



The Potential of the Economic Stimulus Package to Address Health Inequality



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The economic stimulus package presents a rare opportunity for the federal government to address many of the systemic and avoidable social and economic problems that are the fundamental causes of health inequality.

On February 17, 2009, President Obama signed into law the *American Recovery and Reinvestment Act*, which seeks to combat the recession by making supplemental appropriations for job preservation and creation, infrastructure investment, assistance to the unemployed, and state and local fiscal stabilization, among other provisions. But the economic stimulus also has the potential to improve opportunities for quality health. Some of the provisions will directly assist the nation's public health and health care infrastructure, while others can address the many non-medical factors that shape health, such as housing, education and the environment. This brief examines the potential of some of these provisions to address health inequality.

Health inequality is deep and pervasive in the United States. Some racial and ethnic minority groups, people with low incomes, people who live in high-poverty communities and many others have poorer health from birth (e.g. infant mortality) to death (e.g. premature deaths). Across the lifespan, they suffer from higher rates of disease and disability. And these problems begin early, adding to the erosion of opportunity for children who often face a constellation of other social and economic challenges. Health inequality therefore has a devastating human and economic impact on this nation. Moreover, health inequities are likely to worsen as a result of the deepening economic crisis.

Why focus on the potential of the economic stimulus package to address health inequality? One, health inequality results fundamentally from an unequal structuring of life opportunities. Many factors are complicit in this problem, including inequitable housing, health care, jobs and educational opportunities and environmental living conditions. Second, the nation has committed itself to achieving equity in many health outcomes for racial/ethnic and socioeconomic groups (e.g., as articulated in the goals of *Healthy People 2010*). A large body of literature in public health and other fields demonstrates that these goals cannot be attained without a comprehensive approach to improving the life opportunities and living conditions of all U.S. residents. Third, strategies that address fundamental social and economic determinants of health can promote good health and therefore can be expected to reduce the national burden of illness and disability. Doing so can help to contain rapidly escalating health care costs, which burden both businesses and families. Finally, it is clear that if the nation is to emerge from the current economic crisis, the government must take steps to ensure that all of the nation's residents are able to participate in and contribute to the recovery. To the extent that some groups are less able to participate in the economic recovery because of poor health, the entire nation will suffer. This is particularly true for people of color, who constitute one-third of the population and who are expected to become a majority of U.S. residents by mid-century.

This analysis focuses on provisions in the legislation (H.R. 1) signed into law by the President on February 17, 2009. Our intention is to provide guidance to policymakers who seek to address health inequality while at the same time improving the nation's economic health. Below, we identify policy strategies that can improve health opportunities for all U.S. residents, as well as provisions in H.R. 1 that support these strategies.

Sources of Health Inequality

To begin, it is important to understand the multiple and often-overlapping sources of health inequality. Many of these factors share a root cause: racial and economic segregation. Segregation concentrates poverty and excludes and isolates communities of color from the basic and/or quality resources needed for socioeconomic equality and health. African Americans are more likely to reside in poorer neighborhoods

than whites of similar economic status. For example, in 2000 African Americans of all incomes were 36 times more likely than whites of all incomes to live in high-poverty communities. Similarly, poor African Americans were 7.3 times more likely to live in high-poverty neighborhoods than poor whites, and poor Latinos were 5.7 times more likely than poor whites to live in high-poverty neighborhoods.¹ These rates have doubled since 1960.

Segregation affects health in many direct and indirect ways:

Economic Opportunity. Segregation restricts socioeconomic opportunity by channeling non-whites into neighborhoods with poorer public schools, fewer employment opportunities and smaller returns on real estate. These limits on economic opportunity have a significant indirect impact on health as evidenced by the strong and well-documented correlation between wealth and health.

Nutrition and Physical Activity. The behavioral choices people make are constrained by the choices people have. One study revealed that black Americans are five times less likely to live in census tracts with supermarkets than white Americans.² Nationally, 50 percent of black neighborhoods lack access to a full service grocery store or supermarket.³ It's more challenging to eat right in neighborhoods where fast-food joints, liquor stores and convenience stores proliferate while supermarkets and other sources of affordable, nutritious food are hard to find. The fruit and vegetable intake of black residents increased an average of 32 percent for each supermarket in their census tract.⁴ Black and Latino neighborhoods also have fewer parks, green spaces and recreational options than white neighborhoods, including fewer gyms, recreational centers, swimming pools and safe places to walk, jog, bike or play. Their neighborhoods are less likely to be walkable (homes near stores and jobs) and more likely to have streets that are not safe after dark. Cautious parents in poor neighborhoods keep their children indoors after school – where they are more likely to watch television, play video games and eat – rather than allow them out to play on unsafe streets. These characteristics of place all contribute to higher obesity, diabetes and cardiovascular disease rates among people of color, especially poor people of color.

