



Prevention Research Center for Healthy Neighborhoods
at Case Western Reserve University

2019 Cuyahoga County Youth Risk Behavior Survey: Depressive Symptoms and Suicide

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 fall of 2019, 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 2019 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](#)
- [Demographic Prevalence](#)
- [Trend Report](#)

Data for similar behaviors can be found at our website, www.prchn.org/yrbs_home.aspx.

Depressive Symptoms and Suicide

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.ⁱ Some mental illnesses include symptoms of depression, anxiety, and suicidal ideation.ⁱⁱ

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.ⁱⁱⁱ

Overall Prevalence

The following table summarizes depressive symptoms and suicide behaviors among the 15,350 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) |
|---|---|--|
| Purposely hurt self without wanting to die (Such as cutting or burning self; during the 12 months before the survey.) | 18.5 (17.6 - 19.4) | 17.7 (15.8 - 19.7) |
| Felt very stressed (Sometimes, most of the time, or always; during the 30 days before the survey.) | 77.0 (75.8 - 78.1) | n/a |
| Felt sad or hopeless (Almost every day for 2 weeks or more in a row; during the 12 months before the survey.) | 33.7 (32.5 - 35.0) | 33.0 (27.9 - 38.6) |
| Seriously considered attempting suicide (During the 12 months before the survey.) | 16.4 (15.5 - 17.3) | 15.6 (13.3 - 18.2) |
| Made a suicide plan (During the 12 months before the survey.) | 13.2 (12.4 - 14.0) | 10.5 (8.7 - 12.7) |
| Attempted suicide (One or more times during the 12 months before the survey.) | 8.9 (8.3 - 9.5) | 6.8 (4.9 - 9.2) |
| Knew someone who died by suicide | 39.1 (37.7 - 40.5) | n/a |

Demographic Prevalence

The tables below allow for further comparisons of depressive symptoms and suicide 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.

| Purposely hurt self without wanting to die | | | |
|--|-------------|-------------|-------------|
| Category | % | CI | |
| Gender | | | |
| Female | 25.1 | 23.7 | 26.5 |
| Male | 11.9 | 10.9 | 13.1 |
| Race/Ethnicity | | | |
| White | 18.5 | 17.3 | 19.8 |
| Black | 17.6 | 16.2 | 19.0 |
| Hispanic | 23.9 | 21.7 | 26.2 |
| Other/Multiple | 21.9 | 19.2 | 24.9 |
| Grade | | | |
| 9th | 20.7 | 19.1 | 22.4 |
| 10th | 18.5 | 17.1 | 20.0 |
| 11th | 18.1 | 16.0 | 20.4 |
| 12th | 16.0 | 14.4 | 17.7 |
| Sexual Identity | | | |
| Heterosexual | 13.6 | 12.7 | 14.5 |
| LGB | 45.5 | 42.4 | 48.6 |
| Not sure | 30.4 | 25.6 | 35.8 |
| Total | 18.5 | 17.6 | 19.4 |

| Felt very stressed | | | |
|------------------------|-------------|-------------|-------------|
| Category | % | CI | |
| Gender | | | |
| Female | 88.7 | 87.7 | 89.7 |
| Male | 65.5 | 63.8 | 67.1 |
| Race/Ethnicity | | | |
| White | 81.9 | 80.4 | 83.4 |
| Black | 69.8 | 67.8 | 71.6 |
| Hispanic | 73.8 | 70.9 | 76.5 |
| Other/Multiple | 79.8 | 77.2 | 82.2 |
| Grade | | | |
| 9th | 73.1 | 70.5 | 75.6 |
| 10th | 77.1 | 74.5 | 79.5 |
| 11th | 79.5 | 77.2 | 81.6 |
| 12th | 78.7 | 76.3 | 80.9 |
| Sexual Identity | | | |
| Heterosexual | 74.5 | 73.2 | 75.8 |
| LGB | 91.0 | 88.9 | 92.7 |
| Not sure | 82.0 | 77.3 | 85.9 |
| Total | 77.0 | 75.8 | 78.1 |

| Felt sad or hopeless | | | |
|------------------------|-------------|-------------|---------------|
| Category | % | CI | |
| Gender | | | |
| Female | 43.8 | 41.9 | - 45.7 |
| Male | 23.8 | 22.2 | - 25.4 |
| Race/Ethnicity | | | |
| White | 32.2 | 30.3 | - 34.1 |
| Black | 34.3 | 32.5 | - 36.1 |
| Hispanic | 44.8 | 42.1 | - 47.4 |
| Other/Multiple | 33.4 | 30.3 | - 36.6 |
| Grade | | | |
| 9th | 31.0 | 29.1 | - 33.0 |
| 10th | 32.2 | 30.1 | - 34.5 |
| 11th | 34.8 | 32.2 | - 37.6 |
| 12th | 36.8 | 33.8 | - 40.0 |
| Sexual Identity | | | |
| Heterosexual | 28.3 | 26.9 | - 29.6 |
| LGB | 62.9 | 60.0 | - 65.6 |
| Not sure | 47.5 | 41.9 | - 53.1 |
| Total | 33.7 | 32.5 | - 35.0 |

