

## **CHANGING PLACES**





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HOW COMMUNITIES WILL IMPROVE  
THE HEALTH OF BOYS OF COLOR

**Edited by Christopher Edley Jr.  
and Jorge Ruiz de Velasco**

With a foreword by Robert Phillips



The Chief Justice Earl Warren Institute on Race, Ethnicity and Diversity at the University of California at Berkeley School of Law is a multidisciplinary, collaborative venture to produce research, research-based policy analysis, and curricular innovation on issues of racial and ethnic justice in California and the nation.

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*Cover:* The cover image was designed by Oakland, California-based printmaker and digital artist Favianna Rodriguez. Using high-contrast colors and vivid figures, her composites reflect literal and imaginative migration, global community, and interdependence. She has lectured widely on the use of art in civic engagement and the work of bridging community and museum, local and international. Rodriguez is coeditor of *Reproduce and Revolt!* with stencil artist and art critic Josh MacPhee (Soft Skull Press, 2008). An unprecedented contribution to the Creative Commons, this two-hundred-page book contains more than six hundred bold, high-quality black and white illustrations for royalty-free creative use. Rodriguez's artwork also appears in *The Design of Dissent* (Rockport Publishers, 2006), *Peace Signs: The Anti-War Movement Illustrated* (Edition Olms, 2004), and *The Triumph of Our Communities: Four Decades of Mexican Art* (Bilingual Review Press, 2005).

**IMPROVING THE HEALTH  
OF YOUNG MEN AND BOYS OF COLOR**

Natalie Slopen and David R. Williams

**ABSTRACT**

In the United States there are pronounced disparities in health by race, ethnicity, class, and gender for a wide range of outcomes, and research suggests that young men and boys of color are particularly at risk. This chapter presents data on the health of young men and boys of color, and describes how these disparities are shaped by disadvantaged contexts and unequal opportunities. A variety of social factors—including early life conditions, education and employment opportunities, neighborhood conditions, the criminal justice system, health care, and experiences of discrimination— affect the health of young men and boys of color and the disparities that are observed. We review a growing body of research on promising strategies to reduce health disparities and to promote physical and mental health among young men and boys of color in the United States. This chapter considers examples of (1) targeted initiatives designed to improve specific health outcomes or behaviors, and (2) broader initiatives designed to address social conditions that impact multiple health outcomes. We provide examples of strategies that can be implemented by schools, community-based organizations, private-public partnerships, and governments.

**INTRODUCTION**

Good health is not only the foundation of a productive society. It is also an essential prerequisite for young men of color to achieve social and economic success. This chapter uses the term “health” globally to capture indica-

tors of physical and mental health status as well as indicators of high-risk behavior. Healthy minds and bodies enable youth to learn, to embark on positive developmental trajectories, and to become active and productive citizens. Healthy child and adolescent development is shaped by multiple layers of social factors—from the family to neighborhood settings to state and federal policies (Bronfenbrenner 1979). National health statistics reveal striking disparities in health by race, ethnicity, and socioeconomic status among males in the United States, beginning early in life and continuing throughout adolescence and adulthood (Mulye et al. 2009; Williams 2003). We argue that health disparities by race, ethnicity, and socioeconomic status are rooted in social and contextual disadvantage, shaped by a history of unequal opportunities and discriminatory practices. Although there have been considerable improvements in the life chances of African American and Latino men over the past several decades (Satcher 2003), young men and boys of color continue to encounter powerful inequities that contribute to poorer life chances regarding education, employment, housing, residential environments, nutrition, and health care—all of which affect health.

The racial and ethnic composition of the U.S. population is undergoing dramatic change. By the year 2050 black, Hispanic, Asian, and American Indian adolescents will make up 56 percent of the total adolescent population (MacKay, Fingerhut, and Duran 2000). While eliminating disparities in health by race and ethnicity is important in its own right, the health of youth of color will have large implications for the overall health of the nation. In the first section of this chapter, we profile the health of young men and boys in the United States and discuss contextual factors that contribute to patterns of health in this population. In the second section, we review interventions and social policies that have the potential to promote the physical and mental health of young men and boys of color. We recognize that the racial and ethnic categories we discuss encompass heterogeneous populations with dramatic variation in socioeconomic status, health status, and length of time in the United States.

### **PART 1: HEALTH PROFILE AND SOCIAL DETERMINANTS OF HEALTH**

National surveillance data are essential for identifying disparities by race and gender in the United States. Below, we provide an overview of disparities by race and gender in mortality, health outcomes, and health behaviors, as well as social determinants of the health of young men and boys of color.

*Mortality.* In the United States, as in almost all other countries in the world, men generally die earlier than women (Doyal 2000). In 2007, U.S. life expectancy was 80.4 years for women and 75.3 years for men (Xu, Kochanek, and Tejada-Vera 2009). Racial disparities combine with gender disparities to create pronounced risk of premature mortality among men of color: in 2007, for example, the life expectancy for white females was 80.7 years, while the life expectancy for black males was 70.2 years (ibid.). Disparities in mortality by gender and race are evident across the life span, including adolescence and young adulthood. Table 11.1 presents death rates for adolescent and young adult age groups by race/ethnicity and gender. Death rates for minorities are compared with those of whites; and death rates for males are compared with those of females. These data illustrate that compared to white males, black and American Indian or Alaska Native males have higher death rates, while Hispanics tend to have comparable or slightly elevated rates and Asian/Pacific Islander males have lower rates. For all racial groups the mortality rate for males is consistently higher than for females, with the gender ratios highest in early adulthood.

Table 11.2 presents mortality rates, minority/white ratios, and gender ratios for the three leading causes of death for individuals ages ten to twenty-nine (motor vehicle accidents [MVAs], homicide, and suicide). Across all racial and ethnic categories, males have markedly higher death rates than females for each of these causes of death. Native American males have death rates from MVAs and suicide that are twice those of whites, while all other groups have rates that are equivalent to or lower than those of whites. All minority males have homicide death rates that are higher than those of whites, with the homicide rate for African American males dramatically higher than that of all other racial groups and eighteen times higher than that of their white peers.

*Violence.* Disparities by race and ethnicity are also evident in youth risk behaviors. Violence is one of the most serious public health issues facing all youth, with young men being more likely than other groups to be both perpetrators and victims of violence (World Health Organization [WHO]). In 2006 more than half of all individuals arrested for murder were under the age of twenty-five (Centers for Disease Control [CDC] 2008). Table 11.3 presents national data on violence behaviors among high school males ages twelve to seventeen in 2007, stratified by race and ethnicity (CDC 2009d). Overall, nearly one-third of males reported carrying a weapon at least once in the past thirty days (28.5 percent), 9 percent reported carrying a gun, and 40 percent indicated that they had been in at least one physical fight in the past year. Asian males have low rates of these behaviors, but all

**Table 11.1** Age-specific mortality rates by race/ethnicity and gender, 2006

Age	Mortality rates (per 100,000)				
	White	Black	Hispanic	American Indian or Alaska Native	Asian/ Pacific Islander
<b>Males</b>					
10–14	18.0	27.6	19.3	23.5	12.4
15–19	79.0	134.7	98.0	155.9	51.1
20–24	136.5	223.0	141.4	229.7	72.4
25–34	141.1	266.0	112.7	264.6	53.8
<b>Females</b>					
10–14	11.9	18.4	13.7	22.2	9.8
15–19	38.1	38.2	30.5	79.8	23.8
20–24	47.6	68.6	40.0	82.0	27.9
25–34	62.5	111.4	43.1	121.2	28.8
<b>Male/female ratios</b>					
10–14	1.5	1.5	1.4	1.1	1.3
15–19	2.1	3.5	3.2	2.0	2.1
20–24	2.9	3.3	3.5	2.8	2.6
25–34	2.3	2.4	2.6	2.2	1.9

SOURCE: CDC and National Center for Health Statistics 2009.

NOTE: White, black, American Indian or Alaska Native, and Asian/Pacific Islander categories exclude Hispanics.

other minority groups tend to have comparable or higher rates than whites. Data reveal that disparities in exposure to violence begin very early in life, with black and Latino children ages two to seventeen being much more likely than their white counterparts to witness a shooting and experience the murder of someone close to them (Finkelhor et al. 2005).

*Mental health and suicidal ideation.* The World Health Organization has identified mental illnesses to be among the most serious and burdensome of all health conditions (WHO 2008). They are estimated to affect 20 percent of Americans each year (U.S. Department of Health and Human Services 1999). Major depression, for example, is more disabling than heart disease, arthritis, asthma, and diabetes (Moussavi et al. 2007).

