

# 2019 Nevada Middle School Youth Risk Behavior Survey (YRBS)

## Adverse Childhood Experiences (ACEs) Special Report\*



**School of Public Health**

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### **Acknowledgements**

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### **Additional Resources**

Nevada YRBS Statewide and Special Reports

<https://www.unr.edu/public-health/research-activities/nevada-youth-risk-behavior-survey>

YRBS Adolescent and School Health

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

Nevada Division of Public and Behavioral Health

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

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## Table of Contents

<b>INTRODUCTION</b> .....	<b>1</b>
<b>METHODS</b> .....	<b>1</b>
<b>PARTICIPANT CHARACTERISTICS</b> .....	<b>2</b>
Table 1: Demographic characteristics of students .....	2
<b>PREVALENCE OF INDIVIDUAL ADVERSE CHILDHOOD EXPERIENCES (ACES) AND ACE SCORE</b> .....	<b>3</b>
Table 2: Prevalence of individual ACE questions and ACE score .....	3
Table 3: Participant characteristics .....	4
<b>SELECT BEHAVIORAL HEALTH OUTCOMES BY ACE SCORE</b> .....	<b>5</b>
<b>VIOLENCE AND VICTIMIZATION</b> .....	<b>5</b>
Figure 1: 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 .....	5
Figure 2: Percentage of middle school students who were in a physical fight on school property during the 12 months before the survey .....	5
Figure 3: Percentage of middle school students who were bullied on school property during the 12 months before the survey .....	6
Figure 4: Percentage of middle school students who were electronically bullied during the 12 months before the survey .....	6
Figure 5: 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 .....	7
<b>EMOTIONAL HEALTH</b> .....	<b>8</b>
Figure 6: Percentage of middle school students who felt sad or hopeless almost every day for two or more weeks in a row during the 12 months before the survey .	8
Figure 7: Percentage of middle school students who ever seriously considered killing themselves during the 12 months before the survey .....	8
Figure 8: Percentage of middle school students who ever made a plan about how they would kill themselves during the 12 months before the survey .....	9
Figure 9: Percentage of middle school students who tried killing themselves during the 12 months before the survey .....	9
Figure 10: Percentage of middle school students who have ever done something to purposely hurt themselves without wanting to die, such as cutting or burning themselves on purpose during the 12 months before the survey .....	10
Figure 11: Percentage of middle school students who never/rarely got the kind of help they need when they felt sad, empty, hopeless, angry, or anxious .....	10
<b>TOBACCO USE</b> .....	<b>11</b>
Figure 12: Percentage of middle school students who ever smoked cigarettes .....	11
Figure 13: Percentage of middle school students who smoked cigarettes for the first time before age 11 years .....	11
Figure 14: Percentage of middle school students who smoked cigarettes during the 30 days before the survey .....	12

Figure 15: Percentage of middle school students who used smokeless tobacco during the 30 days before the survey..... 12

**ELECTRONIC VAPOR PRODUCT USE ..... 13**

Figure 16: Percentage of students who ever used electronic vapor products..... 13

Figure 17: Percentage of middle school students who tried their first electronic vapor product before age 11 years ..... 13

Figure 18: Percentage of middle school students who used electronic vapor products during the 30 days before the survey ..... 14

**ALCOHOL USE ..... 15**

Figure 19: Percentage of middle school students who ever drank alcohol ..... 15

Figure 20: Percentage of middle school students who drank alcohol for the first time before age 11 years..... 15

Figure 21: Percentage of middle school students who had at least one drink of alcohol during the 30 days before the survey ..... 16

Figure 22: Percentage of middle school students who ever rode in a car or other vehicle driven by someone who had been drinking alcohol ..... 16

**MARIJUANA USE ..... 17**

Figure 23: Percentage of students who ever used marijuana ..... 17

Figure 24: Percentage of middle school students who tried marijuana for the first time before age 11 years ..... 17

Figure 25: Percentage of middle school students who used marijuana during the 30 days before the survey ..... 18

Figure 26: Percentage of middle school students who ever rode in a car or other vehicle driven by someone using marijuana ..... 18

**OTHER SUBSTANCE USE ..... 19**

Figure 27: Percentage of middle school students who ever used cocaine ..... 19

Figure 28: Percentage of middle school students who ever used heroin ..... 19

Figure 29: Percentage of middle school students who ever used methamphetamines ..... 20

Figure 30: Percentage of middle school students who used ecstasy..... 20

Figure 31: Percentage of middle school students who ever used synthetic marijuana ..... 21

Figure 32: Percentage of middle school students who ever took prescription pain medicine without a doctor’s prescription or differently than prescribed ..... 21

Figure 33: Percentage of middle school students who took prescription pain medicine without a doctor’s prescription or differently than prescribed during the 30 days before the survey ..... 22

## 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 middle 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 6<sup>th</sup> through 8<sup>th</sup> grade in regular public, charter, and alternative schools. This special report compares the 2019 Nevada YRBS prevalence estimates of behavioral health outcomes for students with different levels of exposure to adverse childhood experiences (ACEs).

## Methods

The 2019 Nevada YRBS sampling plan was designed to ensure that every eligible student in regular public, charter, and alternative middle schools had an equal chance of selection. For the 2019 Middle School YRBS, a random sample of 5,341 youth from 113 schools completed the survey. Please see the 2019 Nevada Middle School Youth Risk Behavior report for detailed information on the random cluster sampling design used.

The 2019 Nevada YRBS data were weighted at the state and regional level based on the sex, race/ethnicity, and grade level of students in each region. 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.

In the 2019 Nevada Middle School YRBS, one CDC core measure and five state-added questions assessed lifetime prevalence of ACEs: 1) forced sex; 2) physical abuse by an adult; 3) verbal abuse by an adult; 4) household domestic violence; 5) household mental illness; and 6) household substance abuse (please see the 2019 Nevada Youth Risk Behavior reports for more information). The ACE questions were summed to create a total ACE score (range 0-6). ACE scores were only calculated for youth who answered all six ACE questions (n=4,908; 91.9% of the original sample). The weighted chi-square test was used to assess differences in risk behaviors by ACE score (0 ACE, 1 ACE, 2 ACE, or 3+ ACE). The Cochran-Armitage test for trend was used to assess the relationship between ACEs and risk behaviors.

This report focuses on the relationship between ACE exposure and important violence and victimization, emotional health, and substance use outcomes. Indicators for which any prevalence estimates exceed 25% are displayed on charts with a vertical axis ranging from 0 to 100%; indicators for which no prevalence estimates exceed 25% are displayed on charts with a vertical axis ranging from 0 to 50%. Lines on the bars represent 95% confidence intervals. Corresponding p-values are also included for every comparison.

## Participant Characteristics

**Table 1: Demographic characteristics of students\* — Nevada, Youth Risk Behavior Survey, 2019**

		Student Participants <sup>a</sup>	Unweighted %	Weighted %
<b>Total</b>		4908	100.0%	100.0%
<b>Sex</b>	<b>Female</b>	2607	53.4%	48.4%
	<b>Male</b>	2277	46.6%	51.6%
<b>Age Groups</b>	<b>11 years old or younger</b>	632	12.9%	14.7%
	<b>12 years old</b>	1589	32.4%	33.2%
	<b>13 years old</b>	1775	36.2%	33.2%
	<b>14 years old or older</b>	905	18.5%	18.9%
<b>Grade</b>	<b>6<sup>th</sup></b>	1336	27.4%	31.0%
	<b>7<sup>th</sup></b>	1940	39.8%	34.3%
	<b>8<sup>th</sup></b>	1593	32.7%	34.7%
<b>Race/Ethnicity</b>	<b>American Indian/Alaska Native<sup>b</sup></b>	158	3.3%	0.8%
	<b>Asian<sup>b</sup></b>	180	3.8%	5.7%
	<b>Black<sup>b</sup></b>	228	4.8%	11.3%
	<b>Native Hawaiian/Pacific Islander<sup>b</sup></b>	80	1.7%	1.4%
	<b>White<sup>b</sup></b>	1762	37.1%	29.8%
	<b>Hispanic/Latino</b>	2039	42.9%	44.8%
	<b>Other/Multiple<sup>b</sup></b>	301	6.3%	6.1%
<b>Region</b>	<b>Urban</b>	3342	68.1%	91.5%
	<b>Rural/Frontier</b>	1566	31.9%	8.5%

<sup>a</sup> The sample size in the total and subgroups may differ due to missing data

<sup>b</sup> Non-Hispanic

**\*Note: Only youth who answered all six ACE questions are included. Prevalence estimates differ slightly from statewide report.**

## Prevalence of Individual Adverse Childhood Experiences (ACEs) and ACE Score

**Table 2: Prevalence of individual ACE questions and ACE score\* — Nevada, Youth Risk Behavior Survey, 2019**

		N	% <sup>a</sup>
<b>Total</b>		4908	100%
<b>Ever physically forced to have sex</b>			
	Yes	210	4.1%
	No	4698	95.9%
<b>Ever been hit, beaten, kicked, or physically hurt in any way by an adult</b>			
	Yes	674	12.8%
	No	4234	87.2%
<b>Sometimes, mostly, or always have been sworn at, insulted by, or put down by an adult</b>			
	Yes	1638	34.0%
	No	3270	66.0%
<b>Ever seen adults in their home slap, hit, kick, punch, or beat each other up</b>			
	Yes	814	15.8%
	No	4094	84.2%
<b>Ever lived with someone who was depressed, mentally ill, or suicidal</b>			
	Yes	1185	21.8%
	No	3723	78.2%
<b>Ever lived with someone who was a problem drinker, alcoholic, or abused street or prescription drugs</b>			
	Yes	1203	22.6%
	No	3705	77.4%
<b>ACE Score</b>			
	0	2187	44.9%
	1	1158	24.4%
	2	736	15.9%
	3+	827	14.8%

<sup>a</sup> Weighted row percent

\*Note: Only youth who answered all six ACE questions are included. Prevalence estimates differ slightly from statewide report.

