



Prevention Research Center for Healthy Neighborhoods
at Case Western Reserve University

2018 Cuyahoga County Youth Risk Behavior Survey: Dietary Behavior

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 Fall of 2018, the PRCHN conducted the YRBS among 7th and 8th grade students in Cuyahoga County middle schools. A more detailed description of the methodology is available at our website, http://prchn.org/yrbs_home.aspx.

This brief report presents results from the 2018 Cuyahoga County Middle School Youth Risk Behavior Survey, with a particular focus on Dietary Behavior. In this brief report, we present:

- [Overall Prevalence](#)
- [Regional Prevalence](#)
- [Demographic Prevalence](#)
- [Trend Report](#)

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

Nutrition

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,^{i,ii,iii} cardiovascular disease,^{iv} and stroke.^v Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of being overweight.^{vi}

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.^{vii} Breakfast eaters tend to eat fewer calories, less saturated fat and cholesterol and have better overall nutritional status than breakfast skippers.^{viii}

Overall Prevalence

The following table summarizes dietary behaviors among the 12,936 middle school students who completed the 2018 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all variables.

Risk Behavior	% (95% Confidence Interval)
Ate fruit two or more times (The day before the survey; excluding juices.)	52.0 (50.7 - 53.2)
Ate vegetables two or more times (The day before the survey)	39.4 (38.1 - 40.8)
Drank a can, bottle, or glass of soda or pop (Including Coke, Pepsi or Sprite; the day before the survey.)	47.6 (46.2 - 49.0)
Drank water at school on average every day (Including water from a fountain, a sink or faucet, a bottle, a reusable bottle student brought from home, or some other source; during an average school week.)	54.9 (53.6 - 56.1)
Did not eat breakfast every day (During the 7 days before the survey.)	61.2 (59.8 - 62.5)
Ate fast food on 1 or more days (Includes McDonalds, Burger King, Pizza Hut, Taco Bell, or KFC; during the 7 days before the survey.)	70.5 (69.3 - 71.7)
Went hungry because not enough food in the home (Sometimes, most of the time, or always; during the 30 days before the survey.)	16.2 (15.2 - 17.2)

Regional Prevalence

The table below represents dietary 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 2018, we were able to weight to 4 of 6 regions in Cuyahoga County. The columns under Outer Ring-West and Outer Ring-East do not include data because school participation within these regions 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 fruit two or more times (The day before the survey; excluding juices.)	46.1 (43.3 - 48.9)	42.5 (39.8 - 45.2)	48.7 (46.6 - 50.8)	47.9 (45.5 - 50.3)	N/A	N/A
Ate vegetables two or more times (The day before the survey)	30.3 (27.7 - 32.9)	28.4 (26.1 - 30.9)	38.2 (36.3 - 40.1)	37.6 (35.4 - 39.9)	N/A	N/A
Drank a can, bottle, or glass of soda or pop (Including Coke, Pepsi or Sprite; the day before the survey.)	67.2 (64.5 - 69.8)	62.6 (60.1 - 65.0)	56.3 (53.6 - 59.0)	49.2 (46.3 - 52.0)	N/A	N/A
Drank water at school on average every day (Including water from a fountain, a sink or faucet, a bottle, a reusable bottle student brought from home, or some other source; during an average school week.)	45.1 (42.5 - 47.8)	44.2 (41.3 - 47.1)	48.7 (46.8 - 50.6)	56.4 (54.1 - 58.7)	N/A	N/A
Did not eat breakfast every day (During the 7 days before the survey.)	65.4 (62.2 - 68.5)	65.2 (62.4 - 68.0)	66.5 (64.2 - 68.8)	63.5 (60.9 - 66.0)	N/A	N/A

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 fast food on 1 or more days (Includes McDonalds, Burger King, Pizza Hut, Taco Bell, or KFC; during the 7 days before the survey.)	75.6 (73.6 - 77.5)	72.8 (69.7 - 75.6)	72.5 (70.5 - 74.5)	75.6 (73.3 - 77.7)	N/A	N/A
Went hungry because not enough food in the home (Sometimes, most of the time, or always; during the 30 days before the survey.)	14.6 (12.7 - 16.9)	17.1 (15.3 - 18.9)	18.9 (17.4 - 20.5)	20.1 (18.0 - 22.3)	N/A	N/A

Demographic Prevalence

The tables below allow for further comparisons of dietary behaviors 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.

Ate fruits two or more times		
Category	%	CI
Gender		
Female	49.7	47.9 - 51.5
Male	54.1	52.5 - 55.7
Race/Ethnicity		
White	55.6	53.8 - 57.4
Black	46.3	44.4 - 48.2
Hispanic	46.0	42.7 - 49.3
Other/Multiple	55.0	51.4 - 58.6
Grade		
7th	54.2	52.4 - 56.0
8th	49.9	47.9 - 51.9
Total	52.0	50.7 - 53.2

Ate vegetables two or more times		
Category	%	CI
Gender		
Female	39.2	37.5 - 41.0
Male	39.7	37.9 - 41.6
Race/Ethnicity		
White	42.0	40.4 - 43.7
Black	35.2	33.0 - 37.5
Hispanic	30.9	28.0 - 34.0
Other/Multiple	46.8	42.9 - 50.8
Grade		
7th	40.5	38.3 - 42.7
8th	38.6	36.8 - 40.5
Total	39.4	38.1 - 40.8