| Seriously considered attempting suicide | | | |
|---|-------------|-------------|---------------|
| Category | % | CI | |
| Gender | | | |
| Female | 22.0 | 20.5 | - 23.6 |
| Male | 10.8 | 9.8 | - 11.8 |
| Race/Ethnicity | | | |
| White | 15.6 | 14.4 | - 17.0 |
| Black | 16.5 | 15.2 | - 18.0 |
| Hispanic | 21.2 | 18.9 | - 23.6 |
| Other/Multiple | 19.0 | 16.2 | - 22.1 |
| Grade | | | |
| 9th | 15.8 | 14.2 | - 17.5 |
| 10th | 15.1 | 13.6 | - 16.7 |
| 11th | 17.9 | 16.0 | - 20.0 |
| 12th | 16.4 | 14.5 | - 18.5 |
| Sexual Identity | | | |
| Heterosexual | 12.1 | 11.3 | - 13.0 |
| LGB | 39.9 | 37.0 | - 42.9 |
| Not sure | 27.1 | 22.3 | - 32.5 |
| Total | 16.4 | 15.5 | - 17.3 |

| Made a suicide plan | | |
|------------------------|-------------|--------------------|
| Category | % | CI |
| Gender | | |
| Female | 17.8 | 16.6 - 19.0 |
| Male | 8.6 | 7.7 - 9.7 |
| Race/Ethnicity | | |
| White | 12.0 | 10.9 - 13.2 |
| Black | 14.0 | 12.8 - 15.2 |
| Hispanic | 17.0 | 15.1 - 19.2 |
| Other/Multiple | 16.8 | 14.1 - 19.8 |
| Grade | | |
| 9th | 14.2 | 12.6 - 16.0 |
| 10th | 12.5 | 11.2 - 13.9 |
| 11th | 13.5 | 11.9 - 15.3 |
| 12th | 11.9 | 10.4 - 13.6 |
| Sexual Identity | | |
| Heterosexual | 9.7 | 9.0 - 10.5 |
| LGB | 31.6 | 28.9 - 34.4 |
| Not sure | 22.9 | 18.4 - 28.2 |
| Total | 13.2 | 12.4 - 14.0 |

| Attempted suicide | | |
|------------------------|------------|------------------|
| Category | % | CI |
| Gender | | |
| Female | 11.1 | 10.1 - 12.2 |
| Male | 6.6 | 5.9 - 7.4 |
| Race/Ethnicity | | |
| White | 5.5 | 4.8 - 6.3 |
| Black | 12.1 | 11.0 - 13.3 |
| Hispanic | 15.9 | 13.9 - 18.0 |
| Other/Multiple | 12.4 | 10.1 - 15.2 |
| Grade | | |
| 9th | 10.0 | 8.7 - 11.4 |
| 10th | 8.7 | 7.5 - 10.0 |
| 11th | 8.3 | 7.0 - 10.0 |
| 12th | 7.9 | 6.9 - 9.1 |
| Sexual Identity | | |
| Heterosexual | 6.8 | 6.3 - 7.5 |
| LGB | 19.9 | 17.7 - 22.4 |
| Not sure | 13.8 | 10.7 - 17.6 |
| Total | 8.9 | 8.3 - 9.5 |

| Knew someone who died by suicide | | | |
|----------------------------------|-------------|-------------|---------------|
| Category | % | CI | |
| Gender | | | |
| Female | 43.3 | 41.5 | - 45.1 |
| Male | 34.9 | 33.1 | - 36.7 |
| Race/Ethnicity | | | |
| White | 38.4 | 36.3 | - 40.5 |
| Black | 39.9 | 38.0 | - 41.8 |
| Hispanic | 42.0 | 39.2 | - 44.8 |
| Other/Multiple | 38.4 | 34.9 | - 42.0 |
| Grade | | | |
| 9th | 41.5 | 38.8 | - 44.3 |
| 10th | 37.5 | 34.7 | - 40.4 |
| 11th | 38.3 | 35.0 | - 41.6 |
| 12th | 38.6 | 35.7 | - 41.7 |
| Sexual Identity | | | |
| Heterosexual | 37.9 | 36.4 | - 39.4 |
| LGB | 48.4 | 45.4 | - 51.5 |
| Not sure | 35.6 | 30.5 | - 41.0 |
| Total | 39.1 | 37.7 | - 40.5 |

Cuyahoga County Trend Data

The following table presents the prevalence of depressive symptoms and suicide 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 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Purposely hurt self without wanting to die (Such as cutting or burning self; during the 12 months before the survey.) | | | | |
| 10.0 (9.3 - 10.7) | 16.7 (15.9 - 17.6) | 18.1 (17.1 - 19.1) | 18.4 (17.6 - 19.1) | 18.5 (17.6 - 19.4) |
| Felt sad or hopeless (Almost every day for 2 weeks or more in a row; during the 12 months before the survey.) | | | | |
| 25.6 (24.6 - 26.6) | 25.6 (24.6 - 26.5) | 28.4 (27.1 - 29.7) | 30.9 (29.9 - 31.9) | 33.7 (32.5 - 35.0) |
| Seriously considered attempting suicide (During the 12 months before the survey.) | | | | |
| 12.3 (11.5 - 13.1) | 13.8 (13.0 - 14.6) | 15.7 (14.7 - 16.7) | 17.4 (16.5 - 18.3) | 16.4 (15.5 - 17.3) |
| Attempted suicide (One or more times during the 12 months before the survey.) | | | | |
| 7.5 (6.8 - 8.2) | 10.2 (9.5 - 10.9) | 11.4 (10.6 - 12.3) | 11.6 (10.8 - 12.5) | 8.9 (8.3 - 9.5) |
| *Knew someone who died by suicide | | | | |
| n/a | n/a | n/a | 31.6 (30.6 - 32.7) | 39.1 (37.7 - 40.5) |

* In 2019, this question was revised from “Knew someone who completed suicide” to “Knew someone who died by suicide”.

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ⁱ 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.

ⁱⁱ Schwarz, S.W.. (2009). *Adolescent Mental Health in the United States*. New York: National Center for Children in Poverty.

ⁱⁱⁱ 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.