AFRICAN-AMERICAN HEALTH: THE ROLE OF THE SOCIAL ENVIRONMENT

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One of the dramatic changes in the distribution of the US population in the past 50 years was the mass movement of African-Americans from rural areas of the South to urban communities in the South and large industrial cities in the North. Today, the African-American population is overwhelmingly urban and is very vulnerable in terms of health. African-Americans now disproportionately reside in severely impoverished areas of the old industrial cities of the Northeast and Midwest that are characterized by high levels of unemployment, welfare dependency, violent crime, educational deficiencies, and teenaged pregnancy.[1] Among persons residing in concentrated poverty in US metropolitan areas, 67% are black, 20% Hispanic, and 12% white.[2] Any comprehensive and effective urban health agenda must address the situation of the black population. Accordingly, this paper uses race as a lens to discuss the role of the social environment in the health of urban populations. It first describes the magnitude of and trends in black-white differences in health status. It then discusses what "race" represents and outlines the multiple ways in which social factors linked to race can affect health status.

BLACK-WHITE DIFFERENCES IN HEALTH

Race has been a potent predictor of variation in health status in the US for a long time. Table I presents the life expectancy at birth for blacks and whites in 1900 and for every decade between 1950 and 1990. White persons born at the turn of the century could expect to live for 48 years, compared with 33 years for their black peers. Over the course of this century, life expectancy at birth has

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TABLE I US Life Expectancy at Birth, 1900–1990

Year	White	Black	Difference
1900	47.6	33.0	14.6
1950	69.1	60.7	8.4
1960	70.6	63.2	7.4
1970	71.7	64.1	7.6
1980	74.4	68.1	6.3
1990	76.1	69.1	7.0

Source: National Center for Health Statistics.[3]

increased for both racial groups, but the disparity between them persists. A white infant born in 1990 had a 7-year life expectancy advantage over a black infant.

Table II presents age-adjusted death rates for the leading causes of death in the US.[3] It reveals that African-Americans have death rates that are higher than those of whites for 13 of the 15 leading causes of death. These disparities are relatively small for some causes of death (such as atherosclerosis and accidents) and very large for others (such as homicide, human immunodeficiency virus/acquired immunodeficiency syndrome [HIV/AIDS], and kidney diseases). However, the consistent pattern of elevated risk of death for blacks across such a

TABLE II Age-Adjusted Death Rates (per 100,000 population) for the 15 Leading Causes of Death by Race in the United States, 1990

Cause of Death	Blacks	Whites	Black/White Ratio
1. Heart disease	213.5	146.9	1.45
2. Cancer	182.0	131.5	1.38
3. Stroke	48.4	25.5	1.90
4. Accidents	39.7	31.8	1.25
5. Pulmonary diseases	16.9	20.1	0.84
6. Pneumonia and influenza	19.8	13.4	1.48
7. Diabetes	24.8	10.4	2.38
8. Suicide	7.0	12.2	0.57
9. Chronic liver disease	13.7	8.0	1.71
10. HIV/AIDS	30.6	9.8	3.12
11. Homicide	39.5	5.9	6.69
12. Kidney diseases	10.8	3.6	3.00
13. Septicemia	9.5	3.5	2.71
14. Atherosclerosis	3.1	2.7	1.15
15. Perinatal conditions	16.2	5.2	3.12

Source: National Center for Health Statistics.[3]

broad range of disease conditions is impressive. Suicide stands out as the cause of death for which the rate for African-Americans is markedly lower than that of whites.

Moreover, for several indicators of health status, the black-white gap has been widening in recent decades. The Report of the Secretary's Task Force on Black and Minority Health indicated that there were 59,000 excess deaths for blacks in the US in 1980.[4] That is, almost 60,000 African-Americans died who would not have died if the mortality experience of blacks was the same as that of the white population. Table III summarizes key findings from an update of that report.[5] It indicates changes between 1980 and 1991 in the total number of excess deaths and in the racial gap for infant mortality and life expectancy. The number of excess deaths for African-Americans increased to 66,000 by 1991. During the decade of the 1980s, infant mortality rates declined for both racial groups, but the black-white ratio in infant mortality increased. In 1980, a black male infant was 1.9 times more likely to die before his first birthday than his white counterpart. This ratio increased to 2.1 by 1991. The ratio for females increased from 2.0 to 2.3. The gap in life expectancy between blacks and whites widened between 1980 and 1991, from 6.9 years to 8.3 years for males and from 5.6 years to 5.8 years for females.

