} \times \sqrt{\frac{p(1-p)}{\text{unweighted } n}}.$$

The square root of the design effect for the total sample is 2.11. Using this as an example, we calculate the 95 percent confidence interval for results expressed as percentages in this study as plus or minus 3 percentage points for results near 50 percent based on the total sample. This contrasts with plus or minus 2 percentage points, which is what the margin of sampling error would be for a simple random sample of 3,884 interviews. Applying a similar logic to each of the key subgroups of white non-Latinos, African Americans, and Latinos produces the following margin of sampling error for each subgroup:

Sample	*Margin of Error*	*Square Root of Deff*
Total	±3	2.11
Latinos	±6	1.67
Whites	±4	1.55
African Americans	±4	1.82

Similarly, in conducting analysis of differences in estimated population proportions to detect statistical differences between the responses of the key

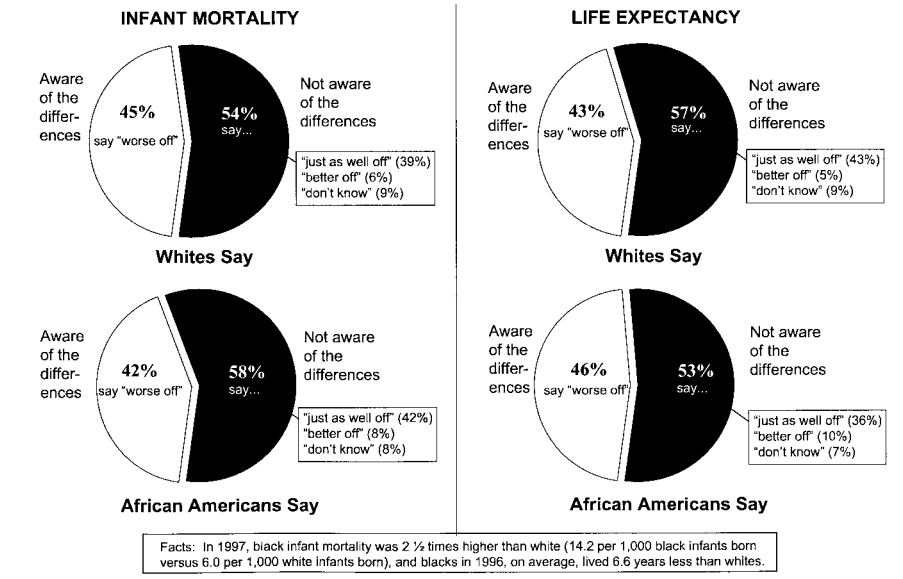

FIGURE 1 "How Do You Think the Average African American Compares to the Average White Person in Terms of . . . ?"
Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).

subgroups, we included the design effect for each population in the analysis to be certain to account for the larger standard errors given our sampling strategy.

RESULTS

Knowledge of Racial Differences in Health and Health Care Access. The majority of Americans are unaware of black-white gaps in at least two measures of health status that have been widely reported in the news (see Figure 1). In 1997, infant mortality among blacks was 2 1/2 times higher than among whites (14.2 per 1,000 black infants born versus 6.0 per 1,000 white infants born), and blacks in 1996, on average, lived 6.6 years less than whites. However, the survey found that a majority of white Americans (54 percent) are not aware that infant mortality is higher for black infants than for whites (39 percent think it is the same, 6 percent think it is better, and 9 percent do not know). Strikingly, 58 percent of African Americans have the same misperception (42 percent think black infant mortality is the same as whites, 8 percent think it is better, and 8 percent do not know). The majority of white

