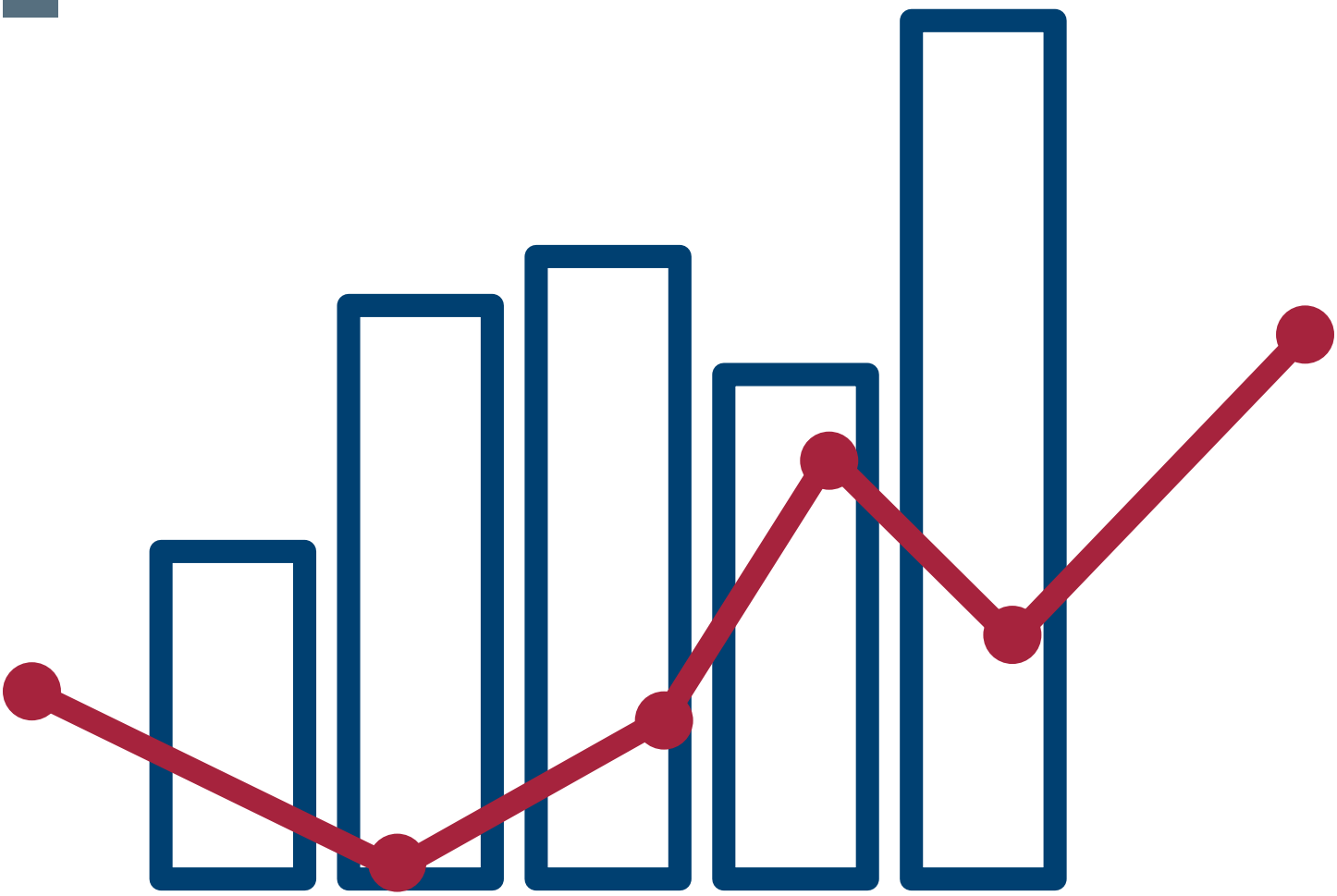
WEST VIRGINIA YOUTH RISK BEHAVIOR SURVEY, 2015:

Weight Management



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

West Virginia Youth Risk Behavior Survey, 2015: Weight Management Report

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March 2017

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Suggested Citation
Shanholtzer, B. A. (2017). *West Virginia Youth Risk Behavior Survey, 2015: Weight management report*. Charleston, WV: West Virginia Department of Education, Division of Technology, Office of Research, Accountability, and Data Governance.

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This publication was supported by Cooperative Agreement Number 1U87PS004130 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

This research study was reviewed and approved by the West Virginia Department of Education Institutional Review Board (WVDE-IRB-025). Should you desire additional details about this study's approval status, contact the WVDE IRB chairperson, Patricia Cahape Hammer (phammer@k12.wv.us).

