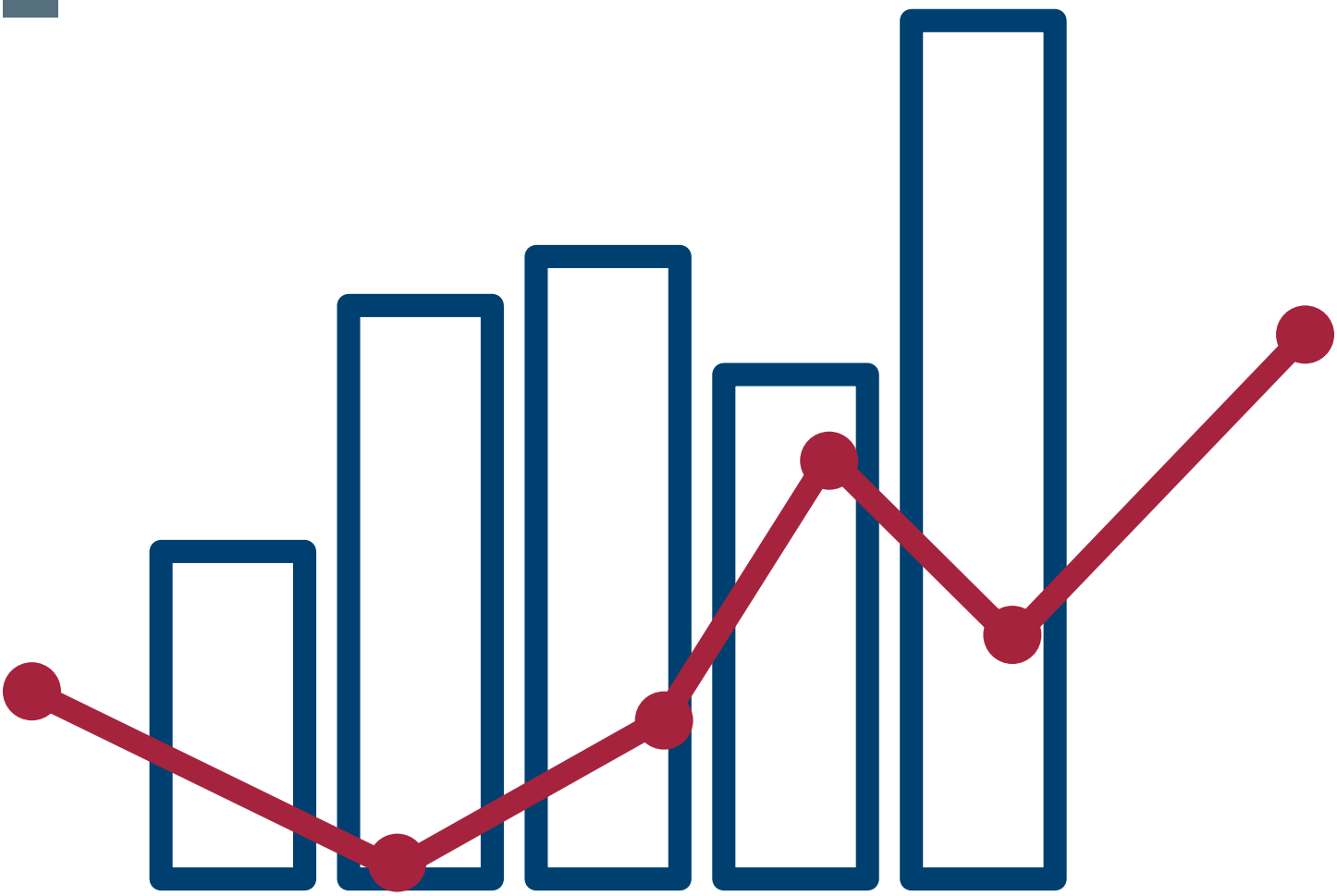
WEST VIRGINIA YOUTH RISK BEHAVIOR SURVEY, 2015:

Violence



West Virginia Department of EDUCATION
Research, Accountability, & Data Governance

West Virginia Youth Risk Behavior Survey, 2015: Violence Report

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West Virginia Department of EDUCATION

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Introduction

The Youth Risk Behavior Surveillance System was developed by the Centers for Disease Control and Prevention (CDC) in collaboration with state and local departments of education and health, national education and health organizations, and other federal agencies. The Youth Risk Behavior Survey (YRBS), the state and local level component of this system, assesses how certain youth risk behaviors change over time. The YRBS focuses on priority health risk behaviors established during youth that may affect academic performance and result in significant mortality and morbidity rates during both youth and adulthood. It assesses behaviors in six categories: (a) injury and violence, (b) tobacco use, (c) alcohol and other drug use, (d) sexual behaviors, (e) dietary behaviors, and (f) physical activity.

With funding from CDC and with the assistance of the RESA Regional School Wellness Specialists, the YRBS has been conducted by the West Virginia Department of Education (WVDE) since 1993 for high schools and since 1999 for middle schools.

The following series of YRBS topical reports, available at http://wvde.state.wv.us/research/reports2017.html, give a detailed snapshot of particular student risk behaviors across programmatic levels from high school back to early middle school ages:

- West Virginia Youth Risk Behavior Survey, 2015: Alcohol Use
- West Virginia Youth Risk Behavior Survey, 2015: Bullying and Suicidal Ideation
- West Virginia Youth Risk Behavior Survey, 2015: Dietary Behavior
- West Virginia Youth Risk Behavior Survey, 2015: Disease Prevention
- West Virginia Youth Risk Behavior Survey, 2015: Drug Use
- West Virginia Youth Risk Behavior Survey, 2015: Injury Risk
- West Virginia Youth Risk Behavior Survey, 2015: Physical Activity
- West Virginia Youth Risk Behavior Survey, 2015: Sexual Behavior
- West Virginia Youth Risk Behavior Survey, 2015: Tobacco Use
- West Virginia Youth Risk Behavior Survey, 2015: Violence
- West Virginia Youth Risk Behavior Survey, 2015: Weight Management

Methods

See the Appendix, page 17 for details about sampling procedures, sample characteristics, questionnaires, weighting of the raw data, data analysis, and interpretation of the results.

Results

The results include time trend graphs to show how youth behaviors have changed over time through 2015. Results include prevalence by demographic characteristics such as gender and grade level. High school results are presented first, followed by middle school data where applicable. Results are not available for high school students for 2001 and middle school students for 2003 and 2005.

