

HOW ARE INCOME AND WEALTH LINKED TO HEALTH AND LONGEVITY?

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THE GRADIENT BETWEEN ECONOMIC WELLBEING AND HEALTH

The greater one's income, the lower one's likelihood of disease and premature death.¹ Studies show that Americans at all income levels are less healthy than those with incomes higher than their own.² Not only is income (the earnings and other money acquired each year) associated with better health, but wealth (net worth and assets) affects health as well.³

Though it is easy to imagine how health is tied to income for the very poor or the very rich, the relationship between income and health is a gradient: they are connected step-wise at every level of the economic ladder. Middle-class Americans are healthier than those living in or near poverty, but they are less healthy than the upper class. Even wealthy Americans are less healthy than those Americans with higher incomes.

Income is a driving force behind the striking health disparities that many minorities experience. In fact, although blacks and Hispanics have higher rates of disease than non-Hispanic whites, these differences are "dwarfed by the disparities identified between high- and low-income populations within each racial/ ethnic group." That is, higher-income blacks, Hispanics, and Native Americans have better health than members of their groups with less income, and this income gradient appears to be more strongly tied to health than their race or ethnicity.

People with Lower Incomes Report Poorer Health and Have a Higher Risk of Disease

Poor adults are almost five times as likely to report being in fair or poor health as adults with family incomes at or above 400 percent of the federal poverty level, or FPL, (in 2014, the FPL was \$23,850 for a family of four) (figure 1), and they are more than three times as likely to have activity limitations due to chronic illness.⁵ Low-income American adults also have higher rates of heart disease, diabetes, stroke, and other chronic disorders than wealthier Americans (table 1).

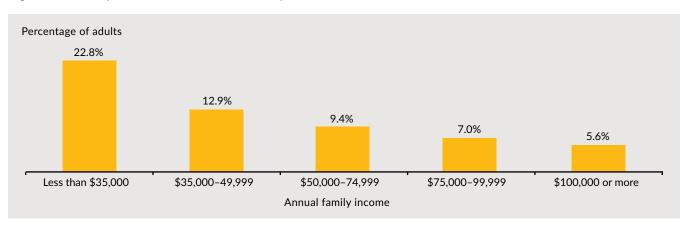


Figure 1. Self-Report of Fair or Poor Health, by Income, 2011

Source: Schiller, J. S., J. W. Lucas, and J. A. Peregoy. 2012. "Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2011." Vital and Health Statistics 10 (256): Table 21. http://www.cdc.gov/nchs/data/series/sr_10/sr10_256.pdf

Infant mortality and children's health are also strongly linked to family income and maternal education.² Rates of low birth weight are highest among infants born to low-income mothers.^{6,7} Children in poor families are approximately four times as likely to be in poor or fair health as children in families with incomes at or above 400 percent of the FPL.² Lower-income children experience higher rates of asthma, heart conditions, hearing problems, digestive disorders, and elevated blood lead levels.^{8,9} In 2006–08, the prevalence of asthma was 8.2 percent among nonpoor children but 11.7 percent among poor children and 23.3 percent among poor Hispanic children.¹⁰ Poor children also have more risk factors for disease, such as childhood obesity, which is a strong predictor of obesity as an adult.

Table 1. Prevalence of Diseases, by Income, 2011 (percent of adults)

	ANNUAL FAMILY INCOME						
DISEASE OR ILLNESS	Less than \$35,000	\$35,000- 49,999	\$50,000- 74,999	\$75,000- 99,999	\$100,000 or more		
Coronary heart disease	8.1	6.5	6.3	5.3	4.9		
Stroke	3.9	2.5	2.3	1.8	1.6		
Emphysema	3.2	2.5	1.4	1.0	0.8		
Chronic bronchitis	6.3	4.0	4.4	2.2	2.4		
Diabetes	11.0	10.4	8.3	5.6	5.9		
Ulcers	8.7	6.7	6.5	4.7	4.4		
Kidney disease	3.0	1.9	1.3	0.9	0.9		
Liver disease	2.0	1.6	1.0	0.6	0.7		
Chronic arthritis	33.4	30.3	27.9	27.4	24.4		
Hearing trouble	17.2	16.0	16.0	16.2	12.4		
Vision trouble	12.7	9.8	7.5	5.7	6.6		
No teeth	11.6	7.8	5.5	4.2	4.1		

Source: J. S., Schiller, J. W. Lucas, and J. A. Peregoy, "Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2011." Vital and Health Statistics 10, no. 256 (2012): 1–207, tables 1, 4, 8, and 12. http://www.cdc.gov/nchs/data/series/sr_10/sr10_256.pdf.

