



Prevention Research Center for Healthy Neighborhoods
at Case Western Reserve University

2016 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 2016, 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.aspx>.

This brief report presents results from the 2016 Cuyahoga County Middle 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, <http://prchn.org/yrbs.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 13,261 middle school students who completed the 2016 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all 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.)	51.5 (51.0-52.0)
Did not participate in 60 or more minutes of physical activity on any day (During the 7 days before the survey.)	12.6 (12.2-13.1)
Watched television 3 or more hours per day (On an average school day.)	28.1 (27.6-28.6)
Used computers 3 or more hours per day (Played video or computer games or used a computer for something that was not school work on an average school day.)	46.5 (46.0-47.1)
Played on one or more sports teams (During the past 12 months.)	71.2 (70.7-71.7)
Walked or ride bike to or from school 3 or more days (During an average school week when the weather allows.)	31.9 (31.5-32.4)

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 2016, 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 this 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.)	32.7% (30.3-35.2)	31.1% (28.7-33.5)	46.2% (45.3-47.2)	53.2% (52.6-53.7)	64.1% (62.5-65.6)	N/A
Did not participate in 60 or more minutes of physical activity on any day (During the 7 days before the survey.)	22.2% (19.9-24.7)	23.1% (20.3-26.0)	17.6% (16.9-18.2)	9.0% (8.6-9.5)	5.9% (5.5-6.4)	N/A
Watched television 3 or more hours per day (On an average school day.)	47.5% (45.0-50.1)	37.3% (34.7-39.9)	41.0% (40.0-42.0)	20.7% (20.0-21.4)	19.5% (18.2-20.9)	N/A
Used computers 3 or more hours per day (Played video or computer games or used a computer for something that was not school work on an average school day.)	56.9% (54.1-59.8)	58.0% (55.3-60.6)	52.1% (51.0-53.1)	48.9% (48.0-49.7)	38.5% (37.2-39.9)	N/A
Played on one or more sports teams (During the past 12 months.)	61.2% (58.3-63.9)	55.7% (53.3-58.1)	67.1% (66.1-68.0)	64.8% (64.1-65.5)	82.6% (81.3-83.8)	N/A
Walked or rode bike to or from school 3 or more days (During an average school week when the weather allows.)	37.8% (35.1-40.6)	33.4% (31.2-35.6)	35.1% (34.3-36.0)	43.3% (42.5-44.0)	17.4% (16.3-18.7)	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	45.2	44.5	45.9
Male	57.6	56.9	58.2
Race/Ethnicity			
White	61.2	60.9	61.6
Black	40.0	39.0	41.0
Hispanic	28.3	25.2	31.7
Other/Multiple	54.6	52.8	56.4
Grade			
7th	51.0	49.8	52.1
8th	52.4	51.3	53.4
Total	51.5	51.0	52.0

Did not participate in 60 or more minutes of physical activity on any day			
Category	%	CI	
Gender			
Female	13.8	13.2	14.4
Male	11.4	10.9	12.0
Race/Ethnicity			
White	6.7	6.5	6.9
Black	19.6	18.7	20.6
Hispanic	24.6	21.4	28.1
Other/Multiple	13.1	11.8	14.5
Grade			
7th	13.0	12.2	13.9
8th	11.8	11.2	12.4
Total	12.6	12.2	13.1

Watched television 3 or more hours per day			
Category	%	CI	
Gender			
Female	29.5	28.8	- 30.2
Male	26.8	26.1	- 27.5
Race/Ethnicity			
White	16.1	15.8	- 16.5
Black	45.9	44.8	- 47.0
Hispanic	33.1	29.8	- 36.5
Other/Multiple	23.0	21.8	- 24.3
Grade			
7th	28.8	27.9	- 29.8
8th	27.2	26.2	- 28.2
Total	28.1	27.6	- 28.6

Used computers 3 or more hours per day			
Category	%	CI	
Gender			
Female	45.7	45.0	- 46.4
Male	47.3	46.5	- 48.0
Race/Ethnicity			
White	39.9	39.5	- 40.3
Black	55.7	54.6	- 56.9
Hispanic	54.5	50.9	- 58.0
Other/Multiple	46.5	45.1	- 47.8
Grade			
7th	45.8	44.8	- 46.7
8th	47.0	46.2	- 47.9
Total	46.5	46.0	- 47.1