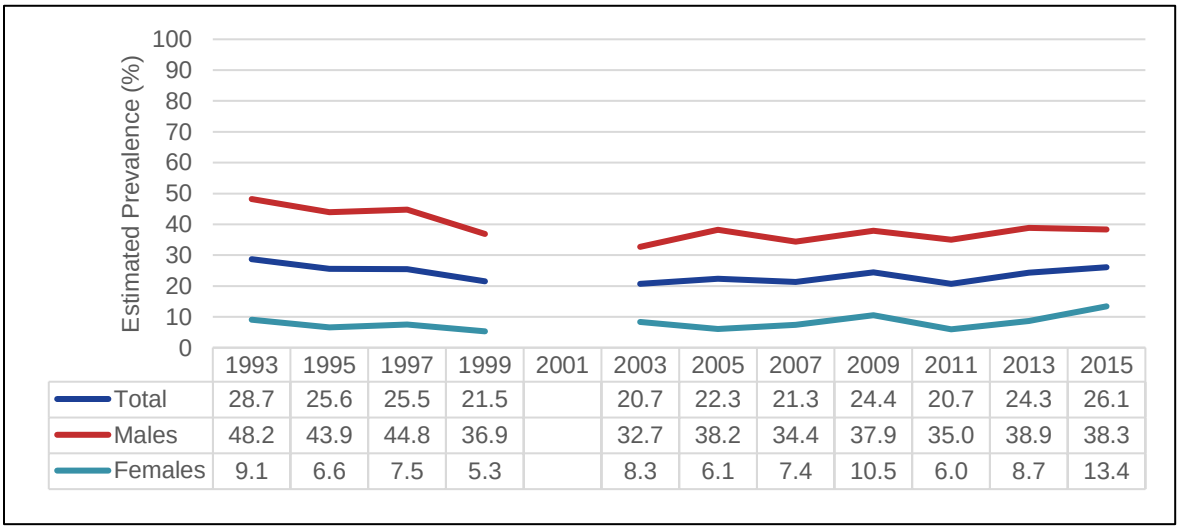
Carried a Weapon in the Past Month

Definition: Weighted percentage of students who carried a weapon such as a gun, knife, or club on at least 1 day during the 30 days before the survey.

High school students

The prevalence of carried a weapon in the past month among high school students was 26.1% in 2015.

Figure 1 displays the prevalence of this indicator among high school students significantly decreased from 1993 to 2015 among males and significantly increased among females.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	28.7	25.6	25.5	21.5		20.7	22.3	21.3	24.4	20.7	24.3	26.1
Males	48.2	43.9	44.8	36.9		32.7	38.2	34.4	37.9	35.0	38.9	38.3
Females	9.1	6.6	7.5	5.3		8.3	6.1	7.4	10.5	6.0	8.7	13.4

Figure 1. Prevalence of Carried a Weapon in the Past Month Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 1 displays the prevalence of carried a weapon in the past month among high school students by demographic characteristics for 2015. The results indicate the prevalence was significantly higher among males than among females. There was no significant grade difference for this indicator.

Table 1. Prevalence of Carried a Weapon in the Past Month Among WV High School Students by Gender and Grade Level, 2015

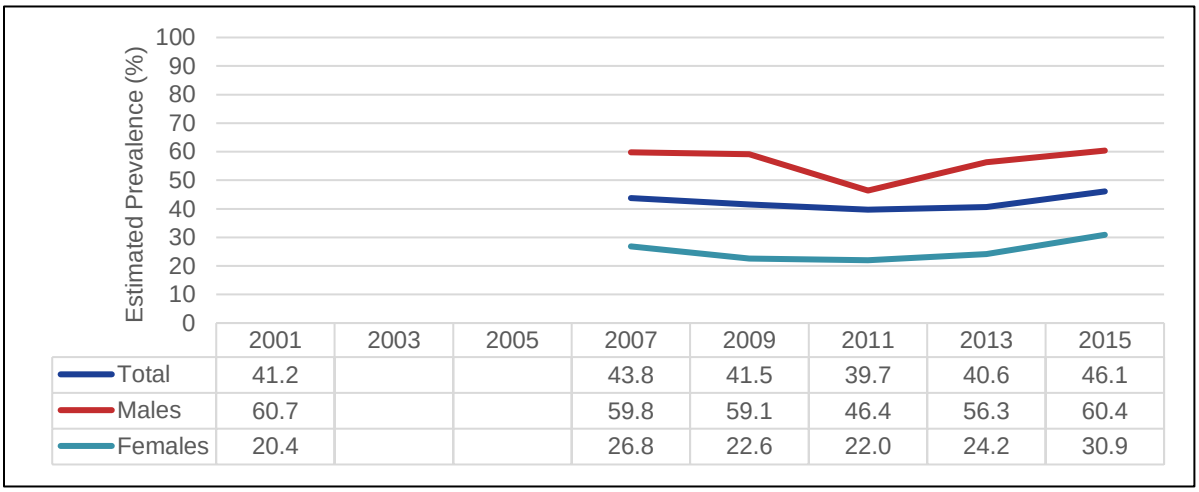
Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	26.1	22.9-29.5	20,183
Male	38.3	33.9-42.9	15,021
Female	13.4	10.5-17.0	5,103
9th	25.4	20.8-30.6	5,524
10th	31.1	24.5-38.6	6,109
11th	21.2	15.1-29.0	3,906
12th	25.7	18.3-34.9	4,414

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

Middle school students

The prevalence of carried a weapon in the past month among middle school students was 46.1% in 2015.

Figure 2 displays the prevalence of this indicator among middle school students significantly increased among females since 2001 and indicates no significant change among males.



	2001	2003	2005	2007	2009	2011	2013	2015
Total	41.2			43.8	41.5	39.7	40.6	46.1
Males	60.7			59.8	59.1	46.4	56.3	60.4
Females	20.4			26.8	22.6	22.0	24.2	30.9

Figure 2. Prevalence of Carried a Weapon in the Past Month Among WV Middle School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 2 displays the prevalence of carried a weapon in the past month among middle school students by demographic characteristics for 2015. The results indicate the prevalence was significantly higher among males than among females. There was no significant grade difference for this indicator.

Table 2. Prevalence of Carried a Weapon in the Past Month Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	46.1	41.0-51.2	27,138
Male	60.4	54.3-66.1	18,323
Female	30.9	24.8-37.7	8,706
6th	42.6	33.6-52.1	7,956
7th	46.0	39.2-53.1	9,128
8th	49.3	43.8-54.9	9,807

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

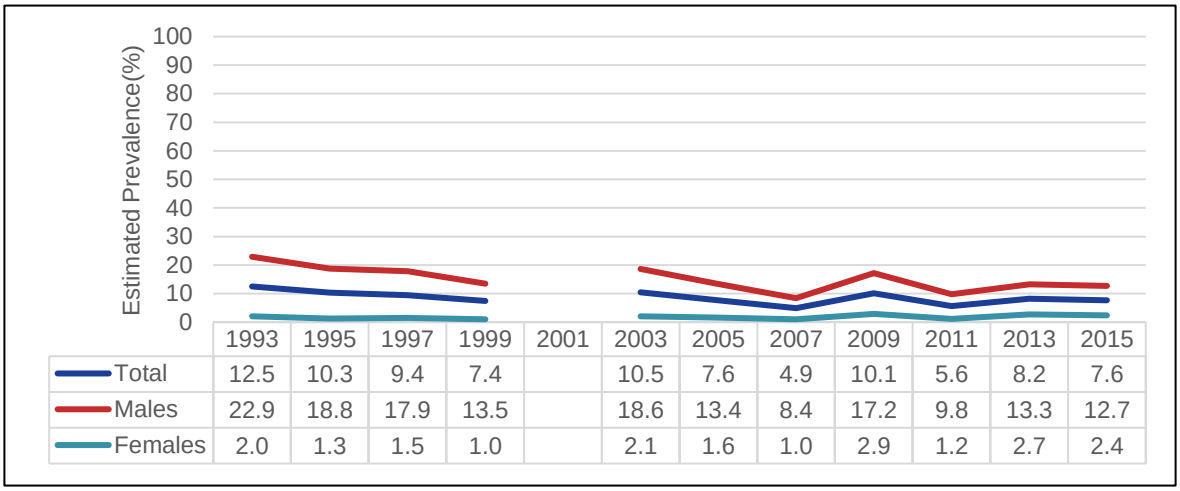
Carried a Gun at Least One Day in the Past Month

Definition: Weighted percentage of students who carried a gun on at least 1 day during the 30 days before the survey.

