



Health Program

Nutrition and Physical Activity Initiative

Lots to Lose:

How America's Health and Obesity Crisis Threatens our Economic Future



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BIPARTISAN POLICY CENTER



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Nutrition and Physical Activity Initiative

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Executive Summary

Our nation is in the midst of a public health crisis so profound that it is undermining our national well-being, our economic competitiveness and even our long-term national security. Fully two-thirds of Americans are overweight or obese. One-third of American children are overweight or obese. And among children under the age of six, nearly one in five is overweight or obese.¹ Obese people are far more likely to develop chronic diseases like diabetes, hypertension, asthma, heart disease and cancer. Obese children are more likely to have one or more risk factors for cardiovascular disease, to be prediabetic (i.e., at high risk for developing diabetes), and to suffer from bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem. They are also very likely to become obese adults.

In short, obesity is the most urgent public health problem in America today. It is a primary reason why life expectancy in large parts of the United States is already several years lower than in other advanced countries around the world. For millions of Americans, it means many more years – even decades – of sharply reduced quality of life. More broadly, the costs of obesity and chronic disease have become a major drag on our economy. Escalating health care costs are *the* main driver of our spiraling national debt, and obesity-related illness comprises an increasingly large share of our massive health costs. The obesity crisis is therefore not just a health crisis, but a major contributor to our fiscal crisis. At home, individuals and families struggle with the consequences and costs of obesity and disease on a daily basis. But for our nation as a whole, the impacts of America's obesity epidemic jeopardize our global competitiveness and national security, directly undermining our ability to cut the federal debt, prepare and sustain a highly productive workforce, maintain our military strength, and compete effectively in the global economy.

Turning the tide of this epidemic is challenging for several reasons. First, changing behavior is never easy, particularly when that behavior is rooted in much deeper changes in the way many Americans live, work, play and eat. Second, public resources

to implement new policies and programs are constrained as never before. Given these twin challenges, the importance of responsibility and leadership in combating obesity and chronic disease cannot be overemphasized. Both are clearly needed at the level of individuals and parents, who ultimately make the decisions and set the examples that influence not only their own health but that of future generations. But responsibility and leadership are also needed at the level of communities and key institutions, including government. These institutions shape the environment in which individual and family decisions get made and they can help bring about the broader changes needed to ensure that all Americans—including especially vulnerable citizens—have access to information and options that support and encourage healthy choices.

The Bipartisan Policy Center (BPC) launched its Nutrition and Physical Activity Initiative based in large part on our concern about the national debt and the clear role that escalating health care costs play in our nation's looming fiscal emergency. Obesity and chronic disease are a critically important piece of this puzzle. In searching for solutions, we have focused on those areas that we believe hold the most promise to bring about change on the scale and within the timeframe needed to respond to the enormous fiscal, social, economic, and public health threat they present. We recognize that effective responses to the current epidemic will require action and change on the part of individuals and families, as well as action and change on the part of a wide variety of interests and organizations: large companies, advocacy groups, community leaders, health professionals, business groups, and foundations, not to mention local, state and federal government. Success is only possible if all these entities work together and bring creativity, innovation and focused commitment to the effort.

The good news is that we are already seeing an enormous convergence of attention and initiative in this area. Many important ideas are being tried – some of them out of economic or other necessity and often with limited resources – from healthier menus in Army mess halls to improved school lunch

What **Makes** Us Healthy



What We **Spend** On Being Healthy



programs and community-based preventive care services. This report makes specific recommendations aimed at building on the most promising efforts, with the benefit of insights gained from a year of intensive research and outreach to groups and individuals who are already working – in all kinds of settings and in many different ways – to promote healthy nutrition and physical activity. This Executive Summary, like the main report, is organized to reflect four broad categories or targets for action: families, schools, workplaces, and communities. A fifth category of cross-cutting recommendations addresses public awareness, food and farm policy, and information sharing.

Healthy Families

For most people, healthy patterns of diet and physical activity begin at home. Parents and caregivers, in particular, have a strong influence on what children eat and how active they are. In fact, recent studies indicate that the general health and obesity of parents is a powerful indicator for the health outcomes of children. Moreover, these influences start very early: a growing body of research indicates that nutrition during the first thousand days – starting during pregnancy and continuing to age two – plays a significant role in determining an individual's health, not only later in childhood but over his or her entire lifetime. BPC's recommendations for healthy families focus on increasing awareness of federal diet and physical activity guidelines, aligning federal nutrition assistance programs with dietary guidelines, and promoting breastfeeding for the first six months of an infant's life.

Healthy Families Recommendation #1: HHS and USDA should extend federal guidelines for diet and physical activity to all children under six and enhance public awareness and understanding of these guidelines.

Existing dietary guidelines, which are developed by the U.S. Departments of Health and Human Services (HHS) and Agriculture (USDA), apply to children and adults ages two and up; current physical activity guidelines start at age six. Given the

importance of establishing healthy patterns for diet and activity in very young children we recommend that HHS and USDA take the following specific actions:

- Develop, implement and promote national dietary guidelines for the first thousand days, covering pregnant women and children up to two years old;
- Similarly, develop national physical activity guidelines for children under six years old; and
- Support these guidelines by developing an effective national strategy for disseminating this information and educating parents about the benefits of first foods and physical activity, particularly for populations that are most at risk for poor nutrition and health.

Healthy Families Recommendation #2: USDA should ensure that all its nutrition assistance programs reflect and support federal dietary guidelines.

The USDA's Food and Nutrition Service (FNS) operates 15 federal nutrition assistance programs that together serve millions of the nation's most vulnerable citizens, including many of the populations most at risk for poor nutrition, obesity and related chronic diseases. Because these programs touch nearly one in four Americans annually, they provide a critical opportunity for educating people about the connections between diet, physical activity and health. The major federal food programs include the National School Lunch and School Breakfast Programs, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program, the Supplemental Nutrition Assistance Program (SNAP), and the Child and Adult Care Food Program (CACFP). To promote better childhood nutrition and health through these programs, we recommend that HHS and USDA take several steps to: (a) align messaging and education about nutrition through these programs, particularly as they affect pregnant women, new mothers, infants and young children; (b) provide technical training to states and local USDA staff to

improve program implementation and effectiveness; (c) conduct research to gain a better understanding of program participation, utilization and impacts; and (d) increase awareness of program benefits.

Healthy Families Recommendation #3: All key institutions – including hospitals, workplaces, communities, government and insurance providers – should support and promote breastfeeding with the goal of substantially increasing U.S. breastfeeding rates for the first six months of an infant’s life.

Breastfeeding is enormously beneficial for both mother and child. And for the child, these benefits are long lasting: research finds that breastfed infants have improved health outcomes later in life, including lower rates of obesity and chronic disease.¹¹ A 2010 study published by the American Academy of Pediatrics found that if 90 percent of new mothers in the United States breastfed exclusively for six months, this change alone could deliver health care cost savings on the order of \$13 billion annually.¹²

Today, roughly three-quarters of new mothers in the United States *start out* breastfeeding, but that rate drops off sharply once mothers and infants leave the hospital: by three months, only 35 percent of infants are exclusively breastfed and at six months, the figure is less than 15 percent.¹³ And while not all mothers breastfeed, for those who do, institutional, family and community support can make the difference between sustaining this practice versus not. To support and promote breastfeeding, hospitals should follow “baby friendly” practices, including discouraging the use of formula except where medically necessary, tracking and reporting their maternity care practices, and providing follow-up support for breastfeeding after new mothers leave the hospital. Both hospitals and the federal WIC program should follow the World Health Organization’s Code of Marketing of Breast Milk Substitutes, which aims to limit unwarranted exposure to breast milk substitutes and related advertising. Finally, employers have an important role to play in providing nursing breaks and a private place for mothers to express breast milk. We also recommend

that a national program be established to publicly recognize businesses that demonstrate best practices in providing lactation accommodations.

Healthy Schools

Because most children spend significant amounts of time in school or in childcare facilities outside the home, these settings afford an important opportunity to influence the health and lifestyle choices of the next generation. Studies also find a direct link between nutrition and physical activity and improved performance in school. For these reasons, opportunities to promote better health through nutrition and physical activity in school have received considerable attention from policymakers, health experts, and other stakeholders. The Healthy Hunger-Free Kids Act passed by Congress in 2010 required USDA to update nutrition standards for foods and beverages served in schools, including foods and beverages sold through vending machines and school stores. This was the first update in 15 years. The legislation also calls on schools to strengthen their wellness policies to look at the overall health of students.

Historically, less attention has been given to nutrition and health in childcare settings for preschool-aged (as opposed to school-aged) children, but here too a growing number of initiatives and programs have been launched in recent years. For example, USDA is moving to update Child and Adult Care Food Program (CACFP) meal guidelines, which apply to food served in childcare settings (among other venues). For schools and preschools, the primary challenge at present is to scale up successful programs and fully implement policy changes that have already been introduced, including the Healthy Hunger-Free Kids Act.

Healthy Schools Recommendation #1: Childcare providers should improve nutrition and physical activity opportunities for preschool-aged children.

Nationwide, 12 million U.S. children under the age of six are in childcare and, of these, 1.9 million are cared for in a family day

care setting.^v While strides have been made to improve nutrition and provide more opportunities for physical activity in school, childcare and preschool settings are another critical area for intervention. A growing body of research indicates that waiting until kindergarten is too late. By age five, one in five children is already overweight or obese. Given the importance of early intervention, we must ensure that early childhood environments provide the strongest start possible, including access to nutritious food and regular physical activity.

Healthy Schools Recommendation #2: Schools should improve food and nutrition education by aggressively implementing the Healthy Hunger-Free Kids Act.

To assist states and school districts in implementing the above recommendation, USDA should compile existing resources, and supplement them where necessary, to establish a national clearinghouse of tools and information. We also recommend that the Centers for Disease Control (CDC) and the Department of Education explore how they can provide resources to assist with education and other elements of the transition.

For their part, states should develop implementation plans, with a focus on training and other support necessary for successful implementation, to help schools aggressively embrace Healthy Hunger-Free Kids Act requirements. Particular attention needs to be paid to the training and technical assistance needs of small and rural school districts where barriers to implementation have typically been higher.

Healthy Schools Recommendation #3: Schools should improve nutrition and physical activity offerings, in partnership with the private sector.

Given current budget constraints at the federal, state and local levels, schools and school districts will have to innovate and work with the private sector to expand the resources available to support nutrition and physical activity in schools and to prioritize the use of existing resources to achieve maximum benefits.

School gardens are an example of the kind of project that has been shown to be highly effective as a teaching tool, that does not require a very large commitment of resources, and that lends itself well to partnerships with outside organizations. Schools should also look to outside sources of funding and support using models such as the Alliance for a Healthier Generation's Healthy Schools Program, which provides technical assistance to help participating schools improve food quality and physical education programs. This effort is similar to the USDA's Healthier U.S. Schools Challenge, which provides small monetary incentives to schools that meet rigorous standards for food quality, participation in meal programs, physical activities, and nutrition education.

Healthy Schools Recommendation #4: Federal, state and local governments, along with private partners, should explore all available avenues to increase quality physical activity in schools.

Specifically, schools should require 60 minutes of physical activity per day as an integral part of their wellness policies. Children spend much of their day in school and often also participate in after-school programs, and promoting physical activity in the school environment is critical to supporting physical and mental fitness in students. Given the funding challenges many schools face, all available options should be explored, including but certainly not limited to physical education classes. Options frequently exist that are simple and not costly. Partnering with other public and private institutions, incorporating health information in school curricula, and innovating to maximize returns from existing resources will be critical to successfully implementing these recommendations.

Healthy Workplaces

For many Americans, the workplace is second only to home in terms of time spent and impact on lifestyle choices. Fortunately, growing numbers of employers are seeing the connection between healthier workers and healthier profits. This is because obesity and chronic disease are strongly linked to lower employee

productivity, higher rates of absenteeism and presenteeism (when people are present, but not working effectively), and higher health care costs. Of course, employers are also uniquely positioned to influence workforce health, particularly since they bear such a large share of employee health care costs (currently, 60 percent of Americans are insured through an employment-based plan).^{vi} Increasingly, research is finding positive, and in some cases quite dramatic, returns on employer investments in workplace wellness.^{vii} These programs also deliver less measurable but still important (and valuable) benefits, in terms of improved employee satisfaction and retention.

Healthy Workplaces Recommendation #1: CDC, in partnership with private companies, should develop a database of exemplary workplace wellness programs with a rigorous cost/benefit analysis to help scale up existing best practices in both the private sector and within government. The Small Business Administration (SBA) should provide support here.

A registry of workplace wellness and health promotion initiatives that could be readily accessed by a variety of stakeholders would put the workplace wellness movement on more solid footing and help employers identify proven strategies and program designs that are well-suited to their industry, size and organizational structure. Additional steps that would support employer investments in workplace wellness include developing tools and resources to analyze the costs and impacts of wellness programs, providing resources for pilot programs and program evaluations, and supporting certification and accreditation programs as a way to lower barriers to participation and accelerate the dissemination of best practices.

Healthy Workplaces Recommendation #2: The federal government should both scale up successful workplace wellness programs and continue exploring innovative approaches.

The federal government's Office of Personnel and Management (OPM) currently spends \$40 billion per year covering health care costs for federal employees. But because all employee-related medical and pharmacy claims are paid centrally through OPM, individual departments or agencies have no way of tracking their particular health care costs. This reduces accountability as well as incentives to promote employee health or disease prevention. Options for changing current practice so as to make department or agency heads accountable for, or at least aware of, employee health costs should be explored as a first step toward modeling leadership on the issue of workplace wellness in the federal government. Federal investments in data collection and tracking to substantiate the benefits achieved through different workplace wellness demonstrations will be well justified if they point the way toward replicable approaches that reduce costs and improve performance, not just in the federal workforce but for firms and their employees throughout the economy.

The U.S. Department of Defense (DoD) is providing particularly strong leadership in this arena and has several initiatives underway to improve health among service members and military families. For example, the Army launched the Soldier Fueling Initiative when it found that attrition rates were higher among new recruits because many of them had lower bone density levels, incurred more injuries, and suffered from deficiencies in calcium, iron and various other vitamins and nutrients compared to previous recruit cohorts. This initiative combines enhanced physical education and training with healthier food choices and an information/awareness campaign to emphasize the importance of good nutrition for soldier performance. DoD has worked with dietitians to improve food offerings at military dining facilities more broadly but it could do even more to promote nutrition and physical activity, both on base – through military hospitals, schools and childcare centers – and off base in communities with a high proportion of military families. Because our national security depends on a fit and high-performing military, DoD is an employer with a particularly critical charge. It also has the capacity, influence and organization to change

“business as usual” in ways that affect the rest of government, as well as institutions in our larger society. By applying many of the tools described in this report – from supporting breastfeeding at maternity hospitals to providing healthier food choices and recognizing the important role of schools and families – DoD has an opportunity to substantially enhance the health and performance of service members and their families, while at the same time leading the way for the rest of the country.

Healthy Communities

Along with home, school and workplace, community plays a central role in the lifestyle choices that influence people's health outcomes. Their local community is where most Americans access the goods and services on which they rely, from the grocery store to the doctor's office; it is also where most of us go to play, worship, recreate, eat out and be entertained. This chapter discusses a wide-ranging set of recommendations, all of which are rooted in the community, broadly defined. For organizational purposes, we divide this chapter into three major subtopics: health care services, large institutions, and the built environment.

1. Community-based, Prevention-focused Health Care

Rising health care costs have prompted growing interest in disease prevention as a more effective and ultimately less expensive way to keep Americans healthy. Good diet and an active lifestyle are clearly central to an approach that favors promoting wellness and preventing disease over a model that focuses on treating health problems only after they arise. Our recommendations target three kinds of interventions that are necessary to support the shift to a prevention-focused health care system. First, health care professionals must be better trained to provide care that addresses issues of diet, physical activity, wellness and disease prevention. Second, the base of available care resources and care providers must be broadened to include non-traditional providers who can deliver services in non-clinical, community-based

settings. Demand for these services already exists, but so far the supply of providers has not caught up. Third, we need mechanisms to enable public and private reimbursement for health conditions and services that are often not covered under the existing system.

***Healthy Communities Recommendation #1:
Nutrition and physical activity training should be incorporated in all phases of medical education – medical schools, residency programs, credentialing processes and continuing education requirements.***

Professionals throughout the health care system are uniquely positioned to inform and motivate Americans on the subjects of nutrition and physical activity. Americans see medical professionals – nurses in particular – as a trusted source of information, and health care providers are the number one go-to resource for parents who are concerned about their child's weight. But the medical education and licensing system in the United States is not currently set up to ensure that health professionals have the incentive and expertise to deliver messages about weight, chronic disease, diet and physical activity not only effectively but consistently. On the contrary, the consensus among medical organizations and experts is that nutrition education at all levels of health training (undergraduate, post-graduate, fellowship, licensing and board certification, and continuing education) is uneven at best and often inadequate. The goal of this recommendation is to infuse the education and training of all health professionals with nutrition and physical activity information and behavioral methodologies or tools (such as motivational interviewing), and to make basic competency in these areas an integral part of certification and continuing education requirements. Achieving this goal will require leading expert organizations to partner in developing a comprehensive national strategy and standards for nutrition and physical activity education across the continuum of the health profession.

Healthy Communities Recommendation #2: Non-clinical, community-based care is a critical tool in preventing obesity and chronic disease. We need to train and deploy a prevention workforce to deliver this kind of preventive care.

Recognizing that for many people, contact with traditional health care professionals such as doctors and nurses is limited or sporadic, we recommend engaging a wider base of resources and person-to-person interactions to deliver messages about health and influence lifestyle behaviors. Recent initiatives suggest that community health workers, health coaches, dietitians and nutritionists, lactation consultants, and others can be effective in working with individuals and groups to change awareness and habits around diet, physical activity and other health-relevant behaviors. And their interventions, whether provided in collaboration with a health professional or not, can be more cost effective than the same services delivered by a traditionally trained doctor or nurse practitioner.^{viii} Expanding this trained, community-based “prevention workforce” – and finding ways to reimburse for its services – would offer multiple benefits by improving health outcomes, reducing health care costs, and creating new job opportunities. Standardized training programs and curricula are needed to tap this potential.

Healthy Communities Recommendation #3: Public and private insurers should structure incentives to reward effective, community-based, prevention-oriented services that have demonstrated capacity to reduce costs significantly over time.

Because many community-based, preventive health care services are not currently covered by either public or private insurers, creating new reimbursement mechanisms or reforming existing ones to cover these types of services is critical to realizing the potential benefits of a broader,

wellness-focused approach to health care. An example of this approach is being pioneered by UnitedHealth Group (UHG) and the YMCA, which have partnered to implement a diabetes prevention program in which UHG reimburses the YMCA for education, counseling and weight-loss services according to performance-based metrics (not simple participation rates). Similarly, the federal government is examining potential ways to increase coverage for preventive services through programs such as Medicare, Medicaid and the Children’s Health Insurance Program (CHIP). Further demonstration projects, whether public or private, are needed to provide data on what works. We should reward those services and providers who demonstrate the capacity to bend the cost curve.

2. Large Institutions

Large institutions such as hospitals and universities, sports and entertainment venues, hotels, and large government departments or agencies (DoD, for example) serve meals to thousands of people on a daily basis. A single major retailer such as Walmart may sell food to millions of customers each day. These entities, private and public, have enormous purchasing power and can leverage major changes in the food supply chain, both in terms of what kind of food is produced and in terms of where and how the food is distributed. As in schools and workplaces, interest in healthy food and wellness on the part of large institutions has been on the rise in recent years. Innovative programs and partnerships have been multiplying and there are a growing number of success stories to be considered and possibly emulated. Several large hospitals, major retailers, universities, restaurant and hotel chains, and large government agencies have launched promising initiatives in recent years to improve menu offerings and promote healthier food choices.

Healthy Communities Recommendation #4: *Large, private-sector institutions should procure and serve healthier foods, using their significant market power to shift food supply chains and make healthier options more available and cost-competitive.*

Healthy Communities Recommendation #5: *Public-sector institutions should continue to lead by example, promoting healthy foods and physical fitness as a means to enhance employee performance, both in the military and within the civilian workforce.*

3. Community Programs and the Built Environment

Community programs and the built environment play an important role in supporting (or discouraging) a healthy level of regular physical activity. In many parts of America, the built environment reflects and reinforces an automobile-centered way of life. Resource-strapped towns and cities have cut back on recreational programs and facilities. And only those with extra time and means have the option to join a health club or gym. In some areas, it's hard even for children to be active; schools don't offer sports and activities, parks and playgrounds may be inadequate or non-existent, and simply playing outside may be too dangerous because of traffic or crime or both. In sum, considerable empirical evidence exists to suggest that where people live and work has a much greater impact on their health than their interactions with the health care sector or their genetic makeup. And while these "social determinants of health" do have some correlation to income levels, they affect all Americans living in all kinds of communities. Our recommendations for promoting more active lifestyles at the community level focus on three specific areas of opportunity: (1) leveraging existing resources, (2) utilizing technology in innovative ways, and (3) changing the built environment over time.

Healthy Communities Recommendation #6: *Local governments should leverage existing resources and infrastructure assets to expand opportunities for physical activity.*

In communities that lack safe, adequate places for children, youth and adults to exercise and play, or where schools don't have the facilities to support physical activity programs, "joint use" agreements provide a mechanism to enable the shared use of public facilities. Typically, this type of agreement would be struck between two government entities, such as a school district and a city or county. Joint use agreements have been successfully used in a number of locales to expand the sport and recreational opportunities available to students and members of the community. A variety of other low-cost options and public-private partnerships have also been used to promote healthy activity at the community level—a good example are the various walking initiatives, such as Everybody Walk and Get Fit, that have been launched in neighborhoods and at schools across America.

Healthy Communities Recommendation #7: *Families and local governments should make creative use of technology to increase physical activity.*

Modern technologies, including video games, mobile phones and computers, are often viewed as a major driver behind today's more sedentary, less healthy lifestyles. After all, American children spend, on average, more than seven hours a day in front of a screen. Yet, given that these technologies have become an inescapable and, for many people, indispensable part of daily life, we believe it is time to reframe the debate. Opportunities to develop games that require or encourage the user to be physically active are expanding rapidly. Some such games already exist and others are being developed. Newer ideas include linking pedometers and accelerometers to games and prizes, using geo-caching and other geographic digital games to encourage kids to go outside, and using social media to share information about

physical activity options (such as mobile apps that provide information about good recreation or walking options).

Healthy Communities Recommendation #8: Local governments should use the planning process to change the built environment in ways that promote active living.

Growing numbers of cities and towns are using the planning process and zoning codes to shape the built environment in ways that promote walking and bicycling, help residents stay connected, and improve quality of life. In many cases, mayors and county and city council representatives are working with architects and designers and with planning, transportation and public health departments to create healthier buildings, streets, and urban spaces based on the latest academic research and best practices. As an alternative to imposing new requirements, some cities have removed or changed old zoning codes that work against the goal of encouraging healthier, more active living. Other cities have incorporated physical activity guidelines into their construction codes and adopted policies that support outdoor play and exercise. These include offering incentives to designers and developers to build in ways that encourage walking, bicycling, and active transportation and recreation.

Cross-Cutting Recommendations

1. Public Awareness and Marketing

The food industry spends billions of dollars each year marketing products to American consumers. According to the Institute of Medicine (IOM), as much as \$10 billion per year is spent just to market food specifically to children. A number of large food and beverage companies, both individually and in some cases as part of a larger initiative, have recently made voluntary commitments to reduce their marketing to children, and/or sought to improve the nutritional quality of their product offerings. While these efforts are to be applauded, too

many advertising messages – including particularly those directed to children – continue to promote unhealthy foods. At the same time, research shows that many people have difficulty interpreting the health-related claims that are often used to market food, either as part of food packaging or in advertisements.

In sum, more can and should be done to communicate clear, consistent messages about the importance of healthy diet and physical activity and to provide consumers with the information to make healthier choices. Expanded efforts in this realm should make use of new advertising and media outlets, including not just TV, print, radio and the internet, but also new and emerging social media, kid-directed games, product packaging, and digital media advertising.

Public Awareness and Marketing Recommendation #1: The food industry should adopt uniform standards for what constitutes “better for you” foods using the Institute of Medicine Phase 2 report as a starting point and making sure industry standards are aligned with the U.S. Dietary Guidelines.

We also call for an independent entity to monitor and evaluate the impact the industry’s voluntary “Facts up Front” proposal is having on consumer choice, with the goal of measuring whether consumers are using this information to change their purchasing and consumption behaviors.

Public Awareness and Marketing Recommendation #2: The Ad Council or similar organizations should coordinate a multi-media campaign to promote healthy diet and physical activity, funded by leading private sector companies in collaboration with federal agencies.

For both the nutrition and physical activity aspects of the campaign, high profile and influential messengers are

critical. We recommend involving celebrities, athletes and other public figures who resonate with audiences and have the ability to inspire change.

Public Awareness and Marketing Recommendation #3: Food retailers should adopt in-store marketing and product placement strategies to promote the purchase of healthier, lower calorie products.

Public Awareness and Marketing Recommendation #4: States and localities should continue to innovate and experiment with ways to change the profile of foods in the marketplace.

As part of ongoing efforts in this area, additional information generated by states and localities about the impact that different state policies and local ordinances are having on food choices, portion sizes and other factors – for the general population and for children in particular – would be a useful contribution to existing research in the field.

2. Food and Farm Policy

Agriculture is a major sector of the U.S. economy and one in which government decisions – subsidies and incentives, trade policies, etc. – play a major role. Historically, farm and agriculture policies were, at most, tangentially influenced by considerations of diet, nutrition and health. This has begun to change. Growing awareness of the costs and impacts of high rates of obesity and chronic disease in America are prompting a broader look at our entire food supply chain and at the policies and programs that, along with consumer preference, determine what foods appear on grocery store shelves and, ultimately, on our plates.

Food and Farm Policy Recommendation #1: USDA, in collaboration with other stakeholders, should identify and address barriers to increasing the affordability and accessibility of fruits, vegetables and legumes.

We recommend taking specific actions, including: reviewing existing government policies for opportunities to eliminate barriers that may reduce the supply and increase the cost of healthy foods; authorizing a generic fruit and vegetable promotion board; improving transportation and distribution systems to make fresh produce more available and affordable; and exploring ways to incentivize healthier food choices through federal nutrition assistance programs.

Food and Farm Policy Recommendation #2: USDA should identify and pursue further opportunities to promote health and nutrition through its nutrition assistance programs.

Federal nutrition assistance programs, like SNAP, WIC and CACFP, reach millions of the nation's most vulnerable individuals and families each year – including many people at high risk for obesity and chronic disease. We recommend continued support for these programs coupled with increased efforts to align program guidelines and incentives with federal dietary guidelines. We also recommend further research and analysis to better understand the impacts of these programs on dietary choices and health in the recipient population and to inform relevant policy debates going forward, such as the current debate about whether certain food items should be excluded from the SNAP program.

Food and Farm Policy Recommendation #3: Congress should continue sustained support for relevant research by offices of USDA.

Research conducted by the USDA's Agricultural Research Service (ARS), the National Institute of Food and Agriculture (NIFA), and Economic Research Service (ERS) is valuable to ensure that policymakers, stakeholders and the public continue to have robust, up-to-date information on the impacts of food and farm policies.

