

# USING “SOCIALLY ASSIGNED RACE” TO PROBE *WHITE* ADVANTAGES IN HEALTH STATUS

**Objectives:** We explore the relationships between socially assigned race (“How do other people usually classify you in this country?”), self-identified race/ethnicity, and excellent or very good general health status. We then take advantage of subgroups which are discordant on self-identified race/ethnicity and socially assigned race to examine whether being classified by others as *White* conveys an advantage in health status, even for those who do not self-identify as *White*.

**Methods:** Analyses were conducted using pooled data from the eight states that used the Reactions to Race module of the 2004 Behavioral Risk Factor Surveillance System.

**Results:** The agreement of socially assigned race with self-identified race/ethnicity varied across the racial/ethnic groups currently defined by the United States government. Included among those usually classified by others as *White* were 26.8% of those who self-identified as *Hispanic*, 47.6% of those who self-identified as *American Indian*, and 59.5% of those who self-identified with *More than one race*.

Among those who self-identified as *Hispanic*, the age-, education-, and language-adjusted proportion reporting excellent or very good health was 8.7 percentage points higher for those socially assigned as *White* than for those socially assigned as *Hispanic* ( $P=.04$ ); among those who self-identified as *American Indian*, that proportion was 15.4 percentage points higher for those socially assigned as *White* than for those socially assigned as *American Indian* ( $P=.05$ ); and among those who self-identified with *More than one race*, that proportion was 23.6 percentage points higher for those socially assigned as *White* than for those socially assigned as *Black* ( $P<.01$ ). On the other hand, no significant differences were found between those socially assigned as *White* who self-identified as *White* and those socially assigned as *White* who self-identified as *Hispanic*, as *American Indian*, or with *More than one race*.

**Conclusions:** Being classified by others as *White* is associated with large and statistically significant advantages in health status, no matter how one self-identifies. (*Ethn Dis*. 2008;18:496-504)

**Key Words:** Behavioral Risk Factor Surveillance System, Racism, Self-rated Health

The findings and conclusions in this paper are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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## INTRODUCTION

Racial health disparities have been documented in the United States since data on “race” and health have been jointly collected.<sup>1-4</sup> The question remains, however, why the variable “race” is such a potent predictor of health outcomes, especially when it is widely acknowledged that “race” is a social construct, not a biological descriptor.<sup>5-9</sup> We gain some insight into this question by observing that the “race” noted by a hospital admissions clerk on a medical record is the same “race” noted by a sales clerk in a store, a taxi driver or police officer on the street, a judge in a courtroom, or a teacher in a classroom,<sup>10-12</sup> and, in our opinion, this “race” is quickly and routinely assigned without the benefit of queries about self-identification, ancestry, culture, or genetic endowment. Indeed, this *ad hoc* racial classification has been an influential basis for interactions between individuals and institutions in our society for centuries.<sup>13</sup>

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We posit that “race” acts on health through race-associated differences in life experiences and life opportunities in our race-conscious society. That is, we posit that “race” is a potent predictor of health outcomes in this country because of racism, which Jones has defined as “a system of structuring opportunity and assigning value based on the social interpretation of how one looks.”<sup>12</sup> Jones proposes that “race” be formally understood as the social interpretation of our physical appearance in a given place and time, and she suggests that it can be measured by a person’s response to the question “How do other people usually classify you in this country?”<sup>12</sup> Note that this “socially assigned race” is distinct from self-identified race/ethnicity, and could be a useful tool for probing the impacts of racism on health because it measures the *ad hoc* racial classification upon which racism operates.

In this article, we explore the relationships between “socially assigned race,” self-identified race/ethnicity, and excellent or very good general health status. We then take advantage of subgroups that are discordant on self-identified race/ethnicity and “socially assigned race” to examine whether being socially assigned as *White* conveys an advantage in health status, even for those who do not self-identify as *White*. Using “socially assigned race” to probe advantages in health status associated with being classified by others as *White*, we aim to further elucidate the impacts of racism on health.

## METHODS

The Behavioral Risk Factor Surveillance System (BRFSS), developed by

the Centers for Disease Control and Prevention (CDC), is an ongoing state-based system of health surveys administered by telephone to a representative sample of non-institutionalized persons aged  $\geq 18$  years. Details on the objectives, design, use, and limitations of the BRFSS can be found elsewhere.<sup>14–16</sup> The Reactions to Race module is a six-question optional module first developed for the BRFSS in 2001 by the CDC Measures of Racism Working Group.<sup>17</sup> The questions include assessments of socially assigned race (“How do other people usually classify you in this country?”) and race consciousness (“How often do you think about your race?”), as well as perceptions of differential treatment at work and when seeking health care, and reports of emotional upset and physical symptoms as a result of race-based treatment. The Reactions to Race module underwent three rounds of cognitive testing, one round of field testing, and pilot testing by six invited states on the 2002 BRFSS. This article presents analyses of pooled data from the eight states (Arkansas, Colorado, Delaware, District of Columbia, Mississippi, Rhode Island, South Carolina, and Wisconsin) that used the Reactions to Race module in 2004, the first year it was made available to all states.

