



Prevention Research Center for Healthy Neighborhoods
at Case Western Reserve University

2017 Cuyahoga County Youth Risk Behavior Survey: Physical Activity

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 Physical Activity, including sedentary behaviors. 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.

Physical Activity

Participation in regular physical activity among young people can help build and maintain healthy bones and muscles, maintain body weight and reduce body fat, reduce feelings of depression and anxiety, and promote psychological well-being.^{i,ii} Over time, regular physical activity decreases the risk of high blood pressure, heart disease, diabetes, cancers, and premature death. The 2005 Dietary Guidelines for Americans recommends that youth engage in at least 60 minutes of physical activity on most, preferably all, days of the week.ⁱ

Television (TV) viewing, computer usage, and video/DVD usage are all considered sedentary behaviors. Child and adolescent TV viewing, in particular, is associated with childhood and adult obesity and youth who engage in less than two hours of TV viewing per day tend to be more active. Computer usage and video game playing are associated with physical inactivity among adolescents and young adults.

When students are watching television excessively, they are less likely to be spending time doing homework or reading, participating in after school activities, exercising frequently or being engaged in other intellectually stimulating activities.ⁱⁱⁱ Television watching is assessed in the same manner as having used a computer and played video games; with having watched 3 or more hours per day of television on an average school day considered a risky, sedentary behavior.

Overall Prevalence

The following table summarizes physical activity behaviors 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)
Participated in 60 or more minutes of physical activity on 5 or more days (During the 7 days before the survey.)	40.9 (39.6-42.1)
Did not participate in 60 or more minutes of physical activity on any day (During the 7 days before the survey.)	17.9 (17.0-18.8)
Watched television 3 or more hours per day (On an average school day.)	23.9 (22.9-25.0)
*Played video or computer games or used a computer 3 or more hours per day (On an average school day for something that was not school work; includes use of Xbox, PlayStation, iPad or other tablet, smartphone, YouTube, Instagram, Facebook, or other social media.)	44.8 (43.6-46.0)
Played on 1 or more sports teams (During the past 12 months before the survey.)	60.0 (58.7-61.3)
Walk or ride bike to or from school 3 or more days (During an average school week when the weather allows.)	24.8 (23.6-26.1)

*For something that was not school work

Regional Prevalence

The table below represents physical activity behaviors in 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)
Participated in 60 or more minutes of physical activity on 5 or more days (During the 7 days before the survey.)	27.1 (24.5-29.9)	28.5 (26.0-31.0)	38.7 (35.7-41.7)	40.7 (37.7-43.7)	47.3 (44.3-50.3)	n/a
Did not participate in 60 or more minutes of physical activity on any day (During the 7 days before the survey.)	26.2 (24.3-28.3)	26.5 (24.5-28.6)	21.3 (18.7-24.2)	14.3 (12.8-15.9)	15.7 (14.2-17.4)	n/a
Watched television 3 or more hours per day (On an average school day.)	33.6 (31.6-35.6)	30.2 (28.0-32.4)	30.6 (27.9-33.4)	17.7 (15.7-19.9)	23.4 (20.5-26.6)	n/a
*Played video or computer games or used a computer 3 or more hours per day (On average school day for something that was not school work; includes use of Xbox, PlayStation, iPad or other tablet, smartphone, YouTube, Instagram, Facebook, or other social media.)	48.4 (46.3-50.5)	47.7 (45.5-50.0)	44.8 (41.4-48.3)	48.2 (46.0-50.3)	42.0 (39.2-44.9)	n/a
Played on 1 or more sports teams (During the past 12 months before the survey.)	53.7 (51.0-56.4)	47.0 (44.4-49.7)	57.6 (54.9-60.2)	57.0 (54.1-59.8)	67.9 (63.6-71.8)	n/a
Walk or ride bike to or from school 3 or more days (During an average school week when the weather allows.)	30.0 (27.8-32.3)	30.6 (28.7-32.7)	34.9 (30.7-39.4)	37.9 (34.6-41.4)	10.0 (8.9-11.2)	n/a

Demographic Prevalence

The tables below allow for further comparisons of physical activity 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.

Participated in 60 or more minutes of physical activity on 5 or more days			
Category	%	CI	
Gender			
Female	33.8	32.2	- 35.5
Male	47.7	45.9	- 49.6
Race/Ethnicity			
White	47.0	45.1	- 48.8
Black	33.5	31.4	- 35.6
Hispanic	32.4	29.4	- 35.5
Other/Multiple	43.1	38.9	- 47.4
Grade			
9th	45.0	42.2	- 47.8
10th	41.6	39.2	- 44.0
11th	39.2	37.1	- 41.4
12th	37.0	34.6	- 39.5
Total	40.9	39.6	- 42.1

Did not participate in 60 or more minutes of physical activity on any day			
Category	%	CI	
Gender			
Female	20.8	19.3	- 22.3
Male	15.0	13.9	- 16.1
Race/Ethnicity			
White	12.6	11.6	- 13.6
Black	24.4	22.7	- 26.3
Hispanic	24.4	21.8	- 27.1
Other/Multiple	19.0	16.4	- 22.0
Grade			
9th	16.4	14.9	- 18.1
10th	17.8	15.8	- 19.9
11th	18.0	16.4	- 19.6
12th	19.5	17.8	- 21.3
Total	17.9	17.0	- 18.8

Watched television 3 or more hours per day			
Category	%	CI	
Gender			
Female	25.1	23.6	- 26.7
Male	22.7	21.2	- 24.3
Race/Ethnicity			
White	15.7	14.6	- 16.9
Black	34.7	32.8	- 36.6
Hispanic	26.8	24.4	- 29.4
Other/Multiple	24.2	19.9	- 29.2
Grade			
9th	25.0	22.9	- 27.2
10th	24.2	21.9	- 26.7
11th	23.7	21.2	- 26.4
12th	21.9	20.0	- 23.8
Total	23.9	22.9	- 25.0