3. Information Sharing and Analysis

One of the greatest challenges for all parties interested in promoting healthy diet, physical activity, wellness, and preventive care is accessing the wealth of data and ideas that is being generated in this realm. From understanding what programs are working well to what the latest research can tell us, there is an enormous need for better ways to share knowledge and learn from different efforts. Time and again, as BPC reached out to different stakeholders we learned about important, innovative, sometimes low-cost or even cost-neutral programs that have achieved desired results but are not widely known. And despite some efforts to pull together some of this information, no central repository exists for systematically collecting, organizing and disseminating research, data and best practices for combating obesity and chronic disease. Also needed are ongoing public-private efforts to rigorously evaluate the costs and impacts of specific public health interventions. Given the scale of the challenges and current fiscal and political constraints, it will be critical to demonstrate that prevention-based approaches can yield tangible results.

Information-sharing recommendation #1: CDC and HHS should continue robust efforts to collect and disseminate information on food, physical activity and health – including information on the social determinants of health and future costs – and Congress should continue to support these monitoring and information-gathering functions.

Information-sharing recommendation #2: Public- and private-sector organizations active in this field should partner to establish a national clearinghouse on health-related nutrition and physical activity initiatives. The clearinghouse should provide links to further resources, technical assistance, coordination and partnership opportunities, and up-to-date research findings.

Conclusion

While the statistics on obesity and chronic disease are truly alarming, numbers alone cannot convey the full human and social costs of the health crisis we confront today in America. The problem is clear and its impact on our future – both in terms of the health, productivity and well-being of the current generation and generations to come, and in terms of the prosperity, competitiveness and fiscal integrity of our nation as a whole – is hard to overstate. Turning the tide of this epidemic will require leadership, first and foremost. All sectors of society must be engaged and all must take responsibility – from individuals and families to communities, institutions and government. Together, our challenge will be to define and implement policies, strategies, incentives and actions that, by encouraging and supporting healthy behaviors, can begin to slow and even reverse the trajectory we are on. The complexity of the problem demands a diversity of solutions; what's required is not a new top-down program or a vast expenditure of public resources, but a multiplicity of smaller steps and changes, at all levels of society, that collectively translate to lasting, large-scale shifts over time. Results will rarely be quick, but progress must be steady. And as we strive to reduce obesity, improve health, and slow the runaway growth of health care costs in America, continued research and data collection will be critical to inform our efforts and make sure we are investing in those strategies we know will work.

In this report, BPC has focused on areas and opportunities for intervention that we believe hold particular promise, both because they can have a significant impact and because they can be implemented within existing frameworks and structures. The good news is that many powerful examples and inspiring programs are already underway. To achieve the goal of significantly reducing obesity and chronic disease in America within the next generation, we must build on what is already working, expand the reach of good programs, and greatly accelerate the pace of change. The problem is complex but we know at least some of the solutions. Now it is time to get to work.

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Health Program

Nutrition and Physical Activity Initiative

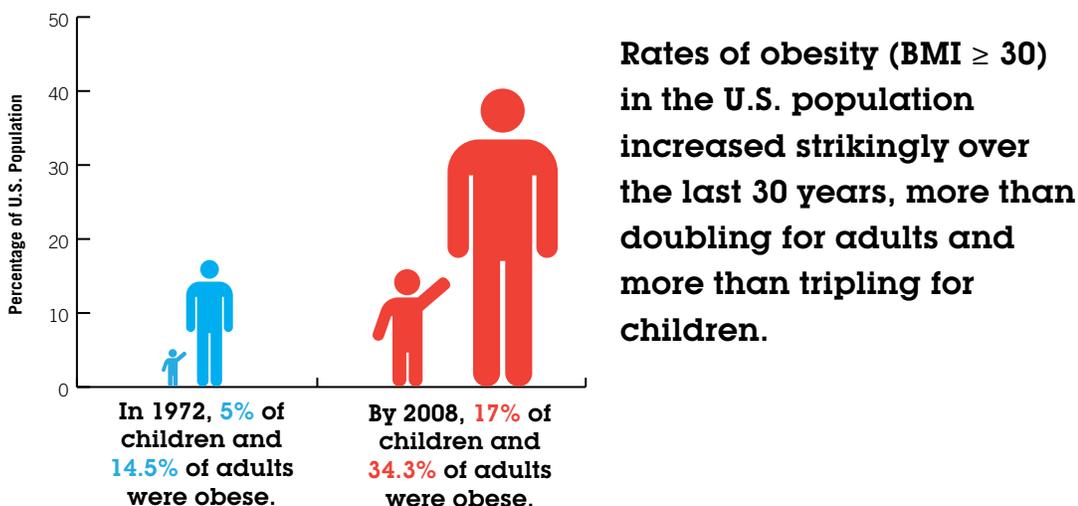


Chapter 1: Introduction

Our nation is in the midst of a health crisis. Fully two-thirds of Americans are overweight or obese. One-third of American children are overweight or obese. And among children under the age of six, nearly one in five is overweight or obese.¹ Fewer than 20 percent of Americans meet federal guidelines for a healthy level of regular physical activity.² Chronic, debilitating, expensive and often lethal diseases such as diabetes and hypertension affect millions of people, at younger and younger ages, and are especially prevalent in low-income and minority communities.

The consequences of this crisis threaten not only the day-to-day well-being and quality-of-life of millions of Americans, but the future prosperity and security of our country as a whole. Chronic diseases linked to obesity, poor nutrition and a lack of physical activity are major drivers of today's runaway health care costs. Already, these costs are crowding out other critical investments and forcing lose-lose choices on households, businesses and the government alike. At risk in the long run is not just the fiscal integrity of the U.S. government, but the American people's ability to grapple with challenges on multiple fronts. Chronic poor health affects everything from the academic performance of U.S. students, to the productivity of U.S. workers and the readiness of the U.S. military.

Behind these trends lie many changes, large and small, in the way Americans live, work, eat and play. Compared to our parents and grandparents, most of us spend more time in front of computer or television screens and more time in the car. We are more likely to work in sedentary occupations, less likely to live in neighborhoods where we can walk to work or to the grocery store, and less likely to have time to prepare home-cooked food or sit down for family meals. In low-income communities, kids may lack safe places to play outside and



local stores may not stock fresh fruits and vegetables. Everywhere, fast-prepared foods – many of them laden with fats and sugar – are available in abundance and at prices that make them cheaper per calorie than healthier options. Everywhere, a barrage of advertising makes us crave the foods that we can least afford to eat. In this environment, eating well, staying active, and maintaining a healthy weight is an uphill struggle for many if not most Americans. And despite a media culture that celebrates being thin and physically fit, millions of Americans are losing the battle for long-term wellness – many of them from a young age.

Changing this picture – indeed, merely shifting the odds – presents an enormous challenge. The factors involved are numerous, complex and rooted in the social, economic, cultural and demographic realities of our time. No easy policy prescriptions exist because solutions to the problem depend on choices about diet and physical activity that are ultimately personal; they come down to the messages parents send their kids, the decisions people make in the supermarket aisle, and everyone's willingness and ability to look out for his or her own health. But it is equally critical to recognize that individual choices take place in a context and are powerfully shaped by a host of external influences. That means government and other institutions have an important role to play in ensuring that all citizens have at least the information and the opportunity to pursue a healthy lifestyle. Put simply, it shouldn't be more difficult in 21st century America to eat well and stay active than to do the opposite. And for too many people in too many places – especially those in low-income and minority communities – healthy options are either out of reach or simply not available.

To turn the tide on America's obesity and chronic disease epidemic, all sectors of society, from employers and government agencies to schools, health care providers and the food industry, will have to work together to support and encourage healthy choices. Information, incentives and access to better food and physical activity options can be powerful tools for broad-based change and all of them must be brought to bear. The stakes are high and the need for action is urgent – not just to avoid crippling health care costs in the future but to ensure that America's workforce remains one of the most productive and competitive in the world.

The Bipartisan Policy Center (BPC) launched its Nutrition and Physical Activity Initiative in 2011 to explore potential levers for change in the fight against obesity and chronic disease in America. The initiative is led by four former U.S. cabinet secretaries and brings together a wide range of experts, policymakers and stakeholders. This report reviews the challenges our nation confronts today in terms of nutrition, physical activity and health; it also identifies best practices, highlights specific success stories, and

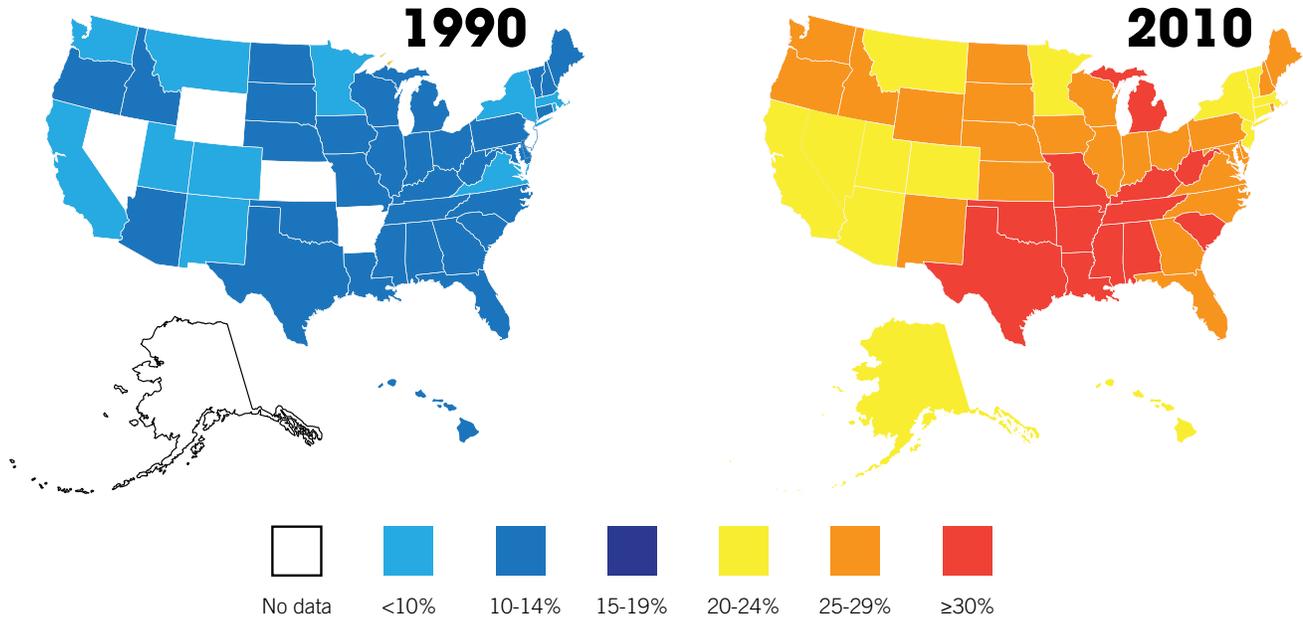
advances a set of concrete policy recommendations designed to address these issues from multiple angles.

Throughout, our focus is on specific actions that could be taken to reduce current rates of obesity and chronic disease, and thereby ease the financial strains and loss of longevity and productivity that are the ultimate consequences of our deepening national health crisis. These recommendations reflect insights gained from a year of intensive research and outreach to experts and stakeholders who are actively addressing health issues from the perspective of nutrition and physical activity. An enormous amount of good work is being done in this area and success stories abound – from an innovative effort to help U.S. servicemen and women make healthier choices in Army mess halls to school lunch programs that have improved the quality of food being offered to children while also reducing costs. But scaling up these success stories will be challenging, especially when many of the major players – including schools, cities and counties – lack the resources to expand promising programs. Moreover, policies that aim to change behavior are often intrinsically hard to implement. BPC's goal with this initiative is not to duplicate or repeat efforts that are already working. Rather, it is to explore how individuals, government and the private sector can build on the best of these efforts with a combination of behavior changes, targeted interventions and policy reforms that, over time, will have a lasting impact on the health of the American people and the future strength and security of our nation as a whole.

This report is organized as follows: Chapter II provides background and context on America's current crisis of obesity and chronic disease, elaborating on several of the points and themes raised in this introduction. Subsequent chapters (Chapters III through VI) outline our recommendations. They are organized according to the level (or unit) of society that is primarily being addressed in each case, recognizing that these distinctions are not always clear cut and that, given the nature of the topic, some overlap across different categories or target audiences is inevitable. We begin with healthy families, which are the first line of defense in ensuring that healthy attitudes and patterns of behavior with respect to food and physical activity are established early and passed on to the next generation. Additional chapters focus on schools, which offer some of the most important opportunities to reach young people outside the home; the workplace, where most adults spend a large portion of their waking hours; and finally, the community, which provides the setting in which most of the activities of daily life – from buying food and accessing health care services to socializing, moving to school and work, and engaging in recreational activities – occur. A fifth category of cross-cutting recommendations is covered in Chapter VII.

Health Program
Nutrition and Physical Activity Initiative

Percent of Obese (BMI \geq 30) U.S. Adults



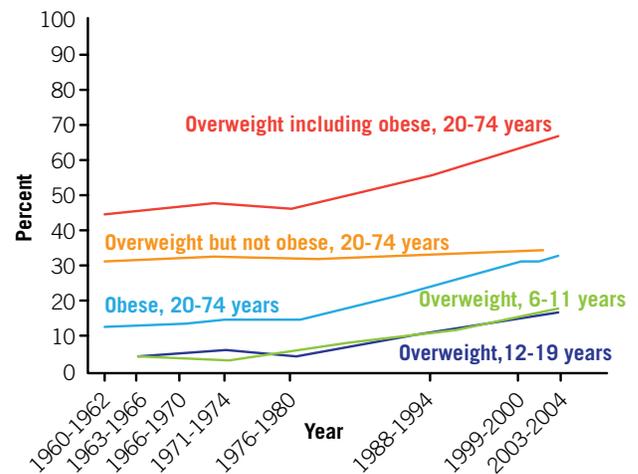
Source: Centers for Disease Control and Prevention (2012). Retrieved from <http://www.cdc.gov/obesity/data/adult.html>

Chapter 2: America's Health Crisis

By several measures, obesity is already the single largest threat to public health in America today. According to the American Cancer Society, obesity is now responsible for roughly as many cases of cancer as smoking.³ It also affects a far larger number of people; as we noted in the introduction, well over half the U.S. population – two-thirds of adults and one-third of children and adolescents – is obese or overweight. Obesity is not only extremely prevalent, it has alarming consequences for people's health. A 2001 study found that obese people had a 67 percent higher chance of suffering from conditions like diabetes, hypertension, asthma, heart disease and cancer than normal-weight people of the same age and social demographic.⁴ Obese people also spent much more on medical services – 36 percent more, on average, than normal-weight individuals. In sum, obesity is a major reason why nearly half the U.S. population today – about 145 million people in total – suffers from one or more chronic diseases.⁵ These impacts are borne by all segments of society, but they disproportionately affect low-income households and communities of color.⁶ And the resulting health care costs affect us all.

For children, the immediate and long-term effects of obesity can be particularly devastating. In the short term, according to the Centers for Disease Control and Prevention (CDC), obese children are more likely to have one or more risk factors for cardiovascular disease, to be prediabetic (i.e., at high risk for developing diabetes), and to suffer from bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem.⁷ In fact, due to the rapid increase in the number of diabetic children, a disease that was once called “adult onset diabetes” has now been renamed Type 2 diabetes. In the longer run, obese children are much more likely to be obese adults with all the costs and impacts this implies – not only in terms of contracting expensive and debilitating adult chronic diseases but in terms of quality of life and the ability to realize their personal and professional potential.

Fraction of U.S. Population that Is Overweight or Obese



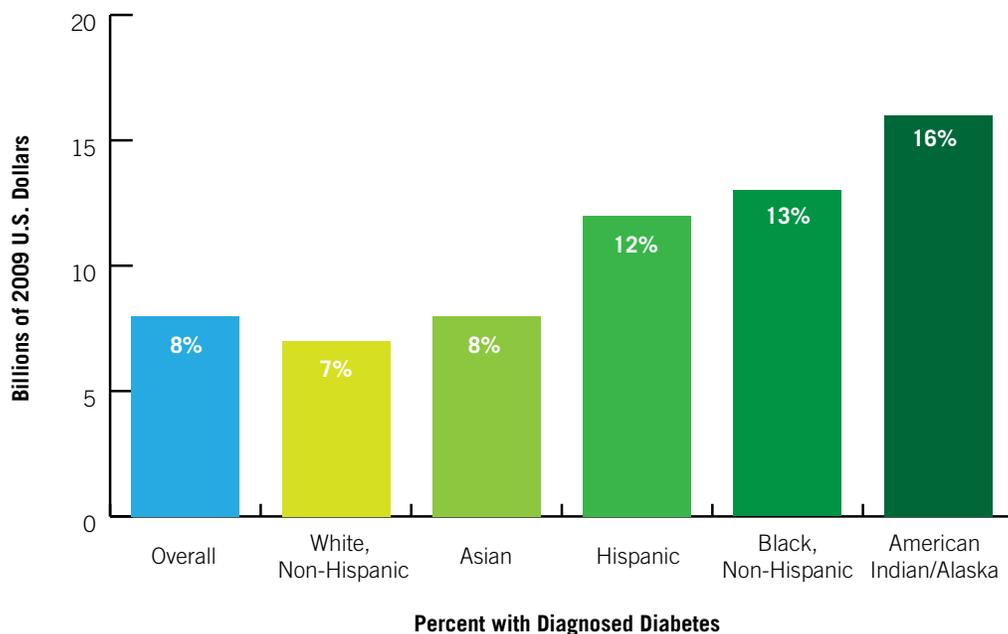
Source: Centers for Disease Control and Prevention, National Center for Health Statistics (2006). Data from National Health and Nutrition Examination Survey.

Today's crisis of obesity and chronic disease is alarming in part because it emerged so rapidly: over little more than the span of a single generation. Prior to 1960, rates of obesity in the U.S. population were relatively stable (around 13 percent); between 1960 and 1980 they increased moderately but stayed well below 20 percent. Since 1980, however, the percentage of Americans who are overweight or obese has grown dramatically; in addition, much of this increase has been concentrated in

Today 35.7 percent of Americans (more than 78 million) are considered obese.

the “obese” category, which grew by 61 percent between 1991 and 2000.⁸ Today 35.7 percent of Americans (more than 78 million)⁹ are considered obese (within the latter category, roughly nine million people are considered

Diagnosed Diabetes Among Adults Age 20 Years and Older, By Race/Ethnicity, 2007-2009



Source: 2011 National Diabetes Fact Sheet. Centers for Disease Control and Prevention.

severely obese).¹⁰ Roughly another third of the adult population is considered overweight. In fact, the U.S. has the highest rates of obesity among 33 of the world's wealthiest countries.¹¹ Current trends in childhood obesity are especially worrisome, given the high correlation between childhood and adult obesity and the longer-term implications of a lifetime of obesity. Overall, the incidence of childhood obesity more than tripled in the United States over the past 30 years: between 1980 and 2008, the percentage of children aged six to 11 years who were obese increased from seven percent to nearly 20 percent, while the percentage of adolescents aged 12 to 19 years who were obese increased from five percent to 18 percent.

An important aspect of obesity and chronic disease is that the prevalence of both is not evenly distributed across the population. According to the CDC, non-Hispanic blacks have the highest rates of obesity (44.1 percent) compared with Mexican Americans (39.3 percent), all Hispanics (37.9 percent) and non-Hispanic whites (32.6 percent). The relationship between socioeconomic status and obesity is more complex. Among women, the prevalence of obesity declines with higher income, whereas the same is not necessarily true for men (among non-Hispanic black and Mexican-American men, for example, the prevalence of obesity actually increases with higher income). Thus while there is a connection between obesity and poverty, the fact is that most obese people in the United States are not low-income. On the contrary,

among both men and women, most obese adults in this country are non-Hispanic whites with income at or above 130 percent of the poverty level.¹² Just as important, rates of obesity have been rising in recent years for all ethnic groups, at all income levels, and in all categories of educational attainment. The epidemic, in other words, is unevenly distributed but it is affecting everyone. And though there is some evidence that the rate of increase in obesity has begun to slow in recent years, the problem is still growing in terms of numbers of adults and, perhaps more importantly, *children* affected. Indeed, among some groups (boys aged nine to 19, for example) the rate of increase in obesity still appears to be accelerating.¹³

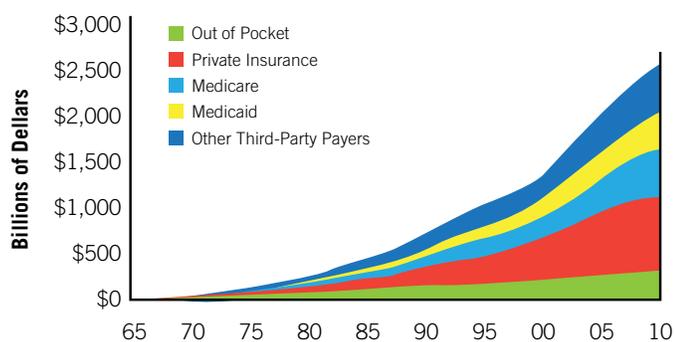
As we noted in the introduction, there are many reasons for the sharp increase in obesity in the U.S. population over the last 30 years, and we are only beginning to gain a sophisticated understanding of the role played by different genetic, environmental and lifestyle factors. Recent research, for example, suggests that inadequate sleep may be linked to weight gain and related chronic health conditions.¹⁴ Researchers are also looking closely at changes in the American diet and at the role of specific foods. Sugar, for example, has been at the center of a vigorous debate about whether it is disproportionately responsible for the increase in obesity and chronic disease seen over the last several decades. In the 1950s, Americans consumed on average 110 pounds of sugar per person per year. By 2000, this figure had increased to more than 150 pounds per year, with much of this increased consumption coming in the form of sweetened beverages. Most public health experts agree that further research is needed to fully understand the role that sugar in its different forms, including sucrose and high-fructose corn syrup, plays in weight gain and chronic disease.¹⁵

Available data, meanwhile, confirm broad and striking shifts in both the eating habits and physical activity levels of Americans over the last 30 to 40 years. Between 1977

and 1995, the percentage of meals eaten away from home nearly doubled, from 16 to 29 percent, and the percentage of meals eaten at fast food restaurants specifically tripled – from three to nine percent.¹⁶ Data from the U.S. Department of Agriculture indicate that Americans' average daily caloric intake increased by 24.5 percent, or about 530 calories, between 1970 and 2000.¹⁷ Even as caloric intake has grown, there is broad anecdotal and some empirical evidence that physical activity levels have declined. A recent study that looked at the connection between occupational physical activity and obesity found that in the early 1960s, almost half the private-sector jobs in the U.S. required at least moderate-intensity physical activity. This compares to fewer than 20 percent of current jobs demanding this level of energy expenditure.¹⁸ Meanwhile, despite a modest increase in the percentage of adults who reported engaging in regular physical activity between 2001 and 2005, the latest available CDC data still indicate that less than half the adult U.S. population meets recommended guidelines for physical activity. Reliable information on physical activity¹⁹ among children is harder to find, but the available data point to (1) a clear decline in physical activity as kids enter adolescence and (2) large amounts of time spent in front of television or computer screens. A study by the Kaiser Family Foundation found that today's eight- to 18-year-olds spend an average of seven hours and 38 minutes per day (more than 53 hours a week) using entertainment media.²⁰

If the reasons behind obesity are varied and complex, so are its many costs and consequences not just for individuals but for society as a whole. Numerous studies have looked at the impacts of obesity, and the literature on this subject is growing daily. Rather than attempt an exhaustive summary in this short overview, we cite a few key findings from recent work.²¹ A 2010 article on the economic costs of obesity in America reviews findings in four categories: direct medical costs, productivity costs, transportation costs, and human capital costs. Productivity

U.S. National Health Spending, 1965-2010



Source: Centers for Medicare and Medicaid Services, National Health Expenditure Accounts (2011).

costs include the costs of absenteeism, presenteeism (when people are at work, but are not as productive as they could be), disability, and premature mortality related to obesity; transportation costs include the additional fuel use and environmental impact associated with transporting heavier people; and human capital costs include adverse impacts on educational attainment (including both quantity and quality of schooling).

...expected lifetime medical care costs for patients who have one or more of five weight-related chronic diseases were 20 percent higher for people who are overweight, 50 percent higher for people who are obese, and nearly double for people who are severely obese.

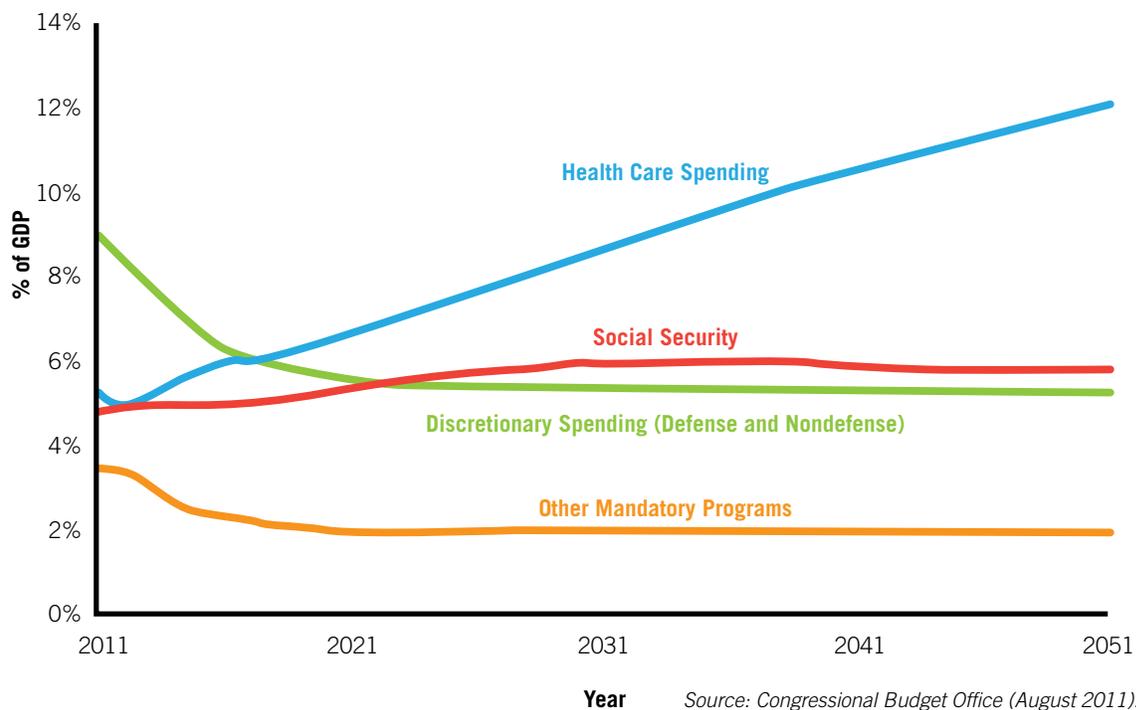
Of these costs, direct medical cost is the metric that has received the most attention. CDC has estimated that spending on medical care for obesity-related illnesses

in America totals \$147 billion per year.²² A more recent estimate puts the figure as high as \$190 billion annually.²³ Another recent study by the Campaign to End Obesity found that if indirect costs are included, the annual cost is close to \$300 billion.²⁴ The annual direct cost of childhood obesity in America has been estimated at \$14.3 billion, and this figure would be much higher if it accounted for the high probability that obese children will become obese adults.²⁵

The very high cost of managing and treating many of the chronic diseases associated with obesity helps to explain the magnitude of these cost impacts. Diabetes is a good example. According to one study, the annual cost of treating a case of diagnosed diabetes averages \$6,649 per year; for undiagnosed cases and prediabetes, annual costs per case average \$1,744 and \$443.²⁶ Another study found that expected lifetime medical care costs for patients who have one or more of five weight-related chronic diseases were 20 percent higher for people who are overweight, 50 percent higher for people who are obese, and nearly double for people who are severely obese.²⁷ And while many of these costs are borne by the private sector, obesity also accounts for a growing burden on public spending. A study using data from 1998 and 2006 concluded that in the absence of obesity, Medicare spending would be 8.5 percent lower and Medicaid spending would be 11.8 percent lower.²⁸

Interest in these figures is not merely academic. An increasingly urgent debate is underway about the implications of recent explosive growth in U.S. health care spending, both in terms of the nation's overall economic outlook and in terms of impacts on the federal deficit and debt. Again, the numbers are startling. As a percent of GDP (gross domestic product), overall spending on health care in America doubled between 1980 and 2010, from nine to 18 percent. Today, nearly one in every five dollars generated by the U.S. economy is going to health care and expenditures are still growing.²⁹ Multiple reasons

Health Care Costs are the Primary Driver of the Debt



...the combined cost of [Medicare and Medicaid] can be expected to nearly double – to just over \$1.3 trillion – by 2020. If that were to occur, federal expenditures for these two programs alone would exceed current federal spending on all defense and non-defense discretionary programs.

have been advanced to explain the rapid escalation in overall U.S. health care spending – from the increasing sophistication of technology and greater use of prescription

drugs to administrative costs and the aging of the population. But the rising incidence of chronic diseases, many of them obesity-related, is clearly an important part of the picture and likely plays a role in the fact that America, despite substantially higher per capita spending on health care, lags well behind other wealthy developed nations in terms of key health outcomes.³⁰

If rising health care costs are a concern for the economy as a whole, they amount to nothing short of a ticking time bomb for the federal budget. This is because costs for Medicare and Medicaid – the two major government-provided health insurance programs – have emerged as the dominant drivers of America's rapidly mounting debt.³¹ Already, these two programs account for more than

one-fifth (21 percent) of federal spending with combined outlays exceeding \$750 billion per year in FY2010 and 2011. Meanwhile, the Center for Medicare and Medicaid Services has projected that the combined cost of these programs can be expected to nearly double – to just over \$1.3 trillion – by 2020. If that were to occur, federal expenditures for these two programs alone would exceed current federal spending on all defense and non-defense discretionary programs.