Environmental Justice. Dozens of empirical studies over the past 40 years have determined that low-income communities and communities of color are more likely to be subjected to environmental degradation and exposed to environmental hazards. For example, 56 percent of residents in neighborhoods with commercial hazardous waste facilities are people of color even though they comprise less than 30 percent of our population.⁵ The promise of economic benefits and new job opportunities is often in direct conflict with exposure to hazards including lead, toxic waste, air pollution and pesticides. These exposures are associated with a variety of ailments including asthma, birth defects, and cancer.

Housing. Crowded, substandard housing, elevated noise levels, decreased ability to regulate temperature and humidity and exposure to lead paint and allergens such as mold and dust mites are all more common in poor, segregated communities, as are asthma rates, sleep disorders and lead toxicity.⁶ Lack of affordable housing often leads to unsafe overcrowding conditions and the diversion of limited financial resources from other basic needs such as food and health. In addition, the organization of neighborhoods has been shown to have an effect on mental and physical health, educational achievement and the prevalence of violence and crime.

Education. There is a profound correlation between educational opportunities and health, even life expectancy. Minority students, however, remain highly concentrated in poorly-performing, high-poverty schools, despite five decades of effort since the landmark 1954 *Brown v. Board of Education* decision to desegregate them. Poor and minority school districts receive less funding, have larger class sizes, worse

physical infrastructure and more non-credentialed teachers than higher-income and majority-white districts. Fifty years after the *Brown* decision, the re-segregation of our schools continues throughout the country. According to a 2007 Harvard Civil Rights Project study, “The children in United States’ schools are much poorer than they were decades ago and more separated in highly unequal schools. Black and Latino segregation is usually double segregation, both from whites and from middle class students.”⁷

Health Care. Health care resources are inequitably distributed in many U.S. communities, with the perverse effect that communities with the highest health care needs – which are commonly characterized by low incomes and high rates of uninsurance – often have the fewest health care providers and institutions.

Solutions to Health Inequality in the Stimulus Package

Despite the challenges to eliminating health inequality, the stimulus package presents an opportunity to improve living conditions, increase access to high-quality health care and improve economic opportunities. These include strategies to:

Improve opportunities for healthy infant and child development. Expanding maternal and infant health programs offer significant long-term savings. Nurse home visitation programs like the Nurse-Family Partnership have worked to improve the health, well-being and self-sufficiency of low-income families. For high-need communities, these programs bring essential services that provide positive outcomes to pregnancies by helping women improve their prenatal health, improve their child’s health and development and improve their parental life course. Evidence has shown that nurse-visited women had fewer subsequent pregnancies and births, and used less welfare. Nurse-visited children demonstrated higher intellectual functioning and fewer behavioral problems and over time, a reduction in antisocial behavior.⁸

Expand access to high-quality preschool and other early intervention programs. When a child receives a high-quality preschool education, the personal, social and economic impact over time is long-lasting for both them and their families. Early intervention programs such as the Perry Preschool Project and the Abecedarian Project support disadvantaged, at-risk children by providing them with a rich academic curriculum and essential social services. With a societal economic return of seven dollars per dollar invested, children involved in these programs have achieved higher educational attainment and performance. Participants earn significantly higher scores on intellectual and academic measures as young adults, attained significantly more years of total education, and were more likely to attend a 4-year college. Additionally, they have shown a reduction in teen-aged pregnancy, higher adult wages and higher rates of employment and home ownership when compared with preschool controls.⁹ The Title VIII provisions pertaining to Head Start/Early Start and the Child Care Development Block Grant would expand funding for these vital programs, which are currently unable to meet demand and serve the needs of all eligible children.

