



2017 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 2017, 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, www.prchn.org/YRBSDataCollectionAnalysis.aspx.

This brief report presents results from the 2017 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](#)

Data for similar behaviors can be found at our website, www.prchn.org/yrbs_home.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.

Overall Prevalence

The following table summarizes obesity and weight control among the 13,907 high school students who completed the 2017 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all dichotomous 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.)	15.5 (14.7-16.3)
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.)	17.8 (16.8-18.8)
Describes self as slightly or very overweight	31.1 (30.0-32.1)
Trying to lose weight	44.1 (43.1-45.1)

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 2017, 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.)	21.8 (20.2-23.4)	21.1 (18.9-23.5)	14.3 (12.8-15.9)	17.3 (15.6-19.1)	13.1 (10.5-16.2)	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.)	19.4 (17.8-21.2)	17.7 (15.7-19.8)	20.7 (18.0-23.7)	17.2 (15.2-19.5)	16.3 (14.1-18.6)	n/a
Describes self as slightly or very overweight	30.9 (28.9-32.9)	30.5 (28.1-33.0)	28.5 (26.3-30.9)	35.4 (32.7-38.1)	29.1 (25.8-32.5)	n/a
Trying to lose weight	42.9 (40.6-45.3)	44.3 (42.4-46.3)	40.9 (38.2-43.7)	46.6 (44.0-49.2)	42.1 (39.5-44.7)	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, and grade level. A statistically significant difference exists between groups if the 95% confidence intervals do not overlap.

Obese		
Category	%	CI
Gender		
Female	12.4	11.5 - 13.4
Male	18.2	17.0 - 19.5
Race/Ethnicity		
White	12.4	11.3 - 13.6
Black	19.0	17.7 - 20.4
Hispanic	20.9	18.7 - 23.3
Other/Multiple	12.5	9.2 - 16.8
Grade		
9th	13.7	12.3 - 15.1
10th	15.9	14.1 - 17.8
11th	17.2	15.1 - 19.5
12th	14.9	13.4 - 16.6
Total	15.5	14.7 - 16.3

Overweight		
Category	%	CI
Gender		
Female	18.4	17.0 - 20.0
Male	17.2	16.0 - 18.4
Race/Ethnicity		
White	15.7	14.4 - 17.0
Black	20.5	18.7 - 22.4
Hispanic	18.4	16.1 - 21.0
Other/Multiple	15.5	13.0 - 18.4
Grade		
9th	18.6	16.8 - 20.6
10th	15.8	14.1 - 17.5
11th	19.7	17.7 - 21.8
12th	17.7	15.4 - 20.4
Total	17.8	16.8 - 18.8

Describes self as slightly or very overweight			
Category	%	CI	
Gender			
Female	37.7	36.2	- 39.4
Male	24.9	23.5	- 26.2
Race/Ethnicity			
White	31.9	30.5	- 33.3
Black	30.0	28.2	- 31.8
Hispanic	32.6	30.2	- 35.2
Other/Multiple	30.4	26.9	- 34.1
Grade			
9th	28.6	26.5	- 30.7
10th	30.6	28.9	- 32.3
11th	32.4	30.3	- 34.5
12th	33.4	30.9	- 35.9
Total	31.1	30.0	- 32.1

Trying to lose weight			
Category	%	CI	
Gender			
Female	57.9	56.5	- 59.3
Male	31.2	29.8	- 32.7
Race/Ethnicity			
White	45.0	43.6	- 46.4
Black	42.4	40.6	- 44.1
Hispanic	48.5	45.8	- 51.3
Other/Multiple	42.5	37.9	- 47.3
Grade			
9th	42.8	40.9	- 44.9
10th	44.3	42.4	- 46.2
11th	43.7	41.4	- 46.0
12th	46.2	43.7	- 48.7
Total	44.1	43.1	- 45.1

Cuyahoga County Trend Data

The following table presents the prevalence of obesity and weight control among Cuyahoga County high school students in 2009, 2011, 2013, 2015, and 2017. The prevalence for each year is given (when available), with 95% confidence intervals below.

Cuyahoga County, 2009	Cuyahoga County, 2011	Cuyahoga County, 2013	Cuyahoga County, 2015	Cuyahoga County, 2017
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)	13.3 (12.3-14.3)	15.5 (14.7-16.3)
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)	18.2 (16.6-20.0)	17.8 (16.8-18.8)
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)	29.9 (28.5-31.3)	31.1 (30.0-32.1)
Trying to lose weight				
41.9 (39.8-44.0)	41.9 (40.7-43.1)	43.7 (42.6-44.8)	42.5 (40.8-44.2)	44.1 (43.1-45.1)

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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.

ⁱⁱ Ferraro, K., Thorpe, R., Wilkinson, J. 2003. The Life Course of Severe Obesity: Does Childhood Overweight Matter? *Journal of Gerontology*. 58B(2):S110-S119.

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^{iv} Freedman, D., Khan, L., Serdula, M., Dietz, W., Srinivasan, S., Berenson, G. 2005. The Relation of Childhood BMI to Adult Adiposity: The Bogalusa Heart Study. *Pediatrics*. 115(1):22-27.

