

Nevada Middle School Youth Risk Behavior Survey (YRBS) Comparison Report, 2017-2019



Department of Health and Human Services
Division of Public and Behavioral Health
Office of Public Health Informatics and Epidemiology

Steve Sisolak, Governor
State of Nevada

Lisa Sherych, Administrator

Richard Whitley, MS, Director
Department of Health and Human Services

Ihsan Izzam, PhD, MD,
Chief Medical Officer

Division of Public and Behavioral Health
December 2020
edition 1.0

Acknowledgements

We would like to acknowledge those who assisted with the 2019 Nevada High School Youth Risk Behavior Survey (YRBS) Report including the Nevada Department of Education; school district superintendents; school principals, teachers and staff; and members of Nevada's Substance Abuse Prevention Coalitions.

Recommended Citation

Diedrick, M., Lensch, T., Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. *Nevada Middle School Youth Risk Behavior Survey (YRBS) Comparison Report, 2017-2019.*

Funding Source

This surveillance project was partially supported by a grant from the Centers for Disease Control and Prevention (CDC-PS18-1807). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

Additional Resources

UNR YRBS Statewide and Special Reports

<https://www.unr.edu/public-health/research/yrbs>

YRBS Adolescent and School Health

<http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

Nevada YRBS Team Members

State of Nevada, Division of Public and Behavioral Health

Julia Peek, MHA

University of Nevada, Reno School of Community Health Sciences Nevada Center for Surveys, Evaluation, and Statistics

Wei Yang, PhD

Professor and YRBS Principal Investigator

Kristen Clements-Nolle, PhD, MPH

Associate Professor and YRBS Co-Principal Investigator

Meg Diedrick, BS

MPH Graduate Student and Research Assistant

Taylor Lensch, MPH

PhD Graduate Student and YRBS Coordinator

Fannie Zhang, PhD, MS

YRBS Biostatistician

Contents

INTRODUCTION	1
METHODS	1
DEMOGRAPHICS	2
Demographic characteristics of participating students	2
2017 TO 2019 COMPARISON	3
Weighted prevalence of participant characteristics and health risk behaviors.....	3
PARTICIPANT CHARACTERISTICS.....	3
VIOLENCE-RELATED BEHAVIORS.....	4
ADVERSE CHILDHOOD EXPERIENCES	5
EMOTIONAL HEALTH	5
TOBACCO USE	6
ELECTRONIC VAPOR PRODUCT USE	7
ALCOHOL USE.....	8
MARIJUANA USE	9
OTHER DRUG USE	10
PHYSICAL ACTIVITY	11
OTHER	12

INTRODUCTION

Priority health risk behaviors (i.e. preventable behaviors that contribute to the leading causes of morbidity and mortality) are often established during childhood and adolescence and extend into adulthood. Ongoing surveillance of youth risk behaviors is critical for the design, implementation, and evaluation of public health interventions to improve adolescent health. The Youth Risk Behavior Survey (YRBS) is a national surveillance system that was established in 1991 by the Centers for Disease Control and Prevention (CDC) to monitor the prevalence of health risk behaviors among youth. YRBS data are routinely collected on high school students, but only a few states collect data in middle schools. The Nevada Middle School YRBS is biennial, anonymous and voluntary survey of students in 6th through 8th grade in regular public, charter, and alternative schools. Students self-report their behaviors in five major areas of health that directly lead to morbidity and mortality, these include:

- 1) Behaviors that contribute to unintentional injuries and violence;
- 2) Tobacco use;
- 3) Alcohol and other drug use;
- 4) Unhealthy dietary behaviors; and
- 5) Physical inactivity.

The Nevada Middle School YRBS provides prevalence estimates for priority risk behaviors and can be used to monitor trends over time.

METHODS

The 2017 and 2019 Nevada YRBS sampling plans were designed to ensure that every eligible student in regular public, charter, and alternative high schools had an equal chance of selection. A random sample of students in grades 6–8 was selected in every school district. For the 2017 Middle School YRBS, 5,464 youth from 113 schools completed the survey. For the 2019 Middle School YRBS, 5,341 youth from 113 schools completed the survey. Please see the 2017 and 2019 Nevada Youth Risk Behavior reports for more information.