High school students

The prevalence of carried a gun in the past month among high school students was 7.6% in 2015.

Figure 3 displays the prevalence of this indicator among high school students significantly increased among females and significantly deceased among males from 1993 to 2015.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	12.5	10.3	9.4	7.4		10.5	7.6	4.9	10.1	5.6	8.2	7.6
Males	22.9	18.8	17.9	13.5		18.6	13.4	8.4	17.2	9.8	13.3	12.7
Females	2.0	1.3	1.5	1.0		2.1	1.6	1.0	2.9	1.2	2.7	2.4

Figure 3. Prevalence of Carried a Gun in the Past Month Among WV High School Students
Data source: WV Department of Education, Youth Risk Behavior Survey

Table 3 displays the prevalence of carried a gun in the past month among high school students by demographic characteristics for 2015. The results indicate the prevalence was significantly higher among males than among females. There was no significant grade difference for this indicator.

Table 3. Prevalence of Carried a Gun in the Past Month Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	7.6	6.3-9.3	6,016
Male	12.7	10.5-15.2	5,075
Female	2.4	1.6-3.6	924
9th	5.2	3.4-8.1	1,152
10th	8.5	5.9-12.1	1,728
11th	6.6	4.3-10.0	1,231
12th	9.9	6.3-15.2	1,743

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

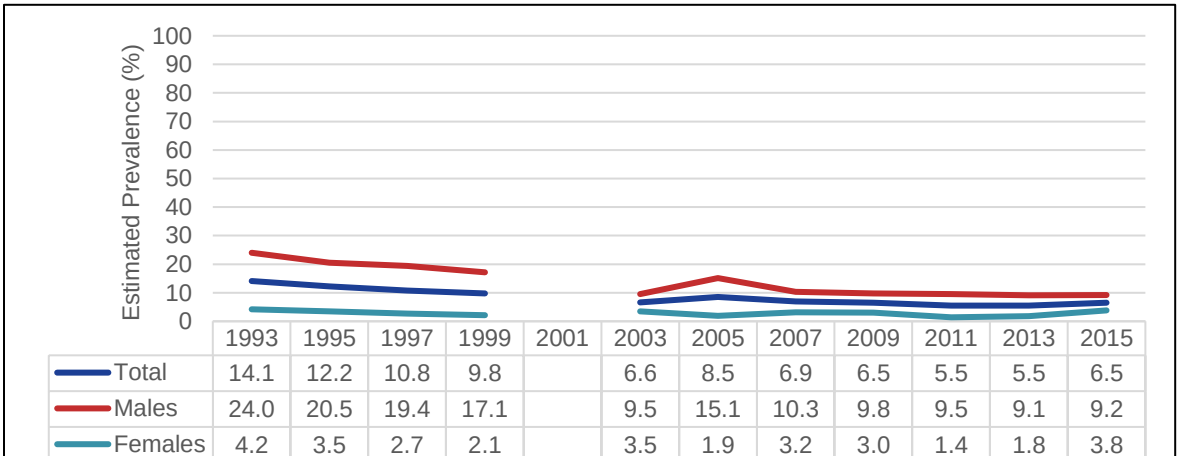
Carried a Weapon at Least One Day in the Past Month

Definition: Weighted percentage of students who carried a weapon, such as a gun, knife, or club, on school property on at least 1 day during the 30 days before the survey.

High school students

The prevalence of carried a weapon on school property in the past month among high school students was 6.5% in 2015.

Figure 4 shows the prevalence of this indicator among high school students has significantly decreased for the total population and among males since 1993. The prevalence among females significantly increased from 2013 to 2015.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	14.1	12.2	10.8	9.8		6.6	8.5	6.9	6.5	5.5	5.5	6.5
Males	24.0	20.5	19.4	17.1		9.5	15.1	10.3	9.8	9.5	9.1	9.2
Females	4.2	3.5	2.7	2.1		3.5	1.9	3.2	3.0	1.4	1.8	3.8

Figure 4. Prevalence of Carried a Weapon on School Property in the Past Month Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 4 displays the prevalence of carried a weapon on school property in the past month among high school students by demographic characteristics for 2015. The results indicate the prevalence was significantly higher among males than among females. There was no significant grade difference in the prevalence.

Table 4. Prevalence of Carried a Weapon on School Property in the Past Month Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	6.5	4.9-8.6	5,154
Male	9.2	6.1-13.7	3,689
Female	3.8	2.5-5.7	1,465
9th	5.9	3.8-9.0	1,295
10th	5.6	3.4-9.2	1,131
11th	7.5	4.5-12.1	1,404
12th	6.7	3.9-11.4	1,192

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

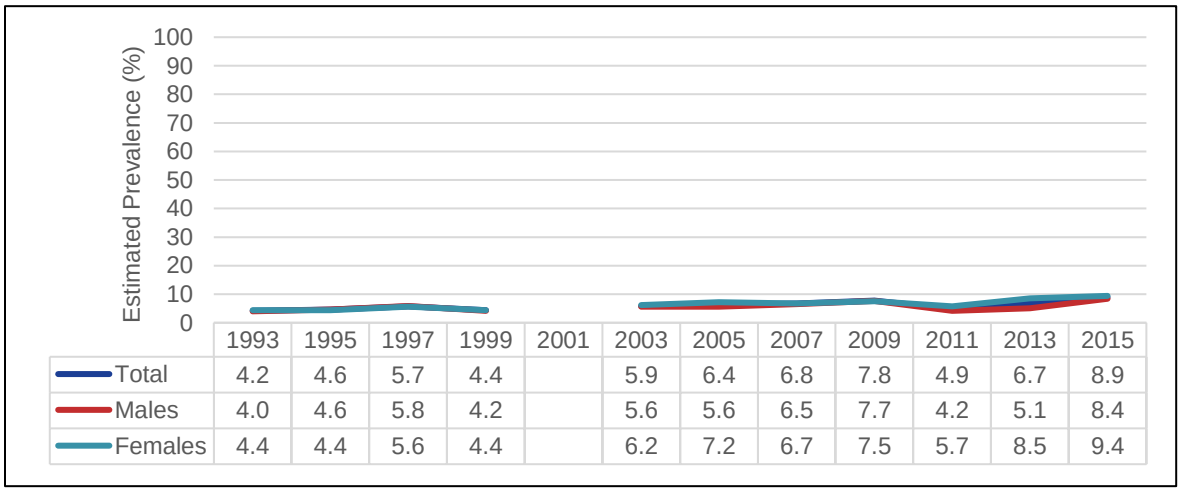
Skipped School in the Past Month Due to Feeling Unsafe

Definition: Weighted percentage of students who did not go to school because they felt unsafe at school or on their way to or from school on at least 1 day during the 30 days before the survey.