Dealing with the nation's budget problems is obviously a much bigger policy discussion; rising health care costs aren't the only driver (increased enrollment and expanded eligibility account for much of the projected growth in Medicare and Medicaid spending, for example) and there is broad agreement that entitlement reform will be necessary to put the U.S. Treasury back on stable footing. By the same token, obesity and obesity-related chronic disease aren't the only drivers of growth in U.S. health care costs; here too, many factors are in play. But reducing the prevalence of obesity in America and avoiding some of its costly consequences is surely a significant part of the answer to managing our nation's daunting economic and health care challenges going forward.

When BPC launched its Nutrition and Physical Activity Initiative, we were prepared to find that a great deal was already going on in this realm. Nonetheless, we were taken aback by the sheer number and variety of initiatives currently underway. Many important ideas are being tried, some of them out of economic or other necessity and often with limited resources. But the good news is that innovation, inspiration and leadership in the fight against obesity and chronic disease are emerging at all levels of government and civil society, including non-governmental organizations and private companies. This report and our recommendations do not try to capture all the potentially promising ideas that are out there, nor do we want to focus on suggestions that others have already put forward or are

Current rates of obesity threaten to blight not only the life prospects of millions of individual Americans, but the future prosperity and security of our nation as a whole.

trying to implement. Rather, our aim has been to approach the challenge from multiple angles, seeking points of leverage where specific actions have the potential to bring about large-scale change. Naturally, this has led to a focus on especially vulnerable, disproportionately affected populations (including children, low-income households, and communities of color); on institutions with the potential to influence large numbers of people, from schools and large employers, to health care providers and the military; and ultimately on policies that shape our food and health environment in not always obvious but powerful ways.

In selecting among different ideas and recommendations, we applied six basic criteria:

1. Hold promise for significant real-world impact, among large numbers of people and particularly vulnerable groups
2. Address the disparate impacts of obesity and chronic disease on different segments of the population
3. Emphasize incentives to encourage healthier choices and behaviors
4. Build on existing successes that have demonstrated results and lend themselves to replication
5. Require action from an identifiable decision maker, whether in the private and NGO sectors, or in federal, state, local or tribal government
6. Can be measured using progress metrics to ensure accountability

In sum, obesity in America clearly constitutes a major health crisis but it is also much more than that. For reasons discussed in this chapter and throughout this report, the dimensions of the crisis are economic, social, fiscal and political, as well as medical. Current rates of obesity threaten to blight not only the life prospects of millions of individual Americans, but the future prosperity and security of our nation as a whole. Fortunately, this threat is now getting a lot of attention. Researchers, businesses, the medical community, policymakers and health advocates share a sense of urgency about improving our understanding of obesity and finding more effective strategies to combat it. Their combined efforts provide grounds for optimism that we can take action to reduce obesity in America more thoughtfully,

systematically and successfully than we have in the past. Doing so will require leadership from all sectors of society, greater awareness, a focused policy commitment at all levels of government, and some up-front investment of public and private resources. None of the above will come easily, particularly in the context of a still-fragile economy and intense budget pressure at the federal, state and local level. Nonetheless, all Americans should be able to unite behind the recognition that it is easier, better and ultimately less costly to prevent obesity and chronic disease than to resign ourselves to living with the consequences.



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Chapter 3: Healthy Families

For most people, healthy patterns of diet and physical activity begin at home. Parents and caregivers, in particular, have a strong influence on what children eat and how active they are. In fact, recent studies indicate that the general health and obesity of parents is a powerful indicator for the health outcomes of children.³² Moreover, these influences start very early; a growing body of research indicates that nutrition during the first thousand days of a child's life – starting during pregnancy and continuing to age two – plays a significant role in determining that individual's health, not only later in childhood but over his or her entire lifetime. Recent reports suggest that obesity during pregnancy can be a risk factor for developing obesity, diabetic, and cardiovascular diseases in the newborn later in life.³³

Unfortunately, the data indicate that obesity in early childhood is already a major problem in the U.S. One in five American children is overweight or obese by age six.³⁴ According to the CDC, approximately 12.5 million American children aged two to 19 years are obese.³⁵ Moreover, the prevalence of obesity among children and adolescents has tripled since 1980. Poor diet and lack of exercise are clearly major drivers of these statistics: in 2008, the Feeding Infants and Toddlers Study, widely recognized as one of the most comprehensive dietary surveys of children ages zero to four, found that most American toddlers and preschoolers consume excessive amounts of calories and saturated fats and are more likely to receive a sweetened beverage or sweet snack in a day than a single serving of fruits or vegetables. The study findings further suggest that early food preferences and habits set a lasting pattern: among other things, researchers found that the relative contribution of calories from each food group in the diets of children at 18 months of age generally remained the same through age four.³⁶ Disturbingly, the latest research also shows that it is not just taste and habit that get set early but

metabolic factors as well. Pediatric metabolic syndrome is on the rise and explains, at least in part, the strong correlation between children who are overweight or obese and individuals who go on to become overweight or obese adults.³⁷ Besides having a poor diet, many of these kids are probably also not active enough. Recent research suggests that nearly half of preschool-aged children (three to five years old) are not being taken outside by a parent or caregiver every day.³⁸

...health experts view early childhood as a critical window of opportunity for improving long-term health, productivity and quality of life for millions of people.

In sum, health experts view early childhood as a critical window of opportunity for improving long-term health, productivity and quality of life for millions of people. During this time, relatively modest investments to improve nutrition and promote physical activity – from supporting breastfeeding to making sure that parents and caregivers have access to healthier foods and are educated about the importance of diet and exercise – can help avoid billions of dollars in preventable health care costs down the road. These early interventions have also been shown to affect student performance in school generally, graduation rates, and ultimately, overall GDP.³⁹

This chapter focuses on changes that could make a difference at the level of families and households, with particular emphasis on early childhood impacts. In some sense, of course, all the recommendations in this report could be included under the same heading: to the extent their ultimate aim is to influence the options people have and the choices they make, as individuals

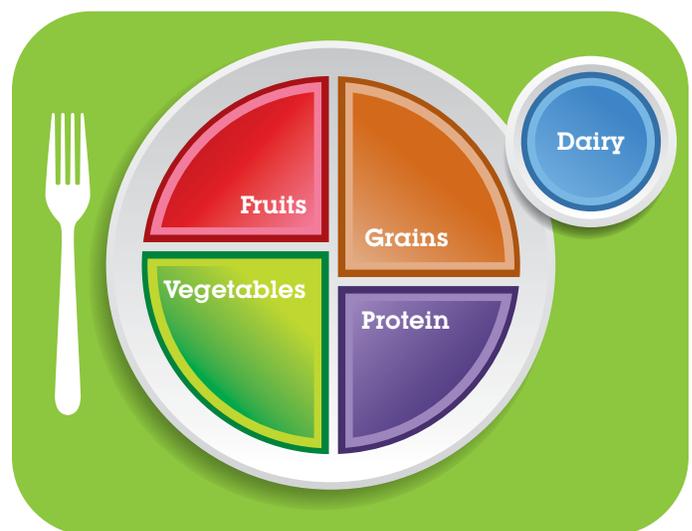
and as parents, they could all be said to affect families. But in other chapters the focus is on larger social units or entities – such as schools, employers or community institutions – that help shape the environment in which individual behavior occurs. By contrast, this chapter looks at three opportunities for directly influencing families, and particularly young children, to be more healthy: (1) expanding nutrition and exercise guidelines to include the youngest children, while also increasing the public’s general awareness and understanding of these guidelines; (2) leveraging federal guidelines to more effectively reach populations served by existing nutrition assistance programs; and (3) encouraging new mothers to breastfeed exclusively for the first six months following delivery, based on research that suggests breastfeeding can lead to greatly improved health outcomes for mothers and infants.⁴⁰ Closely related recommendations, including recommendations aimed at promoting nutrition and exercise in childcare settings, are covered in subsequent chapters.

Of course, it is also important to acknowledge up front that no recommendation, guideline or policy initiative can substitute for individual or parental responsibility; in the end, it will be up to adults to make the effort on behalf of themselves and their children to eat better and exercise more. Healthy environments are critically important, too; people cannot make healthy choices when there are no healthy options. We believe targeted support, particularly during the critical period of cognitive and metabolic development in early childhood, could produce a significant improvement in health outcomes for the next generation and the generations after that.

Dietary and Physical Activity Guidelines

The Dietary Guidelines for Americans (DGA) are evidence-based nutrition recommendations that provide national, standardized nutritional guidance, both for the public and for federal assistance programs. The guidelines are jointly promulgated by the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services (HHS) and updated every five years; currently they are issued for Americans aged two years and older and thus provide little guidance for nutrition in the most formative years of

USDA MyPlate Icon



Source: www.choosemyplate.gov

development. In 2010, the Dietary Guidelines Advisory Committee, comprised of USDA and HHS officials and academics, recommended that guidelines for ages zero to two be issued beginning in 2015.⁴¹ Other prominent health organizations, including the Institute of Medicine (IOM) and the American Academy of Pediatrics, have

2008 HHS Physical Activity Guidelines

Key Guidelines for Children and Adolescents

- Children and adolescents should engage in 60 minutes (one hour) or more of physical activity daily.
 - **Aerobic:** Most of the 60+ minutes a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least three days a week.
 - **Muscle-strengthening:** As part of their 60+ minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least three days of the week.
 - **Bone-strengthening:** As part of their 60+ minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity on at least three days of the week.
- It is important to encourage young people to participate in physical activities that are appropriate for their age, that are enjoyable, and that offer variety.

Key Guidelines for Adults

- All adults should avoid inactivity. Some physical activity is better than none, and adults who participate in any amount of physical activity gain some health benefits.
- For substantial health benefits, adults should engage in at least 150 minutes (two hours and 30 minutes) of moderate-intensity per week, or 75 minutes (one hour and 15 minutes) of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week.
- For additional and more extensive health benefits, adults should increase their aerobic physical activity to 300 minutes (five hours) of moderate intensity per week, or 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity. Additional health benefits are gained by engaging in physical activity beyond this amount.
- Adults should also do muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on two or more days a week, as these activities provide additional health benefits.

(<http://health.gov/paguidelines/default.aspx>)

echoed this recommendation.⁴² In the meantime, USDA has issued a short fact sheet concerning dietary guidelines for children under one.⁴³ While these efforts are commendable, it remains the case that there is little readily accessible guidance on nutrition and introducing new foods for parents of very young children.

Recognizing the importance of exercise as well as diet in promoting good health, the federal government issued national Physical Activity Guidelines in 2008. The guidelines call for one or more hours of moderate or vigorous aerobic activity every day, some muscle- and bone-strengthening activity at least three days per week for children ages six to 18, and at least 30 minutes per day of vigorous aerobic activity for adults.⁴⁴ As in the case of the dietary guidelines, however, there is currently a gap in the guidelines for very young children (below age six, in this case). The national Physical Activity Guidelines received less attention than the national Dietary Guidelines; fewer people are aware they even exist whereas most people are aware of the food plate icon used to illustrate the Dietary Guidelines.

**Healthy Families Recommendation #1:
HHS and USDA should extend federal guidelines for diet and physical activity to all children under six and enhance public awareness and understanding of these guidelines.**

Specifically, we recommend that HHS and USDA take several steps, including:

- Develop, implement and promote national dietary guidelines for the first thousand days, covering pregnant women and children between the ages of zero and two years old.
- Similarly, develop national physical activity guidelines for children under six years old.
- Support these guidelines by developing an effective

national strategy for disseminating this information and educating parents about the benefits of first foods and physical activity, particularly for populations that are most at risk for poor nutrition and health.

Nutrition Assistance Programs

A critical player in implementing the national Dietary Guidelines is the USDA's Food and Nutrition Service (FNS), which operates 15 federal nutrition assistance programs. These programs reach millions of the nation's most underserved and vulnerable citizens, including many of the populations most at risk for poor nutrition, obesity and related chronic diseases, and are an important part of the nation's social safety net, particularly during tough economic times. Because these programs touch nearly one in four Americans annually, they provide a critical opportunity for educating people about the connections between diet, physical activity and health. The major federal food programs include the National School Lunch Program (NSLP), which serves 31 million children daily; the School Breakfast Program (SBP), which serves 11.6 million children daily; the Special Supplemental Nutrition Program for Women, Infants and Children program (WIC), which serves roughly nine million low-income women, infants and children per year; the Supplemental Nutrition Assistance Program (SNAP), which serves more than 46 million low-income individuals per month; and the Child and Adult Care Food Program (CACFP), which provides meals and snacks for some 3.2 million children and 112,000 adults every day.⁴⁵ WIC benefits are available to qualifying pregnant and breastfeeding women and children up to age five. Currently, this program serves 53 percent of all children born in the United States.⁴⁶ But while participation is quite high (approximately 90 percent) among eligible women with very young babies, research shows that participation rates drop considerably after a child's first birthday.⁴⁷ In addition, a

recent study found that some WIC participants are not fully utilizing the benefits available under the program's new food package.⁴⁸ The reasons for these gaps in participation and utilization are not entirely clear, but they do represent an opportunity for better education and engagement to improve health outcomes for a large and particularly vulnerable segment of the population.

At a time when state and federal resources are critically strained, ensuring that all public assistance programs are delivering the most “bang for the taxpayer buck” is an obvious priority. This includes ensuring that the program is administratively efficient and recipients are accountable. It also includes making sure that barriers to effective implementation are removed. Given the upcoming sequester mandated by the Budget Control Act, in addition to the federal debt crisis more generally, Congress is considering ways to rein in federal spending. While we support efforts to reduce the federal debt, Congress should prioritize funding for programs that combat hunger, obesity and disease because these investments will produce greater savings over the long term. The SNAP program should be among the priorities.

Federal nutrition assistance programs share similar goals and serve many of the same clients, yet for a variety of reasons, current regulations can hinder effective implementation by limiting agencies' ability to share information and educational materials. State agencies also face real and perceived barriers to sharing funds from different programs, such as WIC and SNAP, even when these funds are intended to achieve the same goals. The SNAP Nutrition Education and Obesity Prevention Grant Program (or SNAP-Ed), for example, provides funding to states to implement behaviorally focused, evidence-based nutrition education and obesity prevention interventions, projects or social marketing campaigns, among other things. By allowing more flexibility in how SNAP-Ed dollars can be spent, recent guidance has eliminated some obstacles and improved the delivery of SNAP messaging. Generally speaking, however, overly rigid barriers still exist between programs and

too often these barriers result in duplicative efforts, inconsistent messaging, and missed outreach opportunities.

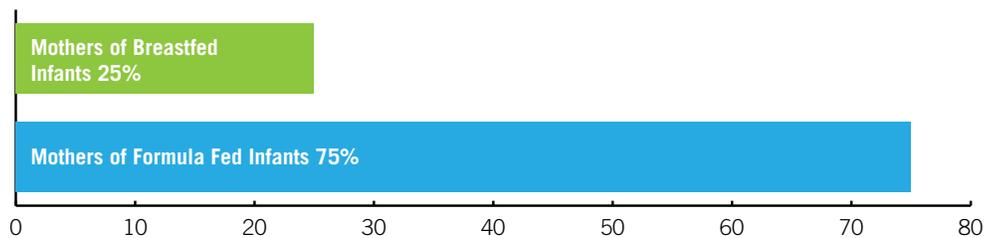
Healthy Families Recommendation #2:
USDA should ensure that all its nutrition assistance programs reflect and support federal Dietary Guidelines.

Specifically, we recommend that USDA and HHS take several steps to promote better childhood nutrition and health through existing assistance programs:

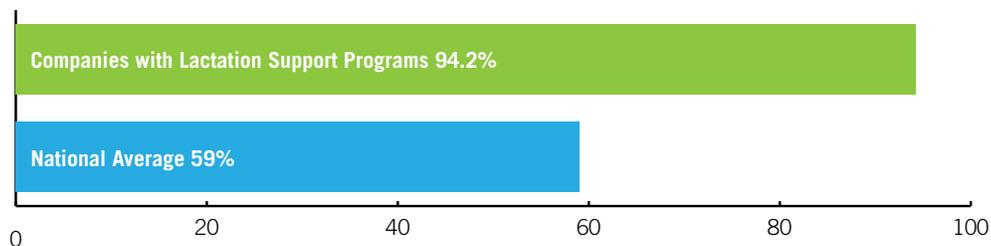
- Improve the alignment of messaging and education in the delivery of federal nutrition assistance programs particularly as they affect pregnant women, new mothers, infants and young children. For example, USDA should issue broad-based waiver authority to states to combine education funds, research resources, and marketing materials in ways that maximize messaging opportunities and outcomes. In addition, FNS should embark on an education campaign to break down perceived barriers in sharing informational materials between WIC and SNAP.
- Provide technical assistance and training to state and local USDA employees to help them better communicate the availability and content of these programs, thereby realizing greater impacts from existing federal investment in WIC and SNAP.
- Build on existing research to clearly identify reasons for the current drop-off in WIC participation past a child's first birthday, and take steps to ensure that all eligible recipients can access and optimize the use of their benefits. This should include developing strategies to increase awareness of, and participation in, federal assistance programs among the eligible population and taking steps to ensure that WIC recipients understand their food benefits as issued.

For its part, Congress should provide adequate funding for nutrition assistance programs, including SNAP-Ed.

Percentage of Infant Illnesses Requiring 1-Day Maternal Absence from Work



Retention Rate for Employees of Companies with Lactation Support Programs



Source: *Business Case for Breastfeeding*. HHS.

Breastfeeding

The health benefits of breastfeeding for both mother and child are widely recognized: human breast milk provides unparalleled nutrient value and is uniquely tailored to meet the needs of a developing infant. In addition, research indicates that breastfeeding is correlated with improved health outcomes later in life, including lower rates of obesity and chronic disease.⁴⁹ The U.S. government, the medical community, and leading national and international public health organizations all recommend exclusive breastfeeding (i.e., no formula except where medically necessary) for the first six months of life.⁵⁰ If this advice were followed, the health benefits could be substantial; a 2010 study published by the American Academy of Pediatrics found that if 90 percent of new mothers in the United States breastfed

exclusively for six months, this change alone could deliver health care cost savings on the order of \$13 billion annually.⁵¹

It is important to recognize that not all mothers can or choose to breastfeed. But the fact that 75 percent of mothers in the United States start out breastfeeding suggests that the majority of women want to breastfeed. The problem is that rate drops off sharply once mothers and infants leave the hospital. In 2011, only 35 percent

...if 90 percent of new mothers in the United States breastfed exclusively for six months, this change alone could deliver health care cost savings on the order of \$13 billion annually.

of infants were exclusively breastfed at three months old; at six months old, this number fell by more than half to less than 15 percent.⁵² Rates of breastfeeding also vary widely across different segments of the population. For example, breastfeeding rates are significantly lower for African American infants than for white infants.⁵³

To establish and maintain breastfeeding, new mothers need support in the hospital, at home and in the workplace. The hospital setting is obviously critical because it is where most babies are born and where breastfeeding has to begin. But surveys indicate that while many women enter the hospital intending to breastfeed, many fewer leave the hospital having successfully established breastfeeding with their newborns.⁵⁴ There appear to be numerous reasons for this gap, including insufficient opportunities for skin-to-skin contact between mother and baby following delivery, the common practice of giving infants formula in the hospital even when this isn't medically necessary, and inadequate follow-up and lactation support after discharge.⁵⁵ Further, research shows that many health providers – whose advice is often highly valued by new mothers – feel they have insufficient knowledge and clinical competence to support breastfeeding.⁵⁶

To address these barriers, the U.S. Preventive Taskforce, which is housed at HHS, recommends that breastfeeding support be provided throughout a woman's encounters with health providers during prenatal and postpartum care.⁵⁷ Other initiatives, such as the Baby Friendly Hospital Initiative based on work by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), also provide useful models for addressing these issues, including through transparent reporting of maternity practices and by limiting infants' exposure to formula in the hospital under non-medically necessary circumstances. Baby Friendly standards

require, among other things, that facilities providing maternity services and newborn care have a clear policy in support of breastfeeding and train staff accordingly.⁵⁸ Although some hospitals report that the Baby Friendly certification fee is a disincentive to participation, others have adopted some or all of the standards whether or not they receive the certification. Two large U.S. health care providers who have committed to meet Baby Friendly standards in all their hospitals are Kaiser Permanente and the Indian Health Service (IHS) (IHS is the agency within HHS that is responsible for providing federal services to American Indians and Alaska Natives). Despite an ongoing debate about implementation, it is clear that the standards are an important and broadly accepted gold standard for hospital care that prioritizes breastfeeding success. Today, less than 5 percent of births occur in hospitals that are designated "Baby Friendly."⁵⁹

In many cases, even those new mothers who successfully initiate breastfeeding in the hospital stop soon after they leave. Therefore it is critically important to continue to provide support after discharge, including easy access to peer and expert resources.⁶⁰ Research shows that access to lactation consultants and peer counselors, as well as integrated community support, can significantly affect the duration of breastfeeding. In one study of more than 29,000 mother-infant pairs, professional and lay support post-discharge significantly increased the duration of exclusive breastfeeding.⁶¹

The other critical setting for interventions to promote breastfeeding is the workplace, where longer maternal leave times, flexible work schedules and breastfeeding support programs all help women who choose to breastfeed, breastfeed for longer.⁶² Our current economic environment can make changes such as these difficult to implement and not all employers are

similarly situated to offer these benefits. At the same time, however, these investments don't just benefit employees; to the extent that healthier infants reduce employee absenteeism, increase productivity and lower health care costs, employers also gain. For example, CIGNA conducted a two-year study of 343 employees who participated in the company's lactation support program and found that the program resulted in an annual health care savings of \$240,000, 62 percent fewer prescriptions and \$60,000 in savings as a result of reduced absenteeism.⁶³ As stated earlier, not all women can or want to breastfeed nor are all workplaces equally positioned to provide support for breastfeeding. The point of the recommendations outlined below is to highlight successful examples and encourage trends in the direction of increased breastfeeding based on the long-term benefits such trends would provide.

Healthy Families Recommendation #3:
All key institutions – including hospitals, workplaces, communities, government and insurance providers – should support and promote breastfeeding with the goal of substantially increasing U.S. breastfeeding rates for the first six months of an infant's life.

Maternity hospitals and other health care providers should take the following steps:

- Follow the lead of Kaiser Permanente and the Indian Health Service, which have committed to making all their maternity care hospitals “Baby Friendly,” including avoiding the use of formula where not medically necessary.
- Track and publicly report their maternity care practices (including their scores on the CDC's annual Maternity Practices in Infant Nutrition and Care [MPINC] survey); Kaiser Permanente provides a model tracking system that can help

with transparency and thereby create incentives for compliance.⁶⁴

- Support new mothers in breastfeeding after they leave the hospital through follow-up visits or calls with the maternity facility, referrals to community-based support groups, and home visits.
- Comply with the WHO International Code of Marketing of Breast-milk Substitutes⁶⁵ (the United States is currently the only developed country that does not comply), which limits new mothers' and families' exposure to breast milk substitutes, supplies and advertising.
- Support breastfeeding by establishing partnerships and statewide networks to provide integrated and continuous follow-up care after hospital discharge (at-home or clinic-based), through peer support programs, lactation clinics and support groups.

In addition, the Joint Commission on Accreditation of Health Care Organizations (JACHO), which has taken significant steps to promote breastfeeding in hospitals by adding exclusive breastfeeding to its Perinatal Care Core Measure Set, should include the WHO/UNICEF Ten Steps to Successful Breastfeeding to the Core Measure, to strengthen its emphasis on exclusive breastfeeding.⁶⁶

Consistent with the above recommendations for hospitals and health care providers, we urge the federal government to do its part to support breastfeeding. Specifically,

- USDA should explore incorporating the WHO Code of Marketing of Breast-Milk Substitutes in the WIC program to ensure that WIC does not create disincentives to breastfeeding.⁶⁷
- Congress should continue to support WIC breastfeeding initiatives to ensure that this important

program is reaching particularly vulnerable populations as effectively as possible.

To support breastfeeding in the workplace, employers and other organizations should:

- Establish a national recognition program for businesses that demonstrate best practices in providing lactation accommodations. Several state breastfeeding coalitions provide recognition programs, however, these programs are not universal and there are no consistent standards.
- Provide nursing breaks and a private, sanitary place for mothers employed on an hourly basis to express breast milk, as required under current law. Similar support should be extended to salaried, exempt workers as well as non-exempt workers, recognizing that not all business are similarly situated in their ability to provide these supports, just as not all new mothers are in a position to take advantage of them.



