



Prevention Research Center for Healthy Neighborhoods  
at Case Western Reserve University

# 2017 Cuyahoga County Youth Risk Behavior Survey: Depressive Symptoms and Suicide

## 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 spring of 2017, 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 2017 Cuyahoga County High School Youth Risk Behavior Survey, with a particular focus on Depressive Symptoms and Suicide. 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](http://www.prchn.org/yrbs_home.aspx).

## Depressive Symptoms and Suicide

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Mental illness encompasses a variety of diagnosable disorders that occur when there are alterations in the thinking, mood, or behavior of a person that result in distress or impaired functioning.<sup>i</sup> Some mental illnesses include symptoms of depression, anxiety, and suicidal ideation.<sup>ii</sup>

Adolescents are particularly vulnerable to the development of mental health issues given that the period of adolescence is a critical time for mental, social, and emotional development. Ultimately, many mental illnesses first surface during adolescence; 20% of adolescents in the United State have a diagnosable mental illness and nearly 70% do not receive the necessary care.<sup>iii</sup>

## Overall Prevalence

The following table summarizes depression and suicide 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)
<b>Purposely hurt self without wanting to die</b> (Such as cutting or burning self; during the 12 months before survey.)	18.4 (17.6-19.1)
<b>Felt sad or hopeless</b> (Almost every day for 2 weeks or more in a row; during the 12 months before the survey.)	30.9 (29.9-31.9)
<b>Seriously considered attempting suicide</b> (During the 12 months before the survey.)	17.4 (16.5-18.3)
<b>Attempted suicide</b> (One or more times during the 12 months before the survey.)	11.6 (10.8-12.5)
<b>Knew someone who completed suicide</b>	31.6 (30.6-32.7)

## Regional Prevalence

The overall response rate for inner and outer ring east (57% and 52%, respectively) **did not** reach the standard of 60%, which allows for the data to be considered representative of all students, even those that did not complete the survey. Since the overall response rate was close to the standard of 60%, we have included weighted estimates for these regions. A weight was applied to each record to adjust for student non response and the distribution of students by grade, gender, race/ethnicity, and geographic region within Cuyahoga County. The stability of the data should be considered, given the lower than required overall response rate, and results should be interpreted with caution. In addition, the overall response rate for outer ring west was insufficient for analysis.

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)
<b>Purposely hurt self without wanting to die</b> (Such as cutting or burning self; during the 12 months before survey.)	20.3 (18.6-22.2)	22.2 (20.4-24.0)	15.7 (14.3-17.2)	21.9 (19.7-24.3)	11.7 (10.1-13.6)	n/a
<b>Felt sad or hopeless</b> (Almost every day for 2 weeks or more in a row; during the 12 months before the survey.)	32.3 (30.2-34.4)	36.6 (34.2-39.0)	30.5 (28.8-32.3)	37.4 (34.8-40.0)	23.5 (21.0-26.2)	n/a
<b>Seriously considered attempting suicide</b> (During the 12 months before the survey.)	16.8 (15.3-18.4)	18.9 (17.1-20.9)	17.6 (15.7-19.7)	20.7 (18.4-23.1)	16.4 (13.1-20.3)	n/a
<b>Attempted suicide</b> (One or more times during the 12 months before the survey.)	17.6 (15.9-19.4)	19.0 (17.2-20.9)	13.9 (11.7-16.4)	10.5 (9.1-12.0)	7.8 (5.4-11.1)	n/a
<b>Knew someone who completed suicide</b>	24.1 (22.2-26.2)	32.6 (30.5-34.9)	24.1 (21.8-26.6)	34.1 (31.9-36.3)	24.9 (22.5-27.4)	n/a

## Demographic Prevalence

The tables below allow for further comparisons of depression and suicide 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.

Purposely hurt self without wanting to die		
Category	%	CI
<b>Gender</b>		
Female	24.1	22.8 - 25.3
Male	13.0	11.8 - 14.1
<b>Race/Ethnicity</b>		
White	19.7	18.5 - 21.0
Black	15.5	14.5 - 16.6
Hispanic	26.1	23.8 - 28.6
Other/Multiple	21.5	18.2 - 25.2
<b>Grade</b>		
9th	18.8	17.7 - 20.1
10th	19.2	17.4 - 21.1
11th	18.2	16.7 - 19.8
12th	16.0	14.4 - 17.9
<b>Total</b>	<b>18.4</b>	<b>17.6 - 19.1</b>

