

3 The Connection between Land Use and Health

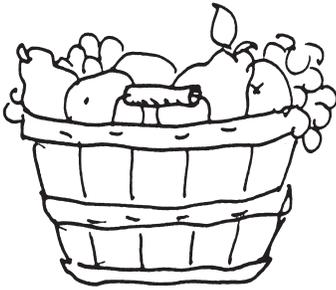
Obesity – caused by poor diet and physical inactivity – is arguably the leading public health challenge facing California today. Left unchecked, the impact of increasing obesity rates will be devastating in both public health and economic terms. In addition to the increased individual risk for heart disease, stroke, type 2 diabetes, and some cancers, the combined annual costs of obesity-related chronic disease risk factors in California reach \$21.68 billion a year, attributed to medical care (\$10.16 billion, of which \$2.28 billion, or 22.44%, is MediCal payments for low-income people)¹, lost employee productivity (\$11.2 billion), and workers' compensation (\$338 million).

There is growing recognition of the importance of the built environment and land use policy in promoting good health, including weight control.² As a result, some cities and counties have increasingly taken steps to implement walking and biking plans and to encourage patterns of development that discourage automobile dependency.

Multiple factors have been associated with the recent obesity epidemic,³ but the marked increase in the prevalence of obesity appears to be in large part attributable to environmental conditions that implicitly discourage physical activity while encouraging the consumption of greater quantities of energy-dense, low-nutrient foods.⁴ Three of the leading risk factors include:

- ▶ **Lack of access to healthy foods:** Public health leaders document the lack of access to healthy foods as a major contributing factor to obesity and poor eating. The Food Marketing Policy Center at the University of Connecticut found that in most cities, low-income consumers – especially those receiving public assistance – tend to live in areas that do not have supermarkets.⁵ California Food Policy Advocates, meanwhile, notes: “While poverty is the main cause of malnutrition in California, lack of access to nutritious, affordable food is also a critical element. The flight of supermarkets to the suburbs, inadequate public transportation, and a paucity of healthy foods at corner stores are all factors that contribute to lack of healthy food access in low-income neighborhoods.”⁶
- ▶ **Lack of access to physical activity:** The link between obesity and the lack of opportunities for physical activity is addressed in a 2005 report by the Institute of Medicine (IOM), *Preventing Childhood Obesity: Health*

*in the Balance.*⁷ More than one-half of U.S. adults (54.6 percent) are not sufficiently active to meet recommendations for physical activity, and only 28.4 percent of high school youth participate in daily physical education classes.⁸



► **Easy access to unhealthy foods:** The corollary to the lack of access to healthy foods is the all-too-easy access to unhealthy foods. While this problem is true in all communities regardless of income, it especially affects low-income communities that have the least opportunities available in their neighborhoods to choose healthy foods.⁹ Research has implicated environmental influences (e.g., number and proximity of fast food restaurants) on body weight as a primary contributor to the development of the obesity epidemic.¹⁰

At first glance, land use policy may not appear to have a significant role in addressing the obesity epidemic. Over the past few years, however, municipal officials and public health professionals have increasingly come to realize that land use policy has the potential to make a unique and powerful contribution toward addressing this problem.¹¹ The IOM calls for the following steps:

Local governments, private developers, and community groups should expand opportunities for physical activity, including recreational facilities, parks, playgrounds, sidewalks, bike paths, routes for walking or bicycling to school, and safe streets and neighborhoods, especially for populations at high risk of childhood obesity.¹²

Some local governments, private developers, and community groups have already begun to take such actions. Indeed, a number of cities and counties already have in place comprehensive bicycle and pedestrian plans, open space policies designed to encourage active use of parks and recreational facilities, programs to encourage local farmers' markets and neighborhood grocery stores, and other similar initiatives.

There are additional links to be made between land use and health. Road design and the location and siting of polluting industries affects air quality and thus rates of asthma and other lung diseases. Many of the basic concepts and strategies in this toolkit can be used to address land use responses to health impacts other than obesity. The focus in this toolkit is, however, obesity and access to food and opportunities for physical activity.