The self-identified race/ethnicity variable was constructed from two separate questions included on the BRFSS core questionnaire: “Are you Hispanic or Latino? [Yes, No]” and “Which one or more of the following would you say is your race? [White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, Other (specify)].” If respondents answered Yes to “Are you Hispanic or Latino?” their self-identified race/ethnicity was coded as *Hispanic or Latino* regardless of their response to the following question on race. If respondents answered No to “Are you Hispanic or Latino?” and selected only one group in the following

question on race, their self-identified race/ethnicity was coded as the racial group they selected (*White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, or Other*). If respondents answered No to “Are you Hispanic or Latino?” and selected more than one racial group, their self-identified race/ethnicity was coded as *More than one race*.

The socially assigned race variable was based on responses to the first question asked on the BRFSS Reactions to Race module: “How do other people usually classify you in this country? Would you say *White, Black or African American, Hispanic or Latino, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, or Some Other Group?*” Response categories included all of the federal Office of Management and Budget (OMB) “race” categories as well as the OMB and ethnicity categories.<sup>18</sup>

General health status was assessed using the self-rated health question from the BRFSS core questionnaire: “Would you say that in general your health is Excellent, Very good, Good, Fair, or Poor?” Response categories Excellent and Very good were combined in this study to serve as a measure of optimal health, the outcome of interest, in contrast to response categories Good, Fair, and Poor, which do not represent optimal health. Higher levels of Excellent or Very good health are considered an advantage in health status.

### Data analysis

Analyses were organized to answer three research questions: 1) What is the relation between self-identified race/ethnicity and socially assigned race? 2) How do levels of optimal health vary between subgroups jointly defined by self-identified race/ethnicity and socially assigned race? 3) For those who are discordant on self-identified race/ethnicity and socially assigned race because they self-identify with a non-White

group but are socially assigned to the *White* group, does their general health status differ from a) the health of those who both self-identify with and are socially assigned to the particular non-White group, and b) the health of those who both self-identify with and are socially assigned to the *White* group?

Post-stratification weights were used to adjust for probability of selection and nonresponse.<sup>19,20</sup> SAS version 8.2 (SAS Institute, Inc., Cary, NC) with SURVEYDATA version 9 (RTI International, Research Triangle Park, NC) was used for statistical analyses to account for the complex sampling design. Comparisons of the outcome between subgroups jointly defined by self-identified race/ethnicity and socially assigned race were adjusted for reported age in years, education level (none or kindergarten, grades 1–8, grades 9–11, grade 12 or GED, college 1 to 3 years, or college 4 or more years), and respondent preference for questionnaire language (English or Spanish) using predicted marginals from logistic regression models.<sup>21</sup> Differences were considered statistically significant at  $P \leq .05$ .

## RESULTS

Table 1 presents the joint distribution of the 34,775 respondents in our sample by self-identified race/ethnicity and socially assigned race, as well as the weighted percent distribution of socially assigned race within each self-identified racial/ethnic group. The agreement of socially assigned race with self-identified race/ethnicity varied across racial/ethnic groups. Of those who self-identified as *White*, 98.4% were usually classified by others as *White*; of those who self-identified as *Black or African American (Black)*, 96.3% were usually classified by others as *Black*; and of those who self-identified as *Asian*, 77.0% were usually classified by others as *Asian*.

