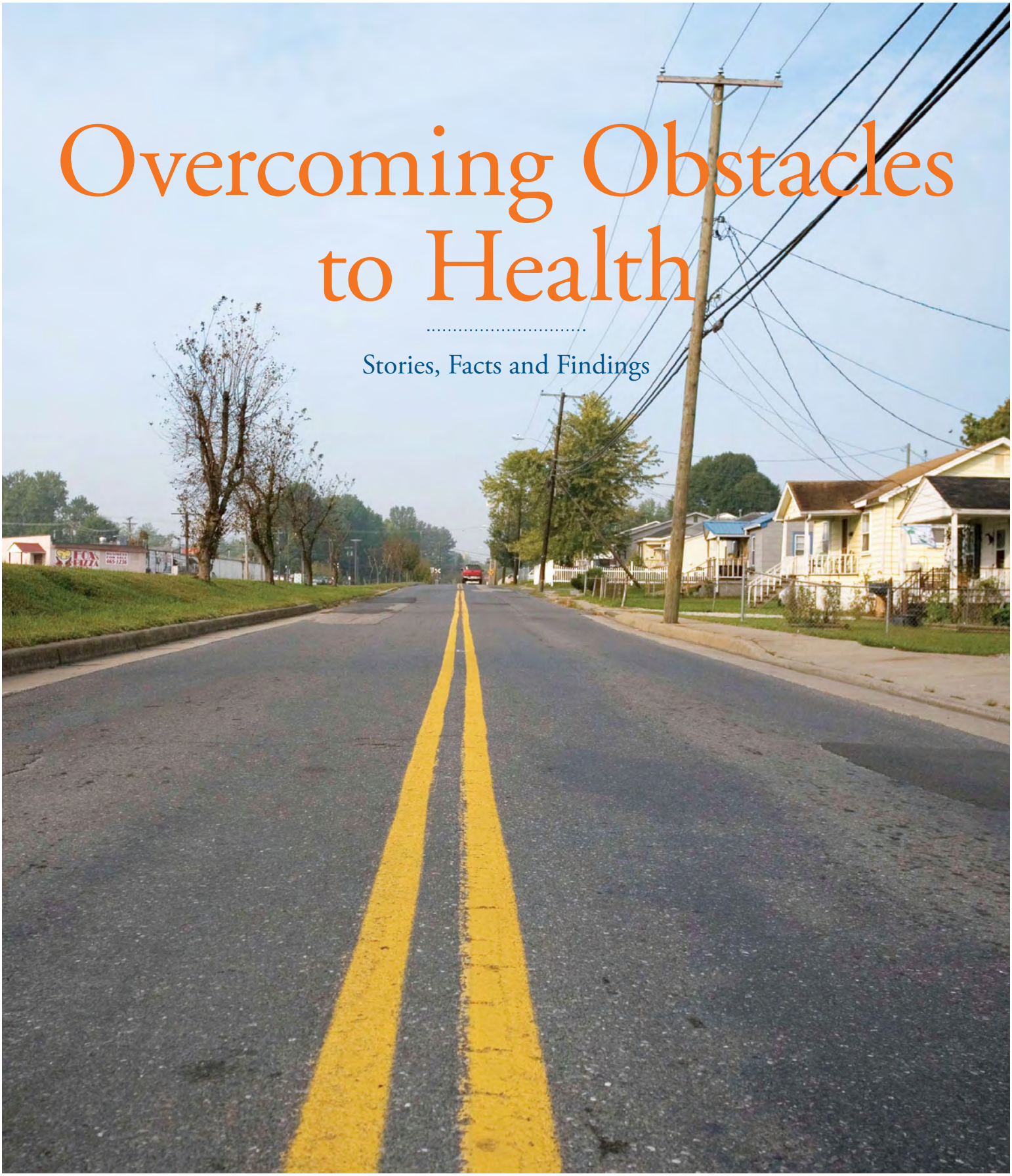


Overcoming Obstacles to Health

Stories, Facts and Findings

February 2008

Robert Wood Johnson Foundation

It could be a Norman Rockwell painting. Sheryl and Dean Elkins, at home in Oak Hill, W.Va., a place of front porches and tranquil streets, a place named for the grand old tree that once shaded the town's first post office.

Dean's no millionaire, but he earns enough working at the family printing business for Sheryl to give up her job at a local bank to raise their 6-year-old son Keith.

Just about everyone in this town one hour south of Charleston stops by the Value Plus to pick up groceries and say hello to Sheryl's aunt, Yvonne Dempsey, who after 19 years on the job has been dubbed "Old Faithful."

And when worshipers gather in the white clapboard church on the hill for the 9 a.m. Sunday service at Scarbro United Methodist, it is Sheryl's mother, Ester Hinte, playing hymns on the piano.

But take a closer look, behind the brushstrokes of the Rockwellesque ideal. The extended Elkins family embodies what may be the new American condition, the struggle for good health.

Aunt Yvonne, uninsured and battling diabetes, takes seven medications a day—when she can afford them. Ester beat uterine cancer in 2000, but the deadly cells have returned to her colon and liver. Little Keith, diagnosed with a mild form of autism, requires speech therapy and is on an expensive gluten-free diet. And Dean's body has been battered by 25 years of volunteer firefighting that have left him with chronic pain.

PART ONE

The Challenges to Choosing Health

Factors such as income and education, and how they play out in housing and neighborhood, directly exert a powerful influence on health disparities in the United States—potentially as powerful as medical care or genetics.

Good health. It seems so straightforward. Eat right, exercise and get regular checkups. Yet achieving—and maintaining—good health is a battle Americans at all economic levels are losing every day.

"Millions of Americans die earlier than they should," says Risa Lavizzo-Mourey, M.D., M.B.A., president and CEO of the Robert Wood Johnson Foundation (RWJF). "And far too many suffer from conditions that could be avoided."

For nearly two decades, government leaders, academics and business executives have documented the pervasive impact soaring medical bills have had on American society and the nation's competitiveness abroad. The debate over possible solutions has focused largely on the spending side of the ledger—the rising price of care and who pays.

"But what is missing from the conversation is any real focus on why so many Americans are unhealthy," says Lavizzo-Mourey, who is also a practicing physician. "What we need are innovative solutions to stop people from getting sick in the first place and policies to provide people with the opportunity to lead healthier lives."

To put the emphasis on health and the factors that can make a significant difference, the nonpartisan, nonprofit Robert Wood Johnson Foundation is initiating a two-year examination of the economic, educational and social factors impacting health. Through a series of hearings, on-site visits and additional research, the new *Robert Wood Johnson Foundation Commission to Build a Healthier America* hopes to identify innovative, feasible and politically viable policies for improving health.

To launch the project, the Foundation commissioned a team of nationally recognized researchers to conduct a comprehensive analysis of how the health of a nation is influenced—positively and negatively—by socioeconomic conditions. The report, *Overcoming Obstacles to Health,* concludes that factors such as income and education, and how they play out in housing and neighborhood, directly exert a powerful influence on health disparities in the U.S.—potentially as powerful as medical care or genetics.

Although it is difficult to quantify the full economic toll, poor health can limit a person's—and a family's—educational, career and financial opportunities, creating a cycle of disadvantage that extends across lifetimes, generations and racial lines, according to the report.

The RWJF report estimates some of the potential savings in closing America's health gaps. According to the new analysis, if American adults with less education experienced the death rates and health status of college graduates, the annual economic benefit for those individuals would amount to approximately $1.007 trillion each year.

Personal behaviors clearly play a critical role in health. Yet in many instances the barriers to good health go beyond an individual's abilities to overcome them, even with tremendous motivation. A large body of evidence, detailed in the new report, shows that lack of education,

"Millions of Americans die earlier than they should," says Risa Lavizzo-Mourey, M.D., M.B.A., president and CEO of the Robert Wood Johnson Foundation. "And far too many suffer from conditions that could be avoided."

money and opportunity make it difficult, if not impossible, for many people to improve their own health.