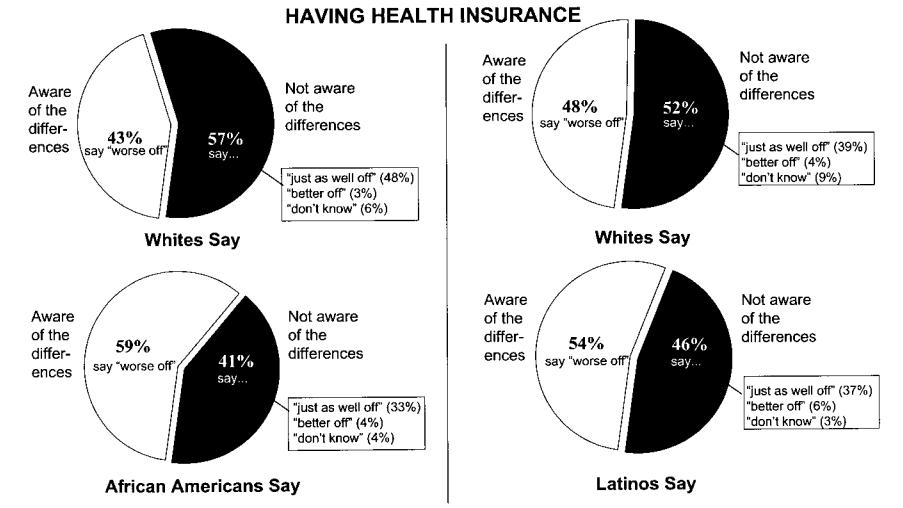

FIGURE 2 "How Do You Think the Average African American and Latino Compares to the Average White Person in Terms of . . . ?"
Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).

and African Americans also have the same misperceptions about life expectancy. Most whites and African Americans are unaware that life expectancy is shorter for blacks.[2]

Similarly, many Americans are unaware of racial and ethnic differences in health insurance, which is a well-documented determinant of one's ability to access health care (Hoffman 1998). In 1998, African Americans were nearly twice as likely as whites (24 vs. 14 percent) to be uninsured, and Latinos were 2 1/2 times as likely as whites (37 vs. 14 percent) to be uninsured (Kaiser Commission on Medicaid and the Uninsured 2000). As one might expect, African Americans ($p < .001$ vs. whites) are somewhat more aware of these differences than are whites. However, the survey found that most whites (57 percent) and a sizable proportion of African Americans (41 percent) believe that African Americans, on average, have health insurance at least comparable to whites or say they do not know how African American's fare in terms of health insurance (see Figure 2). There is little difference in awareness between Latinos and whites, with Latinos (46 percent) being no more aware than whites (52 percent, n.s.) that Latinos, on average, are less likely than whites to have health insurance.

Not surprisingly, whites, African Americans, and Latinos with at least a college education were less likely than persons with fewer years of educa-

tion to be unaware of documented racial and ethnic differences in health and health care. For example, about 3 in 10 college-educated whites (29 percent) and college-educated African Americans (28 percent) were unaware that infant mortality is higher for African Americans compared to 68 percent and 66 percent, respectively, of whites and African Americans with a high school education or less. Similarly, about one third of college-educated whites (35 percent) and college-educated Latinos (35 percent) were unaware that Latinos are less likely to have health insurance than whites compared to 63 percent and 50 percent, respectively, of whites and Latinos with a high school education or less. Despite the role levels of education play in people's understanding, a sizable minority of those with college degrees still lack awareness about these key issues.

Perceptions of the Influence of Race and Racism. The public's views on the extent to which race and/or racism affect the health care system was assessed using a number of questions. To establish a broader context for these findings, respondents were asked to assess the extent to which racism is a problem in various sectors of society: health care, housing, education, and the workplace. For purposes of this survey, racism was defined as "people being treated worse than others because of their race or ethnicity."

About three out of four whites (68 percent), African Americans (80 percent), and Latinos (75 percent) say racism is either a major or minor problem in health care. These proportions do not differ greatly in health care, education, and the workplace. Housing is the only sector of society in which the proportion that say racism is a major or minor problem is larger than in health care (78 vs. 70 percent). However, the public views racism as less of a major problem in health care than in other sectors of society, which is a perception that may or may not reflect the reality of the health care system. On average, 19 percent of the public (16 percent of whites, 35 percent of African Americans, and 30 percent of Latinos) say racism is a major problem in health care compared to an average of 31 to 35 percent that say racism is a major problem in other sectors of society (see Figure 3).