The 2017 and 2019 Nevada YRBS data were weighted at the state level and regional level based on the sex, race/ethnicity, and grade level of students in each region (see Table 1). The weighting process ensured that the estimates accurately represent the entire student population in each region and the state as a whole. Non-response or poor sampling procedures can result in a sample that is not a representative subset of the population; therefore un-weighted results from these samples may not accurately reflect student behaviors and could be misleading. This report only displays weighted results.

Differences in the weighted prevalence of risk behaviors from 2017 to 2019 were assessed with weighted chi-square tests. Consistent logic checks were applied to allow for comparisons across years. Therefore, estimates may differ from statewide reports.

DEMOGRAPHICS

Demographic characteristics of participating students, by sex, age, grade, race/ethnicity, and region — Nevada, Youth Risk Behavior Survey, 2017 & 2019

		2017 Student Participants ^a	2019 Student Participants ^a	2017 Weighted %	2019 Weighted %
Total		5464	5341	100%	100.0%
Sex	Female	2825	2825	49.1%	48.7%
	Male	2614	2478	50.9%	51.3%
Age Groups	11 years old or younger	713	697	16.9%	14.8%
	12 years old	1616	1735	30.3%	33.1%
	13 years old	1975	1920	34.0%	33.2%
	14 years old or older	1153	977	18.8%	18.9%
Grade	6th	1475	1460	32.3%	30.9%
	7th	1958	2116	33.3%	34.8%
	8th	1986	1712	34.4%	34.4%
Race/Ethnicity	American Indian/Alaska Native^b	179	170	1.0%	0.8%
	Asian^b	193	190	5.7%	5.6%
	Black^b	285	254	10.9%	11.5%
	Native Hawaiian/Pacific Islander^b	105	91	1.5%	1.5%
	White^b	2014	1890	31.8%	29.5%
	Hispanic/Latino	2162	2208	43.5%	44.9%
	Other/Multiple^b	354	328	5.8%	6.2%
Region	1: Carson City	289	161	1.8%	2.0%
	2: Douglas	232	330	1.4%	1.4%
	3: Elko, White Pine, and Eureka	343	350	2.5%	2.3%
	4: Churchill, Humboldt, Pershing, and Lander	371	369	1.7%	1.6%
	5: Lyon, Mineral, and Storey	396	342	2.1%	1.9%
	6: Nye, Lincoln, and Esmeralda	443	432	1.6%	1.5%
	7: Washoe	1253	1373	15.2%	12.5%
	8: Clark	2137	1984	73.6%	76.9%

^a The sample size in the total and subgroups may differ due to missing data

^b Non-Hispanic

2017 to 2019 Comparison

Weighted prevalence of participant characteristics and health risk behaviors — Nevada, Youth Risk Behavior Survey, 2017 to 2019

PARTICIPANT CHARACTERISTICS

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who had parents or other adults in the home serving on active duty in the military	7.7% (6.5-8.9)	7.9% (6.8-8.9)	—
Percentage of middle school students who qualified for or received free or reduced price lunches at school	42.9% (39.2-46.5)	42.6% (39.1-46.2)	—
Percentage of middle school students who made mostly A's or B's in school during the 12 months before the survey	67.1% (64.0-70.2)	63.5% (60.0-67.1)	—

VIOLENCE-RELATED BEHAVIORS

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who were threatened or injured by someone with a weapon on school property during the 12 months before the survey (ex. a gun, knife, or club)	5.0% (4.2-5.8)	6.0% (4.9-7.1)	—
Percentage of middle school students who were in a physical fight on school property during the 12 months before the survey	8.1% (6.9-9.2)	10.9% (9.4-12.4)	↑ <i>p</i> = 0.0022
Percentage of middle school students who were bullied on school property during the 12 months before the survey	22.7% (21.2-24.2)	22.0% (20.2-23.7)	—
Percentage of middle school students who were electronically bullied during the 12 months before the survey (including being bullied through texting, Instagram, Facebook, or other social media)	14.0% (12.7-15.2)	12.4% (11.2-13.6)	—
Percentage of middle school students who did not go to school because they felt unsafe at school or on their way to or from school during the 30 days before the survey	5.0% (4.1-6.0)	5.4% (4.4-6.3)	—