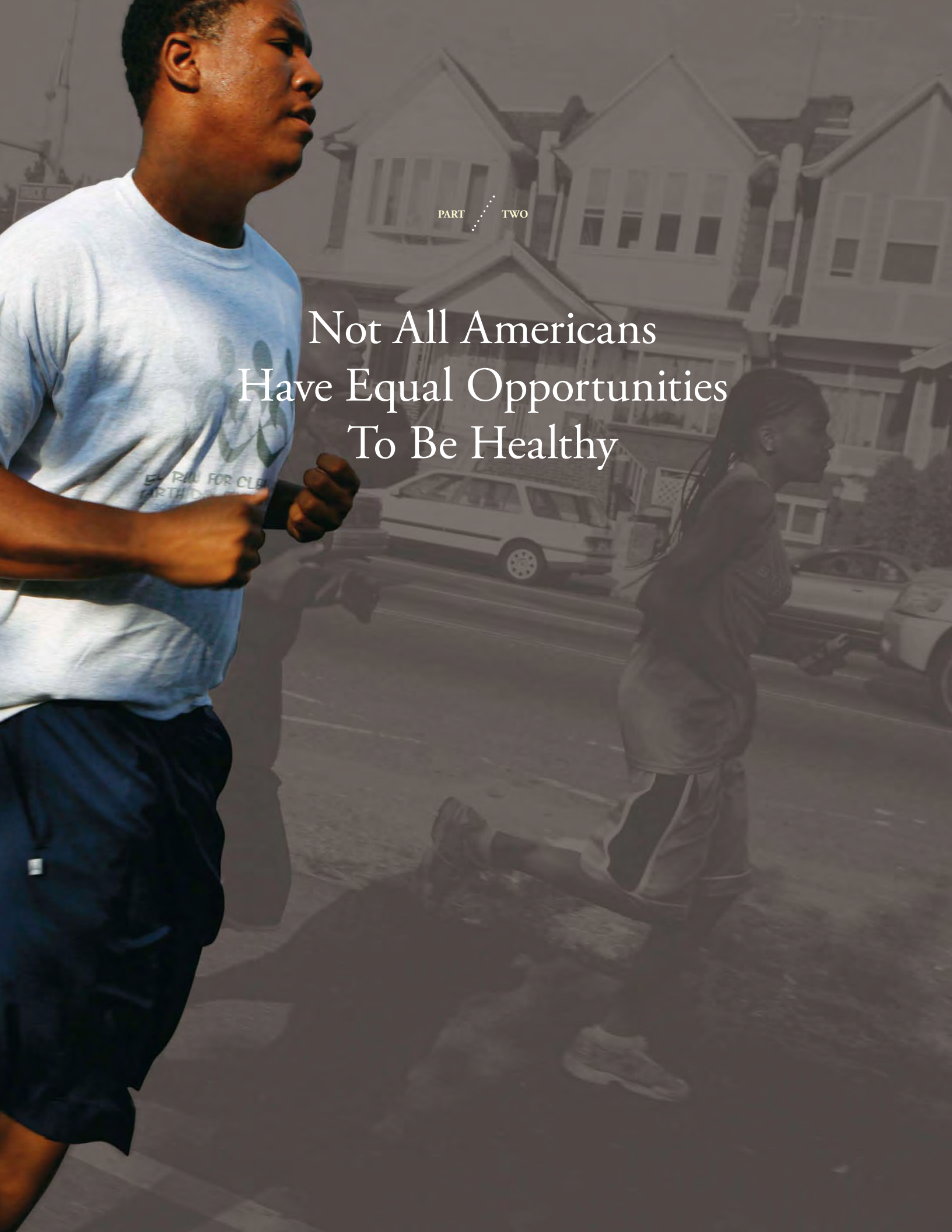
For the Elkins family, genetics almost certainly contribute to their diabetes and cancer woes. But socioeconomic challenges—limited services available in their rural setting, a weak underlying economy, workplace dangers, poor municipal water, cultural attitudes about food, and no public transportation—make the struggle for good health far more complicated.

"I am often aware that I am up against issues in people's lives that make it very difficult for them" to take the recommended steps to be healthier, says Jennifer Boyd, a physician assistant in neighboring Beckley, W.Va., who treats Yvonne Dempsey and other family members. "I get a real helpless feeling as a practitioner."

It may sound counterintuitive, but the best way to reduce America's medical bills and help families like the Elkinses in their fight for good health may be to invest in schools, sidewalks, produce markets, preschool programs, parks, housing and public transit.

"Better housing can improve the life of children with asthma; more grocery stores in an area can help stop obesity; and better education can lead to a much longer life," argues Lavizzo-Mourey. The Commission will pursue strategies for reducing illness, preventing early death and extending life. In short, the initiative aims to help Americans choose health.

Kenyon McGriff embarks on a three-mile training run with members of the Students Run Philly Style program through the streets of West Philadelphia. McGriff took up running after a doctor warned him he was a high-risk candidate for diabetes.



PART TWO

Not All Americans Have Equal Opportunities To Be Healthy

If you are poor, less educated or a minority in the United States, your prospects for living a long, healthy life are significantly worse than if you are more affluent, better educated or white.

When it comes to health, all Americans are not equal. If you are poor, less educated or a minority in the United States, your prospects for living a long, healthy life are significantly worse than if you are more affluent, better educated or white.

The RWJF report details the inequalities and obstacles. Among the findings:

- College graduates can expect to live five years longer than Americans who have not completed high school.
- On average, affluent Americans can expect to live over six years longer than poor Americans.
- Babies born to women who did not finish high school are nearly twice as likely to die before their first birthdays as babies whose mothers completed college.
- In every racial or ethnic group, lower-income Americans have higher rates of poor or fair health than their more affluent counterparts.
- Geography and income matter. Centers for Disease Control and Prevention researchers have shown that whites in Louisiana, for instance, have an age-adjusted death rate that is 30 percent higher than that for whites in Minnesota, where the median household income was about $19,000 higher in 2005–2006.
- Middle-class Americans are not exempt from the negative health effects of socioeconomic factors.

Everyone knows that good medical care can be important for health, and that genes often play a role as well. But analysis by the researchers of this report also points to other culprits.

"We know the likelihood of a person initially becoming ill or suffering an injury is practically unrelated to their access to good quality medical care," says James Marks, M.D., M.P.H., senior vice president and director of the Foundation's Health Group. One's health "is as much about where you live and work and play as it is about whether you have access to good quality care."

Marks, a pediatrician, says that many doctors and policy-makers focus on a diagnosis and prescription without understanding the larger factors at work.

"We always tell diabetics to get out and exercise, but a lot of us wouldn't get exercise if we were nervous about our safety or found the neighborhood depressing," he says.

Some neighborhoods are "overtly hazardous—for example, polluted or crime-infested," according to the report. Some have harmful influences, such as an abundance of fast food restaurants, liquor stores and billboards marketing harmful products to youngsters. Still others act as barriers to good health because of what they lack—safe parks, sidewalks and grocery stores with nutritious, affordable foods.

Such is the case for Kenyon McGriff. At age 15, he got what he describes as a "wake-up call."

"'You are overweight,'" his doctor at the Children's Hospital of Philadelphia told him.

"'You have diabetes and heart trouble in your family. Your neck is dark; that is a sign you are at risk for diabetes.'"

Kenyon McGriff heads out of his row house on Walnut Street in search of a healthy, affordable snack. Living in a neighborhood dotted with fast food joints, Chinese takeout and corner convenience stores has made eating well a major challenge for the teen.

McGriff was obese, weighing 270 pounds in 10th grade, and his mother, aunt and grandmother all suffer from diabetes. There was nothing the affable teen could do about his genes. But the doctor quickly latched onto one of the hottest topics in the medical field today: personal responsibility. She urged McGriff, who is black, to start exercising and kick his daily habit of chips, candy bars and two-liter bottles of soda.

"I told myself I was gonna stop being unhealthy," he recalls, describing his decision to join a running squad and attempt a marathon.

One of two dozen seniors in his high school who started college last fall, McGriff has some advantages in his bid for better health. He has a good home, quality health insurance and plenty of motivation.

Even so, it isn't easy. Though hardly underprivileged, his upbringing has had its challenges. Neither of his parents attended college; his mother, a smoker with high blood pressure, gave birth to Kenyon when she was just 17. Today, his parents are separated—Kenyon and his brother remained in the family's West Philadelphia row home with their mother, while their younger sister moved to the suburbs with their father.

But environmental conditions have posed the biggest hurdles for McGriff. Most days, McGriff and the other runners pound along the asphalt streets of West Philadelphia, inhaling bus fumes and risking the occasional stray bullet. Last year, there were three shootings outside his high school.

One's health "is as much about where you live and work and play as it is about whether you have access to good quality care."

–JAMES MARKS, M.D., M.P.H., senior vice president and director of RWJF's Health Group

In a neighborhood dotted with fast food joints, Chinese takeout and corner convenience stores, eating right is a major challenge.

