



Prevention Research Center for Healthy Neighborhoods  
at Case Western Reserve University

# 2019 Cuyahoga County Youth Risk Behavior Survey: Physical Activity

## 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 fall of 2019, 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, [www.prchn.org/YRBSDataCollectionAnalysis.aspx](http://www.prchn.org/YRBSDataCollectionAnalysis.aspx).

This brief report presents results from the 2019 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](#)
- [Demographic Prevalence](#)
- [Trend Report](#)

Data for similar behaviors can be found at our website, [www.prchn.org/yrbs\\_home.aspx](http://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.<sup>i,ii</sup> 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.<sup>i</sup>

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.<sup>iii</sup> 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 15 high school students who completed the 2019 Cuyahoga County YRBS. Prevalence estimates and 95% confidence intervals were computed for all dichotomous variables. The 2019 Ohio Youth Risk Behavior Survey prevalence for shared variables is also shown. A statistically significant difference exists between groups if the 95% confidence intervals do not overlap.

Risk Behavior	Cuyahoga County % (95% Confidence Interval)	Ohio % (95% Confidence Interval)
<b>Participated in 60 or more minutes of physical activity on 5 or more days</b> (During the 7 days before the survey.)	41.0 (39.7 - 42.4)	43.1 (37.6 - 48.9)
<b>Did not participate in 60 or more minutes of physical activity on any day</b> (During the 7 days before the survey.)	19.1 (18.2 - 20.0)	20.5 (14.4 - 28.2)
<b>Watched television 3 or more hours per day</b> (On an average school day.)	21.2 (20.3 - 22.2)	n/a
<b>Played video or computer games or used a computer 3 or more hours per day</b> (On an average school day for something that was not school work; includes playing games, watching videos, texting, or using social media on a smartphone, computer, Xbox, PlayStation, iPad, or other tablet.)	49.6 (48.5 - 50.8)	n/a
<b>Played on 1 or more sports teams</b> (During the 12 months before the survey.)	62.0 (60.6 - 63.4)	57.1 (47.9 - 65.8)

## Demographic Prevalence

The tables below allow for further comparisons of physical activity behaviors between demographic groups. Data are presented by gender, race/ethnicity, grade level, and sexual identity. In following tables, LGB stands for lesbian, gay, or bisexual. 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	
<b>Gender</b>			
Female	33.3	31.8	34.9
Male	48.8	46.9	50.8
<b>Race/Ethnicity</b>			
White	47.5	45.5	49.5
Black	33.3	31.4	35.2
Hispanic	34.0	31.1	36.9
Other/Multiple	37.3	33.5	41.2
<b>Grade</b>			
9th	42.4	39.8	45.0
10th	42.3	39.6	45.0
11th	42.2	38.2	46.4
12th	37.3	34.2	40.4
<b>Sexual Identity</b>			
Heterosexual	44.1	42.7	45.6
LGB	27.3	24.7	30.1
Not sure	27.1	22.5	32.3
<b>Total</b>	<b>41.0</b>	<b>39.7</b>	<b>42.4</b>

Did not participate in 60 or more minutes of physical activity on any day			
Category	%	CI	Category
<b>Gender</b>			
Female	21.8	20.4	23.3
Male	16.3	15.0	17.7
<b>Race/Ethnicity</b>			
White	13.8	12.6	15.1
Black	25.9	24.4	27.4
Hispanic	23.9	21.4	26.5
Other/Multiple	19.0	16.3	22.2
<b>Grade</b>			
9th	17.6	15.8	19.5
10th	17.4	15.7	19.3
11th	18.4	16.3	20.6
12th	23.1	21.3	25.0
<b>Sexual Identity</b>			
Heterosexual	17.2	16.3	18.2
LGB	26.1	23.4	29.1
Not sure	28.9	24.4	33.9
<b>Total</b>	<b>19.1</b>	<b>18.2</b>	<b>20.0</b>

Watched television 3 or more hours per day			
Category	%	CI	
<b>Gender</b>			
Female	22.7	21.4	- 24.0
Male	19.8	18.6	- 21.0
<b>Race/Ethnicity</b>			
White	14.5	13.3	- 15.8
Black	30.4	28.8	- 32.1
Hispanic	27.2	24.8	- 29.8
Other/Multiple	19.5	17.0	- 22.4
<b>Grade</b>			
9th	23.9	21.7	- 26.3
10th	23.1	21.2	- 25.2
11th	18.9	16.9	- 21.2
12th	18.4	16.5	- 20.4
<b>Sexual Identity</b>			
Heterosexual	20.6	19.5	- 21.7
LGB	24.8	22.7	- 27.0
Not sure	23.4	19.1	- 28.3
<b>Total</b>	<b>21.2</b>	<b>20.3</b>	<b>- 22.2</b>