Minority/white ratios				
White	Black	Hispanic	American Indian or Alaska Native	Asian/ Pacific Islander
1.0	1.5	1.1	1.3	0.7
1.0	1.7	1.2	2.0	0.6
1.0	1.6	1.0	1.7	0.5
1.0	1.9	0.8	1.9	0.4
1.0	1.5	1.2	1.9	0.8
1.0	1.0	0.8	2.1	0.6
1.0	1.4	0.8	1.7	0.6
1.0	1.8	0.7	1.9	0.5

Adolescence and young adulthood are important moments for emergent mental health problems to be identified and treated (Mulye et al. 2009), as research indicates that nearly half of all lifetime cases of mental illness begin by age fourteen and three-quarters of all lifetime cases occur before age twenty-four (Kessler et al. 2005). Table 11.3 presents national data on symptoms of depression and suicidal ideation among male high school students ages twelve to seventeen in 2007, overall and stratified by race and ethnicity (CDC 2009d).

Approximately one in five males reported feeling sad or hopeless almost every day for two or more weeks in a row; Hispanic males were most likely to report this condition (30 percent). About 10 percent of males reported

**Table 11.2** Mortality rates for ages ten to twenty-nine by race/ethnicity and gender, 2006

Cause of death	Mortality rates (per 100,000)				
	White	Black	Hispanic	American Indian or Alaska Native	Asian/Pacific Islander
<b>Males</b>					
Motor vehicle	27.4	23.2	29.2	55.0	12.0
Homicide	3.9	71.2	22.2	21.6	7.7
Suicide	15.3	9.8	8.8	30.7	8.9
<b>Females</b>					
Motor vehicle	11.6	8.3	8.7	26.2	5.3
Homicide	1.7	8.6	2.9	3.1	1.3
Suicide	3.3	1.5	2.1	9.5	3.1
<b>Male/female ratios</b>					
Motor vehicle	2.4	2.8	3.4	2.1	2.3
Homicide	2.3	8.3	7.4	7.0	5.9
Suicide	4.6	6.5	4.2	3.2	2.9

SOURCE: National Center for Injury Prevention and Control 2006.

NOTE: White, black, American Indian or Alaska Native, and Asian/Pacific Islander categories exclude Hispanics.

that they had seriously considered attempting suicide in the past twelve months, and all minority groups considered here were more likely than white students to report this behavior. A variety of adverse consequences are associated with child and adolescent mental disorders, including high school dropout, sexual risk behaviors, poor physical health, impaired social relationships, and substance disorders in adulthood (Lewinsohn et al. 1999; Reinherz et al. 1999).

*Substance use and unintentional injury.* Alcohol, tobacco, and other illegal drugs can pose significant health risks, both in the short term and over time. Consumption of these substances often begins in adolescence, peaks in young adulthood, and then declines with age (SAMHSA 2009). Adolescent males and females (ages twelve to seventeen) report similar rates of cigarette use (10 percent), but males are more likely than females to engage in a variety of alcohol-related risk behaviors and illicit substance

Minority/white ratios				
White	Black	Hispanic	American Indian or Alaska Nati(ve	Asian/ Pacific Islander
1.0	0.8	1.1	2.0	0.4
1.0	18.3	5.7	5.5	2.0
1.0	0.6	0.6	2.0	0.6
1.0	0.7	0.8	2.3	0.5
1.0	5.1	1.8	1.8	0.8
1.0	0.5	0.6	2.9	0.9

use (ibid.). Table 11.3 presents national 2007 data on tobacco, alcohol, and other drug use among high school males ages twelve to seventeen. Blacks and Asians have markedly lower rates of cigarette use, heavy drinking, drinking and driving, and cocaine use than whites. Lifetime marijuana and cocaine use were reported most frequently by American Indian or Alaska Native males, and least frequently by Asian and Native Hawaiian males.

*Body weight and physical inactivity.* The proportion of adolescents who are overweight or obese has rapidly escalated in the United States over the past several decades. Recent estimates show that a third of U.S. adolescents (34.4 percent) are overweight or obese (Ogden, Carroll, and Flegal 2008). Children and adolescents of color are more likely to be overweight and obese than white children and adolescents (Caprio et al. 2008). Table 11.3 shows that compared with white adolescents, Native Hawaiians and Asians have low rates of obesity, while members of other minority

**Table 11.3** Youth Risk Behavior Surveillance System, 2007:  
Risk behaviors and health status among males ages twelve  
to seventeen years, stratified by race and ethnicity

	White	Hispanic	Black
<b>Violence</b>			
Carried a weapon <sup>a</sup>	30.3% (2.0)	28.2% (1.8)	24.6% (1.3)
Carried a gun <sup>a</sup>	7.8 (0.8)	10.4 (1.0)	11.2 (1.4)
Physical fight <sup>b</sup>	41.9 (1.3)	47.3 (1.6)	50.3 (2.3)
Threatened or injured with weapon at school <sup>b</sup>	9.2 (0.7)	12.0 (0.9)	11.2 (1.3)
<b>Mental health and suicide</b>			
Attempted suicide <sup>b</sup>	3.4 (0.4)	6.3 (0.6)	5.5 (0.8)
Feeling sad or hopeless longer than two weeks <sup>b</sup>	17.8 (0.9)	30.4 (1.9)	24.0 (1.5)
<b>Substance use and unintentional injury</b>			
Lifetime daily cigarette use	15.8 (1.5)	8.9 (0.9)	7.3 (1.0)
Alcohol use before age thirteen	25.0 (2.1)	33.6 (1.3)	30.8 (2.2)
Episodic heavy drinking <sup>1, a</sup>	31.8 (1.8)	28.3 (2.2)	14.5 (1.3)
Lifetime marijuana use	41.8 (1.75)	42.0 (2.9)	44.5 (2.8)
Lifetime cocaine use	7.9 (0.7)	11.5 (1.7)	2.8 (0.8)
Rode with drunk driver <sup>a</sup>	27.8 (1.4)	36.0 (2.1)	28.1 (2.3)
Drinking and driving <sup>a</sup>	13.9 (0.9)	13.0 (1.6)	7.5 (1.3)
<b>Physical activity, overweight</b>			
Inadequate physical activity <sup>2, c</sup>	53.9 (1.7)	61.4 (1.6)	58.7 (1.2)
Overweight (>85th, <95th percentile) <sup>3</sup>	15.7 (0.7)	18.3 (1.2)	16.6 (1.3)
Obese (>95th percentile) <sup>3</sup>	14.6 (0.8)	20.3 (1.3)	18.9 (1.5)
Watched TV more than three hours on average per day	30.4 (1.2)	42.4 (2.8)	64.7 (1.3)
<b>Reproductive health</b>			
Sex before age thirteen	5.7 (10.1)	11.9 (0.9)	26.2 (1.6)
Four or more sex partners	12.2 (1.3)	23.3 (1.5)	37.6 (2.0)
Condom use at last sexual intercourse	66.4 (2.1)	69.9 (2.2)	74.0 (2.0)

SOURCE: CDC 2009d.

NOTE: Numbers in parentheses reflect standard error

\* Cell size is <20, therefore estimates may be unstable. Hispanics are not included in any category other than the Hispanic category.

Multiracial	Native Hawaiian	Asian	American Indian or Alaska Native	p
28.7% (4.7)	27.6% (5.8)*	12.6% (2.2)	26.6% (3.4)	0.0054
11.3 (3.8)	7.9 (4.3)*	3.8 (1.1)*	16.3 (2.3)	0.0034
59.1 (5.4)	60.9 (8.1)	33.9 (4.4)	41.0 (2.4)	0.0010
18.1 (3.9)	7.7 (3.3)*	10.5 (3.3)	6.9 (2.0)*	0.1960
8.8 (3.2)*	9.6 (5.6)*	6.2 (2.0)*	8.3 (2.3)*	0.0017
21.9 (4.3)	29.4 (6.4)*	21.6 (3.5)	15.5 (2.3)	<0.0001
9.5 (2.4)*	5.4 (3.7)*	6.3 (2.4)*	15.5 (1.6)	<0.0001
35.5 (4.8)	31.7 (6.7)*	19.7 (3.0)	22.8 (2.0)	0.0008
27.1 (4.1)	23.3 (5.3)*	15.0 (3.5)	23.8 (2.1)	<0.0001
42.3 (5.1)	35.3 (5.9)	21.6 (4.3)	55.4 (8.9)	0.0356
6.2 (2.1)*	4.0 (2.1)*	4.9 (2.0)*	13.7 (2.5)	<0.0001
30.4 (4.4)	32.5 (8.6)*	26.2 (3.5)	27.4 (1.7)	0.0170
18.5 (4.2)	13.4 (5.6)*	8.6 (2.5)*	15.0 (1.5)	0.0013
51.8 (5.0)	46.1 (9.1)	66.8 (3.8)	66.1 (3.6)	0.0083
17.6 (4.4)	18.1 (7.0)*	18.1 (2.3)	24.1 (1.7)	0.5575
20.2 (4.1)	11.7 (4.7)*	11.4 (2.9)	23.0 (2.8)	0.0003
36.2 (4.0)	39.5 (7.2)*	25.0 (4.0)	36.1 (1.5)	<0.0001
15.2 (3.6)	18.8 (7.0)*	5.2 (2.2)*	5.7 (2.2)*	<0.0001
21.8 (4.4)	21.9 (6.6)*	5.0 (1.5)*	11.5 (3.3)	<0.0001
60.7 (9.4)	68.7 (11.3)*	68.3 (12.5)*	59.1 (4.0)	0.1304

<sup>1</sup> Consumed five or more drinks on the same occasion.