High school students

The prevalence of skipped school in past month due to feeling unsafe among high school students was 8.9% in 2015.

Figure 5 shows the prevalence of this indicator among high school students has significantly increased since 1993 among both males and females.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	4.2	4.6	5.7	4.4		5.9	6.4	6.8	7.8	4.9	6.7	8.9
Males	4.0	4.6	5.8	4.2		5.6	5.6	6.5	7.7	4.2	5.1	8.4
Females	4.4	4.4	5.6	4.4		6.2	7.2	6.7	7.5	5.7	8.5	9.4

Figure 5. Prevalence of Skipped School in Past Month Due to Feeling Unsafe Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 5 displays the prevalence of skipped school in past month due to feeling unsafe among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences in the prevalence of this indicator.

Table 5. Prevalence of Skipped School in Past Month Due to Feeling Unsafe Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	8.9	7.0-11.2	7,064
Male	8.4	5.8-12.0	3,393
Female	9.4	6.9-12.7	3,635
9th	10.5	7.7-14.2	2,329
10th	10.2	7.5-13.8	2,039
11th	6.7	5.1-8.8	1,258
12th	7.6	4.2-13.2	1,353

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

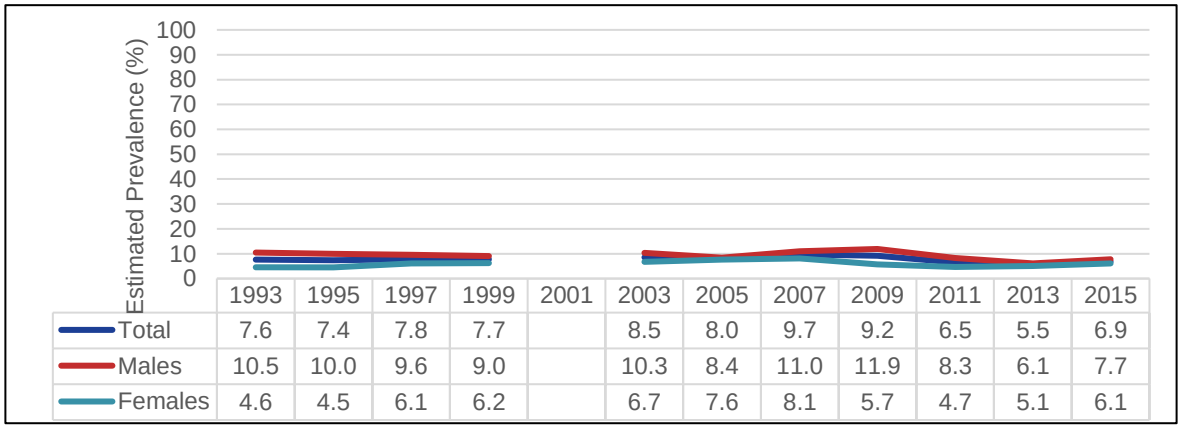
Threatened or Injured With a Weapon on School Property in the Past Year

Definition: Weighted percentage of students who were threatened or injured with a weapon, such as a gun, knife, or club, on school property one or more times during the 12 months before the survey.

High school students

The prevalence of threatened or injured with a weapon on school property in the past year among high school students was 6.9% in 2015.

Figure 6 displays the prevalence of this indicator among high school students for the years 1993 to 2015. The overall prevalence significantly increased from 1993 to 2007 and significantly decreased from 2007 to 2015. The prevalence among females followed a similar trend as the overall prevalence and the prevalence among males significantly decreased from 1993 to 2015.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	7.6	7.4	7.8	7.7		8.5	8.0	9.7	9.2	6.5	5.5	6.9
Males	10.5	10.0	9.6	9.0		10.3	8.4	11.0	11.9	8.3	6.1	7.7
Females	4.6	4.5	6.1	6.2		6.7	7.6	8.1	5.7	4.7	5.1	6.1

Figure 6. Prevalence of Threatened or Injured with a Weapon on School Property in the Past Year Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 6 displays the prevalence of threatened or injured with a weapon on school property in the past year among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences in the prevalence of this indicator.

Table 6. Prevalence of Threatened or Injured with a Weapon on School Property in the Past Year Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	6.9	5.8-8.2	5,507
Male	7.7	5.7-10.3	3,121
Female	6.1	4.3-8.6	2,370
9th	8.8	5.8-13.3	1,973
10th	6.5	4.6-9.1	1,321
11th	5.0	3.5-7.1	943
12th	6.4	4.1-10.0	1,152

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

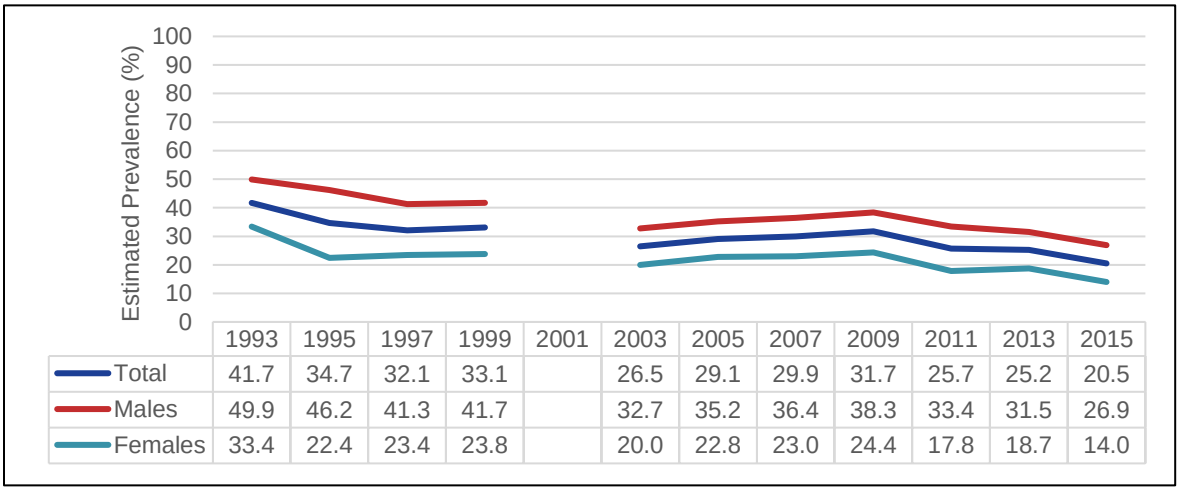
In a Physical Fight in the Past Year

Definition: Weighted percentage of students who were in a physical fight one or more times during the 12 months before the survey.

High school students

The prevalence of in a physical fight in the past year among high school students was 20.5% in 2015.