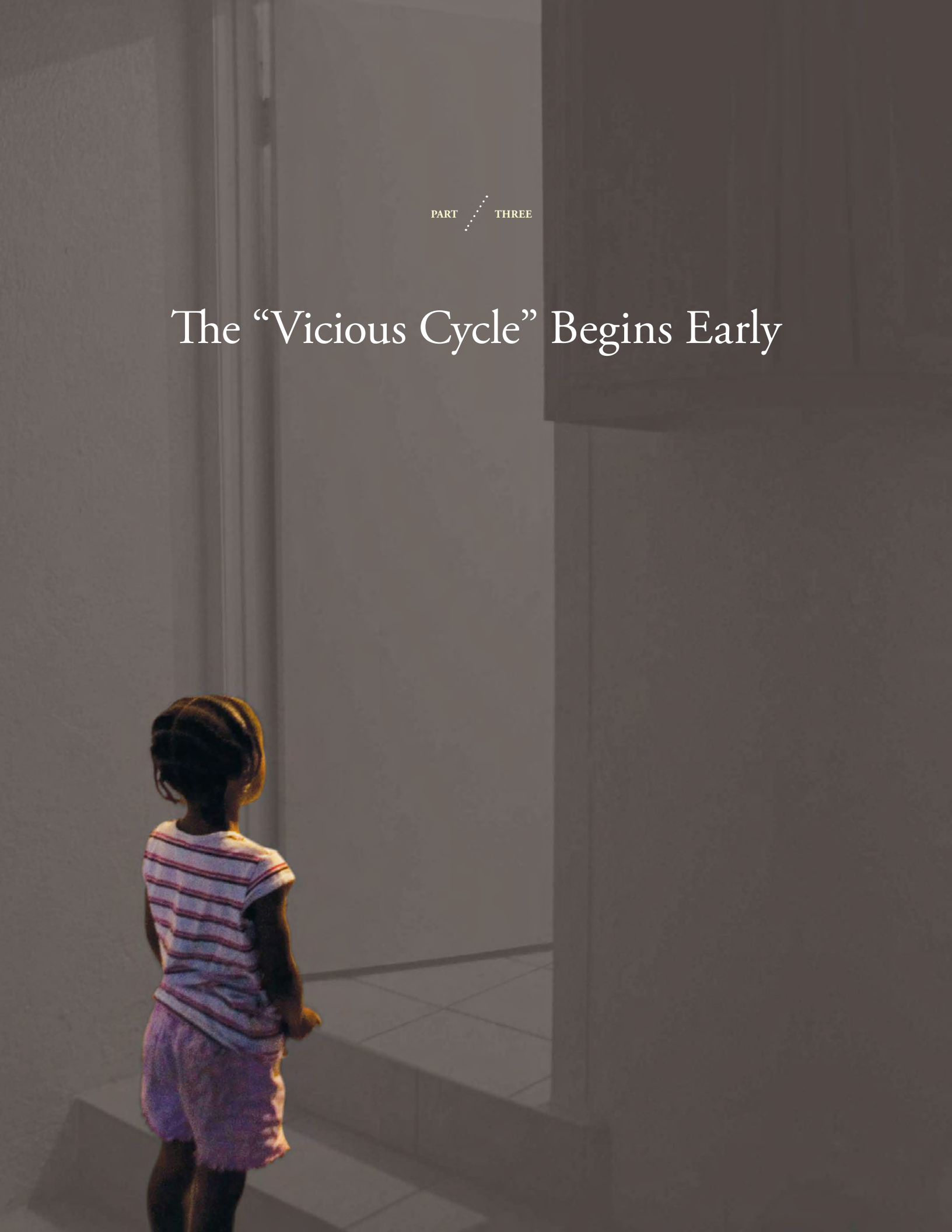
"Our school cafeteria is nasty," he complains. "We have burnt pizza every day; hoagies, which are lunch meat slapped on a soggy roll, and then a hot food like chicken nuggets or meat subs." McGriff does offer high praise for the cafeteria's soul food offerings—buttered rolls, roast chicken with gravy and mashed potatoes.

Still, he knows the tastiest offerings are not the wisest choices.

"I don't really know how to make my own food," says McGriff. His mother has tried to teach him how to cook, but as an emergency dispatcher for the city, Keasha McGriff works odd hours and is often exhausted when she gets home.

"For parents, it seems to get harder and harder to raise safe, healthy children," says McGriff's father, Kirby Ames.

"Coming up, we didn't have as much PlayStation and video games; there was more active playing," says Ames. "Back in the day, you could go outside and run around. Today there aren't as many sports teams for the kids."



PART THREE

The "Vicious Cycle" Begins Early

Kenyon McGriff, who was 270 pounds in 10th grade, has lost 30 pounds so far in his quest to lead a healthier life. McGriff and his teammates stretch, before starting the day's run. Negotiating traffic and bus fumes on the asphalt streets of Philadelphia are just part of the workout.

Kenyon McGriff's experience is hardly unique, says Paula Braveman, M.D., M.P.H., a family physician and researcher at the University of California, San Francisco, and lead author of the *Overcoming Obstacles to Health* report.

"No one should deny an individual is responsible for his or her behavior," says Braveman. "But when you look hard at the evidence, it becomes clear that behaviors are powerfully shaped by the contexts in which people live and work. Some people have limited choices."

Perhaps nowhere is the effect of one's environment more dramatic than in the lives of youngsters, she says.

"Poor and even middle-class children are less likely to be healthy than children in more affluent families," she says. "It's very hard to blame a child for having been born into difficult circumstances."

> "An accumulation of knowledge over the past two decades tells us that there is a vicious cycle—social disadvantage and health disadvantage accumulate over time, creating even more daunting constraints on a person's ability to be healthy. These obstacles are transmitted across generations."
>
> –PAULA BRAVEMAN, M.D., M.P.H., U.C.S.F.

Parents' circumstances, especially economic hardship, often have a direct negative impact on their children's health. Problems such as asthma, cognitive impairment, lead-paint poisoning and obesity often begin at a young age due, at least in part, to socioeconomic factors in the family or community.

"An accumulation of knowledge over the past two decades tells us that there is a vicious cycle—social disadvantage and health disadvantage accumulate over time, creating even more daunting constraints on a person's ability to be healthy. These obstacles are transmitted across generations," says Braveman.

A child raised in a low-income family is likely to watch more television and read fewer books. That child may be exposed to more toxins, crime and junk food, and to fewer positive role models. Day care and schools may be inferior and stress more prevalent.

"A baby born too small or too early is more likely to be cognitively, behaviorally and physically handicapped as a child," the report notes. And the vicious cycle extends beyond childhood. That individual is more likely "to develop high blood pressure, heart disease and diabetes as an adult." At the same time, poor childhood health can limit educational attainment, which then limits adult health.

Sheryl Elkins holds her 6-year-old son Keith who has been diagnosed with a mild form of autism. Sheryl shops for gluten-free foods for Keith in Charleston, W.Va., and four days a week drives him to speech therapy sessions.

At home in Oak Hill, W.Va., Sheryl Elkins feeds Keith his nightly medications mixed into a bowl of soy ice cream, as Dean Elkins looks on.

The insidious effect of socioeconomic factors appears to be harshest on the poorest Americans. But in *Overcoming Obstacles to Health*, researchers found that middle-income families also do worse than those at the very top.

"Economic inequality has increased in the United States, and the middle class has lost ground," according to the report. "Many middle-class families have had to work longer hours to maintain their standard of living, leaving parents less time to spend with their children."

In an aging society, middle-class families such as the Elkinses find themselves bearing a greater and greater burden, caring for elderly relatives. For now, Sheryl Elkins is healthy—"knock on wood," she jokes. But circumstances alone put her at risk for injury or illness, says Boyd, the physician assistant who treats several members of the Elkins family.

Economic inequality has increased in the United States, and the middle class has lost ground. Many middle-class families have had to work longer hours to maintain their standard of living, leaving parents less time to spend with their children.

"Caretaking of the extended family is a very strong value here and Sheryl handles it with incredible dignity and grace," Boyd says. "But this sort of thing has a huge impact on the caregivers. It leads to depression, interrupted sleep; it's difficult to make plans. Many times a person goes from being the caregiver to being a very unhealthy patient."

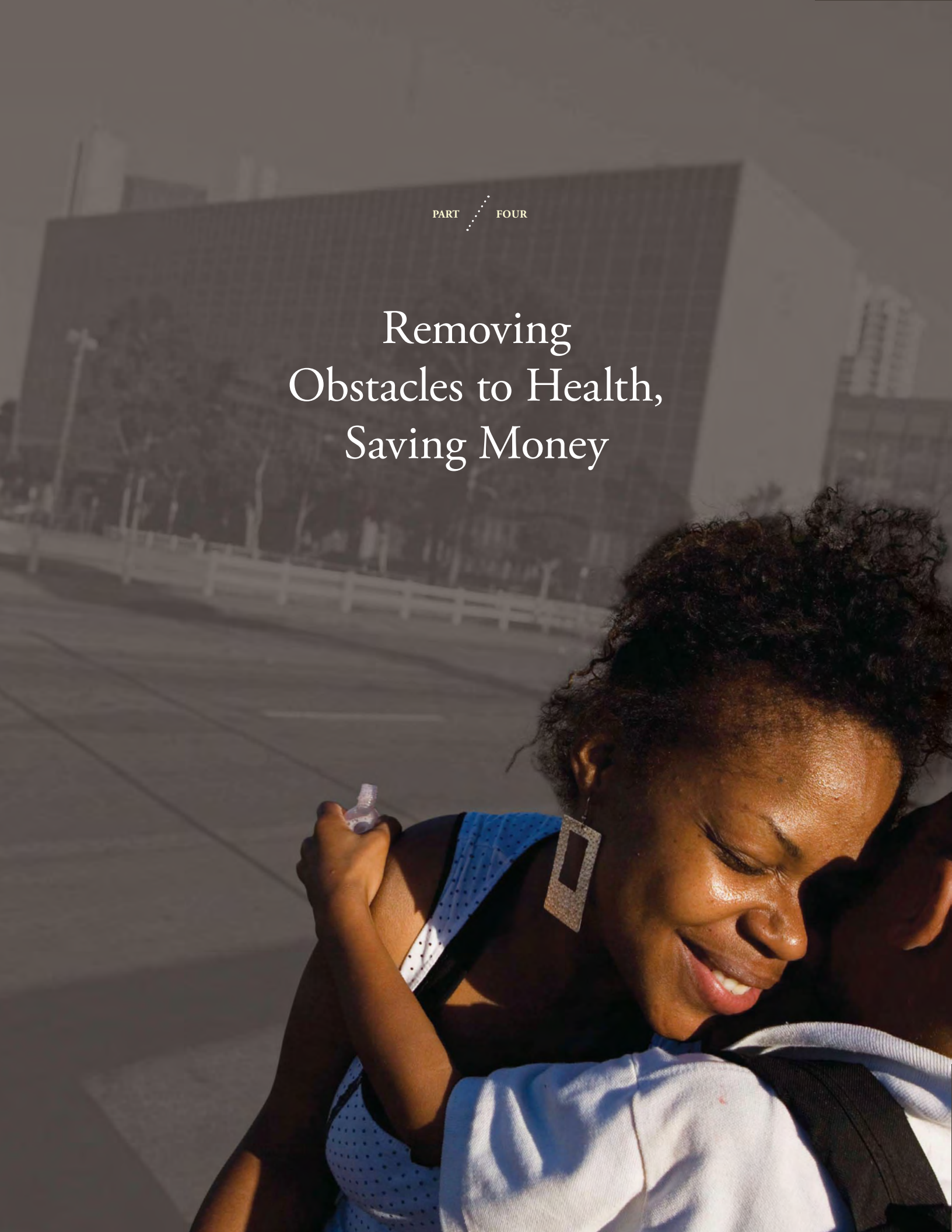
Education, long recognized as a key to opening doors of economic opportunity, also has profound health effects. According to the research, the health value of education is twofold: better-educated parents are better equipped to raise healthy youngsters and better-educated children have additional assets for pursuing good health.