**Table 3: Participant characteristics\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

		0 ACE		1 ACE		2 ACE		3+ ACE		P-Value
		N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	---
<b>Overall Total</b>	<b>Total</b>	2187	44.9%	1158	26.1%	736	15.9%	827	14.8%	
<b>Sex</b>	<b>Female</b>	1065	40.6%	599	23.9%	400	15.9%	543	19.6%	<0.0001
	<b>Male</b>	1115	49.0%	554	25.0%	332	15.8%	276	10.1%	
<b>Age</b>	<b>11 years old or younger</b>	348	56.3%	157	24.3%	68	11.0%	59	8.4%	<0.0001
	<b>12 years old</b>	758	48.2%	369	24.0%	246	16.3%	216	11.5%	
	<b>13 years old</b>	722	38.8	441	26.4%	279	17.7%	333	17.1%	
	<b>14 years old or older</b>	355	40.9%	190	21.9%	143	15.8%	217	21.4%	
<b>Grade</b>	<b>6th grade</b>	694	52.8%	327	23.8%	164	13.1%	151	10.3%	<0.0001
	<b>7th grade</b>	860	43.8%	445	25.1%	321	17.9%	314	13.1%	
	<b>8th grade</b>	618	39.2%	378	24.5%	244	16.2%	353	20.2%	
<b>Race/Ethnicity</b>	<b>American Indian/Alaska Native</b>	74	46.1%	35	21.9%	21	14.8%	28	17.2%	0.0091
	<b>Asian</b>	85	48.4%	55	30.0%	24	13.3%	16	8.3%	
	<b>Black or African American</b>	112	49.2%	47	20.8%	39	18.9%	30	11.1%	
	<b>Native Hawaiian/Pacific Islander</b>	34	45.7%	22	24.5%	13	15.8%	11	14.0%	
	<b>White</b>	788	47.3%	378	21.0%	254	14.5%	342	17.2%	
	<b>Hispanic/Latino</b>	895	42.6%	514	26.5%	317	16.5%	313	14.4%	
	<b>Other/Multiple</b>	103	38.3%	78	28.2%	51	15.3%	69	18.2%	
<b>Region</b>	<b>Urban</b>	1493	45.2%	799	24.6%	526	16.0%	524	14.2%	0.0001
	<b>Rural/Frontier</b>	694	41.6%	359	23.0%	210	14.8%	303	20.6%	
<b>Qualify for Free or Reduced Lunch</b>	<b>Yes</b>	712	39.3%	442	25.5%	306	18.2%	383	17.0%	<0.0001
	<b>No</b>	1460	48.8%	714	23.8%	427	14.2%	442	13.2%	
<b>Military Family</b>	<b>Yes</b>	141	38.0%	93	22.8%	67	20.3%	74	18.9%	0.0466
	<b>No</b>	2020	45.5%	1057	24.7%	654	15.4%	739	14.4%	
<b>Mostly A's or B's in School</b>	<b>Yes</b>	1506	47.3%	742	24.8%	455	15.2%	452	12.6%	<0.0001
	<b>No</b>	625	41.0%	382	23.5%	253	16.6%	356	18.9%	

<sup>a</sup> The sample size in the total and subgroups may differ due to missing data

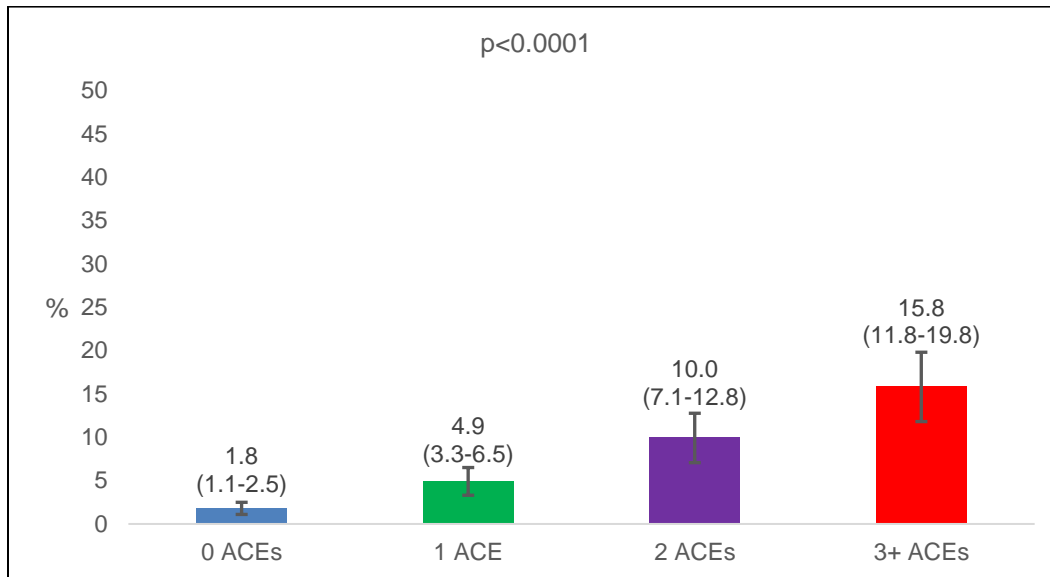
<sup>b</sup> Weighted row percent

**\*Note: Only youth who answered all six ACE questions are included. Prevalence estimates differ slightly from statewide report.**



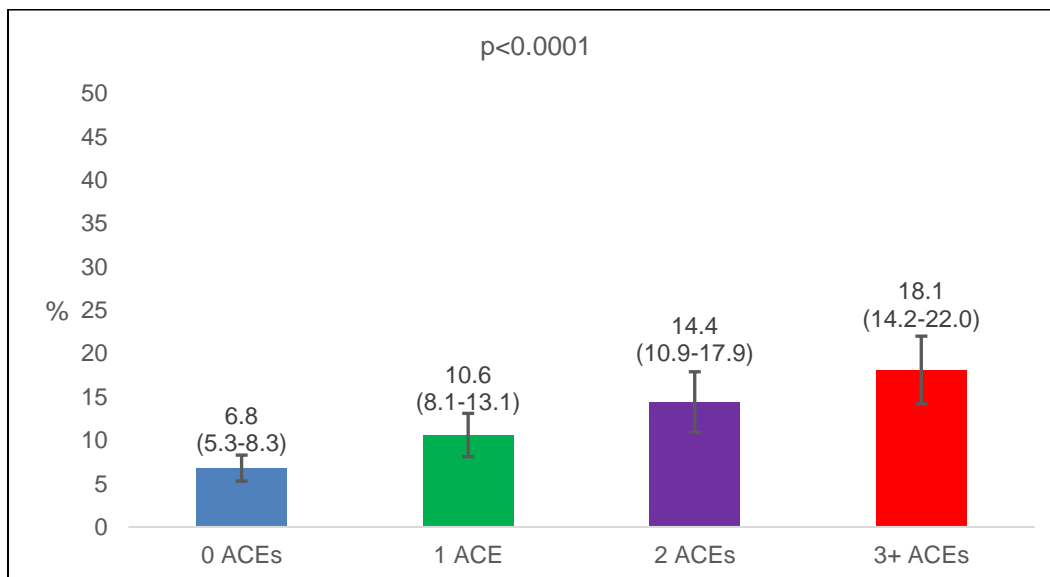
## Select Behavioral Health Outcomes by ACE Score Violence and Victimization

**Figure 1: 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\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

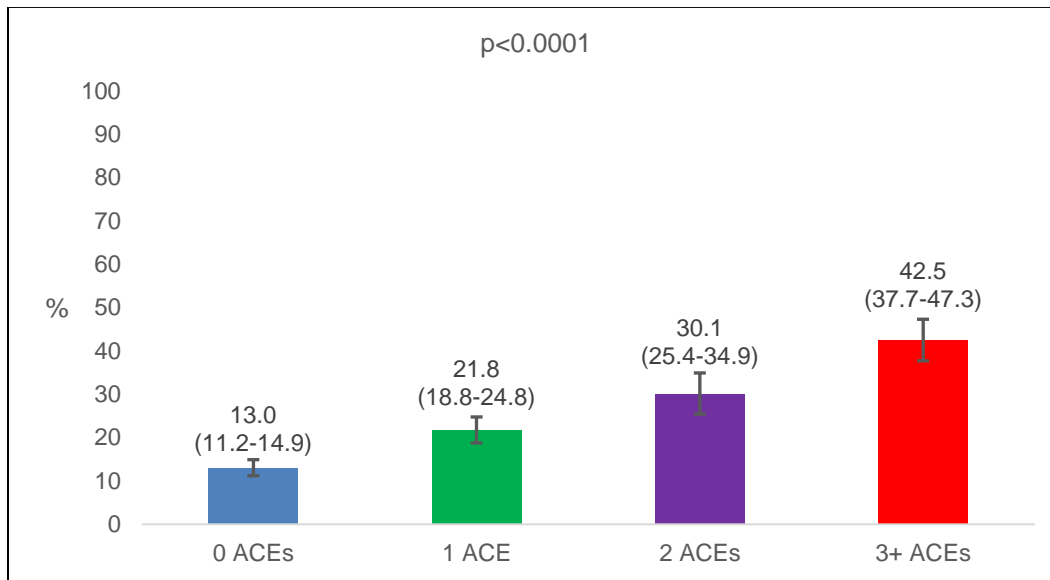


\*Such as a gun, knife, or club

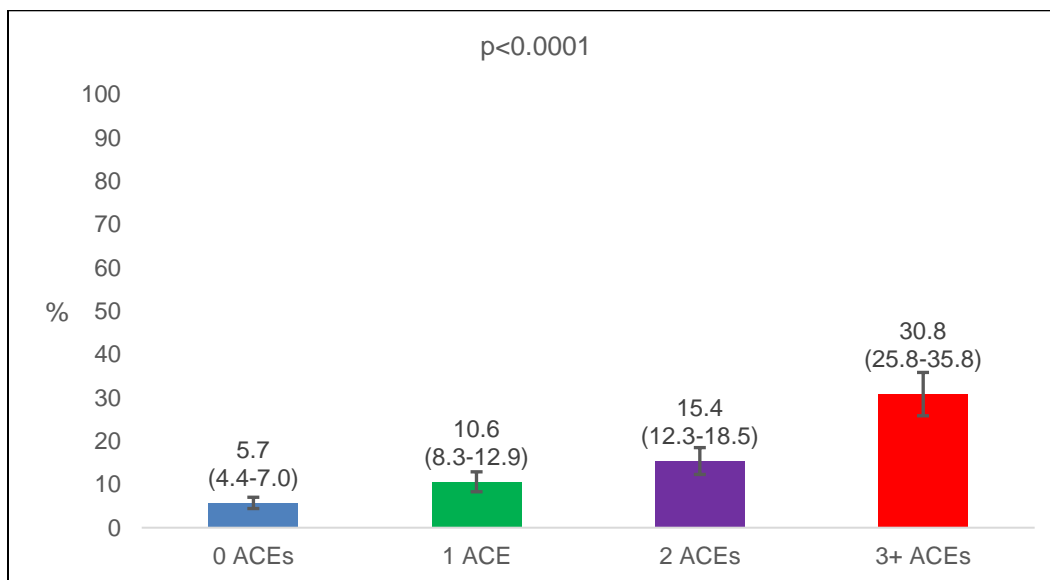
**Figure 2: Percentage of middle school students who were in a physical fight on school property during the 12 months before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