The reported higher rates of disease among low-income Americans are accompanied by higher rates of risk factors. In 2011, smoking was reported by one out of four (27.3 percent) adults from families who earn less than \$35,000 a year, three times the rate of those from families who earn \$100,000 a year or more (9.2 percent). Obesity rates were also higher (31.9 and 21.2 percent, respectively), in part because of lower

levels of physical activity. In 2011, the proportion of adults who reported getting recommended levels of aerobic exercise was 36.1 percent for those living in poverty compared with 60.1 percent for those with incomes at least four times higher than the FPL.¹

Income is also associated with mental health. Compared with people from families who earn more than \$100,000 a year, those with family incomes below \$35,000 a year are four times more likely to report being nervous and five times more likely to report sadness "all or most of the time" (figure 2). Somatic complaints (i.e., the pain and other physical ailments that people experience due to stress and depression) also occur more commonly among people with less income.

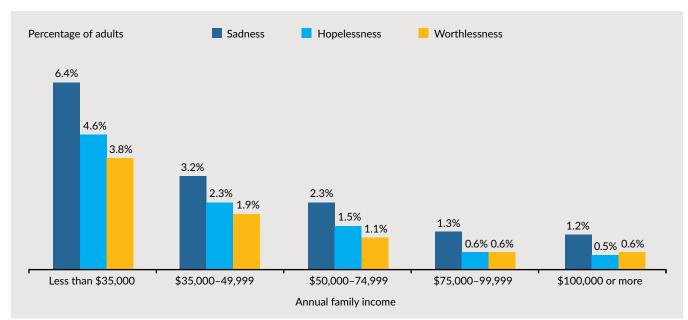


Figure 2. Feelings of Worthlessness, Hopelessness, and Sadness All or Most of the Time, by Income, 2011

Source: J. S., Schiller, J. W. Lucas, and J. A. Peregoy, "Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2011." Vital and Health Statistics 10, no. 256 (2012): 1–207, table 14. http://www.cdc.gov/nchs/data/series/sr_10/sr10_256.pdf.

People with Lower Incomes Live Shorter Lives

At age 25, Americans in the highest income group can expect to live more than six years longer than their poor counterparts (figure 3).¹² The Social Security Administration reports that retirees at age 65 are living longer, but since the 1970s those with earnings in the top half of the income distribution have seen their life expectancy increase by more (6.0 years) than those in the bottom half (1.3 years).¹³

Years an adult can expect to live after age 25

53.8

49.2

Less than 100%

101-200%

Family income (percent of FPL)

Figure 3. Life Expectancy, by Income, 1988-98

Source: Paula Bravemen, Susan Egerter, and Colleen Barclay, "Income, Wealth and Health," Exploring the Social Determinants of Health, (Princeton, NJ: Robert Wood Johnson Foundation): 2011.

These income-based differences in life expectancy can also be seen across communities. For example, Virginia's Fairfax County, one of the richest counties in the country, and West Virginia's McDowell County, one of the poorest, are separated by just 350 miles; however, the difference in life expectancy between the two counties is vast. In Fairfax, "men have an average life expectancy of 82 years and women, 85, about the same as in Sweden." By contrast, the average male and female estimates for life expectancy in McDowell County are 64 and 73 years, respectively, about the same as in Iraq. 14

HOW INCOME AND WEALTH MIGHT INFLUENCE HEALTH

To some extent, income and wealth directly support better health because wealthier people can afford the resources that protect and improve health. In contrast to many low-income people, they tend to have jobs that are more stable and flexible; provide good benefits, like paid leave, health insurance, and worksite wellness programs; and have fewer occupational hazards. More affluent people have more disposable income and can more easily afford medical care and a healthy lifestyle—benefits that also extend to their children.