Health Program

Nutrition and Physical Activity Initiative



Chapter 4: Healthy Schools

Because most children spend significant amounts of time in school or in childcare facilities outside the home, these settings afford an important opportunity to influence the health and lifestyle choices of the next generation. Nationwide, 12 million U.S. children under the age of six are in childcare⁶⁸ and, of these, 1.9 million children (9.8 percent of all children under age five) are cared for in a family day care setting.⁶⁹ Nearly all (95 percent) school-aged young people in the United States attend school (48 million children attend public school nationwide), and many of them eat one or more meals at school. Schools, moreover, have a direct interest in promoting health because it is closely linked to academic performance. For example, a 2010 CDC review of 50 existing studies on this subject found positive associations between academic performance and physical education (P.E.) and school-based sports.⁷⁰ Other research has found that students who receive breakfast at school perform better and that participation in physical activity is correlated with lower dropout rates.⁷¹

Other research has found that students who receive breakfast at school perform better and that participation in physical activity is correlated with lower dropout rates.

Unfortunately, problems of obesity, poor diet and lack of exercise are very much present in today's schools. In Washington, D.C., for example, 43 percent of all school-age children are obese or overweight, and only about 30 percent get the CDC's recommended 60 minutes of physical activity per day. Nationwide, nearly one-third of schools do not schedule recess on a regular basis. And in public schools, only 3.8 percent of elementary schools, 7.9 percent of middle schools and 2.1 percent of high schools provide daily physical education for students.⁷²

Because the school setting is so important, opportunities to promote better health through nutrition and physical activity in school have received considerable attention from policymakers, health experts and other stakeholders.⁷³ The Healthy Hunger-Free Kids Act passed by Congress in 2010 required USDA to update nutrition standards for foods and beverages as part of the National School Lunch Program and the School Breakfast Program. This is the first update in 15 years. The law also requires USDA to update standards for other foods and beverages sold in schools, such as in vending machines, school stores and as a la carte items. In addition, schools are required to strengthen wellness policies so that they include the overall health of their students.⁷⁴ Under this legislation, schools that meet updated nutritional standards for federally subsidized lunches qualify for additional federal funding. Now that new rules for school meals have been issued, the critical focus is on full implementation. New rules for so-called "competitive foods" available in school should reflect the same level of quality and focus on nutrition as the guidelines for school meals.

Historically, less attention has been given to nutrition and health in childcare settings for preschool-aged children but here, too, a growing number of initiatives and programs has been launched in recent years. The Healthy Kids, Healthy Futures Steering Committee – a coalition of leading academic, philanthropic, community-based advocacy organizations and associations along with senior federal government representatives – has provided important leadership on this issue.⁷⁵ Nemours, one of the nation's leading pediatric health systems working with families and the community to improve child health, has established a best practice model in Delaware that demonstrates the use of state-licensing agreements as a powerful tool for change in day care settings.⁷⁶ In addition, USDA is moving to update Child and Adult Care Food Program (CACFP) meal guidelines, which apply to food served in childcare settings, among other venues, so that they are consistent with current U.S. Dietary Guidelines. This step is required by the Healthy Hunger-Free

Kids Act and implementing regulations are due to be issued in 2012. To align meals and snacks with the U.S. Dietary Guidelines and increase children's daily opportunities for physical activity, both CACFP providers and non-CACFP providers need greater access to training, tools and technical assistance.⁷⁷ Training and technical assistance are also needed to effectively implement the school lunch program

(discussed later in this section). Finally, home-based childcare providers face a unique set of challenges, because they are often constrained in terms of staff or resources. Unfortunately, most of the research on nutrition and physical activity practices in day care settings misses the family day care setting. This information gap and outreach opportunity should be addressed.

Healthy Kids Healthy Future Childcare Guidelines

- **Physical Activity:** Provide one to two hours of physical activity throughout the day, including outside play when possible.
- **Screen Time:** No screen time for children under two years of age. For children age two and older, strive to limit screen time to no more than 30 minutes per week during child care, and work with parents and caregivers to ensure that children have no more than one to two hours of quality screen time per day (as recommended by the American Academy of Pediatrics).
- **Food:** Serve fruits or vegetables at every meal, eat meals family-style whenever possible, and do not serve fried foods.
- **Beverages:** Provide access to water during meals and throughout the day, and do not serve sugar-sweetened drinks. For children age two and older, serve low-fat (one percent) or non-fat milk, and no more than one four- to six-ounce serving of 100 percent juice per day.
- **Infant Feeding:** For mothers who want to continue breastfeeding, provide their milk to their infants and welcome them to breastfeed during the child care day. Support all new parents' decisions about infant feeding.⁷⁸

Given the plethora of childcare and school-based initiatives launched in recent years, effectively implementing the policy changes that have already been introduced is a significant challenge, as is tracking and replicating the best of the innovative new programs that are being tried. Under our federal system, the implementation of school policies and the allocation of school resources are largely determined at the state, tribal, county and local levels (one exception is the Bureau of Indian Education within the Department of Interior, which runs schools on tribal land). While state and federal agencies monitor school compliance with the school meal guidelines, most of the implementation activity takes place at the state and local level. In the past, schools have not consistently implemented all components of the National School Lunch Program guidelines.⁷⁹ Current reform efforts will need better trained, better equipped workers on the front lines to ensure much more effective implementation.⁸⁰

Effective implementation also means that a number of barriers will have to be overcome. Existing resources will have to be redirected or more effectively deployed to ensure that real progress occurs at the level of individual schools and school districts. Simply sharing information and ideas can be enormously helpful to schools as they seek to introduce healthier menus and recipes, train food service staff, change contracts with food service providers, and develop and enforce new physical education requirements and wellness policies. In many cases, good models, along with some accessible information tools, exist for implementing these changes in ways that do not require substantial new funding commitments. But no central clearinghouse has been

A Legislative Model: the DC Healthy Schools Act

The District of Columbia's Healthy Schools Act of 2010 represents an ambitious effort to improve nutrition and health for the 45,000 children who attend public, non-charter schools as part of the D.C. Public School system.⁸¹ This model legislation sets additional nutritional standards for school meals; mandates breakfast programs, intended to improve access, for all schools where more than 40 percent of the students qualify for free and reduced lunches; mandates the establishment of a central kitchen; provides additional funding for meals and for using local produce; and mandates that students have at least 30 minutes to eat their meals. It also requires that schools provide physical education and activity through all grades, from elementary through high school.⁸²

With the exception of the central kitchen requirement, D.C. has made significant progress toward implementing all of these requirements (there has been some variation in the implementation of the breakfast program) and has saved the city money in the process. Early results appear promising – they include a 28 percent increase in breakfast participation, more than 2.5 million additional meals served including through the new “After School Supper” program, more than

\$1 million in cost savings and an increase in the use of locally grown produce from 4 to 38 percent. The addition of the “After School Supper” program has also increased participation in afterschool programs by 12 percent. Recently, the Physicians Committee for Responsible Medicine awarded the D.C. public schools its “Golden Carrot Award” for the best school menus in the 2010-2011 school year. Prior to these changes, the D.C. school food program cost the city \$14 million per school year. Since implementing the Healthy Schools Act, savings have averaged \$1-\$2 million per year, largely as a result of the increased use of locally procured produce. Seventy percent of D.C.'s public school children qualify for free or reduced price meals under the federal guidelines and the District's 112 schools serve approximately 60,000 meals per day. Participation has increased in both breakfast and lunch programs, and in the high school lunch program where participation increased 10 percent on average in the 10 high schools that have added reimbursable salad bars. Early experience with the D.C. program has underscored the importance of training cafeteria staff in these food service changes; accordingly, the school district plans to boost efforts and resources in the area of staff engagement.

established that would allow school administrators to easily share experiences and best practices.

Healthy Schools Recommendation #1: Child care providers should improve nutrition and physical activity opportunities for preschool-aged children.

To implement this recommendation we recommend the following specific steps.

- States should look to existing guidelines to establish or

strengthen requirements in childcare settings. Delaware provides one model for how to use the childcare licensing process to strengthen uniform requirements for childcare centers, and Delaware established its own childcare standards, which can be used as a baseline.⁸³ For childcare centers that serve low-income populations, a model, like the Healthier U.S. Schools Challenge incentive that applies to the National School Lunch Program, would help establish incentives for child care facilities to improve nutrition and increase physical activity.

- USDA should move as expeditiously as possible to fully align CACFP meal guidelines with current U.S. Dietary Guidelines. If provider costs increase, as the 2010 IOM CACFP report predicted,⁸⁴ USDA should consider ways to offset this increase via CACFP meal reimbursements or other measures. In addition, USDA should work with state agencies to provide extensive technical assistance to CACFP providers to implement the recommended meal requirements.
- Non-profits, businesses and government agencies should partner to leverage additional resources for quality nutritional and physical activity practices in childcare settings.
- Health organizations, government agencies, and insurance providers should include home-based childcare settings in their obesity prevention research.

Healthy Schools Recommendation #2:
Schools should improve food and nutrition education by aggressively implementing the Healthy Hunger-Free Kids Act.

Specifically, schools need to implement updated school meal standards issued by USDA in January 2012 and expand access to breakfast by participating in the USDA School Breakfast Program. USDA should issue proposed regulations for “competitive foods” and ensure that they align with the updated school meal standards. USDA is the appropriate central hub for implementation, monitoring and enforcement, to ensure that new measures are tracked and impacts are well understood. Given the important role of states and local school districts, USDA should continue to work closely with them to maximize the impact of available implementation resources.

To assist states and school districts, **USDA in partnership with outside organizations should compile existing resources and supplement them, where necessary, to establish a national**

clearinghouse of tools and information. The clearinghouse should include training components provided by the National Food Service Management Institute (NFSMI) and should encompass several elements, including:

- A database of wellness policies developed throughout the country, together with tips for funding, implementing and communicating these policies to teachers, students and parents.
- A database of nutritional information on USDA commodity products, including canned products.⁸⁵
- A database of nutritional information on food supplier products (an example is the Product Navigator developed by the Alliance for a Healthier Generation).
- Sample menus and recipes featuring nutritious, kid-tested recipes (such as those developed by USDA’s Chefs Move to Schools program or Cooking for Change).
- Information on food preparation and presentation.
- Sample contracts and bids for food service providers.
- Free curricula and tools for teaching nutrition education in schools (note that the information in these materials should be consistent with the educational information provided to parents and caregivers through existing nutrition assistance and other related federal programs (e.g., WIC, SNAP, CACFP, etc.).⁸⁶

For their part, states should develop implementation plans with a focus on training and other support necessary for successful implementation to help schools aggressively embrace Healthy Hunger-Free Kids Act requirements.

Because 52 percent of U.S. school districts have fewer than 3,000 students, states should pay particular attention to the training and technical assistance needs of small and rural school districts where the barriers to implementation have typically been higher.

In addition to USDA's role, training and technical assistance is being provided in some places with assistance from the CDC and the Department of Education (DoE). We recommend exploring additional ways in which CDC and the DoE can deploy resources to help with education and other elements of the transition.

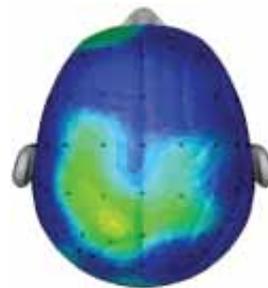
**Healthy Schools Recommendation #3:
Schools should improve nutrition and physical activity offerings, in partnership with the private sector.**

Given current budget constraints at the federal as well as state and local levels, schools and school districts will have to innovate and work with the private sector to expand the resources available to schools for nutrition and physical activity, and prioritize the use of existing resources to achieve maximum benefits. School gardens are an example of the kind of project that has been shown to be highly effective as a teaching tool but does not require a very large commitment of resources and lends itself well to partnerships with outside organizations. More generally, the resources currently available to improve food and physical activity offerings at schools programs are inadequate. As outside organizations have pointed out, "schools desperately need funding to properly train food service staff to prepare meals that meet updated nutrition guidelines. They also need to replace broken and outdated equipment. Many school kitchens were built decades ago to simply re-heat and hold foods. As a result, many cafeteria workers don't have the training or tools they need to bake, grill and roast healthier meals. In fact, a survey of school food service providers found that nearly half still rely on deep-fat fryers, and their biggest challenge to preparing healthy meals is recruiting workers who have the necessary cooking skills."⁸⁷ To qualify for federal assistance under the Healthy Hunger-Free Kids Act, states should develop detailed implementation plans that identify specific actions to be taken as well as the entities or individuals responsible for taking them.

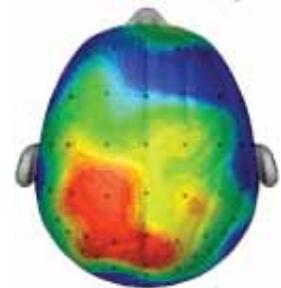
Schools should also look to outside sources of funding and support using models such as the Alliance for a Healthier Generation's Healthy Schools Program, which provides technical assistance to help participating schools improve food quality and physical education programs. This effort is similar to the USDA's Healthier U.S. Schools Challenge, which provides small monetary incentives to schools that meet rigorous standards for food quality, participation in meal programs, physical activities, and nutrition education. Of the 100,000 public schools in the country, 2,862 schools had met the Healthier U.S. Schools Challenge as of February 2012. Given the enormous need that exists and current budget pressures on federal programs, any collaboration, resource sharing and cross-fertilization that could be achieved between the Alliance effort, the USDA initiative, and other similar programs⁸⁸ would be worth pursuing.

Cognitive Effects of Exercise in Preadolescent Children

Average composite of 20 students' brains taking the same test after sitting quietly or taking 20 minute walk



Brain after sitting quietly



Brain after 20 minute walk

Source: Derived from research by Dr. C.H. Hillman, University of Illinois at Urbana, Champaign, Urbana, IL (2009).

Healthy Schools Recommendation #4:
Federal, state and local governments, along with private partners, should explore all available avenues to increase quality physical activity in schools.

Given that children spend up to half their day in school and often also participate in afterschool programs, promoting physical activity in the school environment is critical to supporting physical and mental fitness in students. Schools should require 60 minutes of physical activity per day as part of their local school wellness programs. As we noted in the introduction, there is a well-documented correlation between physical activity levels and academic performance.⁸⁹ That said, we are well aware of the funding challenges that many schools face in attempting to maintain, let alone expand, their physical education and physical activity offerings. All available options should be explored, including but certainly not limited to physical education classes, and schools should select an approach that best fits their own needs and constraints. In the process, they can demonstrate to students that numerous pathways exist to establishing healthy, life-long patterns of activity. Moreover, many of these options are simple and are not costly. Partnering with other public and private institutions and innovating to maximize returns from existing resources will be critical to successfully implementing these recommendations.

- **School boards should develop Common Core standards for health.** These standards should include physical literacy standards and build on the voluntary Common Core model that is championed by the National Governors Association (NGA) and the National Association of State Boards of Education (NASBE). To date, 45 states have adopted Common Core standards for math and language arts. A Common Core health standard should be consistent with USDA/HHS Dietary Guidelines and should also include nutrition curriculum standards developed in collaboration with USDA, the federal Department of Education, state education boards, and

the National Council of State Legislators.

- **Schools should integrate physical activity into all aspects of the school day,** including in-classroom curricula, textbooks, testing, wellness policies and afterschool activities. In addition, students should be encouraged to walk or bicycle to and from school. The goal should be to make physical activity part of the culture of the school. Given funding constraints, schools should seek partnerships with outside groups to implement a set of specific actions toward that goal:
 - a. **Restore and improve recess,** and consider working in partnership with outside groups such as Playworks, which trains young leaders as recess coaches to increase and improve physical activity during the school day.⁹⁰
 - b. **Include physical activity in out-of-school time.** Specifically, this means, adding physical activities to the afternoon hours, whether in the form of afterschool programs or within longer school days. For example, the YMCA, one of the largest out-of-school providers of physical activity programming, recently or has joined forces with the Partnership for a Healthier America to increase physical activity and nutrition offerings at its 10,000 early childhood and afterschool facilities. The YMCA effort provides a good model for this kind of partnership.⁹¹ The Afterschool Alliance is actively engaged in this area as well.
 - c. **Include health-related examples and materials in school curricula.** Encourage all textbook publishers to adopt voluntary standards announced by the Association of American Publishers (AAP), the Association of Educational Publishers, and the National Association of State Boards of Education (NASBE) for the use of health-related examples and themes in Common Core curricula.

d. **Explore partnerships with outside groups to increase revenues for physical activity and PE-related programs.**

Already present in 72,000 public schools, the public-private effort, Fuel Up to Play 60, is a natural partner. The Alliance for a Healthier Generation, Action for Healthy Kids and other healthy schools initiatives can also provide resources and technical assistance, but their reach is limited. Groups like Donors Choose,⁹² which helps secure resources for academics, could be enlisted to raise resources for physical activity and physical education in school and out of school.

e. **Pursue partnerships among the federal government, public school districts and the private sector to increase investment in physical activity programs at schools with high populations of minority students.**

Specifically, public-private partnerships can provide funding to train youth coaches for school, recess and out-of-school programs; public-private partnerships can also supply equipment and infrastructure to build gyms, playgrounds and sports fields. One example is Nike's N7 program, which enlists Native American athletes to serve as ambassadors and role models at a limited number of schools. This program and others like it could be expanded.⁹³

Integrating Physical Activity Throughout the Day: Oaklawn Language Academy - Charlotte, North Carolina

The unique physical education (P.E.) program at Oaklawn Language Academy in Charlotte, North Carolina offers an inspiring example – not only of creativity in integrating physical activity throughout the school day, but of the leadership a single motivated individual can provide. A few years ago, Oaklawn P.E. teacher Ann Pearsall-Waller noticed that students were being pulled out of P.E. classes for intensive reading and math tutoring. Hoping to demonstrate that time spent in physical activity need not detract from other academic subjects, Pearsall-Waller devised an unusual approach to P.E. in which students work on measuring, multiplication, geometry and spelling as they play basketball, bocce, jump rope, dance

and run. She found that “When students can have a concrete experience to connect and transfer information from the classroom into practice, the information is retained longer. It is a lot of fun for the students and it helps the classroom teacher with the concept.” Between 2008 and 2010, the number of Oaklawn students at or above grade level in math increased from 68% to 82%. Oaklawn subsequently joined the Alliance for a Healthier Generation's Healthy Schools Program and became part of a larger movement throughout the district to create healthier schools, giving Pearsall-Waller an opportunity to share lessons learned with other P.E. teachers from across the district and nationwide.⁹⁴





Health Program

Nutrition and Physical Activity Initiative



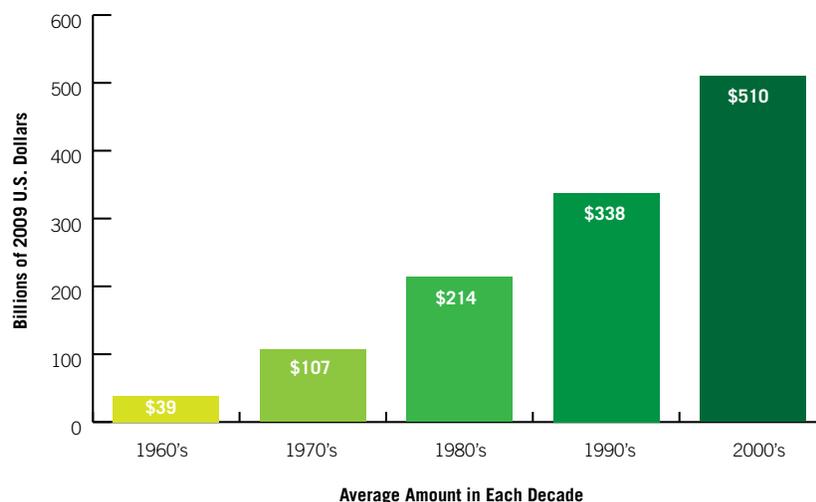
Chapter 5: Healthy Workplaces

For many Americans, the workplace is second only to home in terms of time spent and impact on lifestyle choices. According to the IOM, one quarter of an employed adult's life is spent at the work place. Fortunately, growing numbers of employers are seeing the connection between healthier workers and healthier profits. This is because obesity and chronic disease are strongly linked to lower employee productivity, higher rates of absenteeism and presenteeism, and higher health care costs. A 2011 Gallup poll found that full-time workers who are overweight or obese and have other chronic health conditions miss an estimated 450 million additional workdays a year compared with healthy workers, resulting in an estimated \$153 billion in lost productivity annually.⁹⁵ For employers, employee health benefits are the fastest-growing cost of doing business.⁹⁶ In 2010, 77 percent of private businesses' health spending was on employee insurance premiums.⁹⁷ Between 2001 and 2011, the average cost of health insurance premiums increased by 113 percent, placing increasing cost burdens on both

employers and workers.⁹⁸ Other studies support these findings. In Texas, for example, a recent study conducted by the state comptroller found that 67 percent of the state's adult population (eight million people) qualified as overweight or obese in 2011. The study further estimated that this level of obesity cost Texas businesses \$9.5 billion in 2009. Of that total, \$4 billion was attributable to increased health care costs, \$5 billion to lost productivity and absenteeism, and \$321 million to increased claims for disability.⁹⁹ Findings such as these create a compelling case for employer investments in workplace health, not just as a benefit to employees but as a way to cut overall costs and improve performance and competitiveness.

Of course, employers are also uniquely positioned to influence workforce health, particularly since they bear such a large share of employee health care costs (currently, 60 percent of Americans are insured through an employment-based plan).¹⁰⁰ One study found that, on

National Employer Costs for Private Group Health Insurance for Selected Time Periods, NIPA 1960-2009



Source: U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts, 1960-2009.

average, every dollar spent on employee wellness returns \$3.27 in health care cost savings and \$2.73 in reduced costs for absenteeism.¹⁰¹ Another study found that the return on investment for comprehensive, effective employee wellness programs can be as high as six to one.¹⁰² These programs also deliver less measurable but still important and

...on average, every dollar spent on employee wellness returns \$3.27 in health care cost savings and \$2.73 in reduced costs for absenteeism.

valuable benefits, including improved overall satisfaction and increased retention. Another example is discussed in the previous chapter, which calls for efforts by employers as well as hospitals and health care providers to support breastfeeding. Because breastfeeding provides significant health benefits for mother and infant, employers who invest in making it possible for new mothers to continue breastfeeding when they return to work can benefit from reduced absenteeism and health care costs.¹⁰³

Comprehensive workplace wellness programs address nutrition as well as physical activity; employers can use a range of strategies to promote healthier choices in both realms. To support better nutrition, for example, employers

Workers who are overweight or obese and have other chronic health conditions miss an estimated 450 million additional workdays a year compared with healthy workers, resulting in an estimated \$153 billion in lost productivity annually.

can change food service contracts, use cafeteria pricing to incentivize healthier food choices, and bring Weight Watchers or other programs to the workplace. Numerous options are similarly available to support physical activity:

Examples of Successful Workplace Programs

A variety of employers – large and small, public and private – have implemented successful workplace wellness programs. These examples can provide models to scale, as well as a guide to what works and what can be a challenge.

- **Arkansas Department of Health:** Arkansas launched its Healthy Employee Lifestyle Program (AHELP) in 2007 at the initiative of Governor Mike Huckabee, who had been diagnosed with diabetes a few years earlier. The program links participation with paid vacation leave for state employees; currently 22 state agencies and more than 20,000 employees participate. Arkansas now offers technical assistance, free of charge, to any public or private entity that wants to develop a wellness program.¹⁰⁹
- **Kaiser Permanente (KP):** KP is the largest non-profit health system in the world, with 9 million members and nearly 180,000 employees. The company invests \$1.8 billion per year in healthy environments. KP values the corporate culture of health both as an employer and as an insurer, and is working with employers to create wellness programs for their own employees (the Health Works Program).¹¹⁰
- **California Public Employees' Retirement System (CalPERS):** In an important new effort to demonstrate the cost-saving potential of workplace wellness programs, the CalPERS, California state officials, and the Service Employees International Union (SEIU) are partnering with

KP, the California Endowment, and Health Corps to pilot a new wellness program for California state government workers. The aim is to show how investments in employee health can improve lives and save money. Impetus for this initiative comes from an Urban Institute study that found 22.4 percent of CalPERS's medical expenditures were to treat chronic diseases that could be prevented through diet and physical activity. The study results suggest that CalPERS could reap substantial cost savings with an effective wellness program. For example, reducing the incidence of preventable conditions among state government employees by 5 percent could potentially result in annual savings of \$18 million; reducing preventable conditions by as little as 1 percent could save \$3.6 million. The pilot program, which was announced in April 2012, will go on for two years.¹¹¹

- **The Veterans Health Administration (VHA):** The VHA is the largest civilian employer in the federal government; with more than 244,000 employees it is also one of the largest healthcare employers in the world.¹¹² Long a leader in employee wellness programs within the federal government, the VHA restructured its approach in 2008 with a new program called Wellness is Now (WIN). As part of this program, the VHA trains and certifies some employees to serve as wellness coaches and conducts monthly health education calls. The VHA has also developed a guidebook on employee health programs that includes a compendium of resources; the guidebook is currently in use by more than 40 other federal agencies that are developing their own employee wellness programs.¹¹³
- **FedStrive:** As the largest employer in the United States, the federal government is in a position to affect the health of millions of employees.¹¹⁴ In 2009, HHS initiated a comprehensive wellness strategy for federal employees called FedStrive. Though based at HHS,

this program reaches the entire federal system and covers both civil servants and political appointees. The federal government's Office of Personnel Management (OPM) is in the process of looking at claims data in an effort to assess return on investment in federal employee wellness programs.

employers can encourage employees to bicycle or walk to work (for example, by making showers available at the work site), subsidize gym memberships, and even provide exercise facilities or equipment on site. Researchers agree that successful workplace wellness programs are marked by several defining characteristics, including but not limited to: integrated, diverse programming to engage a spectrum of employees; strong, multilevel leadership; customized, creative incentives; alignment with the company's overall goals and identity; accessibility; and comprehensive, well-communicated messages.¹⁰⁴

Today, large companies are leading employee wellness efforts: roughly two-thirds of Fortune 500 companies offer some sort of wellness program or benefit. By contrast, small and mid-sized companies may offer some kind of wellness benefit but generally do so at lower rates.¹⁰⁵ Given that large employers have more resources to implement programs and track results, these figures are not surprising. With roughly 120,000 employees, Johnson & Johnson, for example, has long been a leader in worksite wellness and has ample data on ways in which their programming has benefited the company and its workforce. In terms of total numbers, of course, more Americans work at small and mid-size companies, many of which may find it more difficult to implement similar programs, especially when overall economic conditions are challenging. In fact, about half of all U.S. workers are employed by firms with fewer than 500 employees.¹⁰⁶ These smaller- to mid-sized firms need information to implement similar kinds of programs. The resources of the CDC and the Small Business

Administration (SBA) can be helpful here, along with assistance from non-government groups such as the National Business Group on Health and the National Business Coalition on Health. Certainly, smaller businesses have also modeled highly effective workplace wellness initiatives.

In designing employee wellness programs, it is critically important for employers to be thoughtful about how they structure incentives to consider all aspects of their employees' interests. Increasingly, employers may feel pressured by rising health care costs to adopt a punitive, rather than positive, approach, but punitive strategies have yielded uneven results. Effective wellness programs also require an understanding of cultural issues and barriers – particularly for large companies in multiple locations – and a willingness to tailor programs to meet the needs of different communities and demographics. Generally, employee wellness strategies can include worksite location and design, which affect activity levels; workplace food services and vending; and pricing structures.

