

Obesity Epidemic Burdens Healthcare System

The costs of the obesity epidemic in the United States have strained the nation's healthcare system. Annual direct healthcare costs for obesity-related chronic diseases (prevention, diagnosis, and treatment) have been estimated as high as \$78.5 billion in recent years, an amount equivalent to 4.7 percent of all U.S. healthcare expenditures (Wolf & Colditz, 1998). Overall, obese individuals incur much higher costs for prescription drugs, hospitalization, and total healthcare when compared with similar persons of normal weight (Andreyeva, Sturm, & Ringel, 2004). Overweight or moderately obese individuals (those with a Body Mass Index or BMI of 25 to 35) have estimated healthcare expenditures that are *25 to 50 percent* greater than those for people of normal weight, and severely obese people (those with a BMI over 40) have healthcare costs *double* those of normal weight people.

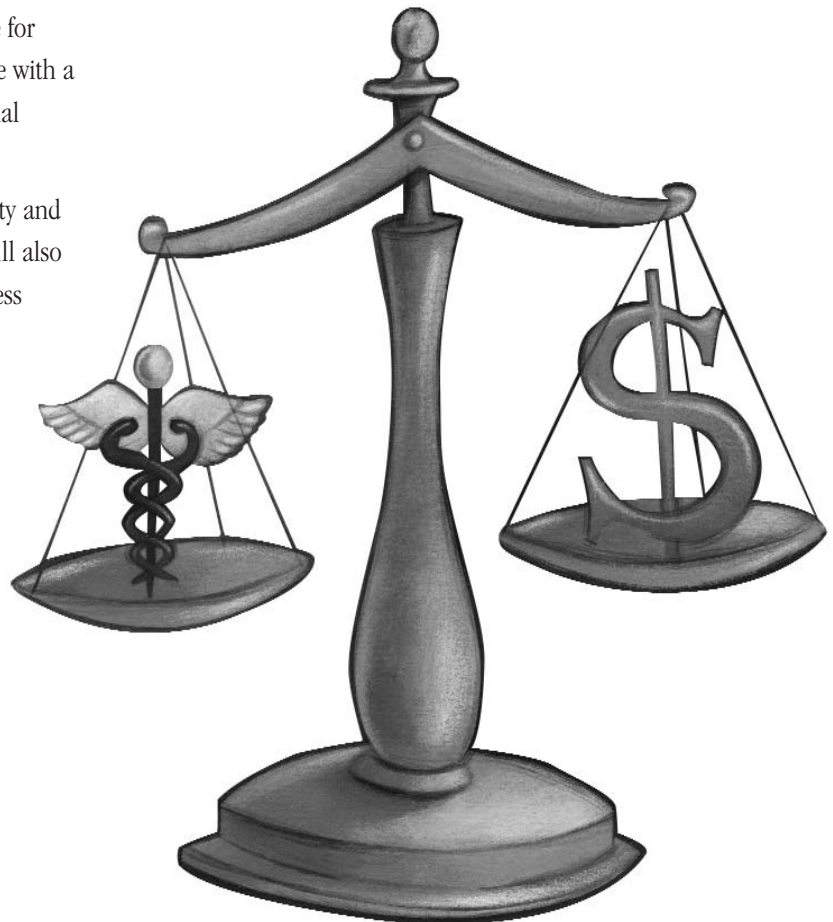
In this report, we will review the prevalence of obesity and its impact on healthcare costs in the United States. We will also examine some of the costs borne by employers and address some of the policy implications for the state of Indiana.

The Obesity Epidemic Coincides with an Increase in Many Common Diseases

An estimated 97 million adults in the United States are obese or overweight, a number that has doubled in the last 30 years and is likely to continue to rise. The

dramatic increase in the prevalence of overweight in our nation corresponds to an increase in related chronic diseases such as hypertension, high cholesterol, type 2 diabetes mellitus, heart disease, stroke, gallbladder disease, musculoskeletal disorders, and certain cancers. Each year, an estimated 300,000 adults in the United States die of causes associated with obesity.

Compared with other states, Indiana's obesity rate of 25.2 percent ranks 9th, and our combined rate of obese and overweight individuals is the 8th highest in the nation (Hearne, Segal, Unruh, Earls, & Smolarcik, 2004).



This issue brief was developed by Eric Wright, Ph. D., director of health policy, and other analysts at the Center for Urban Policy and the Environment. Dr. Wright and a team of specialists who study health policy issues are developing a Center for Health Policy that will soon operate as a highly focused research unit.