Lower-Income Americans Are Less Able to Afford Health Care Services and Health Insurance

People with low incomes tend to have more restricted access to medical care, are more likely to be uninsured or underinsured, and face greater financial barriers to affording deductibles, copayments, and

the costs of medicines and other health care expenses. Conditions may change under the Affordable Care Act, but as of 2011 the probability of being uninsured before age 65 was 28.4 percent for those living in poverty, 16.5 percent for those with incomes two to three times the FPL, and 5.2 percent for those with incomes four or more times the FPL.¹⁵

Partly because of reduced access to care and reduced affordability, low-income patients are less likely to receive recommended health care services, such as cancer screening tests and immunizations. For example, in 2012 the proportion of adults ages 50 to 75 who reported never having been screened for colorectal cancer was 19.5 percent for those with annual household incomes of \$75,000 or more but 42.5 percent for those with incomes below \$15,000.¹⁶

In 2011, almost one-quarter (23.3 percent) of adults with family incomes under \$35,000 per year had no usual place of medical care, compared with 6.0 percent of those with incomes of \$100,000 or higher.¹¹ Similarly, 22.6 percent reported not having seen a dentist in more than five years, compared with 4.3 percent of adults with family incomes over \$100,000.¹¹

Families with Greater Resources Can Afford Healthy Lifestyles and Experience Place-Based Health Benefits

More affluent people can more easily afford regular and nutritious meals, which tend to be more expensive and less convenient than less nutritious, calorie-dense, high-carbohydrate options and fast foods. People on low incomes face higher rates of food insecurity. Their difficult living circumstances often preclude active recreational opportunities for regular exercise, and the cost of gym memberships or exercise equipment is often prohibitive. They may also face financial and other barriers to obtaining assistance with lifestyle changes, such as smoking cessation or assistance with alcohol and drug dependence.

People with higher incomes are more likely to experience place-based health benefits, meaning that their health is positively influenced by the conditions and assets in their living environment.¹² In other words, even after adjusting for income and other attributes of individuals and households, health benefits appear to be associated with where people reside.¹⁷ Ellen and Turner (1997) identified six ways in which neighborhood conditions can influence the health of individuals: (1) quality of local services, (2) socialization, (3) peer influences, (4) social networks, (5) exposure to crime and violence, and (6) physical distance and isolation. Low-income neighborhoods and areas of concentrated poverty tend to expose their residents to higher rates of unemployment, crime, adolescent delinquency, social and physical disorder, and residential mobility.¹⁸

The socioeconomic status of individuals and neighborhoods are intertwined with individual and population health because the local economy determines access to jobs, commerce, schools, and other resources that enable families to enjoy economic success and place-based health benefits. For example, one study found that "healthy adults residing in socioeconomically deprived neighborhoods died at a higher rate than did people in relatively less deprived areas, even after accounting for individual-level socioeconomic status, lifestyle practices, and medical history." Smoking, diabetes, and other conditions are more common for people living in poor neighborhoods, independent of their income. 20,21

Population health is influenced not only by the economic well-being of individuals and households but also by the civic and economic vitality of their communities. People unable to afford to live in healthier, more desirable areas often struggle with challenges related to a variety of community-level health-related factors:

