



Leadership for Healthy Communities

Advancing Policies to Support
Healthy Eating and Active Living

POLICY BRIEF | APRIL 2009

Supporting Healthy Communities Through the American Recovery and Reinvestment Act of 2009

Introduction

To create jobs and promote economic recovery through a combination of investments and tax cuts, President Barack Obama recently signed into law the \$787 billion American Recovery and Reinvestment Act of 2009 (referred to in this document as the economic recovery act). State and local governments, many of which are confronting revenue shortfalls and budget deficits, will receive at least \$144 billion of these funds. A large proportion of the funds has been designated for the construction and maintenance of public roadways, buildings and facilities, as well as investments in clean energy, disease prevention, community development, education, crime prevention and direct food assistance to those in need. This law provides state and local policy-makers with a unique opportunity to create healthier environments and reduce the childhood obesity epidemic by increasing access to healthy foods and safe places to walk, bike and play.

Currently, more than two-thirds of U.S. adults¹ and almost one-third of children and adolescents ages 2 to 19 are overweight or obese,² with even higher rates in African-American, Latino and lower-income communities.

Overweight and obese children and adolescents are likely to become overweight and obese adults, putting them at increased risk for a number of diseases and health conditions, including heart disease, stroke, hypertension, type 2 diabetes, some cancers, sleep apnea and respiratory problems.³ Already, obesity costs our nation \$117 billion per year in medical expenses and other indirect costs, including lost productivity.⁴

This policy brief outlines many of the specific ways that state and local policy-makers can use funding from the economic recovery act to create safe places for physical activity and improve access to healthy foods in communities. This brief is especially targeted towards decision-makers serving vulnerable communities, including lower-income, rural, and racial and ethnic minority populations. These populations, which have higher rates of overweight and obesity, have been disproportionately affected by the economic downturn and rise in unemployment that the economic recovery act is intended to reverse.



Investing in Complete Streets

The economic recovery act provides \$48 billion for transportation investments, most of which will be distributed to state and local governments through formulas and competitive grants. Of these funds, \$27.5 billion can be used for projects that create complete streets, streets designed to function in ways that enable safe and convenient access for all users. Pedestrians, bicyclists, motorists and public transportation users of all ages and abilities are able to safely move along and across a complete street.

The environments in which people live affect their opportunities to engage in healthy behaviors. For example, people are more likely to walk and bike if they live in neighborhoods with safe infrastructure, such as sidewalks, crosswalks, bike lanes and paths.

To date, states have invested most of their federal transportation funds in building new roads and highways that allow for high-speed, high-volume traffic, rather than in pedestrian and bicycle infrastructure or public transportation.⁵ This has resulted in urban sprawl, and few safe or convenient alternatives to vehicular transportation, with health, economic and environmental consequences.⁶

What the Research Shows

- In 2005, the Transportation Research Board and the Institute of Medicine reviewed the available evidence on the influence of the built environment—our man-made environment of roads, sidewalks and buildings—on physical activity levels. Their Committee on Physical Activity, Health, Transportation and Land Use found evidence suggesting that the built environment can encourage physical activity.⁷ Subsequent systematic reviews of the research concluded that land use and transportation policies and practices affect physical activity levels.^{8,9}
- Creating infrastructure that increases the number of people who live within walking distance to shopping, work and school can help increase overall physical activity levels. Improving the connectivity of streets and sidewalks, preserving or creating green space and improving the safety and aesthetic qualities of the built environment also can encourage increased activity.¹⁰ For example, one California study found that adding and improving bike lanes, traffic signals and crosswalks in communities increased the number of

children walking or biking to school. Students were three times more likely to start walking or biking on routes that included improvements than they were before these improvements were made.¹¹

- One study found that each additional hour spent in the car per day was associated with a 6 percent increase in obesity risk, but each additional kilometer walked per day was associated with a 4.8 percent decrease in obesity risk.¹²
- In addition to the health benefits of walking and bicycling, this type of “active transport” reduces fuel consumption, parking costs, automobile maintenance expenses and carbon emissions that pollute the environment.¹³

Columbia Creates 100 Miles of Pedestrian and Bike Trails and Sidewalks

Columbia, Mo., has used transportation infrastructure funds to promote active living. Through federal grant funding, the city constructed a non-motorized transportation system that connects businesses and shopping centers to parks, schools, neighborhoods, nature trails and other facilities through a comprehensive system of more than 100 miles of new pedestrian and bicyclist trails and sidewalks. As a result of the program, GetAbout Columbia, city residents and visitors rely less on cars, which has health, environmental and economic benefits.¹⁴

Improving Mass Transit

The economic recovery act also provides \$8.4 billion for public transportation investments and an additional \$1.5 billion in competitive grants to state and local governments, which can be used for public transportation investments. Improving public transportation infrastructure and access to trains and buses creates healthier communities because people who use public transportation walk more than people who do not.¹⁵ Public transportation trips nationwide have increased 24 percent over the last 10 years, while miles driven have increased only 10 percent; this trend is expected to continue.¹⁶