**Figure 3: Percentage of middle school students who were bullied on school property during the 12 months before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

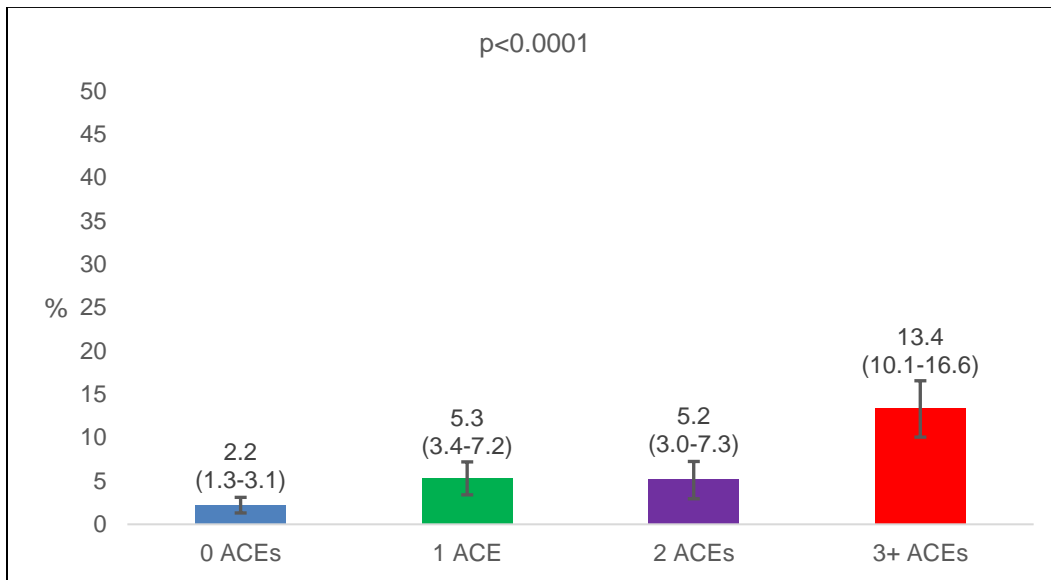


**Figure 4: Percentage of middle school students who were electronically bullied during the 12 months before the survey\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



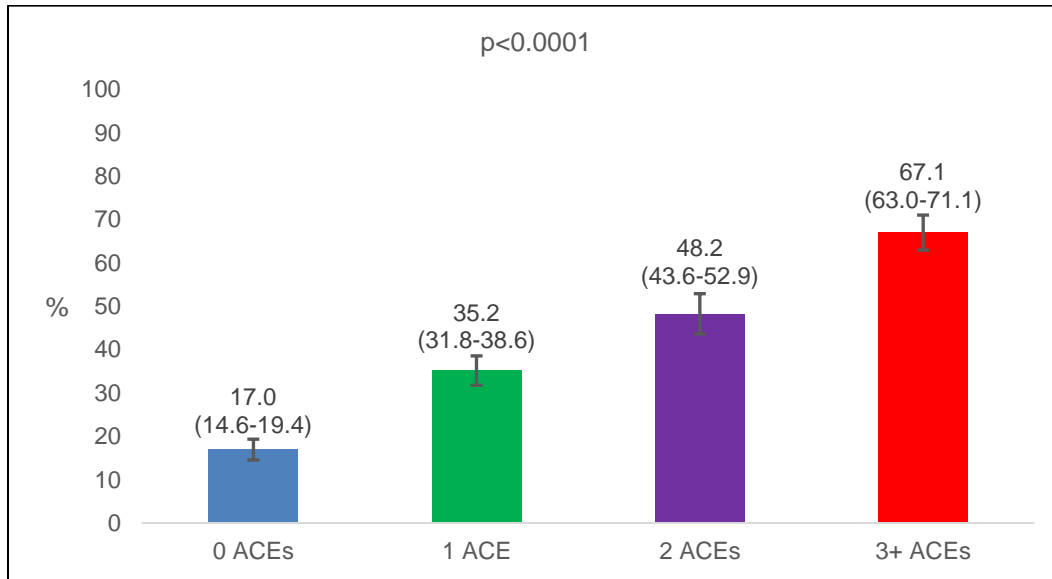
\*Including being bullied through texting, Instagram, Facebook, or other social media

**Figure 5: 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, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



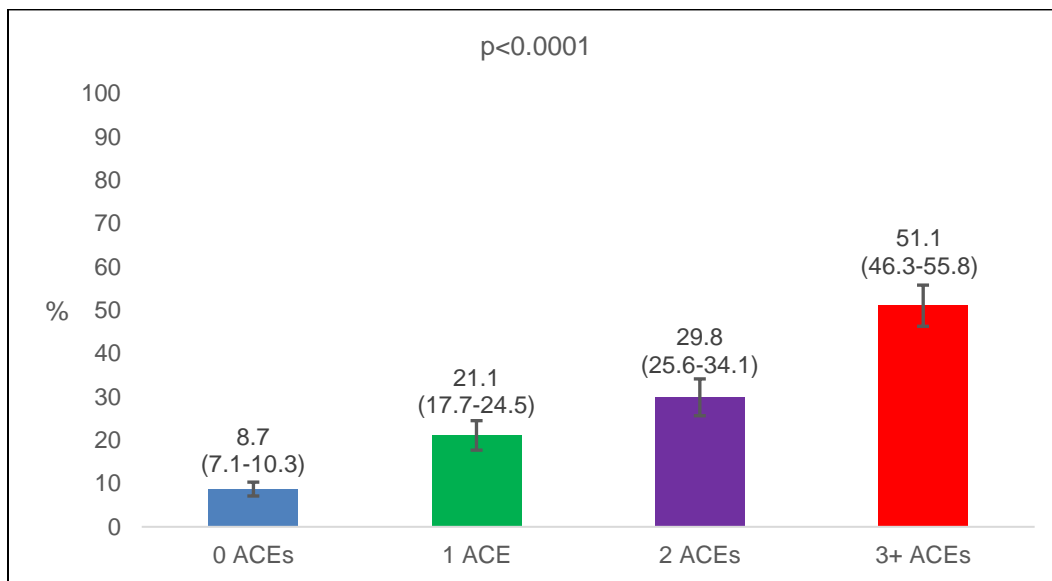
## Emotional Health

**Figure 6: Percentage of middle school students who felt sad or hopeless almost every day for two or more weeks in a row during the 12 months before the survey\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

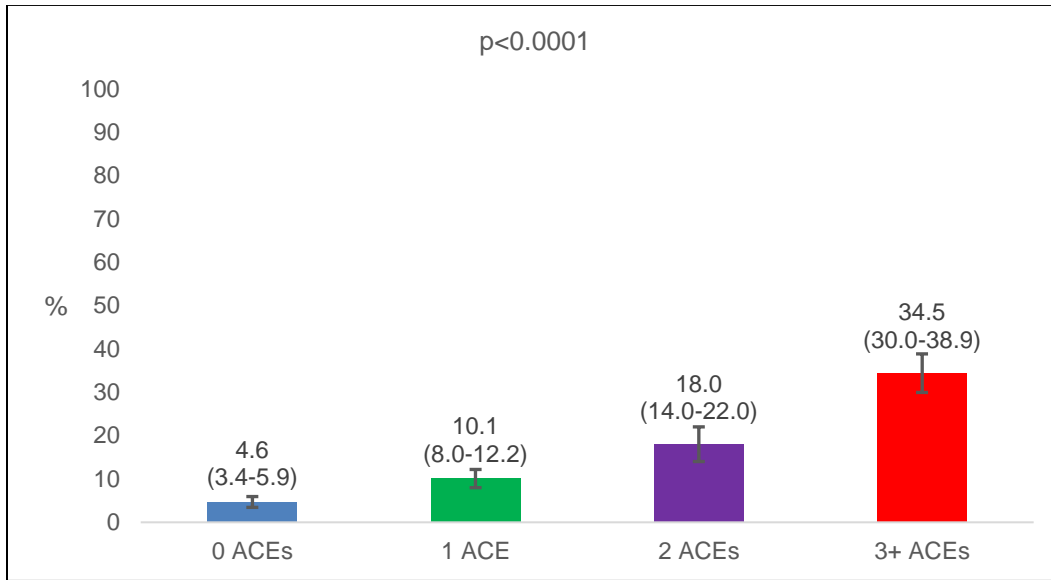


\*So that they stopped doing some usual activities

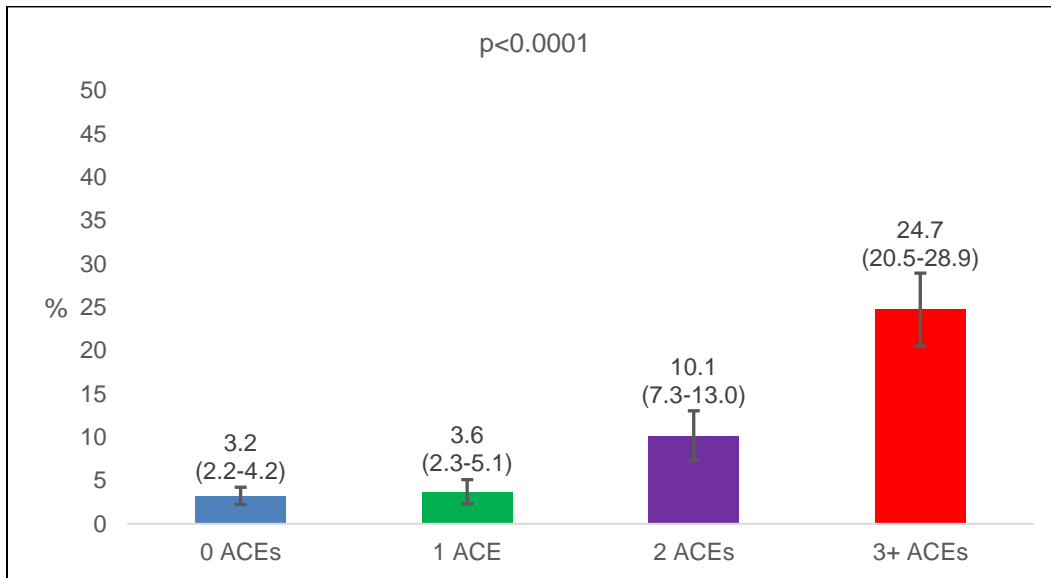
**Figure 7: Percentage of middle school students who ever seriously considered killing themselves during the 12 months before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



