



Prevention Research Center for Healthy Neighborhoods
at Case Western Reserve University

2017 Cuyahoga County Youth Risk Behavior Survey: Sexual Behaviors

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 Reproductive Health. 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.

Sexual Behaviors

Early sexual activity is associated with a high number of sexual partners,^{i,ii} STI contraction, teenage pregnancy,ⁱ and greater risk for unwanted sex.ⁱⁱⁱ Since 1990, teen pregnancy and birth rates in the United States have declined significantly. Researchers cite two main factors: fewer teens are having sex, and among those who are, more are using contraceptives.^{iv} While this is a positive trend, there are still risks for teens that are entering into sexual relationships during their adolescent years.^{iv}

Overall Prevalence

The following table summarizes reproductive health 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)
Ever had sexual intercourse (Had sexual intercourse 1 or more times during their life.)	40.0 (38.6-41.5)
Had sexual intercourse before age 13 years	4.9 (4.4-5.6)
Had sexual intercourse with 4 or more people (Among students who had ever had sexual intercourse.)	9.8 (9.0-10.6)
Currently sexually active (Had sexual intercourse with at least 1 person during the 3 months before the survey.)	28.2 (26.9-29.6)
Drank alcohol or used drugs before having sexual intercourse (Among students who were currently sexually active.)	18.3 (16.6-20.2)
Used a condom during last sexual intercourse (Among students who were currently sexually active.)	55.7 (53.2-58.2)
Been pregnant or gotten someone pregnant (One or more times during their life.)	2.9 (2.5-3.3)
Ever been taught about AIDS or HIV infection in school	81.1 (80.0-82.2)
Ever been tested for HIV, the virus that causes AIDS (Not including tests done if donating blood.)	13.9 (13.0-14.8)
Adults in family have talked about expectations with students about sex (What to do or not to do about sex.)	60.0 (58.7-61.2)

Regional Prevalence

The table below represents reproductive health 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)
Ever had sexual intercourse (Had sexual intercourse 1 or more times during their life.)	53.1 (49.9-56.2)	45.5 (41.7-49.5)	48.3 (44.9-51.7)	38.8 (34.8-43.0)	36.8 (34.0-39.8)	n/a
Had sexual intercourse before age 13 years	11.5 (9.8-13.4)	7.8 (6.4-9.5)	7.6 (5.7-10.0)	2.8 (2.1-3.6)	4.1 (2.7-6.2)	n/a
Had sexual intercourse with 4 or more people (Among students who had ever had sexual intercourse.)	16.4 (14.5-18.5)	12.2 (10.4-14.3)	14.0 (11.4-17.0)	6.3 (4.6-8.6)	7.9 (6.8-9.1)	n/a
Currently sexually active (Had sexual intercourse with at least 1 person during the 3 months before the survey.)	35.4 (32.5-38.5)	30.9 (27.4-34.7)	33.5 (30.4-36.8)	27.1 (23.9-30.6)	27.6 (24.9-30.6)	n/a
Drank alcohol or used drugs before having sexual intercourse (Among students who were currently sexually active.)	15.1 (12.5-18.1)	18.0 (14.6-22.1)	15.5 (12.0-19.8)	18.3 (12.9-25.2)	21.6 (18.8-24.7)	n/a
Used a condom during last sexual intercourse (Among students who were currently sexually active.)	51.8 (48.0-55.5)	45.9 (42.2-49.6)	49.3 (44.1-54.6)	60.2 (53.8-66.3)	69.7 (66.2-72.9)	n/a
Been pregnant or gotten someone pregnant (One or more times during their life.)	6.5 (5.4-7.8)	4.5 (3.5-5.7)	4.5 (3.2-6.2)	1.9 (1.4-2.6)	1.5 (1.0-2.2)	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)
Ever been taught about AIDS or HIV infection in school	69.3 (66.9-71.7)	65.4 (62.4-68.2)	79.3 (75.7-82.5)	84.5 (82.4-86.4)	85.3 (81.8-88.3)	n/a
Ever been tested for HIV, the virus that causes AIDS (Not including tests done if donated blood.)	23.8 (21.5-26.3)	21.9 (19.9-24.0)	16.3 (13.7-19.2)	9.0 (7.6-10.7)	9.9 (8.7-11.2)	n/a
Adults in family have talked about expectations with students about sex (What to do or not to do about sex.)	69.5 (67.1-71.8)	60.1 (57.7-62.5)	66.1 (32.1-69.8)	55.2 (52.7-57.6)	60.4 (57.9-62.8)	n/a

Demographic Prevalence

The tables below allow for further comparisons of reproductive health 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.