Data on infant mortality over time shed light on the dynamics that drove the widening gap in health status. Table IV presents infant mortality rates for blacks and whites and the black-white ratio for 1950 to 1990. It clearly reveals that both racial groups experienced dramatic declines in infant death rates between 1950 and 1990. In 1950, 27 of every 1,000 white infants born in the US died before their first birthday, compared to 44 of every 1,000 black infants. That is, the infant

TABLE III Changes in Health Status Disparities Between 1980 and 1991

	1980	1991
Excess deaths		
Black men	35,000	43,000
Black women	24,000	23,000
Total	59,000	66,000
Infant mortality rate		
Black/white ratio, males	1.9	2.1
Black/white ratio, females	2.0	2.3
Life expectancy, years		
Black-white gap, males	6.9	8.3
Black-white gap, females	5.6	5.8

Source: National Center for Health Statistics.[5]

TABLE IV Infant Mortality Rates (per 1,000 live births) for Whites and Blacks, United States, 1950–1990

Year	White	Black	Black/White Ratio
1950	26.8	43.9	1.6
1960	22.9	44.3	1.9
1970	17.8	32.6	1.8
1980	11.0	21.4	1.9
1990	7.7	17.0	2.2

Source: National Center for Health Statistics.[93]

mortality rate for blacks was 1.6 times that of whites. The death rate for whites in 1990 (7.7 per 1,000 live births) was 3.5 times lower than it was 40 years earlier. Similarly, the infant death rate for African-Americans in 1990 (17.0) was about 2.5 times lower than it was in 1950. However, a black infant born in 1990 was 2.2 times more likely to die before her or his first birthday than a white infant. Thus, the decline in infant death rates for whites has been much more rapid than that of blacks, such that the health gap between the two racial groups has widened.

Although more rapid health improvements for the white population, compared with the black population, are, in part, responsible for the widening racial disparities in health, at least during the decade of the 1980s there is evidence not only of the relative, but also the absolute, deterioration of the health status of the black population. Table V shows the life expectancy at birth for blacks and whites for every year from 1984 to 1992. For five consecutive years after

TABLE V US Life Expectancy at Birth, 1984–1992

Year	White	Black	Difference
1984	75.3	69.5	5.8
1985	75.3	69.3	6.0
1986	75.4	69.1	6.3
1987	75.6	69.1	6.5
1988	75.6	68.9	6.7
1989	75.9	68.8	7.1
1990	76.1	69.1	7.0
1991	76.3	69.3	7.0
1992	76.5	69.6	6.9

Source: National Center for Health Statistics.[92]

1984, there was a progressive decline from the 1984 level for life expectancy at birth for the black population. Life expectancy for African-Americans began to increase in 1990, so that by 1992 the level was slightly higher than that of 1984. Over this same time period, the life expectancy for whites progressively increased, so that the black-white gap in 1992 was wider than in 1984.

This pattern of health differentials indicates that we should approach deliberations about urban health with a certain sense of urgency. It also suggests that the challenges to African-American health cut across a broad range of disease conditions, and that it is unlikely that any single gene is responsible for this pervasive pattern of disparities. We all recognize that a complex "web of causation" underlies much chronic disease and the social distribution of disease. As Krieger has argued,[6] we need to devote more attention to identifying the "spiders" that are responsible for spinning the web in the larger environment. An understanding of the determinants of this differential distribution of health problems in racial groups is a prerequisite to the development and targeting of effective programs and services to address them. This paper argues that racial differences in health reflect the power of some very virulent, but often unrecognized, spiders in the social environment. This is contrary to the traditional approach to understanding racial differences in health, which has viewed race as capturing biological homogeneity and black-white differences in health as largely determined genetically.

WHAT DOES "RACE" REPRESENT?

Early explanations for health status differences among the races focused on biological differences between racial groups. Medical research in the 19th century documented health status differences between blacks and whites and used these disparities to support the proposition that blacks were biologically inferior to whites and, therefore, more susceptible to a host of illnesses.[7] This biological approach views racial categories as useful classifications of genetic differences among human population groups. Underlying this biological view are the assumptions that race is a valid biological category, that the genes that determine race also determine the number and types of health problems that an individual will have, and that the health of a population is largely determined by its genetic constitution.[8] In contrast, scientific evidence suggests that race is more a social than a biological category. First, the concept of race predated modern scientific theories of genetics. In the context of slavery and imperial colonialism, race was a useful construct, both for classifying human variation and for providing an apparent scientific justification for the exploitation of groups that were regarded as inferior.[9] Second, the extant racial categories do not represent biological distinc-