Improve food and nutritional options in schools and communities, by expanding federal nutrition programs and improving the retail food environment. Title I of H.R. 1 would expand the Special Supplemental Nutrition Program (SNAP) for Women, Infants and Children (WIC) to meet the growing demand for nutritional services stemming from the economic downturn. The Title VII Emergency Food and Shelter Program provides funds to local community organizations to provide food, shelter and services to hungry and homeless people. And the Title IX Senior Nutrition Programs provides \$200 million to fiscally-strapped states for elderly nutrition services.

Expand access to health care and address health care inequality. Numerous studies document the negative health and economic consequences of inadequate access to health care. To a large degree the problem is driven by

the health insurance crisis, as the quality and timeliness of care is jeopardized for the nation's 45 million uninsured residents. To that end, the bill's provisions to expand insurance coverage will help improve access to care. These include over \$30 billion to extend health insurance coverage to the unemployed, extending the period of COBRA coverage for older and tenured workers beyond the 18 months provided under current law; 100 percent federal funding through 2010 for optional state Medicaid coverage of individuals (and their dependents) who are receiving unemployment benefits or have exhausted those benefits and have no health insurance coverage; and federal Medicaid Aid to states (FMAP), which provides approximately \$87 billion to states, increasing through the end of FY 2010 the share of Medicaid. But insurance coverage alone does not guarantee access to appropriate health care. The stimulus package contains several provisions that would improve the availability and diversity of health care professionals, as well as health clinics and centers. For example, the Community Health Centers provision allocates \$1.5 billion for the expansion of community health centers, which have proven effective in providing high-quality health care to underserved communities. The Training for Primary Care Physicians and Nurses provision would expand the highly-successful National Health Service Corps, which provides incentives for health care professionals to work in underserved communities. In addition, the Rural Community Facilities Program offers funds to increase construction of health care facilities in rural communities, as does the Title VII Indian Health Service Facilities provision, which provides funds to modernize aging IHS facilities. Other provisions of the stimulus package have the potential to encourage more equitable, high-quality care, particularly for communities of color and low-income populations. For example, the Title XIII provisions for Health Information Technology provide funds to build the HIT infrastructure and support the implementation of HIT in health care institutions. More importantly from a health equity perspective, the law requires that HIT data systems include fields for and mandate the collection of information on patient race, ethnicity, primary language, gender and education or income. Such data collection will promote transparency and foster quality improvement efforts to eliminate health care quality disparities.

Address environmental health hazards and improve environmental health resources. Several provisions of H.R. 1 would provide funds to clean up sources of environmental degradation and pollution, such as the Superfund Remedial Cleanup Program, which would address the backlog of hazardous and toxic waste sites scheduled for cleanup, Brownfields Cleanup grants, and the Diesel Emission Reduction Act supplemental funds to reduce diesel emissions. In addition, several provisions would improve the quality of drinking water, particularly for low-income and rural populations. These include the Rural Water and Waste Disposal Program, the Water and Related Resources supplemental funds and the Clean Water State Revolving Fund and Drinking Water State Revolving Fund.

Improve the quality, affordability, and availability of healthy housing. Several provisions of H.R. 1 will improve housing availability and quality for low-income families, such as the Rural Housing Service, which provides funds for home construction and rehabilitation, and the Weatherization Assistance Program which would help people with incomes up to 200 percent of the federal poverty level to weatherize their homes. The Public Housing Capital Fund, HOME Investment Partnerships, and Native American Housing Block grants also would improve housing options for low-income communities and communities of color. This title also includes provisions, such as grants for lead paint removal, which can address health hazards that disproportionately affect low-income households.

Develop effective, sustainable, multi-disciplinary community-based strategies and interventions in collaboration with and that respond to the specific needs of health disparity communities. Federal programs, such as the Racial and Ethnic Approaches to Community Health (REACH) 2010 funded under the Centers for Disease Control and Prevention (CDC), have proven successful in improving community health. These approaches improve health in communities, health care settings, schools, after-school programs, work sites and other social

structures. The Title VIII Prevention and Wellness Fund is vitally important to develop and maintain clinical and community-based prevention and wellness strategies and public health workforce development activities.

Improve K-12 and higher education opportunities. Because of the strong relationship between educational attainment and health, improving educational opportunities is an important lever to improve population health and reduce health inequality. The Title VIII education provisions would improve educational opportunities, particularly for disadvantaged children, by providing additional funding for educational technology, special education, assistance to disadvantaged children and fiscal relief to states to prevent cutbacks to key services. These provisions also would reduce financial barriers to higher education by increasing Pell Grants and student loans for low- and moderate-income students.