- Access to healthy food. Residents of low-resource neighborhoods often have limited access to sources of nutritious food, ²² such as supermarkets that sell fresh produce and other healthful food options. ²³ They are more likely to live in neighborhoods with food deserts; ²⁴ an overconcentration of fast-food outlets, ²⁵ convenience stores, corner stores, bodegas, and liquor stores; and a shortage of restaurants that offer healthful food choices ²³ and menu labeling. ²⁶
- **Built environment.** Low-income communities tend to have limited access to green space, recreational programs, and facilities for regular exercise and active living.²⁷ Their neighborhoods are often less conducive to walking or cycling to school, work, or shopping.
- Advertising. Low-income and minority communities are more frequently targets for advertising of tobacco, alcohol, and high-calorie foods, often targeted to youth.
- **Housing.** People with limited resources experience higher rates of inadequate and unstable housing (and homelessness) and exposure to indoor pollutants (e.g., lead-based paint, asbestos, and dust mites).²⁸ They often experience barriers to moving to a better neighborhood with healthier housing stock.
- **Transportation.** Public transportation is often inadequate to enable residents to commute to employment, to find a better job, or to reach a supermarket, a reliable childcare provider, or health care services.²⁹
- School systems. People with low incomes are more likely to live in poorer neighborhoods with a weaker tax base, thus reducing local resources that support public schools and social services. 30 Cash-strapped schools in low-income neighborhoods may have inferior resources and deteriorated buildings. 27
- **Jobs and health care.** Low-resource neighborhoods often face a shortage of employment opportunities, as well as primary care providers and high-quality clinical facilities.³¹
- Environmental pollution. Low-income residents are less likely to be able to afford living in neighborhoods that are free of pollutants³² and may of necessity live near busy highways with vehicle emissions, factories with billowing smokestacks and water emissions, bus depots, and other sources of air and water pollution.³³
- **Disinvestment.** Low-income residential neighborhoods reflect urban design legacies that discourage pedestrian activity and such practices as redlining, which served to isolate and segregate minority populations. Entrenched patterns reflecting long-standing disadvantage often perpetuate cycles of socioeconomic failure and an inability for low-income neighborhoods to recover. Public policies have historically led to disinvestment in these neighborhoods, causing persistent segregation, fewer economic opportunities, and increasing crime.³⁴

Other Reasons for Poor Health Among Low-Income Americans

Income and wealth are part of a complex web of social and economic conditions that affect health (and each other) over a lifetime.³⁵ These conditions include education, employment, family structure (e.g., single motherhood), neighborhood characteristics, and social policies, as well as culture, health beliefs, and country of origin.³⁶ Educational achievement is an especially strong predictor of health independent of income.³⁷ There is also evidence that when people are exposed to economic disadvantage—especially at critical developmental stages of life—and to other harmful life conditions they become more vulnerable to disease processes and experience harmful physiological reactions to toxins in their environment.³⁸ The stress associated with financial adversity is believed to have harmful biological effects on the body.³⁹ Stress is thought to affect hormones and the health of the immune system (a phenomenon called allostatic load), causing damage to organs and increasing the risk of disease over time.

Health and income affect each other in both directions: not only does higher income facilitate better health, but poor health and disabilities can make it harder for someone to succeed in school or to secure and retain a high-paying job.⁴⁰ Scientists call this phenomenon reverse causality or selection effects. The role of reverse causality is not entirely clear, as much of the evidence linking income and health consists of studies that show an association but are not designed to prove the direction of causal relationships. There is, however, a small but more compelling body of prospective evidence about the protective effects of income on health.⁴¹

THE INTERPLAY OF INCOME AND HEALTH OVER THE LIFE COURSE

The health and survival of children are tied to the income of their parents.² Early life experiences, the social and economic status of our parents, and the social and physical environments in our childhood all matter greatly when it comes to shaping health and economic well-being throughout our own and our children's lives. Exposure to unfavorable living conditions and instability in early childhood, beginning as early as the womb,⁴² can have a variety of negative effects on a person's health and economic future.⁴³⁻⁴⁶ Children exposed to social exclusion and bias, persistent poverty, and trauma can experience toxic stress and harmful changes in the architecture of the developing brain that affect cognition, behavioral regulation, and executive function.⁴⁷⁻⁵² Low-income children in the United States face a variety of challenges at school: for example, they are assigned disproportionately to "the most inadequately funded schools with the largest class sizes and lowest-paid teachers."²⁷

The socioeconomic conditions experienced by children continue to affect their health status throughout adulthood.^{53,54} Long-term studies have shown that children with greater exposure to adverse childhood events (ACEs) are more likely to develop unhealthy behaviors as adults (e.g., smoking, physical inactivity, alcoholism, drug abuse, multiple sexual partners) and to have a history not only of adverse psychological outcomes (e.g., depression, suicidal ideation) but increased risk of physical illnesses.⁵⁵ In a classic study, adults who reported four or more ACE categories were twice as likely to have heart

disease, cancer, stroke, and diabetes and four times as likely to have chronic lung disease.⁵⁰ All the factors (and the relationships among them) that account for this higher risk are not fully understood; the outcomes experienced by victims of ACEs, for example, may result from mediating factors such as childhood poverty and other variables.