More education frequently leads to higher paying jobs with better benefits, including insurance coverage. Families headed by more-educated parents are better able to purchase nutritious foods, obtain quality child care, enjoy leisure activities and buy homes in safer, more tranquil neighborhoods.

"These advantages are likely to be passed on not only to the children of these more affluent families but to future generations as well," the report's authors observe. "Conversely, limited economic means can make everyday life an all-consuming struggle, leaving little or no time or energy to adopt a healthier lifestyle and even crushing personal motivation."

Without intervention, Braveman says, many poor children "are condemned from birth to have behavior problems and drop out of school; because of that they are less likely to get good jobs and less likely to have good health."

Fortunately, the report notes that early childhood intervention can "break the vicious cycle."



PART FOUR

Removing Obstacles to Health, Saving Money

Beverly Davis, 27, waits for the bus with 5-year-old daughter Alyla. Davis spends a total of six hours a day riding city buses, taking Alyla and her 7-year-old brother Semaj to school and back home. The commute is costly and physically taxing, but Davis hopes that keeping her children in their respective schools will provide a bit of stability in their otherwise chaotic lives.

As a nation, the United States spends more on health care and gets less return on that investment than other industrialized countries. Despite improvements over time, life expectancy and infant mortality rates in the United States lag behind most of Europe, Japan, Canada and Australia—and in the last two decades the United States' ranking on these key health indicators has fallen lower and lower compared with other nations.

Over the course of the next two years, the *Robert Wood Johnson Foundation Commission to Build a Healthier America* will attempt to change how we look at health.

"The goal is to ask the question: Could we have less disease and injury?" says Marks. "It's time we look at that as aggressively as we have looked at payment structures."

In the process, he believes the Commission can create and promote policies that foster health, policies that help individuals and communities choose health.

The idea is not without precedent.

In the past, the United States has used public policy—particularly incentives—to encourage certain positive actions, Marks notes. Through subsidized college loans, society endorses the broader benefits of education such as greater productivity and economic development. Aggressive anti-smoking campaigns—that include both incentives and disincentives—have curbed teen addiction, reduced certain cancer rates and saved taxpayers billions.

"Our society can make it easier, more convenient and even fun for people who right now don't have opportunities to make healthy choices," says Marks.

For individuals and families, that should mean longer, healthier, more fulfilling lives. For the nation as a whole, the stakes are even greater.

"It's pretty clear, we're not getting very good value for our health care dollars," David Walker, comptroller general of the United States, told American University graduates last year. "Frankly, if there's one thing that could bankrupt America, it's health care costs."

As a nation, the United States spends more on health care and gets less return on that investment than other industrialized countries. Life expectancy and infant mortality rates in the U.S. lag behind most of Europe, Japan, Canada and Australia—and in the last two decades the U.S. has fallen lower and lower on the scale as other nations have risen.

Medical spending consumes 16 percent of the U.S. gross domestic product (GDP), much more than any other industrialized nation, and by 2015 it is expected to reach 20 percent of GDP.

An obesity epidemic is sweeping the schools and the number of uninsured and underinsured Americans continues to climb. Astronomical medical bills are straining government budgets, forcing families into debt and threatening America's global competitiveness.

In September, four years after applying for Section 8 subsidized housing, Beverly Davis and her children moved into a two-bedroom, second-floor apartment. The difference between Davis' dark basement studio and the new place is like "heaven and hell," says her mother Andrea Jones.

The report from the Robert Wood Johnson Foundation highlights several areas that could lead to a drop in health disparities and improve the lives of millions in this country. It establishes the clear need for policy-makers to act now or stand by and watch as the country continues to incur unsustainable costs due to lost opportunities for health. Perhaps most significantly, the report and the Commission aim to address the human toll on people like Kenyon McGriff, the Elkins family and Beverly Davis.

Once a logistics officer at a military base in Germany, Beverly Davis is a single mother of two battling a debilitating chronic illness. Poor health has sapped her savings, her energy and her dignity.

In and out of hospitals over the past several years, Davis cannot hold down a job. Instead, she collects welfare and food stamps, lives in government-subsidized housing and pays for her medical care and numerous medications with Medi-Cal, California's Medicaid program.

A former runner who enjoys writing poetry, Davis has taken half a dozen government funded job training courses, but because of her chronic illness and the limitations it has placed on her, she has been unable to secure a job. She is also awaiting a ruling on her request for permanent disability benefits. Her children eat mainly frozen and fried foods, have few safe places to play outdoors and fret about their mother's health.

Davis is what's known as a "financial drain on the system," and she is miserable about it.

"Having a job would make all the difference," she says, rattling off a list of dreams. "Then we could afford to live in a decent place, I could fix my car, the kids could get in some extracurricular activities."

Although Davis has faced great adversity through much of her life, she is convinced that her medical saga—misdiagnoses, surgeries, pills, side effects and stress—has created a near-insurmountable obstacle for her and her children.

As her friend Lorenzo Brown puts it: "Life is hard in general. A health problem can rob you of the ability to get through those hard times."

Overcoming Obstacles to Health *at a glance*

Like the extended Elkins family, Kenyon McGriff and Beverly Davis—the people highlighted in this document—Americans across the country often face obstacles to health that are extremely difficult to overcome. Basic things such as education, income, access to healthy food, good housing and even transportation can affect how long and how well a person lives.

The stories of the Elkinses, McGriff and Davis show us how difficult it can be to achieve good health. All Americans do not have the same opportunities for health. People with more education, who live in certain zip codes or who are more affluent tend to have better health. Your health is poorer if you are poor and your baby is more likely to die if you haven't finished high school.

***Overcoming Obstacles to Health*, a report from the Robert Wood Johnson Foundation to the Commission to Build a Healthier America:**

- Presents new evidence of disparities in health across income and education groups and estimates the economic costs of social disparities in health.
- Documents the lasting impact that physical and social environments have on a child's health and on his or her chances of becoming a healthy adult.
- Examines the roles of personal and societal responsibilities for health within the contexts in which people live, work and learn.
- Offers a framework for finding solutions by applying current knowledge about the underlying causes of social disparities in health.

Health in the United States is heavily influenced by social factors including income and education as well as race and ethnicity.

- Men and women in the highest-income group can expect to live at least six and a half years longer than poor men and women.
- Diabetes is twice as common and rates of heart disease are nearly 50 percent higher among poor adults compared with adults in the highest-income group.
- College graduates can expect to live at least five years longer than individuals who have not finished high school.
- Within each racial or ethnic group, lower-income adults have higher rates of poor or fair health than their more affluent counterparts.

The Elkins Family

Kenyon McGriff

Beverly Davis

A quick glance at the facts and charts in this document illustrates that health disparities in this country are enormous. These disparities in health are hurting all Americans.

Americans are not the healthiest people in the world. In fact, America ranks near the bottom among industrialized nations on key health measures such as life expectancy.

It is time to focus on why people get sick in the first place and what can be done to improve health. The facts and charts that follow clearly illustrate why this is necessary and why the Robert Wood Johnson Foundation Commission to Build a Healthier America is needed to search for solutions to improve the health of all Americans.

Health disparities are costly in economic terms.

- Americans' lives are shorter by nearly four years than expected based on the amount the nation spends on health care.
- Given per capita income in the United States, Americans could be expected to live nearly three years longer than we do now.
- If adult Americans who have not completed college experienced the lower death rates and better health status of college graduates, they would live longer and healthier lives.

Health is transmitted across lifetimes and generations.

- Babies born to mothers who have not finished high school are nearly twice as likely to die in infancy compared with babies born to college graduates.
- Compared with adults in the highest-income group, poor adults are nearly five times as likely to be in poor or fair health.
- Children in poor families are about seven times as likely to be in poor or fair health as children in the highest-income families.