Figure 7 shows the prevalence of this indicator among high school students significantly decreased for the total population and among males and females since 1993.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	41.7	34.7	32.1	33.1		26.5	29.1	29.9	31.7	25.7	25.2	20.5
Males	49.9	46.2	41.3	41.7		32.7	35.2	36.4	38.3	33.4	31.5	26.9
Females	33.4	22.4	23.4	23.8		20.0	22.8	23.0	24.4	17.8	18.7	14.0

Figure 7. Prevalence of in a Physical Fight in Past Year Among WV High School Students
Data source: WV Department of Education, Youth Risk Behavior Survey

Table 7 displays the prevalence of in a physical fight in the past year among high school students by demographic characteristics for 2015. While there was no significant grade difference, the prevalence was significantly higher among males than among females.

Table 7. Prevalence of in a Physical Fight in the Past Year Among WV High School Students by Gender and Grade Level, 2015

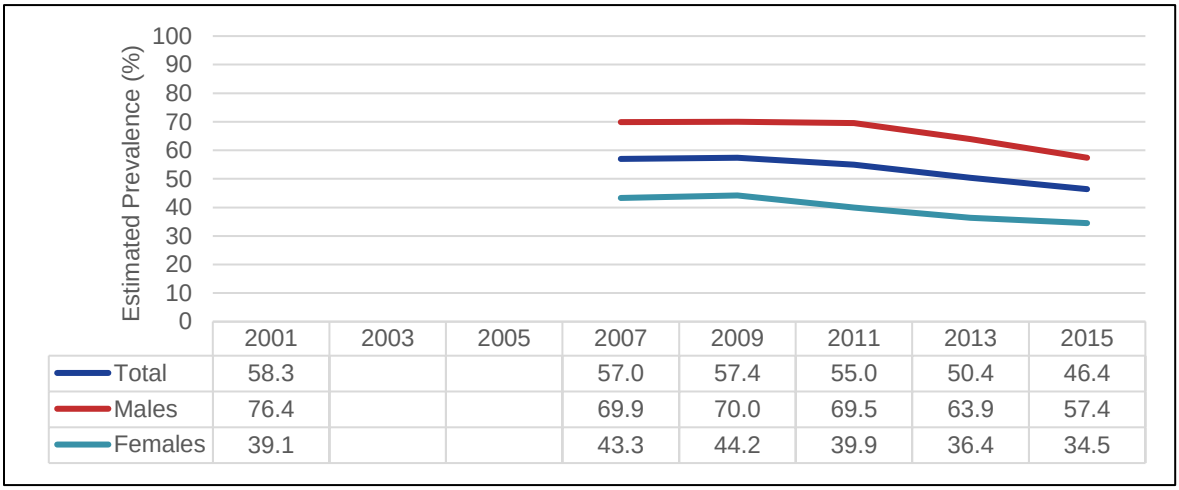
Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	20.5	17.7-23.6	15,908
Male	26.9	23.5-30.7	10,468
Female	14.0	11.1-17.5	5,427
9th	21.7	16.9-27.3	4,694
10th	25.1	19.6-31.6	4,895
11th	18.5	14.5-23.3	3,445
12th	15.6	11.4-20.9	2,749

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

Middle school students

The prevalence of in a physical fight in the past year among middle school students was 46.4% in 2015.

Figure 8 displays the prevalence of this indicator among middle school students from 2001 to 2015. The results indicates no significant change in the overall prevalence from 2001 to 2011, however the prevalence significantly decreased from 2011 to 2015. The prevalence among females followed a similar pattern with no change from 2001 to 2009 and a significant decrease from 2009 to 2015. The prevalence among males significantly decreased from 2001 to 2015.



	2001	2003	2005	2007	2009	2011	2013	2015
Total	58.3			57.0	57.4	55.0	50.4	46.4
Males	76.4			69.9	70.0	69.5	63.9	57.4
Females	39.1			43.3	44.2	39.9	36.4	34.5

Figure 8. Prevalence of in a Physical Fight in Past Year Among WV Middle School Students
Data source: WV Department of Education, Youth Risk Behavior Survey

Table 8 displays the prevalence of in a physical fight in the past year among middle school students by demographic characteristics for 2015. The results indicate the prevalence was significantly higher among males than among females. There was no significant grade difference for this indicator.

Table 8. Prevalence of in a Physical Fight in the Past Year Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	46.4	42.7-50.1	27,301
Male	57.4	53.0-61.6	17,394
Female	34.5	29.2-40.2	9,701
6th	44.9	39.1-50.9	8,297
7th	47.5	43.1-52.0	9,500
8th	46.3	38.3-54.5	9,219

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

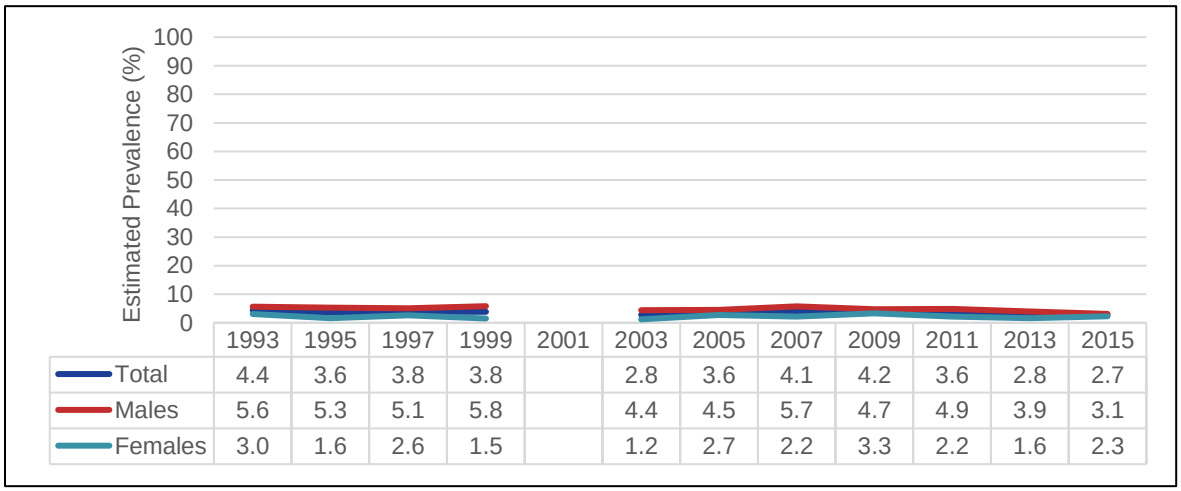
Injured in a Physical Fight in the Past Year

Definition: Weighted percentage of students who were injured in a physical fight and treated by a doctor or nurse, one or more times during the 12 months before the survey.

High school students

The prevalence of injured in a physical fight in the past year among high school students was 2.7% in 2015.

Figure 9 shows the prevalence of this indicator among high school students significantly decreased from 1993 to 2015 among males with no significant change among females.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	4.4	3.6	3.8	3.8		2.8	3.6	4.1	4.2	3.6	2.8	2.7
Males	5.6	5.3	5.1	5.8		4.4	4.5	5.7	4.7	4.9	3.9	3.1
Females	3.0	1.6	2.6	1.5		1.2	2.7	2.2	3.3	2.2	1.6	2.3

Figure 9. Prevalence of Injured in a Physical Fight in the Past Year Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 9 displays the prevalence of injured in a physical fight in the past year among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences in the prevalence of this indicator.

