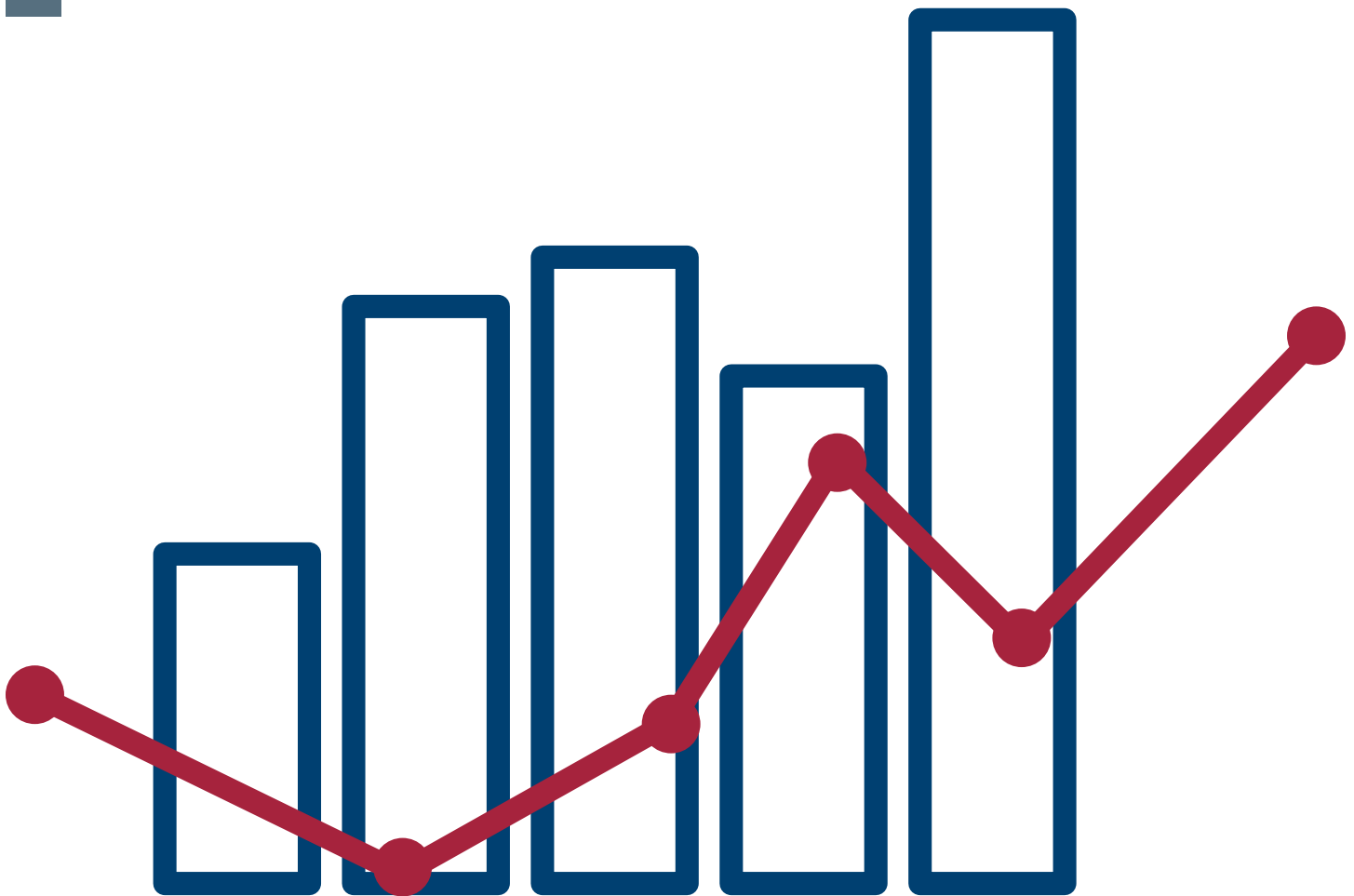


WEST VIRGINIA YOUTH RISK BEHAVIOR SURVEY, 2015:

Physical Activity





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West Virginia Youth Risk Behavior Survey, 2015: Physical Activity Report

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Suggested Citation

Shanholtzer, B. A. (2017). *West Virginia Youth Risk Behavior Survey, 2015: Physical activity 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 19 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.

No Physical Activity in the Past Week

Definition: Weighted percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time) during the 7 days before the survey.

High school students

The prevalence of no physical activity in the past week among high school students was 17.2% in 2015.

Figure 1 displays the prevalence this indicator among high school students from 2011 to 2015 significantly increased for the total population and among males, with no significant change among females.

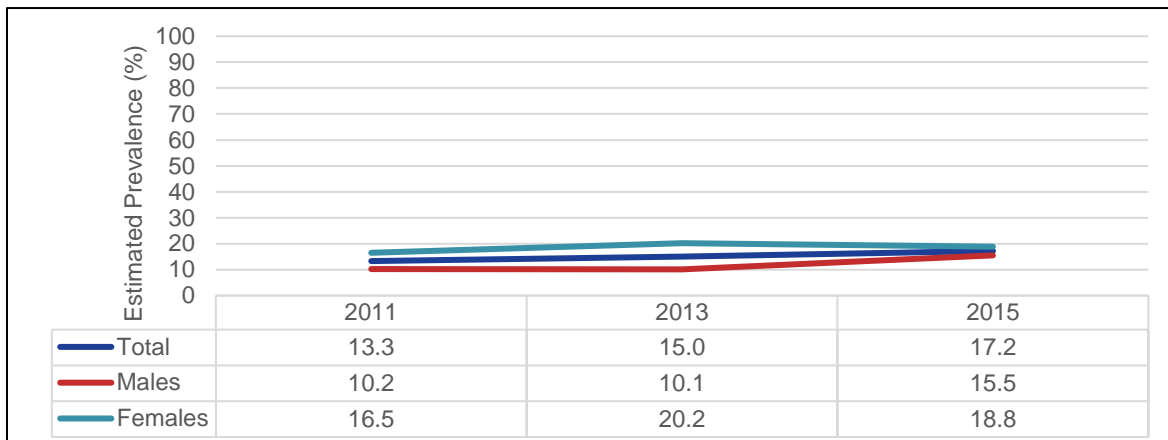


Figure 1. Prevalence of No Physical Activity in the Past Week Among WV High School Students

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

Table 1 displays the prevalence of no physical activity in the past week 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 No Physical Activity in the Past Week Among WV High School Students by Gender and Grade Level, 2015

| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|--------|--------------------------|-------------------------|--------------------|
| Total | 17.2 | 14.6-19.7 | 13,298 |
| Male | 15.5 | 12.5-18.6 | 6,121 |
| Female | 18.8 | 15.5-22.2 | 7,149 |
| 9th | 19.5 | 14.85-24.1 | 4,139 |
| 10th | 15.0 | 9.5-20.6 | 2,991 |
| 11th | 16.2 | 13.1-19.3 | 2,953 |
| 12th | 17.6 | 12.2-22.9 | 3,110 |

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

Middle school students

The prevalence of no physical activity in the past week among middle school students was 7.0% in 2015.