What the Research Shows

- One study found that people who use public transit walk 8.3 more minutes per day than people who do not, burning an additional 25 to 39 calories.¹⁷ If their caloric intake remains constant, the reductions in obesity from this increase in physical activity could save between \$4,800 and \$6,600 in medical costs per person, per year.¹⁸
- Investment in public transportation also creates numerous construction, maintenance and operating jobs.¹⁹ Transit projects create 9 percent more jobs per dollar spent than road-and bridge-maintenance projects and nearly 19 percent more jobs than new road or bridge projects.²⁰

Atlanta Beltline Initiative Connects Parks, Trails and Public Transport

Atlanta's "BeltLine Initiative" will create a 22-mile corridor of interconnected parks, trails and light-rail routes that surround the downtown area. The goal is to address issues of urban sprawl, particularly traffic and lack of green space. The completed project will connect 45 neighborhoods and nearly 1,300 acres of new green space, plus improvements to 700 acres of existing parks. The project is expected to generate more than \$20 billion in economic development and create 78,000 jobs over its 25-year duration.²¹

Building Healthier Schools

The economic recovery act provides \$8.79 billion from a new state fiscal stabilization fund that can be used for public school modernization, repair or renovation. It also includes up to \$22 billion in bonds that can be used for public school construction or for the acquisition of land for a public school. Considering the significant amount of time that children spend in school and the research that shows physically active, healthy children learn better,²² schools have a unique opportunity to improve children's health and academic achievement by increasing opportunities for them to be more active during the school day and after school hours. For example, state and local school officials can ensure that plans for

construction, repair and modernization of schools include improvements to gymnasiums, playgrounds and other recreational facilities. However, funds may not be used for swimming pools, stadiums or other facilities primarily used for athletic contests or other events for which admission is charged.

What the Research Shows

- Children and adolescents who have safe places to be physically active before, during and after the school day and on weekends are more physically active²³ and have lower childhood obesity rates than those who do not.²⁴
- Children who live in poor or minority neighborhoods are less likely to have school recreation facilities and playgrounds that are accessible outside of school hours.²⁵
- Communities of color and communities with lower percentages of residents who have graduated from college have fewer public recreation facilities, such as parks and community centers, that provide opportunities for physical activity outside of the school day compared with predominantly white communities and communities with higher percentages of residents who have graduated from college.²⁶ People who live in areas with more recreation facilities are also more physically active and less likely to be overweight or obese.²⁷

Dougherty County School System Creates Fitness Centers for Middle School Students

As part of the "Youth Becoming Healthy" program to reduce barriers to physical activity for middle school students and their families, the Dougherty County School System in Albany, Ga., converted vacant classrooms into new fitness centers in four of the county's six middle schools.²⁸ The fitness centers are used during physical education classes and as part of an after-school program. Plans are in progress to use the facility as part of a six-week summer camp.²⁹

Making Neighborhoods Healthier

The economic recovery act provides significant funding that can be used to increase opportunities for physical activity and access to healthy foods in neighborhoods. This includes \$1.13 billion for community development through the rural community facilities program and community development block grants. It also includes \$9 billion for investments in housing maintenance and redevelopment.

Rural Community Development

The economic recovery act includes \$130 million for essential community facilities in rural areas through the rural community facilities program. These funds can be used to improve opportunities for active living and healthy eating in rural communities through the construction and maintenance of community centers, recreation centers, food banks, farmers' markets and mixed-use developments. Because rural community residents often live far away from schools, workplaces and commercial centers, they face unique challenges to creating healthy environments.

What the Research Shows

- As in many other communities, rural children also are experiencing high rates of overweight and obesity. Fifteen percent of children ages 10 to 17 living in rural areas are overweight, and 16.5 percent of children ages 10 to 17 living in rural areas are obese.³⁰
- More than 25 percent of rural children do not meet physical activity recommendations.³¹
- Many rural communities have no supermarkets, and their residents must rely on convenience stores that typically carry less healthy and more expensive foods.³²

Menno Saves Grocery Store with Rural Community Development Funds

Menno, S.D., a rural town of 729 residents, used rural community development funds to save the town's only grocery store. The funds were used to purchase the store from its ailing owner and to repair coolers, freezers and lights that were old and inefficient. In addition to ensuring that the town's residents would retain access to healthy foods, the new store also was able to achieve a 42.9 percent savings in energy costs.³³

Community Development Block Grants

The community development block grant program provides \$1 billion in funding, which can be used in a variety of ways to increase opportunities for physical activity and access to healthy foods. These include constructing mixed-use developments that contain affordable housing and commercial space; constructing and maintaining public recreation centers, parks and playgrounds; cleaning up and beautifying neighborhoods; providing incentives for new supermarkets; and financing farmers' markets, community gardens and food banks.

What the Research Shows

- Mixed-use developments provide jobs, economic development and affordable housing options for the community. They also provide healthy neighborhood environments for residents.³⁴
- People are more likely to be physically active if they have neighborhoods or nearby public open spaces that they consider aesthetically pleasing.^{35,36}
- Research suggests that having access to one or more supermarkets, which often sell a greater variety of foods at lower prices, compared with smaller grocery or convenience stores is associated with greater consumption of fruits and vegetables and reduced saturated fat intake.³⁷ Greater access to supermarkets and healthy foods, and reduced access to fast-food restaurants and convenience stores is also associated with lower rates of obesity.³⁸

- In addition to social and economic development benefits, community gardens and farmers' markets provide access to fresh fruits and vegetables.³⁹

New York City Parks Department Renovates Parks in the South Bronx

The New York City Parks Department recently renovated four parks in the South Bronx, adding new play equipment, spray showers, basketball courts, seating, fencing and landscaping. This project was part of a \$200 million investment to improve neighborhood parks, renovate recreation facilities, develop the Bronx Greenway, improve and expand access to the Bronx waterfront, and make the borough more "green."⁴⁰ The renovated parks provide both economic development for the community and a safe, attractive place for Bronx residents to be physically active.

