



Prevention Research Center for Healthy Neighborhoods  
at Case Western Reserve University

# 2013 Cuyahoga County Youth Risk Behavior Survey: Nutrition

## Introduction

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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 9<sup>th</sup> through 12<sup>th</sup> grade students in Cuyahoga County high schools. A more detailed description of the methodology is available at our website, <http://prchn.org/yrbs.apxs>.

This brief report presents results from the 2013 Cuyahoga County High School Youth Risk Behavior Survey, with a particular focus on Nutrition. This includes questions pertaining to alcohol use behavior as well as perceptions of alcohol use. 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>.

## Nutrition

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Diet and nutrition have important links to adolescent health and well-being, as well as to major causes of morbidity and mortality later in life. Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. There is probable evidence to suggest that dietary patterns with higher intakes of fruits and vegetables are associated with a decreased risk for some types of cancer,<sup>i,ii,iii</sup> cardiovascular disease,<sup>iv</sup> and stroke.<sup>v</sup> Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of being overweight.<sup>vi</sup>

Eating breakfast every day may reduce the risk for obesity and insulin resistance syndrome – an early sign of developing diabetes, by as much as 35 to 50 percent.<sup>vii</sup> Breakfast eaters tend to eat fewer calories, less saturated fat and cholesterol and have better overall nutritional status than breakfast skippers.<sup>viii</sup>

## Healthy People 2020

Where possible, the Cuyahoga County Youth Risk Behavior Survey (YRBS) data are compared to the Healthy People 2020 benchmarks.<sup>ix</sup> 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
There are no HP2020 objectives that relate directly to questions asked in the 2013 Cuyahoga County YRBS	

## Overall Prevalence

The following table summarizes nutrition behaviors 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)
Ate fruits and vegetables five or more times per day (During the 7 days before the survey.)	21.6 (20.5-22.7)
Had a can, bottle, or glass of soda or pop one or more times per day (Not including diet soda or diet pop, during the 7 days before the survey.)	20.0 (19.0-21.0)
Had a can, bottle, or glass of an energy drink one or more times per day (During the 7 days before the survey.)	5.8 (5.2-6.4)
Ate fast food one or more times (During the 7 days before the survey.)	74.4 (73.4-75.4)
Did not eat breakfast every day (During the 7 days before the survey.)	66.7 (65.4-68.1)

## Regional Prevalence

The table below represents nutrition behaviors 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)
Ate fruits and vegetables five or more times per day (During the 7 days before the survey.)	27.2 (24.9-29.5)	33.6 (31.2-36.1)	20.1 (18.1-22.2)	21.7 (19.0-24.3)	13.6 (11.2-15.9)	n/a
Had a can, bottle, or glass of soda or pop one or more times per day (Not including diet soda or diet pop, during the 7 days before the survey.)	10.2 (8.7-11.6)	12.3 (10.2-14.3)	6.6 (5.2-8.0)	4.9 (3.6-6.2)	2.9 (1.9-3.9)	n/a
Had a can, bottle, or glass of an energy drink one or more times per day (During the 7 days before the survey.)	81.2 (79.6-82.9)	77.8 (75.4-80.2)	78.6 (76.6-80.5)	74.0 (71.3-76.7)	65.9 (63.2-68.6)	n/a
Ate fast food one or more times (During the 7 days before the survey.)	77.3 (75.1-79.4)	75.8 (73.3-78.2)	77.0 (74.7-79.2)	65.6 (62.4-68.8)	63.3 (60.1-66.5)	n/a
Did not eat breakfast every day (During the 7 days before the survey.)	50.0 (47.6-52.3)	41.0 (37.9-44.1)	42.6 (39.5-45.6)	27.0 (24.0-30.0)	25.0 (22.0-27.9)	n/a

## Demographic Prevalence

The tables below allow for further comparisons of nutrition behaviors 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.

Ate fruits and vegetables five or more times per day		
Category	%	CI
<b>Gender</b>		
Female	20.8	19.4 - 22.2
Male	22.3	20.8 - 23.8
<b>Race/Ethnicity</b>		
White	21.4	19.8 - 23.0
Black	21.4	19.9 - 22.9
Hispanic	22.9	19.8 - 26.0
Other	25.2	21.7 - 28.6
<b>Grade</b>		
9th	22.9	20.9 - 25.0
10th	21.2	19.5 - 22.9
11th	20.8	18.9 - 22.6
12th	20.8	18.4 - 23.1
<b>Family Affluence</b>		
Low	16.8	15.2 - 18.3
Medium	19.3	17.7 - 20.8
High	26.2	24.3 - 28.1
<b>Total</b>	<b>21.6</b>	<b>20.5 - 22.7</b>

Had a can, bottle, or glass of soda or pop one or more times per day		
Category	%	CI
<b>Gender</b>		
Female	17.3	15.9 - 18.6
Male	22.6	21.1 - 24.0
<b>Race/Ethnicity</b>		
White	16.5	15.1 - 17.9
Black	24.4	22.8 - 26.0
Hispanic	31.5	27.7 - 35.3
Other	16.7	14.1 - 19.3
<b>Grade</b>		
9th	21.6	19.9 - 23.3
10th	18.7	16.8 - 20.6
11th	18.2	16.0 - 20.5
12th	20.7	18.0 - 23.4
<b>Family Affluence</b>		
Low	25.8	23.8 - 27.8
Medium	20.2	18.5 - 21.8
High	16.6	15.2 - 17.9
<b>Total</b>	<b>20.0</b>	<b>19.0 - 21.0</b>