The Impact of Obesity on Medical Costs

The costs of treating overweight and obese Americans have increased dramatically over time, and will continue to rise as the number of overweight and obese individuals in our society continues to increase. Table 1 presents the distribution of obesity-related costs as measured by two 1998 studies. According to the National Health Accounts study (which includes institutionalized populations), nearly \$79 billion was spent on medical expenses related to obesity in the United States in 1998 (Finkelstein, Fiebelkorn, & Wang, 2003). Nearly half of these costs were paid by Medicare and Medicaid. In addition, the mean number of primary care, specialty care, and diagnostic service visits in a one-year period—and the charges for these services—was significantly higher for obese patients than for similar patients of normal weight (Bertakis & Azari, 2005). Finally, the annual indirect costs of obesity-related diseases, such as lost wages and future earnings lost by premature death have been estimated at \$47.6 billion (Finkelstein, Fiebelkorn, & Wang, 2005).

Table 1. Aggregate medical spending, in billions of dollars, attributable to overweight and obesity, by Insurance Status and Data Source, 1996–1998

Costs	MEPS ^a	NHA ^b
Out-of-pocket costs	\$7.1	\$12.8
Private insurance costs	\$19.8	\$28.1
Medicaid costs	\$3.7	\$14.1
Medicare costs	\$20.9	\$23.5
Total	\$51.5	\$78.5

Source: Finkelstein, Fiebelkorn, & Wang (2003)

Note: MEPS estimates do not include spending for institutionalized populations, including nursing home residents.

^a Medical Expenditure Panel Survey (1998)

^b National Health Accounts (1998)



The Impact of Obesity on Employers

Obesity also has a significant cost for employers throughout the United States, reflected in higher health insurance and workers compensation costs, as well as costs associated with absenteeism. The annual cost of obesity resulting from increased medical expenditures and absenteeism for a business with 1,000 employees has been estimated to be nearly \$285,000 per year (Finkelstein, Fiebelkorn, & Wang, 2005). In addition, the average annual per capita increase in medical expenditures and absenteeism associated with obesity has been reported to range from \$460 to \$2,500 per obese employee, a range that is positively correlated with the employee's BMI (Finkelstein, Fiebelkorn, & Wang, 2005). The per capita cost is significantly higher among women, with an increase of \$1,370 to \$2,485 per year. Also, obese male employees miss an average of two more days of work each year than male employees of normal weight, and obese female employees miss five more work days than their normal weight counterparts (Finkelstein, Fiebelkorn, & Wang, 2005).

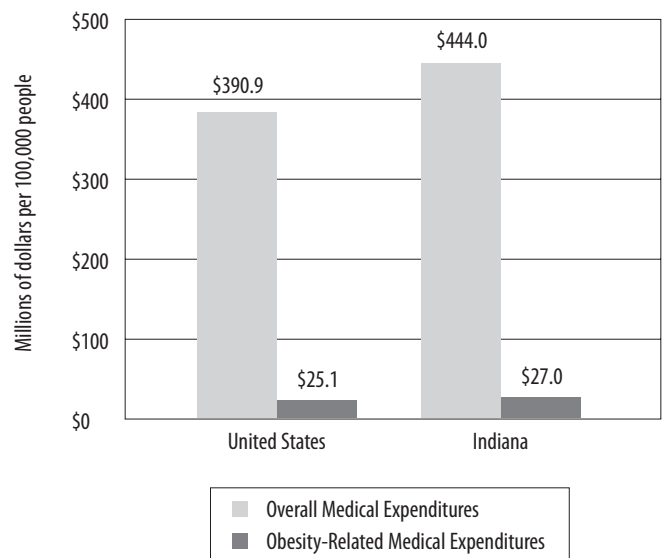
The Costs of Obesity in Indiana

Overall, the percentage of overweight adults in Indiana increased from 46 percent in 1990 to 62 percent in 2004. Additionally, 30 percent of Indiana's youth ages 6 to 19 are overweight, and the percentage of Indiana high school students who are obese increased by 30 percent between 2003 and 2005 (Kolbe, 2005). Given these high proportions, obesity-related illnesses and death are likely to be more common among Indiana residents, resulting in higher healthcare costs for individuals in this state.

In 2000, the state of Indiana spent \$1.64 billion for obesity-related diseases, another cost that is projected to increase. Figure 1 shows overall and obesity-related medical expenditures in Indiana and the nation per 100,000 people. This figure indicates that Indiana's healthcare expenditures are significantly higher per capita than the nation as a whole (Finkelstein, Fiebelkorn, & Wang, 2004).