Housing Redevelopment

The economic recovery act provides \$9 billion in funding for public housing and redevelopment that can affect the health of communities. The \$9 billion includes \$4 billion for public housing capital and management, \$2.25 billion for capital investments in low-income housing tax credit projects and \$2.25 billion for project-based rental assistance, which includes \$250 million for public housing energy and green retrofits for these properties. Research now tells us that our physical and social environments affect our health even more than we have previously imagined. Where we live and what we have access to directly impacts our behavior and health. Policy-makers can use housing redevelopment funds to create and improve affordable homes in active, walkable neighborhoods. Neighborhoods that are accessible to public transportation and close to open space, community services and shops are ideal.

What the Research Shows

- People who live in walkable neighborhoods are more likely to engage in physical activity. In one study, 37 percent of adults in the most walkable neighborhoods engaged in at least 30 minutes of daily physical activity, but only 18 percent of adults in the least walkable neighborhoods did so.⁴¹
- Studies have found that children who live in walkable neighborhoods are more likely to walk to school,⁴² and children who walk to school are also more active throughout the day.^{43,44}
- People are much more likely to be physically active if there are parks, trails and other recreation facilities located in close proximity to their homes.^{45,46,47} Localities with parks, playgrounds, trails and natural open space also have higher land values and reduced costs associated with urban sprawl.⁴⁸
- Lower-income and racial and ethnic minority populations, who have the highest rates of obesity, have less access to public parks and trails and more barriers to using the facilities that do exist.⁴⁹ Locating public housing facilities for lower-income residents in walkable communities with public recreation facilities could help to reduce these disparities.

Seattle Transforms Dilapidated Neighborhood into Vibrant Community

The Seattle Housing Authority worked closely with community members to rebuild a formerly crime-ridden and dilapidated hilltop neighborhood into a mixed-use, mixed-income and environmentally sensitive community. The mixed-income neighborhood is composed of half rental units and half owner-occupied units, and the new development includes parks, a public library, a health clinic and retail space. The more than 1,700 new units are expected to consume less water, electricity and natural gas than the community's previous 716 units. In addition, the 600 rental housing units built by the Seattle Housing Authority are all certified to be environmentally friendly at the highest standards. This project is the nation's first Energy Star-rated rental housing development.⁵⁰

Improving Safety

The economic recovery act provides \$2 billion for state and local law enforcement assistance through the Edward Byrne Memorial Justice Assistance grant program and \$1 billion for Community Oriented Policing Services (COPS), which covers 75 percent of the cost of hiring approximately 13,000 new police officers. The additional police officers and crime-prevention funding can help make communities safer and increase opportunities for residents to be physically active.

What the Research Shows

- Improving the actual and perceived safety of neighborhoods is associated with increased levels of physical activity. If people do not feel safe in their neighborhoods, they are not likely to use infrastructure that supports physical activity.⁵¹
- One study found that ethnic and racial minority women living in lower-income housing complexes who felt safe in their neighborhoods at night took 20 percent more steps per day compared with women who felt unsafe.⁵²
- Among those living in walkable neighborhoods, children from lower-income families were less likely to walk to school than children from higher-income families, due to parental concerns with issues such as crime, traffic safety, distance or time.⁵³
- A study of 73 public elementary schools in Austin, Texas, showed that lower-income Hispanic children were more likely to live in neighborhoods with characteristics that facilitated physical activity—such as living close to school and in a dense, mixed-use community—than higher-income non-Hispanic children. However, these children were also at greater risk of being exposed to crime and traffic dangers,⁵⁴ which are barriers to physical activity.
- Lack of safety around grocery store sites is also a barrier to accessing healthy foods in lower-income communities.⁵⁵

Draper Police Recruit Volunteers, Establish Neighborhood Watch Group

In Utah, the Draper Police Department used federal COPS funds to form a “Mobile Neighborhood Watch” and trained community leaders, business owners and church groups to patrol the rough terrain using all-terrain vehicles, horses, mountain bikes and foot patrols.⁵⁶ Recruiting community volunteers helped stretch funds and reduced tension between community members and police.