Geographic differences in health often mirror geographic differences in income, education and racial or ethnic composition.

- Whites in Louisiana, where the median household income is roughly $37,500, have an age-adjusted mortality rate that is 30 percent higher than for whites in Minnesota, where the median household income is more than $56,000.
- The geographic disparity is even greater for blacks, who have a 37 percent higher mortality rate in Louisiana than in Minnesota.

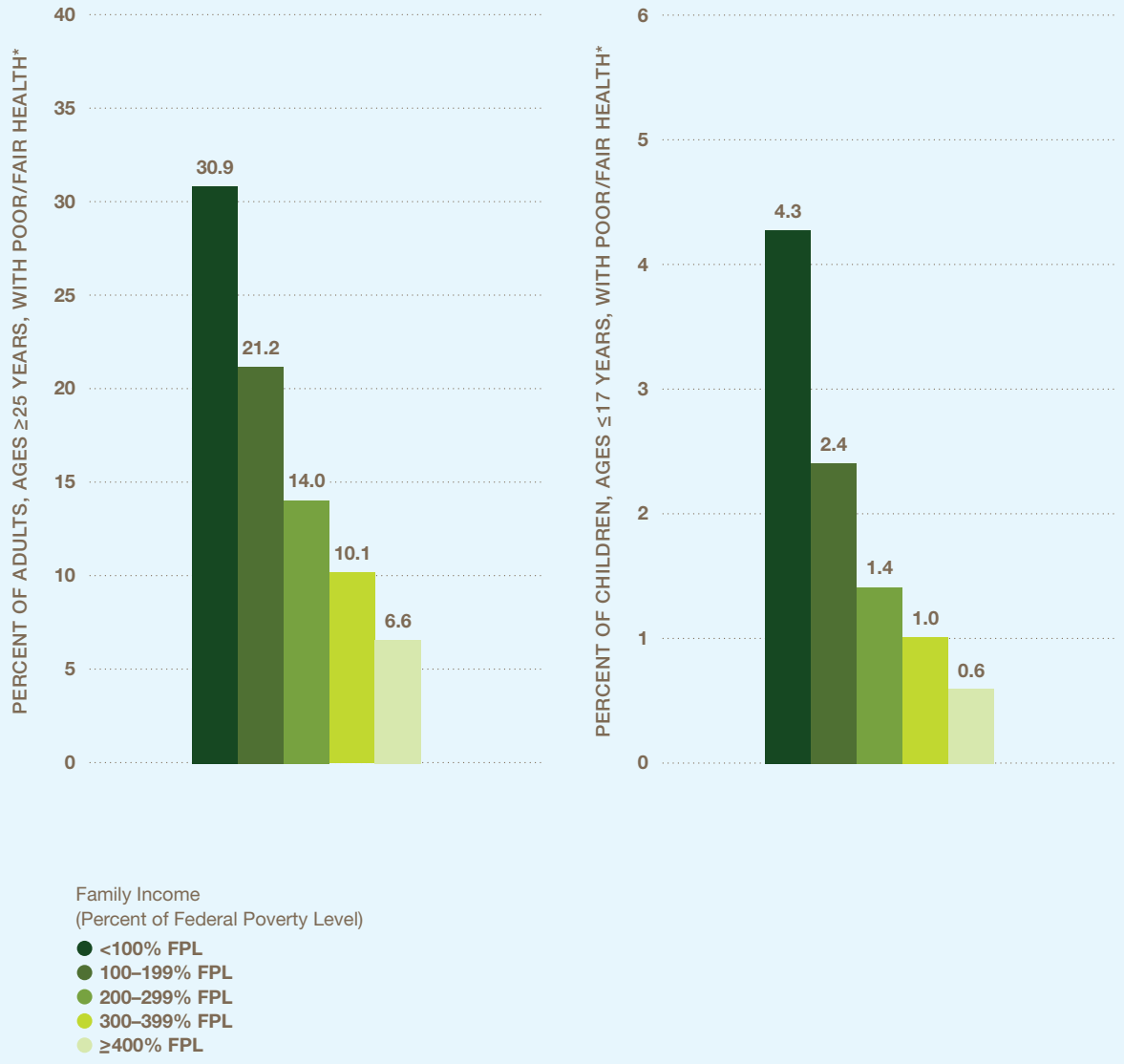
In health, America is losing ground globally.

- In 1980, the United States ranked 18th in infant mortality rates among industrialized nations. By 2002, 24 industrialized nations—including South Korea, the Czech Republic and Portugal—had lower infant mortality rates than the United States.
- In 1980, the United States ranked 14th among industrialized countries in life expectancy at birth; by 2003, the United States had slipped to 23rd place.

The Legacy of Disadvantage

Lower income is linked with worse health. Compared with adults in the highest-income group, poor adults are nearly five times as likely to be in poor or fair health.

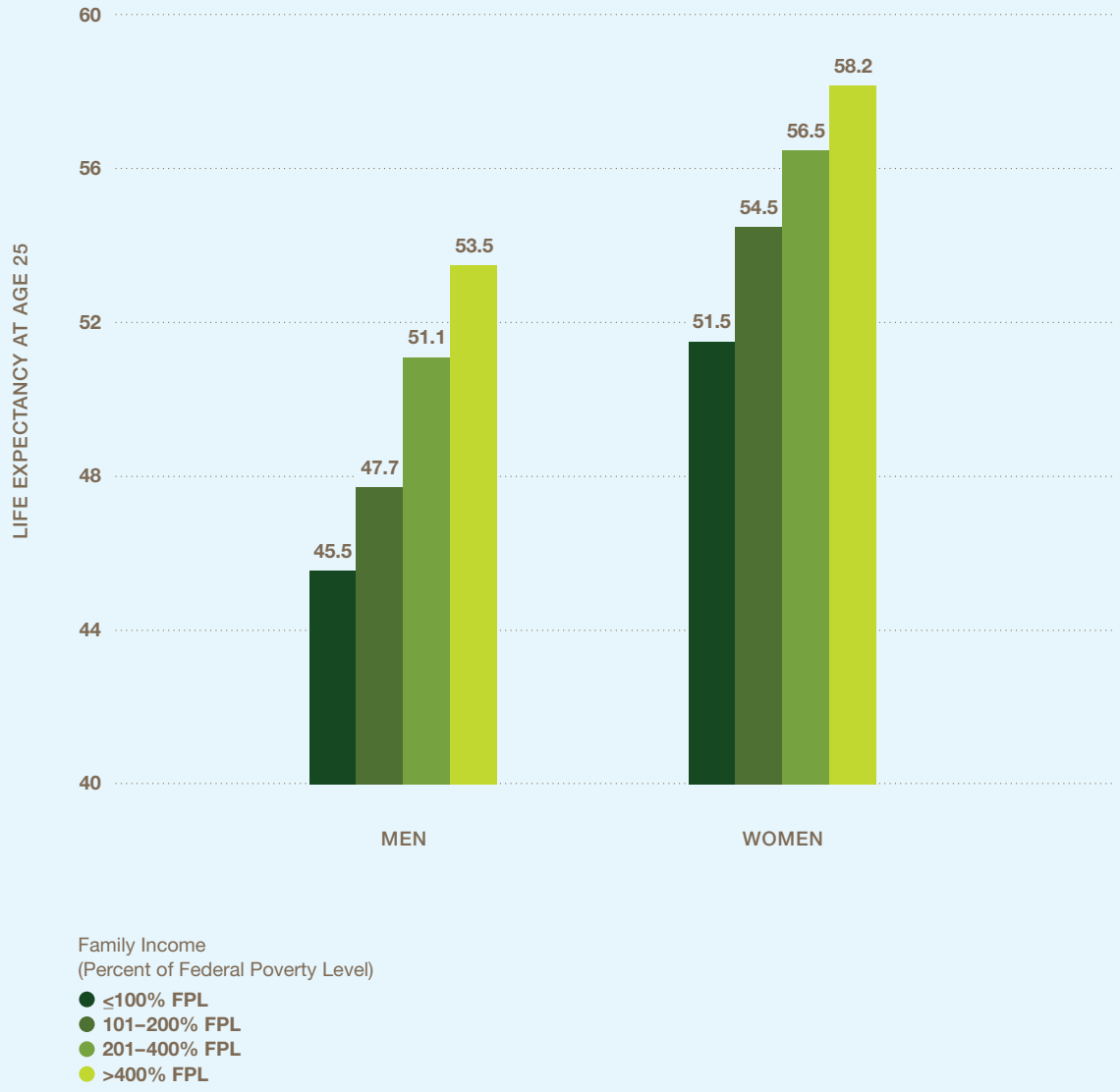
This striking pattern is seen among children as well. Children in poor families are about seven times as likely to be in poor or fair health as children in the highest-income families.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.
Source: National Health Interview Survey, 2001–2005.
*Age-adjusted

Higher Income, Longer Life

Adult life expectancy* increases with increasing income. Men and women in the highest-income group can expect to live at least six and a half years longer than poor men and women.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco; and Norman Johnson, U.S. Bureau of the Census.