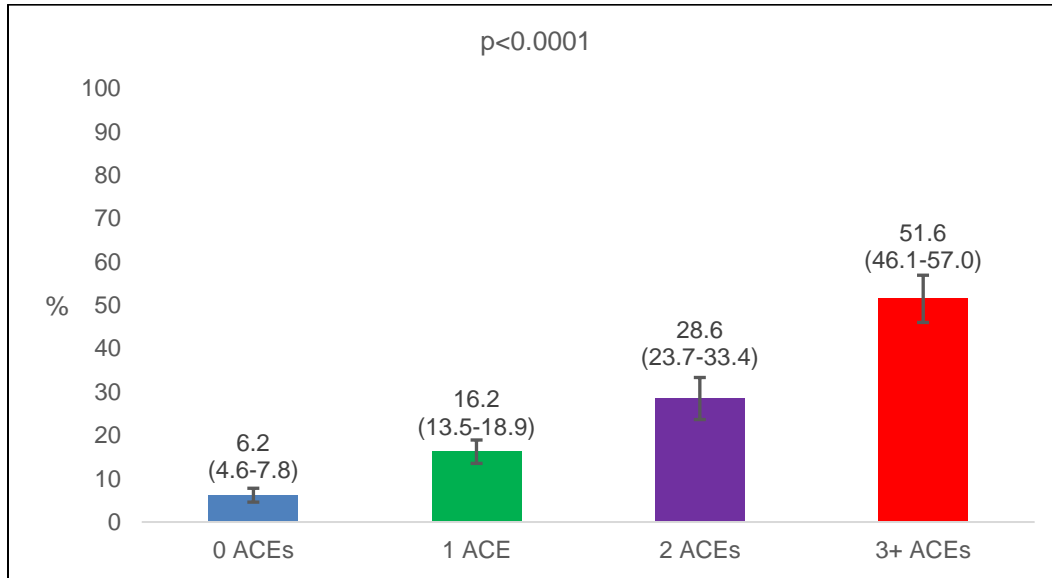
**Figure 8: Percentage of middle school students who ever made a plan about how they would kill themselves during the 12 months before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



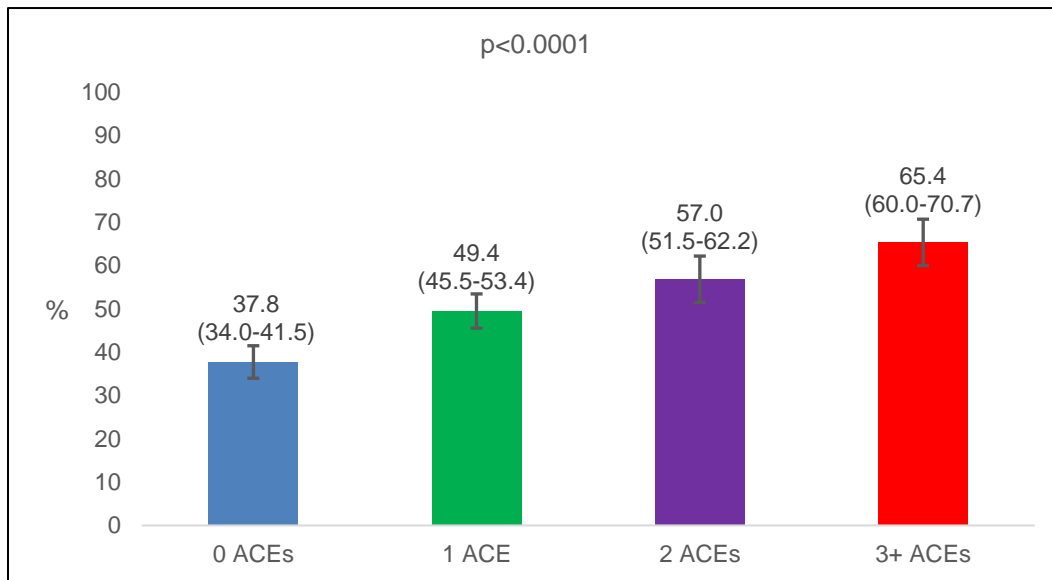
**Figure 9: Percentage of middle school students who tried killing themselves during the 12 months before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



**Figure 10: Percentage of middle school students who have ever done something to purposely hurt themselves without wanting to die, such as cutting or burning themselves on purpose during the 12 months before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



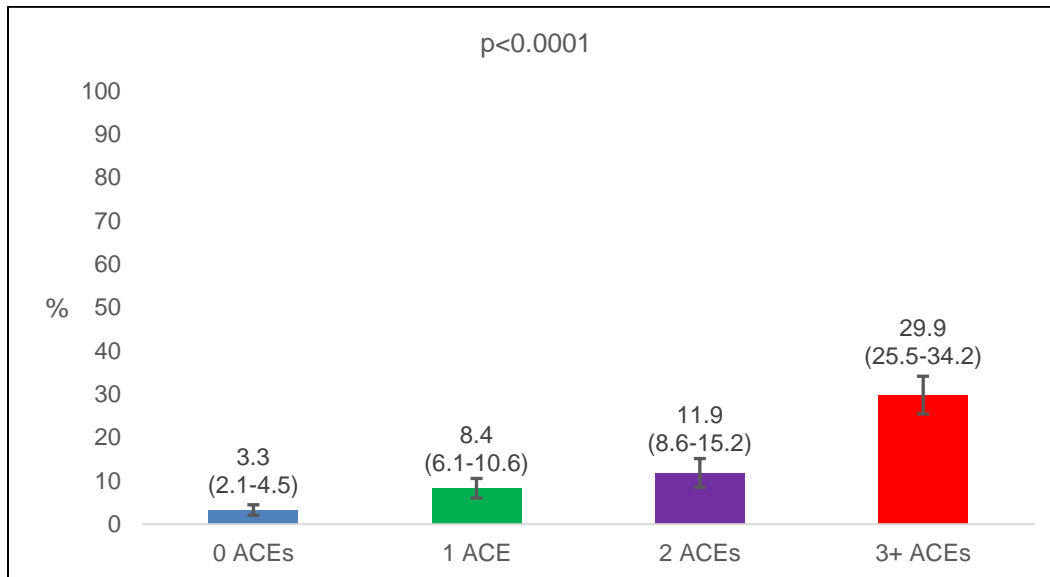
**Figure 11: Percentage of middle school students who never/rarely got the kind of help they need when they felt sad, empty, hopeless, angry, or anxious\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Among those who feel sad, empty, hopeless, angry, or anxious

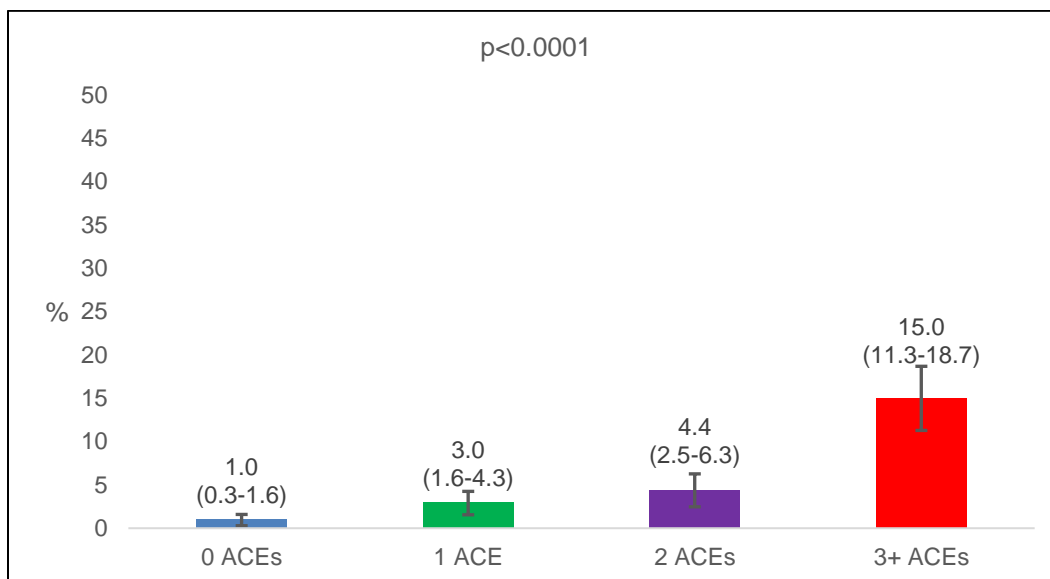
## Tobacco Use

**Figure 12: Percentage of middle school students who ever smoked cigarettes\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



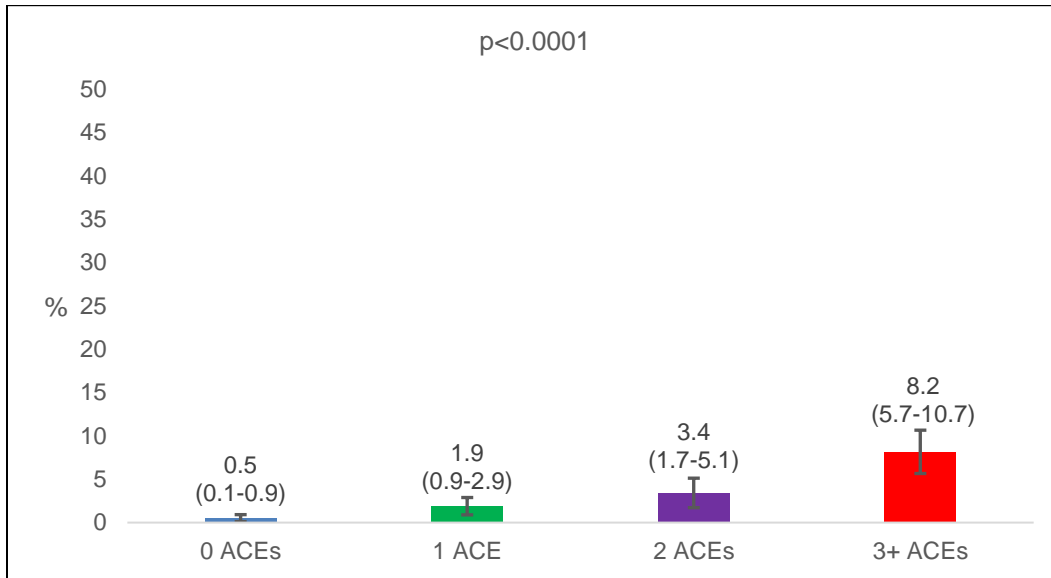
\*Even one or two puffs

**Figure 13: Percentage of middle school students who smoked cigarettes for the first time before age 11 years\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