Increasing Food Access

The economic recovery act provides funding to improve access to healthy foods for lower-income families and children, including \$20 billion for the Supplemental Nutrition Assistance Program (SNAP), \$295 million for SNAP program administrative costs, \$100 million for the National School Lunch Program (NSLP) equipment assistance grant program and \$500 million for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). These programs are essential for creating healthier communities because lower-income families have less access to healthy foods compared with higher-income families. Therefore, additional resources can have a dramatic impact in these communities less able to afford healthy foods.⁵⁷

Food Stamps

Most of the \$20 billion in economic recovery act funding for SNAP—the new name of the food stamp program—goes toward increasing benefits. SNAP provides 28 million lower-income Americans with nutrition education and financial assistance to purchase food. The economic recovery act increases SNAP benefits by raising maximum allotments by 13.6 percent of the June 2008 value of the Thrifty Food Plan, the meal plan on which food stamp allotments are based. This equates to an additional \$80 per month for a family of four.⁵⁸

What the Research Shows

- Approximately half of food stamp recipients are children, and the average food stamp household earns only 60 percent of the federal poverty level.⁵⁹

- Food prices have been steadily rising. The cost of the Thrifty Food Plan rose by 10.5 percent from August 2007 to August 2008.⁶⁰
- The SNAP program also benefits non-participants. Every \$5 in new SNAP benefits generates nearly twice as much (\$9.20) in total community spending.⁶¹

Nearly all of the \$295 million in funding for administrative costs associated with SNAP goes directly to states. States can use some of these funds for healthy eating campaigns directed toward SNAP participants. They also can increase access to fresh fruits and vegetables for program participants by expanding the number of farmers' markets and other healthy food sources accepting electronic benefit transfer (EBT) cards.

Connecticut Continues Expansion of Services Available at Farmers' Markets

Connecticut continues efforts to expand the number of farmers' markets accepting EBT cards and supports multilingual promotions of these markets to SNAP participants. In 2007, 18 markets and 70 individual farmers participated, and the state expects these numbers to increase in the next year. Overall redemptions more than doubled from 2006 to 2007.⁶²

School Food Equipment Assistance

Nearly all of the \$100 million in funding for the NSLP equipment assistance grant program goes directly to the states. States will then make funds available to school food authorities, prioritizing schools where more than 50 percent of students receive free or reduced-price lunches. The School Breakfast Program and the National School Lunch Program provide nutritionally balanced, low-cost or free breakfasts and lunches to 30.5 million children in more than 101,000 schools each school day.⁶³ The NSLP equipment assistance grant program provides schools with funds to purchase, renovate or replace the equipment needed to prepare healthy meals.

What the Research Shows

- According to the School Nutrition Association, many schools have food equipment that is up to 30 or 40 years old.⁶⁴ Old equipment is often less efficient, needs more costly repairs than new equipment and makes it difficult for schools to comply with new dietary recommendations or apply technological innovations in food preparation.
- School lunch costs increased an average of \$0.27 per lunch from the 2007-2008 to the 2008-2009 school year, but the federal reimbursement for free meals increased only \$0.10 to \$0.12 per meal, which places an additional burden on school districts.⁶⁵
- To remain within budget, schools often purchase lower-cost food, cut salaries or benefits for school food-service workers or reduce costs in other ways, such as spending on capital equipment. Making menu substitutions, which includes preparing more foods in-house and limiting fresh fruits, vegetables and whole grains, was the most common way schools cut costs.⁶⁶
- The food preparation equipment that schools have greatly affects the types of foods that they are able to serve. For example, in order to offer salad, schools need a large lettuce spinner to wash the lettuce.⁶⁷

Using Produce from Local Farmers, Salad Bar Program in Winters, Calif., Becomes Popular

As part of a pilot project, a school in Winters, Calif., began serving a full-service salad bar with produce from local farmers one day per week. The school used initial start-up funds to purchase the necessary equipment, including a salad bar, a child-size salad bar, salad bar inserts, utensils, a big lettuce spinner, cutting boards and knives. The salad bar is more popular with students than most hot items the school serves.⁶⁸

WIC Program

The economic recovery act provides \$500 million for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), including \$400 million to support increased participation and \$100 million to establish, improve and administer management information systems for WIC. The program provides nutritious foods and nutrition education, plus health and other social service referrals to low-income pregnant, postpartum and breastfeeding women and children up to age 5 who are at nutrition risk. WIC provides benefits to about 8.7 million women, infants and children each month; three in four beneficiaries are infants and children.⁶⁹ Program participants receive coupons to purchase foods high in protein, calcium, iron and vitamins A and C—nutrients frequently lacking in the diets of the program's target population.⁷⁰ The funding in the economic recovery act provides an opportunity for states to increase the number of eligible participants in the WIC program.

What the Research Shows

- A recent study found that the overall diets of children who are WIC program participants are more nutrient-rich than the diets of low-income children who do not participate in the program and comparable to the diets of higher-income children.⁷¹ However, both WIC program participants and non-participants consume much more saturated fat and added sugar than is recommended by the 2005 *Dietary Guidelines for Americans*.⁷²
- The WIC Farmers' Market Nutrition Program provides supplemental coupons to eligible WIC program participants to purchase locally grown fresh fruits and vegetables. More than 15,000 farmers in 46 states participated in this program in fiscal year 2007, raising more than \$20 million in revenue.⁷³ The program increases access to fresh fruits and vegetables for beneficiaries and helps support local economies.

New York State Promotes Fruits and Vegetables to WIC Program Participants

In January 2009, New York became the first state to implement the new WIC food packages, which were revised in December 2007 to align with the 2005 *Dietary Guidelines for Americans*. The state has been offering monthly \$5 fruit and vegetable vouchers to a diverse sample of WIC participants since 2006. Eighty-five percent of the vouchers were used—70 percent of the time on fresh rather than canned or frozen fruits and vegetables. As part of a nutrition education component, the New York WIC program also provided training for WIC mothers on how to weigh and cook fresh produce and offered vendor training on stocking produce within limited space. The state has presented its research and innovative educational programs to administrators of other states' WIC programs.⁷⁴

Preventing Disease

The economic recovery act provides \$650 million to carry out evidence-based clinical and community-based prevention and wellness strategies that reduce chronic diseases. Since overweight and obese children are likely to become overweight and obese adults⁷⁵ and overweight and obesity increase the risk for a number of chronic diseases and health conditions,⁷⁶ chronic disease prevention should include community-based programs that increase physical activity and the consumption of healthy foods among youth.