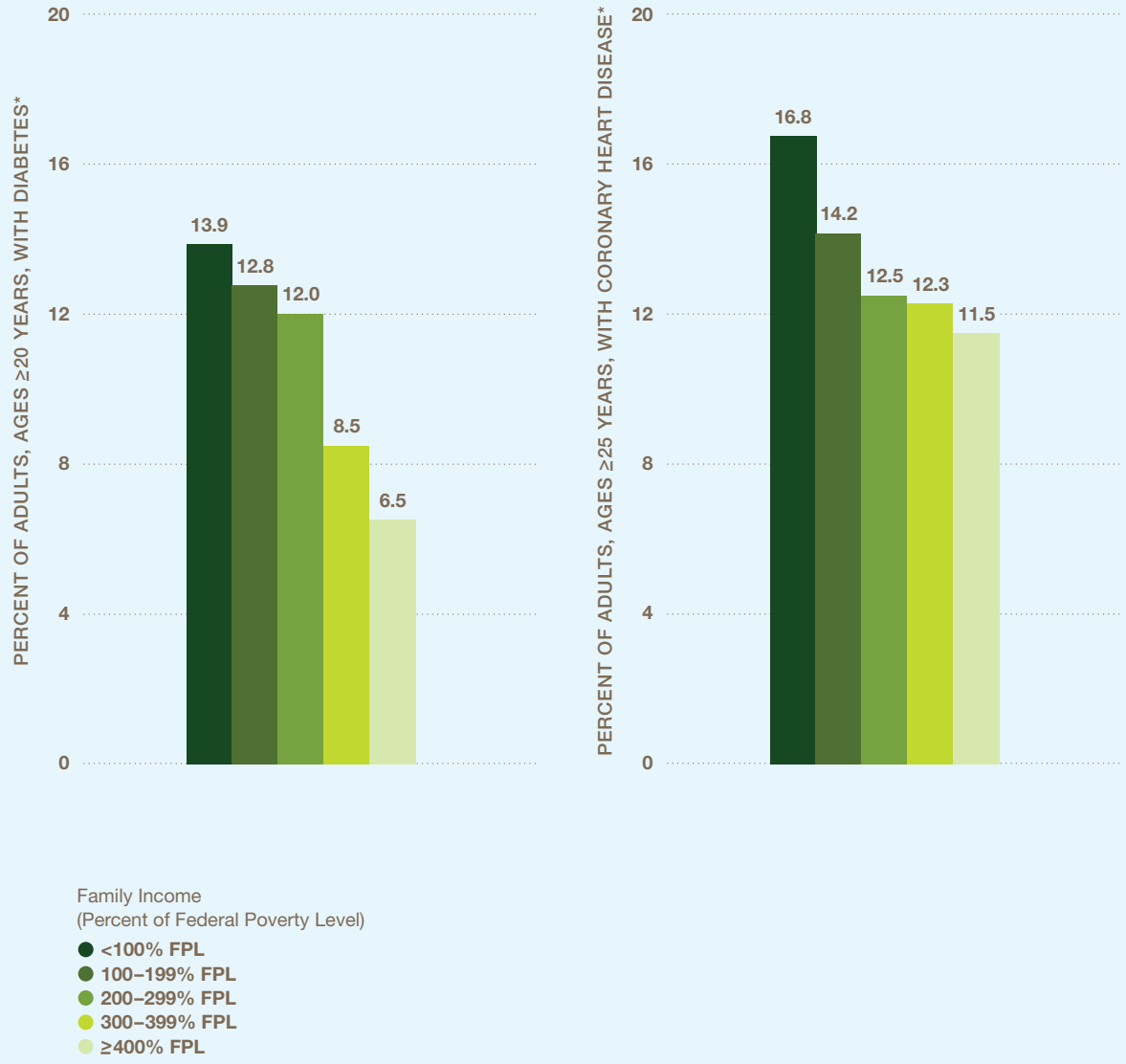
Source: National Longitudinal Mortality Study, 1988–1998.

*This chart describes the number of years that adults in different income groups can expect to live *beyond age 25*. For example, a 25-year-old woman whose family income is at or below 100 percent of the Federal Poverty Level can expect to live 51.5 more years and reach an age of 76.5 years.

Lower Income Is Linked With Worse Health

Diabetes decreases with increasing income. Diabetes is twice as common among poor adults as among those in the highest-income group.

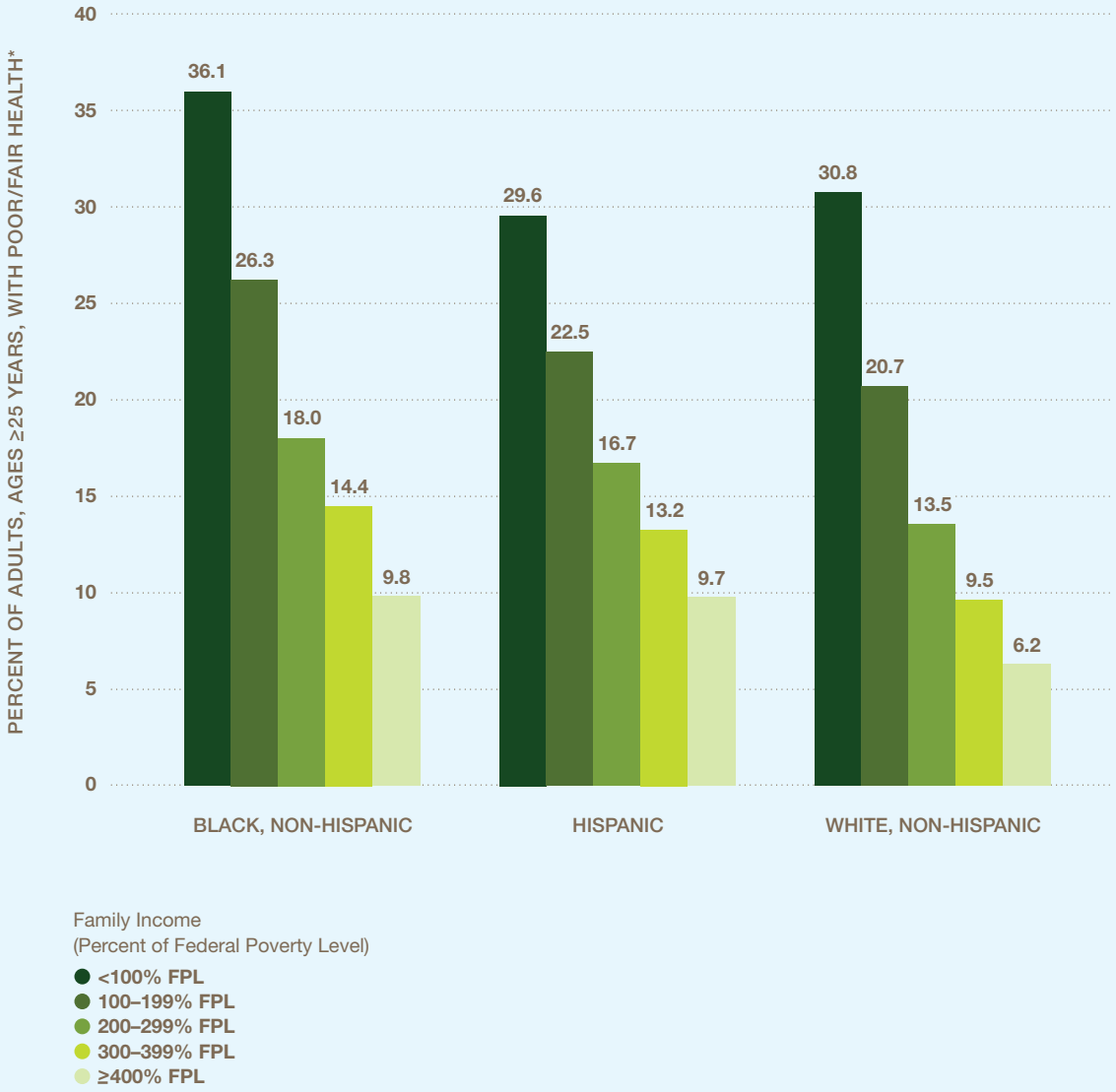
Lower-income adults are also more likely to have heart disease. The prevalence of heart disease is nearly 50 percent higher among poor adults than among adults in the highest-income group.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.
Source: [Left] National Health and Nutrition Examination Survey,1999–2004; [Right] National Health Interview Survey, 2001–2005.
*Age-adjusted