It may be helpful to realize that the modern disciplines of city planning and public health both derive from common roots and share similar objectives, strategies, and standards.¹³ The early planning zoning measures in the United States were enacted to attempt to reduce the spread of disease. In 1901, New York City passed a then-radical law requiring that tenements be constructed in a manner that would allow light and air in all apartment

rooms, as well as improved sanitary facilities. The goal was improved health, not more attractive buildings. Similarly, Frederick Law Olmsted, the great 19th century landscape architect, designed places like Golden Gate Park in San Francisco and Druid Hill Park in Baltimore because he believed that parks were necessary for the morals and health of factory workers. Public health professionals and planners are practitioners in sibling fields!

-
- 1 D. Chenowith et al., THE ECONOMIC COSTS OF PHYSICAL INACTIVITY, OBESITY, AND OVERWEIGHT IN CALIFORNIA ADULTS: HEALTH CARE, WORKERS' COMPENSATION, AND LOST PRODUCTIVITY, at 4 (April 2005), available at www.dhs.ca.gov/ps/cdic/cpns/press/downloads/CostofObesityToplineReport.pdf (last visited 9/7/05).
 - 2 J. Schilling et al., *The Public Health Roots of Zoning: In Search of Active Living's Legal Genealogy*, 28(2S2), AMERICAN JOURNAL OF PREVENTIVE MEDICINE, 96 (2005), available at <http://download.journals.elsevierhealth.com/pdfs/journals/0749-3797/PIIS0749379704003083.pdf> (last visited 9/7/05).
 - 3 For a more complete discussion of the factors contributing to obesity see Department of Health and Human Services, Centers for Disease Control and Prevention, OVERWEIGHT AND OBESITY: AN OVERVIEW, available at www.cdc.gov/nccdphp/dnpa/obesity/contributing_factors.htm (last visited 9/7/05).
 - 4 C. L. Hayne, *Regulating Environments to Reduce Obesity*, Vol. 25, No. 3/4, JOURNAL OF PUBLIC HEALTH POLICY, 48 (2004).
 - 5 R. W. Cotterill, THE URBAN GROCERY STORE GAP, FOOD MARKETING POLICY CENTER, UNIVERSITY OF CONNECTICUT, ISSUE PAPER NO. 8 (April 1995).
 - 6 E. Bolen & K. Hecht, NEIGHBORHOOD GROCERIES: NEW ACCESS TO HEALTHY FOOD IN LOW-INCOME COMMUNITIES, CALIFORNIA FOOD POLICY ADVOCATES, at 4 (2003), available at www.cfpa.net/Grocery.PDF (last visited 9/7/05).
 - 7 Institute of Medicine, PREVENTING CHILDHOOD OBESITY: HEALTH IN THE BALANCE (The National Academies Press 2005), available at www.nap.edu/books/0309091969/html/ (last visited 9/7/05).
 - 8 Ibid at 37–38.
 - 9 USDA, FOOD AND NUTRITION SERVICES, PROMOTING HEALTHY EATING: AN INVESTMENT IN THE FUTURE, A REPORT TO CONGRESS, at 10 (1999), available at www.fns.usda.gov/oane/MENU/Published/NutritionEducation/Files/PromotingHealthyEating.PDF (last visited 9/7/05).
 - 10 Institute of Medicine at 257.
 - 11 R. Jackson, *The Impact of the Built Environment on Health: An Emerging Field*, Vol. 93, No. 9, AMERICAN JOURNAL OF PUBLIC HEALTH, 1382 (September 2003).
 - 12 Institute of Medicine, PREVENTING CHILDHOOD OBESITY: HEALTH IN THE BALANCE (The National Academies Press 2005), available at www.nap.edu/books/0309091969/html/ (last visited 9/7/05).
 - 13 Marice Ashe et al., *Land Use Planning and the Control of Alcohol, Tobacco, Firearms, and Fast Food Restaurants*, Vol. 93, AMERICAN JOURNAL OF PUBLIC HEALTH, 1404-1405 (2003).