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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 15 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.

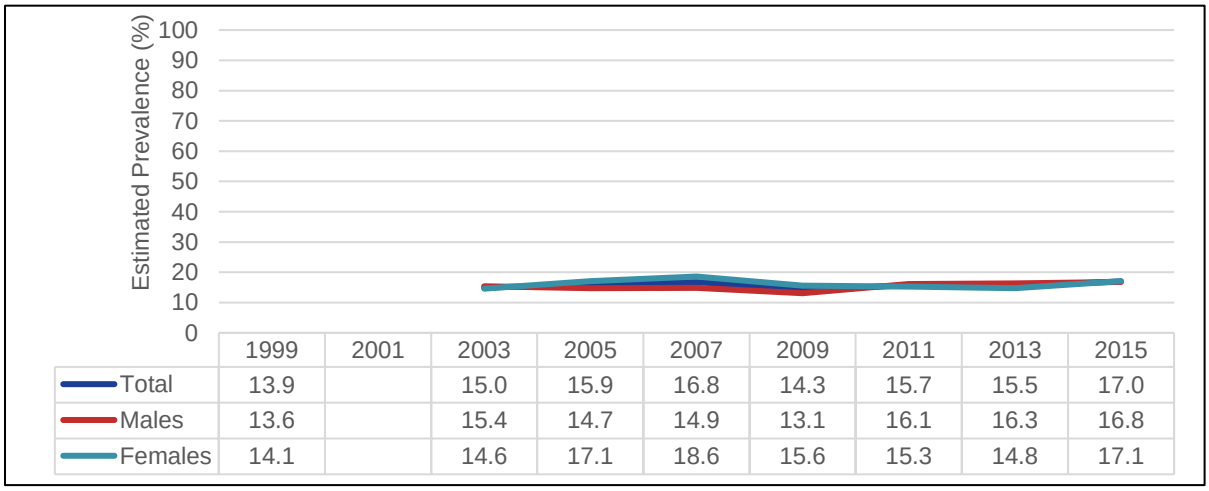
Overweight

Definition: Weighted percentage of students who were overweight, between 85th and 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth chart (based on self-reported height and weight).

High school students

The prevalence of overweight among high school students was 17.0% in 2015.

Figure 1 displays the prevalence of overweight among high school students for 1999–2015. The results indicate the overweight prevalence remained stable during that time.



	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	13.9		15.0	15.9	16.8	14.3	15.7	15.5	17.0
Males	13.6		15.4	14.7	14.9	13.1	16.1	16.3	16.8
Females	14.1		14.6	17.1	18.6	15.6	15.3	14.8	17.1

Figure 1. Prevalence of Overweight Among WV High School Students

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

Table 1 displays the prevalence of overweight among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 1. Prevalence of Overweight Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	17.0	15.0-19.0	12,940
Male	16.8	13.6-20.0	6,534
Female	17.1	14.0-20.3	6,406
9th	17.8	14.0-21.6	3,705
10th	16.3	13.8-18.8	3,194
11th	16.0	12.8-19.1	2,873
12th	17.8	12.3-23.2	3,153