What the Research Shows

- The Centers for Disease Control and Prevention (CDC) Task Force on Community Preventive Services found strong evidence that enhanced access to places for physical activity combined with informational outreach, urban design, land-use policies and practices, and community campaigns are effective in promoting physical activity.⁷⁷
- Increased consumption of fruits and vegetables and decreased dietary fat intake are associated with a reduced risk of obesity, cardiovascular disease and cancer.⁷⁸

- According to the CDC, policy and environmental change initiatives are likely to prove most effective in preventing obesity if they make healthy choices in nutrition and physical activity available, affordable and easy.⁷⁹

Michigan's "Building Healthier Communities" Project a Success

Michigan's "Building Healthier Communities" project supports local health departments in planning and implementing evidence-based policy and environmental changes that create opportunities for healthy eating and physical activity. Local agencies also formed community coalitions to increase and sustain funding and support. The program was successful in creating or enhancing seven parks and 11 trails that cover almost 60 miles, opening five new farmers' markets that accept EBT cards for SNAP participants, creating seven new school and community gardens, and providing residents with nutrition and healthy lifestyle courses and materials.^{80,81}

Policy Recommendations

The \$144 billion in support that state and local governments will receive from the economic recovery act provides an opportunity for policy-makers to create healthier communities for their constituents and advance energy, environmental and economic development objectives.

To build healthier communities, policy-makers should consider the following strategies and projects:

- Using funds designated for transportation infrastructure and public transportation investments to create and maintain safe complete streets that serve the needs of pedestrians, bicyclists, motorists and public transportation users.
- Using funds for school construction, renovation, repair or land purchase so that students and other members of the community have safe spaces for regular physical education and physical activity on school grounds, and can safely walk or bicycle to and from school. This includes building and maintaining fields, playgrounds and gymnasiums; improving bicycle and pedestrian access to schools; and making outdoor recreational facilities accessible outside of school hours.
- Ensuring government-funded housing and other developments are accessible by public transportation and within walking distance to other residential areas, schools, supermarkets and other shops and services.
- Using community development block grant program funding to create and maintain opportunities for physical activity and access to healthy food. This includes creating and maintaining safe, attractive and easily accessible parks, playgrounds and other facilities that provide opportunities for recreational physical activity; subsidizing the construction of supermarkets and mixed-use developments; and supporting farmers' markets, community gardens and food banks.
- Encouraging active modes of transportation (walking, bicycling and public transportation use) by adopting community design strategies that deter crime. In addition, increasing police presence on roads, pedestrian and bicycle paths, trains, buses and at mass transit stop locations, as well as near schools, supermarkets and other dense commercial and residential areas is important, especially in lower-income and high-crime neighborhoods.
- Increasing access to fruits and vegetables for SNAP participants by using program administrative funds to encourage farmers' markets and other healthy food sources to accept EBT cards. These funds could also be used to promote farmers' markets to program participants.
- Using funds from the NSLP equipment assistance grant program to purchase equipment that will allow schools to prepare healthy foods economically.
- Increasing the number of eligible children and families enrolled in the WIC program, and expanding the WIC Farmers' Market Nutrition Program.
- Using funds for community-based chronic disease prevention for programs that rely on strategies that research has shown to be effective in increasing physical activity levels and healthy eating practices among children and adolescents.