Table 9. Prevalence of Injured in a Physical Fight in the Past Year Among WV High School Students by Gender and Grade Level, 2015

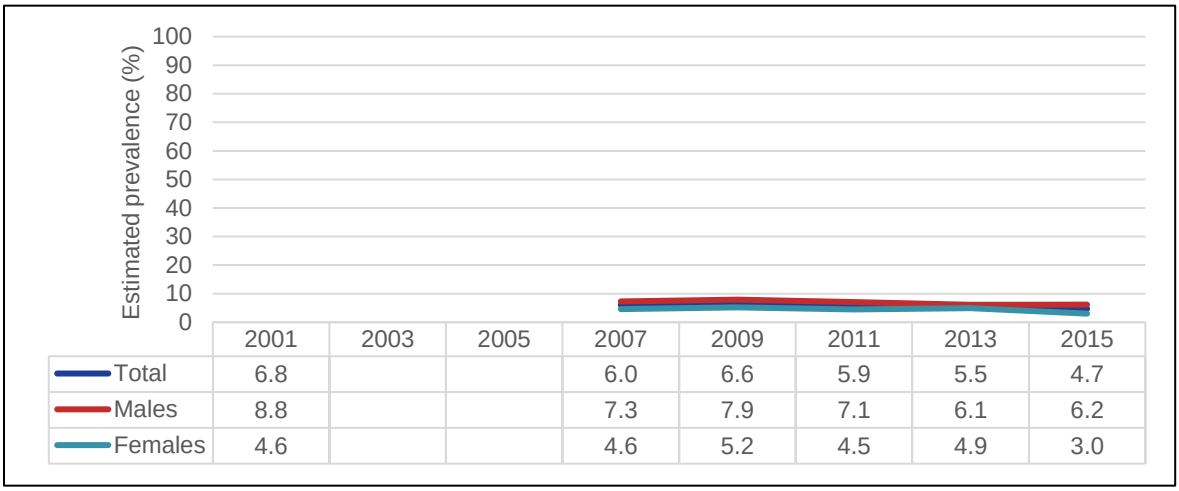
Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	2.7	2.1-3.6	2,127
Male	3.1	2.3-4.2	1,239
Female	2.3	1.5-3.5	889
9th	3.7	2.4-5.7	816
10th	3.2	1.7-6.0	647
11th	1.8	1.0-3.2	332
12th	1.7	0.7-4.4	304

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

Middle school students

The prevalence of injured in a physical fight in the past year among middle school students was 4.7% in 2015.

Figure 10 shows the prevalence of this indicator among middle school students significantly decreased from 2001 to 2015 for the total population. This pattern was consistent among males, however there was no significant change among females.



	2001	2003	2005	2007	2009	2011	2013	2015
Total	6.8			6.0	6.6	5.9	5.5	4.7
Males	8.8			7.3	7.9	7.1	6.1	6.2
Females	4.6			4.6	5.2	4.5	4.9	3.0

Figure 10. Prevalence of Injured in a Physical Fight in the Past Year Among WV Middle School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 10 displays the prevalence of injured in a physical fight in the past year among middle school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences in the prevalence of this indicator.

Table 10. Prevalence of Injured in a Physical Fight in the Past Year Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	4.7	3.5-6.4	2,757
Male	6.2	4.3-8.7	1,866
Female	3.0	1.9-4.6	832
6th	4.7	3.0-7.3	867
7th	4.6	3.0-6.9	912
8th	4.7	2.7-8.0	921

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

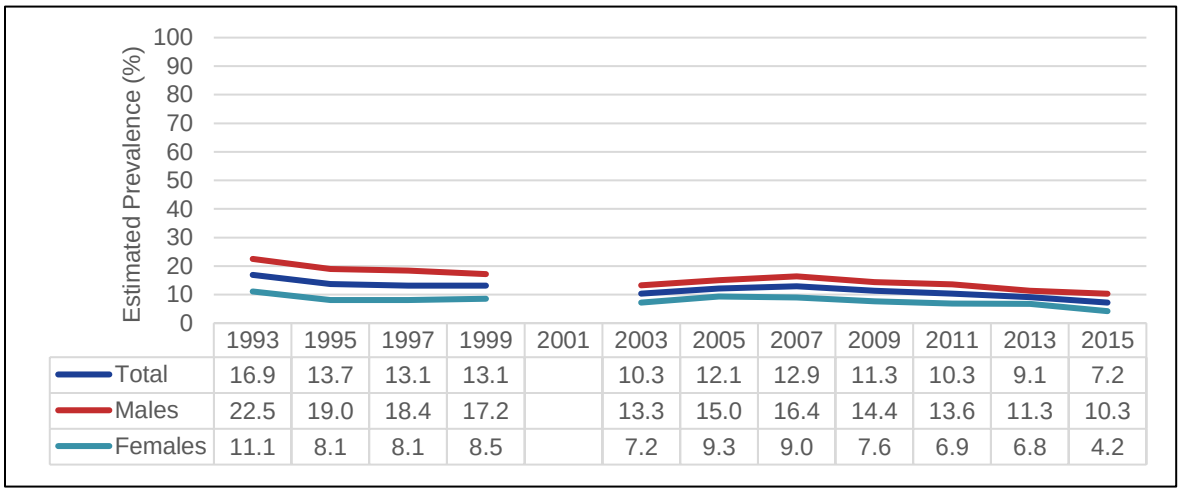
In a Physical Fight on School Property in the Past Year

Definition: Weighted percentage of students who were in a physical fight on school property one or more times during the 12 months before the survey.

High school students

The prevalence of in a physical fight on school property in the past year among high school students was 7.2% in 2015.

Figure 11 shows the prevalence of this indicator among high school students significantly decreased from 1993 to 2015 for the total population and among males and females.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	16.9	13.7	13.1	13.1		10.3	12.1	12.9	11.3	10.3	9.1	7.2
Males	22.5	19.0	18.4	17.2		13.3	15.0	16.4	14.4	13.6	11.3	10.3
Females	11.1	8.1	8.1	8.5		7.2	9.3	9.0	7.6	6.9	6.8	4.2

Figure 11. Prevalence of in a Physical Fight on School Property in the Past Year Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 11 displays the prevalence of in a physical fight on school property in the past year among high school students was significantly higher among males than among females in 2015. There was no significant grade difference for this indicator.