In contrast, of those who self-identified as *Hispanic or Latino (His-*

**Table 1. Percent distribution of socially assigned race within each self-identified racial/ethnic group**

Self-identified race/ethnicity	Socially assigned race									Row totals
	White	Black	Hispanic	Am Indian	Asian	NHOPI	Other	DK/NS	Refused	
White										
weighted row %	<b>98.4</b>		0.3	0.1			0.4	0.5	0.1	
<i>sample size</i>	<i>25,951</i>		<i>81</i>	<i>31</i>			<i>98</i>	<i>136</i>	<i>38</i>	<i>26,373</i>
Black										
weighted row %	0.4	<b>96.3</b>	0.8				0.5	1.4	0.3	
<i>sample size</i>	<i>28</i>	<i>4,998</i>	<i>48</i>				<i>33</i>	<i>98</i>	<i>21</i>	<i>5,246</i>
Hispanic										
weighted row %	26.8	3.5	<b>63.0</b>				2.2	2.6		
<i>sample size</i>	<i>404</i>	<i>72</i>	<i>936</i>				<i>38</i>	<i>45</i>		<i>1,528</i>
American Indian										
weighted row %	47.6	3.4	7.3	<b>35.9</b>						
<i>sample size</i>	<i>146</i>	<i>22</i>	<i>21</i>	<i>108</i>						<i>321</i>
Asian										
weighted row %					<b>77.0</b>					
<i>sample size</i>					<i>201</i>					<i>267</i>
NHOPI										
weighted row %						<b>35.1*</b>				
<i>sample size</i>						<i>10</i>				<i>34</i>
Other										
weighted row %	49.5	11.6					<b>15.7</b>			
<i>sample size</i>	<i>98</i>	<i>45</i>					<i>37</i>			<i>237</i>
More than one race										
weighted row %	59.5	22.5								
<i>sample size</i>	<i>236</i>	<i>102</i>								<i>406</i>
DK/NS/Refused										
weighted row %	41.5	14.9						7.1	24.0	
<i>sample size</i>	<i>151</i>	<i>58</i>						<i>30</i>	<i>101</i>	<i>363</i>
All respondents										
weighted row %	79.1	12.9	4.2	0.7	0.9	0.1	0.7	1.0	0.4	
<i>sample size</i>	<i>27,034</i>	<i>5,333</i>	<i>1,138</i>	<i>191</i>	<i>240</i>	<i>35</i>	<i>247</i>	<i>374</i>	<i>183</i>	<i>34,775</i>

Entries are weighted row percents, and are bolded in the diagonal cells in which the self-identified race/ethnicity is the same as the socially assigned race. The actual number of respondents in each cell is shown in italics. Entries are shown for cells whose estimated weighted row percent has a relative standard error less than 30%. The row and column totals include all respondents, including those from suppressed cells.

NHOPI = Native Hawaiian or Other Pacific Islander

DK/NS = Don't Know/Not Sure

\* This estimate has a relative standard error of 33.8% and may be unstable.

panic), 63.0% were usually classified by others as *Hispanic*, while 26.8% were usually classified by others as *White*; of those who self-identified as *American Indian or Alaska Native (American Indian)*, 35.9% were usually classified by others as *American Indian*, but the largest group consisted of the 47.6% who were usually classified by others as *White*; and of those who self-identified as *Native Hawaiian or Other Pacific Islander (Native Hawaiian)*, 35.1% were usually classified by others as *Native Hawaiian*, with the next-largest groups consisting of those usually classified by others as *White* and those usually classified by others as *Hispanic* (data not shown due to small

numbers). Of those who self-identified as being of *More than one race*, 59.5% were usually classified by others as *White*, while 22.5% were usually classified by others as *Black*.

Table 2 presents the estimated proportions of the underlying population whose general health status was excellent or very good, by self-identified race/ethnicity and socially assigned race. Data are shown for only those subgroups which included 50 or more respondents (sample sizes presented in Table 1).

The highest levels of excellent or very good health were found for those who self-identified as *Asian* and were socially assigned as *Asian* (60.6%) (Table 2),

followed closely by those who self-identified as *White* and were socially assigned as *White* (58.6%). The next-highest levels of excellent or very good health were clustered and were found for other groups that were socially assigned as *White*: those who self-identified as *Hispanic* and were socially assigned as *White* (53.7%), those who self-identified with *More than one race* and were socially assigned as *White* (53.5%), those who self-identified as *American Indian* and were socially assigned as *White* (52.6%), and those who self-identified as *Other* and were socially assigned as *White* (50.4%). These were joined by other groups that self-identified as *White*: those

**Table 2. Percent of the population whose general health status is excellent or very good, by self-identified race/ethnicity and socially assigned race**

Self-identified “race”/ethnicity	Socially assigned race							Row marginals
	White	Black	Hispanic	Am Indian	Asian	NHOPI	Other	
White								
% excellent or very good	58.6		50.3				49.2	58.4
95% confidence interval	57.8–59.5		36.1–64.4				34.6–63.9	57.6–59.3
Black								
% excellent or very good		44.3						44.0
95% confidence interval		42.3–46.2						42.1–45.9
Hispanic								
% excellent or very good	53.7	44.4	39.8					43.7
95% confidence interval	46.2–60.9	28.9–61.2	35.3–44.6					40.0–47.4
American Indian								
% excellent or very good	52.6			32.0				42.4
95% confidence interval	41.3–63.8			21.8–44.3				34.7–50.5
Asian								
% excellent or very good					60.6			62.6
95% confidence interval					49.7–70.5			53.2–71.1
NHOPI								
% excellent or very good								
95% confidence interval								
Other								
% excellent or very good	50.4							45.6
95% confidence interval	35.8–64.9							36.1–55.5
More than one race								
% excellent or very good	53.5	30.7						45.7
95% confidence interval	44.3–62.5	19.7–44.4						38.6–53.0
Column marginals								
% excellent or very good	58.3	43.7	41.2	36.1	59.4		46.3	55.3
95% confidence interval	57.5–59.1	41.8–45.6	37.1–45.5	27.5–45.6	49.4–68.7		37.4–55.4	54.5–56.0