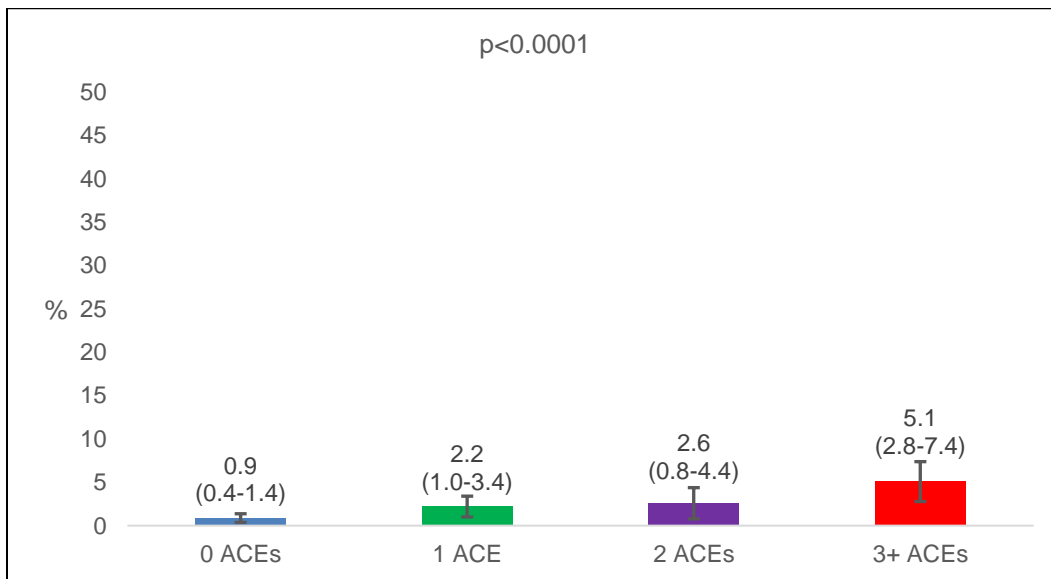


\*Even one or two puffs

**Figure 14: Percentage of middle school students who smoked cigarettes during the 30 days before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



**Figure 15: Percentage of middle school students who used smokeless tobacco during the 30 days before the survey\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

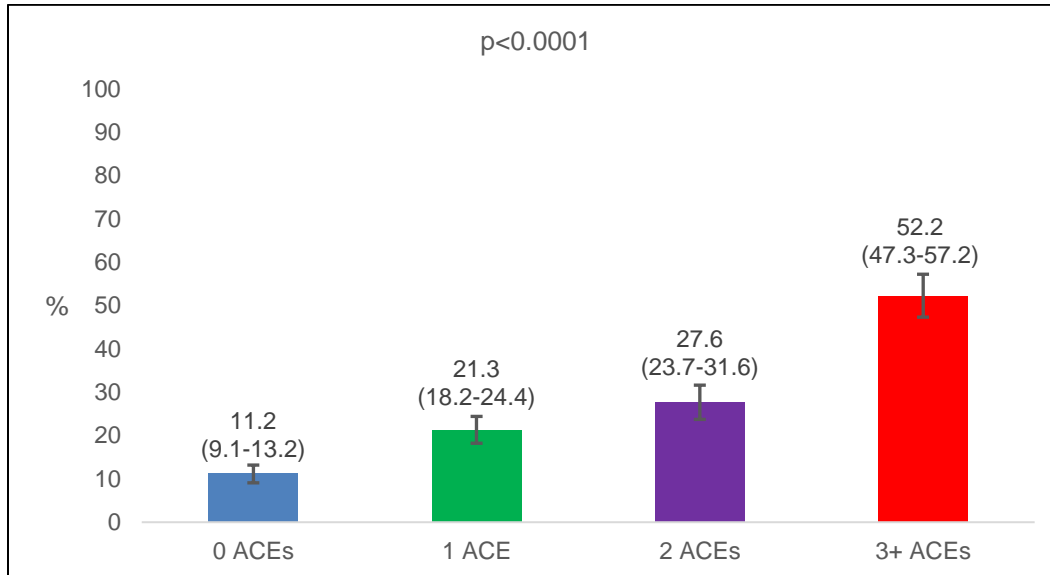


\*Chewing tobacco, snuff, dip, snus, or dissolvable tobacco products such as: Copenhagen, Grizzly, Skoal, or Camel Snus



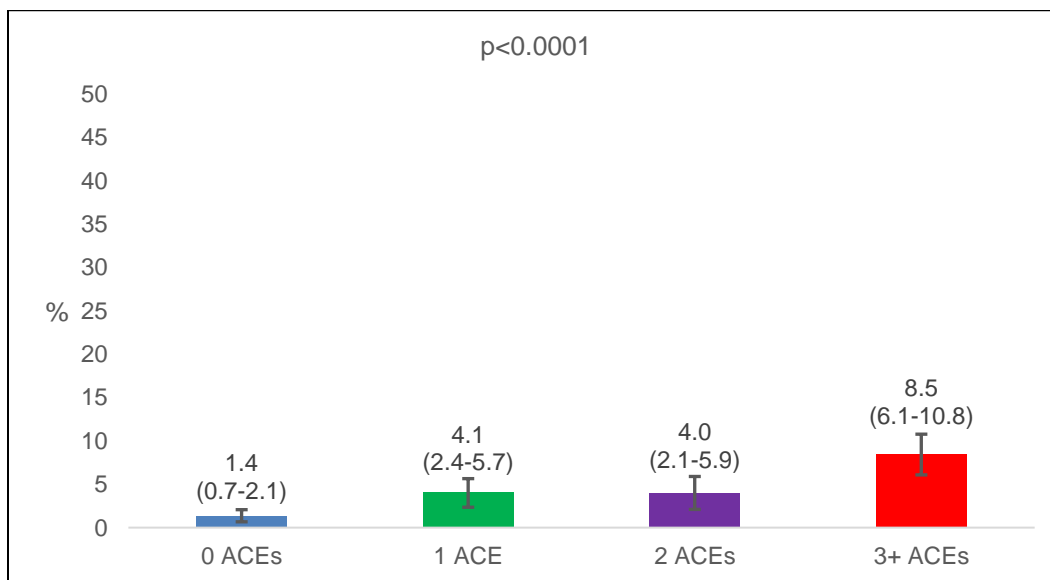
## Electronic Vapor Product Use

**Figure 16: Percentage of students who ever used electronic vapor products\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



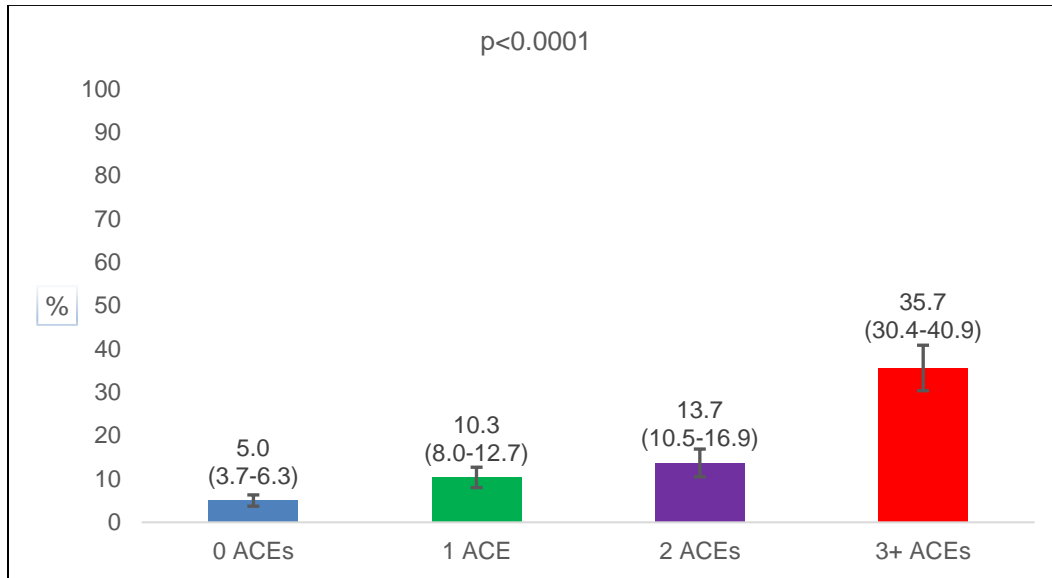
\*Including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens and mods such as JUUL, Vuse, MarkTen, and blu

**Figure 17: Percentage of middle school students who tried their first electronic vapor product before age 11 years\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens and mods such as JUUL, Vuse, MarkTen, and blu