Along with the harmful physiological changes induced by stress, ACEs and other difficult early life conditions can lead to dysfunctional coping skills that result in harmful or risky behaviors, illness, and injury in adolescence. These negative outcomes can stifle later economic success, which means that some of the links between income and health may actually reflect common factors earlier in life. Liu and colleagues reported that the unemployment rate was twice as high (13.2 percent) among adults exposed as children to four or more ACEs as among those with no exposure (6.5 percent). Even after controlling for race and ethnicity, the risk of unemployment with four or more ACEs was 3.6 times higher for men and 1.6 times higher for women. Because children exposed to ACEs are more likely to have lower income and poorer health later in life, an important way to improve health is to address the root causes that expose children to stress and difficult living environments. ACEs

Early life experiences shape not only an individual's economic and health outcomes, but the educational, economic, and health outcomes of that person's family decades and generations later. ^{60,62,63} Children who are raised in poverty and suffer poor health can find it difficult to climb the economic ladder or to leave disadvantaged neighborhoods, often repeating the cycle when they have their own children. Thus, the effects of low income and the cycle of poverty can span generations. Increasingly, the medical community is citing childhood poverty and early childhood adversity as urgent public health priorities. ⁶⁴⁻⁶⁷

RECENT ECONOMIC TRENDS MAY BE WORSENING THE IMPACT OF INCOME AND WEALTH ON HEALTH

For Americans in all social classes except the most affluent, household income, wealth, and assets have declined in real dollars since the 1990s. Bad economic times, such as the Great Recession, have only made matters worse. These economic trends have large implications for population health. Some research suggests that health inequities may be generated not only by low absolute income but also by the rising degree of economic inequality,^{68,69} though there is some controversy as to whether this association is actually a reflection of absolute income levels and other measures of material deprivation.⁷⁰ The income gap between rich and poor in the United States has been increasing for decades and is now seen on multiple metrics:

- **Income.** Median household income in the United States is lower now than at its peak in 1999.⁷¹
- Poverty. By 2010, the US poverty rate had reached 15.1 percent, its highest percentage since 1993.⁷¹
- **Net worth.** Between the recession years of 2007 to 2010, family net worth decreased by 7.7 percent, with the decline occurring in all groups but the wealthiest 10 percent, whose net worth increased.⁷² According to one recent report, 31 percent of American households are living "paycheck to paycheck"

(they have little liquid wealth in cash or bank accounts), and two-thirds of these households are not poor (they hold an average of \$50,000 in nonliquid assets such as their homes, cars, or retirement accounts).⁷³