<sup>2</sup> Any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least sixty minutes at least five times a week.

<sup>3</sup> Based on 2000 CDC growth charts.

<sup>a</sup> Occurred one or more times in the past thirty days.

<sup>b</sup> Occurred one or more times in the past twelve months.

<sup>c</sup> In the past seven days.

groups have elevated rates. Research also indicates that children and adolescents from families with low socioeconomic status are more likely to be obese than children from families with higher incomes (Wang and Beydoun 2007). Youth obesity is a pressing public health concern, given a demonstrated association between obesity and lower school performance (Crosnoe and Muller 2004). In addition, overweight children and adolescents are at increased risk of becoming overweight adults (Dietz 1998), and adult obesity is associated with elevated risk of multiple diseases (Must et al. 1999). Over the past forty years changing social conditions have affected children's and adolescents' access to healthy foods and engagement in physical activity, resulting in a greater number of overweight and obese adults (Brownell et al. 2009). Table 11.3 reveals high levels of inadequate physical activity among adolescent males, with two-thirds of Asians and American Indians or Alaska Natives reporting insufficient physical exercise, according to CDC recommendations (CDC 2009d).

*Reproductive health and sexually transmitted infections.* Adolescence and young adulthood is a time when many males and females begin to engage in sexual activity (Gavin et al. 2009). Approximately 30 percent of males and females ages fifteen to seventeen have had at least one sexual experience with another person, and this increases to more than 85 percent by ages twenty to twenty-four (ibid.). Table 11.3 shows that Hispanic, multiracial, Native Hawaiian, and especially African American boys are more likely than whites to report having sex before age thirteen. Moreover, 25 percent to 40 percent of all males ages twelve to seventeen reported that they had not used a condom during their last sexual encounter involving intercourse. The prevalence of sexually transmitted infections (STI) in the adolescent and young population is substantial. The 2003–2004 National Health and Nutritional Examination Survey (NHANES) reported that 24 percent of females ages fourteen to nineteen had at least one of five STIs considered in their study, while 38 percent of females who were sexually active had at least one of the STIs they were tested for (Forhan et al. 2009). A comparable analysis for males has not yet been published, but these data suggest that the prevalence of STIs among adolescent males is also high.

Table 11.4 shows significant differences by race and ethnicity in rates of chlamydia, gonorrhea, and syphilis for individuals ages fifteen to twenty-nine (CDC 2009c). For all racial groups females are disproportionately affected by chlamydia and gonorrhea, while males are more likely than females to have syphilis. At the same time, for both males and females, there are striking disparities by race in the rates of STIs: young people of color, with the exception of Asians, have higher rates of STIs relative to

**Table 11.4** Sexually transmitted infections rates (per 100,000) for ages fifteen to twenty-nine, by gender, race, and ethnicity, United States 2008

	Rate per 100,000		Gender ratio	Minority/white ratio	
	Female	Male	Female:	Females	Males
			Male		
<b>Chlamydia</b>					
African America	5735.0	2241.1	2.6	6.3	9.5
Hispanic	2005.3	540.6	3.7	2.2	2.3
American Indian or Alaska Native	3074.5	755.9	4.1	3.4	3.2
Asian/Pacific Islander	663.4	172.1	3.9	0.7	0.7
White	916.8	235.4	3.9	1.0	1.0
<b>Gonorrhea</b>					
African American	1819.0	1421.7	1.3	13.7	27.9
Hispanic	191.3	128.2	1.5	1.4	2.5
American Indian or Alaska Native	357.1	155.9	2.3	2.7	3.1
Asian/Pacific Islander	61.1	39.9	1.5	0.5	0.8
White	132.5	50.9	2.6	1.0	1.0
<b>Syphilis</b>					
African American	18.8	51.7	0.4	16.6	11.4
Hispanic	2.1	12.1	0.2	1.8	2.7
American Indian or Alaska Native	2.5	5.8	0.4	2.2	1.3
Asian/Pacific Islander	0.4	5.1	0.1	0.4	1.1
White	1.1	4.6	0.2	1.0	1.0

SOURCE: CDC 2009c.

NOTES: White, black, American Indian or Alaska Native, and Asian/Pacific Islander categories exclude Hispanics.

whites, and this difference is especially pronounced for African Americans. Other data show that young men and boys of color are disproportionately affected by HIV: within the thirty-four states that collect confidential name-based HIV reporting, 69 percent of adolescents (thirteen to nineteen years old) who received HIV diagnoses in 2007 were male (CDC 2009b).

While African Americans comprised 17 percent of adolescents ages thirteen to nineteen, 72 percent of individuals diagnosed with HIV in this age group were African American (CDC 2009b).

It is worth noting that comparisons of STI rates by race and ethnicity from clinic surveillance reports may be inaccurate because of differential STI reporting based on location of screening (that is, public or private clinic) (Ross et al. 2004; Ross and Fernandez-Esquer 2005). Some evidence suggests that there may be (1) underreporting of cases at private clinics compared with public clinics, and (2) private clinics may be less likely to report racial and ethnic information along with confirmed cases. These biases could artificially inflate observed disparities in the prevalence of infection by race and ethnicity, given that minorities are more likely than whites to visit public-sector reproductive health clinics (Frost 2001). However, population-based surveys, including NHANES (Forhan et al. 2009) and the National Longitudinal Study of Adolescent Health (Upchurch et al. 2004), indicate disparities in STI prevalence by race among adolescents, suggesting that resources to address these disparities must be allocated to high-risk populations.

### **Social Determinants of the Health of Young Men and Boys of Color**

A full understanding of disparities in health by race and gender requires attention to the social conditions in which health is embedded. There is wide variation in the physical and social conditions experienced by children and adolescents in the United States, and these conditions vary dramatically by race and ethnicity (Acevedo-Garcia et al. 2008). Below we discuss aspects of the physical and social environment that influence the health of young men and boys and that determine the magnitude of disparities by race and ethnicity.

*Migration status and health.* Migration status, including country of birth and the amount of time that an individual has spent in the United States, has implications for health. In 2006 approximately 10 percent of individuals ages fifteen to twenty-four were born outside of the United States; this population was predominantly comprised of Hispanic (63.5 percent) and Asian (21.1 percent) youth (Mulye et al. 2009). Hispanic youths (ages sixteen to twenty-five) born in the United States do better than their foreign-born counterparts on some indicators of well-being (Pew Hispanic Center 2009). For example, native-born Hispanic youths are less likely than first-generation Hispanic youths to have dropped out

of high school (9.9 percent versus 32.9 percent), to live in households below the poverty line (19 percent versus 29 percent), and to be without health insurance (31 percent versus 61 percent). However, on other indicators U.S.-born Hispanics have worse health and social outcomes than foreign-born Hispanic youths. Second-generation Hispanic youths are more likely than foreign-born Hispanic youths to have carried a weapon (8 percent versus 3 percent) or gotten in a fight (16 percent versus 7 percent) in the past year, to have been questioned by the police (26 percent versus 15 percent), or to have a friend or family member who has been involved in a gang (37 percent versus 17 percent).

Data from the National Longitudinal Study of Adolescent Health indicate that for both Asian and Hispanic groups, adolescents born outside of the United States are less likely to be obese than those born in the United States (Popkin and Udry 1998). For example, among Asian adolescents 11.6 percent of first-generation residents were obese, compared with 26.9 percent of second-generation Asian adolescents and 27.6 percent of third-generation Asian adolescents. This pattern is considered a paradox, because one might anticipate better health among individuals who have been in the United States for a longer period of time, given that length of stay is associated with higher socioeconomic status (Markides and Eschbach 2005).

*Socioeconomic status.* Greater income, higher levels of educational attainment, and higher occupational status are associated with better health behaviors, health outcomes, and longer life (Adler and Newman 2002). For example, education may lead to better employment prospects, more choices about where to live and what to eat, and increased opportunities to engage in health-promoting activities. National statistics indicate pronounced racial and ethnic disparities in educational attainment, for both high school graduation and college graduation. Data from 2009 indicate that the high school dropout rate for Latino youth (ages sixteen to twenty-five) is nearly three times the rate for white youth (17 percent versus 6 percent, respectively), and nearly twice the rate for black youth (9 percent) (Pew Hispanic Center 2009). Among Latino youth the most common reason for discontinuing school before college is financial pressure to support a family (ibid.). In 2008 only 61 percent of Hispanic males had a high school degree or more, in comparison with 86 percent of white males, 82 percent of black males, and 91 percent for Asian and Pacific Islander males. A similar pattern was observed for college degree attainment: 13 percent of Hispanic males had a college degree, in comparison with 30 percent of white males, 19 percent of black males, and 56 percent of Asian and Pacific Islander males (U.S. Census Bureau 2009a).