Table 11. Prevalence of in a Physical Fight on School Property in the Past Year Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	7.2	5.1-10.1	5,664
Male	10.3	7.0-14.9	4,038
Female	4.2	3.0-5.7	1,625
9th	8.2	5.7-11.7	1,785
10th	9.2	4.9-16.6	1,806
11th	5.9	3.6-9.4	1,098
12th	5.0	2.3-10.8	892

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

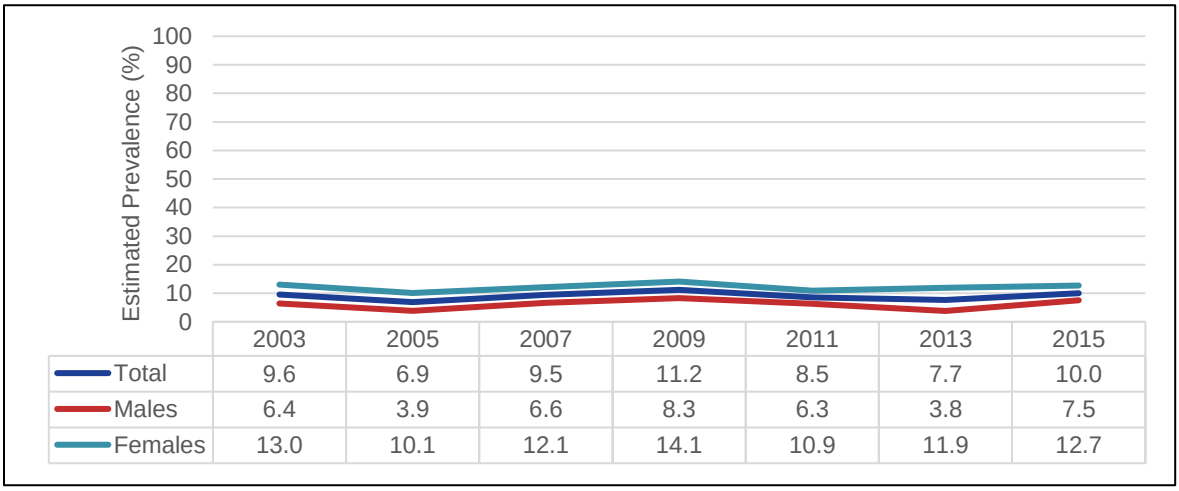
Ever Physically Forced to Have Sexual Intercourse

Definition: Weighted percentage of students who were ever physically forced to have sexual intercourse when they did not want to.

High school students

The prevalence of ever physically forced to have sexual intercourse among high school students was 10.0% in 2015.

Figure 12 displays the prevalence of this indicator among high school students. The results indicate no significant change in the total prevalence or the prevalence among females from 2003 to 2015. The prevalence among males significantly increased from 2013 to 2015.



	2003	2005	2007	2009	2011	2013	2015
Total	9.6	6.9	9.5	11.2	8.5	7.7	10.0
Males	6.4	3.9	6.6	8.3	6.3	3.8	7.5
Females	13.0	10.1	12.1	14.1	10.9	11.9	12.7

Figure 12. Prevalence of Ever Physically Forced to Have Sexual Intercourse Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 12 displays the prevalence of ever physically forced to have sexual intercourse among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 12. Prevalence of Ever Physically Forced to Have Sexual Intercourse Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	10.0	7.8-12.8	7,917
Male	7.5	5.2-10.7	3,002
Female	12.7	9.5-16.7	4,899
9th	6.5	4.3-9.7	1,446
10th	10.8	7.7-15.0	2,159
11th	9.8	8.0-12.0	1,840
12th	13.4	7.4-22.8	2,361

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

Experienced Physical Dating Violence in the Past Year

Definition: Weighted percentage of students who experienced physical dating violence (including being hit, slammed into something, or injured with an object or weapon on purpose by someone they were dating or going out with) one or more times during the 12 months before the survey, among those who dated or went out with someone during the 12 months before the survey.

High school students

The prevalence of experienced physical dating violence in the past year among high school students was 10.1% in 2015.

Figure 13 shows there was no change in the prevalence of this indicator among high school students for the total population or among males or females between 2013 and 2015.

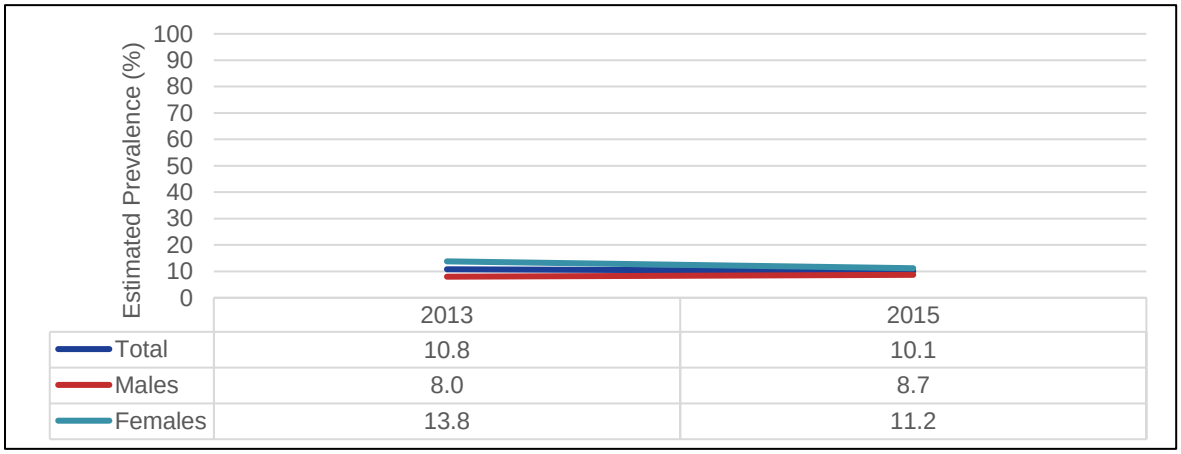


Figure 13. Prevalence of Experienced Physical Dating Violence in the Past Year Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 13 displays the prevalence of experienced physical dating violence in the past year among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences in the prevalence of this indicator.

Table 13. Prevalence of Experienced Physical Dating Violence in the Past Year Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	10.1	8.2-12.3	5,615
Male	8.7	6.0-12.4	2,285
Female	11.2	8.5-14.6	3,315
9th	6.4	4.0-10.1	863
10th	13.0	9.8-17.1	1,788
11th	8.7	6.3-11.9	1,265
12th	11.8	8.4-16.4	1,642

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

Experienced Sexual Dating Violence in the Past Year

Definition: Weighted percentage of students who experienced sexual dating violence (including kissing, touching, or being physically forced to have sexual intercourse when they did not want to by someone they were dating or going out with) one or more times during the 12 months before the survey, among those who dated or went out with someone during the 12 months before the survey.

High school students

The prevalence of experienced sexual dating violence in the past year among high school students was 9.0% in 2015.

Figure 14 shows the prevalence of this indicator among high school students from 2013 to 2015. The results indicate no significant change for the total population and among both males and females.