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

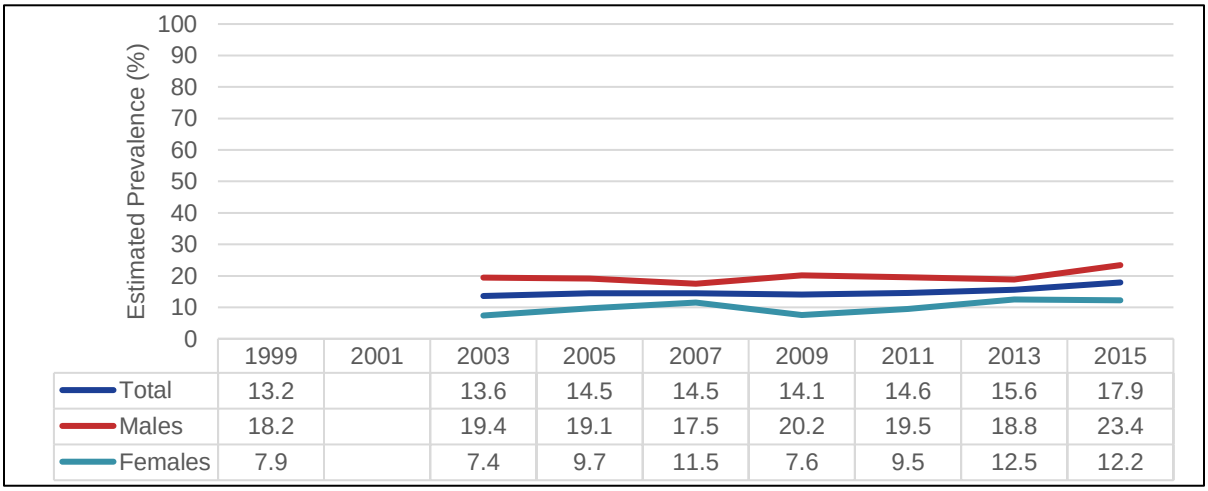
Obesity

Definition: Weighted percentage of students who were obese, 95th percentile or higher for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth chart (based on self-reported height and weight).

High school students

The prevalence of obesity among high school students was 17.9% in 2015.

Figure 2 displays the prevalence of obesity among high school students for 1999–2015. The results indicate the obesity prevalence significantly increased during that time for the total population and among females. Additionally, the prevalence of among males significantly increased from 2013 to 2015.



	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	13.2		13.6	14.5	14.5	14.1	14.6	15.6	17.9
Males	18.2		19.4	19.1	17.5	20.2	19.5	18.8	23.4
Females	7.9		7.4	9.7	11.5	7.6	9.5	12.5	12.2

Figure 2. Prevalence of Obesity Among WV High School Students

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

Table 2 displays the prevalence of obesity among high school students by demographic characteristics for 2015. There were no significant gender or grade differences for this indicator.

Table 2. Prevalence of Obesity Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	17.9	14.9-21.0	13,670
Male	23.4	20.1-26.7	9,108
Female	12.2	8.5-15.9	4,562
9th	16.7	12.8-20.5	3,471
10th	18.8	12.3-25.3	3,680
11th	16.6	13.5-19.6	2,977
12th	19.7	13.9-25.6	3,501

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

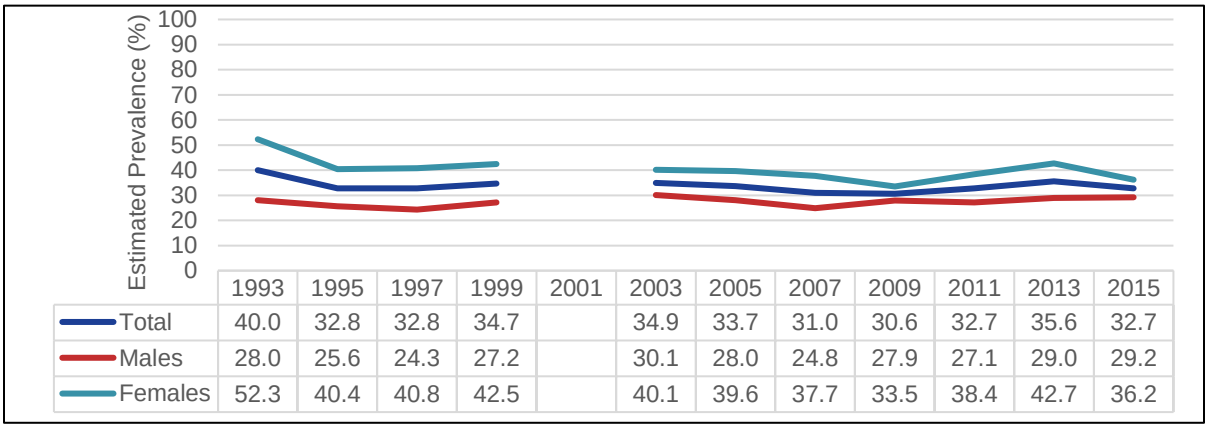
Perceived Weight

Definition: Weighted percentage of students who described themselves as slightly or very overweight.

High school students

The prevalence of self-perceived overweight among high school students was 32.7% in 2015. West Virginia ranked second highest in the nation for high school students who described themselves as overweight (Kann et al., 2016).

Figure 3 displays the prevalence of self-perceived overweight among high school students for 1993–2015. The results indicate the prevalence of self-perceived overweight significantly decreased from 1993 to 1997 and has been stable since 1997 for the total population and among females. The prevalence of self-perceived overweight among males has been stable since 1993.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	40.0	32.8	32.8	34.7		34.9	33.7	31.0	30.6	32.7	35.6	32.7
Males	28.0	25.6	24.3	27.2		30.1	28.0	24.8	27.9	27.1	29.0	29.2
Females	52.3	40.4	40.8	42.5		40.1	39.6	37.7	33.5	38.4	42.7	36.2

Figure 3. Prevalence of Self-Perceived Overweight Among WV High School Students

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

Table 3 displays the prevalence of self-perceived overweight among high school students by demographic characteristics for 2015. The results show that the prevalence of self-perceived overweight was significantly higher among females than among males. There was no significant grade difference for this indicator.