Figure 2 shows the prevalence of this indicator had no significant change among middle school students from 2007 to 2015.

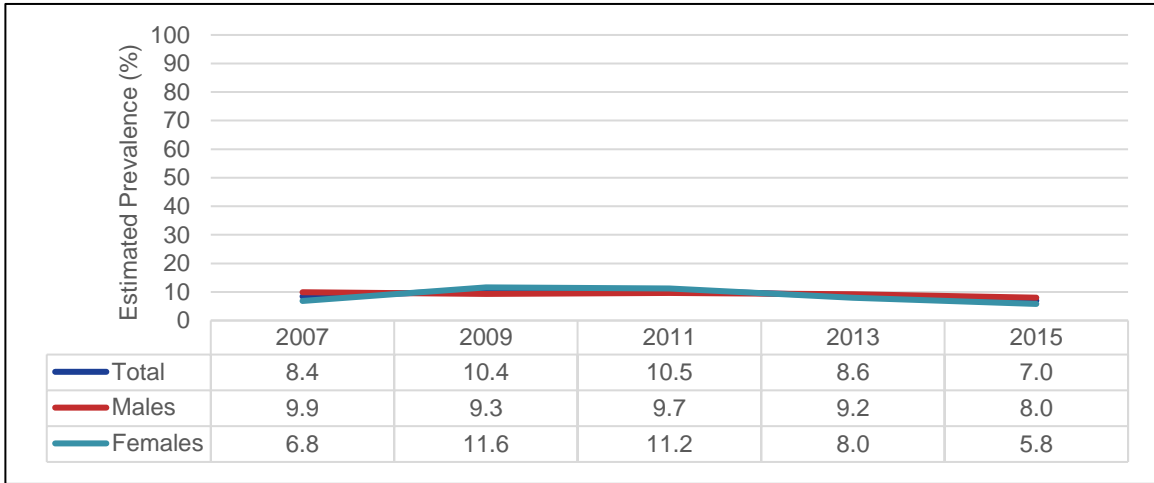


Figure 2. Prevalence of No Physical Activity in the Past Week Among WV Middle School Students

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

Table 2 displays the prevalence of no physical activity in the past week among middle school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 2. Prevalence of No Physical Activity in the Past Week Among WV Middle School Students by Gender and Grade Level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 7.0 | 4.7-9.3 | 4,083 |
| Male | 8.0 | 5.0-10.9 | 2,392 |
| Female | 5.8 | 3.5-8.2 | 1,631 |
| 6th | 6.5 | 3.9-9.0 | 1,180 |
| 7th | 4.8 | 2.8-6.8 | 956 |
| 8th | 9.7 | 4.2-15.1 | 1,911 |

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

Physically Active 5 or More Days in the Past Week

Definition: Weighted percentage of students who were physically active at least 60 minutes per day on 5 or more days (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time) during the 7 days before the survey.

High school students

The prevalence of physically active 5 or more days in the past week among high school students was 44.9% in 2015.

Figure 3 displays the prevalence of this indicator among high school students from 2011 to 2015. The results indicate the prevalence significantly decreased for the total population and among males, with no significant change among females.

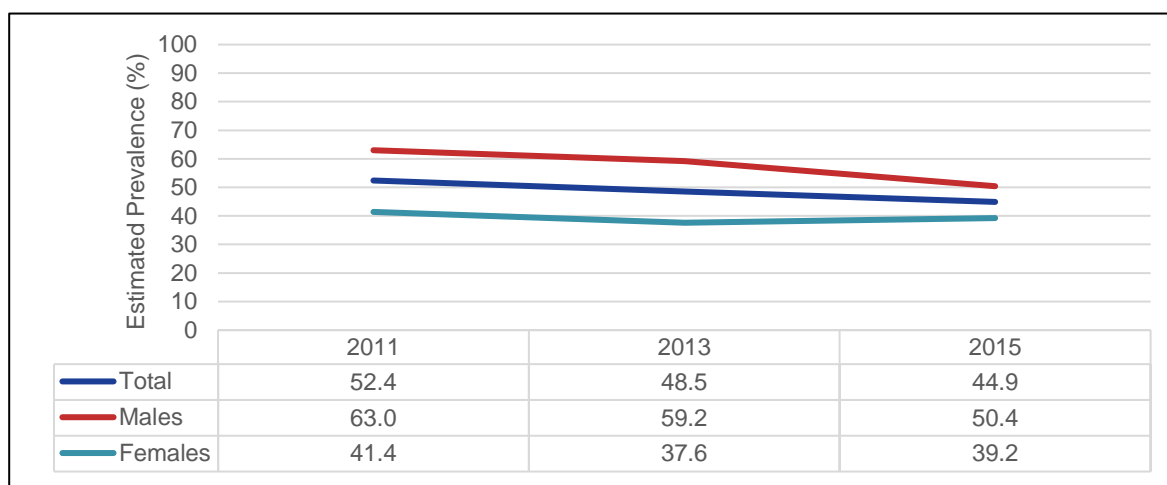


Figure 3. Prevalence of Physically Active 5 or More Days in the Past Week Among WV High School Students

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

Table 3 displays the prevalence of physically active 5 or more days in the past week 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 Physically Active 5 or More Days in the Past Week Among WV High School Students by Gender and Grade Level, 2015

| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|--------|--------------------------|-------------------------|--------------------|
| Total | 44.9 | 41.5-48.2 | 34,754 |
| Male | 50.4 | 44.6-56.1 | 19,831 |
| Female | 39.2 | 35.7-42.7 | 14,871 |
| 9th | 47.5 | 41.5-53.4 | 10,091 |
| 10th | 48.2 | 40.4-56.0 | 9,607 |
| 11th | 42.2 | 36.3-48.0 | 7,688 |
| 12th | 40.5 | 34.6-46.3 | 7,156 |

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

Middle school students

The prevalence of physically active 5 or more days in the past week among middle school students was 67.8% in 2015.

Figure 4 displays the prevalence of this indicator among middle school students from 2007 to 2015. The results indicate the prevalence significantly increased for the total population during that time, however the prevalence was stable among both males and females.

