

Obesity Among People with Disabilities in Oregon

Oregon Office on Disability and Health Data & Policy Brief: Summer 2007

Obesity in America is a growing epidemic. According to the Centers for Disease Control and Prevention (CDC), the percentage of adults aged 20-74 who are obese has more than doubled since the mid-seventies.¹ A similar trend is apparent in Oregon, where obesity among adults aged 18 years and older has increased from 10.9% in 1990 to 23.8% in 2005.²

Excess weight is associated with an increased incidence of cardiovascular disease, type-2 diabetes mellitus, hypertension, stroke, osteoarthritis, and some cancers.³ The negative health consequences of obesity may even exceed those of smoking or problem drinking.⁴ As the weight of Oregonians and all Americans grows, so do the health consequences and financial costs for states and the nation. Medical costs in Oregon related to obesity totaled \$781 million in 2003.⁵

Obesity results from an imbalance between the number of calories consumed as food and beverages and the number of calories burned through physical activity. However, genes, environment, culture, and socioeconomic status all play a role in addition to individual behaviors.¹ A few studies have examined the relationship between disability and obesity. An analysis of National Health Interview Survey data found that people with disabilities were more likely to be obese than people without disabilities, even when controlling for other differences such as age, sex, race, education, and income.⁶ A study of women with physical disabilities found significantly higher obesity prevalence compared to national averages for women.⁷ Additionally, it was noted that difficulty with weight management was one of the most frequently reported secondary conditions among women with disabilities.⁷ Similarly, data from the Behavioral Risk Factor Surveillance System (BRFSS) show strong correlations between disability status and obesity. Analyses of Oregon BRFSS data from 2000 through 2004 indicate that the prevalence of obesity is consistently several percentage points higher among adults with disabilities than among adults without disabilities (results available from the Oregon Office on Disability and Health).

This brief provides an updated comparison of obesity prevalence among people with and without disabilities in Oregon. Obesity among people with disabilities is further analyzed based on how people responded to two disability screener questions on the survey.

Data Source and Definitions

The data shown here are from BRFSS data collected in Oregon in 2005. The BRFSS is an annual random-digit dialed telephone survey, funded primarily by the CDC. Each state and territory within the United States surveys non-institutionalized adults (≥ 18 years) about conditions and behaviors relating to the ten leading causes of death in the U.S. population.

Health risk related to weight status was defined based on body mass index (BMI). BMI is determined by dividing the weight of a respondent in kilograms by their height in meters squared. It was calculated based on self-reported height and weight. Respondents with a BMI less than 25.0 were defined as not at increased risk for chronic disease due to excess weight (a "healthy" BMI). Respondents with a BMI of 25.0 to 29.99 were defined as overweight. Respondents with a BMI of 30.0 or greater were defined as obese.

Disability was defined as an affirmative response to one or both of the following two questions:

1. Are you limited in any way in any activities because of physical, mental, or emotional problems?
2. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?

Demographics

In 2005, a total of 12,015 people received a version of the survey containing the disability questions. Of these, 3350 had a disability. Demographic characteristics of respondents with and without disabilities are shown in Table 1.