tiveness.[10] There is more genetic variation within races than between them. Irrespective of geographic origin or race, all human beings are identical for 75% of known genetic factors, with some 95% of human genetic variation existing within racial groups.[11,12] Relatively small and isolated populations, such as Alaska Natives and Australian Aborigines, contribute most of the between-group variation in genetics. Thus, our current racial categories are more alike than different in terms of biological characteristics and genetics, and there are no specific scientific criteria to distinguish different racial groups unambiguously.[13,14] There are patterns to the distribution of genetic characteristics across human population groups, but our racial categories do not capture them. Most physical anthropologists have abandoned the concept of race and use the construct of clines instead.[15,16]

Moreover, single gene disorders account for only a small part of racial differences in health. Sickle cell anemia, for example, is more prevalent in African-Americans than in the rest of the population. However, it accounts for only 0.3% of the total number of excess deaths in the black population and is thus not a major cause of the high mortality rates for African-Americans.[17] Sickle cell anemia also illustrates that biological differences among population groups reflect, in part, the interaction of inherited factors with the social environment. Sickle cell trait appears to be a protective biological adaptation to environmental conditions. It is not limited to African-Americans, but occurs at higher rates in groups that originated in regions of the world where malaria was endemic.[18]

Although blatantly racist ideology is rare in medical practice and research, much of medical education, clinical practice, and biomedical research continues to cling to a biological understanding of race.[17,19-21] There are negative consequences to this pattern of usage.[22,23] First, the uncritical use of race in medicine legitimates an unscientific construct. Second, clinicians often use assumptions about a patient's race to eliminate possible diseases prematurely or to narrow the focus inappropriately to one disease in the differential diagnosis of patients. However, although an African-American born and raised in the South, a Jamaican, a Haitian, a Kenyan, and an African-American born and raised in the Northeast are all black, they are likely to differ in beliefs, behavior, and even biology. Third, racial labels tend to be used in an unflattering way in the everyday practice of medicine, and black patients are more likely than white patients to be identified by a racial label in medical case presentations.[24]

Finally, particular conceptualizations of race can often unwittingly have larger societal implications. Irrespective of the motivations or intentions of individual researchers, an emphasis on biological sources for racial variations in health can serve important ideological functions within the larger society. Conceptions of race that emphasize biology are least threatening to the status quo.[25] If racial or

ethnic differences in health are viewed as being caused by innate biological differences, then societal institutions and policies that may be involved in the production of disease are absolved from responsibility and can remain intact. Historically, preconceived opinions, cultural norms, and political agendas have shaped scientific research by establishing the legitimacy and appropriateness of certain research questions and the irrelevance of others.[25]

CAUSES IN THE SOCIAL ENVIRONMENT?

Socioeconomic Status

One of the most firmly established patterns in the social distribution of disease is the relationship between socioeconomic status (SES) and health.[26-29] Race is sometimes employed as an indicator of SES. African-Americans have lower levels of income, education, occupational status, and wealth than whites.[30] For example, the rate of poverty is three times higher for blacks than for whites. Research reveals that the differentials in health status associated with SES are larger than those associated with race,[31] and SES accounts for much of the racial difference in health. When black-white disparities in health are adjusted for SES, these differences are always reduced substantially and sometimes are eliminated.[32,33]

However, although race is strongly related to SES, the two concepts are not equivalent. Despite the strong association between race and poverty, for example, two-thirds of blacks are not poor, and two-thirds of all poor Americans are white. Moreover, race tends to have an effect on health independent of SES. That is, within each level of SES, blacks tend to have worse health status than whites. This is readily evident in national data for self-assessed health (a subjective indicator of health that is related to mortality and other objective measures).

Table VI presents the association of household income and years of formal education with self-assessed health for blacks and whites.[34] Large disparities in health by income and education are evident for both blacks and whites. Consis-

TABLE VI Average Annual Percentage of Persons Reporting to be in Fair or Poor Health, by Income and Education, for Blacks and Whites

	Income <$20,000		Income >$20,000	
Education	Whites	Blacks	Whites	Blacks
Less than 12 years	33.1	38.8	16.1	20.5
12 years	15.2	17.9	6.8	9.6
More than 12 years	9.2	13.2	3.7	5.9
Total	16.6	19.0	5.1	7.6

Source: Ries.[34]

tently, persons of lower income and education report worse health than their more economically favored counterparts. However, at each level of income and education, these data reveal that blacks report poorer health status than do whites.