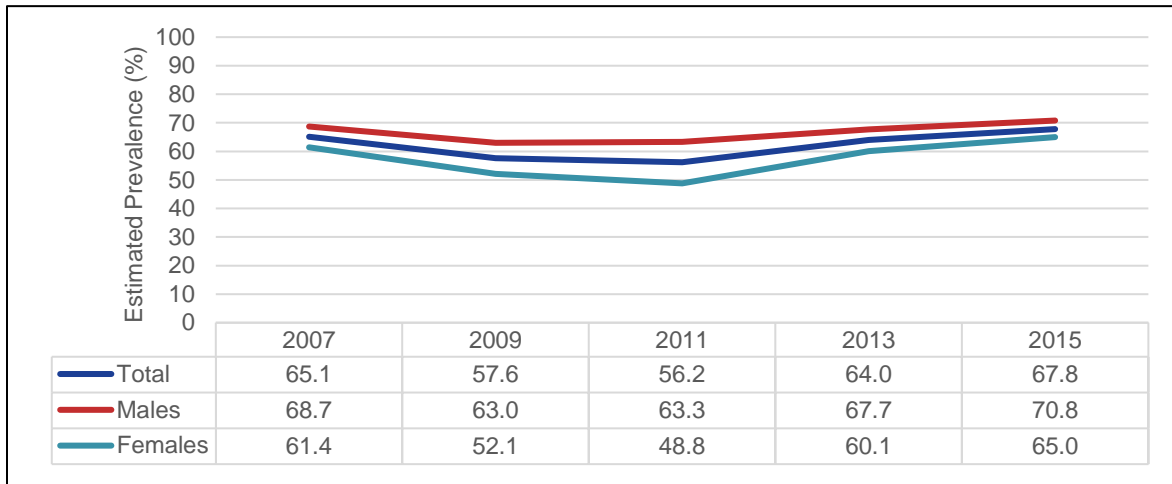


Figure 4. Prevalence of Physically Active 5 or More Days in the Past Week Among WV Middle School Students

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

Table 4 displays the prevalence of physically active 5 or more days in the past week 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 4. Prevalence of Physically Active 5 or More Days in the Past Week Among WV Middle School Students by Gender and Grade Level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 67.8 | 64.3-71.3 | 39,590 |
| Male | 70.8 | 65.9-75.8 | 21,303 |
| Female | 65.0 | 60.3-69.8 | 18,165 |
| 6th | 67.2 | 62.0-72.5 | 12,243 |
| 7th | 71.1 | 67.2-74.9 | 14,170 |
| 8th | 65.3 | 57.5-73.0 | 12,921 |

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

Daily Physical Activity in the Past Week

Definition: Weighted percentage of students who were physically active at least 60 minutes per day on all 7 days (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time) during the 7 days before the survey.

High school students

The prevalence of daily physical activity in the past week among high school students was 25.8% in 2015.

Figure 5 displays the prevalence of this indicator among high school students from 2011 to 2015. The results indicate the prevalence significantly decreased from 2013 to 2015 for the total population and among males. The prevalence among females was stable from 2011 to 2015.

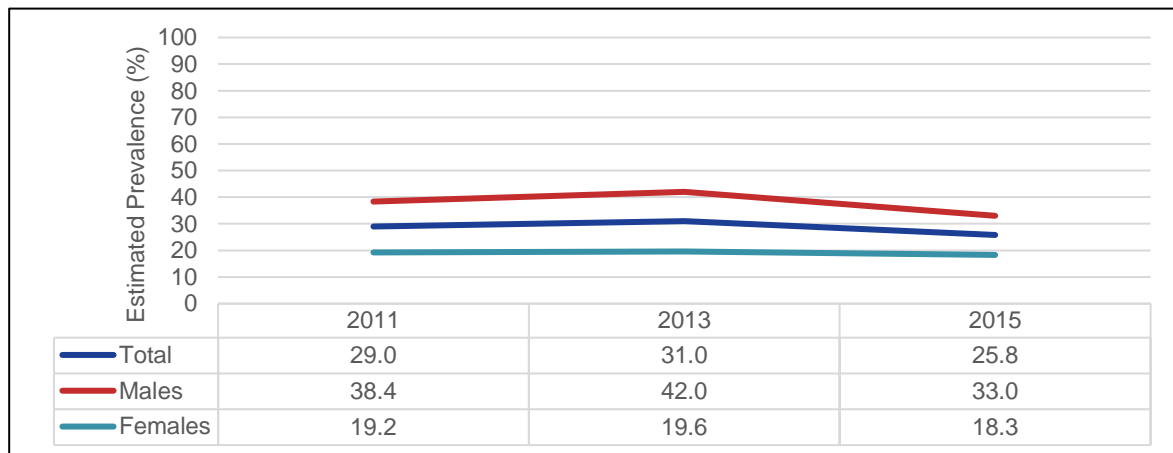


Figure 5. Prevalence of Daily Physical Activity in the Past Week Among WV High School Students

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

Table 5 displays the prevalence of daily physical activity in the past week among high school students by demographic characteristics for 2015. The results indicate the prevalence was significantly higher among males than among females. There were no significant grade difference for this indicator.

Table 5. Prevalence of Daily Physical Activity in the Past Week Among WV High School Students by Gender and Grade Level, 2015

| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|--------|--------------------------|-------------------------|--------------------|
| Total | 25.8 | 23.1-28.4 | 19,962 |
| Male | 33.0 | 28.8-37.1 | 12,985 |
| Female | 18.3 | 14.9-21.6 | 6,925 |
| 9th | 26.1 | 20.9-31.4 | 5,555 |
| 10th | 29.3 | 25.2-33.4 | 5,844 |
| 11th | 26.2 | 20.9-31.6 | 4,788 |
| 12th | 20.7 | 14.3-27.1 | 3,661 |

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

Middle school students

The prevalence of daily physical activity in the past week among middle school students was 42.7% in 2015.

Figure 6 displays the prevalence of this indicator among middle school students from 2007 to 2015. While the prevalence was stable for the total population and among males, the prevalence among females significantly increased from 2013 to 2015.

