

2010-2012 Overweight and Obesity Prevalence Among School- Aged Children in Suburban Cook County, Illinois

Introduction

Overweight and obesity among children is a major public health concern in suburban Cook County (SCC), where 40% of 9th graders are overweight or obese compared to 32% of 9th graders in the U.S.¹

Preventing childhood obesity is important to our children's health and well-being. Children and young people who are obese are more likely to be obese as adults² and are at increased risk of developing serious health problems including heart disease, type 2 diabetes, sleep apnea, depression and liver disease³. Obesity in children can have negative social and emotional consequences; for example, teasing and bullying⁴. Additionally, annual medical costs including prescription drug, emergency room, and outpatient costs for obese children in the U.S. are estimated to be \$14.1 billion higher per year than for non-obese children⁵.

To determine the extent and distribution of overweight and obesity among school-aged children in SCC, the Cook County Department of Public Health in collaboration with the Consortium to Lower Obesity in Chicago Children at Ann and Robert H. Lurie Children's Hospital of Chicago conducted an assessment. This brief shares key findings and recommendations for future efforts.

What was done

Information needed to calculate Body Mass Index (BMI)ⁱ, including height, weight, age and sex, was recorded from student Certificate of Child Health Examination formsⁱⁱ. Using this information, age- and sex-adjusted BMI percentilesⁱⁱⁱ were collected from 37,702 students in 129 SCC public schools during school years 2010-11 and 2011-12. Data were available for students in kindergarten, 6th and 9th grades.

Children with age- and sex-adjusted BMI percentile scores of 85 to 94 are categorized as overweight, and those with scores above 94 are classified as obese. The sampling method used allowed for generalization of overweight and obesity estimates for public school students in SCC by age, grade and region in which they attend school.

Summary of Key Findings

1 Overall, the overweight and obesity rates in SCC are higher than national averages.

2 There are significant differences in obesity rates between regions.

3 Obesity rates in the west, south and southwest regions are higher than national rates.



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1 Key Finding
Overall, overweight and obesity among SCC students are higher than national averages for children in similar age groups. These differences are statistically^{iv} significant for kindergarten and 9th grade.

Table 1 | Overweight and Obesity Rates, School Aged Children, Comparison of Suburban Cook County, Illinois and U.S.

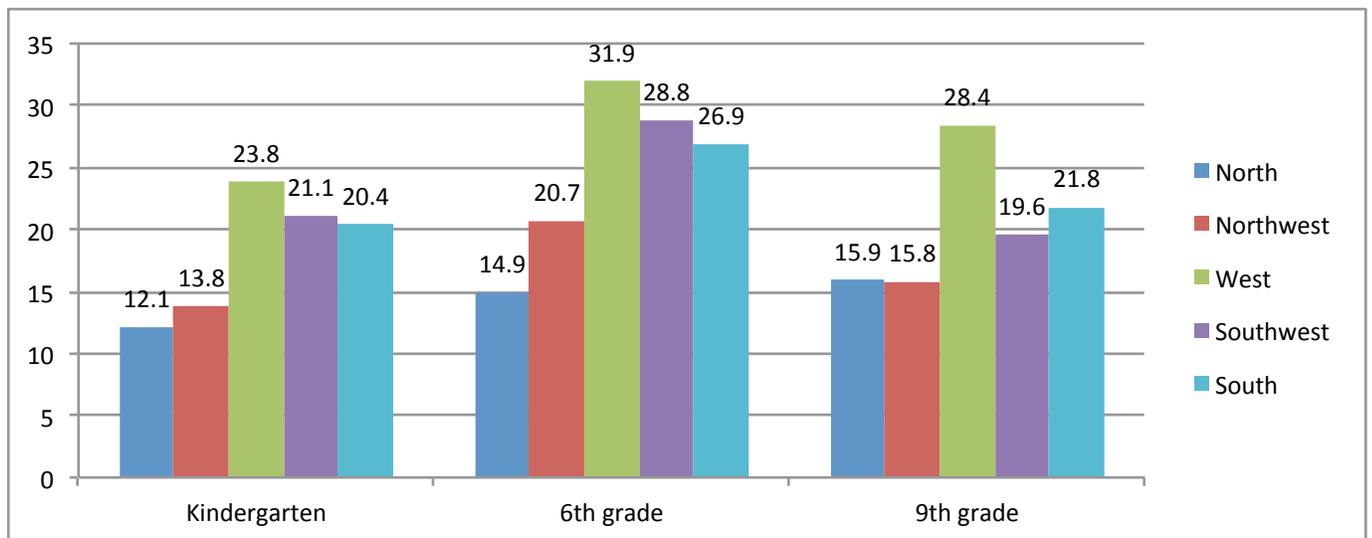
	Kindergarten (4.5–6.5 years old)		6th Grade (10.5-12.5 years old)		9th Grade (13.5–15.5 years old)	
	% Overweight	% Obese	% Overweight	% Obese	% Overweight	% Obese
SCC	14.9	17.9	18.4	23.8	18.9	20.8
U.S.	11.4	12.7	18.6	20.4	15.4	16.7