Entries are shown only for cells containing 50 or more respondents with non-missing values for self-identified race/ethnicity, socially assigned race, and self-rated health. 95% confidence intervals are shown in italics. Relationships between values in the unshaded cells are further explored in Figure 1. NHOPI = Native Hawaiian or Other Pacific Islander

who self-identified as *White* and were socially assigned as *Hispanic* (50.3%) and those who self-identified as *White* and were socially assigned as *Other* (49.2%). The next-lower levels of excellent or very good health were found for those who self-identified as *Hispanic* and were socially assigned as *Black* (44.4%) and those who self-identified as *Black* and were socially assigned as *Black* (44.3%), followed by those who self-identified as *Hispanic* and were socially assigned as *Hispanic* (39.8%). The lowest levels of excellent or very good health were found for those who self-identified as *American Indian* and were socially assigned as *American Indian* (32.0%) and those who self-identified with *More than one race* and were socially assigned as *Black* (30.7%).

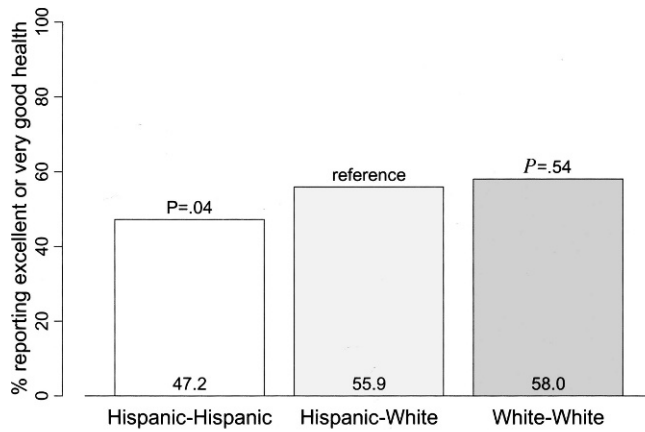
There were insufficient numbers of those who self-identified as *Asian* and

were socially assigned to other groups to further explore the apparent *Asian* health advantage. Within each of the other self-identified racial/ethnic groups, general health status appears to be related to socially assigned race. To address the final research question, we go beyond description to explicitly test for differences in levels of optimal health for those subgroup comparisons which inform us about the health correlates of being socially assigned as *White*.

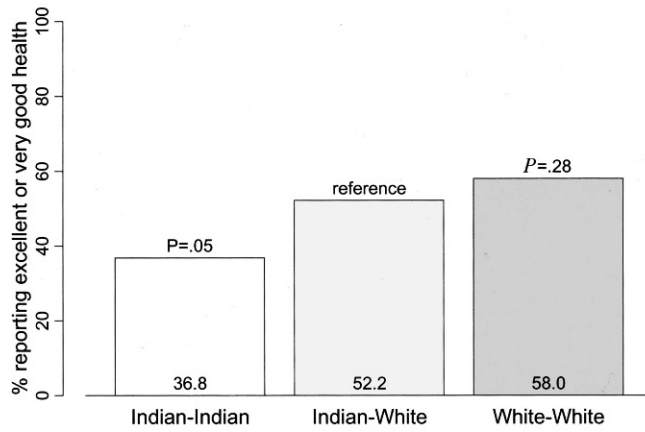
This final analysis focused on those self-identified non-*White* groups for which we had at least 50 respondents who were usually classified by others as *White* and for which we had another comparison group (unshaded entries in Table 2). These included those who self-identified as *Hispanic*, those who

self-identified as *American Indian*, and those who self-identified with *More than one race*. (A note on nomenclature: Henceforth we will describe subgroups jointly defined by self-identified race/ethnicity and socially assigned race by first naming the self-identified race/ethnicity, then the socially assigned race.)

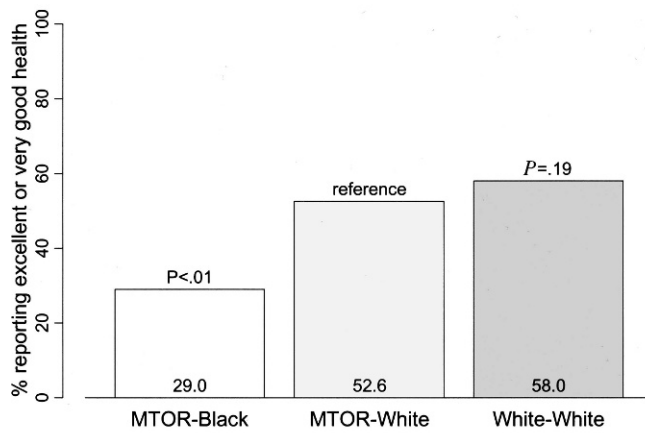
The unshaded bars in Figure 1 graphically display the differences in age-, education-, and questionnaire language-adjusted proportions reporting excellent or very good health for the *Hispanic-Hispanic* vs *Hispanic-White*, *American Indian-American Indian* vs *American Indian-White*, and *More than one race-Black* vs *More than one race-White* subgroups. Among those who self-identified as *Hispanic*, the adjusted proportion with excellent or very good



