



THE COLLABORATIVE ON HEALTH AND THE ENVIRONMENT - WASHINGTON



RESEARCH AND INFORMATION WORKING GROUP

SPRAWL, LAND USE AND HEALTH

FACT SHEETS ON HEALTH AND ENVIRONMENT IN WASHINGTON

INTRODUCTION

Sprawl is “dispersed, compartmentalized, automobile-oriented urban development.” It is often measured by residential density—the number of people who live on an acre of land. Sprawl is associated with several diseases and disabilities, especially obesity, diabetes, and injuries and death resulting from automobile accidents.

Recent books on sprawl, land use and health include:

- *Health and Community Design: The Impact of the Built Environment on Physical Activity* by Lawrence Frank et al. (2003) Island Press
- *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities* by Howard Frumkin, Lawrence Frank and Richard Jackson (2004) Island Press
- *Sprawl Kills: How Blandburbs Steal Your Time, Health and Money* by Joel Hirschhorn (2005) Sterling and Ross Publishers

SPRAWL, LAND USE AND HEALTH IN WASHINGTON STATE

- Nationally, metropolitan counties with the most sprawl tend to have the highest rates of obesity and the lowest levels of physical activity.¹
- People who live in pedestrian-friendly neighborhoods (with interconnected streets, a mixture of residences, stores and businesses, and a safe and pleasant streetscape) get more exercise and are less likely to be obese than people in sprawling suburbs.²
- From 1990 to 2002, obesity rates in Washington rose from 9.4% to 21.3%.³ In 2002, more than half (59%) of all Washington residents were considered obese (21%) or overweight (38%).⁴
- 21% of Washington high-school students are overweight or at risk of becoming overweight.⁵ 7% are obese.⁶
- Obesity rates in Washington are higher in groups with lower incomes.⁷
- African American and American Indian populations have higher obesity rates than other racial groups.⁸

- Obesity increases the risk of diabetes, heart disease, stroke, high blood pressure and many other diseases.
- Treating the diseases caused by obesity and physical inactivity costs at least \$1 billion a year in Washington state.⁹
- In 2004, 6.4% of Washington residents had diabetes.¹⁰
- A study on land use and health in King County found that a 5% increase in the “walkability” of a neighborhood led to a per capita increase of 32.1% in physical activity. It also meant 6.5% fewer vehicle miles traveled and 5.5% fewer grams of volatile organic compounds emitted into the air.¹¹

COMPARING WASHINGTON STATE NATIONALLY

- Seattle is not one of America’s “Top 30 Most Obese Cities,” according to the American Obesity Association. Rates of obesity in Washington state and the Pacific Northwest are not significantly higher or lower than rates in other parts of the country.¹²
- In 2004, Washington had the 18th-highest rate of diabetes in the US.¹³

SOURCES

1 Reid Ewing et al., “Relationship Between Urban Sprawl and Physical Activity, Obesity and Mortality,” *American Journal of Health Promotion*, Sept./Oct. 2003; vol.18, n.1;pp.47-57; Russ Lopez, “Urban Sprawl and Risk for Being Overweight or Obese,” *American Journal of Public Health*, Sept.2004;v.94,n.9;pp. 1574-1579.

2 Lawrence D. Frank et al. op. cit. note 7

3 <http://apps.nccd.cdc.gov/brfss/Trends/trendchart.asp?qkey=10010&state=WA>

4 <http://www.doh.wa.gov/HWS/TOC.shtm>

5 <http://apps.nccd.cdc.gov/brfss/Trends/trendchart.asp?qkey=10010&state=WA>

6 <http://www.doh.wa.gov/EHSPHL/Epidemiology/NICE/publications/yrbs99.pdf>

7 <http://www.doh.wa.gov/HWS/TOC.shtm>

8 <http://www.doh.wa.gov/HWS/TOC.shtm>

9 Lawrence D. Frank et al, “Obesity Relationships with Community Design, Physical Activity and Time Spent in Cars,” *American Journal of Preventive Medicine*, 2004, v.27, n.2, pp.87-96; Brian E. Saelens, “Neighborhood-Based Differences in Physical Activity: An Environment Scale Evaluation,” *American Journal of Public Health*, Sept. 2003, v.93, n.9; Lawrence D. Frank et al., “Linking Objectively Measured Physical Activity with Objectively Measured Urban Form: Findings from SMARTRAQ,” *American Journal of Preventive Medicine*, 2005, v.28, n.252; and Billie Giles-Corti and Robert J. Donovan, “Relative Influences of Individual, Social Environmental, and Physical Environmental Correlates of Walking,” *American Journal of Public Health*, Sept.2003, v.93, n.9, pp. 1583-15.

10 <http://apps.nccd.cdc.gov/brfss/display.asp?cat=DB&yr=2004&qkey=1363&state=WA>

11 <http://pqasb.pqarchiver.com/planning/access/987425121.html?did=987425121&FMT=ABS&FMTS=ABS:FT:TG:PAGE&dids=987425121:987425121:987425121:987425121:&date=Winter+2006&author=Lawrence+D+Frank&pub=American+Planning+Association.+Journal+of+the+American+Planning+Association&desc=Many+Pathways+from+Land+Use+to+Health>

12 <http://www.obesity.org/education/global.shtml>

13 <http://apps.nccd.cdc.gov/brfss/display.asp?cat=DB&yr=2004&qkey=1363&state=WA>