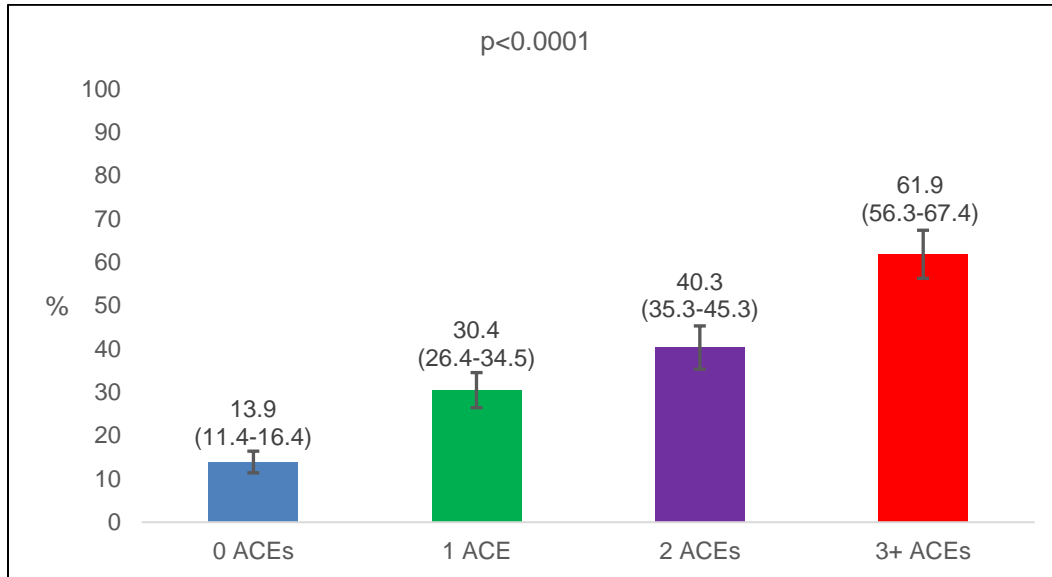
**Figure 18: Percentage of middle school students who used electronic vapor products during the 30 days before the survey\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens, and mods such as JUUL, Vuse, MarkTen, and blu on one or more days during the 30 days before the survey

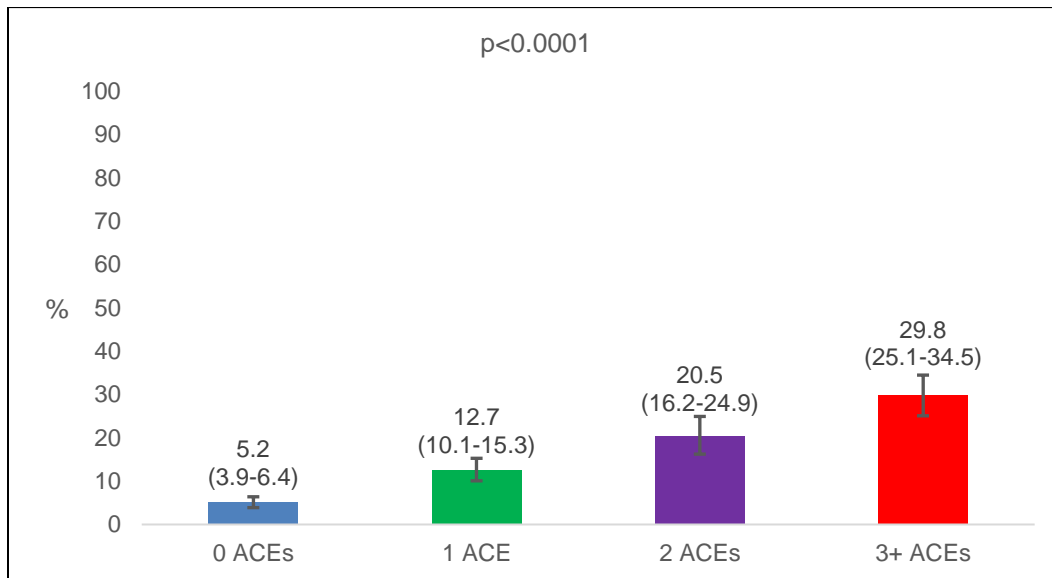
## Alcohol Use

**Figure 19: Percentage of middle school students who ever drank alcohol\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



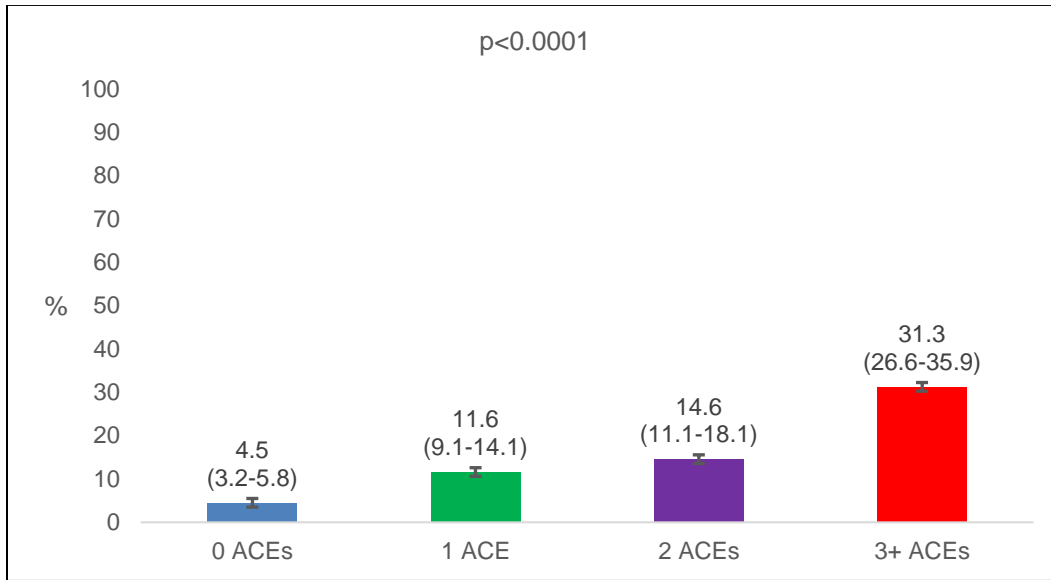
\*Not including for religious purposes

**Figure 20: Percentage of middle school students who drank alcohol for the first time before age 11 years\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

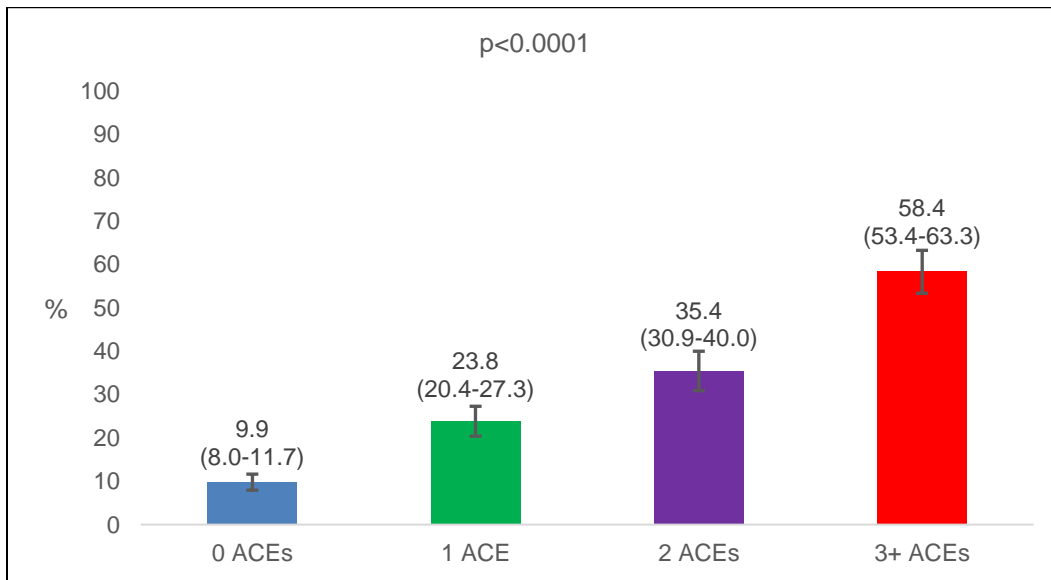


\*Other than a few sips

**Figure 21: Percentage of middle school students who had at least one drink of alcohol during the 30 days before the survey, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**

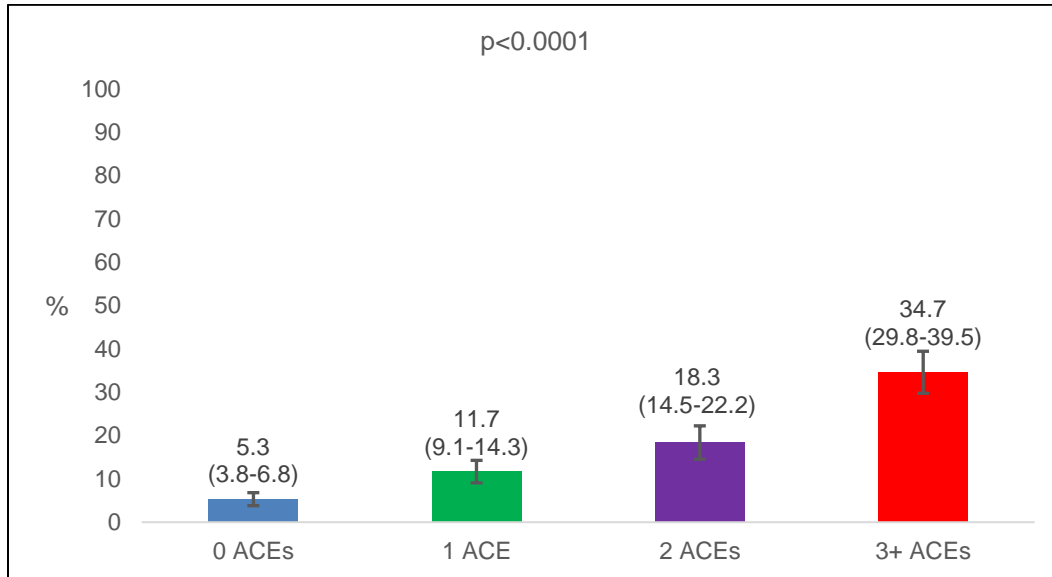


**Figure 22: Percentage of middle school students who ever rode in a car or other vehicle driven by someone who had been drinking alcohol, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