Table 1. Respondent Demographics

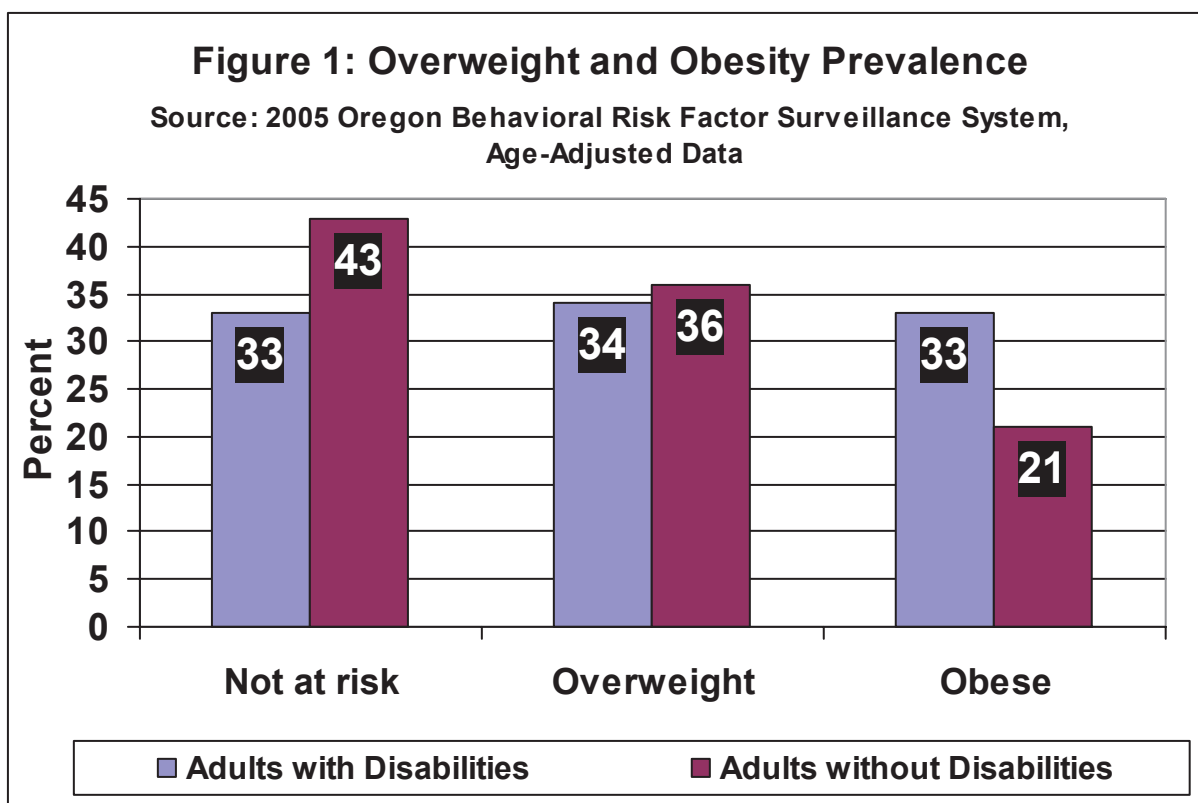
| | | People with Disabilities | People without Disabilities |
|--|--------------------------------------|--------------------------|-----------------------------|
| | | 3350 | 8457 |
| | | | |
| | % Female | 55.1 | 49.5 |
| | | | |
| | % African American only | 0.6 ^b | 0.7 |
| | % American Indian/Alaska Native only | 1.8 | 1.3 |
| | % Asian/Pacific Islander only | 1.3 ^b | 1.9 |
| | % White only | 86.6 | 82.3 |
| | % Hispanic or Latino/a only | 0.9 ^b | 5.4 |
| | % Multiracial/Other | 8.8 | 8.4 |
| | | | |
| | Average | 53.1 | 44.0 |
| | Range | 18 – 99 | 18 – 94 |

^a 208 people were missing data on both disability questions.

^b Percentage is based on fewer than 50 respondents and may not accurately reflect the entire population of people

Obesity Among People With and Without Disabilities

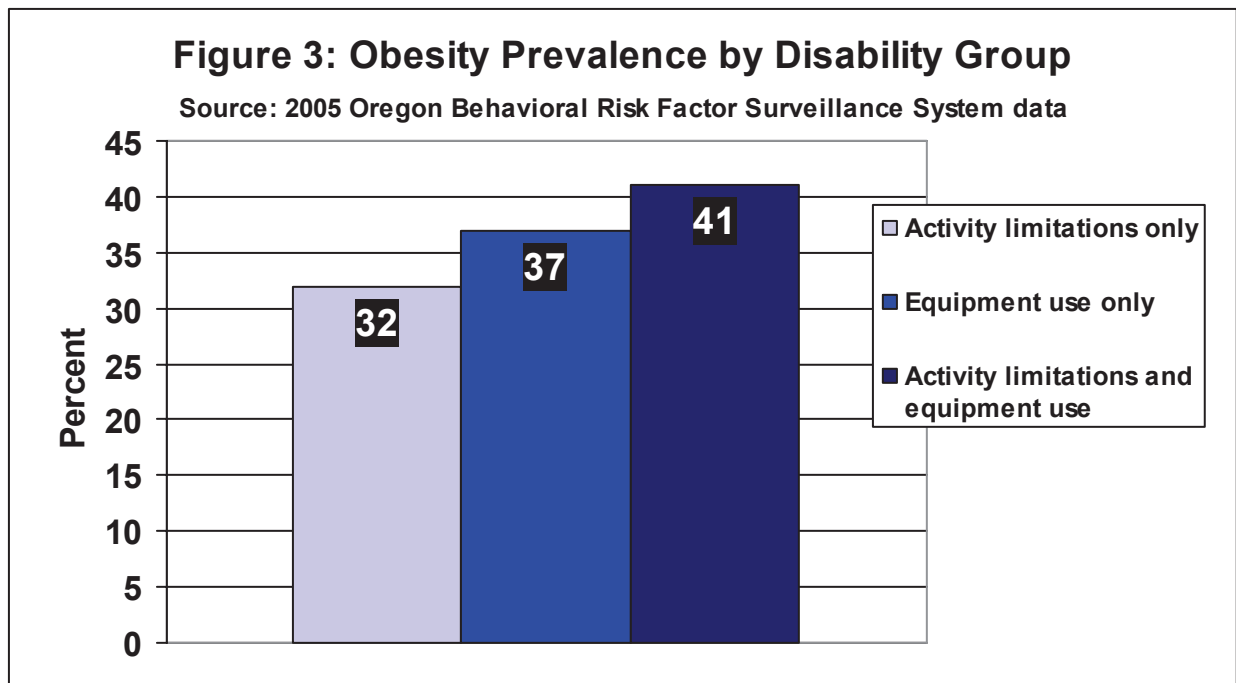
The prevalence of obesity was 34.5% among adults with disabilities, compared to 20.5% among respondents with no disability. However, obesity varies with age, and people with disabilities are older on average than people without disabilities. To better compare these two groups, we used a technique called age adjustment. Age-adjusted rates allow comparison of one group to another by adjusting for differences that could result from one group being, on average, older or younger than the other group. Figure 1 shows age-adjusted overweight and obesity prevalence for people with and without disabilities. Compared to people without disabilities, people with disabilities were less likely to be in the “not at risk” category (not overweight or obese) and more likely to be obese. These differences were statistically significant, or more likely than chance.