Comparisons for Hispanic-Whites



Comparisons for American Indian-Whites



Comparisons for MoreThanOneRace-Whites

health was 8.7 percentage points higher for those socially assigned as *White* than for those socially assigned as *Hispanic* ( $P=.04$ ). Among those who self-identified as *American Indian*, the adjusted proportion with excellent or very good health was 15.4 percentage points higher for those socially assigned as *White* than for those socially assigned as *American Indian* ( $P=.05$ ). Among those who self-identified with *More than one race*, the adjusted proportion with excellent or very good health was 23.6 percentage points higher for those socially assigned as *White* than for those socially assigned as *Black* ( $P<.01$ ).

The middle and right-hand (shaded) bars in Figure 1 graphically display the differences in age-, education-, and questionnaire language-adjusted proportions reporting excellent or very good health for each of the *Hispanic-White*, *American Indian-White*, and *More than one race-White* subgroups compared to the *White-White* subgroup. A higher proportion of *White-Whites* reported excellent or very good health than was the case for each of the other three groups also socially assigned as *White*, but the differences were small and not statistically significant. The difference for the *Hispanic-White* vs

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socially assigned as *White*, and those who self-identify as *White* and are socially assigned as *White*. The bottom three bars display data for those who self-identify with *More than one race* and are socially assigned as *Black*, those who self-identify with *More than one race* and are socially assigned as *White*, and those who self-identify as *White* and are socially assigned as *White*. Frequencies of reporting excellent or very good health are adjusted for age, educational level, and questionnaire language. Within each set of three bars,  $P$  values are reported for comparisons using those who self-identify with the non-*White* group but are socially assigned as *White* as the reference group.

*White-White* comparison was 2.1 percentage points ( $P=.54$ ), for the *American Indian-White* vs *White-White* comparison, 5.8 percentage points ( $P=.28$ ), and for the *More than one race-White* vs *White-White* comparison, 5.4 percentage points ( $P=.19$ ).

## DISCUSSION

The degree to which socially assigned race agrees with self-identified race/ethnicity varies across the racial/ethnic groups currently defined by the United States government.<sup>18</sup> Furthermore, within each self-identified racial/ethnic group, self-rated general health status appears to be related to socially assigned race. Indeed, being socially assigned as *White* is associated with large and statistically significant advantages in health status, even for those who self-identify with a non-*White* group. Additionally, the level of excellent or very good health reported by those who self-identify with a non-*White* group but are socially assigned as *White* is statistically indistinguishable from the level reported by those who both self-identify with and are socially assigned as *White*.

The finding of a *White* advantage in health status is replicated within each of three different self-identified racial/ethnic groups (*Hispanic*, *American Indian*, and *More than one race*). In addition to being adjusted for age, the comparisons in this analysis are adjusted for education, the best available social class marker in our dataset. Education data were missing for only 0.2% of respondents in this study, while income data were missing for 13.7% of respondents. The comparisons are also adjusted for the effects of acculturation among *Hispanic* groups using respondent preference for questionnaire language.

The variable which we introduce in this paper, “socially assigned race,” captures the “race” to which individual people and institutions in our society

react, the on-the-street race that is automatically registered by people socialized in our race-conscious society and that operates in our daily lives to either constrain or facilitate opportunity. Recognizing that there is no *a priori* reason why those who are viewed as *White* should experience better health, higher education, or any other societal good compared to others, and accepting the definition of racism as a system of structuring opportunity and assigning value based on the social interpretation of how one looks,<sup>12</sup> we take our research findings as preliminary but compelling evidence of the impacts of racism on health.

Racism is an important aspect of our social environment that is increasingly being discussed at both national and international levels.<sup>22–29</sup> Indeed, a growing number of scientists have hypothesized racism as a fundamental cause of racial and ethnic disparities in health outcomes.<sup>30–40</sup> Yet the scientific investigation of the role of racism in contributing to health disparities must not be simply an academic exercise of establishing a causal relationship or decreasing the amount of unexplained variance in our statistical models. This work will have its greatest value when it identifies the pathways and structural mechanisms by which racism has its effects.