RACIALLY STRUCTURED INEQUALITY

Inequality between the races did not just happen. What spiders were responsible for creating these inequalities? Race is a social status category that was created by large-scale societal factors and racism. Understanding and addressing the health of the African-American population requires attention to the role of racism.[35] By racism, I mean an ideology that categorizes and ranks human groups, with some being inferior to others. This in turn can lead to negative attitudes and beliefs toward defined outgroups, as well as differential treatment of members of these groups by both individuals and societal institutions. The racial attitudes of whites toward blacks have improved dramatically over the last 50 years, although whites' support for the principles of equality is considerably stronger than their commitment to policies that would implement them.[36]

At the same time, substantial proportions of the white population continue to hold negative attitudes toward African-Americans. Table VII presents data on whites' stereotypes of blacks from the 1990 General Social Survey, a highly respected nationally representative social indicators survey.[37] More than half of all whites believe that blacks are prone to violence, prefer to live off welfare, and lack motivation and willpower to pull themselves out of poverty. Only 17% of whites believe that blacks are hard-working, and only 1 in 5 believe that blacks are intelligent. Substantial numbers of whites opted for the "Neither" response category on these questions. The extent to which social desirability concerns underlie this pattern is not known. It is also instructive that almost 4 of 5 whites rejected a biological explanation (blacks have less inborn ability) for the social situation of African-Americans. Instead, in these and other data, whites point to motivational and cultural differences as the reasons why blacks have worse jobs, income, and housing than whites. Thus, there appears to be a shift over time from the racism that emphasizes the biological inferiority of blacks to one that focuses on cultural inferiority.

The dominant society's ideology of the inferiority of blacks was actively translated into policies that facilitated the social exclusion of and truncated economic mobility for the black population. Many health researchers and policy makers understand that there is an association between race and SES, but tend to view SES as a confounder of the relationship between race and health. Instead, SES is part of the causal pathway by which racism affects health. Race is causally

TABLE VII White American Stereotypes of Blacks

Stereotype	%
Lazy	
Blacks are lazy	45
Neither	33
Blacks are hardworking	17
Violent	
Blacks are prone to violence	51
Neither	28
Blacks are not prone to violence	15
Unintelligent	
Blacks are unintelligent	29
Neither	44
Blacks are intelligent	21
Welfare	
Blacks prefer to live off welfare	56
Neither	26
Blacks prefer to be self-supporting	12
Unpatriotic	
Blacks are unpatriotic	16
Neither	35
Blacks are patriotic	39
Blacks have worse jobs, income, and housing than whites because	
Most blacks have less inborn ability to learn	
Yes	18
Don't know	3
No	78
Most blacks just don't have the motivation or willpower to pull themselves up out of poverty.	
Yes	60
Don't know	6
No	33

Source: Kinder and Mendelberg 1995.[37]

prior to SES, and differences between the races in SES reflect, in part, the impact of economic discrimination produced by large-scale societal structures. That is, the black-white differences in SES noted above are a direct result of the systematic implementation of institutional policies based on the premise of the inferiority of blacks and the need to avoid social contact with them. Racial residential segregation, for example, has been a primary institutional mechanism by which racism has operated in American society.[38,39] A "web of discrimination" that involved federal housing policies, banks, real estate companies, and white neighborhood organizations led to the concentration of African-Americans in deprived socioeconomic residential environments. More important, residential segregation

determined housing conditions and educational and unemployment opportunities and thus truncated economic mobility for African-Americans.

Because of this economic discrimination practiced by large-scale societal institutions, socioeconomic variables are not equivalent across racial groups. African-Americans and Hispanics have considerably lower income returns for a given level of education than whites.[40] Racial differences in wealth are much larger than those for income, such that focusing on income dramatically underestimates racial differences in economic resources. For example, the median net worth for whites is 10 times that of blacks and, for households at the lowest quintile of income in the United States, African-Americans have a median net worth of $1, compared with over $10,000 for whites.[41] Much of this racial gap in wealth is due to differences between the races in home equity, which can be directly traced to the systematic discrimination practiced by banks, the real estate industry, and federal housing agencies earlier this century.[42]