Since 1991, the proportion of women enrolled in college has exceeded that of men (Mather and Adams 2007), and women now earn 58 percent of all bachelor's degrees granted in the United States (Buchmann, DiPrete, and McDaniel 2008). Researchers have posited several reasons for this pattern: females are more likely than males to graduate from high school; men are more likely to delay college enrollment; and men drop out of college more often than women (Buchmann, DiPrete, and McDaniel 2008). To date, it is unclear why there are gender differences at each of these stages of academic development; accordingly, this issue should be considered priority for future research.

More education leads to increased opportunity for higher-paying, safe, and rewarding jobs with better benefits—all of which are potential pathways to better health. Work can affect health by providing income and benefits, social support, and a sense of purpose and identity. In the third quarter of 2009, among youth ages sixteen to twenty-five, 47 percent of Hispanic youth were employed in comparison with 56.0 percent of white youth, 37 percent of black youth, and 41 percent of Asian youth. Black youth had the highest unemployment rate (28 percent), followed by Hispanics (20 percent), Asians (16 percent), and whites (15 percent) (Pew Hispanic Center 2009). Structural labor-market conditions, including a reduction in the number of jobs matching the education and skill levels of urban residents, make it difficult for young males of color to avoid joblessness in the United States (Wilson 1987; Corcoran 1995). The effect of male unemployment is far-reaching: male joblessness is associated with a reduction in marriage rates, and with increases in the number of children being raised by a single parent (Corcoran 1995; Wilson 1987).

*Early life socioeconomic conditions.* Health and health behaviors are also affected by social contexts early in life. A large body of research describes the negative effects of poverty on the health and academic success of children and adolescents (Evans 2004; Brooks-Gunn and Duncan 1997). For example, compared with economically advantaged children, poor children are exposed to a wide variety of social and environmental inequities, including lower-quality housing, air, water, neighborhoods, and schools (Evans 2004). Poor parents often lack material resources to invest in their children and have less time and energy to devote to caretaking (Corcoran 1995).

Poverty is not distributed equally across racial and ethnic groups in the United States. In 2007, 34 percent of African American children lived in households below the poverty line, as did 28 percent of Hispanic children, 12 percent of Asian and Pacific Islander children, and 14 percent of white children (U.S. Census Bureau 2009b). Children living in female-headed

households were particularly at risk: within such households, approximately half of all black and Hispanic children were poor (52 percent and 50 percent, respectively), in contrast to a third of white children who were poor (32 percent) (Federal Interagency Forum on Child and Family Statistics 2009). For a substantial proportion of children who grow up poor, there are enduring socioeconomic consequences. On average, adults raised in poor families complete fewer years of school, earn lower incomes, and are more likely to be poor in adulthood relative to adults who do not come from a poor family (Corcoran 1995).

*Race, socioeconomic status, and health.* Socioeconomic status, which is patterned by race, may explain a substantial part of the observed racial and ethnic differences in health and risk profiles. For example, low socioeconomic status adolescents and young adults are at greater risk for sexually transmitted infections (Newbern et al. 2004; Buffardi et al. 2008). One national study of young adults (ages eighteen to twenty-seven) found that the presence of an STI was associated with housing insecurity and exposure to crime (Buffardi et al. 2008). However, complex patterns emerge when researchers examine the intersection of race, socioeconomic status, and health. Several studies have shown that the beneficial effects of socioeconomic status on health can differ by race and ethnicity (Farmer and Ferraro 2005).

Table 11.5 presents data on lifetime history of asthma among children (under eighteen years old) from the 2008 National Health Interview Survey, stratified by race, ethnicity, and the ratio of household income to the federal poverty line (FPL). Within each racial and ethnic category the percentage of children who have ever received a diagnosis of asthma becomes smaller as household income increases from less than 50 percent of the FPL to greater than or equal to 400 percent of the FPL. However, the decline in lifetime asthma prevalence is dramatically greater for white children (a 19 percent decrease) relative to black or Hispanic children (a 3 percent decrease for both groups). Table 11.5 illustrates that the disparities in asthma prevalence by race persist when household income is held constant and cannot simply be explained by variation in socioeconomic status across groups. These differences may be driven by noneconomic factors related to neighborhood environment, immigration, racism, and access to health care.

The persistence of differences by race at each level of income may also result from the *nonequivalence* of common indicators of socioeconomic status across race and ethnicity (Williams 1997). Research has documented that there are disparities by race in (1) quality of elementary and high school

**Table 11.5** Percentage of children (under age eighteen) who have ever received a diagnosis of asthma, by race/ethnicity and ratio of family income to the federal poverty threshold

Federal Poverty Threshold	White	Black	Hispanic
<50%	20.1% (4.5)	25.7% (4.6)	13.5% (2.8)
50–99	15.2 (3.8)	17.1 (3.3)	12.3 (2.0)
100–199	15.0 (1.8)	21.5 (2.9)	9.6 (1.4)
200–399	12.5 (1.3)	23.1 (2.8)	10.3 (1.9)
400+	12.7 (1.1)	22.7 (3.6)	10.7 (2.5)

SOURCE: National Center for Health Statistics 2008.

NOTES: Data is self-reported by a parent. Black and white categories exclude Hispanics. Numbers in parentheses reflect standard error.

education; (2) personal earnings at each level of education; (3) wealth and financial assets at a given level of income; and (4) the purchasing power of income, given that many goods and services can be more expensive in disadvantaged neighborhoods (*ibid.*; Williams and Collins 1995). As a consequence, the health-related advantages associated with common measures of socioeconomic status, such as household income, may differ by race and ethnicity.

*Family composition during childhood.* A child's family can play a key role in his or her health and development: family structure affects the emotional and financial resources that are available to children and adolescents during their formative years. In 1960, 6 percent of children in the United States lived in a household with a single parent; in 2008 it was estimated that more than 50 percent of all children will live in a single-parent home for some period of time before age eighteen (McLanahan and Percheski 2008). There is substantial variation by race in household composition: in 2008, for example, only 35 percent of black children lived in households with two parents married to each other, compared with 64 percent of Hispanic children and 75 percent of white children (Federal Interagency Forum on Child and Family Statistics 2009). Single-parent households can present challenges for successful child development; one salary often means there is less money available (Painter and Levine 2004), and, as a result, the child may be more likely to grow up in a poor household and neighborhood.

Studies generally find that children raised in single-parent homes perform worse on measures of school success (such as standardized achieve-

ment tests and classroom grades) and are less likely to graduate from high school compared with children with continuously married parents (Amato 2005). They are also more likely to become sexually active at a younger age, use drugs, and engage in other illegal activities (Antecol and Bedard 2007). Research indicates that lower levels of parental monitoring and support, especially of males, are predictive of school truancy, delinquency, and a variety of health risk behaviors, including early sexual activity, substance use, and violence (Griffin et al. 2000; Li, Feigelman, and Stanton 2000; Hair et al. 2008). Sociologists report that the high proportion of poor and minority children in single-parent households in the United States perpetuates inequalities in American society (McLanahan and Percheski 2008).

*Neighborhood environment.* The neighborhood one lives in can greatly affect one's health and behaviors that have an impact on health (Leventhal and Brooks-Gunn 2000; Cohen et al. 2009). Neighborhood features affect child and adolescent health; relevant factors include the proximity to environmental hazards, the quality of housing and schools, employment opportunities, relationships among neighbors, frequency of crime and violence, the availability and quality of health services and other municipal services, affordable healthy food options, and opportunities for physical activity. There is an unequal distribution of these neighborhood features across communities as a result of residential segregation by race, considered to be a fundamental determinant of health disparities in the United States (Williams and Collins 2001).

National data reveal vast differences by race in neighborhood poverty rates for children. An analysis of the hundred largest metropolitan areas in the United States shows that 76 percent of African American children and 69 percent of Latino children reside in neighborhoods with poverty rates that are higher than those experienced by the most economically disadvantaged white children (Acevedo-Garcia et al. 2008). Children and adolescents of color are also more likely than nonminority children to live in neighborhoods that have high rates of crime and violence (Aisenberg and Herrenkohl 2008), fewer job opportunities (Boardman and Field 2002), and fewer health-related resources, including supermarkets (Moore and Roux 2006) and physicians (Komaromy et al. 1996). Studies indicate that neighborhood characteristics are associated with a range of health outcomes in children and adolescents, such as symptoms of depression (Xue et al. 2005), levels of physical activity (Franzini et al. 2009), and prevalence of asthma (Subramanian and Kennedy 2009).

*Incarceration.* Research suggests that incarceration is a social factor that contributes to disparities in health by race and gender (Iguchi et al.

2005). The incarceration rate in the United States is higher than in any other country in the world (Walmsley 2009), and young men of color are especially likely to serve time in jail or prison. In 2008 black males ages sixteen to twenty-five were more than twice as likely as Hispanic males and seven times more likely than white males to be incarcerated in federal, state, and local correctional facilities (7 percent versus 3 percent and 1 percent, respectively) (Pew Hispanic Center 2009). If incarceration rates remain constant, one in three black males, one in six Hispanic males, and one in seventeen white males will go to prison at some time during their lifetime (Bonczar 2003). Research has documented that incarceration has direct long-term effects on health (Schnittker and John 2007; Wang et al. 2009). A large cohort study found a positive association between incarceration in young adulthood and onset of high blood pressure, independent of family income and substance use (Wang et al. 2009).