Played video or computer games or used a computer 3 or more hours per day			
Category	%	CI	
Gender			
Female	45.7	44.0	- 47.4
Male	44.0	42.4	- 45.5
Race/Ethnicity			
White	43.2	41.6	- 44.8
Black	47.0	44.7	- 49.3
Hispanic	47.6	44.5	- 50.7
Other/Multiple	43.1	38.2	- 48.2
Grade			
9th	48.5	45.8	- 51.2
10th	48.3	46.2	- 50.4
11th	43.1	40.7	- 45.6
12th	37.3	34.9	- 39.8
Total	44.8	43.6	- 46.0

Played on 1 or more sports teams			
Category	%	CI	
Gender			
Female	55.5	53.7	- 57.2
Male	64.6	62.9	- 66.2
Race/Ethnicity			
White	63.5	61.6	- 65.3
Black	56.2	54.2	- 58.2
Hispanic	51.0	47.9	- 54.1
Other/Multiple	63.3	58.8	- 67.5
Grade			
9th	63.5	60.9	- 66.1
10th	61.7	59.2	- 64.1
11th	58.9	56.5	- 61.3
12th	55.0	52.3	- 57.6
Total	60.0	58.7	- 61.3

Walk or ride bike to or from school			
Category	%	CI	
Gender			
Female	23.1	21.7	- 24.6
Male	26.4	24.7	- 28.1
Race/Ethnicity			
White	21.0	19.7	- 22.3
Black	30.0	27.4	- 32.7
Hispanic	27.8	25.5	- 30.2
Other/Multiple	20.3	17.3	- 23.7
Grade			
9th	31.9	28.2	- 35.8
10th	25.6	23.2	- 28.1
11th	21.1	19.0	- 23.4
12th	18.8	16.7	- 21.0
Total	24.8	23.6	- 26.1

Cuyahoga County Trend Data

The following table presents the prevalence of physical activity behaviors 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
Participated in 60 or more minutes of physical activity on 5 or more days (During the 7 days before the survey.)				
44.2 (41.5-46.9)	43.8 (42.4-45.2)	47.0 (45.6-48.3)	42.8 (41.2-44.4)	40.9 (39.6-42.1)
Did not participate in 60 or more minutes of physical activity on any day (During the 7 days before the survey.)				
15.4 (13.8-17.0)	14.3 (13.4-15.2)	15.6 (14.8-16.3)	17.7 (16.5-18.9)	17.9 (17.0-18.8)
Watched television 3 or more hours per day (On an average school day.)				
34.2 (30.9-37.5)	34.3 (33.0-35.6)	31.3 (30.0-32.6)	25.7 (24.3-27.2)	23.9 (22.9-25.0)
*Played video or computer games or used a computer, 3 or more hours per day (On an average school day for something that was not school work; includes use of Xbox, PlayStation, iPad or other tablet, smartphone, YouTube, Instagram, Facebook, or other social media.)				
23.2 (21.1-25.3)	27.2 (26.1-28.3)	37.9 (36.5-39.3)	40.1 (38.1-42.0)	44.8 (43.6-46.0)
Played on 1 or more sports teams (During the past 12 months before the survey.)				
59.3 (56.7-61.9)	60.2 (58.9-61.5)	61.7 (60.4-63.1)	61.5 (59.7-63.4)	60.0 (58.7-61.3)
**Walk or ride bike to school 3 or more days (During an average school week when the weather allows.)				
n/a	n/a	22.4 (21.4-23.5)	n/a	n/a
**Walk or ride bike from school 3 or more days (During an average school week when the weather allows.)				
n/a	n/a	28.2 (26.8-29.5)	n/a	n/a
**Walk or ride bike to or from school 3 or more days (During an average school week when the weather allows.)				
n/a	n/a	n/a	24.3 (22.8-25.8)	24.8 (23.6-26.1)

* "Played video or computer games or used a computer, 3 or more hours per day." was revised in 2017 to include "video or computer games".

**In 2015, "walk or ride bike to school 3 or more days" and "walk or ride bike from school 3 or more days," was combined into one question: "walk or ride bike to or from school 3 or more days." All items are included in this table.

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
Assistant 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
Manager of School-based Surveillance and Evaluation
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Jean.frank@case.edu
216-368-5913

Audrey S. Kinsella, MPH
Data Coordinator
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Audrey.kinsella@case.edu
216-368-5746

Briana McIntosh, MPH, CPH
YRBS School-based Surveillance Field Coordinator
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Briana.Mcintosh@case.edu
216-368-6571

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

Funding

This work is a product of a Health Promotion and Disease Prevention Research Center supported by Cooperative Agreement Number 1U48DP005030 from the Centers for Disease Control and Prevention and funded either in whole or in part by Cooperative Agreement #U87PS004165-02 from the U.S. Centers for Disease Control and Prevention, Division of Adolescent School Health (CDC-DASH). The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

CWRU IRB Protocol #2012-274.

ⁱ U.S. Department of Health and Human Services. 1996. *Physical Activity and Health: A Report of the Surgeon General*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.

ⁱⁱ Strong, W., Malina, R., Blimke, C., et al. 2005. Evidence Based Physical Activity for School-age Youth. *Journal of Pediatrics*. 146:732-737.

ⁱⁱⁱ Campbell, J., Hombo, C., Mazzeo, J. 2000. *NAEP 1999 Trends in Academic Progress: Three Decades of Student Performance*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.