Other data reveal that the purchasing power of income also varies dramatically by race. African-Americans tend to live in more-marginalized urban areas, where the cost of housing, food, groceries, auto insurance, and other services are considerably higher than in more desirable suburban neighborhoods.[40] In addition, some data suggest that African-Americans also encounter systematic discrimination in the purchasing of goods, which leads to considerably higher costs. One clear example of this is the study by Ayres[43] that examined racial differences in the purchase price of new cars offered to black and white males and females. This carefully designed study sent black and white testers to auto dealerships. All of the testers followed the same script. The study found that there were dramatic differences by race and gender in the sales price offered to the testers. Compared to the best price offered to white men, white women had to pay a 40% markup, black men a 200% markup, and black women a 300% markup.[43]

Belief in the inherent inferiority of blacks could also play a role in shaping societal policies that have severe economic consequences for African-American households. A *Wall Street Journal* analysis of the Equal Employment Opportunity Commission reports of over 35,000 US companies revealed that blacks were the only racial group that experienced a net job loss during the 1990–1991 economic downturn.[44] African-Americans had a net job loss of 59,500 jobs, compared with net gains of 71,100 for whites, 55,100 for Asians, and 60,000 for Latinos. African-Americans lost a disproportionately high share of the jobs that were cut and gained a disproportionately low share of the jobs that were added. Blacks had a net job loss even among service workers. As corporate America explains it, these jobs were the result of restructuring, relocation, and downsizing. Sears moved distribution centers from the central city to the suburbs to facilitate more

convenient routing of its truck fleet. Coca-Cola reduced its workforce to maintain profits, but 42% of those laid off were black, although blacks were only 18% of its workforce. General Electric stopped production in two plants; one happened to be 39% black; the other, 80%.

The disproportionate job losses for blacks in 1990–1991 continued a well-documented trend of the last 30 years in which low-skill jobs have moved from the urban areas where African-Americans live to the suburbs.[1,45] At the same time, there has been job growth in the urban areas where blacks lived, but the new jobs have been high-skilled management, professional, technical, and administrative jobs—jobs that blacks are ill prepared to enter. Comparisons of the growth in concentrated poverty in Canada and the United States indicate that, although racial or ethnic discrimination is not the fundamental structural cause, racial discrimination has reinforced these patterns in both countries.[2]

Noneconomic Discrimination

Discrimination at the level of societal institutions can determine the economic status, and thus the health, of racial populations. Systematic discrimination can also affect the quantity and quality of services received, including medical care. There is a fairly consistent pattern of racial differences in the receipt of a broad range of diagnostic and treatment procedures.[46] Table VIII presents black/white ratios and 30-day postadmission mortality rates per 1,000 enrollees for the most common procedures performed in hospitals for Medicare beneficiaries.[47] In general, the observed racial differences are largest for the newer, more highly elective and referral-sensitive procedures, such as cardiovascular, orthopedic, and back procedures. In the Medicare program, for example, black inpatients were less likely than their white peers to receive all of the 16 most commonly received procedures by Medicare beneficiaries. Moreover, blacks had higher 30-day postadmission mortality rates than whites for most of the procedures.

Further analysis of the Medicare files revealed that there were four procedures that black beneficiaries of Medicare received more frequently than their white peers. Table IX presents the black/white ratios and mortality rates for these four nonelective procedures. Amputation of part of the lower limb, usually as a consequence of diabetes, was 3.6 times more likely to be performed on blacks compared with whites. Excisional debridement, removal of tissue, usually related to decubitus ulcers, was performed 2.7 times more frequently on black than on white patients. Arteriovenostomy, the implantation of shunts or cannulae for chronic renal dialysis, was 5.2 times more likely to be performed on black patients than white ones. Finally, bilateral orchiectomy, removal of both testes, generally performed for cancer in males, was 2.2 times more likely to be performed on

TABLE VIII Black/White (B/W) Ratios for Procedure Rates and 30-Day Postadmission Mortality Rates, Per 1,000 Enrollees, for Selected Major Procedures Performed on Medicare Beneficiaries Aged 65 or Older, 1992

Procedures	Procedure Rates, B/W Ratio	Mortality Rates, B/W Ratio
Cardiovascular		
Cardiac catherization	0.68	—
Coronary angioplasty	0.44	1.05
Coronary bypass graft	0.39	1.12
Carotid endarterectomy	0.31	1.32
Orthopedic and Back		
Total knee replacement	0.64	1.47
Total hip replacement	0.49	1.10
Excision of disc	0.50	2.12
Spinal fusion	0.63	1.56
Reduction of fracture of femur	0.44	0.83
Other arthroplasty of hip	0.45	0.84
Laminectomy	0.53	2.02
Surgical Procedures		
Prostatectomy	0.97	1.27
Mastectomy	0.80	1.50
Hysterectomy	0.60	2.04
Appendectomy	0.76	2.33
Repair of inguinal hernia	0.85	1.13