U.S. Data Source: National Health and Nutrition Examination Survey (NHANES) data (2005-2010)

2 Key Finding
By SCC region, there are statistically significant differences in child obesity rates.

- ▶ Obesity rates in the west region of SCC are the highest for all grades.
- ▶ Obesity rates in the west, south and southwest regions of SCC are significantly higher than that of the north and northwest regions of SCC.
 - Obesity rates are generally twice as high in the west region of SCC as compared to the rates in the north.
 - Compared to the north region of SCC, obesity rates in the south and southwest regions are nearly 75% higher for kindergartners; over 80% higher for 6th grade students; and over 25% higher for 9th grade students.

Chart 1 | Obesity Rates by Region of Suburban Cook County, Illinois



3 Key Finding

Obesity rates in the west, south and southwest regions of SCC are higher than national rates for children in similar age groups.

- ▶ In the west region of SCC, the obesity rate for kindergartners is nearly twice the national rate; and is 64% and 58% higher, respectively, for 6th and 9th grade students than the national rate.
- ▶ Compared to national rates, obesity rates in the south and southwest regions of SCC are nearly 60% higher for kindergartners; over 85% higher for 6th grade students and nearly 25% higher for 9th grade students.



Recommendations

Childhood obesity affects thousands of children in SCC. Prevention is more cost effective than treatment of obesity. An integral part of the solution to addressing obesity is one that includes implementing policies **and** evidence-based programs that create supportive environments that promote healthy eating and active living.

Additionally, continued monitoring of child overweight and obesity prevalence in SCC is needed. These data, which are the first obesity prevalence rates available specifically for SCC, allow for understanding the extent and distribution of overweight and obesity among school-aged children in SCC. A system for continued surveillance is necessary to inform resource allocation decisions and to monitor progress in reducing overweight and obesity among SCC students.

Definitions

- Body Mass Index (BMI) is the relationship of height to weight.
- In Illinois, completed Certificate of Child Health Examination forms (CCHE) forms are required for all public school students by October 15th of their kindergarten, 6th and 9th school years. The CCHE is completed by parents and an authorized health professional. Parents complete a section on family background and chronic conditions. Health care providers provide clinically-measured and diagnosis data including weight and height. Demographics such as age, gender (and as of January 2013, race/ethnicity) are also included.
- Sex- and age-adjusted BMI percentile scores are used to determine weight status because children’s growth fluctuates as they age and growth patterns differ by sex and age. Age- and sex-adjusted BMI percentile scores indicate how a child compares to others of the same age and sex. For example, a child with a BMI percentile score of 95 has a BMI greater than 95% of children his same age and sex. Weight status categories are assigned based on percentile scores. BMI percentile scores between 85 and 94 are categorized as overweight. BMI percentile scores equal to or greater than 95 are categorized as obese.
- When differences are described in this report as “statistically significant” or “significantly higher”, it means that the likelihood of these differences occurring by chance is small – less than 5%. In other words, if we repeated this analysis 100 times, we are likely to find differences of similar magnitude at least 95 out of 100 times.

References

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