- Income inequality. Economists are raising concerns about the growth of income inequality.⁷⁴ The Gini coefficient, a common measure of income inequality, has risen almost every year since 1974, and the ratio between the 90th and 10th percentiles of household income increased 14.5 percent between 1999 and 2012.⁷¹ During this time, only the most affluent Americans saw their earnings grow significantly; the remainder saw their incomes grow more modestly. Between 2009 and 2012, earnings in the top 1 percent of the income distribution grew by 31.4 percent, compared to 0.4 percent for the bottom 99 percent. According to the International Monetary Fund, between 1980 and 2012 the share of market income for the wealthiest 10 percent increased from approximately 30 to 48 percent but more than doubled for the wealthiest 1 percent (from 8 to 19 percent) and increased fourfold for the richest 0.1 percent (from 2.6 to 10.4 percent).⁷⁵
- Neighborhoods with concentrated poverty. Between 2000 and 2010, the percentage of people living in areas of concentrated poverty grew from 18.1 to 25.7 percent.⁷⁶
- **Upward mobility.** Social and economic mobility—the ability of poor people to climb the economic ladder—has lagged in the United States for decades.⁷⁷ Children whose parents are in the bottom quintile of income have a 9.0 percent probability of reaching the top fifth of the income distribution.⁷⁸
- Education gap. Children from upper-income families may reach school age better prepared because their parents may be able to make greater investments in early childhood enrichment activities.⁷⁹ Over time, the chances of rich and poor getting a higher education have widened. Compared with children born in 1961 through 1964, children born in 1979 through 1982 were 18 percent more likely to complete college if they were born to wealthier parents (highest income quartile) but only 4 percent more likely if their parents were in the lowest income quartile.80 Children born to the highest-income families are now 69.2 percent more likely to attend college than those from the lowest-income families.⁷⁸
- Economic burden on minorities. The economic status of minorities is especially stark. As of 2012, the median income of black households was \$33,321, only 58.4 percent of that of non-Hispanic white households (\$57,009); the median income of Hispanic households was \$39,005.71 Compared with non-Hispanic whites, blacks and Hispanics were almost three times as likely to fall below the FPL.71 Even at the same level of income, blacks and Hispanics have far less wealth than non-Hispanic whites. In 2010, non-Hispanic whites had twice the income of blacks and Hispanics, but six times the wealth.81 The net worth of nonwhite or Hispanic families was \$20,400, compared with \$130,600 for non-Hispanic white families.72 As of 2013, the retirement savings of three out of four households of color was less than \$10,000.82

IMPLICATIONS FOR THE US ECONOMY

Implications for American Business

Disadvantaged workers are more likely to generate higher health care costs from their increased risk of illnesses. Thus, employers of low-income workers pay a double price: in health care expenses and diminished productivity. Even basic tasks such as standing or lifting are significantly more difficult for adults with less income (table 2). Workers with health disabilities also tend to experience higher rates of absenteeism and "presenteeism" (working while ill or injured), which also cost employers. And economic struggles mean consumers have less disposable income to purchase products that fuel the success of businesses.

Table 2. Prevalence of Difficulties in Physical Functioning, by Income, 2011 (percent of adults)

	ANNUAL FAMILY INCOME						
ACTIVITIES THAT ARE VERY DIFFICULT OR IM- POSSIBLE TO PERFORM	Less than \$35,000	\$35,000- 49,999	\$50,000- 74,999	\$75,000- 99,999	\$100,000 or more		
Any physical activity	24.5	16.6	12.6	9.6	8.7		
Walking one-quarter mile	12.5	7.0	5.5	4.1	3.9		
Climbing 10 steps	9.6	4.9	3.7	2.7	2.8		
Standing for two hours	15.7	9.6	7.1	4.9	5.0		
Sitting for two hours	6.2	3.3	2.0	1.6	1.1		
Stooping, bending, or kneeling	14.4	9.5	7.4	5.1	4.7		
Grasping or handling small objects	3.1	1.7	1.5	1.2	0.9		
Lifting or carrying 10 pounds	8.4	3.8	2.6	2.2	2.1		
Pushing or pulling large objects	11.8	6.4	4.5	3.6	3.5		

Sources: J. S., Schiller, J. W. Lucas, and J. A. Peregoy, "Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2011." Vital and Health Statistics 10, no. 256 (2012): 1–207, tables 19. http://www.cdc.gov/nchs/data/series/sr_10/sr10_256.pdf. Julia Holmes, Eve Powell-Griner, Margaret Lethbridge-Cejku, and Kathleen Heyman, "Aging Differently: Physical Limitations among Adults Aged 50 Years and over: United States, 2001–2007," NCHS Data Brief No. 20, (Hyattsville, MD: National Center for Health Statistics): 2009. http://www.cdc.gov/nchs/data/databriefs/db20.pdf.

Note: Although these data are not restricted to working-age adults, the association between education and diminished physical function appears to diminish with age. Among non-Hispanic whites in 2001–07, the ratio between the prevalence of physical limitations among adults with less than a high school education and those with more than a high school education was 2.4 at ages 50 to 59, 1.9 at ages 60 to 69, 1.5 at ages 70 to 79, and 1.2 at age 80 and older.