Improve transportation. Transportation shapes health inequality in many ways. A lack of public transportation to job-rich communities can limit the socioeconomic mobility of people in job-poor communities, just as it can encourage automobile use which contributes to poor air quality. Well-designed transportation can encourage people to lead more active lifestyles, for example by encouraging biking or walking to school, work and other places. And the safe design and construction of transportation facilities and infrastructure can reduce avoidable accidents and injury. Title XII of H.R. 1 provides resources for improving and expanding public transportation and improving highways and bridges. Directing these resources to communities with an inadequate transportation infrastructure is likely to help reduce health inequality.

Create new jobs. A major focus of the stimulus package is to create new jobs. An often-overlooked benefit of employment programs is that they can help to reduce health inequality, given the relationship between health and economic status. These programs can be particularly beneficial in the effort to reduce health inequality when they are focused to address low-income and economically depressed communities. The Title III Economic Development Assistance Program would leverage private investment and stimulate job growth in low-income communities and can therefore be expected to improve the health of these communities.

Some provisions in H.R. 1 provide funds for services that cut across many of the needs identified above; these include the Community Services Block Grant, which would provide \$1 billion to local communities to support employment, food, housing and health care efforts targeted to low-income populations, and the Compassion Capital Fund, which provides \$100 million in grants to faith-based and community organizations to provide social services.

Specific provisions in H.R. 1 that support the elimination of health inequality are listed below:

TITLE I – Agriculture, Rural Development, Food and Drug Administration and Related Agencies

Rural Community Facilities Program – provides an additional \$130 million in financing to local governments, nonprofit corporations and federally-recognized Indian tribes for the development of essential community facilities – including health care facilities – in rural areas. The House Appropriations Committee estimates that funds would give an additional 17 percent of rural communities with new or improved health care facilities.

Rural Water and Waste Disposal Program – provides an additional \$1.38 billion in grants and loans to rural communities to improve drinking water and wastewater treatment infrastructure. Funding would

provide an additional 3.4 million households with new or improved service, and priority is given to small and low-income communities.

Rural Housing Service, Rural Housing Insurance Fund Program Account – provides an additional \$200 million in direct housing loans to low- and very-low-income families to purchase, build, or rehabilitate homes in rural areas. The House Appropriations Committee estimates that the funding would provide an additional 157,000 homeownership opportunities.

Food and Nutrition Service, Special Supplemental Nutrition Program (SNAP) for Women, Infants and Children (WIC)

WIC Management Information Systems – provides \$100 million in funding to establish, improve or administer management information systems to improve program delivery and expand implementation of electronic benefit transfer capabilities.

SNAP – provides \$19.9 billion in supplemental funding for a 13.6 percent benefit increase for SNAP, which will allow over 32 million individuals to receive additional food assistance. In addition, \$300 million is provided to the states to administer the increased participation levels. Also makes all states eligible to participate in the Afterschool Feeding Program for At-Risk Children, which provides meals in schools where at least half of the children in the attendance area are eligible for free and reduced price school meals.

TITLE II – Commerce, Justice and Science, and Related Agencies

Economic Development Assistance Programs – provides an additional \$150 million in funding for public works programs in low-income communities, with the goal of leveraging private investment and job creation.

TITLE IV – Energy and Water

Water and Related Resources – provides \$1 billion for the Bureau of Reclamation’s efforts to manage, develop and protect water resources in the western United States. Funding will support capital improvement projects, including funds to provide clean drinking water to rural areas and for water reuse and recycling projects to improve water supply in areas impacted by drought.

Weatherization Assistance Program – provides an additional \$5 billion to help low-income families reduce their energy costs by weatherizing their homes. Funds would expand eligibility for this program by increasing the maximum income from 150 percent to 200 percent of the poverty level.

TITLE VI – Homeland Security

Emergency Food and Shelter Program – provides an additional \$100 million in funds to local community organizations to support food, shelter and services to hungry and homeless people. Funds can be used for mass shelter, mass feeding, food distribution, utility payments to prevent service cut-off and rent or mortgage assistance to prevent evictions or assist people leaving shelters to establish stable living conditions.

TITLE VII – Interior, Environment, and Related Agencies

Bureau of Indian Affairs Infrastructure Improvement and Repair Recovery Funding – provides \$450 million to address maintenance backlogs at schools, dams, detention and law enforcement facilities, and

over 24,000 miles of roads. BIA schools alone have an over \$1 billion construction and maintenance backlog including shamefully unsafe conditions.