The high rate of incarceration of young men of color has implications for the overall health and well-being of their communities and families. When men who are incarcerated reenter their communities, their access to public or private housing, employment opportunities, voting rights, welfare- and food-assistance programs, health services, and financial support for higher education may be limited (Iguchi et al. 2005; Williams 2007). High rates of incarceration also negatively affect communities by decreasing the number of potential male partners available to women. When a parent is imprisoned, families often suffer from financial instability and social stigma, and are deprived of social and caregiving support of the incarcerated parent (Travis and Waul 2003). More than 50 percent of adults who are incarcerated in federal and state prisons are parents of children under age eighteen (Harrison and Beck 2002). Children with an incarcerated parent are at increased risk for social and emotional difficulties and for engaging in criminal behavior in the future (Travis and Waul 2003).

*Experiences of discrimination.* Racial discrimination is another determinant of health disparities in the United States. The health of children and adolescents can be affected by multiple forms of racism; racial discrimination can occur at the institutional level, within interpersonal interactions, or in the form of internalized racism—that is, a self-imposed stigma of inferiority based on negative racial stereotypes that are held by dominant social groups (Jones 2000). Recent studies of adolescent populations have found an association between perceived discrimination and a range of outcomes, including symptoms of depression, behavioral problems, and violence (Brody et al. 2006; Caldwell et al. 2004), as well as lower levels of academic achievement (Wong, Eccles, and Sameroff 2003). Moreover, stud-

ies using adult populations indicate that perceived discrimination is associated with a broad range of behavioral and physical outcomes (Williams and Mohammed 2009).

Discrimination can also affect health through its impact on socioeconomic attainment. For example, a recent experimental study found that in a pool of white, black, and Latino male job applicants with equivalent resumes in New York City, the black applicants were half as likely than equally qualified white applicants to receive a callback or job offer (Pager, Western, and Bonikowski 2009). The study also revealed that New York City employers were just as likely to call back or hire white applicants with a felony conviction as to call back or hire black and Latino applicants with no criminal record.

*Health insurance and quality of health services.* Access to medical care varies by race, ethnicity, and socioeconomic status and can play a limited but important role in shaping the health of America's youth (McGinnis, Williams-Russo, and Knickman 2002). Health insurance enables individuals to obtain preventive as well as routine and emergency health care. Before the health-reform legislation that was passed on March 21, 2010, a high proportion of children in the United States were covered by health insurance. In 2007, 89 percent of children were covered for at least part of the year, either from a parent's private insurance plan or public insurance programs (Federal Interagency Forum on Child and Family Statistics 2009). However, nearly one in three young adults ages nineteen to twenty-six did not have insurance coverage (Holahan and Kenney 2008). Before the new legislation many adolescents and young adults lost the insurance they received from public insurance coverage or from their parent's insurance plan when they turned eighteen and did not have a job that offered an affordable health insurance option.

The new law, titled the Patient Protection and Affordable Care Act, specifies a variety of provisions to help adolescents, young adults, and low socioeconomic status individuals have greater access to health insurance. It will be critical to monitor the impact of this new law, not only regarding insurance coverage but also access to care and quality of care. Earlier research shows that minorities receive poorer-quality health care than whites, even after accounting for insurance status, socioeconomic status, and the severity of disease (Smedley, Stith, and Nelson 2003).

*Prevailing norms of masculinity.* Within American society there are cultural norms, expectations, and societal responses associated with stereotypical (heterosexual) masculine identity that can undermine men's health (Courtenay 2000). The stereotype of heterosexual male behavior is char-

acterized by aggressiveness, invulnerability, and independence (Moller-Leimkuhler 2003), which promotes behaviors that lead to crime, violence, car accidents, smoking, and excessive alcohol consumption (Doyal 2001). Norms of “masculinity” discourage men from seeking help from either health professionals or individuals within their social network. For instance, national data show that young men are less likely than women to see a physician, dentist, or mental health professional in a given year (CDC 2009a). Strategies to promote positive health and longevity among young men and boys of color will need to confront gender-normative behaviors that are hazardous for male health.

## **PART 2: STRATEGIES TO IMPROVE HEALTH**

Health disparities take a large toll on the national economy. Between 2003 and 2006 the cost of health disparities in the United States was in excess of \$1.24 trillion, as the result of preventable medical expenses, lost productivity, and premature death (LaVeist, Gaskin, and Richard 2009). This section of the chapter focuses on promising approaches to reduce health disparities and to promote health among young men and boys in the United States. We review examples of targeted initiatives designed to influence specific health outcomes or behaviors as well as broader initiatives designed to address social factors that impact multiple health outcomes. Given that racial, ethnic, and socioeconomic inequities in health develop from conception onward, interventions at multiple stages of the life course are discussed. We focus on evidence-based strategies and provide peer-reviewed evaluation information whenever possible.

### **Interventions Targeting Specific Health Behaviors and Outcomes**

Researchers, policymakers, and community organizers have developed a variety of interventions to address specific health behaviors and outcomes. Below we review promising strategies to reduce violence and substance use and to improve physical activity, nutrition, mental health, and reproductive health.

*Violence.* Over the past several decades there has been growing recognition that violence is preventable (WHO 2009). Youth-violence prevention requires an integrated set of programs and policies at local and state levels. Interventions that successfully reduce youth violence include school-based programming to address behaviors (Hahn et al. 2007; Park-Higerson et

al. 2008) as well as interventions that make changes to the broader social context in which violence occurs (Braga et al. 2001).

Operation CeaseFire has received national recognition as one of the most effective programs to prevent youth violence (National League of Cities 2009). It began in Boston in the mid-1990s and conceptualizes violence as an infectious disease that must be contained (Braga et al. 2001). Operation Ceasefire requires coordination among city, county, state, and federal law-enforcement agencies as well as service providers and city agencies, community and religious leaders, street workers, and researchers. The program relies heavily on street outreach in high-violence neighborhoods and recruits former offenders to reach out to youths involved in criminal activities and gangs. Outreach workers impress upon gang members that violence will not be tolerated. They also mentor and counsel at-risk youths, direct them toward nonviolent alternatives for diffusing conflict, and support their efforts to resist gang involvement. Outreach workers help clients seeking access to education, jobs, and services, including drug treatment (Skogan et al. 2009). Local community and religious groups participate by organizing marches, rallies, and prayer vigils to reinforce the community's commitment to nonviolence. A three-year study of Chicago's Operation Ceasefire funded by the U.S. Department of Justice (*ibid.*) found a decline in shootings ranging from 41 percent to 73 percent across the seven participating neighborhoods. Crime maps indicated that the geographic size and intensity of shooting hotspots decreased as a result of the program in more than half of the sites. More than seventy-five cities have adapted or replicated some aspects of this program (National League of Cities 2009; Ritter 2009).

*Physical activity and nutrition.* To prevent and control weight gain and obesity among children and adolescents in the United States, there is an urgent need for interventions that make environmental changes to promote physical activity and healthy dietary habits (Sallis and Glanz 2009). Children and adolescents face an overwhelming number of obesity-promoting factors in their daily lives. There is a potential for intervention within nearly every social context, including the household, schools, medical clinics, work sites, and communities. Accordingly, we need effective social policies on issues ranging from food advertising directed at youth to fast-food zoning regulations (Katz 2009). Evidence suggests that environmental and policy changes to improve access to affordable healthy food and opportunities to engage in regular physical activity hold promise for addressing child and adolescent obesity (Institute of Medicine 2005).

Schools are an obvious setting for obesity interventions targeting youth.

A recent review of the evidence on school-based interventions concluded there is “hopeful evidence” that school-based interventions can have a significant effect on students’ weight, although more research is needed to identify optimal school-based strategies (Katz 2009: 267). Numerous policies can be implemented in the school setting, including removal of junk foods and sugar-sweetened beverages in cafeterias and vending machines, increased availability of fresh fruits and vegetables, daily physical activity requirements, and lessons to teach students and families the principles of a healthy diet and how to interpret nutrition labels (*ibid.*).

The School Nutrition Policy Initiative is one example of a multicomponent, school-based intervention that has been evaluated in a randomized control trial. The initiative shows promise as an effective approach to obesity prevention (Foster et al. 2008). The trial enrolled Philadelphia students in grades 4 through 6 from ten urban schools with mainly minority and low socioeconomic status student populations. The intervention included school-environment improvements, nutrition policies, social marketing, nutrition education, and outreach to parents and guardians. Over a two-year period the intervention resulted in a 50 percent reduction in likelihood of becoming overweight: 7.5 percent of children in the intervention schools became overweight, as compared with 14.9 percent in the control schools.