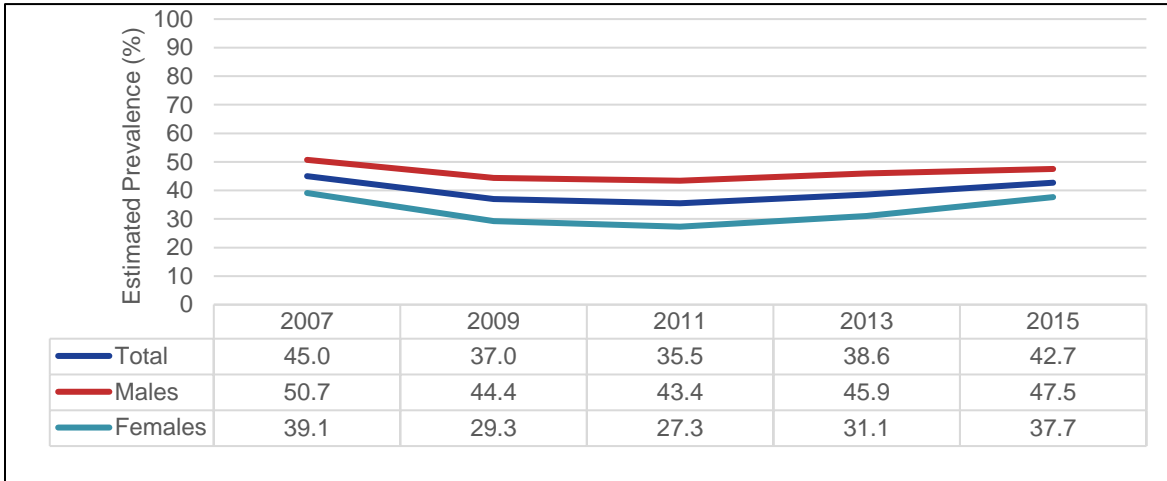


Figure 6. Prevalence of Daily Physical Activity in the Past Week Among WV Middle School Students

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

Table 6 displays the prevalence of daily physical activity in the past week 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 6. Prevalence of Daily Physical Activity in the Past Week Among WV Middle School Students by Gender and Grade level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 42.7 | 39.1-46.3 | 24,939 |
| Male | 47.5 | 42.2-52.8 | 14,298 |
| Female | 37.7 | 33.4-41.9 | 10,518 |
| 6th | 45.3 | 39.9-50.7 | 8,254 |
| 7th | 43.6 | 38.2-48.9 | 8,684 |
| 8th | 39.6 | 32.9-46.3 | 7,834 |

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

Watched TV 3 or More Hours per Day

Definition: Weighted percentage of students who watched television 3 or more hours per day on an average school day.

High school students

The prevalence of watched TV 3 or more hours per day among high school students was 26.8% in 2015.

Figure 7 displays the prevalence of this indicator among high school students significantly decreased from 1999 to 2015 for the total population and among both males and females.

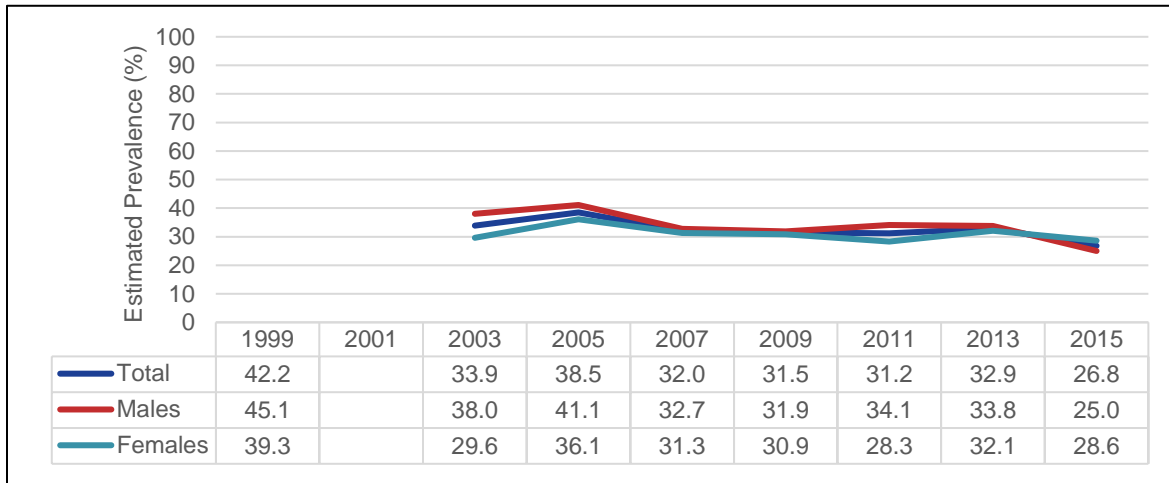


Figure 7. Prevalence of Watched TV 3 or More Hours per Day Among WV High School Students

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

Table 7 displays the prevalence of watched TV 3 or more hours per day among high school students by demographic characteristics for 2015. The results indicate no gender or grade differences for this indicator.

| Table 7. Prevalence of Watched TV 3 or More Hours Per Day Among WV High School Students by Gender and Grade Level, 2015 | | | |
|---|--------------------------|-------------------------|--------------------|
| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
| Total | 26.8 | 23.4-30.1 | 20,553 |
| Male | 25.0 | 20.1-29.9 | 10,793 |
| Female | 28.6 | 25.0-32.2 | 9,735 |
| 9th | 26.1 | 19.6-32.6 | 5,513 |
| 10th | 25.5 | 19.8-31.1 | 4,998 |
| 11th | 26.7 | 22.0-31.5 | 4,847 |
| 12th | 29.1 | 23.6-34.6 | 5,125 |

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

Middle school students

The prevalence of watched TV 3 or more hours per day among middle school students was 28.4% in 2015.

Figure 8 displays the prevalence of this indicator among middle school students from 2001 to 2015. The results indicate the prevalence significantly decreased for the total population and among both males and females.

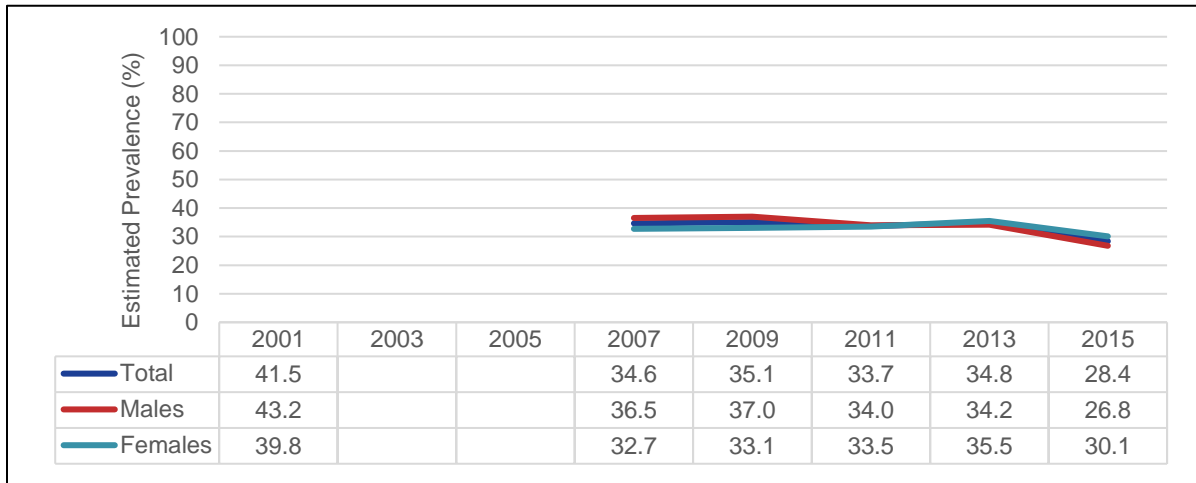


Figure 8. Prevalence of Watched TV 3 or More Hours Per Day Among WV Middle School Students

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

Table 8 displays the prevalence of watched TV 3 or more hours per day among middle school students by demographic characteristics for 2015. There results indicate no significant gender or grade differences for this indicator.