As expected from past survey results, whites and African Americans differ considerably in their views on the extent to which racial or ethnic background influences how one is treated by the health system. About 6 in 10 (62 to 60 percent) African Americans believe that race or ethnic background affects whether a person can get needed routine medical care, specialized treatments or surgery, or health insurance (see Table 1). In contrast, nearly half (ranging from 44 to 47 percent, $p < .001$) of whites express the opposite view or say they do not know. Findings are similar when the question is asked somewhat differently but more specifically stated—that is, whether our health system treats

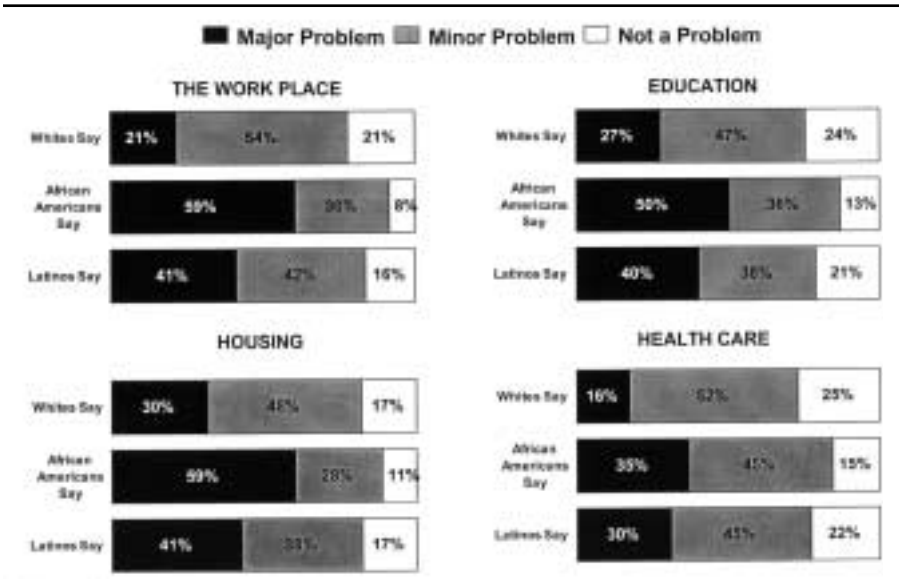

FIGURE 3 "How Big a Problem is Racism in Different Areas?"
Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).
Note: Responses of "do not know" not shown.

people unfairly based on their race or ethnicity (see Table 1). A majority of African Americans (56 percent) say the health system very or somewhat often treats people unfairly based on their race or ethnicity. Most whites (54 percent, $p < .01$), on the other hand, believe that racial or ethnic background rarely affects how the system treats people (43 percent) or say they do not know if it does (11 percent).

The views of Latinos on whether race affects one's treatment in the health system are somewhat in between those of African Americans and whites (see Table 1). About half of Latinos believe that race or ethnic background affects whether a person can get needed routine medical care (54 percent), specialized treatments or surgery (51 percent), or health insurance (56 percent). Also, 51 percent of Latinos and about 46 percent of whites say the health system very or somewhat often treats people unfairly based on their race or ethnicity.

The three racial and ethnic groups have more similar views on whether money or health insurance affects how people are treated in the health system (see Table 1). At least two thirds of whites, African Americans, and Latinos report that the health care system treats people unfairly because of how much money they have or whether they have health insurance. However, Latinos

TABLE 1 Perceptions of the Influence of Race in Health Care (in percentages)