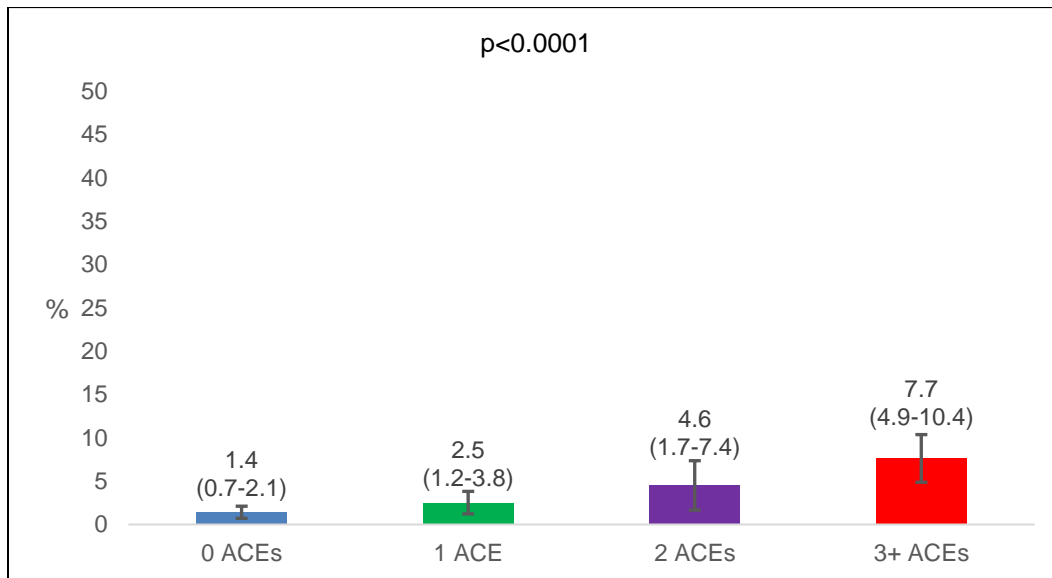
## Marijuana Use

**Figure 23: Percentage of students who ever used marijuana\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



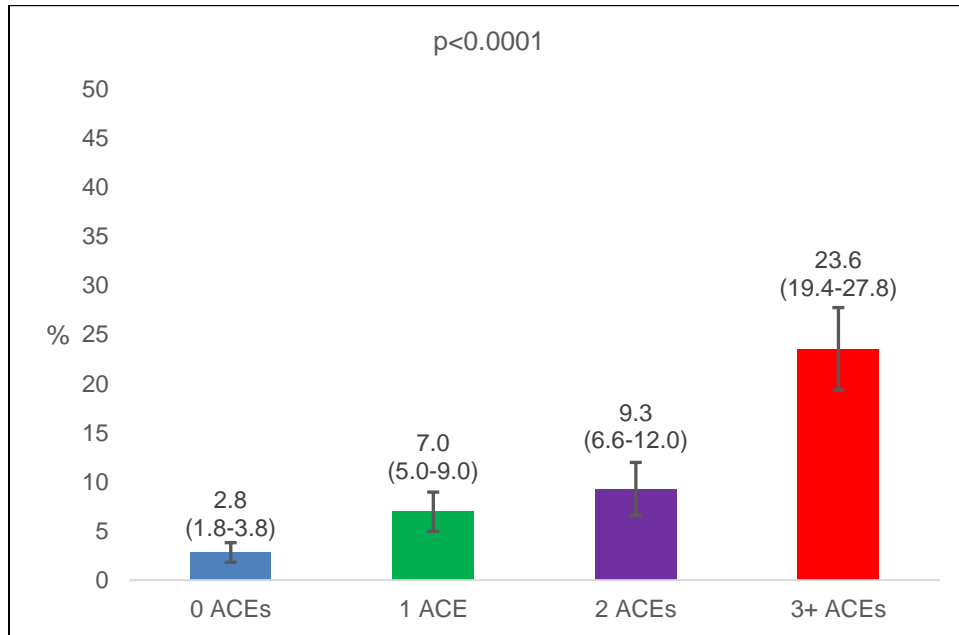
\*Also called “pot”, “weed”, or “cannabis”

**Figure 24: Percentage of middle school students who tried marijuana for the first time before age 11 years\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



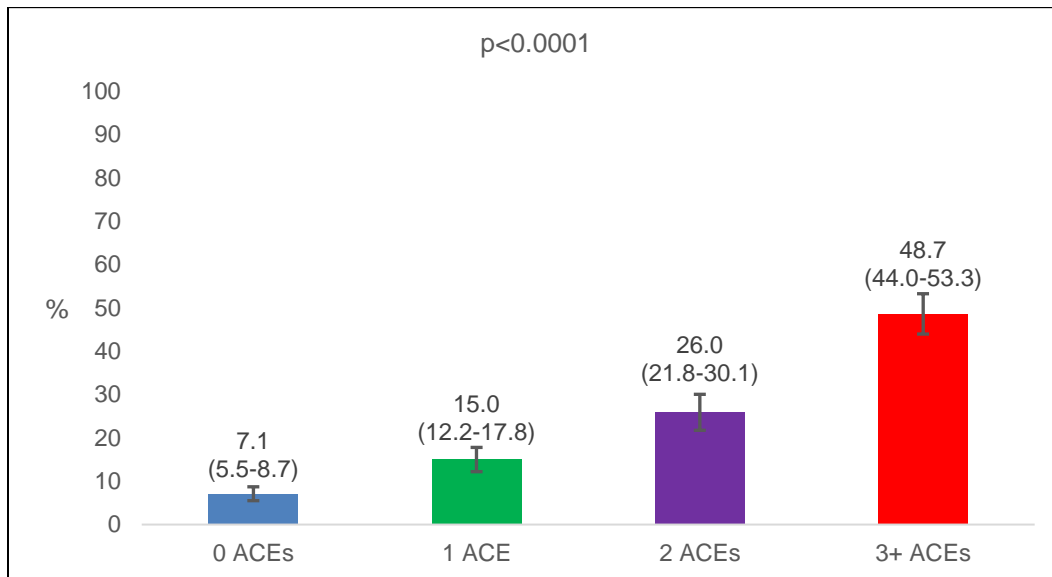
\*Also called “pot”, “weed”, or “cannabis”

**Figure 25: Percentage of middle school students who used marijuana during the 30 days before the survey\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Also called “pot”, “weed”, or “cannabis”

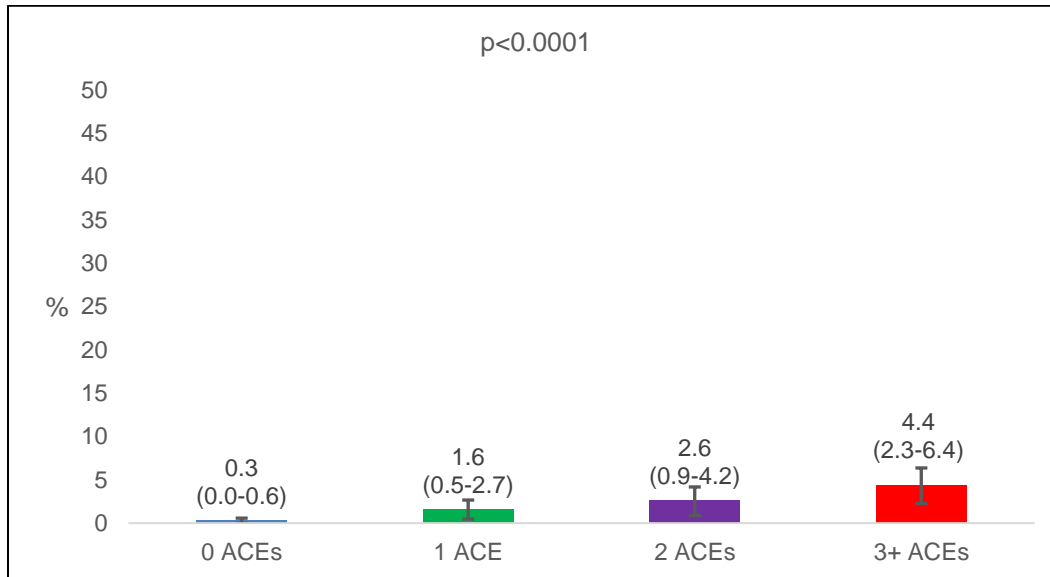
**Figure 26: Percentage of middle school students who ever rode in a car or other vehicle driven by someone using marijuana\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2017**



\*Also called “pot”, “weed”, or “cannabis”

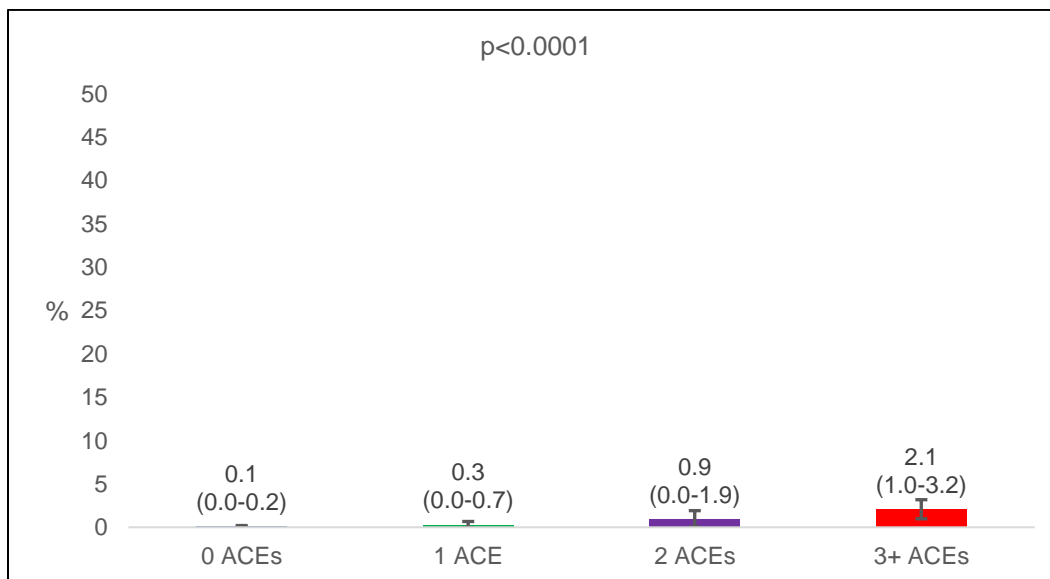
## Other Substance Use

**Figure 27: Percentage of middle school students who ever used cocaine\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



