

Memorandum

To: City Council

From: Susan Albright

Re: Concerns raised by proponents of the ban question regarding the sale of Cannabis in Newton and its use by Newton teens

Date: July 5 2018

Colleagues I have put together some data regarding Cannabis use by teens. Many ban supporters feel that a ban is necessary so that teens will not have access to Cannabis. While the Ballot questions deal with a) whether or not to put a question on the ballot to prohibit Cannabis in Newton and b) whether or not to put a question on the ballot to limit the number of Adult Use Cannabis stores to no fewer than 2 and no more than 4, I have put together some information about teen use of Cannabis since legalization in Colorado and Washington states. In addition I have data taken from the Needham Board of Health regarding current Cannabis use by high school students in Metrowest.

1. The first is a report from the State of Washington published in March 2017 showing Cannabis use in that state from before and after legalization. : The use of Cannabis in High School Students seems to have peaked in 2010 and has remained constant (12th grade) or decreased (10th grade and 8th grade) since then – including after legalization.
2. A report from the CDC showing Cannabis use among high school students from before and after legalization in Colorado. This report shows a similar finding, i.e. that use of Cannabis in high school has decreased since the legalization in Colorado.
3. The Metrowest survey of current teen use of Cannabis. 66% of high school kids report that it is “fairly easy to get Cannabis” and the number of kids across Metrowest who have used Cannabis in the last 30 days is around 20%. 28% of the kids in Metrowest report having used Cannabis. We don’t have numbers of Newton kids but Massachusetts data from the DPH show that as many as 40% of high school kids have used Cannabis in the 30 days prior to the survey.

Some percent of kids are accessing Cannabis now – illegally, of unknown origin, and unknown quality and safety. Based on statistics from two states that have legalized Cannabis, if Massachusetts follows the same pattern, use of Cannabis will not increase by high school kids. I will make other arguments on July 9th regarding the use of the 50 person petition to make policy in Newton.

Monitoring Impacts of Recreational Marijuana Legalization

2016 Update Report



Introduction

In February 2015, a baseline report on the monitoring impacts of recreational marijuana legalization was released. Nine months later, in January 2016, that report was updated. This report marks the third in the series.

This report includes updated and additional data and, in a few instances, modifies some of the previous measures.

Highlights and key findings

1. HEALTH

- Among students surveyed, current marijuana use was higher in the older age groups: 26 percent of 12th graders, 17 percent of 10th graders, six percent of 8th graders and one percent of 6th graders reported use.
- Between 2006 and 2016, no trends were seen in usage for any of the grades assessed.
- Use among adults surveyed is highest for those ages 18 to 24, at 21 percent in 2015.
- All adult age groups showed an increasing trend in use. For all adults ages 18 and older use increased by an average of 14 percent per year.
- Among students who first used marijuana at ages 13 or younger, no trends were seen except among 10th graders – and that trend was downward at 2.3 percent per year.
- Among adults, 23 percent reported in 2015 that they were between ages 14 and 17 the first time they tried marijuana. First-time use for that age group increased by an average of 2.4 percent per year for 2011-15. No trends in age at first use were identified among other age groups.
- Among students, ease of access increased by grade, but no trends in increasing ease of access were identified over time in any of the grades surveyed.
- Between 2011 and 2013, there was an average of 155 marijuana-related calls per year to the Poison Control Center; from 2014 to 2016 the average number of calls was 268, a 73 percent increase.
- The number of youths receiving state-funded substance use disorder (SUD) treatment has decreased. The proportion receiving such treatment for marijuana has remained relatively constant since 2012.

1. HEALTH (continued)

- Population-based rates of state-sponsored SUD treatment for marijuana use among youths had been increasing by 5 percent per year from 2006 to 2012. However, from 2012 to 2015, those rates decreased by 13 percent per year. SUD rates for other drugs have been decreasing by nine percent per year from 2009 to 2015.
- Among drivers involved in a traffic fatality who are tested for drugs or alcohol, there is no trend in the percentage of those testing positive for marijuana in combination with other drugs and/or alcohol. Similarly, no trend was identified for those who tested positive for marijuana only.

2. ENFORCEMENT

- From 2012 to 2015 there was a 25 percent decrease in arrests for drug equipment and a 16 percent decrease in arrests for violations involving any drugs.
- Incidents* involving marijuana decreased by 63 percent between 2012 and 2015. Concurrently, incidents involving amphetamines increased by 72 percent and those involving heroin by 41 percent.
- Between 2012 and 2015, incidents* where marijuana was seized decreased appreciably. However, between 2014 and 2015 small increases in incidents for 3.5 grams or less and 14.1 grams or more showed a slight increase.
- Highways and roads are the most common location where marijuana incidents occurred, decreasing by 75 percent from 2012 to 2015. Decreases were also seen in all other identified locations..
- Among criminal activities involving marijuana, possession or consuming was the most common, decreasing by 65 percent from 2012 to 2015.

Highlights and key findings (continued)

2. ENFORCEMENT (continued)

- Drug-only DUI arrests, which do not differentiate marijuana from other drugs, decreased from a high of 1,710 in 2011 to a low of 1,222 in 2015, for an overall decrease of 28 percent.
- Marked decreases are seen in marijuana-related nonprison convictions, dropping from a high of 502 in 2011 to a low of 80 in 2015, and in-prison convictions, from 73 in 2011 to 10 in 2015.
- For the 2015-16 school year, 4 percent of all students were suspended or expelled. Of those suspended or expelled, 9 percent (or 0.4 percent of all students) were suspended or expelled due to marijuana possession.

3. REVENUES AND TAXES

- Sales increased by an average of 69 percent per month during the first three months of legalization. They then increased by 20 percent per month from October 2014 to May 2015. Between May 2015, and September 2016, sales have been increasing by six percent per month.
- In September 2016, sales had reached \$114 million with excise taxes reaching \$26 million.