Implications for Health Care Systems

Income and wealth not only affect disease rates, but they are also key to controlling the spiraling costs of treating diseases, a vexing issue for governments and businesses. As our country debates about the best policies to help the middle class and the poor, it is important to remember that economic and social policies are health policies in that they affect life expectancy, disease rates, and health care costs for all Americans

Although a link between economic turmoil and adverse health outcomes has been documented in certain countries, there is some evidence from industrialized countries that economic recessions can be followed, at least temporarily, by improved health outcomes. ⁸³ Potential explanations include reductions in driving and air pollution, fewer unhealthy behaviors, and improved staffing of clinical facilities. ⁸⁴⁻⁸⁶ Other studies, however, have reported that the 2007 recession was followed in the United States by increases in depression, ⁸⁷ decreases in breast and cervical cancer screening, ⁸⁸ worse health outcomes among the elderly, ⁸⁹ and an increase in reports of physical ailments such as ulcers and headaches. ⁹⁰

Implications for Policymakers

Policy areas that may seem distant from health—such as those for education, jobs and wages, economic opportunity, transportation, housing, crime, taxes, economic development, and the environment—can play a major role in shaping population health.⁹¹

Policies that enhance income and wealth can have important health benefits, and this enhancement may also be true for policies that do not target earnings or jobs directly but that improve conditions for economic prosperity. For example, policies that reduce ACEs or that promote improved educational outcomes can translate into improved economic well-being, better health outcomes, and lower health care costs. Similarly, the effects of unemployment on health may be buffered by unemployment assistance and other resources (e.g., savings, family resources, and social or business contacts). This policy linkage was noted by researchers comparing the association between unemployment and mortality in the United States and Germany: Americans had higher mortality if they were unemployed, but Germans did not. Further analysis revealed that well-educated Americans did not experience higher mortality rates if unemployed; it was the minimum-and medium-skilled workers (the population with less access to support services) whose risk of death was higher.⁹²

One study outlined three policy directions that offer promise for improving health.⁹³

- 1. Earnings and asset development programs that increase the economic self-sufficiency of low-income families and include: place-based employment programs, a focus on "good jobs," the use of work incentives, programs that promote banking, car and home ownership, and the use of the Earned Income Tax Credit.
- 2. Family-strengthening programs that improve health and educational outcomes, as well as link families to needed support and benefit services and include: nurse home visitation, parenting

- education, early childhood educational programs, and facilitating the receipt of support services; and
- 3. Neighborhood strengthening programs are programs that improve features of the neighborhood, connect service providers, and engage residents in neighborhood affairs: the use of community development corporations, comprehensive community initiatives and community organizing strategies."

Some policy-based solutions lie in government programs, many of which play an important role in stabilizing personal incomes and also appear to offer health benefits. Other solutions lie in economic policies—both by government and the private sector—that help to create jobs, teach workers marketable skills, and foster economic successes for the middle class and poor. Other priorities include stronger investments in early childhood education and other programs to put children on a stronger path for success, which have become a priority not only for government but also business leaders and foundations. The benefits can extend into late life: a long-term British study reported that children in the highest socioeconomic position had 7 to 20 percent better cognitive performance (across nine measures) than those in the lowest position when they were studied at ages 60 to 64 years. People and interest groups working to solve these problems are doing more than improving income and wealth: they are ultimately benefiting population health for all age groups. For more information about specific policy options, see "Can Income-Related Polices Improve Population Health?"

CONNECTING THE DOTS

Improving the economic conditions of Americans at many income levels—from those who are poor to those in the middle class—could improve health and help control the rising costs of health care. Jobs, education, and other drivers of economic prosperity matter to public health.

Bottom line: better economic conditions for American families mean longer lives and better health, and better health means lower health care costs.

NOTES

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See companion issue brief, "Can Income-Related Policies Improve Population Health?" at www.societyhealth.vcu.edu/work/the-projects/income-and-health-initiative.html. Both briefs are products of a collaboration between Virginia Commonwealth University's Center on Society and Health and the Urban Institute to address social determinants of health—understanding what it takes to improve the health of people and communities.

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