ADVERSE CHILDHOOD EXPERIENCES

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who have ever been hit, beaten, kicked, or physically hurt in any way by an adult (not including spanking for bad behavior)	12.8% (11.6-14.1)	13.0% (11.8-14.3)	—
Percentage of middle school students who have ever been physically forced to have sexual intercourse when they did not want to	3.9% (3.2-4.6)	4.6% (3.7-5.5)	—
Percentage of middle school students who have ever been sworn at, insulted by, or put down by an adult in their home	27.2% (25.3-29.2)	34.3% (32.3-36.3)	↑ <i>p</i> < 0.0001
Percentage of middle school students who have seen or heard adults in their home slap, hit, kick, punch, or beat each other up	15.1% (13.5-16.7)	16.2% (14.8-17.5)	—
Percentage of middle school students who ever lived with someone who was depressed, mentally ill, or suicidal	19.6% (18.0-21.1)	22.2% (20.5-24.0)	↑ <i>p</i> = 0.023
Percentage of middle school students who ever lived with someone who was a problem drinker, alcoholic, or abused street or prescription drugs	21.1% (19.4-22.8)	23.1% (21.3-25.0)	—

EMOTIONAL HEALTH

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who Never/Rarely got the kind of help they need when they feel sad, empty, hopeless, angry, or anxious (among those who felt sad, empty, hopeless, angry, or anxious)	46.8% (44.5-49.1)	49.9% (47.6-52.2)	—

2017-2019 Nevada Middle School YRBS Comparison Report

TOBACCO USE

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who ever smoked cigarettes (even one or two puffs)	10.9% (9.5-12.3)	9.8% (8.4-11.2)	—
Percentage of middle school students who smoked cigarettes for the first time before age 11 years (even one or two puffs)	5.0% (4.2-5.8)	4.2% (3.3-5.0)	—
Percentage of middle school students who smoked cigarettes during the 30 days before the survey	2.5% (1.9-3.0)	2.5% (1.9-3.1)	—
Percentage of middle school students who used smokeless tobacco during the 30 days before the survey	1.8% (1.3-2.3)	2.4% (1.8-3.0)	—

ELECTRONIC VAPOR PRODUCT USE

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who ever used electronic vapor products (including e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods)	18.6% (16.5-20.6)	22.5% (20.4-24.5)	↑ <i>p</i> = 0.0083
Percentage of middle school students who used electronic vapor products during the 30 days before the survey (including e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods)	6.7% (5.7-7.8)	12.1% (10.7-13.5)	↑ <i>p</i> < 0.0001
Percentage of middle school students who tried electronic vapor products for the first time before age 11 years (including e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods)	5.1% (4.3-5.8)	3.6% (2.9-4.3)	↓ <i>p</i> = 0.0068
Percentage of middle school students who usually obtained their own electronic vapor products by buying them in a store or gas station during the 30 days before the survey (including e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods; among students who currently smoked electronic vapor products)	6.2% (3.3-9.0)	3.0% (1.4-4.5)	↓ <i>p</i> = 0.0347

2017-2019 Nevada Middle School YRBS Comparison Report

ALCOHOL USE

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who ever drank alcohol (other than a few sips)	27.4% (25.0-29.8)	29.2% (26.6-31.8)	—
Percentage of middle school students who drank alcohol for the first time before age 11 years (other than a few sips)	13.0% (11.6-14.5)	13.2% (11.8-14.6)	—
Percentage of middle school students who had at least one drink of alcohol during the 30 days before the survey	9.2% (7.9-10.4)	11.7% (10.2-13.1)	↑ <i>p</i> = 0.0084
Percentage of middle school students who ever rode in a car or other vehicle driven by someone who had been drinking alcohol	21.9% (19.9-23.8)	24.6% (22.7-26.5)	↑ <i>p</i> = 0.0473