Income Is Linked With Health Regardless of Racial or Ethnic Group

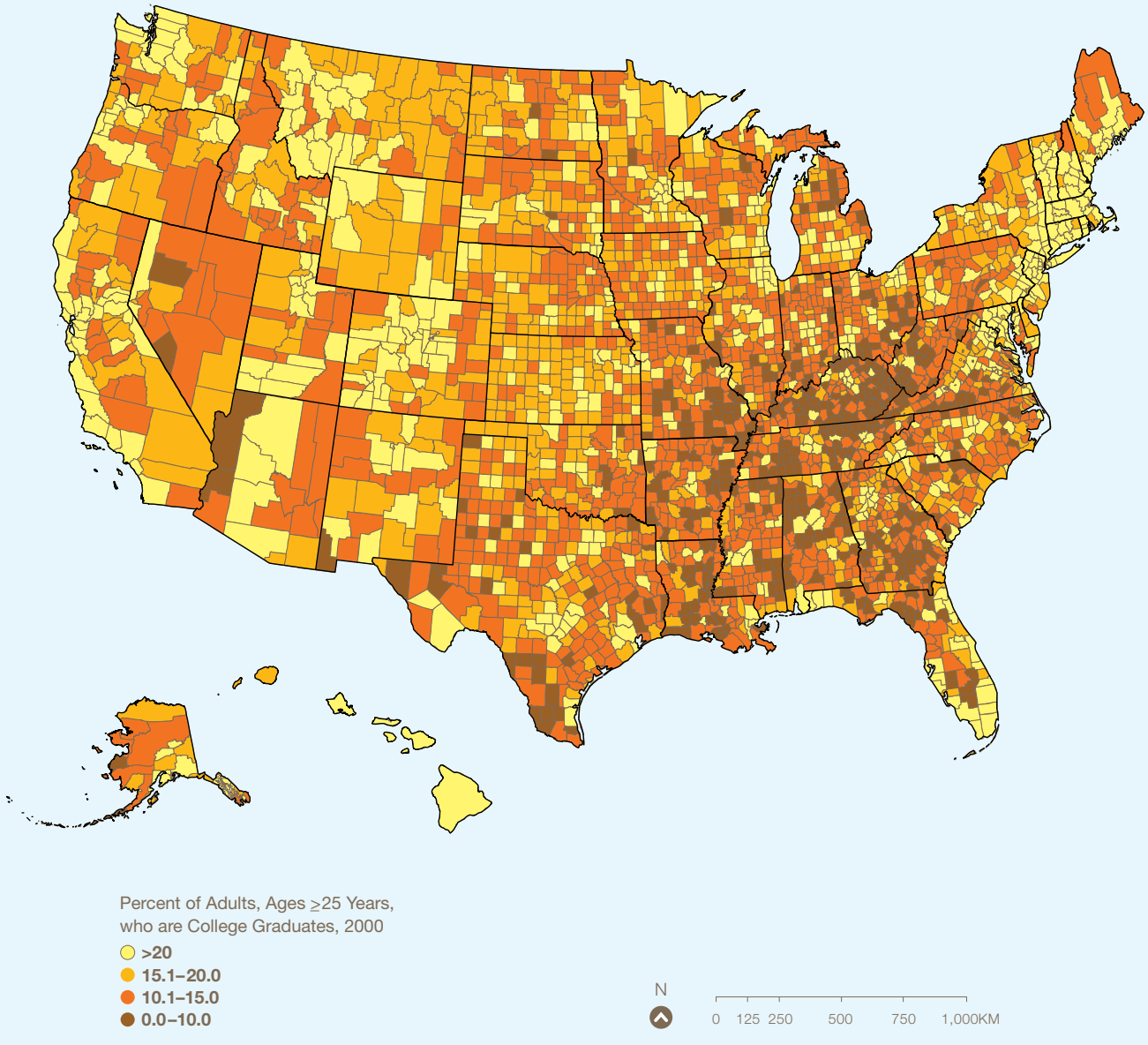
Differences in health status by income do not simply reflect differences by race or ethnicity; differences in health can be seen within each racial or ethnic group. Both income and racial or ethnic group matter.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.
Source: National Health Interview Survey, 2001–2005.
*Age-adjusted

Mapping Education

Educational attainment among adults varies markedly across different regions of the country.

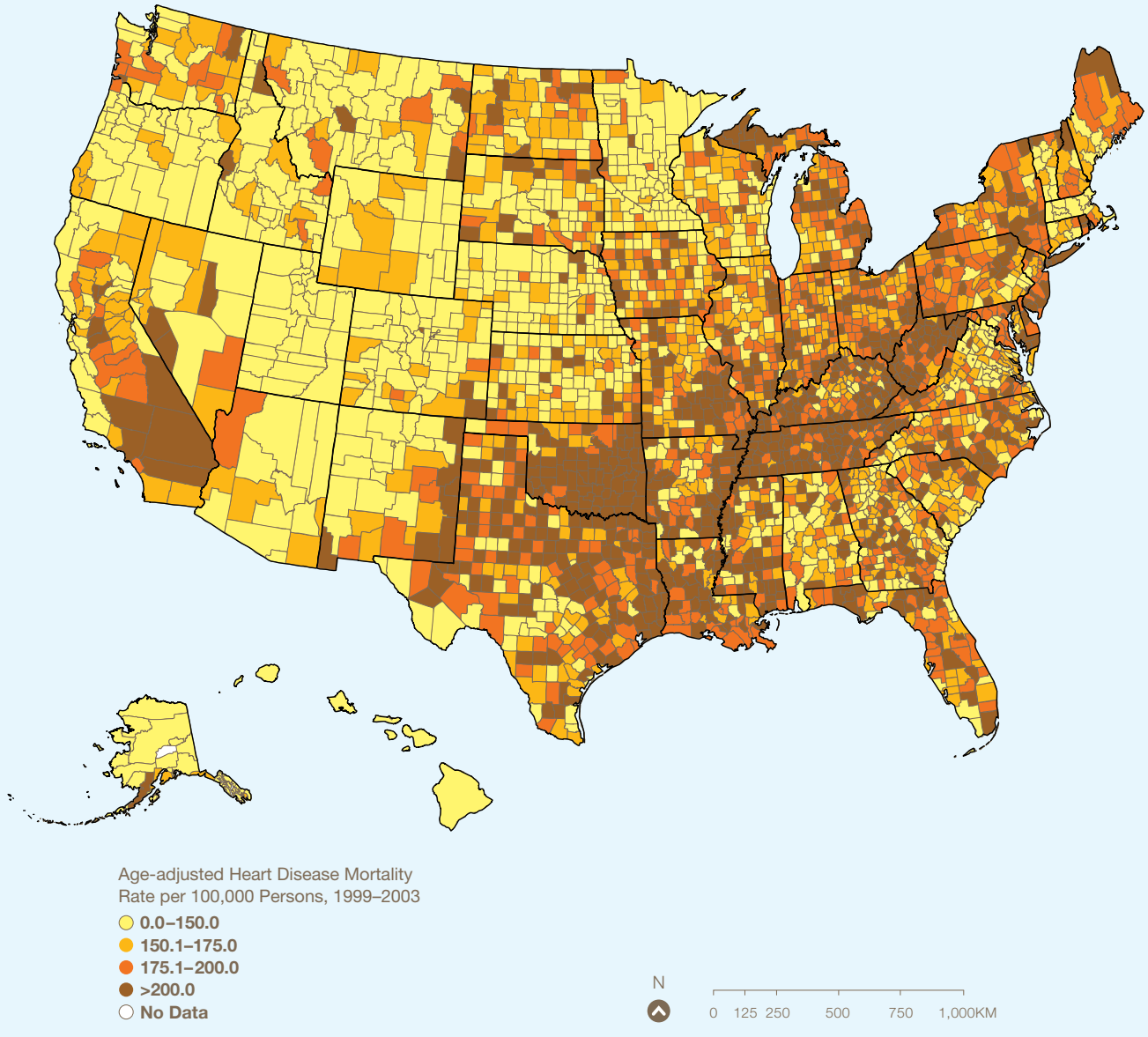


Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco; and Naomi Kawakami.

Source: Census Demographic Profile. 2000. U.S. Census Bureau, Washington, DC. From the Area Resource File (ARF) for U.S. counties, 2005. U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Rockville, MD.