Table 8. Prevalence of Watched TV 3 or More Hours Per Day Among WV Middle School Students by Gender and Grade Level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 28.4 | 26.3-30.5 | 16,404 |
| Male | 26.8 | 23.8-29.9 | 7,952 |
| Female | 30.1 | 26.8-33.3 | 8,388 |
| 6th | 26.2 | 19.9-32.4 | 4,703 |
| 7th | 28.7 | 24.6-32.7 | 5,672 |
| 8th | 30.4 | 27.3-33.4 | 5,990 |

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

Used a Computer 3 or More Hours per Day

Definition: Weighted percentage of students who played video or computer games or used a computer for something that was not school related for 3 or more hours per day on an average school day.

High school students

The prevalence of used a computer 3 or more hours per day among high school students was 43.4% in 2015. West Virginia ranked the second highest in the nation for video or computer game use among high school students (Kann et al., 2016).

Figure 9 displays the prevalence of this indicator among high school students significantly increased from 2007 to 2015 for the total population and among both males and females.

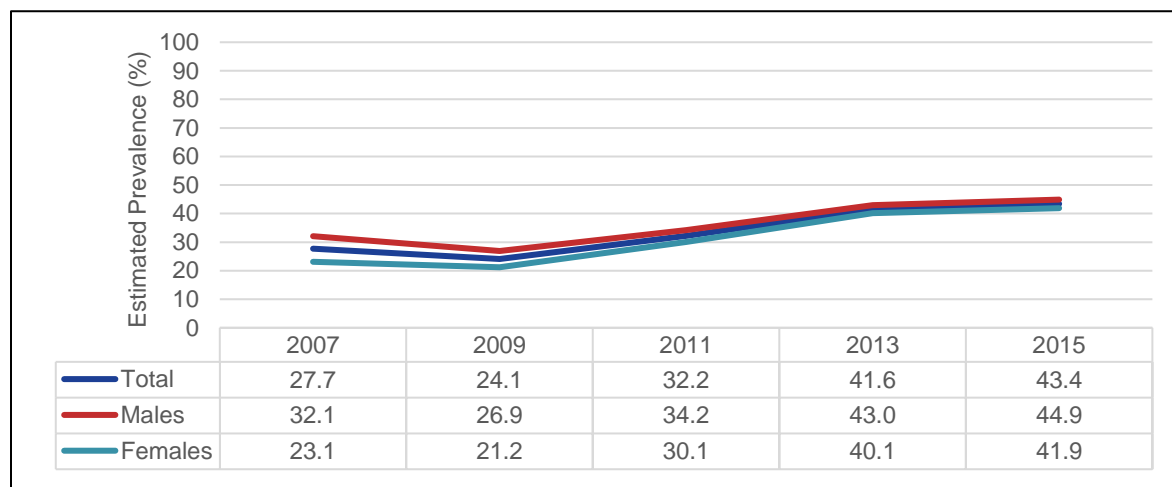


Figure 9. Prevalence of Used a Computer 3 or More Hours per Day Among WV High School Students

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

Table 9 displays the prevalence of used a computer 3 or more hours per day among high school students by demographic characteristics for 2015. The results indicate no significant grade or gender differences for this indicator.

| Table 9. Prevalence of Used a Computer 3 or More Hours per Day Among WV High School Students by Gender and Grade Level, 2015 | | | |
|--|--------------------------|-------------------------|--------------------|
| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
| Total | 43.4 | 39.2-47.5 | 32,655 |
| Male | 44.9 | 40.6-49.2 | 17,150 |
| Female | 41.9 | 36.6-47.2 | 15,480 |
| 9th | 42.9 | 37.2-48.6 | 8,867 |
| 10th | 49.5 | 42.4-56.5 | 9,467 |
| 11th | 42.6 | 36.1-49.1 | 7,650 |
| 12th | 37.4 | 30.8-44.0 | 6,406 |

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

Middle school students

The prevalence of used a computer 3 or more hours per day among middle school students was 46.6% in 2015.

Figure 10 displays the prevalence of this indicator among middle school students significantly increased from 2007 to 2015 for the total population and among both males and females.

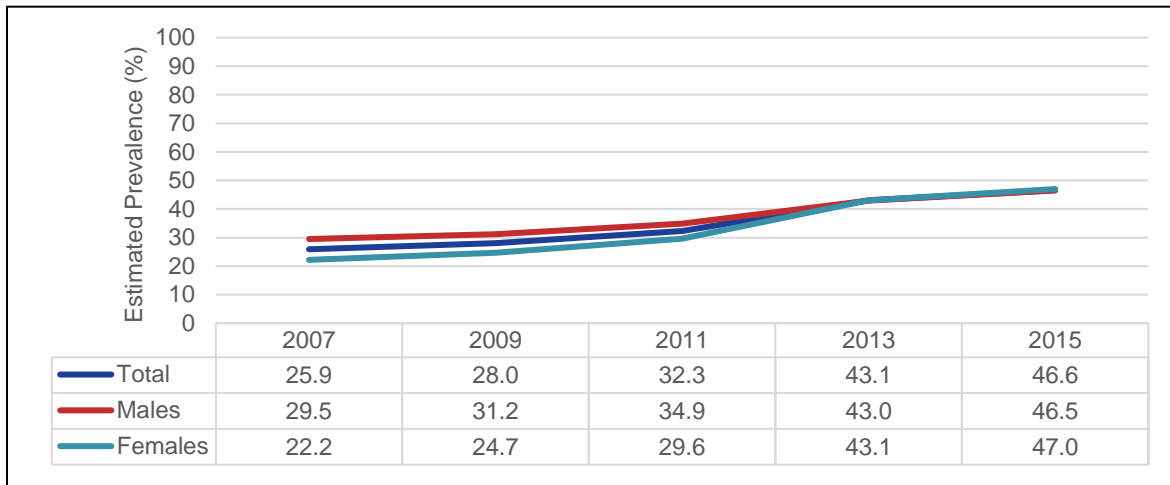


Figure 10. Prevalence of Used a Computer 3 or More Hours Per Day Among WV Middle School Students

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

Table 10 displays the prevalence of used a computer 3 or more hours per day among middle school students by demographic characteristics for 2015. There was no significant gender difference for this indicator. The prevalence was significantly higher among 8th-grade students than among 6th-grade students.