Source: McBean and Gornick.[47]

TABLE IX Black/White (B/W) Ratios for Procedure Rates and 30-Day Postadmission Rates, Per 1,000 Enrollees, for Procedures for Which the Rates are Higher for Black than White Medicare Beneficiaries Aged 65 or Older, 1992

Procedure	Procedure Rates, B/W Ratio	Mortality Rates, B/W Ratio
Amputation (lower limb)*	3.62	0.79
Excisional debridement†	2.65	1.22
Arteriovenostomy‡	5.17	0.66
Bilateral Orchiectomy§	2.21	0.99

Source: McBean and Gornick (1994).[47]
*Usually a consequence of diabetes.
†Removal of tissue, usually related to decubitus ulcers.
‡Implanting shunts for chronic renal dialysis.
§Removal of both testes, generally performed because of cancer.

black than white patients. Racial differences in disease prevalence could also play some role in the racial difference for the four procedures that were performed more frequently on black than white patients. (Blacks have higher rates of diabetes, prostate cancer, and end-stage renal disease than whites.) At the same time, these four procedures can frequently be averted or delayed if medical care is comprehensive and characterized by continuity. That is, these four procedures reflect delayed diagnosis or initial treatment (in the case of prostate cancer), poor or infrequent medical care (for diabetes and vascular disease that lead to amputations and skin infections), and failure in the management of chronic conditions such as diabetes and hypertension.

There are many potential explanations for these racial differences. A greater percentage of black Medicare beneficiaries make out-of-pocket payments for deductibles and copayments for ambulatory medical care compared with their white counterparts.[47] This higher financial cost could lead to lower utilization of ambulatory care and the postponement and avoidance of treatment. There may also be higher levels of severity of illness among black patients at the time that the procedures are performed. In addition, blacks may be more likely than whites to refuse procedures recommended by their physicians.[48] Alternatively, whites may be more aggressive in pursuing medical care and more likely than blacks to request high-technology medical procedures. However, these racial differences among Medicare beneficiaries may also reflect the role of racial discrimination in the delivery of medical care. In a world of limited resources, could race, consciously or unconsciously, be a social criterion that clinicians use to establish the worthiness of patients for the receipt of medical care? Other data reveal that Medicare is not unique. A similar pattern has been found in studies of Veterans Administration hospitals[49] and in the National Hospital Discharge Survey.[50]

The Stigma of Inferiority

What are the consequences of growing up black in a society in which one's race is viewed negatively? Some research suggests that assumptions of inferiority at the societal level have negative consequences for at least some members of stigmatized groups. That is, a stigma of inferiority may create specific expectations, anxieties, and reactions that affect the functioning of marginalized groups. Research across a broad range of societies (in the United Kingdom, Japan, India, South Africa, Israel) indicates that groups that are socially unequal have lower scores on standardized tests.[51] Moreover, as groups move to political and social parity over time, test scores converge and in some cases have disappeared. Similarly, Steele and Aronson's research indicates that, when African-American students are explicitly confronted with the stereotype of black intellectual inferior-

ity, their performance on an examination is adversely affected.[52,53] This effect occurs among black youths who were successful enough to be accepted at Stanford University. What happens to those less favored? Moreover, this phenomenon is quite robust. The performance of women on a standardized examination was also affected adversely when the women were told in advance that women usually do worse than men, and white men also performed poorly when they were contrasted with Asians.[51]

It also appears that the health status of minority group members is affected adversely when they endorse the dominant society's ideology of their group. Research by Taylor and his colleagues found that blacks who score high on internalized racism—that is, they believe that blacks are inferior—have higher levels of psychological distress and alcohol use.[54,55] A similar pattern of results comes from the National Study of Black Americans.[56] In these data, African-Americans who endorsed stereotypes of blacks as accurate were more likely to report poorer physical and mental health than those who disagreed with the stereotypes.