Outside the school context policymakers and health officials should help low-income communities increase the availability of healthy affordable foods and increase opportunities for physical activity. The Pennsylvania Fresh Food Financing Initiative is an outstanding example of a public-private partnership to increase access to fresh foods in underserved communities across the state (Giang et al. 2008). This initiative provides grants and loans to help supermarkets and other fresh-food markets operate within communities where market owners require assistance beyond conventional loans. The stores have succeeded in providing low-income families greater access to affordable fresh foods while improving community-level economic vitality by creating jobs for community members and encouraging additional economic investment in local retail environments (Pennsylvania Fresh Food Financing Initiative 2009; Giang et al. 2008).

Research shows that physical and social neighborhood characteristics may affect levels of physical activity (Franzini et al. 2009; McDonald, Deakin, and Aalborg 2009) and body weight among youth (Jerrett et al. 2010). Interventions to improve neighborhood safety and provide access to parks and other recreational facilities may therefore help individuals to meet the recommended daily level of physical activity and lower the risk of being overweight. The Safe Routes to School National Partnership is a promising

federal initiative (Wendel and Dannenberg 2009), launched in 2005, that aims to increase physical activity among children and youth. This program provides resources for state and local governments to increase the safety and convenience of walking and biking. Evaluations of early forms of this program show that it can be effective in increasing the number of students who walk or bike to school (Staunton, Hubsmith, and Kallins 2003).

*Mental health.* To address the mental-health needs of young men and boys in the United States, we must (1) reframe mental-health disorders to reduce stigma, (2) expand access to mental-health care, and (3) utilize interventions to identify problems early, before they progress into more serious disorders. Stigma associated with mental disorders in the United States has been identified as a large barrier to mental-health treatment (Satcher 2003). Evidence suggests that stigma is particularly high among men of color (U.S. Department of Health and Human Services 2001). To date, there is limited knowledge about the impact and effectiveness of public-awareness campaigns to combat the stigma associated with mental illnesses (Dumesnil and Verger 2009). Culturally informed community-based campaigns should be designed and evaluated on their effectiveness in changing perceptions of mental-health disorders, and for their ability to encourage men and boys of color to use mental-health services with the same frequency as their white counterparts.

Schools are a natural site for mental-health prevention programs for children and adolescents, and programs may focus on either prevention of disorders in the general student body or provision of mental-health treatment for students at high risk for developing mental-health disorders or in need of ongoing mental health services. There have been some promising interventions for preventing behavior problems, anxiety, and depression, using approaches that target the general student population, as well as programs that target high-risk students (Waddell et al. 2007). Experts have recognized Cognitive Behavioral Intervention for Trauma in Schools (CBITS) as an effective early intervention to prevent serious mental-health disorders (RAND Corporation 2005) among students from diverse racial, ethnic, and socioeconomic backgrounds who have undergone a traumatic experience. CBITS is a skill-based intervention that was initially developed for ethnic minority and immigrant low-income youth in Los Angeles. Randomized control trials have demonstrated that youth who participate in CBITS show a significant reduction in posttraumatic stress and symptoms of depression in comparison to youth assigned to a control condition (Ngo et al. 2008).

*Substance use.* Childhood and adolescent use of tobacco, alcohol, and other drugs can be addressed using school-based prevention programs as

well as community-based and federal policies that reduce the availability of harmful substances. Reviews of school-based programs to prevent substance use suggest that the most effective school-level interventions are interactive; correct misperceptions that substance use is normative and acceptable; and include social skill training to increase a student's ability to refuse or resist harmful substances (Faggiano et al. 2008; Botvin and Griffin 2007). Research indicates that programs may be especially effective among racial and ethnic minority adolescents when culturally specific risk and protective factors (for example, racial identity, acculturation stress) are integrated into programs (Szapocznik et al. 2007; Prado et al. 2008).

It is also important to consider strategies that address the social context outside the school setting. There is evidence that both community campaigns and policy changes can establish zoning restrictions on tobacco and alcohol retail outlets (Ashe et al. 2003; Aboelata et al. 2004), which have the potential to reduce cigarette and alcohol advertising and sales to minors. The South Los Angeles Community Coalition provides an example of a successful community campaign to reduce the number of liquor stores, which community members perceived as a threat to the health and well-being of the community (Aboelata et al. 2004). In its first three years the community-based coalition shut down nearly two hundred operating liquor stores, and research indicates an average 27 percent reduction in violent crimes and felonies and drug-related felonies within a four-block radius of each store that closed.

The U.S. government enacted the Synar Amendment in 1992, requiring states to institute and enforce prohibitions on sales of tobacco to minors. This federal policy has shown to be effective in significantly reducing youth smoking, which emphasizes the importance of enforcing this law. A national study conducted between 1997 and 2003 estimated that a 21 percent reduction in the odds of smoking among tenth graders can be attributed to improved merchant compliance with laws prohibiting tobacco sales to minors (DiFranza, Savageau, and Fletcher 2009).

*Reproductive health and sexually transmitted infections.* A variety of school-based curricula and clinic-based interventions have demonstrated a positive impact on sexual-risk behaviors among the general population and among racial and ethnic minorities in particular (Darbes et al. 2008; Jemmott, Jemmott, and Fong 2010). Here we focus on community-based interventions that aim to reduce sexually transmitted infections among minority and low-income adolescents and young adults. Seen on da Streets, a Minneapolis-based intervention, was designed to increase STI testing among black males ages fifteen to twenty-four living in low-income neigh-

borhoods (Johnson, Harrison, and Sidebottom 2009). Seen on da Streets uses peer street-outreach workers to encourage men to practice safe sex and to improve detection and treatment of existing STIs. After Seen on da Streets had operated for just one year, the number of men seeking STI testing at community health centers affiliated with the project doubled (*ibid.*). In the first three years of the project, chlamydia rates increased by only 4 percent in Minneapolis, in comparison with 65 percent in other parts of the state; gonorrhea declined 2.2 percent in Minneapolis, while it increased by more than 50 percent elsewhere in Minnesota (Minneapolis Department of Health and Family Support 2010).

Studies have also shown that low-income housing developments may be an effective context for reducing risky sexual behavior. Using an experimental design, researchers randomly assigned fifteen low-income housing developments in five cities around the United States to one of two conditions; half of the housing developments received a health intervention to reduce high-risk sexual behaviors, while the other half did not receive this intervention (Sikkema et al. 2005). The intervention targeted adolescents ages twelve to seventeen and included skills training and neighborhood-based HIV prevention activities. Approximately 1.5 years after the intervention began, adolescents who lived in housing developments that received the community intervention were more likely to delay first sexual intercourse, and to report using a condom at last intercourse, than adolescents in housing developments without this intervention.

Given that poverty is widely recognized as a social risk factor for HIV/AIDS, HIV/AIDS-prevention interventions that address poverty may be effective in reducing frequency of infection. There has been emerging interest in microfinance programs as an HIV/AIDS prevention strategy in the United States (Stratford et al. 2008); such programs are designed to reduce poverty by providing access to credit and business skills. To date, there is a limited evidence base for the effectiveness of microfinance programs. One small study in Baltimore, Maryland, the JEWEL Project (Jewelry Education for Women Empowering Their Lives), involved fifty women who used illicit drugs and were involved in prostitution (Sherman et al. 2006). The intervention included educational HIV risk-reduction seminars as well as instruction on how to make, market, and sell jewelry. Three months after the intervention, there was a significant reduction in reports of engaging in sex for drugs or money, median number of sex-trade partners per month, and drug use. Future research is needed to evaluate whether economic empowerment through microfinance programs can have a positive impact on sexual-risk behaviors among men.

### **Interventions with Potential to Affect a Broad Set of Health Outcomes**

It is also important to consider broad strategies that have the potential to improve multiple health outcomes. Below we review interventions that address aspects of the social and physical environment that contribute to healthy development for young men and boys of color.

*Family socioeconomic status.* Policies to improve family economic success can translate into improved health outcomes for children. Strong evidence for the positive impact of additional family income on child well-being has been documented within a prospective study of children in North Carolina (Costello et al. 2003). Four years after the study began, a casino opened on the Indian reservation where the American Indian study participants lived, and provided all American Indian families with additional income supplements per tribal law. After four years of income supplementation, children whose family incomes rose above the poverty level had lower symptoms of behavior problems (such as oppositional defiant and conduct disorders) than those children whose family incomes remained below the poverty line. Moreover, their symptom level was equal to the level observed for children who had never been poor.

The New Hope Random Assignment Experiment in Milwaukee, Wisconsin, examined the effect of income supplementation using a randomized study design (Huston et al. 2005). Researchers assigned low-income parents to an intervention or a control group to examine the effectiveness of a program designed to increase employment and reduce family poverty. The program also included childcare assistance and health-care subsidies. Five years after the program began, researchers documented that the program had positive effects on school achievement and social behavior, although the positive effects were largely present only for boys. The study investigators were not able to identify reasons for these gender differences.