	Whites (n = *1,479*)	*African Americans* (n = *1,189*)	*Latinos* (n = *983*)
Total	*100*	*100*	*100*
"How often does race or ethnic background affect whether a person can get . . . ?"			
Routine medical care when they need it			
Very/somewhat often	46	62[a,b]	54[a]
Not too often/never	47	35	41
Do not know	6	4	4
Specialized treatments or surgery when they need it			
Very/somewhat often	48	62[a,b]	51
Not too often/never	44	34	45
Do not know	8	4	4
Health insurance to pay for medical care			
Very/somewhat often	47	60[a]	56[a]
Not too often/never	45	36	40
Do not know	7	3	3
"How often do you think our health care system treats people unfairly based on . . . ?"			
What their race/ethnic background is			
Very/somewhat often	46	56[a]	51
Not too often/never	43	38	43
Do not know	11	5	5
How much money they have			
Very/somewhat often	70	72	64
Not too often/never	26	25	32
Do not know	4	3	4
Whether or not they have health insurance			
Very/somewhat often	69	72	69
Not too often/never	24	24	28
Do not know	7	4	3
Whether they are male or female			
Very/somewhat often	26	34	32
Not too often/never	67	59	65
Do not know	7	7	4
How well they speak English			
Very/somewhat often	57	55[b]	72[a]
Not too often/never	30	37	26
Do not know	13	8	2

TABLE 1 continued

	Whites (n = *1,479)*	*African Americans* (n = *1,189)*	*Latinos* (n = *983)*
Total	*100*	*100*	*100*
Whether they are overweight			
Very/somewhat often	36	48[a]	50[a]
Not too often/never	51	44	40
Do not know	13	8	10

Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).
Note: Sample sizes are unweighted.
a. Differs from whites at $p < .05$.
b. Differs from Latinos at $p < .05$.

are significantly more likely than whites ($p < .001$) or African Americans ($p < .001$) to report that the health system treats people unfairly based on how well they speak English.

Particularly striking are racial and ethnic differences in views about the quality of health care obtained by African Americans and Latinos (see Figure 4). About two thirds of African Americans (64 percent, $p < .001$ vs. whites) and more than half (56 percent, $p < .001$ vs. whites) of Latinos believe they receive lower-quality health care than do whites. By contrast, most whites believe that African Americans and Latinos receive the same quality of care as they do. Furthermore, African Americans do not perceive that they have the same level of access to care for specific conditions as do whites. A majority (56 percent) of African Americans surveyed believe that African Americans with heart disease are less likely than whites to get specialized medical procedures and surgery, compared to 33 percent of whites ($p < .001$) who believe this to be true. Similarly, the majority of African Americans (64 percent) believe they are less likely than whites to get the newest medicines and treatments for HIV/AIDS, compared to 43 percent of whites ($p. < 001$) who believe this to be true.

Moreover, African Americans and Latinos have little confidence that the health care system they have come to know will be different in the future (see Figure 5). Nearly two thirds (65 percent) of African Americans and more than half (58 percent) of Latinos report that they are concerned that they may be treated unfairly when seeking medical care in the future. In contrast, less than a quarter (22 percent) of whites express such concerns.

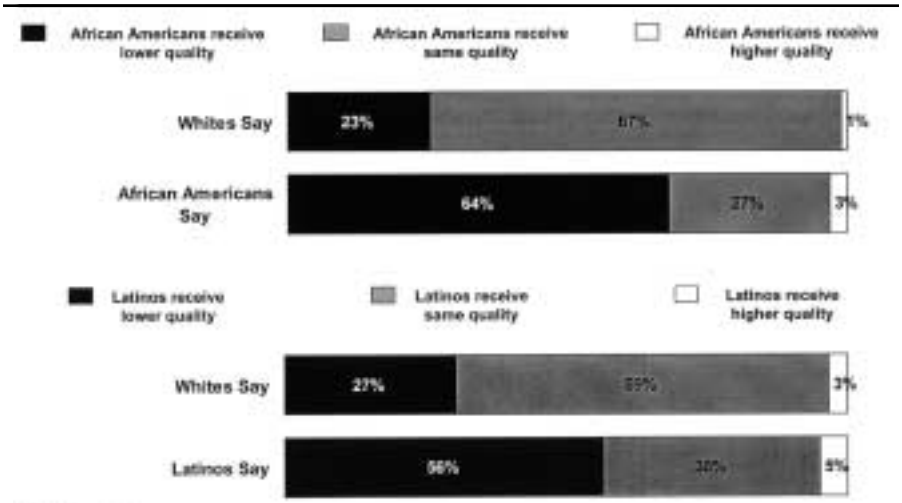

FIGURE 4 Perceptions of Quality of Care Others Receive Compared to Whites when Getting Health Care Services

Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).