Medicare and Medicaid finance the majority of obesity-related healthcare expenditures, with nearly a quarter (22.9 percent) of all Medicare and Medicaid expenses in Indiana (\$901 million) going for the treatment of obesity-related illnesses and diseases. However, a study by Oster and colleagues (2000) indicated that a sustained 10 percent weight loss in an individual has the potential to reduce an overweight/obese person's lifetime medical costs by \$2,200 to \$5,300. Applying these estimates to the approximately 3.7 million overweight and obese Hoosiers, we can estimate that \$8 billion to \$19 billion in medical costs could be saved if overweight Hoosiers were successful in losing and keeping off just 10 percent of their weight over the course of their lifetime.

Figure 1. Comparison of overall and obesity-related medical expenditures per 100,000 people in the United States and Indiana, 2000



Source: (Finkelstein, Fiebelkorn, & Wang, 2004)



Reducing Costs of Treatment for Obesity-Related Illnesses

Given the high costs of healthcare, it is important to develop strategies for reducing the costs of obesity-related chronic diseases. One strategy is to treat obesity itself as a disease, and thus promote the acceptance of obesity treatment by private insurance companies, HMOs, Medicare, and Medicaid.

Currently, only *obesity-related diseases* (i.e., diabetes, hypertension, hypercholesterolemia, etc.) are routinely treated and reimbursed. However, some major organizations have begun to change their approach. For example, the World Health Organization and the Centers for Disease Control recently began classifying obesity as a distinct disease, and in 2002, the Internal Revenue Service officially recognized obesity as a disease and allowed expenses for obesity treatment to be claimed as a medical tax deduction. Furthermore, in July 2004, the U.S. Department of Health and Human Services and the Centers for Medicare and Medicaid Services (CMS) jointly announced that the specific phrase “Obesity itself cannot be considered an illness” had been removed from CMS regulations (Mayor, 2004).

Despite the potential cost savings from improved approaches for obesity treatment, insurance companies are generally reluctant to cover preventive treatment. Frequently, insurance companies indicate that they perceive low demand for expanded obesity management and they doubt that patients are willing to pay extra for it. If they are correct and there is a lack of demand for obesity management, it may be due in part to the overabundance of commercial weight-loss products and services for consumers (e.g., Weight Watchers, the Atkins Diet, etc.), an industry on which Americans spent an estimated \$30 billion in 2000 (Stern, Kazaks, & Downey, 2005). Unfortunately, many of these products are not based on credible scientific evidence and are often unsuccessful at helping individuals achieve long-term weight management.

Insurance companies also rarely pay for medications to promote weight loss; 29 states specifically exclude these drugs from Medicaid reimbursement, as do more than 80 percent of employers who provide healthcare insurance to their employees (Downey, 2001). In fact, the Social Security Act (Title XIX, Sec. 1927(d) [42 USC 1396 r-8]) mandates that a state that

includes drugs for its Medicaid recipients must include all FDA-approved drugs “*except those used in the treatment of weight loss or weight gain.*” Given that the costs savings obtained by treating obesity as a disease would not be immediate, insurers will likely need more empirical evidence of improved health outcomes or significant cost savings.

Other ways to reduce healthcare costs related to overweight and its co-morbidities include public initiatives focusing on obesity treatment and prevention. These programs and initiatives should focus on supporting healthy school environments by increasing access to foods and beverages with higher nutritional quality, increasing health education requirements, and increasing opportunities for children to participate in physical activities. States can also support the planning and design of healthy communities through support for local efforts to make towns and cities more conducive to walking. In the workplace, employers can support and sponsor programs that promote healthy eating habits and increase employee access to physical activities.

For the past few years, the federal government has provided funding to states for programs that address poor nutrition and inadequate physical activity. The Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases helps states develop and implement science-based nutrition and physical activity interventions. The program’s major goals are to balance caloric intake and expenditures; increase physical activity; improve nutrition through increased consumption of fruits and vegetables; reduce television time; and increase breastfeeding.

In 2005–2006 thus far, 21 states have each received \$400,000 to \$450,000 in funding for capacity building (i.e., data collection, building partnerships, and creating statewide health plans), and 7 additional states have each received \$750,000 to \$1.3 million in funding for basic implementation (i.e., development of new interventions, evaluation of existing interventions, and support for additional state and local efforts to prevent obesity and other chronic diseases). Table 2 describes some of the initiatives in states that received funding for basic implementation. A comprehensive summary is available at www.cdc.gov/nccdphp/dnpa/obesity/state_programs/.



