



Prevention Research Center for Healthy Neighborhoods
at Case Western Reserve University

2013 Cuyahoga County Youth Risk Behavior Survey: Obesity and Weight Control

Introduction

The Prevention Research Center for Healthy Neighborhoods (PRCHN) at Case Western Reserve University has administered the Youth Risk Behavior Survey (YRBS) in school districts throughout Cuyahoga County since 2000. The YRBS is a cross-sectional tool developed by the Centers for Disease Control and Prevention (CDC) to track adolescent risk behavior over time. In spring of 2013, the PRCHN conducted the YRBS among 9th through 12th grade students in Cuyahoga County high schools. A more detailed description of the methodology is available at our website, <http://prchn.org/yrbs.apsx>.

This brief report presents results from the 2013 Cuyahoga County High School Youth Risk Behavior Survey, with a particular focus on Obesity & Weight Control. In this brief report, we present:

- [Overall Prevalence](#)
- [Regional Prevalence](#)
- [Demographic Prevalence](#)
- [Trend Report](#)
- [Comparison to State and Nation](#)

Data for similar behaviors can be found at our website, <http://prchn.org/yrbs.aspx>

Obesity and Weight Control

Obesity has reached epidemic proportions. In the past 20 years, the prevalence of obesity has increased by more than 60% among adults and tripled in children and adolescents.ⁱ Overweight adolescents often become overweight adults with an increased risk for a wide variety of poor health outcomes including diabetes, stroke, heart disease, arthritis and certain cancers.^{ii, iii} Obesity during adolescence is associated with negative psychological and social consequences and health problems such as type 2 diabetes, obstructive sleep apnea, hypertension, dyslipidemia, and metabolic syndrome.^{iv}

Obese was defined as a BMI of $\geq 95^{\text{th}}$ percentile for age and sex. Overweight was defined as a BMI of $\geq 85^{\text{th}}$ percentile and $< 95^{\text{th}}$ percentile for age and sex. Normal weight was defined as a BMI of $\geq 5^{\text{th}}$ percentile and $< 85^{\text{th}}$ percentile for age and sex. Underweight was defined as a BMI of $< 5^{\text{th}}$ percentile for age and sex. It is important to note that BMI is calculated using self-reported height and weight and, therefore, may underestimate the actual prevalence of overweight and obese.

Healthy People 2020

Where possible, the Cuyahoga County Youth Risk Behavior Survey (YRBS) data are compared to the Healthy People 2020 benchmarks.^v This allows us to consider Cuyahoga County's progress towards the 10-year national objectives aimed at improving the health of all Americans.

Healthy People 2020 Objectives	Cuyahoga County 2013
NWS-10.3: Reduce the proportion of adolescents aged 12 to 19 years who are considered obese to no more than 16.1%	12.6% of Cuyahoga County high school students were considered obese.

Overall Prevalence

The following table summarizes obesity and weight control among the 16,855 high school students who completed the 2013 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all variables.

Risk Behavior	% (95% Confidence Interval)
Obese (Having a BMI of >95 th percentile for age and sex. Calculated from self-reported height and weight, adjusted for sex and age.)	12.6 (11.7-13.5)
Overweight (Having a BMI >85 th percentile and <95 th percentile for age and sex. Calculated from self-reported height and weight, adjusted for sex and age.)	16.0 (15.0-16.9)
Describes self as slightly or very overweight	29.2 (28.0-30.3)
Trying to lose weight	43.7 (42.6-44.8)

Regional Prevalence

The table below represents obesity and weight control by the six regions of Cuyahoga County. This division was conducted to provide a geographic representation of the prevalence of different risk behaviors in Cuyahoga County. In 2013, we were able to weight to 5 of 6 regions in Cuyahoga County. The column under Outer Ring—West does not include data because school participation within that region was insufficient to permit weighting.

Risk Behavior	CMSD-East % (95% CI)	CMSD- West % (95% CI)	Inner Ring-East % (95% CI)	Inner Ring-West % (95% CI)	Outer Ring-East % (95% CI)	Outer Ring-West % (95% CI)
Obese (Having a BMI of >95 th percentile for age and sex. Calculated from self- reported height and weight, adjusted for sex and age.)	19.0 (17.5-20.6)	18.6 (16.6-20.6)	16.6 (14.7-18.4)	13.1 (11.2-15.0)	8.5 (6.8-10.3)	n/a
Overweight (Having a BMI >85 th percentile and <95 th percentile for age and sex. Calculated from self- reported height and weight, adjusted for sex and age.)	19.6 (18.0-21.2)	19.0 (16.6-21.3)	16.4 (14.7-18.0)	16.6 (14.8-18.4)	14.7 (12.7-16.8)	n/a
Describes self as slightly or very overweight	26.5 (24.5-28.4)	30.7 (27.2-34.3)	28.3 (25.7-30.9)	34.4 (31.8-37.0)	27.5 (24.8-30.2)	n/a
Trying to lose weight	41.0 (38.8-43.2)	46.4 (43.8-49.0)	42.9 (40.4-45.3)	47.8 (45.2-50.4)	42.1 (39.1-45.0)	n/a

Demographic Prevalence

The tables below allow for further comparisons of obesity and weight control between demographic groups. Data are presented by gender, race/ethnicity, grade level, and family affluence (a proxy for socioeconomic status). A statistically significant difference exists between groups if the 95% confidence intervals do not overlap.