Racism in the larger society can also lead to systematic differences in exposure to personal experiences of discrimination. These experiences of discrimination may be an important part of subjectively experienced stress that can affect health adversely. A growing body of evidence indicates that self-report measures of discrimination are adversely related to physical and mental health in a broad range of racial or ethnic minority populations.[56–62] Moreover, a recent study of a large metropolitan area in the US documented that exposure to both chronic and acute indicators of discrimination, in combination with SES, completely accounted for the observed racial differences in physical health.[63]

Social Structure and Health Behavior

Understanding the role of the spiders in the social environment that affect health adversely also requires us to attend to the forces that initiate, facilitate, and encourage unhealthy behaviors on the part of vulnerable communities. After all, the major risk factors for the burden of chronic disease in our society are preventable.[64] Similarly, the major risk factors for the excess level of disease and death for African-Americans are also preventable.[65] For example, cigarette smoking or alcohol use are risk factors for five of the six causes of death responsible for the excess mortality in the black population.

Much research on health behaviors views them simply as individual characteristics and ignores the larger forces in the social environment that are consequential for the initiation and maintenance of health practices.[66] Alcohol, for example, is a mood-altering substance that is frequently utilized to obtain relief from adverse

living and working conditions induced by large social structures and processes. Feelings of powerlessness and helplessness are predictors of drinking frequency, quantity, and problems.[67] Alcohol consumption is positively related to the unemployment rate and increases during economic recessions.[68] There is also a strong positive association between the availability of alcohol and alcohol consumption.[68] Thus, state licensing boards that have permitted more retail outlets for the sale of alcohol in poor and minority neighborhoods than in affluent areas[69] contribute to alcohol abuse in those areas. Vulnerable populations, such as blacks and Hispanics, have also been targeted by the alcohol industry. For example, 80% of billboards in the United States contain advertisements targeted to African-Americans and Hispanics.[70,71] Alcohol ranks second to cigarettes as the most heavily advertised product on this medium. Similarly, levels of tobacco use for the black and Hispanic populations reflect the cooperative efforts of a broad range of governmental and commercial interests to initiate and maintain cigarette use within these populations. Thus, efforts to change health behaviors must target not only the individual, but also must move upstream to change the social structures that constrain individual behavior.

The Area Effect

If we take seriously the role of the social environment, we will need to devote more attention to the characteristics of neighborhoods, cities, and societies that can lead to health problems. In addition to studying individuals, we need to give more attention to areas. This is especially true in racial comparisons, given the role of racial residential segregation in determining the quality of schools, police protection, access to jobs, tax assessments, exposure to environmental risks, and a broad range of quality-of-life indicators. Research suggests that, regardless of individual or household characteristics, black and white neighborhoods differ dramatically in the availability of jobs, family structure, opportunities for marriage, and exposure to conventional role models.[72] Area-based indicators may capture important aspects of the social context over and above the aggregation of individual characteristics.

Research by Sampson and Wilson indicates that concentrated poverty, black male joblessness, and residential instability lead to high rates of family disruption, which in turn accounts for the levels of violent crime. Importantly, the association between these factors and crime for whites was almost identical in size and magnitude with the association for blacks. "The sources of violent crime appear to be remarkably invariant across race and rooted instead in the structural differences among communities, cities, and states in economic and family organization" (p. 41).[72]

Research also indicates that residence in highly segregated areas adversely affects health.[73,74] Other studies reveal that the differential concentration of blacks in deprived residential contexts importantly contributes to observed racial differences in health. Lillie-Blanton and colleagues[75] found that, in the National Household Survey on Drug Abuse, the higher rates of cocaine use by blacks and Hispanics compared with whites could be explained completely when the respondents were grouped into neighborhood clusters based on US Census characteristics. Similarly, a study in New Jersey compared death rates for various demographic groups for three cities (Camden, Newark, and Trenton, which had high levels of marginal urban areas and unwanted land use) with the mortality rates for the rest of the state.[76] The analyses revealed that homicide rates were higher in marginal areas for whites, blacks, and Hispanics, and males as well as females. However, it may not be possible to control fully for ecological characteristics in black-white comparisons. That is, even among the poor, blacks and whites do not live in the same neighborhoods in terms of concentrated poverty or family disruption.[72] In the 171 largest cities in the United States, there is not even one city where whites live in ecological equality to blacks in terms of poverty rates or rates of single-parent households. Sampson and Wilson concluded that "the worst urban context in which whites reside is considerably better than the average context of black communities" (p. 41).[72]

It must be remembered that the key pathogenic characteristics of areas—residential instability, concentrated poverty, male joblessness, single-parent households, the nature of housing projects—are all the direct results of explicit policies by the government and other societal institutions. The decision to get married, for example, is a most intimate and personal decision. However, marriage rates do not arise out of thin air or simply out of skewed family values. Instead, they are shaped by the larger social environment. The likelihood of getting married is linked to larger economic processes. Unemployment, declines in income, and high job turnover are all associated with increased rates of marital dissolution; the number of female-headed households declines when male earnings rise and rises when male unemployment increases.[77] There is an inverse relationship between employment opportunities for black males and the rates of female-headed households.[1] One of the most important things that can be done to improve the socioeconomic status, and thus the health, of the black population is to reduce the economic marginalization of African-American males.