Table 10. Prevalence of Used a Computer 3 or More Hours Per Day Among WV Middle School Students by Gender and Grade Level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 46.6 | 43.2-49.9 | 27,166 |
| Male | 46.5 | 42.6-50.4 | 13,935 |
| Female | 47.0 | 42.3-51.7 | 13,191 |
| 6th | 39.6 | 34.0-45.2 | 7,237 |
| 7th | 48.3 | 43.6-53.1 | 9,590 |
| 8th | 51.5 | 45.9-57.2 | 10,200 |

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

Attended Physical Education Class at Least Once a Week

Definition: Weighted percentage of students who attended physical education class on 1 or more days in an average week when they were in school.

High school students

The prevalence of attended physical education class at least once a week among high school students was 36.8% in 2015. West Virginia ranked the third lowest in the nation for high school students attending PE classes once or more per week (Kann et al., 2016).

Figure 11 displays the prevalence of this indicator among high school students from 1993 to 2015. The prevalence significantly decreased from 1993 to 2009 with no significant change from 2009 to 2015 for the total population. The prevalence among males remained stable during the whole time period. The prevalence among females significantly decreased from 1993 to 2009 and significantly increased from 2009 to 2015.

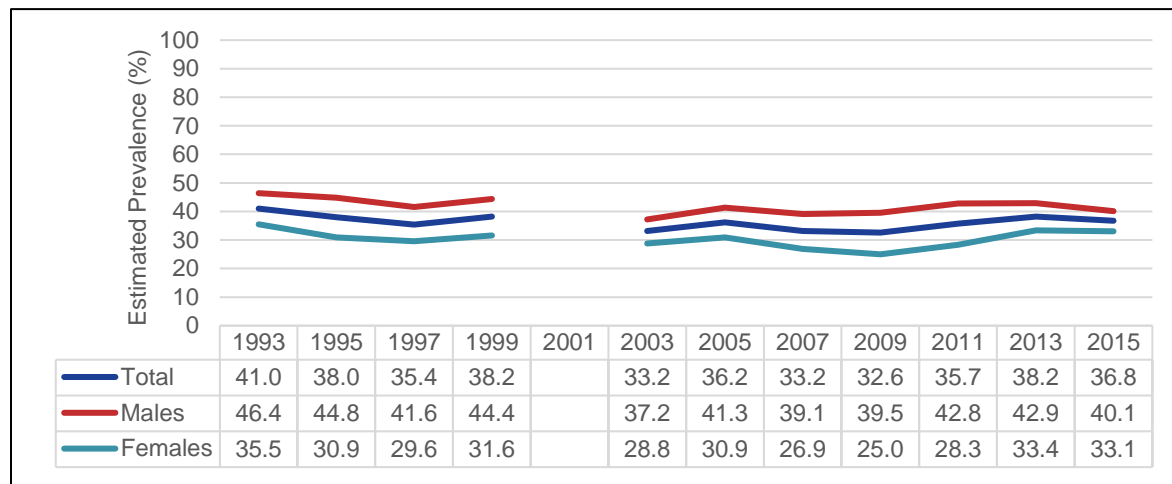


Figure 11. Prevalence of Attended PE Class at Least Once a Week Among WV High School Students

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

Table 11 displays the prevalence of attended physical education class at least once a week among high school students by demographic characteristics for 2015. The results indicate there was no significant gender difference. The prevalence was significantly higher among 9th-grade students than among those in other grades. Additionally, the prevalence was significantly higher among 10th-grade students than among 11th- and 12th-grade students.

Table 11. Prevalence of Attended Physical Education Class at Least Once a Week Among WV High School Students by Gender and Grade Level, 2015

| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|--------|--------------------------|-------------------------|--------------------|
| Total | 36.8 | 29.5-44.0 | 28,267 |
| Male | 40.1 | 31.5-48.7 | 15,711 |
| Female | 33.1 | 26.1-40.1 | 12,429 |
| 9th | 63.4 | 48.9-77.9 | 13,321 |
| 10th | 40.1 | 31.3-48.8 | 7,918 |
| 11th | 22.3 | 15.2-29.3 | 4,053 |
| 12th | 15.7 | 10.3-21.1 | 2,755 |

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

Middle school students

The prevalence of attended physical education class at least once a week among middle school students was 73.1% in 2015.

Figure 12 displays the prevalence of this indicator among middle school students remained stable from 2001 to 2015.

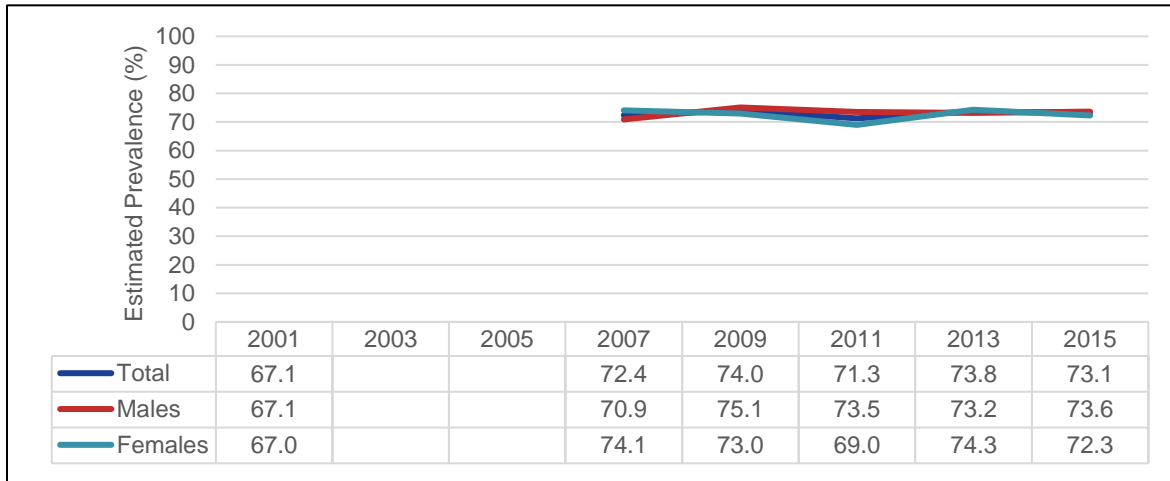


Figure 12. Prevalence of Attended PE Class at Least Once a Week Among WV Middle School Students

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

Table 12 displays the prevalence of attended physical education class at least once a week among middle school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 12. Prevalence of Attended Physical Education Class at Least Once a Week Among WV Middle School Students by Gender and Grade Level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 73.1 | 66.1-80.1 | 41,977 |
| Male | 73.6 | 66.2-80.9 | 21,682 |
| Female | 72.3 | 64.3-80.3 | 20,013 |
| 6th | 77.1 | 69.0-85.2 | 13,821 |
| 7th | 75.9 | 65.3-86.6 | 14,994 |
| 8th | 66.6 | 53.9-79.2 | 12,902 |

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

Attended Physical Education Class Every School Day in the Past Week

Definition: Weighted percentage of students who attended physical education classes on all 5 days in an average week when they were in school.