Table 3. Prevalence of Self-Perceived Overweight Among WV High School Students by Gender and Grade Level, 2015

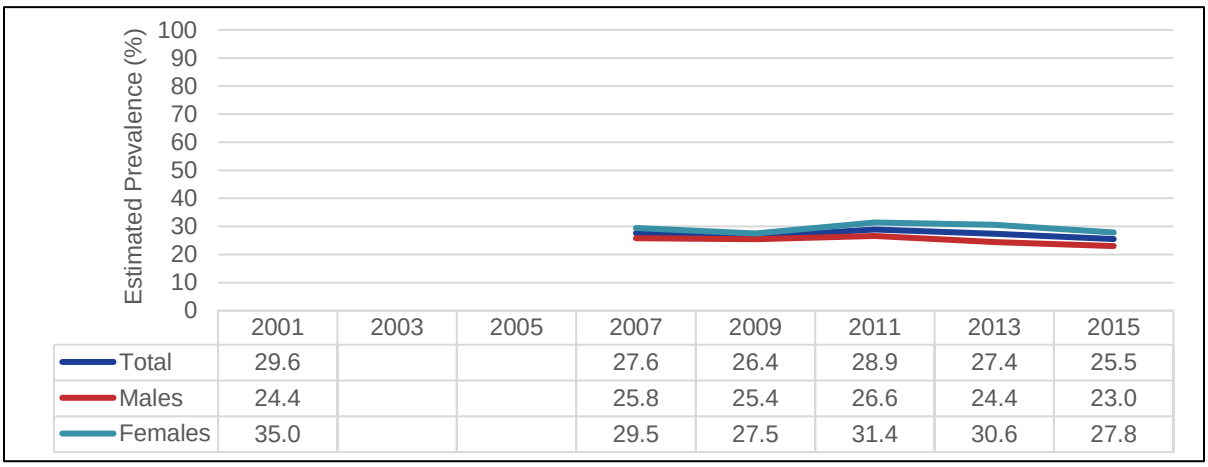
Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	32.7	30.4-35.0	1,328
Male	29.2	26.2-32.2	11,592
Female	36.2	32.9-39.5	13,822
9th	30.2	25.8-34.6	6,486
10th	29.9	25.7-34.2	5,957
11th	35.9	32.8-39.0	6,593
12th	35.1	26.5-43.7	6,300

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

Middle school students

The prevalence of self-perceived overweight among middle school students was 25.5% in 2015.

Figure 4 displays the prevalence of self-perceived overweight among middle school students for 2001-2015. The prevalence of self-perceived overweight was stable during that time for the total population and among males. However, the prevalence significantly decreased among females.



	2001	2003	2005	2007	2009	2011	2013	2015
Total	29.6			27.6	26.4	28.9	27.4	25.5
Males	24.4			25.8	25.4	26.6	24.4	23.0
Females	35.0			29.5	27.5	31.4	30.6	27.8

Figure 4. Prevalence of Self-Perceived Overweight Among WV Middle School Students

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

Table 4 displays the prevalence of self-perceived overweight among middle school students by demographic characteristics. There were no significant gender or grade differences for this indicator.

Table 4. Prevalence of Self-Perceived Overweight Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	25.5	22.9-28.1	14,712
Male	23.0	19.8-26.2	6,876
Female	27.8	24.0-31.6	7,656
6th	25.9	22.2-29.5	4,666
7th	22.8	18.5-27.1	4,484
8th	27.7	23.0-32.4	5,417