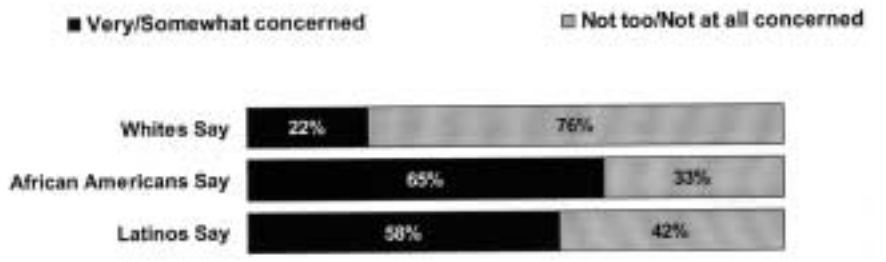

FIGURE 5 Concern that in the Future When Seeking Medical Care "You or a Family Member Will Be Treated Unfairly Specifically Because of Your Race or Ethnic Background"

Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).

Note: Responses of "do not know" not shown.

TABLE 2 Perceptions of Being Personally Treated Unfairly

	Whites (n = *1,479)*	*African Americans* (n = *1,189)*	*Latinos* (n = *980)*
Percentage who say that they have felt that a doctor or health provider judged them unfairly or treated them with disrespect because of			
Their ability to pay for the care	9	16[a]	20[a]
Their race or ethnic background	1	12[a]	15[a]
The type of health insurance they have or because they do not have health insurance	10	14[b]	21[a]
How well they speak English	1	5[a,b]	14[a]

Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (Conducted July-September, 1999).
Note: Sample sizes are unweighted.
a. Differs from whites at $p < .05$.
b. Differs from Latinos at $p < .05$.

Personal Experiences with Being Treated Unfairly. The gaps we see in perceptions about the nature and extent of problems in health care related to an individual's race and ethnicity may be due, in part, to differences in the actual experiences of whites, African Americans, and Latinos. When thinking specifically about their personal health care visits with doctors or other health care providers, African Americans and Latinos are more likely than whites to say they felt they had been judged unfairly or treated with disrespect due to a variety of personal characteristics (see Table 2). For example, 16 percent of African Americans and 20 percent of Latinos compared with 9 percent of whites say they were judged unfairly or treated with disrespect by a health care provider because of their ability to pay for care ($p < .01$). Latinos are particularly affected by language, with one in seven (14 percent) (compared with 5 percent of African Americans and 1 percent of whites) saying they personally have been treated badly by a health care provider based on how well they speak English ($p < .001$).

Further evidence of differences in the experiences of whites and minority Americans is provided when individuals are asked if they, a family member, or a friend have been treated unfairly by the medical system because of their race and ethnicity. African Americans (14 percent) and Latinos (13 percent) are considerably more likely than are whites (1 percent, $p < .001$) to say that they have personally had such experiences. Furthermore, these differences persist