High school students

The prevalence of attended physical education class every school day among high school students was 25.2% in 2015.

Figure 13 displays the prevalence of this indicator among high school students from 1993 to 2015 significantly decreased for the total population and among males. The prevalence among females significantly decreased from 1993 to 2009 and was stable from 2009 to 2015.

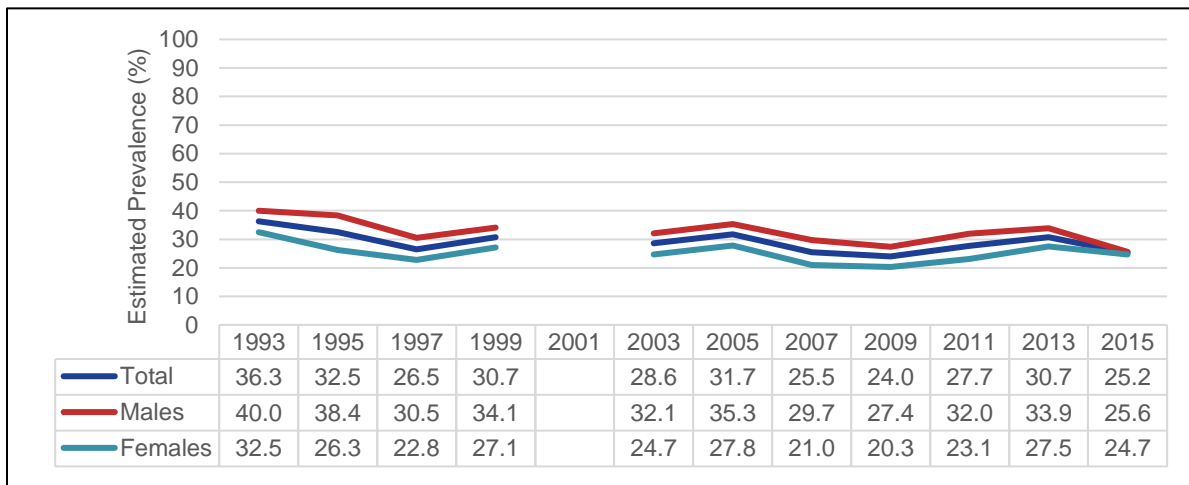


Figure 13. Prevalence of Attended PE Class Every School Day Among WV High School Students

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

Table 13 displays the prevalence of attended physical education class every day among high school students by demographic characteristics for 2015. The results indicate there was no gender difference for this indicator. The prevalence was significantly higher among 9th-grade students than among 11th- and 12th-grade students. Additionally, the prevalence was significantly higher among 10th-grade students than among 12th-grade students.

Table 13. Prevalence of Attended Physical Education Class Every School Day Among WV High School Students by Gender and Grade Level, 2015

| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|--------|--------------------------|-------------------------|--------------------|
| Total | 25.2 | 18.4-32.0 | 19,387 |
| Male | 25.6 | 17.0-34.1 | 10,017 |
| Female | 24.7 | 17.9-31.4 | 9,271 |
| 9th | 47.6 | 31.3-64.0 | 10,011 |
| 10th | 24.9 | 15.7-34.0 | 4,920 |
| 11th | 15.0 | 10.4-19.6 | 2,733 |
| 12th | 8.6 | 4.6-12.5 | 1,503 |

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

Middle school students

The prevalence of attended physical education class every school day among middle school students was 48.5% in 2015.

Figure 14 displays the prevalence of this indicator among middle school students significantly increased from 2001 to 2015 for the total population and among males. There was no significant change among females.

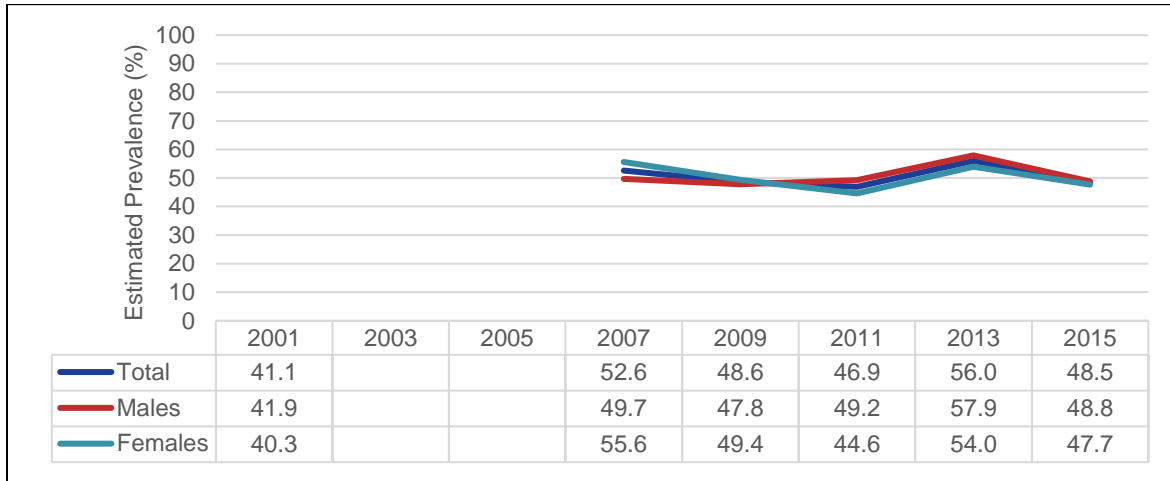


Figure 14. Prevalence of Attended Physical Education Class Every School Day Among WV Middle School Students

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

Table 14 displays the prevalence of attended physical education class every day among middle school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 14. Prevalence of Attended Physical Education Class Every School Day Among WV Middle School Students by Gender and Grade Level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 48.5 | 40.3-56.7 | 27,849 |
| Male | 48.8 | 41.1-56.6 | 14,393 |
| Female | 47.7 | 38.3-57.2 | 13,207 |
| 6th | 51.9 | 39.2-64.6 | 9,294 |
| 7th | 48.6 | 37.2-60.0 | 9,594 |
| 8th | 45.2 | 33.0-57.4 | 8,767 |

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

Played On at Least One Sports Team in the Past Year

Definition: Weighted percentage of students who played on at least one sports team, run by their school or community groups, during the past 12 months.