Table 2. Successful weight-reduction programs by state

PROGRAM OR INITIATIVE	STATE	BRIEF DESCRIPTION
Colorado Physical Activity and Nutrition Program (COPAN) www.cdph.state.co.us/pp/COPAN/COPAN.html	CO	<ul style="list-style-type: none"> • School Site Resource Kit – Focus on helping school administrators, faculty, food service personnel, parents, and students develop healthy eating patterns and active lifestyles • Worksite Resource Kit – Provides employers with resources and programs to implement worksite wellness initiatives • Colorado On the Move – Statewide physical activity campaign encouraging people to increase the number of steps they take each day. Pedometers provided by program to help participants track their steps
5-2-1 Go! www.cdc.gov/nccdphp/dnpa/obesity/state_programs/massachusetts.htm	MA	<ul style="list-style-type: none"> • School-based • Uses Planet Health curriculum and the School Health Index • Primary goal is to increase consumption of fruits and vegetables and decrease consumption of sugar-sweetened drinks • Other goals: increase physical activity and decrease time spent watching television and playing computer games
Nutrition and Physical Activity Self-Assessment for Child Care (NAP-SACC) www.cdc.gov/nccdphp/dnpa/obesity/state_programs/north_carolina.htm	NC	<ul style="list-style-type: none"> • Focus on improving nutrition and physical activity requirements for childcare centers • Conducts self-assessments of local childcare centers and develops personalized action plans based on findings
Eat Smart www.eatsmartmovemorenc.com/	NC	<ul style="list-style-type: none"> • Aims to improve school nutrition while helping schools maintain a positive bottom line • General Assembly passed a provision in the state budget bill to provide a financial safety net for the school districts participating in the pilot program
Activ8 Kids www.health.state.ny.us/prevention/obesity/activ8kids/	NY	<ul style="list-style-type: none"> • Media health promotion • School-based nutrition and physical activity programs • Obesity prevention strategies in food assistance, health, and education • Training programs for medical and other health professionals
Keystone Healthy Zone Campaign www.panaonline.org/programs/khz/	PA	<ul style="list-style-type: none"> • Recognizes schools for efforts to encourage physical activity and sound nutrition • Provides classroom materials and teacher training
Color Me Healthy www.cdc.gov/nccdphp/dnpa/obesity/state_programs/pennsylvania.htm	PA	<ul style="list-style-type: none"> • Intervention for preschool-age children • Goal is to provide educational curricula to childcare centers, family literacy sites, and Head Start programs
School Growth Screening Program www.panaonline.org/programs/khz/screening/intro.php	PA	<ul style="list-style-type: none"> • Helps determine if school-age children are underweight, normal weight, at risk, or overweight • Mandatory screening for children in kindergarten through fourth grade
Safe and Active Routes to School www.wsdot.wa.gov/bike/Safe_Routes_Projects.htm	WA	<ul style="list-style-type: none"> • Increases percentage of youth who meet physical activity recommendations for health • Increases percentage of youth who walk or bike to school or in their neighborhoods • Improves "walkability and bikeability" around schools.
Active Community Environments Grassroots Project www.cdc.gov/nccdphp/dnpa/obesity/state_programs/washington.htm	WA	<ul style="list-style-type: none"> • Increases active living for older adults by ensuring that infrastructure is in place that supports active community environments • Allocates funds to communities for sidewalks, trails, bike lanes, and other non-motorized facilities
Access to Healthy Foods Coalition http://www.accesshealthyfoods.org/	WA	<ul style="list-style-type: none"> • Brings agriculture, food processors and growers, vending machine operators, restaurants, military, physicians, non-profit organizations, and others together to help increase availability of healthful foods
Breastfeeding Assessment Project www.cdc.gov/nccdphp/dnpa/obesity/state_programs/washington.htm	WA	<ul style="list-style-type: none"> • Aids in development of statewide standards for "Breastfeeding Friendly Environments" • Works with organizations in the community to help encourage these environments



Thoughts for Policymakers

The percentage of the population who are overweight or obese is greater in Indiana than in the majority of states, and Indiana's rates are likely to increase along with the costs associated with obesity-related healthcare. Increasing the percentage of income that Hoosiers spend on their healthcare will leave them with less disposable income to spend on other goods and services. In addition, cuts in spending for public insurance programs (i.e., Medicare, Medicaid) in recent years increase the need for the development of public health programs that combat obesity and its associated healthcare costs, while reducing reliance on government health programs.