The obesity difference between people with and without disabilities was particularly striking among women (Figure 2). Women with disabilities were nearly twice as likely to be obese as women without disabilities. Although the difference between men with and without disabilities was smaller, it was also statistically significant.

Obesity in Specific Disability Groups

Among people with disabilities, obesity prevalence differed depending on which of the disability screener questions respondents answered yes to (Figure 3). The difference in obesity between people with activity limitations only and people who answered yes to both questions was statistically significant. The "equipment use only" group was not significantly different from the other two groups. Figure 3 shows obesity prevalence without age-adjustment. When adjusting for age differences between the disability groups, the differences in obesity were no longer statistically significant.



Implications and Recommendations

Obesity is a recognized cause of disability. It can lead to new activity limitations and can exacerbate pre-existing disabilities.⁶ However, obesity can also be a consequence of disability. Certain types of disabilities may affect the amount of exercise a person can do and their energy requirements. More importantly, people with disabilities have said that they do not typically feel included in health promotion efforts or see themselves reflected in standard health promotion materials.⁸ Health promotion programs may need to be tailored to people with disabilities to address the particular needs of this population. Recent studies have found that even brief interventions, such as health promotion classes specifically targeted to people with disabilities, can lead to significant improvements in health behaviors and reductions in weight.^{9, 10}

Beyond a focus on individual behaviors, changes in the environment are needed. People with disabilities often have fewer opportunities for physical activity and experience more barriers than people without disabilities. For example, an assessment of 50 physical activity centers in western Oregon found that none of them were in complete compliance with the Americans with Disabilities Act.¹¹ Furthermore, many people with disabilities have limited incomes and cannot afford gym memberships. In addition to increasing physical accessibility, gym and fitness centers should consider a sliding scale fee policy. Fitness centers can also require additional disability-specific training for personal trainers, and include a "clients with disabilities" section in staff training manuals to ensure that client/staff interactions are positive and supportive.

People with disabilities are more likely to live in areas with fewer health promoting amenities such as sidewalks, parks, and affordable sources of healthy food.¹² Where such facilities are available, they may or may not be wheelchair accessible or easily useable by people with a variety of disabilities. City and county master plans should include provisions to ensure equitable distribution of sidewalks and green spaces. City and county zoning policies should foster healthy eating by promoting easy access to grocery stores and markets.

Future health promotion and community planning efforts should consider issues such as:

- Access to and cost of physical activity venues
- Accessible, cheap, and convenient transportation to reach these locations
- Availability of information about physical activity opportunities and healthy food sources that are accessible to people with disabilities

Summary

Obesity impacts the health and quality of life of Oregonians both with and without disabilities, but it is more common among people with disabilities. One out of every three Oregon adults with a disability is obese. Both individual and community-level changes are needed to reduce obesity and improve the health of people with disabilities in Oregon.

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