Mapping Disease

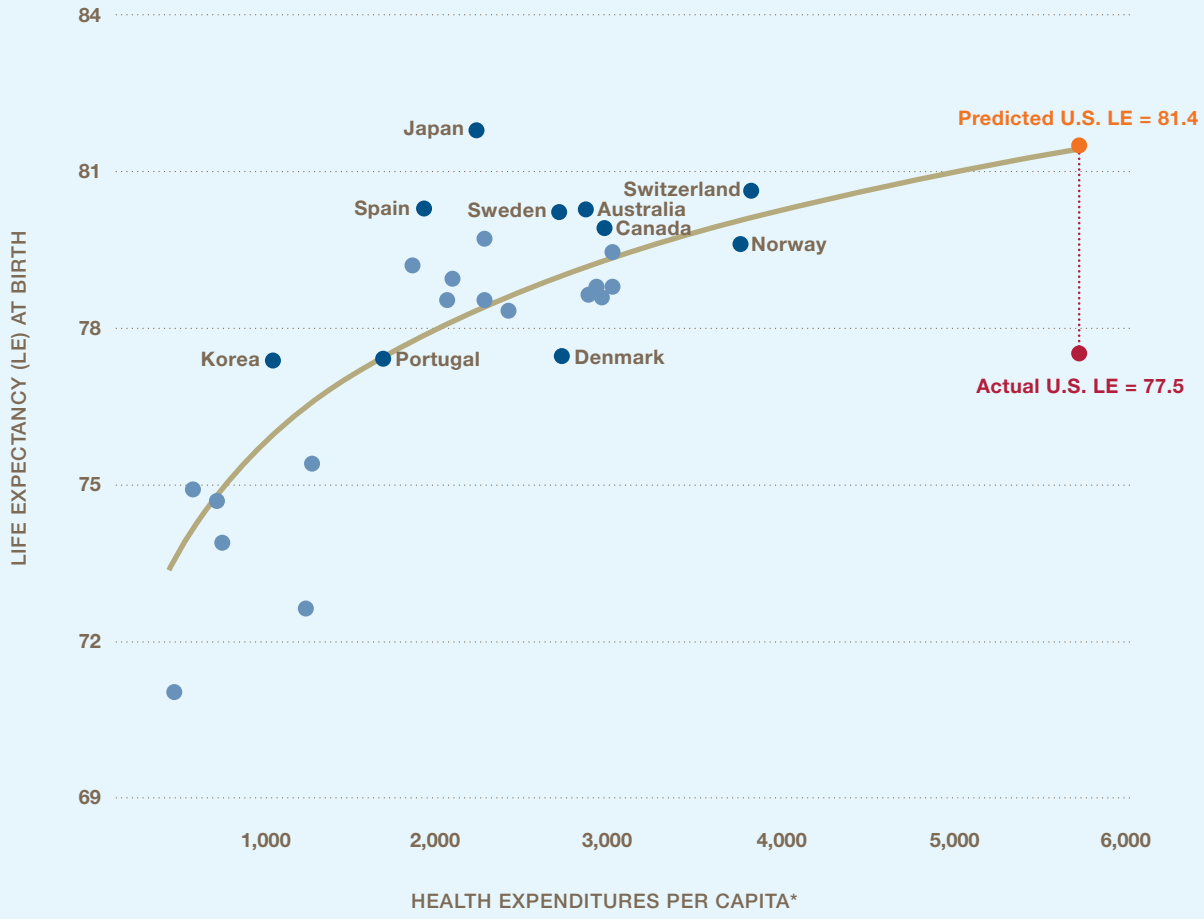
Disease varies geographically. For example, higher rates of death due to heart disease are often seen in areas where adults have college educations.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco; and Naomi Kawakami.
Source: Data for U.S. counties obtained from the Centers for Disease Control and Prevention, National Center for Health Statistics.
Compressed Mortality File 1999–2004. CDC WONDER Online Database, compiled from Compressed Mortality File 1999–2004 Series 20 No. 2J, 2007.

America Is Not Getting Good Value for Its Health Dollar

The U.S. spends more money per person on health than any other country, but our lives are shorter—by nearly four years—than expected based on health expenditures.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.

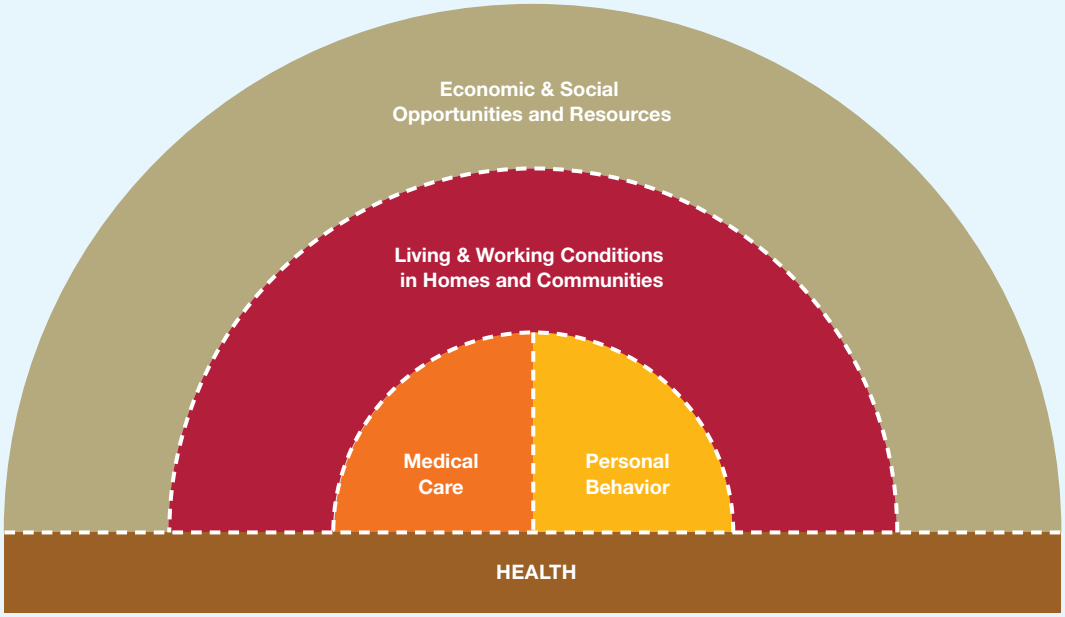
Source: OECD Health Data 2007.

Does not include countries with populations smaller than 500,000. Data are for 2003.

*Per capita health expenditures in 2003 U.S. dollars, purchasing power parity

Influences on Health: Broadening the Focus

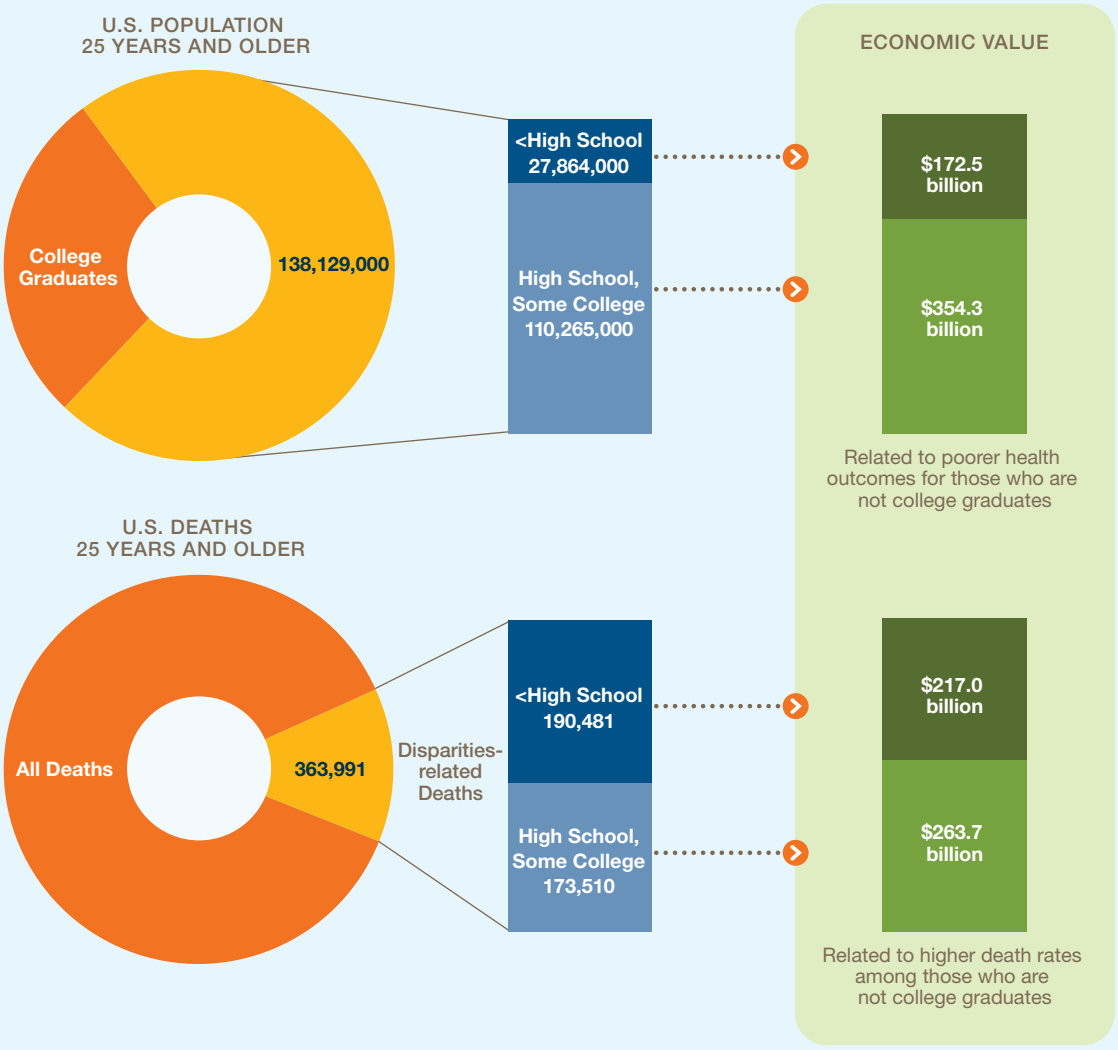
Health is shaped by many influences, including age, sex, genetic make-up, medical care, individual behaviors and other factors not shown in this diagram. Behaviors, as well as receipt of medical care, are shaped by living and working conditions, which in turn are shaped by economic and social opportunities and resources.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.

The High Economic Stakes of Health Disparities

If adult Americans who have not completed college experienced the lower death rates and better health status of college graduates, they would live longer and healthier lives. These improvements would translate into potential gains of $1.007 trillion annually.



Economic Value: $1.007 trillion

Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.
Source: Data from new analyses by William Dow and Robert Schoeni, 2008.

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