Played on one or more sports teams			
Category	%	CI	
Gender			
Female	68.0	67.3	- 68.6
Male	74.4	73.7	- 75.2
Race/Ethnicity			
White	76.8	76.4	- 77.2
Black	66.0	64.9	- 67.0
Hispanic	52.0	49.1	- 54.9
Other/Multiple	70.1	68.6	- 71.6
Grade			
7th	71.9	71.0	- 72.9
8th	71.0	70.1	- 71.8
Total	71.2	70.7	- 71.7

Walked or rode bike to or from school 3 or more days			
Category	%	CI	
Gender			
Female	30.0	29.4	- 30.6
Male	33.8	33.1	- 34.5
Race/Ethnicity			
White	30.1	29.8	- 30.5
Black	35.3	34.2	- 36.4
Hispanic	30.3	27.7	- 33.2
Other/Multiple	29.8	28.4	- 31.2
Grade			
7th	31.3	30.5	- 32.1
8th	32.5	31.7	- 33.3
Total	31.9	31.5	- 32.4

Cuyahoga County Trend Data

The following table presents the prevalence of physical activity behaviors among Cuyahoga County middle school students in 2008, 2010, 2012, 2014 and 2016. The prevalence for each year is given (when available), with 95% confidence intervals below. ¹

Cuyahoga County, 2008	Cuyahoga County, 2010	Cuyahoga County, 2012	Cuyahoga County, 2014	Cuyahoga County, 2016
Participated in 60 or more minutes of physical activity on 5 or more days (During the 7 days before the survey.)				
49.6% (48.2-50.9)	54.0% (52.4-55.6)	54.7% (53.4-56.0)	51.2% (50.2-52.1)	51.5% (51.0-52.0)
Did not participate in 60 or more minutes of physical activity on any day (During the 7 days before the survey.)				
7.7% (7.0-8.3)	7.5% (6.6-8.3)	7.1% (6.5- 7.8)	9.6% (9.0-10.2)	12.6% (12.2-13.1)
Watched television 3 or more hours per day (On an average school day.)				
42.8% (41.4-44.2)	36.8% (34.4-39.1)	34.9% (33.8-35.9)	32.0% (31.2-32.9)	28.1% (27.6-28.6)
Used computers 3 or more hours per day (Played video or computer games or used a computer for something that was not school work on an average school day.)				
30.8% (29.2-32.3)	30.0% (28.2-31.7)	32.5% (31.4-33.6)	46.6% (45.7-47.5)	46.5% (46.0-47.1)
Played on one or more sports teams (During the past 12 months.)				
70.3% (68.2-72.4)	70.1% (68.4-71.7)	71.9% (70.7-73.0)	70.1% (69.2-71.0)	71.2% (70.7-71.7)

¹ The YRBS questions with two or more data points over 2008-2016 are included. The new 2016 questions are not included for the purpose of demonstrating trends. For those questions not asked in 2016, 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
Assistant Professor, Department of Epidemiology and Biostatistics
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 E. Kinsella, MPH
Community & Evaluation Project Coordinator
Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University
Audrey.kinsella@case.edu
216-368-5746

Partners & Funding

This work is funded either in whole or in part by a grant awarded by the Ohio Department of Health, Bureau of Child and Family Health Services, Child and Family Health Services Program as a sub-award of a grant issued by the Health Resources and Services Administration (HRSA) under the Maternal and Child Health Block Grant, grant award number B04MC26688, and CFDA number 93.994 and Am. Sub. H.B. 59, and by Cooperative Agreement #U87PS004165-02 from the U.S. Centers for Disease Control and Prevention, Division of Adolescent School Health (CDC-DASH).

This work was also funded by Cooperative Agreement Number 1-U48-DP-005030 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the PRCHN and do not necessarily represent the official views of the CDC.

This work was approved by the Institutional Review Board at Case Western Reserve University, Protocol #2012-274.



CUYAHOGA COUNTY
BOARD OF HEALTH

-
- 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.