Endnotes

- 1 *Health, United States, 2007*. Hyattsville, MD: Centers for Disease Control and Prevention, National Center for Health Statistics, November 2007.
- 2 Ogden C, Carroll M and Flegal K. "High Body Mass Index for Age among U.S. Children and Adolescents, 2003-2006." *Journal of the American Medical Association*, 299(20): 2401-2405, May 2008.
- 3 *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report*. Bethesda, MD: National Institutes of Health, National Heart, Lung, and Blood Institute, NIH Publication No. 98-4083, September 1998. Available at www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf.
- 4 National Institute of Diabetes and Digestive and Kidney Diseases, U.S. Department of Health and Human Services. Statistics related to overweight and obesity. June 2007. Available at www.win.niddk.nih.gov/publications/PDFs/stat904z.pdf.
- 5 *Transportation for America. Platform for the Surface Transportation Program Authorization*. Washington: Transportation for America, 2008. Available at www.uspirg.org/uploads/ao/jG/aojGlyhqlE8CVgwUOyQFoQ/T4AmericaPlatform.pdf.
- 6 Littman T. *Smart Transportation Economic Stimulation: Infrastructure Investments that Support Strategic Planning Objectives Provide True Economic Development*. Victoria, BC: Victoria Transport Policy Institute, February 2009. Available at www.vtpi.org/econ_stim.pdf.
- 7 *Does the Built Environment Influence Physical Activity? Examining the Evidence*. Washington: Transportation Research Board and Institute of Medicine of the National Academies. Committee on Physical Activity, Health, Transportation, and Land Use, January 2005.
- 8 Heath G, Brownson R, Kruger J, et al. "The Effectiveness of Urban Design and Land Use and Transport Policies and Practices to Increase Physical Activity: A Systematic Review." *Journal of Physical Activity and Health*, 3(Supp 1): S55-S76, January 2006.
- 9 Saelens B and Handy S. "Built Environment Correlates of Walking: A Review." *Medicine and Science in Sports and Exercise*, 40(7) Supp 1: S550-S566, July 2008.
- 10 Ibid.
- 11 Reinstein M, Gutierrez N, Rice T, et al. *Safe Routes to School Safety and Mobility Analysis*. Berkeley, CA: UC Berkeley Traffic Safety Center, January 2007. Available at <http://repositories.cdlib.org/its/tsc/UCB-TSC-RR-2007-1>.
- 12 Frank L, Andresen M and Schmid T. "Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars." *American Journal of Preventive Medicine*, 27(2):87-96, August 2004.
- 13 Littman, 2009.
- 14 Leadership for Healthy Communities. Profiles of Leaders. Mayor Darwin Hindman: Columbia, Missouri. Available at www.leadershipforhealthycommunities.org/index.php?option=com_content&task=view&id=156&Itemid=82.
- 15 Edwards R. "Public Transit, Obesity, and Medical Costs: Assessing the Magnitudes." *Preventive Medicine*, 46(1): 14-21, January 2008.
- 16 Littman, 2009.
- 17 Edwards, 2008.
- 18 Ibid.
- 19 Littman, 2009.
- 20 Surface Transportation Policy Partnership. Setting the Record Straight: Transit, Fixing Roads and Bridges Offer Greatest Jobs Gains. January 28, 2004. Available at www.transact.org/library/decoder/jobs_decoder.pdf.
- 21 Atlanta Beltline, Inc. Beltline Basics. 2009. Available at www.beltline.org/BeltLineBasics/BeltLineBasicsOverview/tabid/1691/Default.aspx.
- 22 *Active Education: Physical Education, Physical Activity and Academic Performance, Research Brief*. San Diego: Active Living Research, Fall 2007. Available at https://www.activelivingresearch.org/files/Active_Ed.pdf.
- 23 Ferreira I, van der Horst K, Wendel-Vos W, et al. "Environmental Correlates of Physical Activity in Youth- A Review and Update." *Obesity Reviews*, 8(2):129-154, March 2007.
- 24 *How Neighborhoods Can Reduce the Risk of Obesity*, Santa Monica: RAND Health, 2007. Available at www.rand.org/pubs/research_briefs/2007/RAND_RB9267.pdf.
- 25 Ibid.
- 26 Gordon-Larsen P, Nelson M, Page P and Popkin B. "Inequality in the Built Environment Underlies Key Disparities in Physical Activity and Obesity." *Pediatrics*, 117(2): 417-424, 2006.
- 27 Ibid.
- 28 National Middle School Association. School Physical Activity Success Story: Dougherty County School System in Albany, GA. Available at www.nmsa.org/Advocacy/HealthandWellness/SuccessStories/Dougherty/tabid/1134/Default.aspx
- 29 Youth Becoming Healthy. 2006. Available at www.ybhproject.org/about.htm.
- 30 Liu J, Bennett K, Harun N, et al. *Overweight and Physical Inactivity among Rural Children Aged 10 to 17: A National and State Portrait*. Columbia: South Carolina Rural Health Research Center, October 2007.
- 31 Ibid.
- 32 Liese A, Weis K, Pluto D, et al. "Food Store Types, Availability, and Cost of Foods in a Rural Environment." *Journal of the American Dietetic Association*, 107 (11): 1916-1923, November 2007.
- 33 Ed's Food Market, Inc. D/B/A Menno Food Market. Menno, SD – 9006 Energy Efficiency Grant. February 2009. Available at www.rurdev.usda.gov/rd/stories/sd_2009_successstoryedsfoodmarket.pdf
- 34 Global Planning Education Association Network, Stiffler B and Watson V. "Mixed Use in Theory and Practice: Canadian Experience with Implementing a Planning Principle." In *Dialogues in Urban and Regional Planning*. Routledge, 2005.
- 35 Mota J, Almeida M, Santos P, and Ribeiro J. "Perceived Neighborhood Environments and Physical Activity in Adolescents." *Preventive Medicine*, 41(5-6): 834-836, November/December 2005.
- 36 Giles-Corti B, Broomhall M, Knuiam M, et al. "Increasing Walking: How Important is Distance to, Attractiveness, and Size of Public Open Space?" *American Journal of Preventive Medicine*, 28(2S2): 169-176, February 2005.
- 37 *Bringing Healthy Foods Home: Examining Inequalities in Access to Food Stores*. Minneapolis: Healthy Eating Research, July 2008. Available at www.healthyeatingresearch.org/images/stories/her_research_briefs/her%20bringing%20healthy%20foods%20home_7-2008.pdf.
- 38 Larson N, Story M and Nelson M. "Neighborhood Environments: Disparities in Access to Healthy Foods in the U.S." *American Journal of Preventive Medicine* January 2009;36(1):74-81.
- 39 Flournoy R and Treuhart S. *Healthy Food, Healthy Communities: Improving Access and Opportunities through Food Retailing*. Oakland, CA: PolicyLink, Fall 2005. Available at www.policylink.org/pdfs/HealthyFoodHealthyCommunities.pdf.
- 40 "A Bronx Story." *The Daily Plant, The City of New York Parks and Recreation*, August 21, 2008. Available at www.nycgovparks.org/parks/X013/dailyplant/21411.
- 41 Frank L, Schmid T, Sallis J, et al. "Linking Objectively Measured Physical Activity with Objectively Measured Urban Form: Findings from SMARTRAQ." *American Journal of Preventive Medicine*, 28(2S2): 117-125, February 2005.
- 42 Kerr J, Rosenberg D, Sallis J, et al. "Active Commuting to School: Associations with Environment and Parental Concerns." *Medicine & Science in Sports & Exercise*, 38(4): 787-794, April 2006.
- 43 Cooper A, Andersen L, Wedderkopp N, et al. "Physical Activity Levels of Children who Walk, Cycle, or are Driven to School." *American Journal of Preventive Medicine*, 29(3): 179-184, October 2005.