Superfund Remedial Cleanup Program – provides \$600 million to clean up hazardous and toxic waste sites that threaten health and the environment. Of the over 15,000 uncontrolled hazardous waste sites nationwide, EPA has 1,255 sites on its National Priority List, selected based on a hazard ranking system. There are many Superfund sites ready for construction, but not funded due to budget shortfalls and over 600 sites with ongoing construction that could be accelerated. The Agency for Toxic Substances and Disease Registry estimates that 1 in 4 American children lives within 4 miles of a hazardous waste site and warns that these children have a greater potential for health problems.

Leaking Underground Storage Tanks – provides \$200 million for enforcement and cleanup of petroleum leaks from underground storage tanks at approximately 1,600 additional sites. There are an estimated 116,000 sites with the potential to contaminate important water supplies.

Clean Water State Revolving Fund – provides \$4 billion for loans to help communities upgrade wastewater treatment systems. EPA estimates a \$388 billion funding gap. The Association of State and Interstate Water Pollution Control Administrators found that 26 states have \$10 billion in approved water projects.

Drinking Water State Revolving Fund – provides \$2 billion for loans for drinking water infrastructure. EPA estimates that 9 percent of Americans who rely on a community water system to supply their drinking water received water that did not meet all applicable health standards in 2007, and that there is a \$274 billion funding gap. The National Governors Association reported that there are \$6 billion in ready-to-go projects, which could quickly be obligated.

Diesel Emissions Reduction Act Grants and Loans – provides \$300 million for grants and loans to state and local governments for projects that reduce diesel emissions, benefiting public health and reducing global warming. This includes technologies to retrofit emission exhaust systems on school buses, replace engines and vehicles, and establish anti-idling programs. 70 percent of the funds go to competitive grants and 30 percent funds grants to states with approved programs. Last year EPA was able to fund only 27 percent of the applications received.

Brownfields Cleanup – provides \$100 million for competitive grants for evaluation and cleanup of former industrial and commercial sites - turning them from problem properties to productive community use. Last year EPA was only able to fund 37 percent of Brownfields applications.

Indian Health Service Facilities – provides an additional \$500 million to modernize aging hospitals and health clinics and make health care technology upgrades to improve health care for underserved rural populations.

TITLE VIII – Labor, Health and Human Services, Education

Community Health Centers – provides \$1.5 billion, including \$500 million to increase the number of uninsured Americans who receive quality health care and \$1 billion to renovate clinics and make health information technology improvements. More than 400 applications submitted earlier this year for new or expanded CHC sites remain unfunded. A George Washington University study showed that a \$250 million annual increase in CHC funding could support care for an additional 1.8 million people in communities

where CHCs are located. And a National Association of Community Health Centers study finds that there are \$4.4 billion in existing facility renovation and repair needs.

Training for Primary Care Physicians and Nurses – provides \$500 million to address shortages by training primary health care providers including doctors, dentists and nurses as well as helping pay medical school expenses for students who agree to practice in underserved communities through the National Health Service Corps. HHS estimates that 7,000 additional primary care physicians are needed in rural and inner-city areas and that by 2020 there will be a shortage of 66,000 primary care physicians and more than one million nurses nationwide.

Child Care Development Block Grant – provides \$2 billion to provide child care services for an additional 300,000 children in low-income families while their parents go to work. Today only one out of seven eligible children receives care. Despite this, funding for the CCDBG has been nearly flat since 2002, with nearly 140,000 fewer children receiving child care help today than in 2002.

Head Start/Early Head Start – provides \$2.1 billion to provide comprehensive development services to help 110,000 additional children succeed in school. Funds are distributed based on need. Currently, 910,000 low-income children participate in Head Start, which is only about half of all eligible preschoolers and less than three percent of eligible infants and toddlers.

Community Services Block Grant – provides \$1 billion for grants to local communities to support employment, food, housing, and health care efforts serving those hardest hit by the recession. Community action agencies have seen dramatic increases in requests for their assistance due to rising unemployment, housing foreclosures and high food and fuel prices.

Senior Nutrition Programs – provides \$200 million for formula grants to states for elderly nutrition services including Meals on Wheels and Congregate Meals.