The New York City Center for Economic Opportunity (CEO) is a noteworthy example of a comprehensive and evidence-based effort to combat urban poverty by helping families become economically self-sufficient. Established in 2006, the CEO is an ambitious public-private task force that tackles issues of chronic unemployment and poverty in New York City, with a focus on individuals and communities in greatest need of help (National League of Cities 2009). The CEO has invested in the design, implementation, funding, and evaluation of a range of programs to help families become economically independent. For instance, the city Depart-

ment of Finance used federal tax information to distribute pre-populated tax returns to individuals who were eligible for the earned-income tax credit but had not claimed it in the prior year. This strategy disseminated approximately \$3.6 million to forty-two hundred individuals. The CEO also includes programs to improve access to healthy foods in high-poverty neighborhoods. Programs have led to increased enforcement of a local living wage, free one-on-one financial coaching for all city residents, a childcare tax credit for low- to moderate-income working families, and a community-based outreach program to help people in poor neighborhoods get jobs (National League of Cities 2009).

Initiatives that help low-income youth earn a college degree provide an important pathway to their economic stability and independence. Several programs have documented successful outcomes, including some that provide a transition between high school and college and others that begin after high school graduation. For example, the Bill and Melinda Gates Foundation's Early College High School Initiative is a program that compresses the amount of time it takes to complete high school and the first two years of college (Nodine 2009). This program rests on the notion that "most high school students—including students with average and below-average academic records—can succeed in college courses during their junior or senior years of high school" as students who follow an advanced placement or international baccalaureate program do (*ibid.*: 3).

Students enrolled in early college programs earn one or two years of college-transferable credits free of tuition. They become part of a rigorous and supportive environment that develops both the academic and social skills required for success. Since 2002, this initiative has founded or redesigned more than two hundred schools within twenty-four states, targeting students who are underrepresented in higher education, including low-income youth, students of color, immigrant youth, and first-generation college students. In 2008 early college schools that had been open for four or more years had a 92 percent graduation rate, with 40 percent of graduates earning at least one year of college credit.

Another example, the City University of New York's Accelerated Study in Associate Programs (ASAP), is an initiative that intervenes once students have graduated from high school. It is designed to provide substantial support to low-income students and to help them earn degrees as quickly as possible. The program provides resources including free tuition, transportation assistance, consolidated course schedules, and comprehensive advising. Follow-up from the first two years shows that the program is effective in improving two-year graduation rates for participating students

compared with students not enrolled in the program (30.1 percent versus 11.4 percent) (Linderman and Kolenovic 2009).

*Early childhood interventions.* Early childhood interventions are programs to serve children from birth until school entry (typically age five); these programs are designed to increase children's exposure to stimulating environments and nurturing relationships and to support the health and well-being of children and parents over time. Early childhood interventions have a variety of formats and funding sources (such as public and private funding). Economic analyses have identified investment in disadvantaged children as "a rare public policy initiative that promotes fairness and social justice and at the same time promotes productivity in the economy and in society at large" (Heckman 2006: 1,902). Early childhood interventions can occur within the medical-care system, with such programs as the Nurse-Family Partnership (NFP) program (Olds 2006), or outside the medical-care system, including preschool programs (Barnett and Masse 2007).

The NFP is an evidence-based, validated intervention for low-income first-time mothers; it is designed to improve maternal and child health and consequently improve life outcomes for both the mothers and their children. NFP nurses visit women in their homes during their prenatal and early childhood period, helping them nurture and care for their own children and improving their economic self-sufficiency by helping women to succeed in the workforce (Olds 2006). The NFP's approach to delivering care maintains a broad perspective on a mother's life and addresses factors that are not typically considered within the domain of health care. Three separate, large randomized control trials in different contexts indicate that these programs positively affect a number of child and parent health and socioeconomic outcomes (Karoly, Kilburn, and Cannon 2005). Among mothers, nurse home-visiting programs were associated with less smoking during pregnancy, increased workforce participation, fewer subsequent pregnancies, reduced use of public assistance programs, and lower rates of child abuse and neglect. For children these programs were associated with a reduction in childhood injuries, juvenile crime, and substance use (Olds 2006 and 2008). An independent cost analysis that summarized the effects of the three NFP trials estimated that the program saves approximately \$18,054 per family (Lee, Aos, and Miller 2008).

School-based early childhood intervention programs have also been shown to have a lasting positive impact on disadvantaged children and are associated with a wide range of positive educational and social development outcomes well into adulthood (Reynolds et al. 2007; Muennig et al. 2009). For instance, the Perry Preschool Program was a two-year

experimental intervention for African American children ages three to four from a disadvantaged community; this program included morning sessions at school as well as afternoon visits from the teacher to the child's home (Muennig et al. 2009). At age ten children who attended the Perry Preschool did not have significantly higher IQ scores than children in the control condition. However, they did have higher achievement test scores, which is attributed to greater motivation for learning (Heckman 2006). These individuals have been followed up to age forty, and in comparison to children in the control condition, Perry Preschool participants have higher incomes as well as higher rates of high school and college graduation, health insurance coverage, and home ownership, plus lower rates of arrest, out-of-wedlock births, and welfare assistance (Muennig et al. 2009).

Additional evidence for the long-term benefits of early childhood education comes from the Abecedarian program, a randomized trial of early child education with follow-up into young adulthood. At age twenty-one individuals who were assigned to participate in the education program exhibited fewer symptoms of depression, lower marijuana use, a more active lifestyle, and significant educational and vocational benefits in comparison to individuals who were not assigned to the early education program (Campbell et al. 2008; McLaughlin et al. 2007). Economic analyses have shown that investment in educational programs in the early years of a child's life lead to reduced societal costs related to special education, crime, social-welfare programs, and increases in income-tax revenues. A comprehensive analysis of a variety of early childhood programs estimated the total return per one dollar invested ranges from three to seventeen dollars (Karoly, Kilburn, and Cannon 2005).

*Out-of-school and after-school programs.* The time between the end of the school day and the time parents return home from work is recognized as a high-risk period for healthy child and adolescent development (Little, Wimer, and Weiss 2008). A substantial amount of youth crime and victimization—as well as experimentation with drugs, alcohol, tobacco, and sexual activity—occurs during this window of time (Cohen et al. 2002; Flannery, Williams, and Vazsonyi 1999). Since the late 1990s, funding for after-school programs for children and youth has increased. These programs support working families by getting children and adolescents into safe, supervised activities and by providing youth with academic enrichment and opportunities for healthy development. Reviews of studies that have examined the effect of after-school programs show that these programs have the potential to produce consistent benefits across a range of outcomes, including (1) academic achievement, such as school

engagement, performance, graduation, and future aspirations; (2) social and developmental outcomes, such as behavior problems, communications skills, depression and anxiety, and self-esteem; (3) prevention outcomes, such as delinquency and violence, drug and alcohol use, and sexual activity; and (4) health knowledge and habits, such as knowledge about nutrition, physical activity, body mass index, and blood pressure (Little, Wimer, and Weiss 2008; Durlak and Weissberg 2007).

The Yale Study of Children's Afterschool Time examined the academic and health benefits of participation in after-school programming for a population of predominantly poor and African American and Hispanic children. At the end of one school year some indicators of academic success and motivation were higher among after-school participants, even after adjusting for family socioeconomic status and baseline child characteristics, including academic adjustment, motivation, and expectations for success (Mahoney, Lord, and Carryl 2005b). Furthermore, over a two-year period the prevalence of obesity was significantly lower for students who participated in after-school programs (21 percent) compared with nonparticipants (33 percent) (Mahoney, Lord, and Carryl 2005a).

LA's BEST after-school enrichment is a nationally recognized model for high-quality after-school programming. An analysis commissioned by the U.S. Department of Justice found that LA's BEST participants were 30 percent less likely to commit a crime compared with nonparticipants and 20 percent less likely to drop out of school. This effect on dropouts was especially pronounced for low-income students (Goldschmidt, Huang, and Chinen 2007). The analysis also found that for each dollar spent, there was a \$2.50 return in savings related to the criminal justice system.

After-school activities may also provide an opportunity for youth to explore career directions and develop workplace skills. Chicago's After School Matters offers paid internships in arts, technology, communications, and sports to students in some of the city's most underserved schools (Halpern 2006). In the 2009–10 academic year After School Matters provided more than twenty-five thousand program slots within over seven hundred programs for youth ages fourteen to twenty-one. Researchers report that students who participated in After School Matters had better rates of class attendance, lower rates of course failures, and higher rates of graduation than nonparticipants (Goerge et al. 2007). There is limited research using randomized control designs to examine the effectiveness and cost returns for after-school interventions in the adolescent years, making this an important area for further study.

*Youth mentoring.* Youth mentoring programs such as Big Brothers Big

Sisters have received a great deal of public attention since the late 1990s (Rhodes and DuBois 2008). An estimated three million youth currently participate in formal one-on-one mentorship programs, a sixfold increase in ten years (ibid.; Rhodes 2008). There has been a substantial amount of research on the effectiveness of youth-mentoring programs. A meta-analysis of fifty-five programs found positive effects of mentoring programs on emotional, educational, and behavioral outcomes; however, the magnitudes of the associations were very small, indicating that the programs provide only a small benefit to the average participant (DuBois et al. 2002).

