



## Obesity Epidemic: Rates Increase

Obesity has increased dramatically over the past several decades, becoming one of the most significant preventable causes of morbidity and mortality in the U.S. Over the past 20 years, obesity rates have risen steadily in Indiana, from 20 percent in 1995 to 34 percent in 2017. One in three Hoosier adults is obese, and more than two in three are overweight or obese. Indiana's obesity rate is the 12th highest in the U.S. In Marion County, 39 percent of adults are obese, up steadily from 26 percent in 2005 and 33 percent in 2012. Marion County's obesity rate is 11th highest among the largest cities in the U.S., and 69 percent of Marion County residents are overweight or obese.

The prevalence of obesity among Indiana children and teenagers in 2016-2017 was 18 percent, the 11th highest rate of obesity in the U.S. for this age group. More than 13 percent of Indiana's young children from low-income families are obese before they even reach kindergarten. Among eight- to

19-year-olds in Central Indiana schools, one in four children is obese and the prevalence of being overweight is 18 percent. Data from electronic health records indicate that among youth ages two to 20 in Marion County, 23 percent are obese and 17 percent are overweight.

**Over the past 20 years, obesity rates have risen steadily in Indiana, from 20 percent in 1995 to 34 percent in 2017.**

Obesity affects people of all races and ethnicities; however, some groups are disproportionately affected. For example, in Indiana, black adults have a 31 percent higher prevalence of obesity and multiracial adults have a 15 percent higher prevalence of obesity compared with white adults.

## Causes: Driven by Environmental Factors

Obesity is caused by poor diet and physical activity, which are shaped by environmental factors. Most of the population does not consume the recommended amounts of fruits and vegetables or get the nationally recommended amount of physical activity. In Indiana, 89 percent of adults do not consume the recommended number of fruits, and 91 percent do not consume the recommended number of vegetables. Eighty-three percent of Indiana adults did not get enough physical activity to meet the national guideline of at least 150

**Patterns of diet and physical activity are driven in large part by the environments in which people live, work, learn and play.**

minutes of moderate-intensity aerobic activity each week. Although sugar-sweetened beverage (SSB) consumption has declined in recent years, beverages account for approximately 10 to 15 percent of caloric intake in children and adolescents, and consumption of SSBs increases the risk of chronic disease.

In the 2018 American Fitness Index rankings, Indianapolis was ranked 99th out of 100 cities for community fitness. These patterns of diet and physical activity are driven in large part by the environments in which people live, work, learn and play. Social determinants such as income, employment, education, early childhood experiences and development, housing, transportation, food insecurity, stress, social networks, health services, gender, and race/ethnicity can profoundly affect individuals' experiences, perceptions, behaviors and health outcomes.

## Consequences: A Threat to People's Health and Our National Security

Obesity increases the risk of serious health consequences, including type 2 diabetes, high blood pressure, heart disease, stroke, arthritis, asthma, sleep apnea, liver disease, kidney disease, gallbladder disease and certain types of cancer, including thyroid, stomach, colon and others. Compared with adults of healthy weight, adults who are overweight have a 21 to 32 percent greater risk of having cardiovascular disease in their lifetime. For adults who are obese, the risk increases to between 67 and 85 percent greater than adults of healthy weight.

These conditions often begin to develop in childhood, and children who are obese are more likely to be obese as adults. Individuals who are obese are more likely to face stigmatization, anxiety, depression and low self-esteem.

These problems can also be seen in youth who are obese, who are more likely than youth of healthy weight to experience victimization, teasing and bullying. Being overweight or obese is one of the most common reasons for young people to be ineligible to serve in the military, with nearly one in four adults deemed too heavy.

High rates of obesity also translate into high economic costs. In 2017, the estimated economic cost of obesity for Indiana was \$8.5 billion – most of which is borne by individuals and the private sector. This includes lost potential earnings; increased healthcare costs paid by private insurance, employers and individuals; and lost future earnings resulting from premature mortality. This includes \$3.9 billion in labor market costs due to increased absenteeism and lower productivity while

at work. It also includes \$2.9 billion in excess healthcare costs and \$1.7 billion in lost economic output resulting from premature mortality.

**In 2017, the estimated economic cost of obesity for Indiana was \$8.5 billion – most of which is borne by individuals and the private sector.**

## Effective Solutions: A High-Intensity, Cross-Sector Effort

Effectively addressing obesity in Indiana and Marion County requires an intensive, cross-sector effort. The rise in obesity over the past several decades is not the result of changes to the gene pool or the failure of individuals. Rather, it is a function of changes to the policies and environments that influence healthy behaviors. Most interventions to prevent or reduce obesity are focused on the primary modifiable risk factors for obesity: diet and physical activity. The most

effective solutions are high in intensity, longer in duration, and address both diet and physical activity. Policy-based and environmental strategies that affect populations hold considerable promise because they have the potential to affect large portions of the population and do not require individuals to “opt in” to an intervention. While there is strong evidence for some interventions, we are still learning about the effectiveness of many interventions to address obesity.

**Proven and promising approaches exist for healthcare providers, employers, K-12 schools, community partners, policymakers and advocates. Engagement by partners from all sectors will be necessary to substantially decrease rates of obesity.**



- **Healthcare systems** are a natural setting for identifying obesity in children and adults and intervening with effective solutions. This includes recommendations for improving diet and physical activity and providing behavioral counseling. Multidisciplinary teams, including physicians, nurses, medical assistants, dietitians, exercise physiologists and counselors, can work together to support healthy weight in patients by offering effective treatment solutions.



- **Employers** can have the strongest impact on obesity by providing high-intensity interventions to encourage employees to both improve diet and increase physical activity. This typically includes in-person counseling support on nutrition and physical activity delivered through one-on-one or group meetings; provision of information on diet and physical activity through newsletters, brochures, e-mails and presentations; and group classes, such as cooking demonstrations, grocery shopping tours, exercise programs and pedometers.



- **K-12 schools** can promote healthier eating by modifying the cafeteria environment to promote the healthiest options for students. This can be done through offering sliced fruit, using creative names for fruits and vegetables and using branding to make healthier foods more appealing. Schools can promote physical activity through high-quality physical education curricula and engaging students in active recess opportunities through, for example, structured games.



- **Community organizations** can also play a role. For example, there is promising evidence that in-store grocery interventions, such as increasing the availability of healthy items or making fruits and vegetables less expensive through discounts, can improve diet.



- **Government** can utilize a variety of policy mechanisms to support obesity prevention, screening and treatment, including subsidies or regulation to improve health and safety or providing constituents with services, information or education.

## Sources

Karah Mantinan, MPH, RD; Julia Fantacone, MPP; Corwin Rhyan, MPP; and George Miller, PhD, MSE. The Obesity Epidemic in Marion County and Indiana: Causes, Consequences, and Effective Solutions. March 2019.

Centers for Disease Control and Prevention. US Cancer Statistics, 2017.