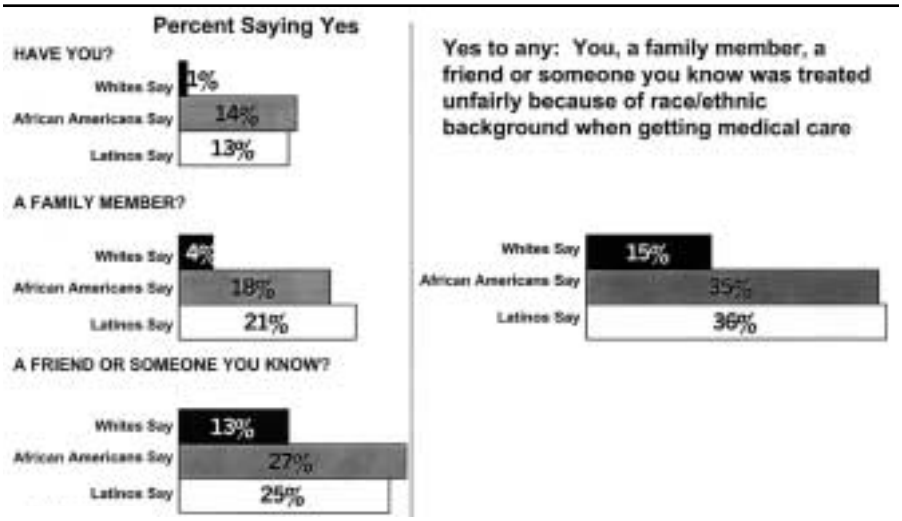

FIGURE 6 Experience With Being Treated Unfairly When Seeking Medical Care Because of Race or Ethnic Background

Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).

Note: Responses of "do not know" not shown.

when asked more broadly about a family member or a "friend or someone they know." Altogether, more than a third of African Americans (35 percent) and Latinos (36 percent) compared to 15 percent of whites ($p < .001$) say that they, a family member, a friend, or someone they know has been treated unfairly in seeking medical care due to their race or ethnicity (see Figure 6).

Role of the Site of Care in Perceptions of Being Treated Unfairly. To assess whether perceptions of racial and ethnic inequalities in health care are related to where people get their care, we compared the usual sources of medical care for those who had negative perceptions (i.e., said the health care system very/somewhat often treats people unfairly based on their race) with those who did not believe this to be true. The major usual sources of medical care identified by respondents were doctor's office (64 percent), clinic or health center (20 percent), health maintenance organization (6 percent), hospital emergency room or outpatient department (7 percent), and other/do not know (2 percent). We found that the usual sources of medical care did not differ significantly between those who perceived that people were treated unfairly and those who did not hold this belief. This finding also did not vary significantly for whites, African Americans, or Latinos.

FIGURE 7 "For the Average African American and Latino, How Big a Problem is . . . ?"

Source: Kaiser Family Foundation Survey of Race, Ethnicity and Medical Care: Public Perceptions and Experiences, October 1999 (conducted July-September, 1999).

Major Problems Facing Minority Americans in the Health System. African Americans and Latinos recognize that factors other than race and ethnic background also influence the health care obtained in the United States (see Figure 7). While more than two thirds of African Americans (82 percent) and Latinos (71 percent) cite racial and ethnic barriers to care as either a major or minor problem for the average African American and Latino, financial barriers to care are cited as a major problem by a larger share of both population groups. Seventy-one percent of African Americans and 63 percent of Latinos cite barriers related to the cost of health insurance and needed medical care as a major problem facing the average African American and Latino. In contrast, 40 percent of African Americans and only 28 percent of Latinos cite racial barriers as a major problem.

Racial barriers to care are considered a major problem by roughly the same percentage of each population group that cites concerns about the availability of health services in their neighborhood. Among African Americans, about 45 percent cite the availability of neighborhood health providers and 40 percent cite racial barriers to care as major problems. Among Latinos, about 33 percent

cite the availability of neighborhood health providers and 28 percent cite racial and ethnic barriers to care as major problems.

DISCUSSION

This first national survey of the public's perceptions on race and the health care system provides considerable evidence that most African Americans and Latinos and a sizable share of whites recognize that race continues to be a barrier in access to care. Nonetheless, issues regarding racial inequalities in health appear to take a back seat to public debate over inequalities in other sectors of society. In housing and employment, for example, public outcry about racial inequalities has led to court actions and legislation (such as the *Fair Housing Act* or the *Equal Employment Opportunities Act*) that sought to remedy seemingly intractable racial barriers. In health, issues of racial inequalities surface cyclically onto the public policy agenda but have failed to be the focus of long-term policy initiatives or public interest. The Department of Health and Human Services, as a follow-up to President Clinton's Initiative on Race, has refocused its attention on disparities in the nation's health. The department has set an ambitious national goal of eliminating racial and ethnic disparities in six health areas by the year 2010. Whether this renewed attention will result in sustained efforts remains to be seen.