2017-2019 Nevada Middle School YRBS Comparison Report

MARIJUANA USE

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who ever used marijuana	9.9% (8.5-11.3)	13.4% (11.5-15.4)	↑ <i>p</i> = 0.002
Percentage of middle school students who tried marijuana for the first time before age 11 years	2.5% (2.0-3.1)	3.3% (2.5-4.1)	—
Percentage of middle school students who used marijuana during the 30 days before the survey	5.2% (4.1-6.2)	7.8% (6.6-9.1)	↑ <i>p</i> = 0.0008
Percentage of middle school students who usually used marijuana by different methods during the past 30 days before the survey (among those who used marijuana in the past 30 days):			
Smoked it in a joint, bong, pipe or blunt	79.6% (73.2-86.0)	70.5% (64.3-76.6)	↑ <i>p</i> = 0.0017
<u>Vaporized it</u>	2.1% (0.2-4.1)	11.1% (5.8-16.4)	
Used it in some other way	18.3% (12.0-24.5)	18.4% (13.3-23.6)	
Percentage of middle school students who ever rode in a car or other vehicle driven by someone using marijuana	13.3% (11.7-15.0)	18.6% (16.6-20.5)	↑ <i>p</i> < 0.0001

2017-2019 Nevada Middle School YRBS Comparison Report

OTHER DRUG USE

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who ever used cocaine (any form of cocaine including powder, crack, or freebase)	3.6% (2.9-4.2)	1.7% (1.1-2.3)	↓ <i>p</i> < 0.0001
Percentage of middle school students who ever used heroin	1.1% (0.7-1.4)	0.7% (0.4-1.0)	—
Percentage of middle school students who ever used methamphetamines	1.7% (1.2-2.2)	1.2% (0.8-1.5)	—
Percentage of middle school students who ever used ecstasy	1.3% (0.9-1.7)	1.8% (1.3-2.3)	—
Percentage of middle school students who ever used synthetic marijuana	3.3% (2.5-4.0)	4.3% (3.5-5.1)	—
Percentage of middle school students who ever took prescription pain medicine without a doctor's prescription or differently than prescribed	6.8% (5.6-8.0)	10.3% (8.9-11.7)	↑ <i>p</i> = 0.0002

PHYSICAL ACTIVITY

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and p value
Percentage of middle school students who <u>did not</u> participate in at least 60 minutes of physical activity on any day during the 7 days before the survey (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time)	14.0% (12.5-15.6)	19.4% (17.5-21.3)	↑ $p < 0.0001$
Percentage of middle school students who were physically active at least 60 minutes per day on 5 or more days during the 7 days before the survey (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time)	53.3% (50.7-55.9)	42.5% (40.1-45.0)	↓ $p < 0.0001$
Percentage of middle school students who were physically active at least 60 minutes per day on all 7 days during the 7 days before the survey (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time)	29.6% (27.8-31.5)	21.9% (20.1-23.6)	↓ $p < 0.0001$
Percentage of middle school students who watched TV, played video or computer games, or used a computer for 3 or more hours per day (on an average school day; for something that was not school work)	53.9% (51.4-56.4)	59.5% (57.1-61.9)	↑ $p = 0.0015$
Percentage of middle school students who attended physical education classes on one or more days in an average school week	62.6% (58.0-67.3)	56.6% (51.9-61.4)	—
Percentage of middle school students who attended physical education classes daily (5 days in an average week when they were in school)	44.0% (38.9-49.0)	38.7% (33.6-43.9)	—
Percentage of middle school students who played on at least one sports team run by their school or community groups during the 12 months before the survey	49.9% (47.8-52.1)	50.0% (47.5-52.6)	—
Percentage of middle school students who had 9 or more hours of sleep on an average school night	27.2% (24.8-29.7)	21.8% (19.7-24.0)	↓ $p = 0.0009$

2017-2019 Nevada Middle School YRBS Comparison Report

OTHER

	2017 Percentage and 95% Confidence Interval	2019 Percentage and 95% Confidence Interval	CHANGE Direction and <i>p</i> value
Percentage of middle school students who Most of the time/Always went hungry because there was not enough food in the house during the 30 days before the survey	4.9% (4.2-5.7)	3.9% (3.2-4.6)	—
Percentage of middle school students who visited a dentist during the 12 months before the survey (for a check-up, exam, teeth cleaning, or other dental work)	65.3% (62.9-67.6)	65.7% (63.0-68.3)	—

For additional information regarding this report, contact:

Meg Diedrick, MPH Student
University of Nevada, Reno
School of Community Health Sciences
mdiedrick@unr.edu
775-682-6999

Taylor Lensch, MPH, PhD Cand.
University of Nevada, Reno
School of Community Health Sciences
tlensch@unr.edu
775-682-6999

<https://www.unr.edu/public-health/research/yrbs>



<http://dpbh.nv.gov/>