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

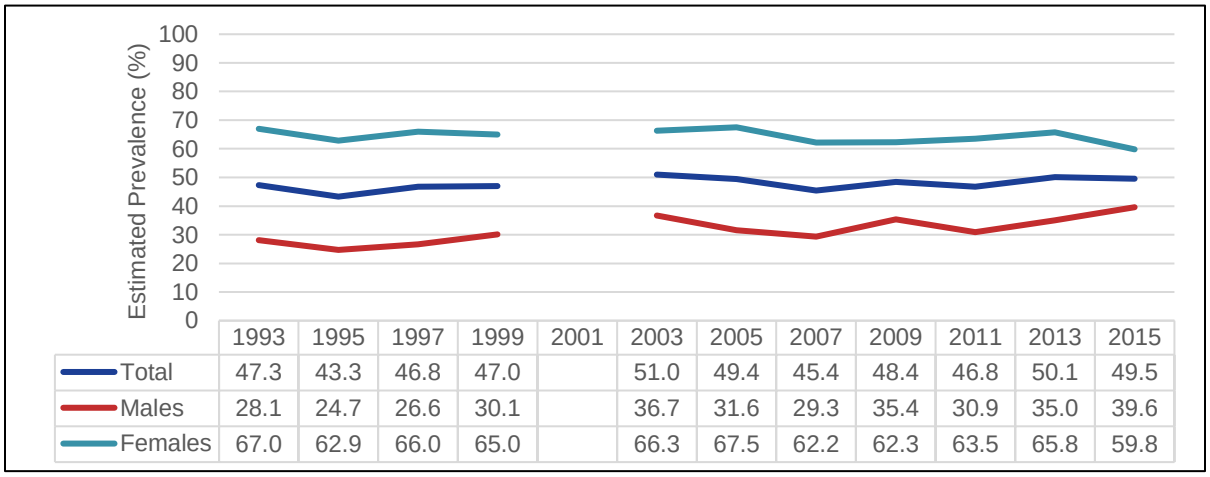
Trying to Lose Weight

Definition: Weighted percentage of students who were trying to lose weight.

High school students

The prevalence of trying to lose weight among high school students was 49.5% in 2015. West Virginia ranked highest in the nation for high school students trying to lose weight (Kann et al., 2016).

Figure 5 displays the prevalence of trying to lose weight among high school students for the years 1993-2015. The prevalence of trying to lose weight significantly increased during that time for the total population and among males. Results show the prevalence significantly decreased among females from 2013 to 2015.



	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	47.3	43.3	46.8	47.0		51.0	49.4	45.4	48.4	46.8	50.1	49.5
Males	28.1	24.7	26.6	30.1		36.7	31.6	29.3	35.4	30.9	35.0	39.6
Females	67.0	62.9	66.0	65.0		66.3	67.5	62.2	62.3	63.5	65.8	59.8

Figure 5. Prevalence of Trying to Lose Weight Among WV High School Students

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

Table 5 displays the prevalence of trying to lose weight among high school students by demographic characteristics for 2015. The prevalence was significantly higher among females than among males. There was no significant grade difference for this indicator.

Table 5. Prevalence of Trying to Lose Weight Among WV High School Students by Gender and Grade Level, 2015

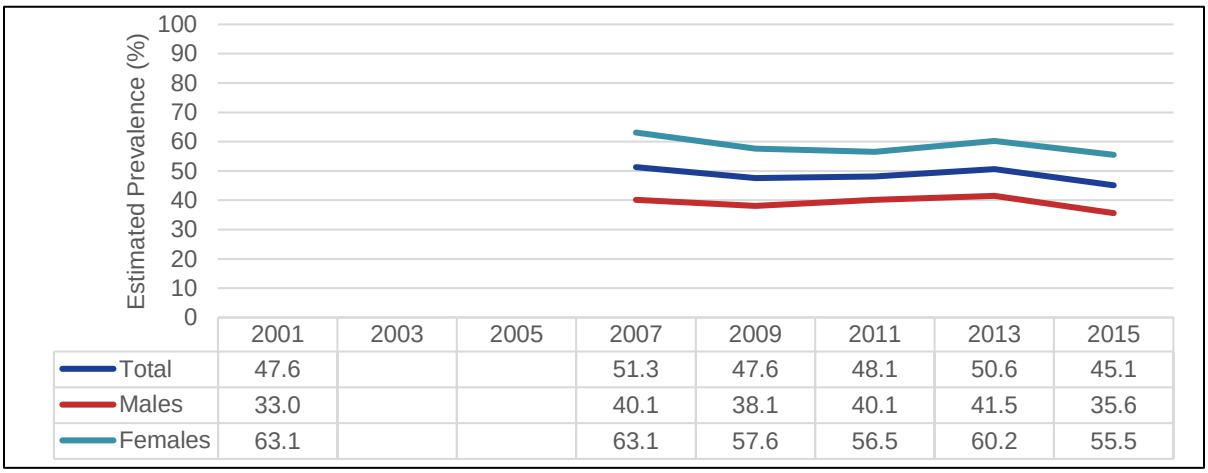
Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	49.5	47.1-51.9	38,540
Male	39.6	36.0-43.1	15,659
Female	59.8	56.6-63.0	22,754
9th	49.3	43.7-54.9	10,570
10th	45.3	41.2-49.4	8,958
11th	49.5	43.4-55.6	9,038
12th	54.7	47.6-61.8	9,821

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

Middle school students

The prevalence of trying to lose weight among middle school students was 45.1% in 2015.