- 44 Cooper A, Page A, Foster L and Qahwaji D. "Commuting to School: Are Children Who Walk More Physically Active?" *American Journal of Preventive Medicine*, 25(4):273-276, November 2003.
- 45 Sallis J and Kerr J. "Physical Activity and the Built Environment." *President's Council on Physical Fitness and Sports Research Digest*, 7(4): 1-8, December 2006.
- 46 Giles-Corti B, Broomhall M, Knuiaman M, et al. "Increasing Walking: How Important is Distance to, Attractiveness, and Size of Public Open Space?" *American Journal of Preventive Medicine*, 28(2S2): 169-176, February 2005.
- 47 Duncan M, Spence J and Mummery W. "Perceived Environment and Physical Activity: A Meta-Analysis of Selected Environmental Characteristics." *International Journal of Behavioral Nutrition and Physical Activity*, 2(11), September 2005. Available at www.ijbnpa.org/content/pdf/1479-5868-2-11.pdf.
- 48 *The Economic Benefits of Open Space*. San Francisco: The Trust for Public Land, 1999. Available at www.tpl.org/content_documents/Chap1.pdf.
- 49 Sallis J and Kerr J. "Physical Activity and the Built Environment." *President's Council on Physical Fitness and Sports Research Digest*, 7(4): 1-8, December 2006.
- 50 Smart Growth America. Smart Growth Resource Library. Smart Growth in Action: High Point Redevelopment, Seattle, Washington. Available at www.smartgrowth.org/library/articles.asp?art=3315&res=1024.
- 51 Sallis JF, Kerr J. "Physical Activity and the Built Environment." *President's Council on Physical Fitness and Sports Research Digest*, 7(4): 1-8, December 2006.
- 52 Bennett G, McNeill L, Wolin K, et al. "Safe to Walk? Neighborhood Safety and Physical Activity among Public Housing Residents." *PLoS Medicine*, 4(10): 1599-1607, October 2007.
- 53 Kerr et al.
- 54 Zhu Xand Lee C. "Walkability and Safety Around Elementary Schools. Economic and Ethnic Disparities." *American Journal of Preventive Medicine*, 34(4): 282-290, April 2008.
- 55 Raja S, Ma C and Yadav P. "Beyond Food Deserts: Measuring and Mapping Racial Disparities in Neighborhood Food Environments." *Journal of Planning, Education and Research*, 27(4): 469-482, September/October 2008.
- 56 Fields C. *Award-Winning Community Policing Strategies: A Report for the International Association of Chiefs of Police Community Policing Committee*. Washington: U.S. Department of Justice, COPS Office, 2007.
- 57 *Bringing Healthy Foods Home: Examining Inequalities in Access to Food Stores*. Minneapolis: Healthy Eating Research, 2008. Available at www.healthyeatingresearch.org/images/stories/her_research_briefs/her%20bringing%20healthy%20foods%20home_7-2008.pdf.
- 58 *Memo Re: Economic Stimulus - Adjustments to the Maximum Supplemental Nutrition Assistance Program (SNAP) Monthly Allotments*. Washington: United States Department of Agriculture. Food and Nutrition Service, February 18, 2009. Available at www.fns.usda.gov/fsp/rules/Memo/09/021809.pdf.
- 59 *Characteristics of Food Stamp Households: Fiscal Year 2007 - Summary*, Washington: United States Department of Agriculture. Food and Nutrition Service, 2008. Available at www.fns.usda.gov/ora/menu/Published/SNAP/FILES/Participation/2007CharacteristicsSummary.pdf.
- 60 Food Research and Action Center. Current News and Analyses. Available at www.frac.org/html/news/news_index.html.
- 61 United States Department of Agriculture, Food and Nutrition Service. Supplemental Nutrition Assistance Program Fact Sheet. September 2008. Available at www.fns.usda.gov/snap/roll-out/snap-fact-sheet.pdf.
- 62 Supplemental Nutrition Assistance Program. Food and Nutrition Service. United States Department of Agriculture. 2007 EBT Farmers' Market Projects Status Report. Available at www.fns.usda.gov/FSP/ebt/ebt_farmers_markstatus.htm.
- 63 United States Department of Agriculture, Food and Nutrition Service. National School Lunch Program Fact Sheet. July 2008. Available at www.fns.usda.gov/cnd/Lunch/AboutLunch/NSLPFactSheet.pdf.
- 64 School Nutrition Association. School Nutrition Equipment Funding Included in Stimulus. Available at www.schoolnutrition.org/Blog.aspx?id=11708&blogid=622.
- 65 *Heats On: School Meals Under Financial Pressure*. Alexandria, VA: School Nutrition Association, 2008. Available at [www.schoolnutrition.org/uploadedFiles/School_Nutrition/101_News/MediaCenter/PressReleases/Press_Release_Articles/Press_Releases/HeatsOn\(1\).pdf](http://www.schoolnutrition.org/uploadedFiles/School_Nutrition/101_News/MediaCenter/PressReleases/Press_Release_Articles/Press_Releases/HeatsOn(1).pdf).
- 66 Ibid.
- 67 Farm to School. Winters Joint Unified School District. Available at www.farmtoschool.org/state-programs.php?action=detail&id=4&pid=29.
- 68 Ibid.
- 69 Bartlett S, Bobronnikov E, Mendelson M, et al. *WIC Participant and Program Characteristics 2006*. Alexandria, VA: United States Department of Agriculture, Food and Nutrition Service, December 2007. Available at www.fns.usda.gov/ora/MENU/Published/WIC/FILES/pc2006.pdf.
- 70 United States Department of Agriculture, Food and Nutrition Service. The Special Supplemental Nutrition Program for Women, Infants and Children. March 2006. Available www.fns.usda.gov/wic/WIC-Fact-Sheet.pdf.
- 71 Cole N and Fox MK. *Diet Quality of American Young Children by WIC Participation Status: Data from the National Health and Nutrition Examination Survey, 1999-2004*. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, July 2008. Available at www.fns.usda.gov/ora/MENU/Published/WIC/FILES/NHANES-WIC.pdf.
- 72 Ibid.
- 73 United States Department of Agriculture. WIC Farmers' Market Nutrition Program. August 2008. Available at www.fns.usda.gov/wic/WIC-FMNP-Fact-Sheet.pdf.
- 74 New York State Department of Health. WIC Revamps Food Choices for First Time in Nearly 35 Years. January 2009. Available at www.health.state.ny.us/press/releases/2009/2009-01-06_wic_revamps_food_choices.htm.
- 75 Centers for Disease Control and Prevention. Childhood Overweight and Obesity. Available at www.cdc.gov/nccddphp/dnpa/obesity/childhood/.
- 76 *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report*. Bethesda, MD: National Institutes of Health, National Heart, Lung, and Blood Institute, NIH Publication No. 98-4083, September 1998. Available at www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf.
- 77 *The Community Guide Task Force Findings*. Atlanta: National Center for Health Marketing, Centers for Disease Control and Prevention, October 2008. Available at www.thecommunityguide.org/about/findings.html.
- 78 U.S. Department of Health and Human Services. Steps to a Healthier US: Promoting Healthy Eating and Physical Activity for a Healthier Nation. Available at www.healthierus.gov/STEPS/summit/prevportfolio/strategies/addressing/eating/prevention_eating.htm#levels.
- 79 *Obesity: Halting the Epidemic by Making Health Easier*. Atlanta, GA: Centers for Disease Control and Prevention, February 24, 2009. Available at www.cdc.gov/NCCDPPP/publications/AAG/obesity.htm.
- 80 Centers for Disease Control and Prevention. Obesity: Successes and Opportunities for Population-Level Prevention and Control. 2009. Available at www.cdc.gov/NCCDPPP/publications/AAG/pdf/obesity_success.pdf.
- 81 National Association of Chronic Disease Directors. Building Healthy Communities in Michigan. Available at www.chronicdisease.org/files/public/SSS_ML_Building_Healthy_Communities_WEB.pdf.