High school students

The prevalence of played on at least one sports team in the past year among high school students was 51.7% in 2015.

Figure 15 displays the prevalence of this indicator among high school students was stable from 1999 to 2015 for the total population and for both males and females.

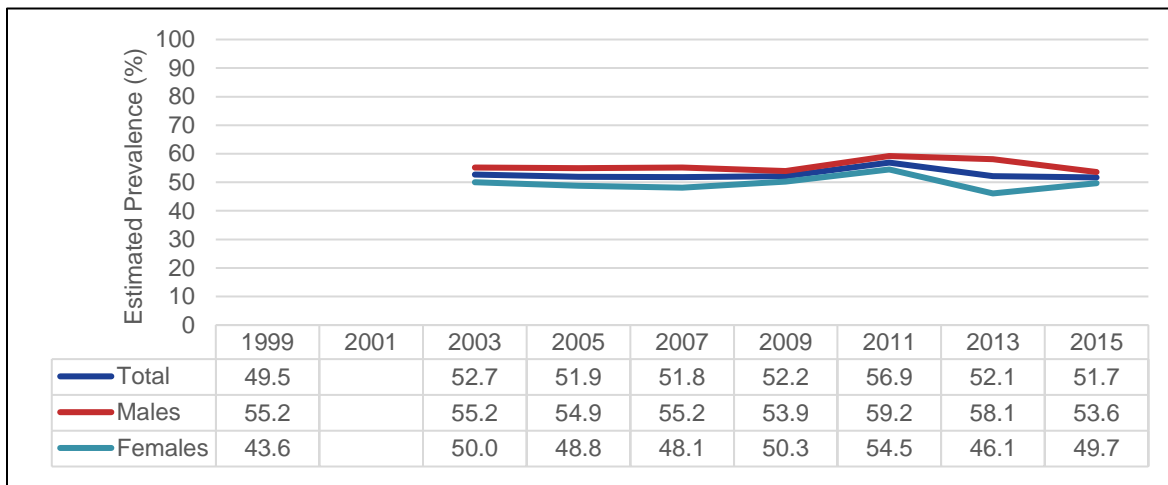


Figure 15. Prevalence of Played on at Least One Sports Team in the Past Year Among WV High School Students

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

Table 15 displays the prevalence of played on at least one sports team in the past year among high school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 15. Prevalence of Played on at Least One Sports Team in the Past Year Among WV High School Students by Gender and Grade Level, 2015

| | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|--------|--------------------------|-------------------------|--------------------|
| Total | 51.7 | 48.0-55.5 | 39,631 |
| Male | 53.6 | 49.0-58.2 | 20,908 |
| Female | 49.7 | 45.3-54.2 | 18,604 |
| 9th | 55.8 | 49.9-61.7 | 11,697 |
| 10th | 54.2 | 47.0-61.3 | 10,534 |
| 11th | 47.9 | 41.3-54.6 | 8,704 |
| 12th | 48.1 | 40.7-55.5 | 8,488 |

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

Middle school students

The prevalence of played on at least one sports team in the past year among middle school students was 63.2% in 2015.

Figure 16 displays the prevalence for this indicator among middle school students was stable from 2007 to 2015 for the total population and among both males and females.

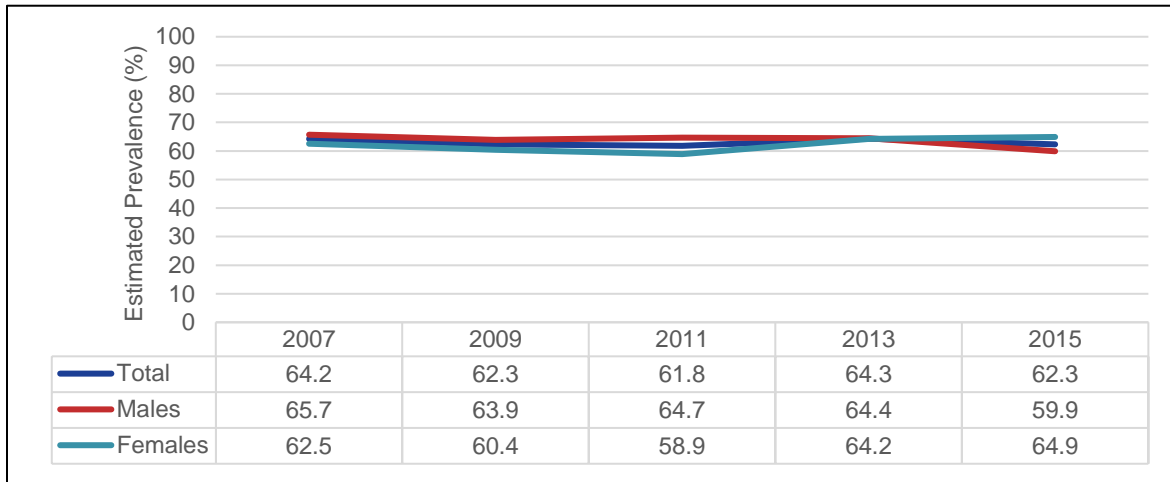


Figure 16. Prevalence of Played On at Least One Sports Team in the Past Year Among WV Middle School Students

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

Table 16 displays the prevalence of played on at least one sports team in the past year among middle school students by demographic characteristics for 2015. The results indicate no significant gender or grade differences for this indicator.

Table 16. Prevalence of Played on at Least One Sports Team in the Past Year Among WV Middle School Students by Gender and Grade Level, 2015

| Characteristic | Estimated prevalence (%) | 95% confidence interval | Weighted frequency |
|----------------|--------------------------|-------------------------|--------------------|
| Total | 62.3 | 58.2-66.4 | 35,755 |
| Male | 59.9 | 54.2-65.5 | 17,607 |
| Female | 64.9 | 60.2-69.5 | 17,941 |
| 6th | 60.5 | 54.8-66.2 | 10,854 |
| 7th | 66.4 | 61.6-71.1 | 13,085 |
| 8th | 60.1 | 52.2-68.0 | 11,603 |

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

Discussion

Research has found that several other factors influence adolescent behavior. Achievement in school as measured by letter grades received are associated with the amount of physical activity, screen time, and soda consumption teenagers engage in (Snelling, Belson, Beard, & Young, 2015).

Factors related to the prevention of risky behavior during adolescence have also been extensively investigated. Sibold, Edwards, Murray-Close, and Hudziak (2015) found that exercise lowers sadness, suicidal thoughts, and suicide attempts among teenagers. 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 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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