In particular, the health effects of “whiteness” in this country have rarely been discussed.<sup>41–43</sup> Even when racial/ethnic health disparities are conceptualized as resulting from unfair disadvantage experienced by stigmatized and oppressed racial/ethnic groups,<sup>23,24</sup> the reciprocal unfair advantage experienced by members of the dominant *White* racial group is rarely fully examined. In discussing “whiteness,” we acknowledge that everyone has a race in this society, and that *White* is not just “normal” or neutral. Perhaps racial health disparities are not due just to the disadvantages experienced by members of non-*White* groups but also to the advantages

experienced by *White* people. These may include the benefit of the doubt, the high expectations, the trust, the laxity in enforcing the same rules with which non-*White* people must strictly comply, the day-to-day breaks which *White* people often experience as “luck” or never even notice, and the sense of entitlement.

We expand on previous research on the effects of racism on health by examining “socially assigned race” rather than perceived discrimination or reports of unfair treatment as the risk factor of interest, and by using a measure of positive health rather than negative health as the outcome of interest. We also expand beyond an examination of the effects of racism on *Blacks* to investigate the effects of racism on *Hispanics*, *American Indians*, and those who identify with *More than one race*. Indeed, there were not enough respondents in this sample who self-identified as *Black* but were socially assigned as *White* to include in this analysis, because some people of African descent who are socially assigned as *White* have chosen to “pass” rather than endure the hardships of living *Black* in this country.

A major strength of this study is the use of the BRFSS, a conventional public health data source and the world’s largest ongoing telephone health survey system, to examine with scientific rigor the sensitive and potentially controversial issue of racism. The BRFSS provides a large, population-based sample from each state, uses methods for sampling and survey administration that have been refined over years of experience, and collects data using standardized questions. An additional strength of the present study is the use of self-rated health as our outcome measure. Self-rated health is a multidimensional concept that includes physical health, functional capacities, health behaviors, and psychological factors.<sup>44</sup> A growing body of literature shows that self-rated health predicts morbidity,<sup>45</sup> health care

utilization and hospitalization,<sup>46</sup> and mortality,<sup>47</sup> and single-item measures of general self-rated health have been shown to be comparable to multi-item measures for predicting mortality, morbidity, and utilization of outpatient services.<sup>48,49</sup>

This study has at least four limitations that must be considered. First, while the state-specific data have been weighted to make them representative for the given states, the eight states that used the Reactions to Race module on the 2004 BRFSS may not be a representative sample of the 50 United States. As additional states use the Reactions to Race module on the BRFSS, we can further examine the observed associations. Second, the fact that we combine excellent and very good health for our outcome measure differs slightly from the way self-rated health has generally been used in the literature. Most researchers focus on adverse health outcomes and combine the responses fair and poor health in contrast to excellent, very good, or good health. We have chosen to combine the two most positive ratings, excellent and very good, because we are interested in a measure of optimal health. Third, our measure of socially assigned race is actually the respondents' perceptions of how other people usually classify them in this country rather than a classification assigned by an outside observer. We invite further work comparing socially assigned race as assessed by questionnaire with socially assigned race as assessed by a third party.<sup>50</sup> Fourth, we had small samples for some combinations of self-identified and socially assigned race, limiting our ability to examine health outcomes for all subgroups.

Future work needs to identify the key elements of the “whiteness” experience that confer an advantage in health status. We need to define the mechanisms of white privilege, both in personal interactions and in systems of structuring opportunity and communi-

cating value. We need to understand the ways in which personal and community experiences associated with socially assigned race translate into physiologic reactions and their sequelae. We also need to understand how education and income enter the pathway between socially assigned race and health. The goal is to identify the benefits that accrue to “whiteness” so that these benefits can be extended to everyone.

Future work should also aim to understand how the strength of association between race and important health outcomes varies by how “race” is measured: self-identification, respondent perception of social assignment, or social assignment by an observer. Which is the best predictor of health outcomes? Does it vary by outcome? Does it give us insight into the mechanisms by which “race” influences health outcomes?

Finally, we recommend that investigators measure “socially assigned race” in addition to self-identified race/ethnicity. We urge inclusion of the question assessing socially assigned race on national health interview surveys so that data from all 50 states and the territories can be studied. We also urge inclusion of this question on national health examination surveys so that data from physical examinations become available to expand upon our interview-based findings.

## CONCLUSION

We have explored the relationship between being socially assigned as *White* and optimal health in order to open new areas of inquiry with regard to the effects of racism on health. Instead of just talking about unfair disadvantage, we can also address the reciprocal unfair advantage. Instead of “whiteness” being invisible or neutral or normal, we can talk about it as an asset in this race-conscious society. Attention to the ways in which opportunity is structured and

value assigned so that “whiteness” is favored may suggest new levers for intervening on health disparities. Using “socially assigned race” to probe the health benefits of living *White*, we aim to catalyze a shift to bold new strategies for achieving health equity in the United States.