Growing interest in workplace wellness programs is also prompting a greater emphasis on metrics and evaluation. Employers understandably want to know that these programs are worth the investment, and while past studies have generally found significant benefits – both in reduced costs and in increased employee retention and productivity – many of these studies also suffer from weak research designs (e.g., lack of an adequate control group and resulting selection bias,¹⁰⁷ small sample sizes, and short follow-up periods).¹⁰⁸ For this reason and to ensure that the knowledge base exists to be able to tell which approaches offer the most “bang for the buck,” our recommendations include a call for increased evaluation and data collection, including data on longer-term health outcomes.

Healthy Workplaces Recommendation #1: CDC, in partnership with private companies, should develop a database of exemplary workplace wellness programs with a rigorous cost-benefit analysis to help scale up existing best practices in both the private sector and within government. The Small Business Administration should provide support here.

The CDC-supported Community Guide, a web-based resource that houses the Findings of the Community Preventive Services Task Force, is a free resource that ranks workplace wellness interventions.¹¹⁵ However, more and better information is still needed about best practices and benefits in terms of disease prevention, cost reductions and productivity improvements. A registry of workplace wellness and health promotion initiatives that could be readily accessed by a variety of stakeholders would put the workplace wellness movement on more solid footing and help employers identify proven strategies and program designs that are well suited to their industry, size and organizational structure. Given the diversity of employers, employees and workplace environments – including the growth of virtual offices as more employees work from home or from off-site locations – no one-size-fits-all approach is likely to be effective.

Additional steps that would support employer investments in workplace wellness include developing tools and resources to analyze the costs and impacts of wellness programs, providing resources for pilot programs and program evaluations, and exploring certification and accreditation programs as a way to lower barriers to participation and accelerate the dissemination of best practices. For example, the CDC offers resources and toolkits to state and federal government agencies to explore and implement worksite wellness programs through their Healthier Worksite Initiative.¹¹⁶ In addition, CDC is launching another initiative, the National Healthy Worksite Program, which will assist up to 100 small, mid-sized and large employers across the country in establishing comprehensive workplace health programs for employees at risk of poor health

due to physical inactivity, poor nutrition, obesity and/or tobacco use. Participating employers will receive intensive support over a two year period. Dedicated funding for evaluation will allow the program to capture best practices, document challenges, and track strategies to overcome barriers. Information gathered will be shared broadly with participating employers and with organizations interested in creating and expanding their workplace wellness programs nationwide.¹¹⁷ Findings from this program have the potential to augment the body of empirical evidence on the efficacy of such efforts. Meanwhile, resources similar to, but more sophisticated than, the CDC's toolkit should be made available to a broader range of employers.

Finally, several organizations – including the National Committee for Quality Assurance (NCQA), the Utilization Review Accreditation Committee (URAC), and the Health Enhancement Research Organization (HERO) – have begun to review workplace wellness programs as a first step toward developing an accreditation process. In many cases, these efforts build on earlier work to standardize workplace health promotion criteria by industry groups as well as by academic and health advocacy organizations. Award programs offer another mechanism for highlighting what works in employee wellness programs. A number of such programs already exist, including the HHS Secretary's Innovation in Prevention Award and the Health Project C. Everett Koop National Health Award. Other organizations that offer awards for outstanding workplace programs include the Institute for Health and Productivity Management, the American College of Occupational and Environmental Medicine, and the Wellness Councils of America. A single, high-profile national award could magnify the benefits of these efforts by increasing the visibility of the very best programs being implemented nationwide.¹¹⁸

**Healthy Workplaces Recommendation #2:
The federal government should both scale up
successful workplace wellness programs and continue
exploring innovative approaches.**

The federal government currently spends roughly \$40 billion per year covering health care costs for federal employees. But because all employee-related medical/pharmacy claims are paid centrally through OPM, individual departments or agencies have no way of tracking their agency health care costs. This means individual agencies are less able to be accountable and have fewer incentives to promote health and disease prevention among their own employees. Options for changing current practice so as to make department or agency heads accountable for, or at least aware of, employee health costs should be explored as a first step toward modeling leadership on the issue of workplace wellness in the federal government.¹¹⁹ Recent efforts undertaken by the Department of Defense (DoD) are described in a special section of this report on page 54; they show how the federal government can not only innovate, but lead by example in this arena. Of course, as workplace wellness programs move forward it will be important to show that they provide demonstrable benefits and cost savings. The investments in data collection and tracking needed to substantiate such demonstrations will be well justified if they point the way to replicable approaches that reduce costs and improve performance, not just in the federal workforce but for firms and their employees throughout the economy. Here again, OPM can play an important role. For example, it can analyze cost data from the Federal Employees Health Benefits Plan (FEHBP) to assess the cost impacts of wellness programs in terms of treating chronic disease among federal employees. The health insurance companies that contract with FEHBP to provide coverage to government employees also provide coverage to non-government employees. Lessons learned from OPM, combined with other research and analysis of chronic disease treatment costs for employees and retirees – an example is a recent study by the Urban Institute¹²⁰ – can help spur broader changes in workplace wellness practices.



Case Study: U.S. Department of Defense Initiatives

Following the end of World War II, President Truman worried about the impact of poor nutrition on the health of military recruits and draftees. In response, he and others launched the National School Lunch Program during the late 1940s and 1950s. More than two generations later, nutrition and health have again emerged as important threats to our nation's military readiness.

The Department of Defense (DoD) has 1.47 million military personnel; another one million Americans serve in the reserves. In 2011, 5.35 million enlisted men and women, retirees and family members were enrolled in TRICARE, the military health care system.¹²¹ Health care costs for the U.S. military are rising

...DoD's health spending has reached \$50 billion annually, or nearly 10 percent of the overall defense budget, and is increasingly competing with other defense priorities.

twice as fast as health care costs for the nation as a whole – unhealthy lifestyles, and obesity in particular, are significant contributors to this trend. Overall, DoD's health spending has reached \$50 billion annually, or nearly 10 percent of the overall defense budget, and is

increasingly competing with other defense priorities.¹²² Moreover, the cost of health care for military personnel and their dependents/families will continue to rise as rates of dental caries, bone injuries, diabetes, cardiovascular disease and cancer also increase.

Health data indicate that the pool of men and women who could potentially serve in the military is also more physically compromised and less fit than ever before. In the general population, nearly 27 percent of 17- to-24-year-olds are too overweight to serve.¹²³ These problems are evident among new recruits; in 2010, 59 percent of females and 47 percent of males who took the military's entry-level physical fitness test failed.¹²⁴ And 62 percent of new soldiers are not immediately deployable because of a significant dental issue.

Poor health in the military is not just a problem among new recruits. It has also emerged as an issue for retention. The Navy, for example, loses an average of 2,000 trained personnel each year because many of its members fail to pass physical fitness tests (personnel receive several warnings before discharge). At a cost of \$100,000 to \$200,000 to train each service member, the Navy is losing about \$300 million in annual training investments – investments that will have to be made again to train replacements for those who have been discharged.¹²⁵ The Army and Air Force have similar issues with training and retention costs.

To ensure a strong military today and in the future, and to prevent the military's health care costs from rising to unsustainable levels, DoD is increasingly exploring programs and policies to promote good nutrition and physical activity among service members and their families. Since many individuals who join the military come from families with a history of service, these

policies and programs offer an opportunity to enhance readiness and improve health outcomes across multiple generations.

For example, DoD is working to ensure that all of its child care centers serve fruits and vegetables with every meal, provide one to two hours of physical activity per day, limit screen time, and more.¹²⁶ DoD also recently committed to updating its nutritional standards generally for the first time in 20 years and plans to include more fresh fruits, vegetables, whole grains, lean meats and low-fat dairy products with every meal.¹²⁷

We think DoD can do even more, and that other large institutions and employers can learn from DoD's efforts. Some of the recommendations highlighted below reinforce proposals that have been made before by the White House Childhood Obesity Task Force, the Prevention Council or within DoD itself.

1. **Military Children.**

The children of today's military families are the workforce and new recruits of tomorrow. A healthier environment for these children can help them become productive and high performing adults, whether they grow up to serve their country in the military or in civilian life.

- a. ***Ensure that all military hospitals that provide maternal care follow the standards of the Baby Friendly Hospital initiative.*** The Military Health System (MHS) is a global network within DoD that provides health care to all U.S. military personnel and their families. With an operating budget of \$50 billion, the MHS includes 59 hospitals and 364 clinics in the United States. Within the MHS, TRICARE is the health plan provider for

more than nine million eligible beneficiaries. We recommend that MHS hospitals follow the CDC-approved “Baby Friendly” standards that promote breastfeeding. Exclusive breastfeeding for the first six months of a child’s life is one of the best preventive health practices available.¹²⁸ The “Baby Friendly” hospital initiative was based on work done by UNICEF and the World Health Organization and recognizes hospitals that implement a minimum set of policies or practices to encourage and support breastfeeding. The Indian Health Service has committed to meet Baby Friendly standards at all 14 of its maternal care hospitals. DoD should do the same.

- b. ***Ensure DoD policies support worksite lactation programs.*** Existing legislation requires employers to provide a reasonable break time and a place for breastfeeding mothers to express milk for one year after the birth of a child. DoD has the opportunity to develop and model worksite lactation programs to support breastfeeding mothers in the military. In addition, many new mothers need peer support and other assistance to successfully establish breastfeeding. DoD should consider developing breastfeeding peer support groups at worksites and military bases. DoD should also request that TRICARE offer reimbursement for lactation consultants after mothers leave the hospital.
- c. ***Continue implementation of Let’s Move Childcare at all 200,000 military day care centers.*** The Let’s Move Childcare initiative sets forth criteria for all participating childcare facilities: serve a fruit or vegetable with each

meal; provide 60 minutes of physical activity; serve only water, milk and 100 percent fruit juice; limit screen time; and provide refrigeration for infant milk. We applaud DoD’s participation in this initiative and urge the agency to adopt the Let’s Move guidelines at all of DoD’s childcare facilities.

- d. ***Improve nutrition and increase physical activity at military schools and at public schools with high military populations.*** DoD runs 194 schools that serve more than 86,000 students; in addition, there are public schools around the country that serve populations with a large number of military families. The recommendations for schools in this report should be applied to DoD military schools also; in addition, DoD should work with schools that have a high proportion of students from military families to ensure that students are getting quality physical education and nutrition. One method for implementing this recommendation would be for both military and civilian schools to meet the Healthier U.S. Schools Challenge.¹²⁹
2. ***Military Workplace/Institutions/Bases.*** With 1.47 million military personnel, one million reservists and more than 400 military bases in the continental United States, DoD is uniquely positioned to demonstrate that nutrition and physical activity initiatives can improve military performance, reduce health care costs and help retain service members once they are trained. Military bases, in particular, often look like and function as self-contained towns with their own grocery stores, fast food restaurants and parks.

a. **Implement policies to increase service members' access to, and consumption of, healthy food at DoD facilities.** Early in 2012, Dr. Jonathan Woodson, the Assistant Secretary of Defense for Health Affairs, drafted a set of action items for DoD to implement as part of the National Prevention Strategy. Successfully implementing these action items will require commitment across all branches of DoD and collaboration among DoD agencies and outside groups who play key roles in the food procurement process. While there has been some progress – for example DoD has worked with dietitians to improve food offerings at military facilities – there is more to be done. To change food systems throughout the military, several organizations within the military must be engaged, including the Defense Commissary Agency (DeCA), which is in charge of commissaries; the Military Exchanges; the Defense Logistics Agency, which is responsible for procurement; and the Morale Working Group (MWG). These organizations should work together and with the different branches of the military to implement several concrete action items:

- Standardize the assessment of nutritional environments in DoD facilities and incorporate findings to improve healthy eating options as a way to promote nutritional fitness and healthy weight across all military communities.
- Explore menu guidelines to promote healthy eating choices in all food service operations on DoD installations in order to promote mission readiness and health.

- Implement evidence-based strategies to promote healthy eating choices in commissaries and military exchanges.
- Implement an obesity and nutrition campaign that uses medical, individual and community interventions to promote behaviors that can help prevent and reduce obesity among MHS beneficiaries and in the civilian workforce.

In addition to the above action items, the U.S. military should pursue a number of additional strategies:

b. **Expand the Soldier Fueling Initiative to all branches of service, for all basic and advanced training, and for enlisted personnel and officers.**

As part of its inquiry into soldier health, the Army found that new recruits had lower bone density levels, incurred more injuries, and suffered from deficiencies in calcium, iron and various other vitamins and nutrients. These health facts led to higher attrition rates among new soldiers during basic training than among previous recruit cohorts. The Soldier Fueling Initiative was developed in response to these findings. It combines physical education and training with a revamped form of nutrition education and information on eating as a way to enhance performance. As Lt. General Hertling, the former commander of the Army's 69 basic training bases, has said, *"This is not simply about going to the salad bar to lose weight... You're an athlete, and your performance depends on how you fuel. This is how you work your body's energy systems to contribute as a soldier. You're an athlete, and you need to treat your body as such."*¹³⁰ Lt. General Hertling's statement underscores the

importance of targeting audiences with the right message. Focusing the message of the Soldier Fueling Initiative on performance rather than health or weight has helped make this program successful.

The Soldier Fueling Initiative changed basic training in a number of ways:

- Brought athletic trainers and physical therapists into training units to increase physical ability and decrease injury.
- Modified menus to promote healthy eating and hydration, and eliminated sodas.
- Standardized menus, preparations and portion sizes (no fried food).
- Provided nutrition education emphasizing the link between diet and performance.
- Labeled menus to clearly identify healthy food choices.
- Introduced more nutritious food options, labeled “fit-pick,” into vending machines.
- Marketed program to ensure awareness and support.

These changes were first implemented at the Army’s 69 training bases but they have since been at least partly replicated at some training bases in other branches of the U.S. military (the Air Force and Marines have similar menus in basic training programs but they currently stop there). The Soldier Fueling Initiative is working, but basic training covers only a 10-week period. We suggest that similar programs be expanded to all branches of

service and continued through advanced training.

c. ***Change restaurant options at military bases.***

On many military bases, the only restaurants available are fast food franchises, which serve meals that do not meet current USDA Dietary Guidelines. Because DoD has enormous purchasing power, it can request healthy options at existing restaurants and/or contract with franchises that serve healthier food.

d. ***Promote healthy foods through the commissary network.***

The Defense Commissary Agency operates a chain of 254 commissaries that provide groceries to over 12 million authorized military personnel and their families. Given its purchasing power, we recommend that DoD replicate innovative practices in grocery stores to promote the purchase of healthier food and more fruits and vegetables, consistent with current dietary guidelines. The Commissary network could follow Walmart’s example by demanding their suppliers provide products that have less sugar, salt and fat¹³¹ or by improving labeling to help consumers make healthier purchasing decisions (Walmart’s Great for You label is an example)¹³² and using product placement to encourage healthier choices.

e. ***Adopt policies that support community gardens and farmers’ markets.***

As in other families, military parents often lack the time to shop for healthy foods. A regular or weekly farmers’ market on base would be a convenient and appealing source of fresh fruits and vegetables. Other federal agencies, including HHS and the Department of Interior, host weekly on-

site farmers' markets. In addition, DoD could consider creating an incentive program, similar to the Double Bucks¹³³ program being piloted in Michigan, which allows SNAP participants to double the purchasing power of their federal nutrition assistance benefits when buying fruits and vegetables.

f. **Assess and improve built environment at military bases.**

Communities across the country are exploring ways to make their "built" environments safer and more active by installing more sidewalks, bike paths, parks and playgrounds. The built environment includes the structures (homes and buildings), modes of transport, workplaces, and institutions that make up our communities. DoD has an opportunity to replicate these strategies when it is building and updating bases.

- g. **Join Healthier Hospitals Initiative.** Created by Health Care Without Harm, Practice Greenhealth, and the Center for Health Design, the Healthier Hospitals Initiative (HHI) calls on hospitals to adopt six challenges aimed at reducing their environmental impact while improving the health of their patients. More than 500 leading hospitals across the country have joined this initiative, which recently issued a free, step-by-step guide to help hospitals introduce healthier food and beverages and demonstrate leadership on issues of environmental health and sustainability, among other actions.

h. **Encourage TRICARE to cover more prevention services and pilot initiatives that reimburse non-clinical providers who deliver preventive care.**

Military health care spending is rising twice as fast as health care spending for the nation as a whole and, as in the general population, obesity and chronic disease are playing a major role. TRICARE should establish strong and diverse financial incentives to counter these trends and shift the focus of health care in the military increasingly toward disease prevention. Two steps in particular can and should be taken in the near term:

- Target prediabetes in the military population (including in families of servicemen and women) and develop a diabetes prevention program. For example, TRICARE should look to the prevention-focused program that has been piloted by United Health Group and the YMCA, which has delivered good results to date.
- TRICARE should develop some pilot projects that experiment with reimbursing non-clinical providers of preventive services to explore the efficacy and cost-benefits of this approach. Examples include community-based prevention efforts that have been shown to be effective, such as those related to increasing physical activity. Other non-clinical professionals who could provide community-based preventive services include community health workers, lactation consultants, health coaches and others.



Health Program
Nutrition and Physical Activity Initiative



Chapter 6: Healthy Communities

Along with home, school and workplace, community plays a central role in the lifestyle choices that influence people's health outcomes. Their local community is where most Americans access the goods and services on which they rely, from the grocery store to the doctor's office; it is also where most of us go to play, worship, recreate, eat out and be entertained. This chapter discusses a wide-ranging set of recommendations, all of which are rooted in the community, broadly defined. For organizational purposes, we divide this chapter into three major subtopics: (a) health care services, (b) large institutions, and (c) the built environment.

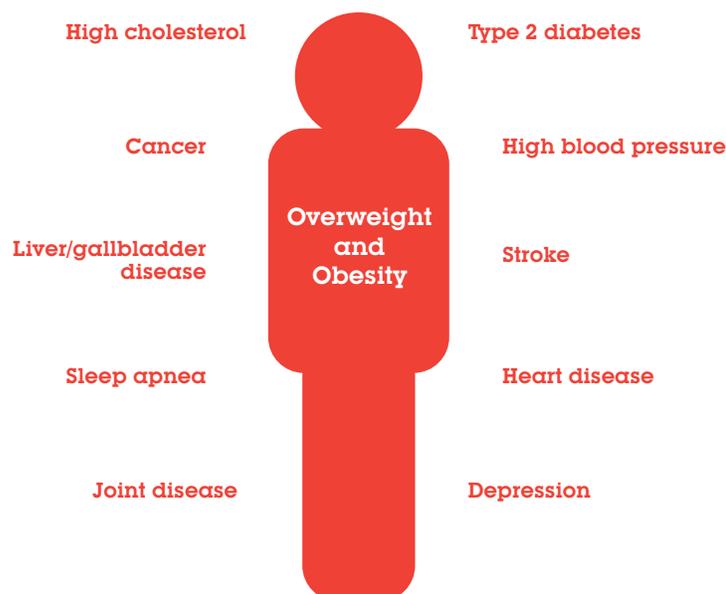
Community-based, prevention-focused health care

Rising health care costs have prompted growing interest in disease prevention as a more effective and ultimately less

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expensive way to keep Americans healthy. Good diet and an active lifestyle are clearly central to an approach that favors promoting wellness and preventing disease over a model that focuses primarily on treating health problems after they arise. A 2009 CDC study found that 75 percent of the dollars spent on health care in the United States are spent on chronic diseases, many of which are preventable.¹³⁴ Similarly, within the Medicare program, 79 percent of program spending on non-institutionalized individuals is spent on the 40 percent of individuals with a chronic health condition.¹³⁵

Health Consequences of Obesity



Source: Information derived from the District of Columbia's Overweight and Obesity Action Plan (2010-2015).

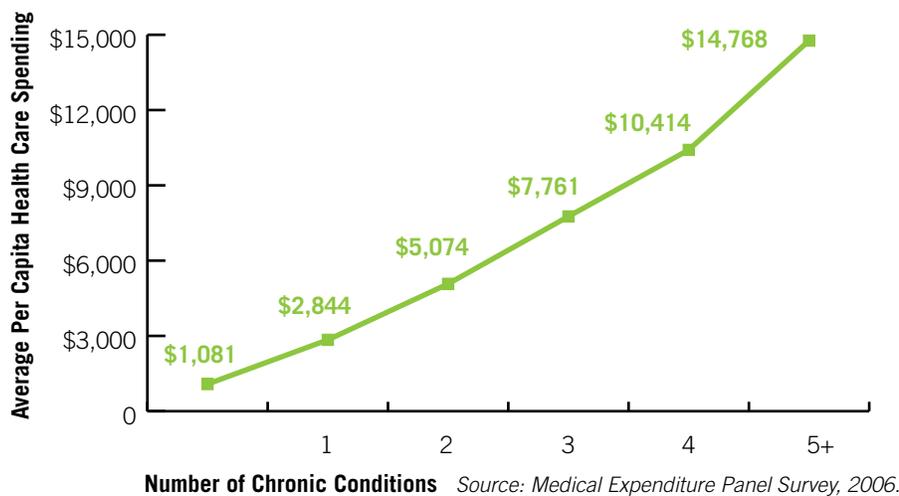
Moreover, chronic diseases – which include “long-term conditions such as diabetes, hypertension, depression and asthma that require ongoing care and often limit what an individual can do” – affect a very large swath of the population.¹³⁶ According to the 2009 CDC study, 50 percent of Americans live with one or more chronic illnesses.¹³⁷ And for many of them, the medical interventions needed to manage their conditions are far more burdensome – from both a cost and quality-of-life perspective – than taking the steps to maintain good health and avoid these diseases in the first place. All of these considerations argue for shifting

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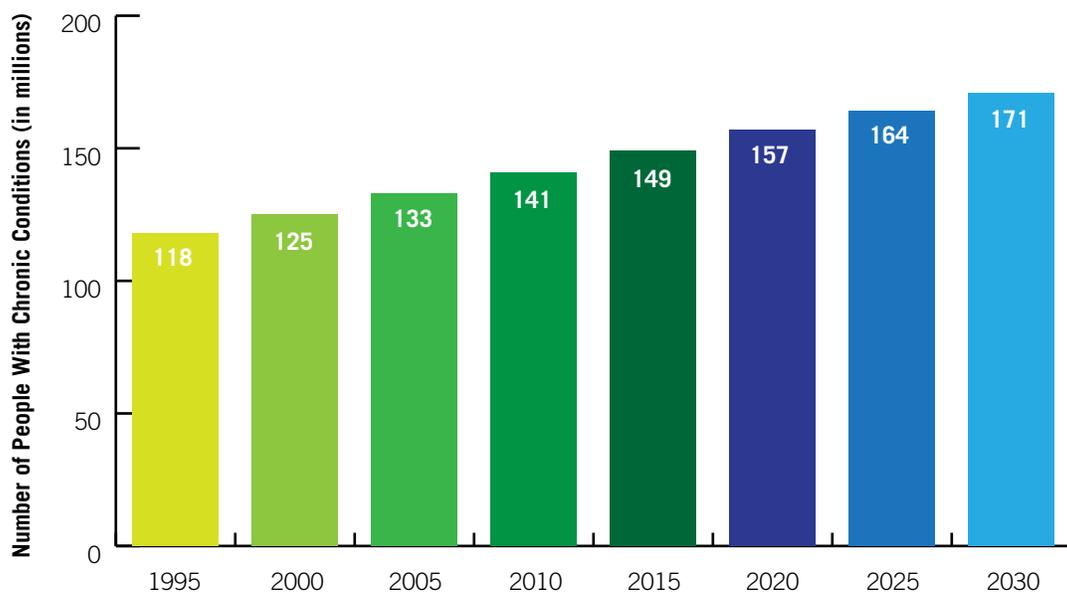
from curative care to preventive care throughout our health care system more broadly.¹³⁸

Yet despite the obvious economic arguments for a more prevention-based approach and despite the disproportionate cost impacts of chronic diseases, our nation’s investment in non-clinical health, including community-based prevention and public health initiatives, has historically accounted for only 3 percent of total health care spending. In this context, recent studies have found substantial opportunity for net, long-term cost savings from programs that focus on wellness and disease prevention. A study published in 2010 by the Trust for America’s Health, for example, found that the return on investment from community-based initiatives that promote physical activity and nutrition and discourage smoking was as high as \$5.60 in health care cost savings for every \$1 spent.¹³⁹ Results such as these are increasingly prompting states and the federal government to look at ways to stop the rise of preventable chronic diseases as a way to contain costs. For example, under the leadership

Health Care Spending Increases with the Number of Chronic Conditions



The Number of People with Chronic Conditions is Rapidly Increasing



Source: Wu, Shin-Yi and Green, Anthony. Projection of Chronic Illness Prevalence and Cost Inflation. RAND Corporation. October 2000.

of then-Governor Tim Pawlenty, Minnesota adopted the Statewide Health Improvement Program with bipartisan support in 2008.¹⁴⁰ Part of this effort was focused on modifying the environment to make healthier choices – both in terms of nutrition and physical activity – more accessible to individuals and families. Policies were introduced that addressed needs in child care centers, corner stores, the built environment and small businesses. At the federal level, the CDC has a grant program called Communities Putting Prevention to Work (CPPW), which was initially funded under the American Recovery and Reinvestment Act of 2009. CPPW grants support 50 community-based programs that target obesity and smoking by focusing on “environmental” changes that promote healthier lifestyles, such as access to safe active transportation or healthy food and beverage options in schools. More recently, the Patient

Protection and Affordable Care Act (PPACA) of 2010 included a number of prevention-oriented elements.¹⁴¹ Although the Act is under Supreme Court review at the time of this writing, the thrust of these elements and a greater emphasis on preventive care more generally should have continued bipartisan support regardless of the fate of the PPACA.

As the above-described examples suggest, interventions to promote nutrition and physical activity and counteract currently high rates of obesity would naturally be part of a prevention-oriented shift in our nation’s approach to health care. Currently, there is a gap between our current health care system, which is largely focused on ill care, and the public health system, which is oriented more toward keeping people healthy.¹⁴² In the context of efforts to improve health outcomes through changes in nutrition and

physical activity, community-based prevention strategies play a critical role. Our recommendations focus on three kinds of interventions that would support a shift toward prevention. First, health care professionals must be better trained to provide care that addresses issues of diet, physical activity, wellness and disease prevention. Second, the base of available care resources and care providers must be broadened to include non-traditional providers who can deliver services in non-clinical, community-based settings. Demand for these services already exists, but so far the supply of providers has not caught up. Third, we need mechanisms to enable public and private reimbursement for health conditions and services that are not currently covered under the existing system. We devote considerable attention to each of these issues in the subsections that follow because, in our view, changing America's health care

system so that it is better equipped to deliver preventive services is among the most important steps we can take toward creating healthier communities and lowering health care costs.

A recent pilot program illustrates the opportunities in this area. The Healthier Generation Benefit, a program of the Alliance for a Healthier Generation, seeks to inspire "lifelong health habits through provider visits." It brings together leading insurers, employers and national medical associations to offer comprehensive health benefits aimed at combating the childhood obesity epidemic. Providers receive additional training and materials; insurers reduce their costs; and consumers receive targeted care to help prevent, assess and treat obesity (see text box).