Drank a can, bottle, or glass of soda or pop			
Category	%	CI	
Gender			
Female	44.1	42.3	- 45.8
Male	50.9	49.3	- 52.5
Race/Ethnicity			
White	38.3	36.3	- 40.3
Black	61.5	59.5	- 63.5
Hispanic	61.4	58.2	- 64.6
Other/Multiple	42.7	38.8	- 46.6
Grade			
7th	47.2	44.7	- 49.8
8th	47.7	45.4	- 49.9
Total	47.6	46.2	- 49.0

Drank water at school on average every day			
Category	%	CI	
Gender			
Female	53.3	51.5	- 55.1
Male	56.3	54.7	- 58.0
Race/Ethnicity			
White	60.0	58.2	- 61.8
Black	48.5	46.6	- 50.4
Hispanic	47.3	43.9	- 50.7
Other/Multiple	52.0	48.5	- 55.6
Grade			
7th	55.2	53.1	- 57.3
8th	54.8	52.5	- 57.2
Total	54.9	53.6	- 56.1

Did not eat breakfast every day		
Category	%	CI
Gender		
Female	66.8	64.9 - 68.6
Male	56.0	54.3 - 57.6
Race/Ethnicity		
White	57.4	55.3 - 59.3
Black	67.3	65.4 - 69.1
Hispanic	65.1	62.1 - 68.1
Other/Multiple	60.5	57.1 - 63.8
Grade		
7th	56.7	54.9 - 58.6
8th	65.5	63.5 - 67.4
Total	61.2	59.8 - 62.5

Ate fast food on one or more days		
Category	%	CI
Gender		
Female	69.2	67.7 - 70.5
Male	71.8	69.8 - 73.6
Race/Ethnicity		
White	66.7	65.0 - 68.4
Black	76.1	74.7 - 77.6
Hispanic	77.4	74.7 - 80.0
Other/Multiple	66.2	62.8 - 69.6
Grade		
7th	70.7	69.0 - 72.3
8th	70.1	68.1 - 72.1
Total	70.5	69.3 - 71.7

Went hungry because not enough food in the home			
Category	%	CI	
Gender			
Female	16.1	14.8	- 17.4
Male	16.1	14.8	- 17.6
Race/Ethnicity			
White	13.3	12.0	- 14.7
Black	18.8	17.1	- 20.6
Hispanic	24.7	21.5	- 28.3
Other/Multiple	19.6	17.1	- 22.3
Grade			
7th	16.0	14.4	- 17.7
8th	15.9	14.7	- 17.1
Total	16.2	15.2	- 17.2

Cuyahoga County Trend Data

The following table presents the prevalence of dietary behaviors among Cuyahoga County middle school students in 2010, 2012, 2014, 2016, and 2018. The prevalence for each year is given (when available), with 95% confidence intervals below.¹

Cuyahoga County, 2010	Cuyahoga County, 2012	Cuyahoga County, 2014	Cuyahoga County, 2016	Cuyahoga County, 2018
Ate fruits and vegetables five or more times (During the day before the survey.)				
26.9% (25.6 - 28.3)	26.9% (25.6 - 28.3)	25.1% (24.3 - 25.9)	29.6% (29.2 - 30.1)	N/A
Ate fast food one or more times (During the 7 days before the survey.)				
68.9% (67.8 - 70.0)	70.6% (69.6 - 71.7)	70.7% (69.6 - 71.5)	69.1% (68.7 - 69.5)	70.5% (69.3 - 71.7)
Did not eat breakfast every day (During the 7 days before the survey.)				
59.8% (58.0 - 61.5)	58.7% (57.6 - 59.9)	59.5% (58.6 - 60.5)	59.8% (59.3 - 60.3)	61.2% (59.8 - 62.5)
Drank 3 or more glasses of milk per day (During the day before the survey.)				
28.0% (26.6 - 29.4)	24.3% (23.4 - 25.3)	N/A	N/A	N/A
Had a can, bottle, or glass of soda or pop one or more times (Not including diet pop, during the day before the survey.)				
N/A	N/A	51.6% (50.6 - 52.5)	48.7% (48.2 - 49.2)	47.6% (46.2 - 49.0)
Took a multivitamin every day (During the week before the survey.)				
N/A	N/A	10.3% (9.8 - 10.8)	11.2% (11.0 - 11.4)	N/A

¹ The YRBS questions with two or more data points over 2010-2018 are included. The new 2018 questions are not included for the purpose of demonstrating trends. For those questions not asked in 2018, refer to the PRCHN archives at www.prchn.org/aspx for more detailed information.

Contact Information

Prepared by:

Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
10900 Euclid Avenue
Cleveland, Ohio 44106-7069
www.prchn.org

For more information, please contact:

Erika S. Trapl, PhD
Associate Professor, Department of Population & Quantitative Health Sciences
Associate Director, Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Erika.trapl@case.edu
216-368-0098

Jean L. Frank, MPH
Director of Adolescent Surveillance and Evaluation
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Jean.frank@case.edu
216-368-5913

Audrey E. Kinsella, MPH
Community and Evaluation Project Coordinator
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Audrey.kinsella@case.edu
216-368-5746

Catherine C. Osborn, MA
School-based Surveillance & Evaluation Coordinator
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Catherine.osborn@case.edu

Jude Fahoum, BA
School-based Surveillance and Evaluation Specialist
Prevention Research Center for Health Neighborhoods
Case Western Reserve University
Jude.fahoum@case.edu

Marisa Hollinshead, BS
Graduate Assistant
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Marisa.hollinshead@case.edu

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