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## REFERENCES

1. Dubois WEB. *The Philadelphia Negro: a Social Study*. Philadelphia: University of Pennsylvania Press; 1899.
2. Heckler MM. Secretary's Task Force on Black and Minority Health. Report of the Secretary's Task Force on Black and Minority Health. Washington: US Government Printing Office; 1985.
3. Byrd WM, Clayton LA. *An American Health Dilemma: a Medical History of African Americans and the Problem of Race: Beginnings to 1900*. New York: Routledge; 2000.
4. Byrd WM, Clayton LA. *An American Health Dilemma: Race, Medicine, and Health Care in the United States: 1900–2000*. New York: Routledge; 2002.
5. Montagu A. *Man's Most Dangerous Myth: the Fallacy of Race*. New York: Columbia University Press; 1942.
6. United Nations Educational, Scientific and Cultural Organization. Declaration on race and racial prejudice. Available at [http://www.unhcr.ch/html/menu3/b/d\\_prejud.htm](http://www.unhcr.ch/html/menu3/b/d_prejud.htm). Accessed 6/26/2007.
7. Cooper R, David R. The biological concept of race and its application to public health and

- epidemiology. *J Health Polit Policy Law*. 1986;11:97–116.
8. Cavalli-Sforza LL, Menozzi P, Piazza A. *The History and Geography of Human Genes*. Princeton (NJ): Princeton University Press; 1994.
  9. American Anthropological Association statement on “race.” Available at <http://www.aaanet.org/stmts/racepp.htm>. Accessed 6/26/2007.
  10. Jones CP. Levels of racism: a theoretic framework and a gardener’s tale. *Am J Public Health*. 2000;90:1212–1215.
  11. Jones CP. Invited commentary: “race,” racism, and the practice of epidemiology. *Am J Epidemiol*. 2001;154:299–304.
  12. Jones CP. Confronting institutionalized racism. *Phylon*. 2003;50(1–2):7–22.
  13. Wilson CA. *Racism: from Slavery to Advanced Capitalism*. Thousand Oaks (CA): Sage Publications; 1996.
  14. Centers for Disease Control and Prevention. Surveillance for certain health behaviors among states and selected local areas—Behavioral Risk Factor Surveillance System, United States, 2004. *MMWR Surveill Summ*. 2006;55(SS-7).
  15. Nelson DE, Holtzman D, Waller M, Leutzinger C, Condon K. Objectives and design of the Behavioral Risk Factor Surveillance System. *Proceedings of the Section of Survey Research Methods, American Statistical Association*. Alexandria (VA): American Statistical Association; 1998:214–218.
  16. Powell-Griner E. Use and limitations of the Behavioral Risk Factor Surveillance System data. *Proceedings of the Section of Survey Research Methods, American Statistical Association*. Alexandria (VA): American Statistical Association, 1998:219–223.
  17. Behavioral Risk Factor Surveillance System. Reactions to race module. 2002 BRFSS questionnaire. Available at <http://apps.nccd.cdc.gov/BRFSSQuest/ListByYear.asp>. Accessed 6/26/2007.
  18. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity (Statistical Policy Directive No. 15). Available at <http://www.whitehouse.gov/omb/fedreg/ombdir15.html>. Accessed 6/26/2007.
  19. Nelson DE, Holtzman D, Bolen J, Stanwyck CA, Mack KA. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Soz Präventivmed*. 2001;46(Suppl 1):S3–S42.
  20. Behavioral Risk Factor Surveillance System. Operational and user’s guide, version 3.0. Available at <http://ftp.cdc.gov/pub/Data/Brfss/userguide.pdf>. Accessed 6/26/2007.
  21. Graubard BI, Korn EL. Predictive margins with survey data. *Biometrics*. 1999;55:652–659.
  22. World Conference Against Racism, Racial Discrimination, Xenophobia and Related Intolerance. Durban Declaration and Programme of Action (Adopted September 8, 2001). Available at <http://www.unhchr.ch/html/racism/02-documents-cnt.html>. Accessed 6/26/2007.
  23. Smedley BD, Stith AY, Nelson AR, eds. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington: The National Academies Press; 2002.
  24. American Public Health Association. Research and intervention on racism as a fundamental cause of ethnic disparities in health (Public Policy 2001-7). *Am J Public Health*. 2002;92:458–460.
  25. Barnes-Josiah DL. *Undoing racism in public health: a blueprint for action in urban MCH*. Omaha (NE): CityMatCH at the University of Nebraska Medical Center; 2004.
  26. Jones CP. Maori-Pakeha health disparities: can treaty settlements reverse the impacts of racism? 1999 Ian Axford Fellowship Report. Wellington, New Zealand: New Zealand-United States Educational Foundation; 1999.