Figure 6 displays the prevalence of trying to lose weight among middle school students for 2001-2015. The prevalence significantly decreased from 2013 to 2015 for the total population. Additionally, the prevalence significantly increased among males from 2001 to 2011 with no significant change during 2011-2015. The results also indicate the prevalence significantly decreased from 2001 to 2015 among females.



	2001	2003	2005	2007	2009	2011	2013	2015
Total	47.6			51.3	47.6	48.1	50.6	45.1
Males	33.0			40.1	38.1	40.1	41.5	35.6
Females	63.1			63.1	57.6	56.5	60.2	55.5

Figure 6. Prevalence of Trying to Lose Weight Among WV Middle School Students

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

Table 6 displays the prevalence of trying to lose weight among middle school students by demographic characteristics for 2015. The results show the prevalence was significantly higher among females than among males. There was no significant grade difference for this indicator.

Table 6. Prevalence of Trying to Lose Weight Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	45.1	41.9-48.4	26,184
Male	35.6	32.3-38.8	10,612
Female	55.5	51.1-60.0	15,426
6th	45.1	40.6-49.6	8,249
7th	45.3	41.6-49.0	8,897
8th	45.2	39.1-51.4	8,859

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

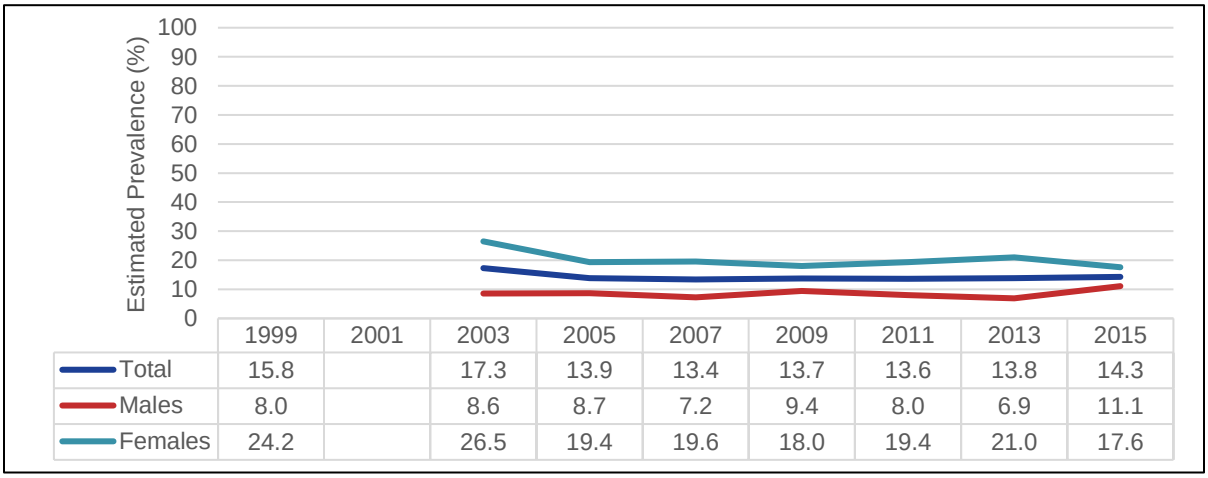
Fasted to Lose Weight

Definition: Weighted percentage of students who fasted (went without eating for 24 hours or more) to lose weight or to keep from gaining weight.

High school students

The prevalence of fasted to lose weight among high school students was 14.3% in 2015.

Figure 7 shows the prevalence of fasted to lose weight among high school students significantly decreased from 1999 to 2015 for the total population and among females. The results also indicate the prevalence of fasted to lose weight significantly increased from 2013 to 2015 among males.



	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	15.8		17.3	13.9	13.4	13.7	13.6	13.8	14.3
Males	8.0		8.6	8.7	7.2	9.4	8.0	6.9	11.1
Females	24.2		26.5	19.4	19.6	18.0	19.4	21.0	17.6

Figure 7. Prevalence of Fasted to Lose Weight Among WV High School Students

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

Table 7 shows no significant gender or grade differences in the prevalence of fasted to lose weight among high school students for 2015.

Table 7. Prevalence of Fasted to Lose Weight Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	14.3	11.9-16.8	11,087
Male	11.1	8.7-13.5	4,340
Female	17.6	13.3-22.0	6,697
9th	16.2	12.1-20.4	3,439
10th	14.7	8.1-21.3	2,881
11th	13.0	9.8-16.2	2,392
12th	12.6	7.3-17.8	2,233

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

Middle school students

The prevalence of fasted to lose weight among middle school students was 12.2% in 2015.