The Healthier Generation Benefit

Launched in 2009 by the Alliance for a Healthier Generation, this initiative offers prevention, assessment and treatment services focused on preventing childhood obesity. Under the program, participating insurers and employers agree to cover four annual visits to a primary care provider and four annual visits to a registered dietitian for children ages three to 18. Participating insurers and employers may choose to offer the benefit in different ways; for example, it can be offered to all beneficiaries or via a pilot program to a subset of beneficiaries.

The program stipulates that benefits should be offered for at least three years and participating organizations agree to set utilization targets and participate in an independent evaluation to look at health outcomes and return on investment (ROI) for the program.

Today, more than 56,000 providers are in networks that offer the Healthier Generation Benefit and the program is reaching more than two million children. Data on costs and outcomes are being provided to an evaluation team at Emory University's Institute for Advanced Policy Solutions. In addition, the Alliance has collaborated with the American Academy of Pediatrics and the Academy of Nutrition and Dietetics to develop free educational and marketing materials.

Current participants in this initiative include Aetna, Inc. (via select employers including Owens Corning and Paychex), Accenture, the American Heart Association, Blue Cross BlueShield of North Carolina, Blue Cross Blue Shield of Massachusetts, Capital District Physicians' Health Plan, the Clinton Foundation, Highmark Inc., Humana, Leviton, Nationwide Children's Hospital, North Shore Long Island Jewish Health System, PepsiCo, WeightWatchers, and WellPoint.

Training Health Care Professionals

Professionals throughout the health care system are uniquely positioned to inform and motivate Americans on the subjects of nutrition and physical activity. Americans see medical professionals – nurses in particular – as a trusted source of information and health care providers are the number one go-to resource for parents who are concerned about their child's weight. But the medical education and licensing system in the United States is not currently set up to ensure that health professionals have the incentive and expertise to deliver messages about weight, chronic disease, diet, and physical activity – not only effectively but consistently. On the contrary, the consensus among medical organizations and experts is that nutrition education at all levels of health training (undergraduate, post-graduate, fellowship, licensing and board certification, and continuing education) is uneven at best and often inadequate.¹⁴³ Indeed, if there is to be a shift in focus from curative care to preventive care in the U.S. health care system more broadly (and a corresponding increase in emphasis on nutrition and physical activity), training for medical professionals will need to reflect and support this shift.

Awareness of this issue is not new. In the early 1980s, for example, the House Agriculture Subcommittee on Domestic Marketing, Consumer Relations, and Nutrition held hearings on nutrition education in medical schools.¹⁴⁴ And while there have been some efforts to address current training gaps, such as the American Medical Association's "Weight What Matters" family obesity prevention program, little has been done in a systematic way to equip medical professionals with the expertise and communication skills they need in this area. In fact, the U.S. health care system still lacks consistent standards for nutrition and physical activity education across the medical, pharmacy, nursing and other health professions despite the concerns voiced by various health organizations, including the Institute of Medicine

(IOM)¹⁴⁵ and the American Medical Association (AMA).¹⁴⁶ As the AMA put it in a recent report on this topic: "[t]he universal importance of weight management, including the prevention of overweight and obesity, should be emphasized in the medical school curriculum." (The same report also put forward some broad recommendations for medical school curricula.) Meanwhile, the National Heart, Lung, and Blood Institute (NHBLI) has developed some standards as part of its Nutrition Academic Awards (NAA) but so far, adoption of these standards has been limited. If anything, exposure to information about nutrition and physical activity in medical education courses may be trending down, based on the findings of a 2010 survey of U.S. medical schools.¹⁴⁷ The results indicate that the average required time spent studying nutrition in medical schools fell from 22.3 hours in 2004 to 19.6 hours in 2008-2009. Moreover, both figures fall short of the 25 to 30 hours recommended by the National Academy of Sciences in its 1985 report on Nutrition in Medical Education.¹⁴⁸

Efforts to address this knowledge gap can draw from a number of past and ongoing initiatives and from several institutions that are in a position to offer resources and help develop and disseminate information and curriculum materials. For example, the NHBLI's NAA program awarded five-year grants to 21 medical schools during the period from 1995 to 2007 to support the development of an innovative teaching curriculum for nutrition education in medical schools.¹⁴⁹ As part of the program, the NAA worked with the Liaison Committee on Medical Education (LCME) to develop questions for the Step One medical student licensing examination. In addition to the curricula developed by the 21 schools that received NAAs, a free medical education nutrition curriculum is available online from Nutrition in Medicine.¹⁵⁰ This tool was developed at the University of North Carolina-Chapel Hill for medical students nationwide and, more recently, to also serve practicing clinicians. It is currently used to some degree by almost half of all medical

schools. How and to what extent nutrition education is included in the standard medical school curriculum, however, remains up to individual schools and varies around the country.

Beyond medical, pharmacy or nursing schools, nutrition and physical activity must also be included in the subjects covered through post-graduate residency, fellowship training and continuing provider education – in other words, as part of lifelong learning throughout the health professional's career. Including nutrition and physical activity in the continuing education requirements that apply to all licensed physicians and nurses, in particular, would be a very powerful tool for improving literacy in these areas throughout the health care delivery system. It would also align with recent efforts to put more emphasis on competencies and outcomes in the general training of health professionals. For example, evaluations of residents and practicing board-certified physicians now include core competencies in six areas: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, system-based practice, and professionalism.¹⁵¹ While none of these areas are nutrition focused, the movement to recognize core competencies provides a model for breaking down traditional learning “silos” and could provide a basis for new efforts to improve nutrition and physical activity training. At the same time, some schools are working to develop new inter-professional models of learning that focus on the important connection between training and practice with the aim of improving coordination between various elements of the health provider community – doctors, nurses, nurse practitioners, dietitians and others. Finally, other recent examples of longitudinal additions to medical-school curricula (e.g., adding ethics and cultural competency education) may offer useful precedents and lend insight on how to make changes in this area.

**Healthy Communities Recommendation #1:
Nutrition and physical activity training should be incorporated in all phases of medical education – medical schools, residency programs, credentialing processes, and continuing education requirements.**

The development of such a strategy could be led by existing health and medical organizations, by a government agency, by an outside non-governmental entity, or by a partnership of two or more of these entities. The effort should include a wide range of stakeholders, including health professionals and service providers, academic organizations, governance and regulatory bodies, and consumers. A diverse group will make it possible to address the disconnect that currently exists between academics who study and develop best practices and standards and the institutions that, because of their role in administering licensing standards, reimbursement schedules and certification examinations, are in a position to directly influence provider behavior and incentives. These two forces of change are not currently aligned but they will need to be to increase nutrition and physical activity literacy among all health professionals and improve health outcomes.

Specifically, the partnership we propose would seek to develop a coherent strategy for achieving the following objectives:

1. Identify and train a cadre of leaders across the physician, nursing and pharmacy professions and other health professions or fields. This should be done through the development and implementation of fellowship training and by providing certified educational opportunities to adopt, promote and teach nutrition and physical activity standards.
2. Infuse the education and training of all health professionals with nutrition and physical activity information and behavioral methodologies or tools

(such as motivational interviewing). This effort should go beyond developing specific courses; rather, the aim should be to integrate these subjects in the full longitudinal curriculum of health training institutions.

3. Integrate nutrition and physical activity education in all residency and post-graduate training programs using the core competency model (discussed above) as a template. As a starting point, the focus should be on primary care, internal medicine, pediatrics and family practice. Corresponding changes in board certification examinations and licensure requirements should be adopted to ensure that health professionals have incentives to stay current on these issues.
4. Integrate nutrition and physical activity education into the Maintenance of Certification (MOC) requirements established by the American Board of Medical Specialties (ABMS) and parallel requirements for the other health professions to ensure that these subjects are part of the continuing education requirements for re-certification.
5. Review nutrition and physical activity questions on tests administered by the United States Medical Licensing Examination (USMLE) and other organizations, and recommend changes to the National Board of Medical Examiners and other Board entities to ensure that test questions reflect other changes in curriculum and training.

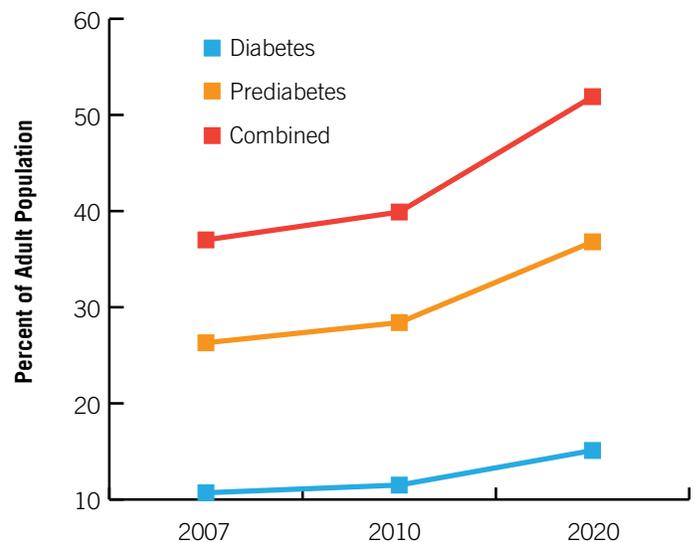
Developing a Community-Based Prevention Workforce

Doctors, nurses and other health professionals are critical messengers and advocates for good nutrition and physical activity habits, but their contact with many patients is limited to the occasional physical or short office visit. Consistent behavior changes, on the other hand, are very difficult to sustain, as anyone who has ever tried to lose weight and keep it off knows. Thus, a far broader and more

Projections show that by 2020 over 50% of adults will be prediabetic or diabetic.

comprehensive prevention strategy would widen the base of resources and person-to-person interactions that could be used to deliver messages about health and influence lifestyle behaviors. Recent initiatives suggest that community health workers,¹⁵² health coaches, dietitians and nutritionists and others can be effective in working with individuals and groups to change awareness and habits around diet, physical activity and other health-relevant behaviors. And often their interventions, whether provided in collaboration with a health professional or not, can be more cost effective than the same services delivered by a traditionally trained doctor or nurse practitioner.¹⁵³ Expanding this trained “prevention workforce” – and finding ways to reimburse for

Prevalence of Diabetes and Prediabetes in the Adult Population 2007-2020



Source: UnitedHealth Group modeling, 2010.

its services – would offer multiple potential benefits in terms of improving health outcomes, reducing health care costs and creating new job opportunities.

The U.S. Preventive Services Task Force is working to enhance understanding of certain kinds of preventive services, including clinical- and community-based approaches.¹⁵⁴ They publish their findings and recommendations in two public resources, the Guide to Clinical Preventive Services and the Guide to Community Preventive Services (The Community Guide). The Community Guide is a collection of the evidence-based findings and recommendations of the Community Preventive Services Task Force, a CDC-supported, independent group of public health and prevention experts.¹⁵⁵

The private sector is also taking a close look at non-traditional approaches. Several years ago, for example, UnitedHealthcare(UHC) determined that up to 40 percent of its spending on health claims was on beneficiaries with diabetes. With as many as 20 million diabetics in the United States, and 79 million people estimated to be “prediabetic” (meaning that they are likely to develop diabetes but may not yet be aware that they are at risk for this condition), UHC realized that its very survival depended on slowing the rate at which prediabetic customers become diabetic.¹⁵⁶ Early research had found that intensive lifestyle interventions could significantly reduce the development of diabetes, but there was little data about how to use these findings to reach the millions of Americans with prediabetes. So UnitedHealth Group (UHG), the parent company of UnitedHealthcare, launched the Diabetes Prevention and Control Alliance (DPCA) in 2010 and began collaborating with the YMCA and the CDC to develop a Diabetes Prevention Policy as part of CDC’s National Diabetes Prevention Program. This led to a pilot study, “Translating the Diabetes Prevention Program into the Community,” which evaluated the delivery of group-based lifestyle interventions. The study found that a prevention-based approach held promise as a way to

reduce the future incidence of diabetes and related long-term treatment costs.¹⁵⁷

The YMCA/UHG program and another recent preventive care initiative undertaken in Vermont (see text box) illustrate the potential effectiveness and value of trained, community-based “health coaches” who can deliver preventive services to individuals at high risk of developing chronic disease. These trained and credentialed professionals can be nurses, dietitians, fitness trainers, diabetes educators or social workers. Recent initiatives also underscore the importance of changing reimbursement practices to cover the kinds of services health coaches provide; this is a critical point to which we return in the next section. Increasingly, community-based providers can serve as a resource and complement to doctors as part of a team approach to addressing complex medical needs. Demand for health coaches is also coming from employers, who are interested in maximizing employee health and productivity and reducing costs.¹⁵⁸ These trends are reflected in the growing demand for public health training at the undergraduate and graduate levels at U.S. colleges and universities. Meanwhile, the CDC has begun exploring mechanisms for certifying professionals who could provide the kinds of preventive services being offered through the YMCA Diabetes Prevention Program. But these efforts are only a beginning. At present, our educational institutions and health care delivery systems are not yet set up to take maximum advantage of prevention opportunities, especially at the community level.

Healthy Communities Recommendation #2: Non-clinical, community-based care is a critical tool in preventing obesity and chronic disease. We need to train and deploy a prevention workforce to help deliver this kind of preventive care.

Several specific actions should be taken toward this objective:

- **Congress should fund prevention workforce provisions contained in existing law**, including Grants to Promote the Community Health Workforce, which is aimed at encouraging positive health behaviors in underserved communities.
 - **Federal, state and local governments should prioritize the recruitment and training of community-based health providers**, including community health workers, public health workers, lay providers, health coaches and others who will make up the prevention workforce. As part of this effort, federal, state and local authorities should examine supply and demand for these services as well as current and future training and retraining needs. At the federal level, this kind of review could be undertaken by the Center for Workforce Analysis at the Health Resources and Services Administration (HRSA) or by another entity.
- In looking at these options, all levels of government should consider the cross-sectoral nature of the problem and its potential solutions, including the potential for training a prevention workforce and delivering community-based care. The CDC, in partnership with educational institutions, should help develop a standardized curriculum across all relevant sectors, including not just the public health sector but also civic planning, environmental science, community design and public administration, with the recognition that decision makers in all of these fields affect public health outcomes through their impact on the social determinants of health.
- Within the public health sector, undergraduate and graduate institutions should **standardize a curriculum for programs in public health** to ensure that graduates of these programs have attained a consistent level of understanding

Reimbursing Preventive Care in Vermont

Work at the state level illustrates some of the potential for success in using a preventive approach to change health outcomes and reduce costs. In 2003, Vermont Governor Jim Douglas launched the Vermont Blueprint for Health to address the rising cost of care associated with chronic illness by “promoting health maintenance, prevention, and care coordination and management.”¹⁵⁹ Early on, the Blueprint focused on diabetes management because projections about the growing incidence of this disease and its associated costs were so dire. In 2006, the Vermont legislature enacted health care reforms that included a mandate for pilot projects to examine best methods for delivering chronic care to patients. Some of those pilots focused on multi-discipline, local “Community Health Teams.” In July 2007, a new Coordinated Healthy Activity, Motivation and Prevention Program (CHAMPPS)¹⁶⁰ provided grants to communities to

help them promote healthy behavior and prevent disease. In addition to local grants, Vermont’s reforms also focused on broader policies and programs to promote healthy weight,¹⁶¹ including reimbursement reforms. The state applied for and won a waiver from the federal government that allowed it to use a portion of its Medicaid funds for preventive care. Other state reforms allowed carriers to provide premium discounts and other cost-sharing rewards for people who participate in health promotion and disease prevention programs. Finally, Vermont articulated specific performance objectives, some of which focused on patients with chronic conditions and preventive care, so that it could evaluate the success of its efforts.¹⁶² Early results show qualitative and quantitative improvements in health outcomes for participants as a result of pilot programs and other reforms introduced under the Blueprint.¹⁶³

in the area of preventive health. **Community colleges should be engaged as a key potential provider of necessary training in the prevention workforce pipeline. And schools of architecture, design and planning could also adopt similar curricula, given the important role that these sectors play in ensuring that the environment is as supportive of healthy behaviors as possible.**

- **CDC should continue its efforts to certify prevention workforce providers**, like those implementing the YMCA Diabetes Prevention Program. Specifically, CDC should consider expanding its certification program to ensure uniformity and accountability. **In addition, CDC should continue to explore other means of establishing qualifying criteria for community health workers and others, particularly at the state level.**

According to one survey, three in four physicians “wish the health care system would cover the costs associated with connecting patients to services that meet their social needs if a physician deems it important for their overall health.”

Creating Reimbursement Mechanisms for Community-Based Preventive Care Services

Many of the kinds of community-based preventive services discussed in this chapter – nutrition counseling, health coaches and lactation support – are not currently covered by either public or private insurers. In practice, this acts as a strong disincentive to focusing on and delivering these kinds of services. As has been widely discussed in the context of health care reform more broadly, our current system operates on a fee-for-service basis, where treatments for illness, medications, surgeries and other “ill care” are

generally reimbursed, whereas nutrition counseling and other non-traditional tools geared toward preventing obesity are not generally reimbursed. According to one survey, three in four physicians “wish the health care system would cover the costs associated with connecting patients to services that meet their social needs if a physician deems it important for their overall health.”¹⁶⁴

Creating new reimbursement mechanisms or reforming existing ones to cover community-based preventive services is therefore critical to realizing the potential benefits of a broader, wellness-focused approach to health care more generally. In fact, insurers are already seeing increased demand, on the part of consumers and employers, for the coverage of services that prevent disease and disability.

For example, as part of the UHG/YMCA collaboration discussed above, UHG now reimburses the YMCA for diabetes prevention programs that show measurable results among program participants. To qualify for reimbursement, a person must be 18 or older, overweight or obese, and at a high risk of developing Type 2 diabetes, as measured by one of three specific criteria. The program delivers information about behavior change, including healthy eating and physical activity, by trained lifestyle coaches in a classroom setting at the YMCA. The counselors are certified by the CDC, and the year-long program includes a weekly meeting for 16 weeks, followed by a year of monthly check-ins. Program goals are to reduce body weight by 7 percent and have participants engage in 150 minutes of physical activity per week.¹⁶⁵ This program offers a first example of a private insurer reimbursing non-medical providers for disease prevention services. The YMCA gets paid according to performance-based metrics, not participation rates; overall, the program reports a three-to-one return on investment over its first three years in operation. This approach is currently being used to serve 3,000 participants in 23 states, with a goal of expanding the program to 30 states by the end of 2012.¹⁶⁶ Private insurers like UHC are beginning to provide important case studies and

collect data to illustrate the impacts of a prevention-based approach on health outcomes and costs.

Meanwhile, interest in covering preventive approaches is not confined to the private sector. The Center for Medicare and Medicaid Services (CMS), which administers Medicare, Medicaid and the Children's Health Insurance Program (CHIP), has considered ways to increase coverage for preventive services, recognizing that this often is a more effective way to combat the twin crises of obesity and diabetes. CMS's interest reflects the recognition that preventable, weight-related chronic diseases such as diabetes, arthritis and hypertension account for an ever-increasing share of federal health care costs.¹⁶⁷ Some changes have already gone into effect; as of January 1, 2011, for example, Medicare beneficiaries no longer have to pay a deductible, co-insurance or copayment for many covered preventive services.¹⁶⁸ These changes are

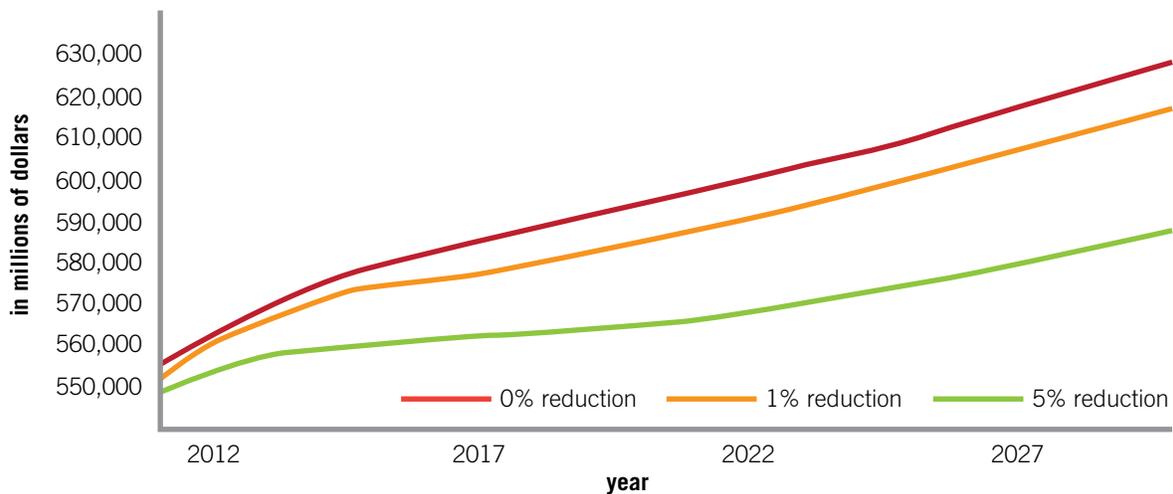
promising, but CMS has an opportunity to provide even more leadership here, particularly given the impact of its policy decisions on the private sector. One existing option includes streamlining the current Medicaid waiver process to allow states more flexibility in developing innovative preventive care programs.¹⁶⁹ In addition, there are a number of ways in which CMS could, within its existing authority, provide increased support for community-based prevention activities through its reimbursement policies.

Healthy Communities Recommendation #3: Public and private insurers should structure incentives to reward effective, community-based prevention-oriented services that have demonstrated capacity to reduce costs significantly over time.

Although such reforms may result in some short-term increases in cost, they are justified by an expanding

Impact of BMI Reduction on Health Care Costs 2010-2030

Predicted BMI-related direct health costs; 0%, 1%, and 5% reduction in absolute BMI



Source: Trust for America's Health (January 2012).

body of research that shows preventive approaches can deliver substantial long-run cost savings.¹⁷⁰ Given current projections of the impact of future health care spending on the federal budget, we would argue that government should be especially motivated – notwithstanding current budget constraints – to fund pilot programs aimed at determining which approaches are likely to be most effective in bending the long-term cost curve. Programs that focus on preventive care in early childhood, in particular, should be a high priority given their potential “bang for the buck” in terms of avoiding much larger long-term care costs.¹⁷¹ Existing community-based programs are largely being funded through CDC and other grant programs, but this is not a sustainable approach. Broader, systemic change in current reimbursement practices is needed.

Under this broad recommendation we include the following specific actions/recommendations:

- Private insurers, in collaboration with the American Academy of Pediatrics and the American Academy of Family Physicians, should develop a list of reimbursable, evidence-based, obesity-prevention practices for children that could apply to the private insurance sector as well as Medicaid and CHIP. Currently, recommended practices are not covered and there is no coordinated model for doing so.
- Private insurers should share information, best practices and technology innovations that can support effective mechanisms for reimbursing preventive care using tools like UHG’s platform for its diabetes prevention program, which is available to other insurers. Congress should create incentives to increase physical activity by redefining the use of medical savings accounts (MSAs) and Flexible Savings Accounts (FSAs) to cover physical activity. Allowing pre-tax dollars to be used for preventive behaviors, such as physical activity, rather than just for acute care is one tool to help shift our system toward wellness.
- CMS should expand reimbursement through Medicare and Medicaid for community-based providers of preventive, evidence-based lifestyle services. To be eligible for reimbursement, programs and providers would have to demonstrate independently verifiable results and quality services, as required by the CDC’s National Diabetes Prevention Program, for example.
- CMS should aggressively pursue its demonstration authority to test interventions with non-traditional providers, with the goal of providing data on cost and outcomes that will influence states and the private sector. Specifically, the Center for Medicare and Medicaid Innovation should develop a range of demonstration models for community-based prevention that others can follow.
- In addition, CMS should indicate to states that some of these kinds of approaches can be implemented under existing authority – for example, non-traditional providers and group education strategies can be covered within state Medicaid programs and generally give States increased flexibility to offer optional preventive services within Medicaid that would allow nutritionists, health educators or lay health workers to be reimbursed if they receive state certification.
- CMS should examine options for increasing coverage of tools for diagnosing diabetes and prediabetes, including potential changes to diagnostic and reimbursement codes.
- The Agency for Healthcare Research and Quality (AHRQ) and the U.S. Prevention Services Task Force (USPSTF) should revisit their recommendation concerning access to intensive lifestyle interventions. As currently formulated, this recommendation applies only to obese adults and thus does not account for the fact that many individuals with prediabetes and metabolic risk factors are overweight but not obese. Overweight individuals should be included.

Large Institutions

Large institutions such as hospitals and universities, sports and entertainment venues, hotels, and large departments or agencies of government (for example, the U.S. Department of Defense) serve meals to thousands of people on a daily basis; a single major retailer such as Walmart may sell food to millions of customers each day. These entities, private and public, have enormous purchasing power and can leverage major changes in the food supply chain, both in terms of what kind of food is produced and where and how the food is distributed. Consumer demand for healthier food choices has shifted over the past five to 10 years, and private sector companies are beginning to respond. In fact, one study by the Hudson Institute shows the positive impacts and potential cost benefits that have come from selling more “better for you” products for some companies.¹⁷² As one indicator of this shift, U.S. sales of organic food and beverages grew rapidly over the last 20 years – from \$1 billion in sales in 1990 to \$26.7 billion in sales in 2010. The number of local farmers’ markets across the country, meanwhile, more than tripled from 1,755 in 1994 to more than 6,200 in 2011.¹⁷³ During this time, demand for healthier options and greater awareness of the importance of diet caused some large service-oriented institutions, from universities to hospitals and hotels, to make changes in their food offerings. Some large institutions even explored opportunities to work directly with farmers to better meet consumer demand by exercising greater control over supply, and potentially to reduce transportation costs.

For large institutions that serve prepared food, changing their menu options has often meant working with large concession companies, which supply the bulk of their food and hold some of the largest food service contracts in the country. Food distribution is also heavily concentrated; a few large companies move much of the food from suppliers/producers to markets across the country. Under the current production and distribution model, food products generally

move hundreds of miles from “field to fork.”¹⁷⁴ At the same time, however, demand for more local products is increasing and the local retail food movement accounts for a rapidly growing segment of agricultural sales.¹⁷⁵ The extent to which large players can respond to shifting demand – not only for healthier food but for more locally grown and therefore fresher food (particularly fruits and vegetables) – matters. Of course, the relationship between supply, demand and consumer tastes is complex. Food distributors and retailers will be reluctant to devote more shelf space to healthier

Transforming Hospital Food in North Carolina

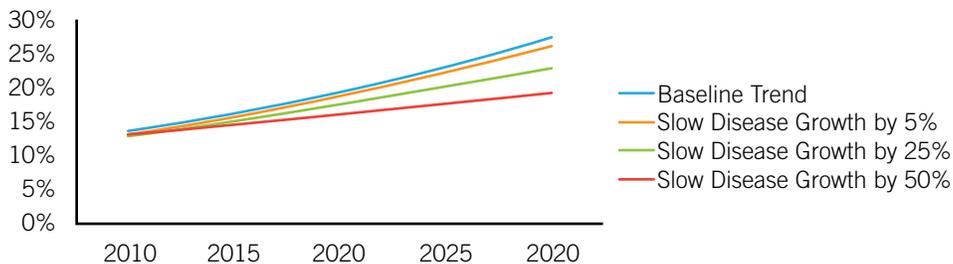
NC Prevention Partners (NCPPI) launched a three-year effort to improve nutrition at North Carolina hospitals. Named “Red Apple,” the project helped 95 hospitals across the state meet high standards for a healthy food environment. Overall, North Carolina’s hospitals serve over 500,000 meals each week to employees and visitors. As a result of NCPPI’s work, the healthy choice at many North Carolina hospitals is now the default choice, and more than 200,000 hospital employees statewide have access to more nutritious and affordable food in the workplace. In addition, employees are offered insurance benefits, incentives and education to help improve eating habits. The Center of Excellence for Training and Research Translation, funded by the CDC, recognized this project; in addition, HHS awarded NCPPI with a Healthy Living Innovation award in 2011.¹⁷⁷ Having worked extensively with hospitals on worksite wellness issues more generally, NCPPI has used this experience to develop a list of six key practices for successful engagement, including: (1) building strategic partnerships; (2) setting clear standards; (3) using tailored messaging to difference key audiences; (4) providing implementation support; (5) highlighting achievement through mapping; and (6) celebrating success through public recognition and reward.¹⁷⁸

products if they see these products as being slow to sell or unpopular with their customers. At the same time, consumers are unlikely to develop a taste for particular foods if they are exposed to them only rarely. This is why large institutions throughout the food supply chain have such an important role to play. Because of the scales at which they operate, they can catalyze shifts on both sides of the equation, simultaneously increasing the variety and quantity of healthy food choices available, lowering the costs of these choices, and affecting consumer tastes.