  27. Jones CP. Socioeconomic status and health: isolating the impacts of racism. Presented at the 128th annual meeting of the American Public Health Association; November 14, 2000; Boston, Massachusetts.
  28. Jones CP, Cozier Y, Rao RS, Palmer JR, Adams-Campbell LL, Rosenberg L. “Race”-consciousness and experiences of racism: data from the Black Women’s Health Study. Presented at the 128th annual meeting of the American Public Health Association; November 15, 2000; Boston, Massachusetts.
  29. Jones CP. Confronting institutionalized racism. 5th annual William T. Small, Jr. Keynote Address delivered at the 25th annual Minority Health Conference of the University of North Carolina School of Public Health; February 28, 2003; Chapel Hill, North Carolina.
  30. Jackson JS, Brown TN, Williams DR, Torres M, Sellers SL, Brown K. Racism and the physical and mental health status of African Americans: a thirteen-year national panel study. *Ethn Dis*. 1996;6:132–147.
  31. Broman CL. The health consequences of racial discrimination: a study of African Americans. *Ethn Dis*. 1996;6:148–153.
  32. McNeilly MD, Anderson NB, Armstead CA, Clark R, Corbett M, Robinson EL, Pieper CF, Lepisto EM. The Perceived Racism Scale: a multidimensional assessment of the experience of White racism among African Americans. *Ethn Dis*. 1996;6:154–166.
  33. Kennedy BP, Kawachi I, Lochner K, Jones CP, Prothrow-Stith D. (Dis)respect and Black mortality. *Ethn Dis*. 1997;7:207–214.
  34. Williams DR, Yu Y, Jackson JS, Anderson NB. Racial differences in physical and mental health: socioeconomic status, stress and discrimination. *J Health Psychol*. 1997;2:335–351.
  35. Krieger N. Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. *Int J Health Serv*. 1999;29:295–352.
  36. Williams DR, Neighbors HW, Jackson JS. Racial/ethnic discrimination and health: findings from community studies. *Am J Public Health*. 2003;93:200–208.
  37. Harrell JP, Hall S, Taliaferro J. Physiological responses to racism and discrimination: an assessment of the evidence. *Am J Public Health*. 2003;93:243–248.
  38. Collins JW Jr, David RJ, Handler A, Wall S, Andes S. Very low birthweight in African American infants: the role of maternal exposure to interpersonal racial discrimination. *Am J Public Health*. 2004;94:2132–2138.
  39. Schulz AJ, Gravlee CC, Williams DR, Israel BA, Mentz G, Rowe Z. Discrimination, symptoms of depression, and self-rated health among African American women in Detroit: results from a longitudinal analysis. *Am J Public Health*. 2006;96:1265–1270.
  40. Mays VM, Cochran SD, Barnes NW. Race, race-based discrimination, and health outcomes among African Americans. *Ann Rev Psychol*. 2007;58:201–225.
  41. McIntosh P. White privilege and male privilege: a personal account of coming to see correspondences through work in women’s studies (working paper no. 189). Wellesley (MA): Wellesley College Center for Research on Women; 1988.
  42. Wise T. *White Like Me: Reflections on Race from a Privileged Son*. Brooklyn (NY): Soft Skull Press; 2005.
  43. Rothenberg PS. *White Privilege: Essential Readings on the Other Side of Racism*. 2nd ed. New York: Worth Publishers; 2004.
  44. Simon JG, De Boer JB, Joung IMA, Bosma H, Mackenbach JP. How is your health in general? A qualitative study on self-assessed health. *Eur J Public Health*. 2005;15:200–208.
  45. Steele JC, Patrick JH, Goins RT, Brown DK. Self-rated health among vulnerable older adults in rural Appalachia. *J Rural Health*. 2005;21:182–186.
  46. Bierman AS, Bubolz TA, Fisher ES, Wasson JH. How well does a single question about health predict the financial health of Medicare managed care plans? *Eff Clin Pract*. 1999;2:56–62.
  47. Idler EL, Benyamini Y. Self-rated health and mortality: a review of twenty-seven community studies. *J Health Soc Behav*. 1997;38:21–37.
  48. DeSalvo KB, Fan VS, McDonell MB, Fihn SD. Predicting mortality and healthcare utilization with a single question. *Health Serv Res*. 2005;40:1234–1246.
  49. DeSalvo KB, Bloser N, Reynolds K, He J, Muntner P. Mortality prediction with a single general self-rated health question. A meta-analysis. *J Gen Intern Med*. 2006;21:267–275.



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50. Hahn RA, Truman BI, Barker ND. Identifying ancestry: the reliability of ancestral identification in the United States by self, proxy, interviewer, and funeral director. *Epidemiology*. 1996;7:75-80.

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