Felt sad or hopeless		
Category	%	CI
<b>Gender</b>		
Female	41.1	39.7 - 42.5
Male	21.3	19.9 - 22.7
<b>Race/Ethnicity</b>		
White	30.7	29.0 - 32.4
Black	29.8	28.4 - 31.1
Hispanic	42.7	39.6 - 45.8
Other/Multiple	31.8	27.8 - 36.1
<b>Grade</b>		
9th	29.6	28.1 - 31.0
10th	30.4	28.1 - 32.9
11th	32.2	30.4 - 34.0
12th	31.1	28.9 - 33.4
<b>Total</b>	<b>30.9</b>	<b>29.9 - 31.9</b>

Seriously considered attempting suicide			
Category	%	CI	
<b>Gender</b>			
Female	22.7	21.6	- 23.9
Male	12.4	11.2	- 13.7
<b>Race/Ethnicity</b>			
White	17.0	15.8	- 18.2
Black	17.4	15.9	- 18.9
Hispanic	21.7	19.2	- 24.6
Other/Multiple	19.9	16.9	- 23.4
<b>Grade</b>			
9th	17.4	16.0	- 18.9
10th	17.2	15.4	- 19.1
11th	19.1	16.9	- 21.4
12th	15.3	13.4	- 17.4
<b>Total</b>	<b>17.4</b>	<b>16.5</b>	<b>- 18.3</b>

Attempted suicide			
Category	%	CI	
<b>Gender</b>			
Female	13.1	12.2	- 14.0
Male	10.1	9.0	- 11.4
<b>Race/Ethnicity</b>			
White	8.1	7.3	- 9.0
Black	14.4	12.9	- 16.1
Hispanic	20.4	18.1	- 22.9
Other/Multiple	17.2	13.9	- 21.0
<b>Grade</b>			
9th	12.4	11.2	- 13.6
11th	10.6	9.3	- 12.0
11th	11.6	9.6	- 13.9
12th	11.2	9.4	- 13.3
<b>Total</b>	<b>11.6</b>	<b>10.8</b>	<b>- 12.5</b>

Knew someone who completed suicide			
Category	%	CI	
<b>Gender</b>			
Female	37.2	35.5	- 38.9
Male	26.6	25.2	- 28.1
<b>Race/Ethnicity</b>			
White	36.9	35.4	- 38.4
Black	23.9	22.3	- 25.7
Hispanic	36.4	33.3	- 39.7
Other/Multiple	33.7	29.7	- 37.9
<b>Grade</b>			
9th	28.0	26.0	- 30.3
10th	31.6	29.5	- 33.8
11th	32.9	29.7	- 36.3
12th	34.2	31.5	- 37.1
<b>Total</b>	<b>31.6</b>	<b>30.6</b>	<b>- 32.7</b>

## Cuyahoga County Trend Data

The following table presents the prevalence of depression and suicide 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
<b>Purposely hurt self without wanting to die</b> (Such as cutting or burning self; during the 12 months before survey.)				
12.8 (11.5-14.1)	10.0 (9.3-10.7)	16.7 (15.9-17.6)	18.1 (17.1-19.1)	18.4 (17.6-19.1)
<b>Felt sad or hopeless</b> (Almost every day for 2 weeks or more in a row; during the 12 months before the survey.)				
25.5 (23.7-27.3)	25.6 (24.6-26.6)	25.6 (24.6-26.5)	28.4 (27.1-29.7)	30.9 (29.9-31.9)
<b>Seriously considered attempting suicide</b> (During the 12 months before the survey.)				
11.9 (10.7-13.1)	12.3 (11.5-13.1)	13.8 (13.0-14.6)	15.7 (14.7-16.7)	17.4 (16.5-18.3)
<b>Attempted suicide</b> (One or more times during the 12 months before the survey.)				
9.2 (7.9-10.5)	7.5 (6.8-8.2)	10.2 (9.5-10.9)	11.4 (10.6-12.3)	11.6 (10.8-12.5)

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<sup>i</sup> U.S. Department of Health and Human Services. 1999. *Mental Health: A Report of the Surgeon General*. Rockville: U.S. Department of Health and Human Services; Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institutes of Mental Health.

<sup>ii</sup> Schwarz, SW. 2009. *Adolescent Mental Health in the United States*. New York: National Center for Children in Poverty.

<sup>iii</sup> Centers for Disease Control and Prevention. 2009. *School Connectedness: Strategies for Increasing Protective Factors Among Youth*. Atlanta, GA: U.S. Department of Health and Human Service.