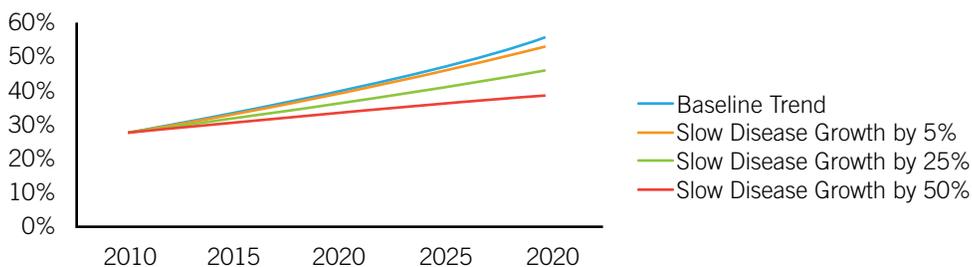
As in schools and workplaces, interest in healthy food and wellness on the part of large institutions has been on the rise in recent years. Innovative programs and partnerships

have been multiplying and there are a growing numbers of success stories to be considered and possibly emulated. Hospitals and other health care facilities, for example, are large consumers, collectively spending on the order of \$12 billion per year on food and beverages. This buying power gives them leverage to influence upstream food suppliers and distributors. Under the Healthier Hospitals Initiative, 10 large hospital systems have teamed up to increase their purchases of fruits and vegetables, eliminate deep fryers and change menus with a goal of supporting healthier food and beverage purchases.¹⁷⁶ Individual hospitals and food suppliers are also taking initiative. Kaiser Permanente, which has roughly 180,000 employees including 15,000-20,000 doctors, has developed food procurement strategies

Difference in Growth of Diabetes Among Adults Aged 45-65 Assuming Varying Success in Prevention



Difference in Growth of Diabetes Among Adults Aged 65+ Assuming Varying Success in Prevention



Source: The Urban Institute (October 2011).

to increase access to healthy food in and around its hospitals as part of a broader set of initiatives focused on preventive care and wellness. Meanwhile, several of the large concession companies that provide food services to hospitals and other institutional clients across the nation (e.g., schools, national parks) have increased the number of healthy menu choices they offer.

Like hospitals, universities often have a large role in the community and an incentive to promote wellness policies, not only for sake of their students and employees, but also as a selling point in attracting new students. One of their challenges is to deliver changes at a reasonable cost, something that can often be achieved most effectively through the competitive bidding process for choosing vendors. Sports and entertainment venues, on the other hand, have made some changes to their beverage offerings (primarily increasing sales of low-calorie or zero-calorie options), but report that changes on the food side are proving a tougher sell. In situations where advertising food as healthy is not necessarily a marketing plus, some companies have employed a “stealth health” approach – lowering overall levels of salt, sugar and trans fats across multiple menu items but without necessarily drawing attention to these changes. In most cases, however, more could be done by changing the way people think about these venues and by providing more choices without necessarily eliminating the iconic foods that customers expect.

As large private-sector institutions grapple with these issues, they are usually focused on the two key drivers for customers: price and taste. Besides consumer tastes, which can be slow to change, large institutions report other difficulties in providing and selling healthier foods. One is a lack of clarity in labeling. It can be difficult to know what distinguishes a product labeled “natural,” for example, which in turn complicates consumers’ decision-making. Other large institutions have encountered problems getting the quantity and/or quality of food they seek to meet customer demand. Fortunately, the experience of several companies suggests that these challenges can be overcome.

Hyatt Hotels, for example, announced a commitment with the Partnership for a Healthier America to introduce children’s menu items that are consistent with the most recent U.S. Dietary Guidelines and to reduce calories, sodium and sugar on their general menus. Early results indicate that food sales are up as much as 15-20 percent in the 10 hotels where Hyatt has adopted and labeled healthier options.¹⁷⁹

More generally, restaurants also have a role to play in improving healthy choices – in fact, their role is becoming increasingly important. In 1970, 25 percent of food dollars were spent on “away from home” meals. By 1999, meals prepared outside the home accounted for 47.5 percent of total food spending.¹⁸⁰ More than 30 percent of children eat fast food on any given day and portion sizes have increased substantially – they are now between two- and five-times bigger than they were 30 years ago. Restaurants matter because children eat almost twice as many calories (770) when eating a restaurant meal as when they eat at home (420).¹⁸¹ Through some menu labeling and changes to children’s menus, restaurants have begun efforts to educate consumers and provide healthier choices, but much remains to be done.

Although the private sector is often thought to have a natural edge when it comes to innovation, some of the most exciting health initiatives being implemented today are being spearheaded by large public institutions. The last chapter described recent efforts by the U.S. Department of Defense (DoD) to address the poor physical condition of many new recruits and improve the performance of current service members through improved nutrition and physical activity. Meanwhile, on the civilian side, HHS is working with the CDC and the General Services Administration (GSA) to implement new food service contracts for federal agencies, which together serve as many as 11.6 million meals each year. In the Washington, D.C. area alone, GSA food contracts provide service to more than one million federal employees. GSA data show growing demand for healthier food choices among these employees, consistent with trends in the general population.

National Restaurant Association: Healthier Choices For Kids

The Kids LiveWell program, developed by the National Restaurant Association, asks restaurants to meet a number of nutrition criteria including the 2010 U.S. Dietary Guidelines. To qualify, restaurants must take several steps:

- Offer at least one full children's meal that is 600 calories or less; contains two or more servings of fruit, vegetables, whole grains, lean protein and/or low-fat dairy; and limits sodium, fats and sugar
- Offer at least one other individual item that has 200 calories or less, with limits on fats sugars and sodium, and contains a serving of fruit, vegetables, whole grains, lean protein or low-fat dairy
- Display or make available upon request the nutrition profile of the healthful menu options
- Promote/identify the healthful menu options

As of July 2011, 15,000 restaurants had adopted the LiveWell standards.¹⁸⁵

The 2010 Health and Sustainability Guidelines for Federal Concessions and Vending Operations are designed to help contractors improve the nutritional value of food and beverages served at federal worksites within an overall framework of sustainability.¹⁸² Their aim is to increase the accessibility and affordability of healthy choices, not to restrict choices. The 2010 guidelines were implemented starting in January of 2011 in the HHS Humphrey Building cafeteria. Preliminary data for 2011 show increased purchases of healthy foods and an increase in vendor revenue of 25 percent compared to previous years. According to HHS, these guidelines are a work in progress. We hope that the agencies will continue to strengthen their criteria and broaden their reach as the process develops.

Another initiative, led by the National Park Service (NPS), targets menu options for the general public. As part of its Healthy Parks Initiative, NPS Director John Jarvis has asked concession companies that sell food in the national parks to develop more healthy options for visitors.¹⁸³ The Park Service has also partnered with a non-profit organization, the Institute at the Golden Gate, to provide technical assistance in meeting its goals.¹⁸⁴

Healthy Communities Recommendation #4: Large, private-sector institutions should procure and serve healthier foods, using their significant market power to shift food supply chains and make healthier options more available and cost-competitive.

Specifically, large private-sector institutions should take a number of actions:

- Establish procurement guidelines to routinize the purchase of healthier choices and stimulate market demand. Guidelines that have already been developed by hospitals, by nonprofits such as North Carolina Prevention Partners, and for purposes of federal government procurement can provide examples. Generally, institutional guidelines should be consistent with the requirements laid out in the U.S. Dietary Guidelines, which call for reductions in sugar, salt, trans fats and fried foods, as well as adding fruits and vegetables.
- Engage actively with vendors to promote more nutritious offerings at cost. Such efforts have the potential to affect the supply chain including, for example, by creating demand for more locally produced food, which can also have a positive economic impact in local communities.¹⁸⁶
- Engage food service distributors in a national conversation. Educate them about the need for longer lead times to build demand and encourage them to dedicate a percentage of their shelf space in distribution centers to healthier products. A pilot project may help clarify actual versus perceived barriers.

- Engage sports leagues and theater associations in a similar discussion so that sports and entertainment venues follow similar concession standards as other large institutions. For example, NASCAR driver Danica Patrick campaigned for a healthier meal option at the North Carolina Speedway and the concession company at this venue responded by adding turkey burgers to the menu.
- As a first step, all private sector institutions and large-scale food concessionaires that regularly serve children should adopt the National Restaurant Association's Kids LiveWell standard. At the same time, the National Restaurant Association should ensure that those who sign the pledge are implementing the guidelines.
- Restaurants should expand on recent commitments to make their children's menus healthier by making similar changes to adult menus. This includes putting healthy default choices on the menu and addressing portion size, sugar, salt and trans fats.
- All food service venues should adopt food labeling, including calorie and nutrition information, as currently required for chain restaurants with more than 20 locations.
- Adopt nutrition labeling for industrial food products, such as #10 cans used in industrial food production, to ensure that large institutions can provide nutrition information to all customers, including concession companies and government commodity programs.
- Develop a nutritional database for all foods supplied to concessioners, restaurants and public venues that serve food, in partnership with USDA, so that large institutional food service companies can provide nutritional information about their products to clients.

Healthy Communities Recommendation #5: Public-sector institutions should continue to lead by example, promoting healthy foods and physical fitness as a means to enhance employee performance, both in the military and within the civilian workforce.

Large public-sector institutions should implement several specific measures:

- Allocate existing federal resources to strengthen and fully implement the HHS/GSA guidelines across agencies, and track results.
- Revise the current system of federal health insurance data gathering, which is centralized at OPM, and make that data available on an agency-by-agency basis. This will increase accountability and help track outcomes against inputs. (Note that this is a companion recommendation to that under workplace wellness.)
- USDA, in consultation with private-sector partners, should develop a common definition of "natural" to standardize, clarify and ease purchasing by large institutions. The IOM's recent Front of Pack report provides an important model.¹⁸⁷ Walmart's "Great for You" criteria, which were developed using an intensive collaborative process with multiple stakeholders, offer another potential model.
- USDA should ensure that its commodity foods comply with the USDA/HHS Dietary Guidelines for all clients and customers including, for example, food banks, tribes and others.
- DoD should expand the Army's "Fueling the Soldier Athlete" program to include all branches of service and all stages of service, not just basic training, for officers and enlisted service members (a detailed discussion of DoD programs can be found at page 54).

Community Programs and the Built Environment

Previous sections of this report have highlighted the importance of physical activity in combating obesity and chronic disease and discussed options for getting Americans moving at home and in their schools and workplaces. The community is obviously another critical venue for promoting a more active lifestyle, both at the level of the programs and outdoor amenities available to residents and at the level of the built environment. The built environment includes the structures (homes and buildings), modes of transport, workplaces, and institutions that make up our communities. In too many American towns and cities, that environment also reflects and reinforces an automobile-centered way of life. Walking to work or to the store is not an option, parks and playgrounds are inadequate or nonexistent, and going to the gym is an option primarily for those who have some time and money to spare. Increasingly, these barriers to physical activity are affecting children too. Cities and counties faced with budget cuts are losing physical education teachers and athletic programs. Children who don't regularly participate in a particular sport may have difficulty finding other venues to be physically active. Still others face a more basic problem: they lack safe places to be outside. In some neighborhoods, it's simply too dangerous to exercise or play outside, either because of traffic and a lack of sidewalks or playgrounds or because of high levels of crime and violence.

In sum, considerable empirical evidence exists to suggest that where people live and work has a much greater impact on their health than their interactions with the health care sector or genetic makeup.¹⁸⁸ And while these "social determinants of health" do have some correlation to income levels, they affect all Americans, living in all kinds of communities. Local-, county- and state-level decisions about health, transportation and planning all affect the built environment. Other decisions by school districts and park and recreation departments affect access to those physical and programmatic resources that do exist. Typically, these government functions are funded and

implemented separately. This creates a silo effect that impedes our ability to integrate planning efforts and, more important, to leverage existing resources in a time of tight budgets. Some of the most successful examples of innovative change in this area have involved collaborating across agencies and breaking down silos. California, for example, has adopted a "Health in All Policies" approach, under which all agency decision-making must include health impacts among other outcomes. As Shaunna Burbidge, a transportation planner employed in Salt Lake City's health department, observed:

"Our built environments and public health are inextricably linked. The way we build our communities inevitably shapes the decisions we make and the way we go about living our lives. The major problem is that our agencies exist in silos. The health department works to solve health problems, while urban and transportation planners work to solve infrastructure problems. What both fail to realize is that these are not agency specific problems but rather community problems, and by working together they would not only accomplish their goals (without exacerbating problems for the other), but they would also improve quality of life for all the community residents. Educating agencies about the activities of one another and encouraging them to work together is the first step toward creating truly healthy communities."¹⁸⁹

So, for example, building a sidewalk – which is traditionally solely within the budget and management of the city or county transportation department, is also a diabetes prevention strategy in a neighborhood without adequate access to physical activity opportunities. The remainder of this section discusses ideas for promoting more active lifestyles at the community level. As in other sections, it draws heavily from the considerable initiative and innovation that is already happening in this realm, despite the resource constraints that currently confront many states, counties, cities and towns. Our recommendations focus on three specific areas of opportunity: (1) leveraging existing resources, (2) utilizing technology in innovative ways, and (3) changing the

built environment over time. In each case, the ideas described reinforce or interact with other recommendations related to physical activity presented in previous chapters of this report.

**Healthy Communities Recommendation #6:
Local governments should leverage existing resources and infrastructure assets to expand opportunities for physical activity.**

This recommendation responds to the observation that many communities lack safe, adequate places for children, youth and adults to exercise and play. Schools might have a variety of recreational facilities, but many districts close their properties to the public after school hours because of concerns about costs, vandalism, security, maintenance and liability in the event of injury. Other schools may not have enough facilities to hold regular physical education classes and need to find partners who have facilities. The good news is that county, city and town

governments can partner with school districts through what are known as joint use agreements to address these concerns. A joint use agreement is a formal agreement between two separate government entities – often a school district and a city or county – setting forth the terms and conditions for the shared use of public property. For example, in Portland Oregon, the Department of Parks and Recreation, which runs out-of-school programs, has a joint use agreement with the school board to use school facilities after school and on Saturdays. The Parks Department organizes 365 basketball teams that play at the hundreds of schools in the Portland School District that would otherwise sit empty during non-school hours.¹⁹⁵ Conversely, schools that lack facilities for adequate physical education and activity have sometimes entered into joint use agreements to use facilities that belong to local parks and recreation department. For example, in Salt Lake County, several schools use the pool at a county park for swim practice. This enables the schools to

Get America Walking

New studies show that brisk walking reduces the risk of obesity;¹⁹⁰ moreover, walking is one form of exercise that requires no specialized equipment or skill and is available to all age groups. Three existing initiatives showcase the potential for increasing physical activity among all ages through walking, without burdensome or costly requirements. For example, the Everybody Walk campaign recommends 30 minutes of walking, five days a week. While many campaigns focus on children, this campaign includes adults and could increase the participation of seniors, a particularly important segment of the population in terms of reducing the risk of chronic disease. The Everybody Walk campaign has 26 partners, including the American Hiking Society, Kaiser Permanente, Exercise is Medicine, and the American College of Sports Medicine. It uses mobile apps so people can create walks and share information.¹⁹¹ Another walking initiative, the World Fit campaign, is a project of the U.S. Olympians

Association. It currently targets middle schools, but could be expanded to all 100,000 schools in the United States. In this program, former Olympians and Paralympians adopt schools to teach lessons of lifelong fitness and walk daily with students for six weeks. To date, the program has partnered with 43 schools. With additional resources from partnerships and other collaborations, this program could also be extended beyond six weeks to the entire school year.¹⁹² Finally, as result of the Federal Transportation Act, every state and the District of Columbia has a Safe Routes to School program that gives small grants to encourage more students to walk and bike to school. Forty years ago, nearly half of all students walked or biked to school.¹⁹³ Now, only 14 percent do.¹⁹⁴ Any school could replicate the goals of the Safe Routes program; for example, community members and seniors could volunteer to start “walking school buses” and find other ways to help schools and parents get kids moving on the way to school.

offer a form of activity and field a competitive team in a sport they otherwise couldn't support. Non-profits have worked together to develop a toolkit to make it easier for cities and counties to establish these two-way partnerships. For example, Playing Smart is a nuts-and-bolts guide to opening school property to the public through joint use agreements. It provides a comprehensive overview of the most common ways to finance these arrangements, and guidance on how to overcome obstacles that may arise in negotiating and enforcing a joint use agreement.¹⁹⁶ Similar partnerships can be used as a low-cost way to expand the reach of existing walking initiatives (see text box for more detail), with the idea of making walking more of a social norm.

Healthy Communities Recommendation #7: Families and local governments should make creative use of technology to increase physical activity.

Modern technologies, including video games, mobile phones and computers, are often viewed as a strong contributing factor in making Americans more sedentary and less active. Today, kids spend, on average, seven-and-a-half hours a day in front of a television or computer screen. Yet, given that these technologies have become an inescapable and, for many people, indispensable part of daily life, we believe it is time to reframe the debate. Opportunities to develop games that require or encourage the user to be physically active are expanding rapidly. Some such games already exist. Newer ideas include linking pedometers and accelerometers to games and prizes, using geo-caching and other geographic digital games to encourage kids to go outside (an example is the outdoor video game developed by Two Bulls),¹⁹⁷ and using social media to share information about physical activity options. And while pedometers can be effective for adults, they do not work well for tracking physical activity levels among kids, because kids at play rarely move in a straight line. Hope Labs, working with CDC, developed an accelerometer called the Zamzee that can track all kinds of movement, not just walking or running. With Zamzee, tweens and teens can earn online rewards, and research has

shown that children who use Zamzee are 30 percent more active than kids who do not.¹⁹⁸ Another example is the website www.everybodywalk.org, where people can share and rate their walks. And the California State Parks Foundation (CSPF) has teamed up with EveryTrail, a mobile travel device company, to develop an interactive iPhone travel app that allows state park and state beach visitors to share and access useful hiking tips.¹⁹⁹

Healthy Communities Recommendation #8: Local governments should use the planning process to change the built environment in ways that promote active living.

Growing numbers of cities and towns are using the planning process and zoning codes to shape the built environment in ways that promote walking and bicycling, help residents stay connected, and improve quality of life. Because of the public health dimensions of our current obesity and chronic disease crisis, their efforts can be likened to those of urban designers in the 19th and early 20th centuries who were trying to combat diseases like cholera and tuberculosis. Today, local governments, through their planning, transportation and public health departments, are working with architects and designers to act on research findings that suggest our built environment can increase regular physical activity and promote other healthy habits. For example, the Active Design Guidelines provide architects and urban designers with a manual of strategies for creating healthier buildings, streets and urban spaces, based on the latest academic research and best practices in the field.

Here again, local action provides an important example of what is possible, even in an era of restricted budgets. As part of an anti-obesity campaign launched by Mayor Mick Cornett in 2008, Oklahoma City passed a \$835.5 million bond program in 2007, most of which was targeted to street and transportation improvements that would increase access to easy walking and biking options.²⁰⁰ Similarly, San Antonio, Texas, the seventh largest city in the United States, has incorporated “complete streets” principles

in its comprehensive master plan. This means that the planning, design, construction and operation of all city roadway projects must accommodate the full range of users and increase public transportation, walking and bicycling opportunities.

As an alternative to imposing new requirements, some cities have removed or changed old zoning codes that work against the goal of encouraging physical activity. For example, local officials in Salt Lake City, Buffalo, New York, and New York City have combed through existing zoning codes to overturn those that no longer serve a purpose or interfere with current interest in healthy living (including provisions that affect either food or physical activity). Salt Lake City's Sustainable City Code Initiative examined ways to make it easy and convenient to walk, bike or take public transit as a tool to protect air quality; the city also examined regulations to support urban agriculture.²⁰¹ New York City has incorporated physical activity guidelines in its construction code and adopted other policies to support outdoor play and exercise, including

signing on to an effort called Playstreets, which aims to increase the number of locations where kids can be active. Other cities are offering incentives to designers and developers to create more neighborhoods, streets and outdoor spaces that encourage walking, bicycling and active transportation and recreation.

We recommend that tribal, state and local governments use the local planning process and work with developers to promote physical activity in several specific ways, including:

- Updating old or outdated zoning codes that impede active living.
- Requiring or using incentives to encourage developers to include recreational and active transportation amenities in publicly funded development, whether housing construction or remodeling or in public institutions such as schools or parks.
- Applying Active Design Guidelines.

Improving Tribal Health: Lummi Nation's Pedestrian Pathway

In 2010, the Lummi Nation completed a two-mile pedestrian and bicycle pathway on the Lummi Indian Reservation west of Bellingham, Washington. Prior to construction of the pathway, the Lummi community, despite its relatively small population, was suffering the highest rate of roadway fatalities in Whatcom County along its main thoroughfare, Haxton Way. Haxton Way had no sidewalks or bike lanes and many of the accidents involved cars and cyclists or pedestrians.

To build the \$1.7 million pathway, the Lummi engaged the local community and partnered with county, state and federal agencies. The finished project is designed to parallel the road at a safe distance; it includes footbridges, stretches of boardwalk elevated above wetlands, limestone trails and

pervious pavement. It also features solar-powered lights, programmed to brighten as someone passes by, to provide illumination for the many people who walk home from work at night. The solar lighting didn't require trenching for wires and the elevated boardwalk preserves the wetland environment.

In 2011, the Lummi Nation pedestrian pathway won an award for excellence from the U.S. Department of Transportation. Not only has the project improved safety and livability and provided an attractive and lasting community amenity – by fostering walking and cycling as viable transportation alternatives, while also encouraging recreational and social walking and biking, it is supporting activities that improve the health of the community.



Health Program
Nutrition and Physical Activity Initiative



Chapter 7: Cross-Cutting Recommendations

This chapter develops recommendations in three cross-cutting areas, all of which offer the potential to have a major impact on diet, physical activity and health in America: (1) public awareness and marketing, (2) farm, food and agriculture policy, and (3) information gathering and clearinghouse.

Public Awareness and Marketing

The food industry spends billions of dollars each year marketing products to American consumers; according to the Institute of Medicine, as much as \$10 billion per year is spent just to market food specifically to children.²⁰² Effectively combating current rates of obesity, diabetes and other weight-related chronic diseases will require the food industry and other stakeholders to devote a much larger share of marketing dollars to healthier food and to educating people about the importance of diet and physical activity. A number of food and beverage companies have recognized their role in this area and have taken responsibility accordingly; in fact, several of them have made voluntary commitments to reduce their marketing to children and have unilaterally sought to improve the nutritional quality of their product offerings. Yet efforts by the Federal Trade Commission (FTC) to establish voluntary guidelines have thus far been unsuccessful and existing industry-led efforts, while a start, also leave room for improvement.

One such effort, the Children's Food and Beverage Advertising Initiative (CBFAI) was founded in 2006 by the Better Business Bureau and 10 major food and beverage companies. At present, 16 companies have signed on, which means they commit to advertising only healthier products; of these, three companies have pledged not to engage in child-directed advertising at all, while the remainder have agreed to advertise to children only those products that meet certain nutrition standards (the same requirement will apply for products marketed through non-traditional media such as movies and smart phones). New core principles for 10 food categories will be implemented by January 2014. By that date, member

companies will only advertise products that meet the new criteria. While two-thirds of existing products already meet the criteria, member companies pledge to reformulate or not advertise the remaining one-third of products that do not. Some aspects of this effort can and should be strengthened, but it currently provides one important focus for engaging the private sector on these issues.

An additional private sector initiative, the Healthy Weight Commitment Foundation (HWCF), was formed in 2009. Its goal is to eliminate one trillion calories from the marketplace by March 2013, and 1.5 trillion calories by 2015. The Robert Wood Johnson Foundation will serve as independent auditor for whether this goal has been met. There is some overlap in the list of companies engaged in the CBFAI and HWCF initiatives. To achieve its goal, HWCF is focused on educating consumers about nutrition, providing an open source curriculum, and developing a clearinghouse of physical activity opportunities through the Discovery Channel's website. The HWCF has 195 members representing multiple sectors of the economy; its 42 corporate members underwrite the operation for research, marketing and education, promoting partnerships and more.²⁰³

Advertising and media outlets should be understood to include not just TV, print, radio and the Internet, but also new and emerging social media, kid-directed games, product packaging and digital media advertising. Industry spending on advertising through all of these non-traditional venues has increased over time. It is also important to recognize the potential for different marketing venues to have a disproportionate influence on different segments of the population. Latino and African American youth, for example, make greater use of digital media more and are targeted with more marketing for foods and beverages of lower nutritional quality than their white counterparts.²⁰⁴

In sum, while existing efforts are to be applauded, too many marketing and advertising messages, particularly those

directed to children, continue to promote unhealthy foods. At the same time, research shows that many people have difficulty interpreting the health-related claims that are often used to market food, either as part of food packaging or in advertisements. People may be unaware, for example, that food marketed as “low fat” still has high calories because in many cases manufacturers use sugar to mask the change in taste that might come with lower fat content. Similarly, claims like “all natural” are often used to market foods that are not especially healthy, since many foods can be high in fat, salt and sugar and still be “natural.”

To be effective, messages about food and physical activity not only have to be clear, they have to be consistent. According to an old industry adage, consumers do not absorb advertising until they have seen it at least seven times in seven different forms. In keeping with this concept, Childhood Obesity 180 developed a commitment with numerous out-of school groups to ensure that kids received the same messages in numerous settings. The groups included the Boy Scouts of America, the Girl Scouts of the USA, National Council of La Raza, National Council of Youth Sports, National 4-H Council, National Urban League, Pop Warner, US Youth Soccer, and YMCA of the USA.

All of these groups agreed to send the same simple set of messages as part of the Childhood Obesity 180 campaign: **Drink Right** (i.e., choose water instead of sugar-sweetened beverages); **Move More** (i.e., boost movement and physical activity in all programs); and **Snack Smart** (i.e., fuel up on fruits and vegetables). A national physical activity campaign should ask other government and private sector groups to echo and replicate this kind of messaging for all Americans, including especially high-risk populations (e.g., people served by Medicaid, Medicare, SNAP, or WIC).

