

# YOUTH RISK BEHAVIOR SURVEY (YRBS)



OKLAHOMA  
State Department  
of Health

DEPRESSION AND ASSOCIATED  
RISK FACTORS AMONG PUBLIC  
HIGH SCHOOL STUDENTS IN  
OKLAHOMA

# INTRODUCTION

Depression in adolescents is on the rise in Oklahoma and across the nation.<sup>1</sup> Depression can be associated with a multitude of risk factors that may include: abuse, trauma, drug use, bullying, and disconnectedness from family, friends, or other underlying conditions.<sup>2</sup> Signs and symptoms of depression vary but may include: a change in attitude, change in diet or pleasure in things they usually find pleasurable in, also spending an abundant amount of time alone away from family and friends, and possibly even a drop in their scholastic grades.<sup>2</sup>

Although not every adolescent diagnosed with depression becomes suicidal, the risk is greater. Youth suicides are a community, state, and national crisis that must be addressed.<sup>2</sup> In the following report, the data show the need to bring a greater awareness to the State regarding the devastating effects of depression and suicide. The Oklahoma State Department of Health will assist in building a stronger collective effort to address adolescent mental health issues and prevention efforts for suicide.



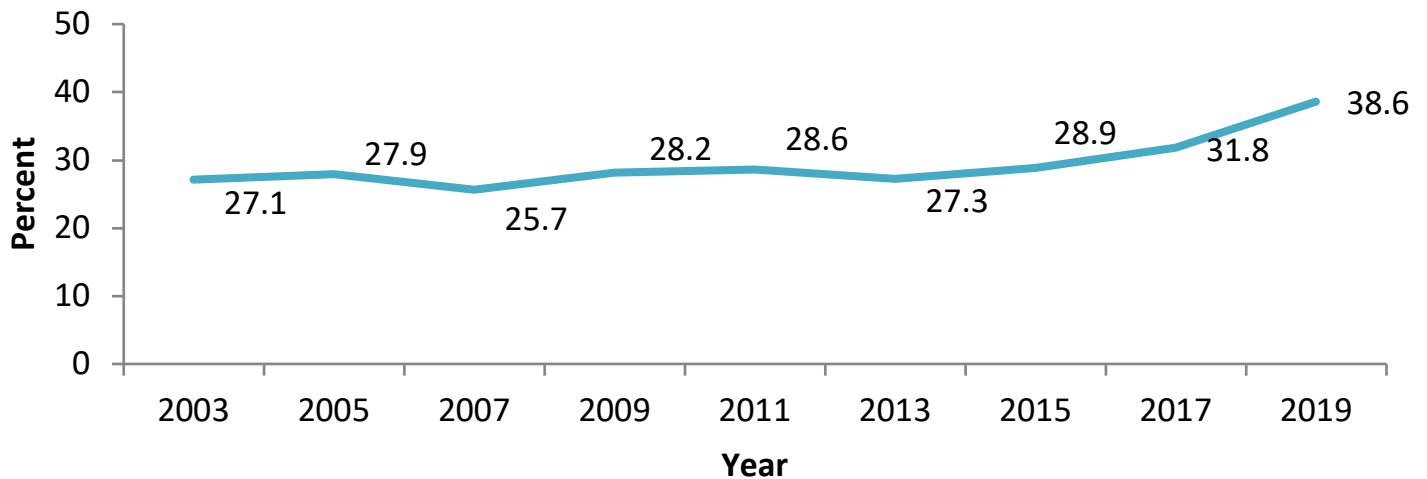
# METHODS

Data from the Oklahoma Youth Risk Behavior Survey (YRBS) 2003 to 2019 were used for this report. The statewide, randomized YRBS is conducted biennially on odd-numbered years. The sample was selected using a two-stage sampling design. Schools were first selected for participation based on probability proportional to enrollment. Classes were then selected from each school using systematic equal probability sampling with a random start. The sample is weighted to be representative of Oklahoma public high school students in grades nine through 12 based on the demographic distribution of the enrolled student population provided by the Oklahoma State Department of Education. For the 2019 YRBS, 2,008 questionnaires were completed in 44 out of 50 public high schools for a school participation rate of 88%, a student participation rate of 86%, and an overall response rate of 75%. Statistical significance for trend data was determined using logistic regression controlling for sex, race/ethnicity, and grade. Statistical significance for differences in proportions were based on the Rao-Scott Chi-squared test.

# RESULTS

The percentage of students who reported they felt so sad or hopeless almost every day for two or more weeks in a row that they stopped doing usual activities during the 12 months before the survey has seen significant change over time, increasing from 27.1% in 2003 to 38.6% in 2019 (Figure 1).