Ever had sexual intercourse		
Category	%	CI
Gender		
Female	37.1	35.1 - 39.2
Male	43.0	41.2 - 44.7
Race/Ethnicity		
White	32.2	30.2 - 34.4
Black	51.4	49.1 - 53.8
Hispanic	45.9	42.2 - 49.7
Other/Multiple	29.9	25.9 - 34.3
Grade		
9th	23.9	21.5 - 26.5
10th	33.8	31.2 - 36.5
11th	48.9	46.2 - 51.7
12th	59.3	56.5 - 62.0
Total	40.0	38.6 - 41.5

Had sexual intercourse before age 13 years		
Category	%	CI
Gender		
Female	1.7	1.4 - 2.1
Male	8.1	7.0 - 9.4
Race/Ethnicity		
White	1.5	1.2 - 1.9
Black	9.6	8.3 - 11.1
Hispanic	6.6	5.4 - 8.2
Other/Multiple	6.5	4.8 - 8.7
Grade		
9th	5.8	4.7 - 7.3
10th	4.2	3.5 - 5.1
11th	5.2	3.5 - 7.7
12th	4.3	3.5 - 5.3
Total	4.9	4.4 - 5.6

Had sexual intercourse with 4 or more people		
Category	%	CI
Gender		
Female	6.6	5.8 - 7.4
Male	12.9	11.6 - 14.3
Race/Ethnicity		
White	5.9	5.1 - 6.8
Black	15.4	13.8 - 17.2
Hispanic	9.2	7.5 - 11.2
Other/Multiple	10.0	7.1 - 13.9
Grade		
9th	5.5	4.2 - 7.3
10th	6.6	5.6 - 7.8
11th	12.1	10.1 - 14.4
12th	17.0	15.0 - 19.1
Total	9.8	9.0 - 10.6

Currently sexually active		
Category	%	CI
Gender		
Female	27.0	25.4 - 28.7
Male	29.4	27.7 - 31.2
Race/Ethnicity		
White	23.6	21.8 - 25.4
Black	35.1	33.2 - 37.1
Hispanic	32.7	29.5 - 36.0
Other/Multiple	20.9	17.1 - 25.3
Grade		
9th	14.5	12.4 - 16.9
10 th	22.3	20.1 - 24.6
11th	36.4	33.7 - 39.2
12th	45.1	42.5 - 47.8
Total	28.2	26.9 - 29.6

Drank alcohol or used drugs before having sexual intercourse			
Category	%	CI	
Gender			
Female	19.0	16.6	21.7
Male	17.6	15.3	20.2
Race/Ethnicity			
White	19.4	16.5	22.6
Black	16.7	14.5	19.3
Hispanic	20.2	15.8	25.5
Other/Multiple	30.6	20.4	43.1
Grade			
9th	14.2	11.1	17.8
10th	14.1	10.8	18.3
11th	19.4	16.9	22.1
12th	22.0	18.8	25.5
Total	18.3	16.6	20.2

Used a condom during last sexual intercourse			
Category	%	CI	
Gender			
Female	48.9	45.5	52.3
Male	62.0	59.1	64.9
Race/Ethnicity			
White	60.4	56.0	64.5
Black	51.8	48.5	55.0
Hispanic	53.3	47.9	58.6
Other/Multiple	50.8	39.4	62.1
Grade			
9th	60.8	56.8	64.7
10 th	60.0	53.7	66.0
11th	53.1	49.4	56.8
12th	52.8	48.5	57.0
Total	55.7	53.2	58.2

Been pregnant or gotten someone pregnant		
Category	%	CI
Gender		
Female	2.9	2.4 - 3.4
Male	2.8	2.3 - 3.5
Race/Ethnicity		
White	1.2	0.9 - 1.6
Black	4.9	4.1 - 5.9
Hispanic	4.3	3.4 - 5.5
Other/Multiple	2.4	1.8 - 3.2
Grade		
9th	2.2	1.4 - 3.4
10th	1.8	1.4 - 2.4
11th	3.5	2.7 - 4.5
12th	4.4	3.5 - 5.5
Total	2.9	2.5 - 3.3

Ever been taught about AIDS or HIV infection in school		
Category	%	CI
Gender		
Female	82.5	81.2 - 83.7
Male	79.9	78.2 - 81.5
Race/Ethnicity		
White	86.4	85.2 - 87.4
Black	76.0	73.7 - 78.2
Hispanic	69.6	66.4 - 72.7
Other/Multiple	76.5	72.5 - 80.1
Grade		
9th	76.1	73.8 - 78.3
10 th	83.9	81.8 - 85.8
11th	81.1	78.6 - 83.4
12th	84.2	81.8 - 86.2
Total	81.1	80.0 - 82.2