Had a can, bottle, or glass of an energy drink one or more times per day		
Category	%	CI
<b>Gender</b>		
Female	3.9	3.2 - 4.5
Male	7.6	6.7 - 8.5
<b>Race/Ethnicity</b>		
White	3.5	2.8 - 4.3
Black	8.4	7.4 - 9.4
Hispanic	15.1	12.4 - 17.7
Other	7.4	5.6 - 9.2
<b>Grade</b>		
9th	6.8	5.7 - 7.9
10th	4.7	3.9 - 5.6
11th	4.8	3.5 - 6.0
12th	6.2	4.7 - 7.6
<b>Family Affluence</b>		
Low	9.6	8.1 - 11.0
Medium	5.4	4.5 - 6.3
High	4.0	3.3 - 4.6
<b>Total</b>	<b>5.8</b>	<b>5.2 - 6.4</b>

Ate fast food one or more times		
Category	%	CI
<b>Gender</b>		
Female	72.3	70.9 - 73.7
Male	76.4	74.9 - 77.9
<b>Race/Ethnicity</b>		
White	69.2	67.6 - 70.7
Black	81.9	80.6 - 83.3
Hispanic	80.9	77.6 - 84.1
Other	74.4	71.4 - 77.5
<b>Grade</b>		
9th	73.3	71.5 - 75.1
10th	73.8	71.8 - 75.7
11th	75.1	72.8 - 77.4
12th	75.5	73.4 - 77.6
<b>Family Affluence</b>		
Low	77.7	75.8 - 79.6
Medium	75.7	74.0 - 77.4
High	71.5	69.7 - 73.3
<b>Total</b>	<b>74.4</b>	<b>73.4 - 75.4</b>

Did not eat breakfast every day		
Category	%	CI
<b>Gender</b>		
Female	68.8	67.1 - 70.4
Male	64.7	62.8 - 66.6
<b>Race/Ethnicity</b>		
White	58.3	56.2 - 60.3
Black	79.2	77.8 - 80.6
Hispanic	75.0	71.9 - 78.1
Other	64.8	61.2 - 68.3
<b>Grade</b>		
9th	63.0	60.4 - 65.5
10th	64.7	62.7 - 66.8
11th	66.9	63.6 - 70.3
12th	72.9	70.3 - 75.5
<b>Family Affluence</b>		
Low	77.7	75.8 - 79.7
Medium	69.6	67.6 - 71.6
High	58.2	56.2 - 60.3
<b>Total</b>	<b>66.7</b>	<b>65.4 - 68.1</b>

## Cuyahoga County Trend Data

The following table presents the prevalence of nutrition behaviors 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
<b>Ate fruits and vegetables five or more times per day</b> (During the 7 days before the survey.)		
21.6 (19.9-23.3)	22.6 (21.6-23.6)	21.6 (20.5-22.7)
<b>Had a can, bottle, or glass of soda or pop one or more times per day</b> (Not including diet soda or diet pop, during the 7 days before the survey.)		
25.3 (23.6-27.0)	22.8 (21.8-23.8)	20.0 (19.0-21.0)
<b>Had a can, bottle, or glass of an energy drink one or more times per day</b> (During the 7 days before the survey.)		
n/a	n/a	5.8 (5.2-6.4)
<b>Ate fast food one or more times</b> (During the 7 days before the survey.)		
74.1 (72.5-75.7)	74.2 (73.1-75.3)	74.4 (73.4-75.4)
<b>Did not eat breakfast every day</b> (During the 7 days before the survey.)		
66.3 (64.0-68.6)	67.6 (66.4-68.8)	66.7 (65.4-68.1)

## Comparison to State and Nation

The following table presents the prevalence of nutrition behaviors 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
<b>Ate fruits and vegetables five or more times per day</b> (During the 7 days before the survey.)		
21.6 (20.5-22.7)	17.3 (12.3-22.4)	n/a
<b>Had a can, bottle, or glass of soda or pop one or more times per day</b> (Not including diet soda or diet pop, during the 7 days before the survey.)		
20.0 (19.0-21.0)	25.2 (21.6-29.2)	27.8 (25.6-30.1)
<b>Had a can, bottle, or glass of an energy drink one or more times per day</b> (During the 7 days before the survey.)		
5.8 (5.2-6.4)	n/a	n/a
<b>Ate fast food one or more times</b> (During the 7 days before the survey.)		
74.4 (73.4-75.4)	n/a	n/a
<b>Did not eat breakfast every day</b> (During the 7 days before the survey.)		
66.7 (65.4-68.1)	70.0 (65.1-75.2)	62.3 (60.3-64.4)



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CUYAHOGA COUNTY  
BOARD OF HEALTH

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