**Figure 1. The percentage of students who felt so sad or hopeless almost every day for 2 or more weeks in a row so that they stopped doing some usual activities during the twelve months before the survey: Oklahoma YRBS 2003-2019**



Nearly four in ten students (38.6%) reported that they felt so sad or hopeless almost every day for two or more weeks in a row that they stopped doing usual activities (signs of depression) during the 12 months before the survey (Table 1). Differences were observed by gender as females experienced signs of depression nearly twice as often as males at 47.8% and 29.8%, respectively. Differences were also observed by race/ethnicity as non-Hispanic Blacks were less likely to have experienced signs of depression compared to all other race/ethnic groups.

**Table 1. Prevalence of Feeling Sad or Hopeless by Demographic Characteristics: Oklahoma YRBS 2019**

	Weighted % <sup>1</sup>	p-value <sup>2</sup>
<b>Gender</b>		
Female	47.8	
Male	29.8	<.0001
<b>Grade</b>		
9th	35.2	
10th	38.9	
11th	43.0	
12th	37.1	0.2842
<b>Race</b>		
Multiple races	45.8	
Hispanic	40.3	
Native American	42.5	
Black	22.6	
Asian	31.7	
White	38.8	0.0074
<b>Total</b>	<b>38.6</b>	

<sup>1</sup> Representative of all public school 9-12 graders

<sup>2</sup> Rao-Scott Chi-Squared test

When examining sadness or hopelessness with other health risk behaviors, significant associations were observed (Table 2). Among students who felt sad or hopeless, 17.1% had ever been forced to have sex, compared to 4.1% of those who did not feel sad or hopeless,  $p < .0001$ . Similar results were observed for all remaining selected risk behaviors: experienced sexual violence (20.8% vs 5.1%); had a suicide risk in the past 12 months (52.2% vs 11.1%); drank alcohol recently (39.9% vs 19.5%); engaged in binge drinking recently (19.8% vs 9.0%); used electronic vapor products recently (42.2% vs 19.2%); ever misused prescription pain medication (25.3% vs 10.0%); engaged in physical activity for 60 minutes per day (22.7% vs 33.2%); got eight or more hours of sleep (13.1 vs 26.1%); and made mostly A's or B's in school (74.0% vs 83.1%).

**Table 2. Bivariate Associations between Feeling Sad or Hopeless and Selected Risk Indicators: Oklahoma YRBS 2019**

		Felt Sad or Hopeless		
		%		p-value <sup>2</sup>
		Yes	No	
Ever been forced to have sex	Yes	17.1	4.1	<.0001
	No	82.9	95.9	
Experienced sexual violence in the past 12 months	Yes	20.8	5.1	<.0001
	No	79.2	94.9	
Had a suicide risk in the past 12 months	Yes	52.2	11.1	<.0001
	No	47.8	88.9	
Drank alcohol recently <sup>3</sup>	Yes	39.9	19.5	<.0001
	No	60.1	80.5	
Engaged in binge drinking recently <sup>3</sup>	Yes	19.8	9.0	<.0001
	No	80.2	91.0	
Smoked electronic vapor products recently <sup>3</sup>	Yes	42.2	19.2	<.0001
	No	57.8	80.8	
Ever misused prescription pain medication	Yes	25.3	10.0	<.0001
	No	74.7	90.0	
Physically active for 60 minutes per day	Yes	22.7	33.2	<.0001
	No	77.3	66.8	
Slept for 8 or more hours on an average school night	Yes	13.1	26.1	<.0001
	No	86.9	73.9	
Made mostly A's or B's in school	Yes	74.0	83.1	<.0001
	No	26.0	16.9	

1 Weighted prevalence rate

2 Rao-Scott Chi-Squared test

3 During the 30 days before the survey

## DISCUSSION

Being aware and informed on signs, symptoms, and risk factors of adolescent depression is critically important. Mental health and physical health are inextricably intertwined and are equally integral to a person's health and overall well-being; a person's mental health state can influence whether they engage in health-promoting or health-impairing behaviors. This report suggests that adolescents with poor mental health are more likely to have negative health outcomes. Data in this report show that when compared to youth in a healthy state of mind, adolescents who experience prolonged feelings of sadness and/or hopelessness may have experienced sexual violence, are more likely to engage in high risk behaviors such as alcohol and substance use, sleep less than the recommended eight hours each night, achieve lower academic performance, and have thoughts of suicide.