Health-Enhancing Resources

There is a paradox in African-American health that should also be considered. It was noted above that suicide, a mental health outcome, was the only one of

the 15 leading causes of death in the US that was markedly lower for blacks than whites. Data from the Epidemiologic Catchment Area (ECA) study, the largest study of psychiatric disorders ever conducted in the United States, reveal that compared with whites, blacks tend to have similar or lower rates of mental illness.[78] The ECA interviewed a sample of almost 20,000 Americans, including persons who had been treated and those who had not. Rates of depressive disorders and alcohol and drug abuse are very similar for blacks and whites. Rates of schizophrenia are slightly higher for blacks, but the difference is not significant when differences in socioeconomic status is controlled. Recent data from the first study used in a national probability survey to assess psychiatric disorders in the US are even more striking.[79] In this study of over 8,000 adults, blacks had rates of mental illness that were lower than those of whites. Lower rates for blacks than whites were particularly pronounced for the affective disorders (depression) and the substance use disorders (alcohol and drug abuse).

Thus, although blacks confront a broad range of social conditions that are risk factors for mental illness, they do not have higher rates of suicide or higher rates of mental illness than whites. These findings emphasize the need for renewed attention to identify the cultural strengths and health-enhancing resources within the black community. Two social institutions—the family and the church—stand out as crucial for the black population. Strong family ties and an extended family system are important resources that may reduce some of the negative effects of stress on the health of black Americans. At the same time, a recognition of the strengths of black families should not be used to romanticize them as if they were a panacea for a broad range of adverse living conditions. While these networks of mutual aid and support do facilitate survival, they are also likely to provide both stress and support. Moreover, it is likely that cutbacks in government-provided social services in recent years have increased the burdens and demands on the support services provided by the black family.

The black American church has been the most important social institution in the black community. These churches have historically been centers of spiritual, social, and political life. Recent studies of African-American churches document that, as in the past, they are involved in providing a broad range of social and human services to the black community.[80-82] At least some black churches also serve as a conduit to the formal mental health system,[83] and the African-American clergy are actively involved in directly providing mental health services to the community.[84,85] Other research indicates that congregation-based friendship networks in black churches function as a type of extended family and provide supportive social relationships to individuals.[86] In addition, the high level of religious involvement on the part of black Americans may also reduce the ad-

verse consequences of stressful living conditions and promote their psychological well-being. Griffith and colleagues have documented that participation in black church services can provide therapeutic benefits similar to those obtained in formal psychotherapy.[87,88] The expression of emotion and active congregational participation that is characteristic of some African-American churches can promote a collective catharsis that facilitates the reduction of tension and the release of emotional stress.[89]

CONCLUSION

Cooper and colleagues have noted that the forces affecting the health of minority populations are the same forces, on a less intensive scale, that affect the health of the overall population.[90] That is, we can view the health of the African-American population as the visible tip of an iceberg. This tip of the iceberg is a function of the average health of the entire population. Thus, an effective strategy must address not only the tip, but also should attack the entire iceberg and reduce the risk that it is creating throughout the population. Similarly, Wallace and Wallace have shown how the mechanisms of hierarchical diffusion, spatial contagion, and network diffusion lead to the spread of health and social problems initially confined in inner cities to suburban areas and smaller cities.[91] That is, because of the economic links tying various communities together, there are mechanisms that will ensure the diffusion of disease and disorder from one area to another. If unaddressed, the problems of stigmatized and marginalized urban populations will have adverse impacts on the health, well-being, and quality of life of the more affluent. Thus, investments that will improve the social conditions of a marginalized population can have long-term positive health and social consequences for the entire society.

In summary, there are large and pervasive racial differences in health. Their causes are not obscure and unknown. The roots of black-white differences in health are not due primarily to differences in beliefs and biology. Instead, they are driven by fundamental societal inequalities. Today, we can make a new commitment to liberty, justice, and equality for all by mustering the political will to eliminate some of the fundamental inequities in society that lie at the foundation of health disparities.

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