Finally, we believe mass media entertainment companies, including especially screenwriters and TV and movie producers, can play a major role in incorporating messages about healthy eating and exercise in their programming.

The behaviors shown on movie and TV screens have always reflected and simultaneously shaped changing cultural norms, including norms related to public health and safety. Today, for example, most characters no longer smoke and most characters use their seat belts. Beyond airing shows like “The Biggest Loser” that specifically focus on weight loss, the kinds of behaviors routinely shown on screen can help inspire people to be more aware and more motivated to incorporate physical activity and dietary guidelines into their everyday lives.

Public Awareness and Marketing Recommendation #1: The food industry should adopt uniform standards for what constitutes “better-for-you” foods using the IOM Phase 2 report as a starting point and making sure industry standards are aligned with the U.S. Dietary Guidelines.

We also call for an independent entity to monitor and evaluate the impact the industry’s voluntary Facts Up Front labeling proposal is having on consumer choice, with the goal of measuring whether consumers are using the information to change their purchasing and consumption behaviors.

Public Awareness and Marketing Recommendation #2: The Ad Council or similar organizations should coordinate a multi-media campaign to promote healthy diet and physical activity, funded by leading private sector companies in collaboration with federal agencies.

This campaign should have a nutrition component and a physical activity component. Both components should enlist high profile and influential messengers, including celebrities, athletes and other public figures, who resonate with audiences and have the ability to inspire change. The nutrition component of the campaign would focus on the importance of good diet, with a particular emphasis on breaking through the barrage of conflicting information about nutrition to convey a clear message, through multiple messaging venues and in

multiple contexts, about the importance of healthy eating as a cornerstone of healthy living. The physical activity component would enlist sports leagues, celebrity athletes, players unions, sports and outdoor manufacturers, and retailers to deliver a clear message about the importance of exercise as well as good diet in promoting better health.

The food industry – specifically, the Grocery Manufacturers' Association (GMA) and the Food Marketing Institute (FMI) – has made a start here, committing \$50 million to raising awareness about their Facts Up Front labeling effort. We applaud this effort and urge the GMA and FMI membership to commit an additional \$50 million for a more general messaging campaign about the importance of a healthy diet that is not necessarily directly tied to specific products. This

Taxing Unhealthy Foods

There has been much debate in recent years about the idea of taxing unhealthy foods, specifically, foods with high salt, calorie, sugar, and/or fat content. Much of this discussion has focused on taxing soft drinks in particular. The concept of so-called “sin taxes” – that is, the use of taxes to discourage unhealthy products or behavior as well as raise revenue – is not new: excise taxes on alcohol and cigarettes have been in place for a long time. Federal efforts to tax particular food items, by contrast, have been quite rare. Excise taxes, which appear in the unit price on the shelf, differ from sales taxes, which are added at the point of sale; some argue that excise taxes are more regressive and less effective in changing consumer behavior than sales taxes.²⁰⁵ Salt and coffee have been taxed at times when they were scarce, and oleomargarine was taxed in the first half of the 20th century because it was viewed as threat to the dairy industry. Soft drinks, the most recent food product to come under discussion for federal taxation, were actually subject to a federal excise tax during World War I due to sugar shortages.

More recent efforts to introduce a federal excise tax on soft drinks and other sugary beverages have not moved forward in Congress. As of 2008, however, 33 states had imposed sales taxes on carbonated beverages – of these, 21 states have a tax specifically targeting soda and the other 12 states have general taxes on foods, which include soft drinks. In those

states with a tax on soda, the tax rate averages 5 percent. According to the Health Care Budget Options report of the Congressional Budget Office: “In 2006, 19 states imposed taxes on soft drinks that were higher than the taxes on most other types of food products. In some cases, those levies took the form of special excise taxes or sales taxes that applied not only to soft drinks but also to snack foods, candy, or, more broadly, any products sold in vending machines. A few states apply a sales tax to soft drinks and snack products while exempting other food products. It has been estimated that the taxation of soft drinks and other snack foods generates about \$1 billion in yearly revenue for the states; some of the revenue derived from those taxes is earmarked for particular uses ranging from the control of litter to subsidies for medical and dental schools.”²⁰⁶

Despite considerable debate about how tax policy could be used to address obesity issues, there is relatively little empirical data on the public health impacts and other costs and benefits of this approach. Are taxes on unhealthy/high-calorie foods effective in reducing consumption, and ultimately obesity? How high would such taxes have to be to meaningfully change consumption? And how would they apply to different foods? For example, would sugar-free or low-calorie sodas be subject to a tax? What about trade-offs, such as the higher sodium content often found in diet soda?

would help convey a more comprehensive message about nutrition and would be at a scale sufficient to ensure that the message “breaks through” to target audiences. Effectively reaching key audiences will require that the campaign include all major media outlets (TV, radio, print, online and events).

Public Awareness and Marketing Recommendation #3: Food retailers should adopt in-store marketing and product placement strategies to promote the purchase of healthier, lower-calorie products.

Public Awareness and Marketing Recommendation #4: States and localities should continue to innovate and experiment with ways to change the profile of foods in the marketplace.

As part of ongoing efforts in this area, additional information generated by states and localities about the impact that different state policies and local ordinances are having on food choices, portion sizes and other factors—for the general population and for children in particular—would be a useful contribution to existing research in the field.

Food and Farm Policy

Roughly eighty percent of the food consumed in America is grown in America. Obviously, what we eat influences what we grow, and vice versa. But agriculture is also a sector of our economy in which government decisions – subsidies and incentives, trade policies, etc. – play a major role. Historically, farm and agriculture policies were, at most, tangentially influenced by considerations of diet, nutrition and health. This is beginning to change. Growing awareness of the costs and impacts of high rates of obesity and chronic disease in America is prompting a broader look at our entire food supply chain and at the policies and programs that, along with consumer preference, determine what foods appear on grocery store shelves and, ultimately, on our plates.

The typically high cost of fruits and vegetables relative to less

healthy foods such as sugars and starches, for example, is often cited as a barrier in the effort to improve Americans’ diets, particularly in low-income communities. In poor neighborhoods, moreover, access can be as significant a problem as price; the fresh produce available, if it is available at all, often suffers from limited selection and poor quality (as well as high price). In this context, recent initiatives to support community gardens and bring locally grown fresh foods to schools and urban neighborhoods are encouraging, as are efforts to increase the number of farmers’ markets where buyers can use WIC and SNAP benefits to purchase goods.²⁰⁷ But these changes are only beginning to make a dent. A large-scale shift to healthier food choices will require continued initiative to address these kinds of barriers, both from the grassroots up and at the level of industry- and sector-wide policies and practices that influence what kind of food is available, to whom and at what price.

As we have consistently stressed throughout this report, empirical evidence and research in this area is needed to provide a sound basis for policy decisions, particularly where these decisions affect the prioritization of public dollars and programs. Such research is needed on a range of behaviors, interventions and programs.

Food and Farm Policy Recommendation #1: USDA, in collaboration with other stakeholders, should identify and address barriers to increasing the affordability and accessibility of fruits, vegetables and legumes.

Specifically, USDA should work with stakeholders and experts from the agriculture, food product, food distribution, health care, and nutrition advocacy communities to take a number of actions in support of this recommendation:

- Review the current farm bill and other agricultural policies and programs to look for opportunities to address existing barriers and better align food production incentives with national health and nutrition objectives, in particular the U.S. Dietary Guidelines.

- Ensure that changes to the farm bill and agriculture policy more generally – including commodity program supports, budget cuts, changes in crop insurance or trade policy – do not restrict or negatively affect supply or availability of fruits, vegetables and legumes.
- Authorize a generic fruit and vegetable promotion board, paid for out of an expanded specialty crop block grant program, to establish a national pool of funding to promote specialty crop market promotion and nutrition education.²⁰⁸
- Look for opportunities to reduce transportation costs and increase quality in regional food distribution systems in order to make fresh produce more available and affordable to end-user consumers.
- Continue the Healthy Incentives Pilot, which provides financial incentives to SNAP participants at points-of-sale to encourage the purchase and consumption of fruits and vegetables.²⁰⁹
- Establish a special funding category in existing USDA grant programs, such as the Specialty Crop Block Grant program or the Hunger-Free Communities Incentive Grants, to leverage private resources for bonus incentive programs to promote the purchase of healthy foods by SNAP recipients.²¹⁰
- Conduct a comprehensive study and evaluation of SNAP purchases. Specifically, this study should (1) collect and analyze data on actual SNAP purchases to better understand food purchasing patterns by different recipient groups; (2) analyze the implications of different program

Promoting Locally Grown Food

Recent years, have seen a dramatic increase of interest in locally grown food – a trend that is naturally congruent with a greater emphasis on fresh produce since fruits and vegetables are by nature less easy (and more expensive) to store and transport over long distances than other, less healthy foods. Not only are farmers' markets becoming more common, the number of community-supported agriculture operations has been growing rapidly (from just two in 1986 to more than 4,000 today). In addition, there are now more than 2,200 farm-to-school programs across the country, in 48 states, and all states have their own agricultural branding programs (e.g., "Jersey Fresh" or "Simply Kansas"). At the same time, regional food hubs are playing a larger role in making locally grown foods available to schools, hospitals, retailers and other large institutions. (These hubs actively manage the aggregation, distribution and marketing of source-identified local and regional food products primarily from small to mid-sized producers to wholesalers, retailers and/or institutional buyers.) According to some estimates, direct-to-retail, organic and local food sales have become a multibillion dollar industry.²¹¹ Finally, USDA's "Know Your Farmer, Know Your Food" (KYF2) initiative represents an important interagency collaboration and has been instrumental in promoting increased awareness and expanded availability of locally grown food. As a result of this initiative and other grant and loan programs established through the 2008 Farm Bill, more government support for local and regional agriculture is available now than ever before.

Food and Farm Policy Recommendation #2: USDA should identify and pursue additional opportunities to promote health and nutrition through its nutrition assistance programs.

We recommend that several specific actions be taken by USDA:

- Sustain support for programs such as the Fresh Fruit and Vegetable Program, Child and Adult Care Food Program (CACFP), and National School Lunch After School Snacks Program (NSLP) and ensure that all snack and other program guidelines are consistent with the U.S. Dietary Guidelines.

USDA SNAP Program

Of the myriad USDA food assistance and nutrition programs, the Supplemental Nutrition Assistance Program (SNAP) is an important entitlement program and the largest of all USDA programs. SNAP began as the Food Stamp Program during the Great Depression; its aim was to distribute excess farm commodities to those in need. The change of name to SNAP as part of the Food and Nutrition Act of 2008 (the Act) reflected not only the fact that the program no longer used food coupons, but also a shift from an emphasis on obtaining needed calories to a focus on the importance of nutrition and healthy eating. Growing concern about obesity and chronic disease in America has prompted a debate about whether certain foods should be ineligible for purchase using SNAP benefits.

Currently, the Act defines eligible food as any food or food product for home consumption, including seeds and plants that produce food for consumption by SNAP households. The Act also identifies specific items that cannot be purchased with SNAP benefits: alcoholic beverages, tobacco products, hot food and any food sold for on-premises consumption as well as nonfood items such as pet foods, soaps, paper products, medicines and vitamins, household supplies, grooming items, and cosmetics. Soft drinks, candy, cookies, snack crackers, and ice cream are considered food items, as are seafood, steak, and bakery cakes – therefore they are eligible to be purchased with SNAP benefits. Since the legislation specifically identifies eligible and ineligible items, Congress would have to act to change the current definitions. Such action has been considered several times in the history of the program, but so far Congress and USDA have generally concluded that excluding certain foods on grounds that they are luxury or non-nutritious would be administratively costly and burdensome.

A recent waiver request from New York City which sought to exclude certain sweetened beverages from eligibility for purchase using SNAP benefits was ultimately denied by USDA. The debate on this issue has been contentious. Advocates of restricting or excluding certain foods from federal nutrition assistance programs argue that taxpayer dollars should not be used to subsidize foods that are unhealthy or contribute to chronic disease. Others, including advocates for low-income communities and communities of color object that such a policy would be discriminatory and overly paternalistic. Questions have also been raised about the cost, administrative feasibility, and efficacy of using this approach to influence food choices within a particular segment of the population.

So far, no comprehensive government studies have been conducted to quantify what is currently being purchased with SNAP dollars or to analyze the policy effectiveness and implementation issues that might be raised by different program changes designed to shift recipients' food consumption patterns – either by discouraging or prohibiting certain foods and/or favoring other foods.²¹²

If the goal is to improve the diets of SNAP participants, for example, one suggestion might be to offer a package – similar to the approach used in the WIC program – that allows a comprehensive list of hundreds of healthy food products. This would eliminate the need to make a determination about healthy versus unhealthy foods. To weigh the pros and cons of this and other policy options, however, further analysis and data are needed.

reforms in terms of program administration and cost; and (3) review the diet quality of SNAP participants based on the latest available data. A first step toward obtaining real data on SNAP purchases would be to require industry to collect and report data on purchases, but do so in a manner that addresses privacy concerns. Currently, USDA requires retailers to report only the total amount for reimbursement but not specific purchase data.

- Update USDA's research to explore potential overlap between WIC and SNAP recipients (discussed in Chapter III of this report; see page 31), and to identify opportunities to better coordinate messaging, education and/or program implementation.

Food and Farm Policy Recommendation #3: Congress should continue sustained support for relevant research by offices of USDA.

Research conducted by the USDA's Agricultural Research Service (ARS), National Institute of Food and Agriculture (NIFA), and Economic Research Service (ERS) is important to ensure that policymakers, stakeholders and the public continue to have robust, up-to-date information on the impacts of food and farm policies. Future research by these three branches of the USDA should continue to focus on the role of nutrients, what people eat and the dietary implications for health, as well as the impact of food assistance programs, benefits packages, behavioral economics, and other interventions related to obesity. Enhancing specialty crop development is another important area for research given its potential contribution to healthy diets.

Information Sharing and Analysis

High rates of obesity and chronic disease in America have prompted action as well as concern. Around the country, numerous initiatives and campaigns are underway to promote better health through nutrition, physical activity and other preventive measures. In fact, so much is going on, at so

many different levels, that one of the greatest challenges for companies, community leaders, policy professionals and government officials – let alone for the average citizen – is accessing the wealth of data and ideas that is being generated. From assessing what programs are working well to analyzing and identifying what the latest research about diet, physical activity and health can tell us, there is an enormous need for better ways to share knowledge and learn from different efforts. Time and again, as BPC reached out to different stakeholders, we learned about important, innovative, often low-cost or cost-neutral programs that have achieved desired results but are not widely known. There have been some efforts, on the part of both government and non-government agencies, to pull together information on research, data and best practices. But at present no central repository exists for systematically collecting, organizing and disseminating this material.

Traditionally, much of the federal responsibility for data collection and analysis in this realm has rested with the CDC, which would continue to act in this capacity under the Patient Protection and Affordable Care Act (PPACA). The PPACA directs CDC to work with HHS, for example, to evaluate the effectiveness of prevention-oriented, community-based public health interventions as a way to both document past returns on investment in these kinds of programs, and help state and local authorities design effective strategies to implement in the future.²¹³ A number of non-governmental organizations are also working actively in this area and are committing substantial resources to address current information gaps; the text box on page 90 describes ongoing efforts by the Trust for America's Health, the Robert Wood Johnson Foundation, Public Health Law and Policy, the National Collaborative on Childhood Obesity Research, and Advancing the Movement's Community Commons, as well as by the CDC and HHS.

Despite the good work that is going on in this area and the increased resources that are being devoted to track programs and document results, the demand for information and

Examples Of Clearinghouse Resources

Numerous efforts have been made to collect data and research, as well as guides and online tools, relevant to obesity, nutrition, physical activity, chronic disease and preventive care. The following examples represent just a few of the many resources in this field.

The Guide to Community Preventive Services

This is a free, evidence-based resource to help communities choose the best disease prevention programs and policies. The Guide is based on a scientific, systematic review of public health interventions and on the recommendations of a CDC-appointed task force. Task force members work closely with individual policymakers, practitioners and researchers to review prevention methods and formulate recommendations. The goals of the Guide are to identify effective versus ineffective interventions, and provide information on costs, expectations for investment, and target populations or settings. The CDC provides administrative, research and technical support to the task force.²¹⁴

HHS Health Data Initiative

This is a major public-private effort to make HHS health data sets – including hundreds of measures of health care quality, cost, access and public health – free and accessible to the public. In addition to unlocking this data, HHS is working to identify those who utilize data – such as technology companies, researchers, media and consumer advocates – to create applications that raise awareness about community health performance and help facilitate and inform federal and local action to improve outcomes.²¹⁵

Advancing the Movement's "Community Commons"

This is a user-friendly, interactive website that uses contextualized mapping and over 7,000 GIS data layers to display information about hundreds of community initiatives that are working to promote health at the local level throughout the country. Groups, regardless of funding source, are encouraged to connect to explore interests and challenges, share resources and best practices, and highlight innovative leadership. This seemingly simple step – making

information available about what is already being done – is a powerful tool and can be an effective game-changer for these place-based initiatives.²¹⁶

ChangeLab Solutions (formerly Public Health Law and Policy (PHLP))

PHLP provides technical assistance to communities interested in improving public health conditions. It provides a compendium of helpful resources, including model contracts, legal memos, model policies and community-tailored training for easy adoption and use by communities.²¹⁷

National Collaborative on Childhood Obesity Research (NCCOR)

NCCOR brings together four of the nation's leading research funders to address the problem of childhood obesity in America: CDC, the National Institutes of Health (NIH), Robert Wood Johnson Foundation (RWJF), and USDA. The Collaborative's mission is to improve the efficiency, effectiveness, and application of childhood obesity research and to halt childhood obesity through enhanced coordination and collaboration. NCCOR's website provides a catalog of existing surveillance systems – at a variety of levels – (local, state and national) – that contain data relevant to childhood obesity research. These data can be an important resource for initiatives across the country.²¹⁸

Trust for America's Health (TFAH)

TFAH is an advocacy-oriented organization dedicated to promoting and protecting the nation's health that has assembled important information on the economics of disease prevention. Groups can utilize TFAH's findings to understand the broad implications of, and justify their investment in, various health-related interventions.²¹⁹

Robert Wood Johnson Foundation (RWJF)

RWJF is the nation's largest philanthropy devoted solely to health and health care. It has invested heavily in this field and is responsible for supporting and generating important, well-respected and publicly accessible obesity-related research.²²⁰

for successful models to emulate continues to outstrip the capacity of federal and non-governmental organizations to keep pace. States, for example, are contacting the National Governors' Association for data and sample best practices as they hear about effective disease-prevention/cost-saving strategies being implemented in other states. In this context, a central clearinghouse or "home base" of information, that catalogs existing initiatives and provides links to further programmatic and other resources and to the relevant research literature would be extremely valuable. At the same time, government, the private sector and non-governmental organizations must continue to fund rigorous evaluation of the costs and impacts of specific public health interventions. Given the scale of the challenges and the fiscal and political constraints we confront, the stakes for demonstrating that prevention-based approaches can yield tangible results are extremely high.

Information Sharing Recommendation #1: CDC and HHS should continue robust efforts to collect and disseminate information on food, physical activity and health – including information on the social determinants of health and future costs – and Congress should continue to support these monitoring and information-gathering functions.

Information Sharing Recommendation #2: Public- and private-sector organizations active in this field should partner to establish a national clearinghouse on health-related nutrition and physical activity initiatives. The clearinghouse should provide links to additional resources, technical assistance, coordination and partnership opportunities, and up-to-date research findings.

The mechanics of establishing and implementing this new resource should be coordinated with the National Prevention, Health Promotion and Public Health Council. The clearinghouse itself need not be housed at a federal agency,

although that may be an option. Ideally, a collaborative effort involving multiple private and public stakeholders and building on the work of the Convergence Partnership,²²¹ a consortium of leading philanthropies and other leaders, can be organized to assemble and maintain the clearinghouse. Funding for this effort could be raised from the private sector and/or foundations and other non-governmental organizations.

Conclusion

While the statistics on obesity and chronic disease are truly alarming, numbers alone cannot convey the full human and social costs of the health crisis we confront today in America. The problem is clear and its impact on our future – both in terms of the health, productivity, and well-being of the current generation and generations to come, and in terms of the prosperity, competitiveness, and fiscal integrity of our nation as a whole – is hard to overstate. Turning the tide of this epidemic will require leadership, first and foremost. All sectors of society must be engaged and all must take responsibility – from individuals and families to communities, institutions, and government. Together, our challenge will be to define and implement policies, strategies, incentives, and actions that, by encouraging and supporting healthy behaviors, can begin to slow and then reverse the trajectory we are on. The complexity of the problem demands a diversity of solutions: what's required is not a new top-down program or a vast expenditure of public resources, but a multiplicity of smaller steps and changes, at all levels of society, that collectively translate to lasting, large-scale shifts over time. Results will rarely be quick, but progress must be steady. And as we strive to reduce obesity, improve health, and slow the runaway growth of healthcare costs in America and the federal debt, continued research and data collection will be critical to inform our efforts and make sure we are investing in those strategies we know work.

In this report, BPC has focused on areas and opportunities for intervention that we believe hold particular promise, both because they can have a significant impact and because they can be implemented within existing frameworks and structures. The good news is that many powerful examples and inspiring programs are already underway. To achieve the goal of significantly reducing obesity and chronic disease in America within the next generation, we must build on what is already working, expand the reach of good programs, and greatly accelerate the pace of change. The problem is complex but we know at least some of the solutions. Now it is time to get to work.



Health Program
Nutrition and Physical Activity Initiative



Acronyms

ABMS	American Board of Medical Specialties	MHS	Military Health System
AHELP	State of Arkansas Healthy Employee Lifestyle Program	MOC	Maintenance of Certification
AHRQ	Agency for Healthcare Research and Quality	MPINC	Maternity Practices in Infant Nutrition and Care
AMA	American Medical Association	MSA	Medical Savings Account
ARS	Agricultural Research Service	MWG	Morale Working Group
AUSA	Association of the U.S. Army	NAA	Nutrition Academic Awards
CACFP	Child and Adult Care Food Program	NASBE	National Association of State Boards of Education
CHIP	Children's Health Insurance Program	NCQA	National Committee for Quality Assurance
CMS	Centers for Medicare and Medicaid Services	NHBLI	National Heart, Lung and Blood Institute
CPPW	Communities Putting Prevention to Work	NIFA	National Institute of Food and Agriculture
DCPS	District of Columbia Public Schools	NPS	National Park Service
DeCA	Defense Commissary Agency	NSLP	National School Lunch Program
DGA	Dietary Guidelines for Americans	NPM	U.S. Office of Personnel Management
ERS	Economic Research Service	PHA	Partnership for a Healthier America
FEHBP	Federal Employees Health Benefits Plan	PHLP	Public Health Law and Policy
FNS	Food and Nutrition Service, U.S. Department of Agriculture	PPACA	Patient Protection and Affordable Care Act
FSA	Flexible Savings Account	SNAP	Supplemental Nutrition Assistance Program
GMA	Grocery Manufacturer's Association	SNAP-Ed	SNAP Nutrition Education and Obesity Grant Prevention Program
GSA	General Services Administration	URAC	Utilization Review Accreditation Committee
HHI	Healthier Hospitals Initiative	USMLE	U.S. Medical Licensing Examination
HRSA	Health Resources and Services Administration	USPSTF	U.S. Prevention Services Task Force
HUSSC	Healthier U.S. School Challenge	VHA	Veterans Health Administration
IOM	Institute of Medicine	WHO	World Health Organization
JACHO	Joint Commission on Accreditation of Health Care Organizations	WIC	Special Supplemental Nutrition Program for Women, Infants and Children
LCME	Liaison Committee on Medical Education		

Endnotes

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208. The "More Matters" campaign developed by the Produce for Better Health Foundation provides a good model.
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219. <http://healthyamericans.org/>
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221. The Convergence Partnership steering committee includes representatives from Ascension Health, The California Endowment, Kaiser Permanente, Kresge Foundation, Nemours, the Robert Wood Johnson Foundation, and the W.K. Kellogg Foundation. The Partnership is supported by CDC, PolicyLink and the Prevention Institute.

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- American Association of Colleges of Pharmacy
- American Association of Medical Colleges
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- American Board of Medical Specialties
- American Board of Physician Nutrition Specialists
- American Council on Exercise
- American Diabetes Association
- American Heart Association
- American Hiking Society
- American Medical Association
- American Medical Students Association
- American Nurses Association
- American Public Health Association
- American Recreation Coalition
- American Society for Nutrition
- AOL
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- Blaze Sports
- Blue Cross Blue Shield of North Carolina
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- Boy Scouts of America
- Boys & Girls Clubs of America
- Bread for The City
- Bright Horizons
- California Endowment
- Campaign to End Obesity
- Center for Science in the Public Interest

Change Lab Solutions	Hudson Institute
Cigna	Hyatt Corporation
City Parks Alliance	Inova Health System
Clinton Global Initiative, America	Institute of Medicine
Coaching Corps	Intermountain Healthcare
Community Commons	International Food Information Council
Compass Group	Johnson & Johnson
DC Central Kitchen	KaBoom!
Diabetes Prevention and Control Alliance	Kaiser Family Foundation
District of Columbia City Council	Kaiser Permanente
District of Columbia Public Schools	Kearns Oquirrh Park and Fitness Center
Entertainment Software Association	Latino Infant Nutrition Initiative
Environmental Protection Agency	Leadership for Healthy Communities
Environmental Working Group	Levy Restaurants
Every Mother Inc.	LiveWell Colorado
Federal Trade Commission	March of Dimes
Feeding America	Mars, Inc.
Fitness Forward	Metro Analytics
Food Research & Action Center	Miami-Dade County Public Schools
Food, Nutrition and Policy Consultants	Mission: Readiness
FoodCorps	N. Chapman Associates Inc
Girl Scouts of the Nation's Capitol	NASCAR
Grocery Manufacturer's Association	National Association for Sport and Physical Education
Health Care Without Harm	National Association of Counties
Healthier Hospitals Initiative	National Association of State Boards of Education
Healthwise	National Association of State Park Directors
HopeLab	National Association of Theater Owners

National Board of Medical Examiners	President's Council on Fitness, Sports and Nutrition
National Business Coalition on Health	Prevention Institute
National Center for Safe Routes to School	PreventObesity.net
National Coalition for Promoting Physical Activity	Produce For Better Health Foundation
National Conference of State Legislators	Public Health Law and Policy
National Congress of American Indians	Rio Tinto
National Council of La Raza	Safe Routes to School National Partnership
National Council of Youth Sports	Salt Lake Chamber of Commerce
National Dairy Council	Salt Lake Valley Health Department
National Governors Association	School Nutrition Association
National Initiative for Children's Healthcare Quality	Sew Up The Safety Net Initiative
National League of Cities	Shinobi Labs
National Recreation and Park Association	Sporting Goods Manufacturers Association
National Restaurant Association	Trust for America's Health
National Wellness Institute	Two Bulls
National WIC Association	United States Conference of Mayors
National Wildlife Federation	United States Department of Agriculture:
NC Prevention Partners	Food and Nutrition Service
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Nutrition in Medicine	Economic Research Service
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Outdoor Foundation	U.S. Army
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 Let's Move in Indian Country
 Let's Move Outside
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