Prevention and Wellness Fund – provides \$1 billion to fight preventable chronic diseases, the leading cause of deaths in the U.S., and infectious diseases. Preventing disease rather than treating illnesses is the most effective way to reduce health care costs. This includes hospital infection prevention, Preventive Health and Health Services Block Grants for state and local public health departments, immunization programs and evidence-based disease prevention. Funds also support evidence-based clinical and community-base prevention and wellness strategies and public health workforce development activities.

Education – provides resources that can help to improve educational options, particularly for disadvantaged children, including:

- funds to local school districts through Title I (\$13 billion), IDEA (\$12.2 billion), and the Education Technology program (\$650 million);
- \$70 million in grants to states for education of homeless children and youth;
- \$15.6 billion to increase the Pell grant by \$500 per grant.

TITLE XII – Transportation, and Housing and Urban Development

Highway Infrastructure Investment – provides \$27.5 billion for highway and bridge construction projects. It is estimated that states have over 5,100 projects totaling over \$64 billion that could be awarded within 180 days. These projects create jobs in the short term while saving commuters time and money in the

long term. In 2006, the Department of Transportation estimated \$8.5 billion was needed to maintain current systems and \$61.4 billion was needed to improve highways and bridges.

Public Housing Capital Fund – provides \$4 billion for building repair and modernization, including critical safety repairs. Every dollar of Capital Fund expenditures produces \$2.12 in economic return. \$4 billion of the funds will be distributed to public housing authorities through the existing formula and \$1 billion will be awarded through a competitive process for projects that improve energy efficiency.

HOME Low Income Housing Tax Credits – provides \$2.25 billion to help local communities build and rehabilitate low-income housing.

Native American Housing Block Grants – provides \$510 million to rehabilitate and improve energy efficiency at some of the over 42,000 housing units maintained by Native American housing programs.

Lead Paint – provides \$100 million for competitive grants to local governments and nonprofit organizations to remove lead-based paint hazards in low-income housing.

TITLE XIII – Health Information Technology

Health Information Technology – provides \$19 billion for health information technology to prevent medical mistakes, provide better care to patients and introduce cost-saving efficiencies. Funds will be used to invest in HIT architecture supporting nationwide electronic exchange of health information, to provide grant to institutions and providers to acquire HIT products and to support training of health care professionals.

TITLE XIV - State Fiscal Stabilization Fund

State Fiscal Stabilization Fund – provides \$79 billion for a State Fiscal Stabilization Fund to provide fiscal relief to the States to prevent cutbacks in critical education and other high priority services. At least 61 percent of the funds must be used by states to restore state aid to school districts under the primary state K-12 education funding formula

Other Important Provisions:

COBRA Health Care for the Unemployed – provides \$30.3 billion to extend health insurance coverage to the unemployed, extending the period of COBRA coverage for older and tenured workers beyond the 18 months provided under current law.

Medicaid Coverage for the Unemployed – provides 100 percent federal funding through 2010 for optional State Medicaid coverage of individuals (and their dependents) who are receiving unemployment benefits or have exhausted those benefits and have no health insurance coverage. Other optional coverage groups are individuals (and their dependents) who are involuntarily unemployed and uninsured and whose family income does not exceed 200 percent of poverty, and unemployed uninsured individuals who are receiving food stamps.

Payments to Disabled and Elderly – provides \$4.2 billion to help 7.5 million low-income disabled and elderly individuals with rising costs by providing an additional SSI payment in 2009 equal to the average monthly federal payment under the program (approximately \$450 for an individual and \$630 for a couple).

Medicaid Aid to States (FMAP) – provides approximately \$87 billion to states, increasing through the end of FY 2010 the share of Medicaid costs the federal government reimburses states, with additional relief tied to rates of unemployment.

Temporary Assistance for Needy Families – provides \$2.5 billion for block grants to help States deal with the surge in families needing help during the recession and to prevent them from cutting work programs and services for abused and neglected children.

¹ Poverty and Race Research Action Council with Nancy Denton and Bridget Anderson, analysis of U.S. Census Bureau data, 2005.

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⁴ Kimberly Morland, PhD, Steve Wing, PhD, and Ana Diez Roux, MD, PhD The Contextual Effect of the Local Food Environment on Residents' Diets: The Atherosclerosis Risk in Communities Study Am J Public Health. 2002 November; 92(11): 1761–1768.

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