Ever been tested for HIV, the virus that causes AIDS			
Category	%	CI	
Gender			
Female	13.5	12.5	14.6
Male	14.2	12.9	15.6
Race/Ethnicity			
White	9.9	8.9	11.0
Black	18.7	17.1	20.5
Hispanic	19.0	16.6	21.7
Other/Multiple	14.8	11.2	19.2
Grade			
9th	10.5	8.5	12.8
10th	10.4	9.1	11.8
11th	15.9	14.4	17.5
12th	20.4	18.2	22.8
Total	13.9	13.0	14.8

Adults in family have talked about expectations with students about sex			
Category	%	CI	
Gender			
Female	63.5	61.8	65.1
Male	56.6	54.9	58.3
Race/Ethnicity			
White	55.6	54.2	57.0
Black	67.1	64.7	69.5
Hispanic	61.1	57.8	64.2
Other/Multiple	45.9	40.7	51.2
Grade			
9th	59.4	56.5	62.3
10 th	60.2	57.9	62.4
11th	58.1	55.8	60.3
12th	63.1	60.0	66.2
Total	60.0	58.7	61.2

Cuyahoga County Trend Data

The following table presents the prevalence of reproductive health 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
Ever had sexual intercourse (Had sexual intercourse 1 or more times during their life.)				
55.5 (52.2-58.8)	45.2 (43.3-47.1)	44.4 (42.3-46.4)	39.6 (37.6-41.6)	40.0 (38.6-41.5)
Had sexual intercourse before age 13 years				
11.0 (8.5-13.5)	7.4 (6.5-8.3)	7.0 (6.4-7.7)	5.3 (4.7-6.0)	4.9 (4.4-5.6)
Had sexual intercourse with 4 or more people (Among students who had ever had sexual intercourse.)				
20.0 (17.5-22.5)	15.8 (14.6-17.0)	14.8 (13.7-16.0)	11.1 (9.6-12.8)	9.8 (9.0-10.6)
Currently sexually active (Had sexual intercourse with at least 1 person during the 3 months before the survey.)				
33.6 (31.3-35.9)	33.0 (31.4-34.6)	32.0 (30.3-33.7)	28.1 (26.4-30.0)	28.2 (26.9-29.6)
Drank alcohol or used drugs before having sexual intercourse (Among students who were currently sexually active.)				
n/a	n/a	n/a	17.7 (14.9-19.5)	18.3 (16.6-20.2)
Used a condom during last sexual intercourse (Among students who had ever had sexual intercourse.)				
63.2 (60.5-65.9)	64.7 (62.8-66.6)	64.9 (63.1-66.7)	61.2 (58.4-63.9)	57.3 (55.1-59.4)
Used a condom during last sexual intercourse (Among students who were currently sexually active.)				
59.0 (55.4-62.5)	61.4 (59.2-63.6)	62.1 (59.9-64.3)	56.6 (52.9-60.3)	55.7 (53.2-58.2)
Been pregnant or gotten someone pregnant (One or more times during their life.)				
6.2 (5.0-7.4)	5.1 (4.5-5.7)	3.9 (3.5-4.4)	3.4 (3.0-3.9)	2.9 (2.5-3.3)

Cuyahoga County, 2009	Cuyahoga County, 2011	Cuyahoga County, 2013	Cuyahoga County, 2015	Cuyahoga County, 2017
Ever been taught about AIDS or HIV infection in school				
90.0 (88.5-91.5)	92.1 (91.4-92.8)	n/a	84.0 (82.9-85.1)	81.1 (80.0-82.2)
Ever been tested for HIV, the virus that causes AIDS (Not including tests done if donating blood.)				
14.9 (12.8-16.9)	15.8 (14.7-16.8)	n/a	14.3 (13.4-15.3)	13.9 (13.0-14.8)
Adults in family have talked about expectations with student about sex (What to do or not to do when it comes to sex)				
71.1 (69.5-72.8)	n/a	n/a	n/a	60.0 (58.7-61.2)

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 Smith, C. 1997. Factors Associated with Early Sexual Activity among Urban Adolescents. *Social Work*. 42(4):334-346.

ⁱⁱ Santelli, J., Brener, N., Lowry, R., Bhatt, A., Zabin, L. 1998. Multiple Sexual Partners among U.S. Adolescents and Young Adults. *Family Planning Perspectives*. 30(6):271-275.

ⁱⁱⁱ Moore, K., Manlove, J., Gleib, D., Morrison, D. 1998. Nonmarital School-age Motherhood: Family, Individual, and School Characteristics. *Journal of Adolescent Research*. 13(4):433-457.

^{iv} Martin, J., Hamilton, B., Sutton, P., Ventura, S., Menacker, F., Kirmeyer, S., Munson, M. 2007. Births: final data for 2005. *National Vital Statistics Reports*. 56(6).

