

Fact Sheet-10-11

What is Obesogenic Environment?

Pamela Powell, UNCE Extension Educator
Karen Spears, UNCE State Specialist
Marlene Rebori, UNCE Area Extension Specialist

Introduction

Obesity rates have increased dramatically in the United States and around the globe (CDC, 2010a). The cause of obesity, which is the consequence of an imbalance between energy intake and energy expenditure, is multifactorial. It is now recognized that external factors, such as distance to a grocery store, parks, urban sprawl and neighborhood safety concerns may contribute to the ability to maintain a healthy weight. How the environment is built can influence an individual's opportunities, as well as barriers, to food intake and physical activity. The obesogenic environment comprises factors in our environment that support being obese. This fact sheet will define obesogenic environment. Subsequent publications will address methods used to evaluate a community's obesogenic environment.

Background

A third of American adults, and 17 percent of our children, are obese. As the prevalence of obesity has increased, so has the concern about its associated economic consequences. The U.S. Surgeon General Richard Carmona stated, "because of the increasing rates of obesity, unhealthy eating habits and physical inactivity, we may see the first generation that will have a shorter life expectancy than their parents" (DHHS, 2004). Obesity has been linked to various chronic diseases, such as type 2 diabetes, cardiovascular disease. osteoarthritis, and certain types of cancer (NIH, 1998). In 2000, poor diet and lack of physical activity were indicated as the second highest causes of preventable death in the U.S; just behind tobacco (Mokdad, et al., 2004). It was also the first time in history that the number of overweight people equaled the number of

undernourished people worldwide (Gardner & Halweil, 2000). The economic implications from obesity are substantial, thereby shaping the health care system. According to the U.S. 2009 Morbidity and Mortality Weekly Report, an estimated \$147 billion in medical costs were associated with U.S. adult obesity (CDC, 2010a).

Contributing Factors to Obesity

Obesity in adults is defined as having a Body Mass Index (BMI) at or greater than 30 kg/m². For children in the U.S., obesity is having a BMI at or above the 95th percentile for age and sex. BMI is based upon height and weight. Recent studies indicate an association between an individual's lifestyle and weight to their neighborhood environment (Papas, et al., 2007). From these studies, it is evident that obesity is driven in part by food and physical environment.

As reported in the Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity (2001), everyone must work together; reshaping community design and the built environment is an essential component. For example, if a community has unsafe walking paths, i.e. cracked sidewalks, unkempt parks and/or limited recreational opportunities, residents are less likely to engage in leisure time physical activity. Compared to low level crime rates, areas having high levels of crime exhibit less activity due to fear of being outside. Long distances to areas conducive to exercise also inhibit physical activity (Papas, et. al., 2007). In addition, if accessibility to healthy food choices is limited, consumption of fresh fruits and vegetables may be curtailed. Designing healthy communities can help America combat obesity and potentially

encourage increased leisure time activity and healthier food choices.

Built vs. Obesogenic Environment

The National Institute of Health describes the "built environment" as all buildings and space created, or modified, by people that form the physical characteristics of a community. It includes a vast array of items - buildings, roads, buses, homes, parks, recreational areas, greenways, shops and other business areas (CDC, 2010b). The term "obesogenic environment" refers to "an environment that promotes gaining weight and one that is not conducive to weight loss" within the home or workplace (Swinburn, et al., 1999). In other words, the obesogenic environment refers to an environment that helps, or contributes to, obesity. Focusing on modifying the obesogenic environment at the community and policy level can impact the community residents at large. These changes could include access to healhy food and access to places to be physically active; thereby, supporting an individual's healthy behaviors.

Summary

As communities look for ways to improve the health of their residents, it is necessary that they look at the surrounding built environment to see if changes are warranted. Having access to healthy foods as well as areas that promote an increase in physical activity may help improve the adoption of a healthy lifestyle and decrease the impacts of obesity. Community residents can help alter their obeseogenic environment through planning and engagement that support activities such as walking and biking to enourage healthier communities and healthier residents.

References

Centers for Disease Control and Prevention (2010a). Vital signs: state-specific obesity prevalence among adults - United States, 2009. *Morbidity and Mortality Weekly Report*, Vol. 59.

Centers for Disease Control and Prevention, (2010b). Healthy Places Terminology. Retrieved from:

http://www.cdc.gov/healthyplaces/terminology.htm

Gardner, G. & Halweil, B. (2000). Underfed and Overfed: The global Epidemic of Malnutrition, Washington, D.C.: Worldwatch Institute.

Mokdad, A., Marks, J., Stroup, D., & Gerberding, J. (2004). Actual causes of death in the United States, 2000. *Journal of the American Medical Association*, 291(10), 1238-1245..

National Institutes of Health, National Heart Lung and Blood Institute, (1998). Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: the evidance report, Item no. 98-4083. Retreived from:

http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf

Papas, M., Alberg, A., Ewing, E., Helzlsouer, K., Gary, T. & Klassen, A. (2007). The built environment and obesity. *Epidemiologic Reviews*, 29,129-143

Swinburn, B., Eggar, G., & Raza., F. (1999). Dissecting obesogenic environments; the development and application of a framework for identifying and prioritizing environmental interventions for obesity. *Preventive Medicine*, 29(6), 563-570.

U.S. Department of Health and Human Services (2001). The Surgeon General's call to action to prevent and decrease overweight and obesity.Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General. Available from: U.S. GPO, Washington.

U.S. Department of Health and Human Services (2004). The growing epidemic of childhood obesity. Statement of Richard H. Carmona, Surgeon General.Retrieved from: http://www.surgeongeneral.gov/news/testimony/ childobesity03022004.htm