Played video or computer games or used a computer 3 or more hours per day			
Category	%	CI	
<b>Gender</b>			
Female	49.3	47.7	- 50.9
Male	50.0	48.2	- 51.9
<b>Race/Ethnicity</b>			
White	49.9	48.1	- 51.6
Black	49.0	47.2	- 50.9
Hispanic	54.3	51.8	- 56.9
Other/Multiple	48.7	44.5	- 52.8
<b>Grade</b>			
9th	50.2	47.7	- 52.7
10th	50.5	48.2	- 52.8
11th	50.0	48.0	- 52.1
12th	47.6	44.7	- 50.5
<b>Sexual Identity</b>			
Heterosexual	48.3	46.9	- 49.6
LGB	56.4	53.4	- 59.5
Not sure	56.1	50.4	- 61.6
<b>Total</b>	<b>49.6</b>	<b>48.5</b>	<b>- 50.8</b>

Played on one or more sports teams			
Category	%	CI	
<b>Gender</b>			
Female	59.0	57.2	- 60.8
Male	65.3	63.4	- 67.2
<b>Race/Ethnicity</b>			
White	68.2	66.2	- 70.1
Black	55.6	53.4	- 57.7
Hispanic	51.3	48.6	- 53.9
Other/Multiple	56.7	52.9	- 60.4
<b>Grade</b>			
9th	65.4	62.5	- 68.2
10th	65.4	62.2	- 68.5
11th	61.5	57.5	- 65.3
12th	55.4	52.3	- 58.4
<b>Sexual Identity</b>			
Heterosexual	65.5	64.0	- 67.0
LGB	45.7	42.5	- 48.9
Not sure	50.4	44.4	- 56.4
<b>Total</b>	<b>62.0</b>	<b>60.6</b>	<b>- 63.4</b>

## Cuyahoga County Trend Data

The following table presents the prevalence of physical activity behaviors among Cuyahoga County high school students in 2011, 2013, 2015, 2017, and 2019. The prevalence for each year is given (when available), with 95% confidence intervals below.

Cuyahoga County, 2011	Cuyahoga County, 2013	Cuyahoga County, 2015	Cuyahoga County, 2017	Cuyahoga County, 2019
<b>Participated in 60 or more minutes of physical activity on 5 or more days</b> (During the 7 days before the survey.)				
43.8 (42.4 - 45.2)	47.0 (45.6 - 48.3)	42.8 (41.2 - 44.4)	40.9 (39.6 - 42.1)	41.0 (39.7 - 42.4)
<b>Did not participate in 60 or more minutes of physical activity on any day</b> (During the 7 days before the survey.)				
14.3 (13.4 - 15.2)	15.6 (14.8 - 16.3)	17.7 (16.5 - 18.9)	17.9 (17.0 - 18.8)	19.1 (18.2 - 20.0)
<b>Watched television 3 or more hours per day</b> (On an average school day.)				
34.3 (33.0 - 35.6)	31.3 (30.0 - 32.6)	25.7 (24.3 - 27.2)	23.9 (22.9 - 25.0)	21.2 (20.3 - 22.2)
<b>*Played video or computer games or used a computer 3 or more hours per day</b> (On an average school day for something that was not school work; includes playing games, watching videos, texting, or using social media on a smartphone, computer, Xbox, PlayStation, iPad, or other tablet.)				
27.2 (26.1 - 28.3)	37.9 (36.5 - 39.3)	40.1 (38.1 - 42.0)	44.8 (43.6 - 46.0)	49.6 (48.5 - 50.8)
<b>Played on 1 or more sports teams</b> (During the 12 months before the survey.)				
60.2 (58.9 - 61.5)	61.7 (60.4 - 63.1)	61.5 (59.7 - 63.4)	60.0 (58.7 - 61.3)	62.0 (60.6 - 63.4)
<b>**Walk or ride bike to school 3 or more days</b> (During an average school week when the weather allows.)				
n/a	22.4 (21.4 - 23.5)	n/a	n/a	n/a
<b>**Walk or ride bike from school 3 or more days</b> (During an average school week when the weather allows.)				
n/a	28.2 (26.8 - 29.5)	n/a	n/a	n/a
<b>**Walk or ride bike to or from school 3 or more days</b> (During an average school week when the weather allows.)				
n/a	n/a	24.3 (22.8 - 25.8)	24.8 (23.6 - 26.1)	n/a

\* In 2017, “played video or computer games or used a computer, 3 or more hours per day” was revised 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.

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<sup>i</sup> 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.

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

<sup>iii</sup> Wu, X.Y., Han, L.H., Zhang, J.H., Luo, S., Hu, J.W., Sun, J., van Wouwe, J.P. (2017). The influence of physical activity, sedentary behavior on health-related quality of life among the general population of children and adolescents: A systematic review. *PLoS One* 12(11):e0187668.