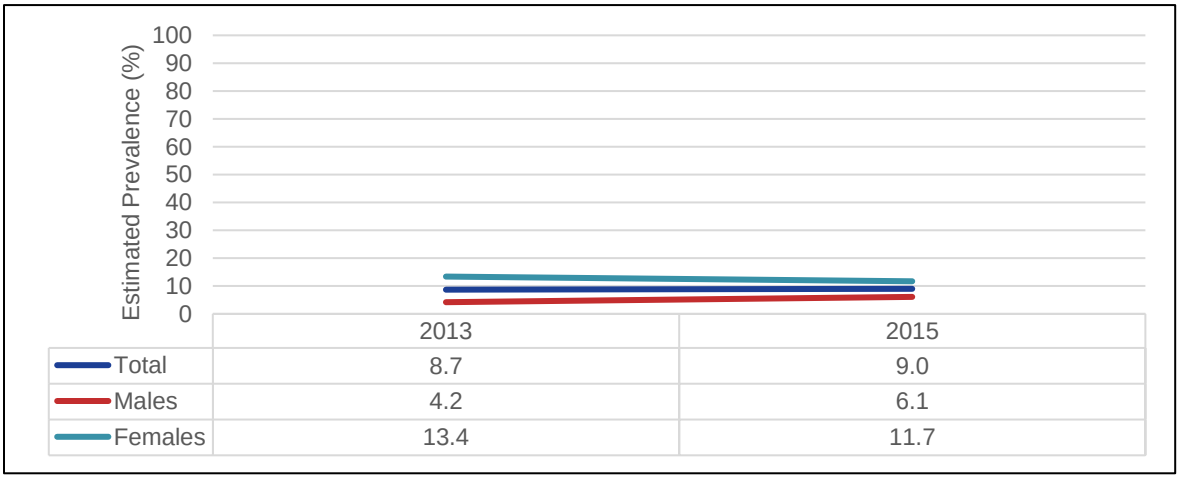


Figure 14. Prevalence of Experienced Sexual Dating Violence in the Past Year Among WV High School Students

Data source: WV Department of Education, Youth Risk Behavior Survey

Table 14 displays the prevalence of experienced sexual dating violence in the past year among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences in the prevalence of this indicator.

Table 14. Prevalence of Experienced Sexual Dating Violence in the Past Year Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	9.0	7.5-10.9	5,117
Male	6.1	4.3-8.6	1,629
Female	11.7	9.3-14.6	3,488
9th	8.4	6.4-11.0	1,154
10th	10.0	6.8-14.5	1,399
11th	7.1	5.1-9.8	1,037
12th	10.3	6.2-16.7	1,469

Data source: West Virginia Department of Education, Youth Risk Behavior Survey, 2015

Discussion

The research base indicates several methods of preventing risky behaviors among adolescents. Strong school support was found to be associated with lowered physical and verbal dating violence among adolescents (Parker, Debnam, Pas, & Bradshaw, 2015).

Family, school, and neighborhood factors can also reduce youth violence (Duke & Borowsky, 2015). Banspach et al. (2016) recommend a variety of family-based approaches, school-based approaches, and health services to help prepare adolescents for lifelong health and wellness.

Collaborations among community organizations, local social networks, school health centers, public health departments, and effective school programs can play a large role in prevention of many high risk behaviors among adolescents. Promoting healthy behaviors during adolescence can lead to healthy lifestyle and behavioral choices in adulthood thereby preventing major chronic diseases and leading to less disability and greater health-related quality of life in adulthood and through the aging continuum.

Appendix: Survey Methods

The West Virginia Youth Risk Behavior Survey (YRBS) was most recently administered in public middle schools and high schools during the spring of 2015. The following sections describe the methodology of the YRBS.

Sampling Procedures

Because it is not feasible to administer the YRBS questionnaire to all students in the state, a sample of students complete the questionnaires. The West Virginia Department of Education (WVDE) and The Centers for Disease Control and Prevention (CDC) employ a two-stage, cluster sample design. All public high schools and middle schools in the state were included in the sampling frame, which includes enrollment by grade for each school. During the 2015 YRBS administration, a total of 35 randomly selected public high schools and 49 middle schools from around the state participated in the survey. In sampled schools, the survey was administered in a random selection of second period classes.

Sample Characteristics, 2015

A total of 1,622 students enrolled in Grades 9–12, participated in the survey, representing a school response rate of 100% and a student response rate of 77%. A total of 1,854 students enrolled in Grades 6–8, participated in the survey, representing a school response rate of 100% and a student response rate of 75%.

Data Collection

Survey procedures protected the privacy of students by allowing for anonymous and voluntary participation. Passive parental permission was obtained before surveys were administered to students. Data collection was conducted by regional education service agency (RESA) school wellness specialists with coordination by the YRBS coordinator with the WVDE Office of Research, Accountability, and Data Governance. Completed response forms were sent to CDC for processing and weighting.

Questionnaires

Standard questionnaires for middle school students and high school students are provided by CDC. The WVDE modifies the questionnaires by adding or deleting questions based on the needs of WVDE offices and external stakeholders such as the WV Bureau for Public Health. The standard questionnaires are changed by CDC for each administration. The standard high school questionnaire provided by CDC included 89 questions. The 2015 West Virginia version of the high school questionnaire was a 92-item self-administered questionnaire that included all of the topics mentioned in the Introduction as well as three state added questions about dieting practices. The standard middle school questionnaire included 49 questions covering the standard topics listed previously. The West Virginia version of the 2015 middle school questionnaire was 48 questions in length and excluded questions regarding sexual behavior and included three state-added questions about dieting practices.

Weighting of Raw Data

The student responses were scientifically weighted, which allows the results to be generalized to all public middle school and high school students in West Virginia. West Virginia YRBS data have been weighted for high school students each year the survey has been conducted, except 2001, while the middle school data was weighted for all years conducted except 2003 and 2005. The raw data collected are weighted to West Virginia's public school student population based on grade, sex, and race/ethnicity.

Data Analysis

Once the raw data are processed by CDC, WVDE receives the weighted middle school and high school datasets. CDC also provides time trend analyses and standard tables detailing student behavior by demographic characteristics including sex, age, grade, and race/ethnicity. The WVDE YRBS coordinator then performs analyses of the datasets to produce weighted prevalence estimates and weighted frequencies. In general terms, the prevalence is the proportion or percentage of the population that has a specific characteristic or displays a specific behavior during a given time frame. Because the YRBS data are collected from a sample of students, and not all students, and are weighted in order to apply to the population of all students, a prevalence estimate is generated. The prevalence estimate is the weighted percentage of students who engaged in the behavior during a specific period of time. A weighted frequency is calculated based on the prevalence estimate, and estimates the number of students who engage in a specific behavior during a given time period. Additionally, analyses of comorbid behaviors (i.e. behaviors that occur simultaneously) are conducted.

Interpretation of Results

Once the weighted data are analyzed, the results must be interpreted in a scientifically acceptable manner. For comparison of prevalence estimates by demographic characteristics such as gender, age, grade, and race/ethnicity, a conservative statistical procedure is used that involves comparison of 95% confidence intervals. The 95% confidence interval is a range of prevalence estimates within which it is expected that the actual prevalence falls. If the 95% confidence intervals of two prevalence estimates overlap, the estimates are considered to be statistically equivalent or the same. If the 95% confidence intervals of two prevalence estimates do not overlap, the estimates are considered to be significantly different from a statistical perspective. When examining changes in prevalence estimates over time, logistic regression analysis is conducted in order to determine if the changes are statistically significant.

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