The survey findings give some indication of the extent to which perceptions about inequalities in health may drive the public's and policy makers' attention to this issue. One explanation for the lack of ongoing attention to health disparities may be related to the lack of public awareness that differentials persist. The survey found that a large percentage of Americans—including many minority Americans—did not know that blacks generally fare worse than whites in infant mortality or that Latinos fare worse than whites in terms of health insurance coverage. Attention to racial differences in health may also be shaped by the perception of many Americans that race or ethnicity rarely affects how one is treated by the health system. On this point, the survey shows that African Americans generally see the health system through a different lens than that of whites. While more than half of African Americans believe that race affects an individual's health care; more than half of whites have the opposite view or do not perceive that they are knowledgeable enough to have an opinion. These very different perceptions could have major implications for whether the public identifies health disparities as a priority issue and, of course, to their receptivity to new initiatives or educational campaigns to reduce disparities in needed health care.

The survey findings support previous studies that have shown that minority Americans are more distrustful of the health care system than are whites. Findings that most African Americans and Latinos think they receive lower quality care than whites and also have concerns about being treated fairly are particularly troubling. They provide an indication that African Americans and Latinos lack confidence that the health care system provides them with the same treatment as is provided to whites. Moreover, the finding that the usual sources of medical care did not differ significantly between those who perceive racial inequalities in health care and those who do not suggests that the factors driving these perceptions are not unique to one type of service delivery site. Lack of confidence or trust in the health care system can be a strong motivator of behavior and can compromise a provider-patient relationship. It also can affect the timeliness with which an individual seeks care or compliance with a provider's instructions for care. Thus, efforts may be needed to address perceived as well as real barriers to care. If individuals lack confidence that they will be treated fairly, they may not take full advantage of opportunities that have been or will be created to improve their access to health care.

In sum, although the public's awareness of racial differences in health and health care may be marginal at best, the public is not unaware that the United States remains a very race-conscious society, and the health care system is no exception. Nonetheless, more African Americans and Latinos are concerned about the affordability of health coverage and care than racial barriers to care. These findings underscore the problems facing many households in America with rising health care costs. The complexity of the story being told through this survey is apparent from what may seem to be contradictory findings. There is an acknowledgment that race continues to matter in the health system, but the economic burden of health care is of concern to a larger share of minority Americans.

The challenge for those who seek remedies is to improve awareness of problematic racial differences in health and health care access and to encourage initiatives to reduce these differences. Whites need to be more aware of the real-life circumstances and situations that face members of racial and ethnic minority groups in this country when they seek treatment. Similarly, members of racial and ethnic minority groups need to be more aware of disparities so that they can be more proactive in obtaining needed care. Reducing racial and ethnic differentials will require both a better understanding of the factors that contribute to poorer health and health care access and systematic efforts to address these factors.

NOTES

1. The design effect is a function of three numbers:

   the sample size (unweighted) N,
   the sum of the weights squared $(\Sigma w)^2$,
   and the sum of the squared weights Σw^2.

   The design effect is calculated as

$$N \div \left[(\Sigma w)^2 \div \Sigma w^2 \right]$$

2. We chose not to discuss perceptions of Latinos' health indices because lingering questions about the accuracy of vital statistics data on Hispanic origin gave us reason to be concerned about asserting who is informed or not well informed based on these data. However, for readers interested in drawing their own conclusions, we have included the findings in this note. When asked how do you think the average Latino compares to the average white person, the following responses were recorded:
   Latino infant mortality
      Whites: 35 percent say worse off, 45 percent say just as well off, 3 percent say better off, and 17 percent say do not know or refuse;
      Latinos: 38 percent say worse off, 51 percent say just as well off, 6 percent say better off, and 5 percent say do not know or refuse.
   Latino life expectancy
      Whites: 34 percent say worse off, 46 percent say just as well off, 3 percent say better off, and 17 percent say do not know or refuse;
      Latinos: 36 percent say worse off, 53 percent say just as well off, 7 percent say better off, and 4 percent say do not know or refuse.

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