Table 8 displays the prevalence of fasted to lose weight among middle school students by demographic characteristics for 2015. The prevalence was significantly higher among females than among males. There was no significant grade difference for this indicator.

Table 8. Prevalence of Fasted to Lose Weight Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	12.2	10.2-14.2	7,110
Male	7.1	5.1-9.0	2,119
Female	17.6	14.8-20.5	4,927
6th	9.8	7.0-12.6	1,800
7th	11.8	9.9-13.7	2,335
8th	15.1	10.6-19.7	2,975

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

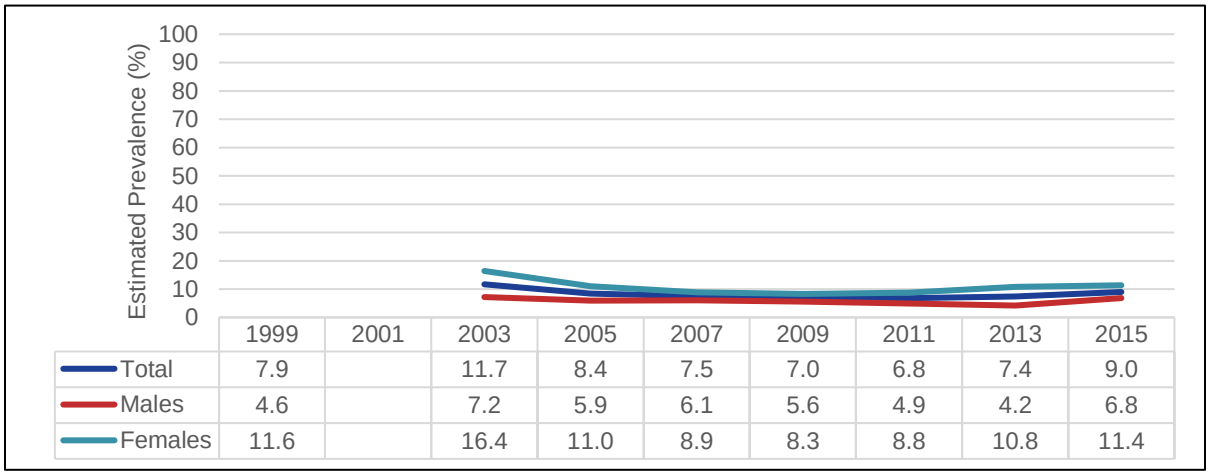
Used Diet Pills to Lose Weight

Definition: Weighted percentage of students who used diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight.

High school students

The prevalence of used diet pills to lose weight among high school students was 9.0% in 2015.

Figure 8 displays the prevalence of used diet pills to lose weight among high school students for 1999-2015. The results indicate the prevalence remained stable for the total population and among males during that time. The results also show the prevalence significantly decreased among females from 1999 to 2015.



	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	7.9		11.7	8.4	7.5	7.0	6.8	7.4	9.0
Males	4.6		7.2	5.9	6.1	5.6	4.9	4.2	6.8
Females	11.6		16.4	11.0	8.9	8.3	8.8	10.8	11.4

Figure 8. Prevalence of Used Diet Pills to Lose Weight Among WV High School Students

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

Table 9 displays the prevalence of used diet pills to lose weight among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 9. Prevalence of Used Diet Pills to Lose Weight Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	9.0	7.5-10.6	6,999
Male	6.8	4.6-9.0	2,651
Female	11.4	9.0-13.8	4,332
9th	8.9	6.0-11.9	1,915
10th	6.8	4.9-8.7	1,317
11th	7.4	5.3-9.6	1,368
12th	12.6	8.3-16.8	2,223

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

Middle school students

The prevalence of used diet pills to lose weight among middle school students was 2.6% in 2015.

Table 10 shows no significant gender or grade differences in the prevalence of used diet pills to lose weight among middle school students.

