suspecting and knowing are not the same.

— Rick Riordan, The Lightning Thief

Until recently, data on weight status for children in elementary school have been limited. We thought we had some idea what was going on for this group in Oregon, given data from national sources such as the National Health and Nutrition Examination Surveys (NHANES) and the National Survey of Children’s Health (NSCH). But prior to 2012, no Oregon-specific body mass index (BMI) data on children were available. This CD Summary explores the findings of the 2012 Healthy Growth Survey, our first-ever assessment of body mass index (BMI) among 6- to 9-year-olds in Oregon.

SURVEY

The BMI assessment for the Healthy Growth Survey was conducted in combination with an oral health assessment done as part of the 2012 Smile Survey. Children in 1st, 2nd, and 3rd grades in randomly selected schools in specific regions of the state were weighed and measured. BMI was calculated and used to assess overweight and obesity rates in this population.

During the past few years, at least nine states implemented combined school-based oral health and BMI assessment to gather data mainly on third grade students. Oregon is unique in having gathered height and weight data on students in 1st to 3rd grade.

RESULTS

Third graders (8- to 9-year-olds): Because surveys from other parts of the country focus on third graders (8- to 9-year-olds), we have to specifically look at that age group to assess how Oregon compares to other states. Rates of overweight and obesity among Oregon third graders fall in the middle of the national range. Among Oregon third graders in our 2012 survey, 17% were overweight, and 18% were obese. In the nine states that have done similar assessments, the prevalence of overweight among third graders was 15%–18% and obesity was 13%–24%.

All first- to-third-graders (6- to 9-year-olds). Overall, nearly one-third of all 6- to 9-year-olds were overweight or obese: 15% were overweight, 15% were obese, 68% were within a healthy weight range and 2% were underweight (Figure 1).

Figure 1. Weight status of 6–9 year-old children, Oregon, 2012

- Obese, 15%
- Overweight, 15%
- Underweight, 2%
- Healthy weight, 68%

4 Per CDC BMI-for-age growth chart: 85th to <95th percentile: overweight;

While these data help give us a sense of the distribution of weight status among 6- to 9-year-old children in Oregon, the remainder of this CD Summary focuses specifically on obesity among children this age. Obesity among children this age is associated with known health risks and increased chances of being obese as an adult.

Obesity and Age: We found that older children (age 8–9 years) had a significantly higher rate of obesity than younger children (age 6–7 years) (Figure 2). This finding is consistent with data from previous studies that have assessed children of various ages and consistently found that older children have higher rates of obesity than younger children. In particular, data from one longitudinal study found third graders to have higher rates of obesity than first graders, with the largest gains in BMI occurring between first and third grades.

Obesity and Household Income: We found that children from lower-income households had a significantly higher rate of obesity than children from higher-income households (Figure 3). Other studies had similar findings, although the age ranges studied were different (between age 2 years to 19 years, depending on the study).

Figure 3. Obesity by household income, 6–9 year old children, Oregon, 2012

- Lower income: 19%‡
- Higher income: 10%‡

‡ Statistically significant difference

Obesity and Race/Ethnicity: We found that only Hispanic children had a significantly higher rate of obesity than white children (Figure 4). African American and Asian children did not have significantly different rates of obesity compared to white children. These findings are slightly different from those of other national studies, which found higher rates of...
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The document, 'Promoting healthy growth and development in early childhood' (see http://public.health.oregon.gov/HealthyPeopleFamilies/Children/PromotingHealthyWeight/Documents/childhood-obesity.pdf) includes strategies for addressing the many issues that contribute to childhood obesity.

REFERENCES