A number of programs, initiatives, and philosophical shifts show promise for reducing obesity rates and its associated costs. More overweight and obese individuals may become eligible for medical treatment of obesity as a disease as increasing numbers of healthcare professionals and insurance agencies change their perceptions of this problem. The increased access to obesity prevention and treatment services could reduce the number of obesity-related illnesses and diseases for millions of Americans each year, thus saving millions of dollars in annual healthcare expenditures.

INShape Indiana is a public health program designed to support individuals and groups to make healthy lifestyle choices in nutrition, physical activity, and tobacco use by providing supportive resources and recognition for success. The program works to connect residents to programs, services, and events that are offered by organizations and agencies throughout Indiana. Participants also have the option of creating a health profile

with regular updates to help track their progress. Other programs through the Indiana State Department of Health (ISDH) such as 5-A-Day, CDC DNPA Continuing Education Programs, and statewide height and weight data collection for schoolchildren are also serving to increase awareness of the obesity problem in Indiana.

While Indiana's national ranking represents a discouraging trend, the development of several public health initiatives holds some promise for helping to reduce the percentage of overweight and obese residents—a reduction that could eventually reduce associated healthcare expenditures. However, more work is needed, and the state could benefit from additional initiatives, legislation, funding, and programs that focus on lowering the average Body Mass Index of Indiana residents. For example, obesity-reduction programs are most effective when they are integrated into the workplace; so employers should be more active in promoting obesity-risk screenings and fitness activities. In addition, employers should be made more

aware of the potential savings in healthcare costs by agreeing to offer these programs and services to employees. Also, the continued integration of physical and health education into school curriculums is crucial, as is the attention to nutrition when negotiating contracts for food services in schools. Finally, government support and funding for community-based obesity-reduction programs—both public and private programs—is crucial to increase awareness and encourage efforts to reduce this problem.

*W*e can estimate that \$8 billion to \$19 billion in medical costs could be saved if overweight Hoosiers were successful in losing and keeping off just 10 percent of their weight over the course of their lifetime.



Employers may see increases in health insurance costs and absenteeism because of the obesity epidemic. They can combat these trends by offering on-site exercise and health awareness programs.

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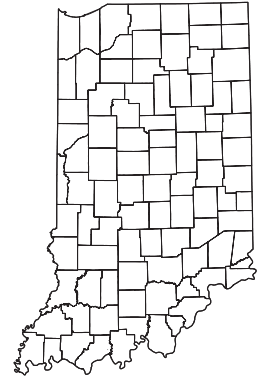


Indiana's Future: Identifying Choices and Supporting Action to Improve Communities

This project, funded by an award of general support from Lilly Endowment, Inc., builds on the Center's research to increase understanding of Indiana. The Center's faculty and staff work to identify choices that can be made by households governments, businesses, and nonprofit organizations to improve our quality of life. Our goal is to understand the people, economics, problems, and opportunities in Indiana, and to help decision-makers understand the impact of policy decisions. The Center also works to mobilize energy to accomplish these goals.

During 2005, Professor Eric Wright and a team of researchers focused on health policy issues joined the Center for Urban Policy and the Environment. This issue brief is one result of their ongoing efforts to investigate the health policy issues that are a vital component of the quality of life in Indiana communities.

The Center for Urban Policy and the Environment is part of the School of Public and Environmental Affairs at Indiana University-Purdue University Indianapolis. An electronic copy of this document and other information about health policy and other community issues can be accessed via the Center Web site (www.urbancenter.iupui.edu). For more information, visit the Web site or contact the Center at 317-261-3000.



State of Indiana

Authors: **Jeff Callis, M.H.A.**, graduate assistant, **Eric R. Wright, Ph.D.**, director of health policy, Center for Urban Policy and the Environment, associate professor, School of Public and Environmental Affairs, and associate director, Indiana Consortium for Mental Health Services Research, **Dustin E. Wright, M.S.**, senior research associate. **Editor:** **Marilyn Michael Yurk**



CENTER FOR URBAN POLICY
AND THE ENVIRONMENT

ADDRESS SERVICE REQUESTED

342 North Senate Avenue
Indianapolis, IN 46204-1708
www.urbancenter.iupui.edu

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