Table 10. Prevalence of Used Diet Pills to Lose Weight Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	2.6	1.8-3.4	1,520
Male	1.9	0.8-3.0	573
Female	3.4	2.1-4.6	947
6th	1.8	0.4-3.1	321
7th	2.2	1.0-3.4	431
8th	3.9	2.0-5.7	768

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

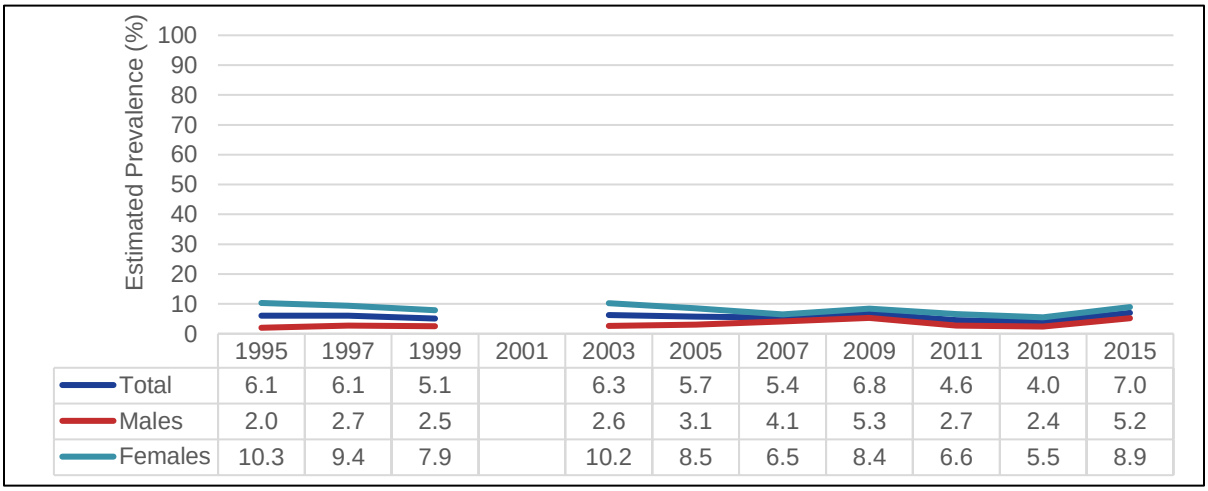
Vomited or Took Laxatives to Lose Weight

Definition: Weighted percentage of students who vomited or took laxatives to lose weight or to keep from gaining weight.

High school students

The prevalence of vomited or took laxatives to lose weight among high school students was 7.0% in 2015.

Figure 9 displays the prevalence of this indicator among high school students for the years 1995-2015. The prevalence significantly increased among males and significantly decreased among females during that time. Additionally, the results show the prevalence significantly increased for the total population from 2013 to 2015.



	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
Total	6.1	6.1	5.1		6.3	5.7	5.4	6.8	4.6	4.0	7.0
Males	2.0	2.7	2.5		2.6	3.1	4.1	5.3	2.7	2.4	5.2
Females	10.3	9.4	7.9		10.2	8.5	6.5	8.4	6.6	5.5	8.9

Figure 9. Prevalence of Vomited or Took Laxatives to Lose Weight Among WV High School Students

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

Table 11 displays the prevalence of vomited or took laxatives to lose weight among high school students by demographic characteristics for 2015. The prevalence was significantly higher among females than among males. There was no significant grade difference for this indicator.

Table 11. Prevalence of Vomited or Took Laxatives to Lose Weight Among WV High School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	7.0	5.0-9.1	5,414
Male	5.2	3.5-7.0	2,027
Female	8.9	5.7-12.1	3,379
9th	7.8	4.9-10.6	1,638
10th	7.1	3.1-11.1	1,394
11th	4.7	3.2-6.1	851
12th	7.6	3.6-11.6	1,347

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

Middle school students

The prevalence of vomited or took laxatives to lose weight among middle school students was 3.8% in 2015.

Table 12 shows the prevalence was significantly higher among females than among males. There was no significant grade difference for this indicator.

Table 12. Prevalence of Vomited or Took Laxatives to Lose Weight Among WV Middle School Students by Gender and Grade Level, 2015

Characteristic	Estimated prevalence (%)	95% confidence interval	Weighted frequency
Total	3.8	2.5-5.0	2,180
Male	2.3	1.2-3.3	672
Female	5.4	3.5-7.3	1,508
6th	3.0	1.2-4.8	546
7th	2.9	1.5-4.3	573
8th	5.4	2.3-8.6	1,061

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

Discussion

The research base indicates that many risky behaviors in adolescence are interrelated. For example, an abundance of research has been conducted linking adolescent behaviors to suicidal thought and suicide attempts, including bullying and sadness (Sibold, Edwards, Murray-Close, & Hudziak, 2015), maladaptive dieting (Thullen, Taliaferro, & Muehlenkamp, 2015; Brown, Kola-Palmer, & Dhingra, 2015), binge drinking, daily smoking, and marijuana use (Brown, Kola-Palmer, & Dhingra, 2015).

Factors related to the prevention of risky behavior during adolescence have also been extensively investigated. 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 the prevention of many of these 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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