This report showed significant differences across gender and race/ethnicity. Female youth (47.8%) reported experiencing feelings of sadness/hopelessness nearly twice as often as male youth (29.8); this aligns with the national data, suggesting a need for increased protective factors for female youth. Black youth were less likely to have experienced signs of depression compared to all other race/ethnic groups. These data are contradictory to what national data show; between 2007 and 2017 the rate for Black youth suicide in the U.S. increased from 2.55 per 100,000 population to 4.82 per 100,000 population, and this rate has been found to be increasing faster than any other racial/ethnic group.<sup>2</sup> Taking into consideration cultural stigma surrounding mental health, the current social and political climate, and the self-report nature of this study, it could be assumed that the number of Black youth in Oklahoma experiencing depression is much higher than what is found in this report. Adolescent depression is a pervasive illness regardless of gender and race/ethnicity, it not only impacts behavior but also has a negative effect on development, interpersonal relationships, and socio-economic status.<sup>3</sup> Being aware and informed about the signs, symptoms, and risk factors of adolescent depression are critically important to recognizing when a youth may be either in crisis or potentially heading towards one. The following recommendations can be used by parents, caregivers, educators, and community members to help reduce potential risk factors and support youth expressing depressive signs and symptoms.

## HOW YOU CAN HELP<sup>4,5</sup>

- Protect young people by actively developing their coping skills, sense of hope, and resilience.
- Identify and support people at risk of suicide. Learn key skills in the prevention of suicide with a quick and free training.
- Promote safe and supportive environments. This includes safely storing medications and firearms to reduce access among people at risk.
- Promote social connectedness and opportunities to contribute and have purpose.
- Foster peer norms that support help-seeking.
- Ask someone you are worried about if they are thinking about suicide.
- Be there with them. Listen to what they need and follow through on offered support.
- Help them connect with ongoing support.
- Follow up to see how they are doing.
- Support the development of relationships between youth and positive adults in their lives.
- Prevent future risk of suicide among those who have lost a friend or loved one to suicide.

## RESOURCES

1. National Suicide Prevention Lifeline <https://suicidepreventionlifeline.org/> 1-800-273-TALK (8255)
2. Reach-Out Hotline 1-800-522-9054 (24 hour Oklahoma hotline)
3. The Trevor Project <https://www.thetrevorproject.org/> 1-866-488-7386 or text START to 678678
4. In the US and in crisis? Text HOME to 741741. [crisistextline.org](http://crisistextline.org)
5. Oklahoma Department of Mental Health And Substance Abuse Services [ok.gov/odmhas/](http://ok.gov/odmhas/)



6. Oklahoma State Department of Health (OSDH) [https://www.ok.gov/health/Prevention\\_and\\_Preparedness/Injury\\_Prevention\\_Service/Oklahoma\\_Violent\\_Death\\_Reporting\\_System/index.html](https://www.ok.gov/health/Prevention_and_Preparedness/Injury_Prevention_Service/Oklahoma_Violent_Death_Reporting_System/index.html)
7. NAMI Oklahoma <https://www.namioklahoma.org/help>
8. Heartline <http://www.heartlineoklahoma.org/>
9. Mental Health Association of Oklahoma <http://mhaok.org/>
10. Suicide Prevention Resource Center <https://www.sprc.org/>

## REFERENCES

1. Suicide Prevention Resource Center. A comprehensive approach to suicide prevention. <https://www.sprc.org/effective-prevention/comprehensive-approach>
2. Mayo Clinic, Depression (major depressive disorder) February 3, 2018 [www.mayoclinic.org/diseases-conditions/depression/symptoms-causes/syc-20356007](http://www.mayoclinic.org/diseases-conditions/depression/symptoms-causes/syc-20356007)
3. CDC Centers for Disease Control and Prevention – National Center for Injury Prevention and Control, Division of Violence Prevention, Suicide. Page last reviewed by CDC September 3, 2019. <https://www.cdc.gov/violenceprevention/suicide/fastfact.html>
4. The Congressional Black Caucus - Emergency Taskforce on Black Youth Suicide and Mental Health. Ring the alarm: the crisis of black youth suicide in America. Published December 17, 2019. [https://watsoncoleman.house.gov/uploadedfiles/full\\_taskforce\\_report.pdf](https://watsoncoleman.house.gov/uploadedfiles/full_taskforce_report.pdf) Accessed August, 17, 2020.
5. Clayborne ZM, Varin M, Coleman I. Systematic review and meta-analysis: Adolescent depression and long-term psychosocial outcomes. J AM Acad Child Adolesc Psychiatry. 2019;58(1):72-79. [https://www.jaacap.org/article/S0890-8567\(18\)31906-3/pdf](https://www.jaacap.org/article/S0890-8567(18)31906-3/pdf). Accessed August 17, 2020.
6. Centers for Disease Control and Prevention, CDC Vital Signs June 2018, accessed at URL: <https://www.cdc.gov/vitalsigns/pdf/vs-0618-suicide-H.pdf>
7. Curtin SC. State suicide rates among adolescents and young adults aged 10–24: United States, 2000–2018. National Vital Statistics Reports; vol 69 no 11. Hyattsville, MD: National Center for Health Statistics. 2020.



For more information about the YRBS contact the Maternal and Child Health Service, MCH Assessment at (405) 426-8092 or visit URL: <http://yrbs.health.ok.gov>

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