Leadership for Healthy Communities would like to thank the following individuals and organizations for their contributions to this brief:

Deb Hubsmith

Director, Safe Routes to School National Partnership

Margo Pedroso

Policy Manager, Safe Routes to School National Partnership

Josh Sharfstein, M.D.

*Principal Deputy Commissioner, Food and Drug Administration
Former Member of Leadership for Healthy Communities'
National Advisory Committee*

Mildred Thompson, M.S.W.

*Deputy Director, RWJF Center to Prevent
Childhood Obesity
Senior Director, Policylink*

Marice Ashe, J.D., M.P.H.

*Director, National Policy and Legal Analysis
Network to Prevent Childhood Obesity
Director, Public Health Law & Policy*

Risa Wilkerson, M.A.

*Project Officer, Healthy Kids, Healthy Communities and
Active Living by Design*

Richard Bell, M.C.P.

*Project Officer, Healthy Kids, Healthy Communities and
Active Living by Design*

James Sallis, Ph.D.

*National Program Director, Active Living Research
Professor of Psychology, San Diego State University*

Mary Story, Ph.D, R.D.

*National Program Director, Healthy Eating Research
Professor, Division of Epidemiology and Community Health,
University of Minnesota School of Public Health*

Please visit the Leadership for Healthy Communities Web site for additional information about how economic recovery act funds can be used to make your community healthier.

www.leadershipforhealthycommunities.org