Several randomized studies of Big Brothers Big Sisters have reported positive associations between programs and such outcomes as improved academic performance; delay in use of alcohol, tobacco, and illegal drugs; and not engaging in violent behavior or displaying serious conduct problems (Grossman and Tierney 1998; Herrera et al. 2007; Tierney, Grossman, and Resch 1995). However, across these studies findings for each of the outcomes are not consistent, and there are substantial limitations that weaken the conclusions (Roberts et al. 2004). The mentoring field currently lacks strong evidence to inform policy and practice decisions about mentoring programs (Rhodes and DuBois 2008), and more research is required to identify who is most likely to benefit from mentoring, in what type of program, under what circumstances, and for what outcomes (Roberts et al. 2004). Since 2004, the federal government has provided one hundred million dollars in annual congressional appropriations for mentoring programs, so there is an urgent need to determine the extent to which mentorship can be effectively used to address disparities in healthy development by race and ethnicity.

*Criminal justice system.* One important strategy to protect the health of young men and boys of color is to reform criminal justice policy to provide maximal help and cause minimal harm for youth who become involved with crime. New policies should be designed to (1) prevent incarceration whenever possible, (2) provide intensive therapy to offenders (and their families) to help them reach their educational and occupational goals and avoid further involvement with crime, and (3) enhance postincarceration programs to improve opportunities for successful reintegration into society.

A variety of therapeutic programs have successfully reduced criminal involvement while proving cost-effective in comparison to incarceration and continued detention. Experts have recognized multisystem therapy (MST), an intensive, family-based treatment, as an effective intervention for young offenders. MST is based on the social ecological model, which views the family, school, peers, and community as interconnected systems

that influence the behavior of youth and family members (Schaeffer and Borduin 2005). Rigorous controlled evaluations show that MST is effective in producing long-term reductions in emotional and behavioral problems, improvements in family relationships, and reductions in criminal activity, violence, drug-related arrests, and incarceration (Curtis, Ronan, and Borduin 2004). A four-year follow-up study found that youths who had participated in MST were significantly less likely to be arrested in comparison with individuals in the control group (26 percent versus 71 percent) (Borduin et al. 1995).

Postincarceration programs may also provide an important avenue for addressing the needs of court-involved adolescents and young adults. Youth Options Unlimited Boston Transitional Employment Service Program is a nationally recognized program to support court-involved or gang-involved youth by connecting at-risk youth to a paying job, intensive case management, and inclusive support services, including academic programming. This program helps youth to develop positive references to support future job applications, transition into unsubsidized jobs, and obtain a high school degree or enroll in college (National League of Cities 2009). We have been unable to locate any randomized experiments testing the long-term benefits of this type of program and believe this to be an important subject for research.

*Housing and neighborhoods.* As discussed throughout this chapter, where children and adolescents live affects nearly every aspect of their health and social development. Efforts to address health inequities by race and class must focus on improving both indoor and outdoor environments for low-income families and families of color (Krieger and Higgins 2002; Leventhal and Brooks-Gunn 2000). A variety of initiatives are helping individuals and communities improve housing conditions, including (1) the development and enforcement of housing codes related to lead, mold, and pests (Krieger and Higgins 2002); (2) programs to help families improve their indoor air quality (Krieger et al. 2005); and (3) advocacy programs to ensure that individuals and communities have access to healthy and affordable housing (Freudenberg 1990).

The Seattle-King County Healthy Homes Project is an effective intervention to improve housing conditions for low-income families. Community-outreach teams work with household members to develop a tailored intervention plan, support efforts to improve the safety and quality of their homes, and reduce asthma triggers (Krieger and Higgins 2002). A randomized study of low-income families with asthmatic children found this program to be effective in reducing asthma symptoms and emergency health

care use among children, and in improving quality-of-life among caregivers (Krieger et al. 2005). This approach has been used as a model for Chicago- and Harlem-based programs, which have also achieved positive outcomes (Spielman et al. 2006; Martin et al. 2009).

The Harlem Children's Zone (HCZ) stands out as an example of a comprehensive neighborhood revitalization effort that targets many interrelated social factors affecting the health of children and families, including high-quality early education, after-school programming, access to health services, violence-prevention efforts, and a range of other community-level factors (Tough 2008). To date, the HCZ has demonstrated successful results in terms of academic achievement, housing conditions, and childhood asthma outcomes (Spielman et al. 2006; Dobbie and Fryer 2009). Based on the early success of this program, the HCZ will serve as a model within the Obama Promise Neighborhood Initiative, a new federal initiative to support the development of twenty similar "promise neighborhoods" around the United States.

*Health care and health insurance.* Multiple strategies must be implemented to address disparities in quality of and access to health care for minority populations in the United States. For children and adolescents school-based health centers (SBHCs) can be a valuable source of primary care, preventive care, and health education, particularly for underserved youth (Gustafson 2005). SBHCs help underserved youth overcome barriers to care (such as transportation or physician shortages) and thus can effectively improve health care access and quality for low-income and uninsured adolescents (Allison et al. 2007). Across the United States there are approximately two thousand SBHCs that have been established with support from the federal government, health-insurance providers, foundations, and Medicaid (National Assembly on School-Based Health Care 2010). Research suggests that SBHCs may have the greatest impact on health-related quality of life among children of low socioeconomic status who may not receive care from another source (Wade et al. 2008). Moreover, research shows that use of SBHCs is associated with a student's academic improvement over time (Walker et al. 2010).

Both national and cross-national research shows that primary care is associated with greater health equity at the population level and that morbidity and mortality outcomes are influenced by the availability of primary-care doctors (Starfield, Shi, and Macinko 2005). A greater supply of primary-care physicians in the United States may lower costs of health care and contribute to more equitable population health by improving access to prevention-oriented services, as well as early detection and

management of existing health problems. Research shows that black and Latino primary-care doctors disproportionately provide care to poor and minority underserved populations (Komaromy et al. 1996). In recognition of the important role that minority physicians play in caring for underserved communities, there is a need for racial and ethnic diversity within the medical profession (Schlueter 2006) as well as purposeful recruitment of medical students with a desire to improve health equity (Drake 2009).

The University of California Programs in Medical Education is an example of a medical-education program designed to create leaders who have the knowledge and skills to advance health-care delivery, policies, and research in low-income communities and communities of color (Manetta et al. 2007). Each of the affiliated medical schools has a specialized curriculum on an underserved community, and medical students are trained to comprehensively address the health needs of a specific population, including the Spanish-speaking Latino community, rural populations, and urban underserved communities.

Finally, the newly passed health care legislation aims to achieve near universal health insurance coverage and therefore is expected to benefit many young men and boys of color. The law contains several provisions that will help young adults and low socioeconomic status individuals to access health insurance. For example, beginning in September 2010, the law specifies that adolescents must be eligible to stay on their parents' health insurance until age twenty-six. Beginning in 2014, the law expands the eligibility criteria for Medicaid to include all individuals with incomes below 133 percent of the federal poverty line. In addition, it creates health insurance exchanges that will enable individuals with low and moderate income to purchase affordable coverage. It is currently unclear what the full impact of the legislation will be on reducing disparities in insurance coverage, access to physicians, quality of health care, and actual health outcomes for young men and boys of color. Therefore, it will be important to carefully evaluate the effect of the new law on disparities for each of these domains.

### **FUTURE DIRECTIONS AND CONCLUSIONS**

The health of young men and boys of color in the United States is embedded within social and environmental contexts that shape their health and well-being throughout their lives. To effectively address health disparities and promote opportunities for healthy development, policymakers must prioritize comprehensive strategies to improve the physical, social, educational, and economic conditions within disadvantaged neighborhoods

(that is, place-based strategies) (Acevedo-Garcia et al. 2008). Public-health strategies to improve the health of young men and boys of color must confront the underlying causes of health inequalities, which will require attention to topics that fall outside of what is conventionally considered to be the health sector. There is ample evidence that social and economic policies can be designed to improve the health and life chances of young men and boys of color in the United States. We must now embark on the challenging task of taking several of these evidence-based interventions to scale in a manner that will (a) maintain fidelity to the evidence-based programs and (b) reach the communities and families that will benefit the most. There is also an immediate need for rigorous evaluations of several of the initiatives presented in this chapter.

Two relevant topics not covered in this review merit further research and innovation. A substantial body of research has documented that religious youths are more likely to engage in positive health behaviors and less likely to engage in risky behaviors (Sinha, Cnaan, and Gelles 2007). It is possible that an enriched understanding of the components of religion that promote health can be applied within interventions to improve adolescent health. There is also a need for dedicated research on the effectiveness of programs to support young low-income and minority fathers. Although a limited number of evaluation studies have taken place (Raikes and Bellotti 2006), programs to support young fathers could positively affect the development of children while contributing significantly to the well-being of young men.

To achieve meaningful improvements in the health of young men and boys of color, greater attention must be given to the design and evaluation of strategies that are explicitly designed to reduce and eliminate socioeconomic, racial, and ethnic inequities in the places where families spend most of their time: homes, schools, neighborhoods, workplaces, and religious institutions (Williams et al. 2008). Now is the time for leaders from multiple sectors of society to join forces to address the pressing needs of young men and boys of color, as well as their communities, in coordinated and systematic ways.

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