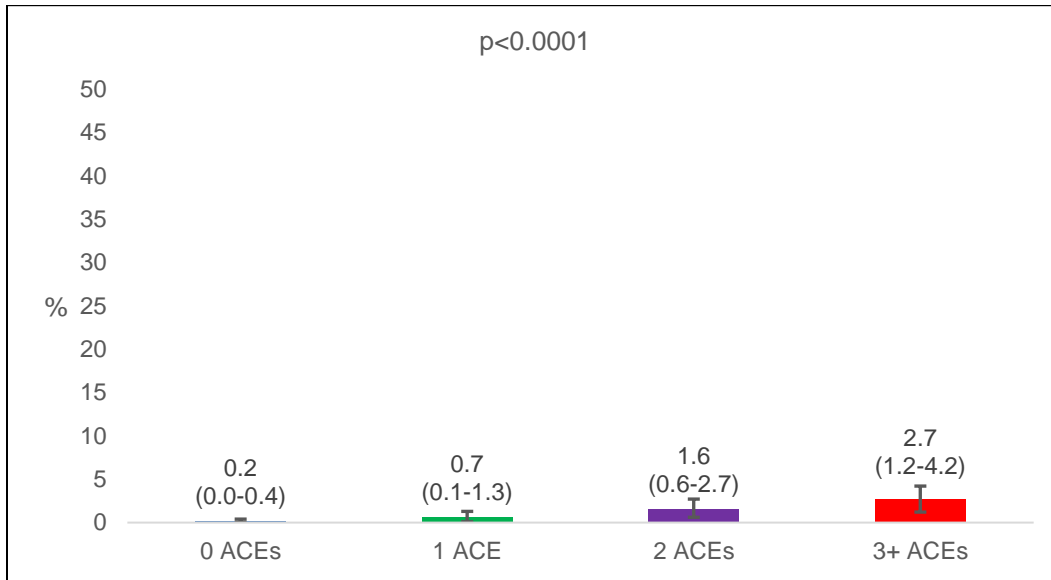
\*Used any form of cocaine (e.g., powder, crack, or freebase)

**Figure 28: Percentage of middle school students who ever used heroin\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



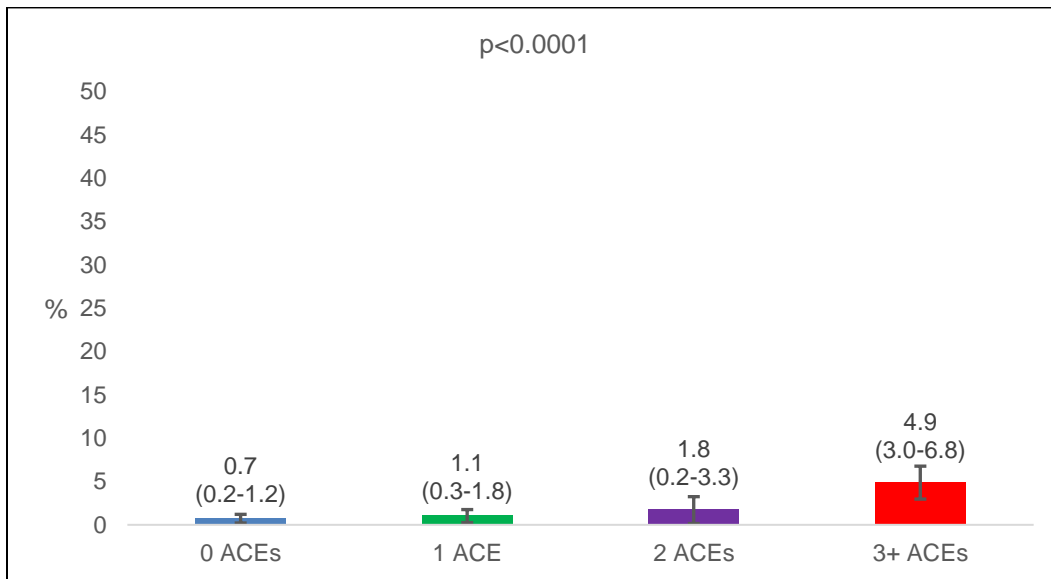
\*Used heroin (also called "smack," "junk," or "China white")

**Figure 29: Percentage of middle school students who ever used methamphetamines\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Used methamphetamines (also called “speed”, “crystal meth”, “crank”, “ice”, or “meth”)

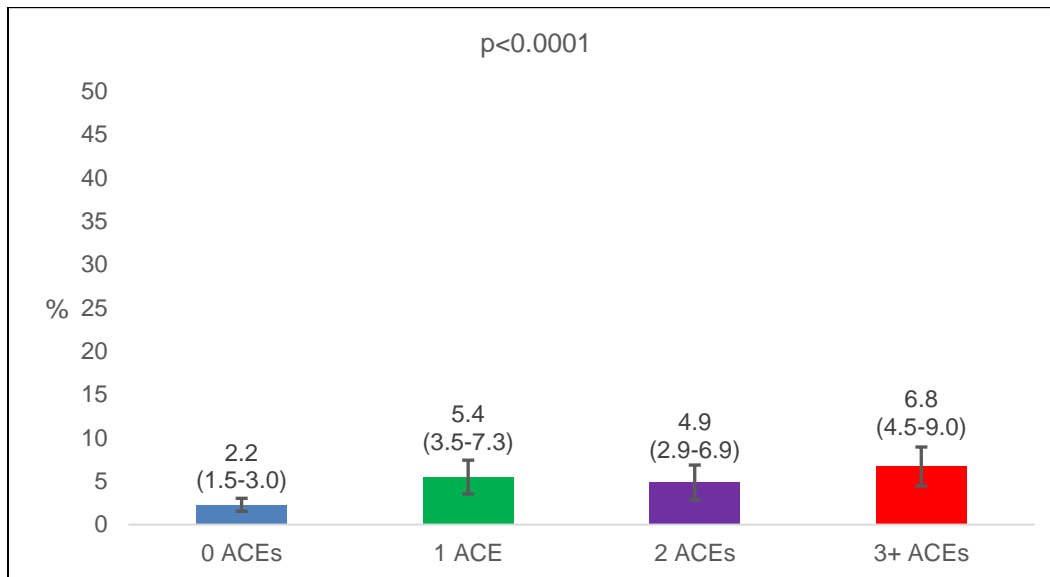
**Figure 30: Percentage of middle school students who used ecstasy\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Used ecstasy (also called “MDMA”)

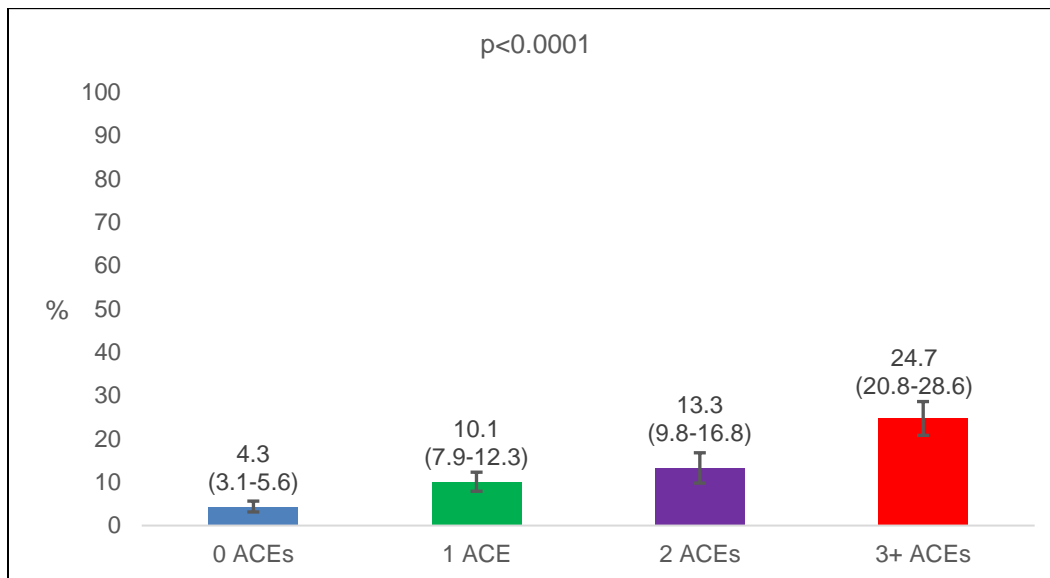


**Figure 31: Percentage of middle school students who ever used synthetic marijuana\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



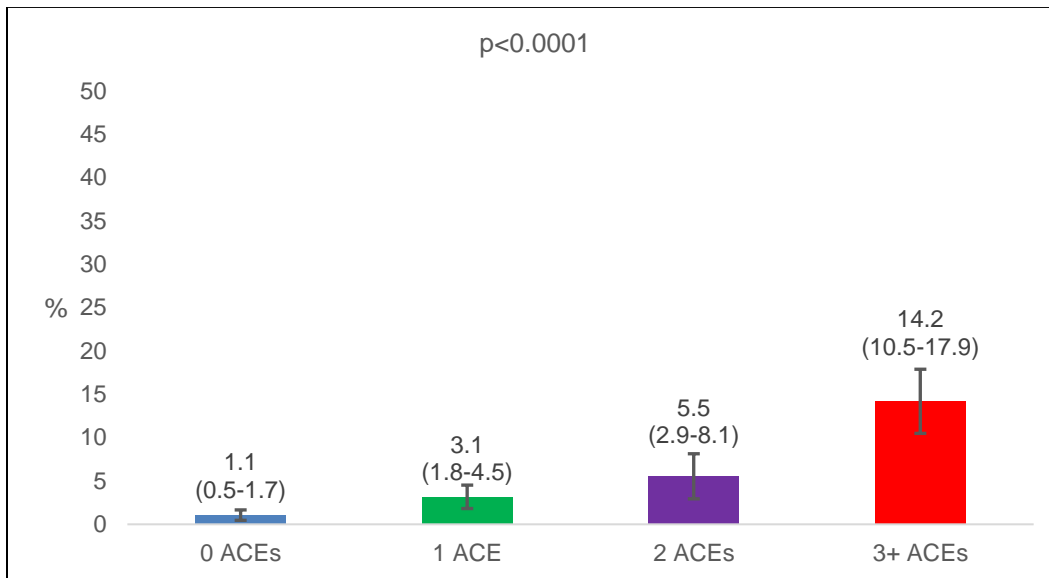
\*Used synthetic marijuana (also called “Spice”, “fake weed”, “K2”, “King Kong”, “Yukatan Fire”, or “Skunk”)

**Figure 32: Percentage of middle school students who ever took prescription pain medicine without a doctor’s prescription or differently than prescribed\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Took prescription pain medicine (e.g., codeine, Vicodin, OxyContin, Hydrocodone, and Percocet)

**Figure 33: Percentage of middle school students who took prescription pain medicine without a doctor's prescription or differently than prescribed during the 30 days before the survey\*, by ACE score — Nevada, Youth Risk Behavior Survey, 2019**



\*Took prescription pain medicine (e.g., codeine, Vicodin, OxyContin, Hydrocodone, and Percocet)