Overweight		
Category	%	CI
Gender		
Female	14.7	13.6 - 15.9
Male	17.1	15.6 - 18.5
Race/Ethnicity		
White	14.0	12.6 - 15.5
Black	18.7	17.5 - 19.9
Hispanic	18.8	16.1 - 21.5
Other	13.4	10.8 - 16.0
Grade		
9th	15.5	13.9 - 17.0
10th	15.7	13.8 - 17.6
11th	16.4	14.3 - 18.5
12th	16.2	13.8 - 18.5
Family Affluence		
Low	17.4	15.7 - 19.1
Medium	17.1	15.6 - 18.7
High	14.2	12.7 - 15.6
Total	16.0	15.0 - 16.9

Obese		
Category	%	CI
Gender		
Female	10.9	9.8 - 11.9
Male	14.3	12.9 - 15.6
Race/Ethnicity		
White	9.2	7.9 - 10.4
Black	17.6	16.4 - 18.8
Hispanic	15.0	12.2 - 17.7
Other	11.5	9.2 - 13.7
Grade		
9th	12.7	11.1 - 14.3
10th	13.7	12.0 - 15.3
11th	12.5	10.5 - 14.4
12th	11.6	9.8 - 13.4
Family Affluence		
Low	17.8	16.1 - 19.4
Medium	12.8	11.5 - 14.2
High	9.6	8.4 - 10.8
Total	12.6	11.7 - 13.5

Describes self as slightly or very overweight		
Category	%	CI
Gender		
Female	35.5	33.9 - 37.2
Male	23.1	21.5 - 24.6
Race/Ethnicity		
White	30.1	28.4 - 31.7
Black	27.7	26.1 - 29.3
Hispanic	29.7	26.7 - 32.7
Other	31.7	28.1 - 35.2
Grade		
9th	27.3	25.1 - 29.6
10th	30.0	27.9 - 32.1
11th	30.9	28.5 - 33.2
12th	28.7	26.2 - 31.2
Family Affluence		
Low	31.8	29.6 - 33.9
Medium	30.2	28.3 - 32.0
High	26.9	25.1 - 28.6
Total	29.2	28.0 - 30.3

Trying to lose weight		
Category	%	CI
Gender		
Female	59.4	57.9 - 61.0
Male	28.7	27.2 - 30.3
Race/Ethnicity		
White	44.8	43.2 - 46.4
Black	41.9	40.3 - 43.5
Hispanic	46.0	43.1 - 48.8
Other	44.5	40.5 - 48.5
Grade		
9th	43.6	41.8 - 45.3
10th	44.2	42.4 - 46.0
11th	43.7	41.3 - 46.1
12th	43.8	41.0 - 46.7
Family Affluence		
Low	45.9	43.7 - 48.1
Medium	44.7	43.0 - 46.3
High	41.8	39.9 - 43.7
Total	43.7	42.6 - 44.8

Cuyahoga County Trend Data

The following table presents the prevalence of obesity and weight control among Cuyahoga County high school students in 2009, 2011, and 2013. The prevalence for each year is given (when available), with 95% confidence intervals below.

Cuyahoga County, 2009	Cuyahoga County, 2011	Cuyahoga County, 2013
Obese (Having a BMI of >95 th percentile for age and sex. Calculated from self-reported height and weight, adjusted for sex and age.)		
12.0 (10.9-13.1)	12.9 (12.0-13.8)	12.6 (11.7-13.5)
Overweight (Having a BMI >85 th percentile and <95 th percentile for age and sex. Calculated from self-reported height and weight, adjusted for sex and age.)		
16.3 (14.8-17.8)	16.0 (15.0-17.0)	16.0 (15.0-16.9)
Describes self as slightly or very overweight		
28.4 (26.9-29.9)	27.1 (26.1-28.1)	29.2 (28.0-30.3)
Trying to lose weight		
41.9 (39.8-44.0)	41.9 (40.7-43.1)	43.7 (42.6-44.8)

Comparison to State and Nation

The following table presents the prevalence of obesity and weight control among Cuyahoga County high school students, the state of Ohio high school students, and United States high school students. The columns provide the prevalence for Cuyahoga County as reported in 2013 and the state of Ohio and the United States as reported in 2011 (when available).

Cuyahoga County, 2013	Ohio, 2011	United States, 2011
Obese (Having a BMI of >95 th percentile for age and sex. Calculated from self-reported height and weight, adjusted for sex and age.)		
12.6 (11.7-13.5)	14.7 (11.9-18.0)	13.0 (11.7-14.4)
Overweight (Having a BMI >85 th percentile and <95 th percentile for age and sex. Calculated from self-reported height and weight, adjusted for sex and age.)		
16.0 (15.0-16.9)	15.3 (13.1-17.7)	15.2 (14.4-16.2)
Describes self as slightly or very overweight		
29.2 (28.0-30.3)	30.2 (26.7-33.9)	29.2 (27.7-30.6)
Trying to lose weight		
43.7 (42.6-44.8)	47.1 (44.4-49.9)	46.0 (44.3-47.7)

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ⁱ National Center for Health Statistics. Prevalence of Overweight among Children and Adolescents: United States, 1999-2002. National Center for Health Statistics Web site. Available at <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm>. Accessed July 24, 2008.

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^v U.S. Department of Health and Human Services. *Nutrition and Weight Status*. Retrieved from 2020 Topics & Objectives: <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=40>