4. PRODUCTION AND SALES

- In January 2017, there were 745 active licensed producers and 310 active licensed retailers in the state.
- Licensed producers and processors appear to be equally located in urban and rural locales. Similarly, high-volume producers/processors are also somewhat evenly distributed.

4. PRODUCTION AND SALES (continued)

- Retailers tend to be more commonly located in urban and suburban communities. However, some high-volume retailers are located in nonurban communities, particularly those that border other states.
- Of the six counties with the highest per capita sales, three (Spokane, Whitman and Asotin) are on the Idaho state border.
- The average price per gram dropped from a high of \$29 in August 2014 to a low of \$9 in April 2016, and has risen slightly since to \$10 in June, 2016.
- The number of retailers reached its all-time high of 267 in June, 2016, the last month of data currently available.

5. CITY AND COUNTY ORDINANCES

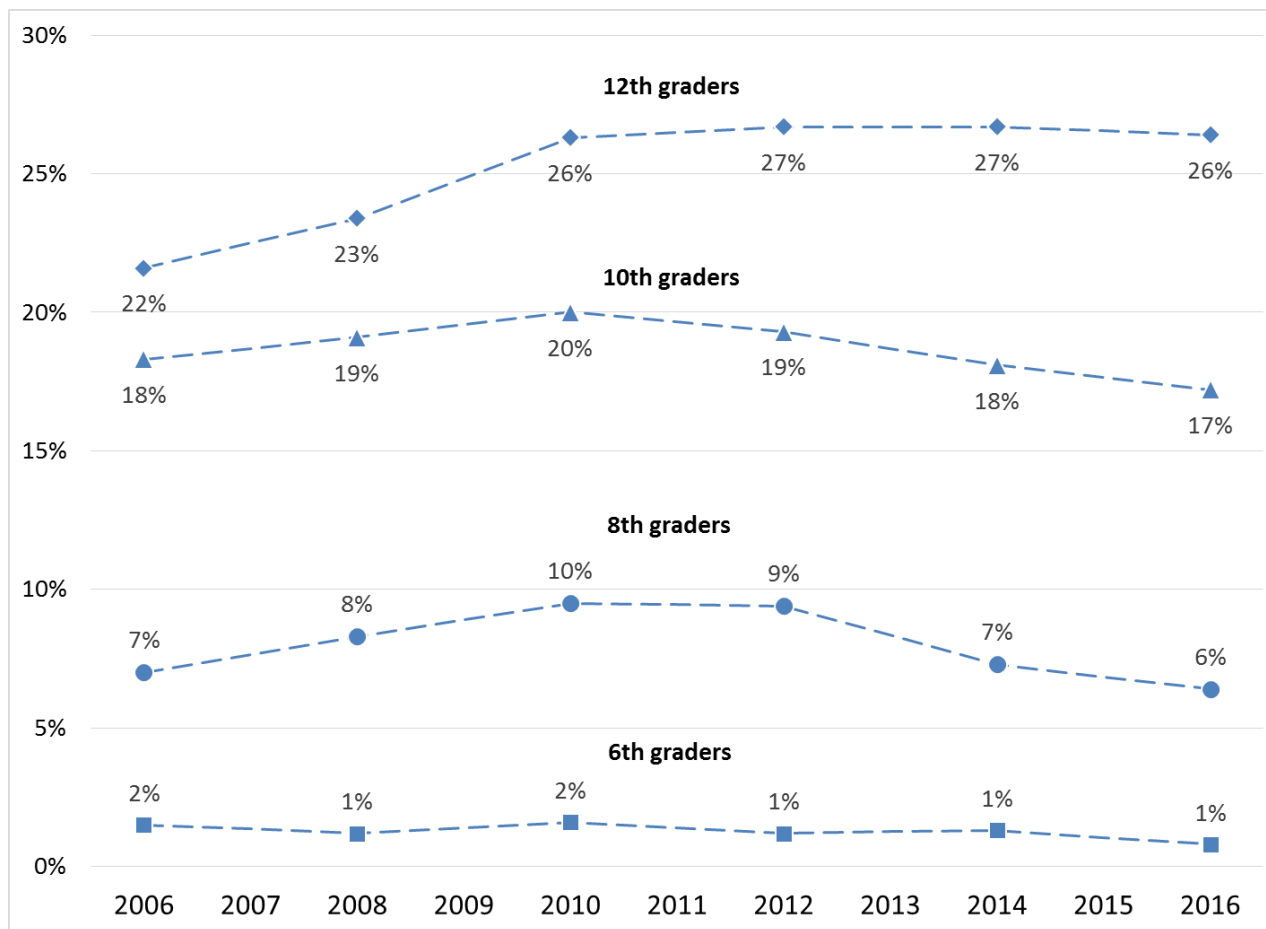
- Currently, 67 cities have prohibitions or moratoria on retail sales of recreational marijuana.
- Two counties have moratoria on the sale of recreational marijuana in their unincorporated regions and five have prohibitions; moratoria in three additional counties recently expired.

* As defined by the FBI, an “incident” occurs when any law enforcement officer investigates a scene or situation, whether that investigation results in an arrest or not. Incidents involving multiple illicit drugs or other criminal activities are counted only once, and are included in whichever category is listed first by the local law enforcement agency. The order used by those agencies is not hierarchical.

1.1 Current Use – Students

Among 6th, 8th, 10th and 12th graders asked, “Have you used marijuana in the past 30 days?” there were no significant trends seen. Difference between grades, however, were notable: about one-fourth of 12th graders reported current use as did about one percent of 6th graders.

Source: Washington State Health Youth Survey

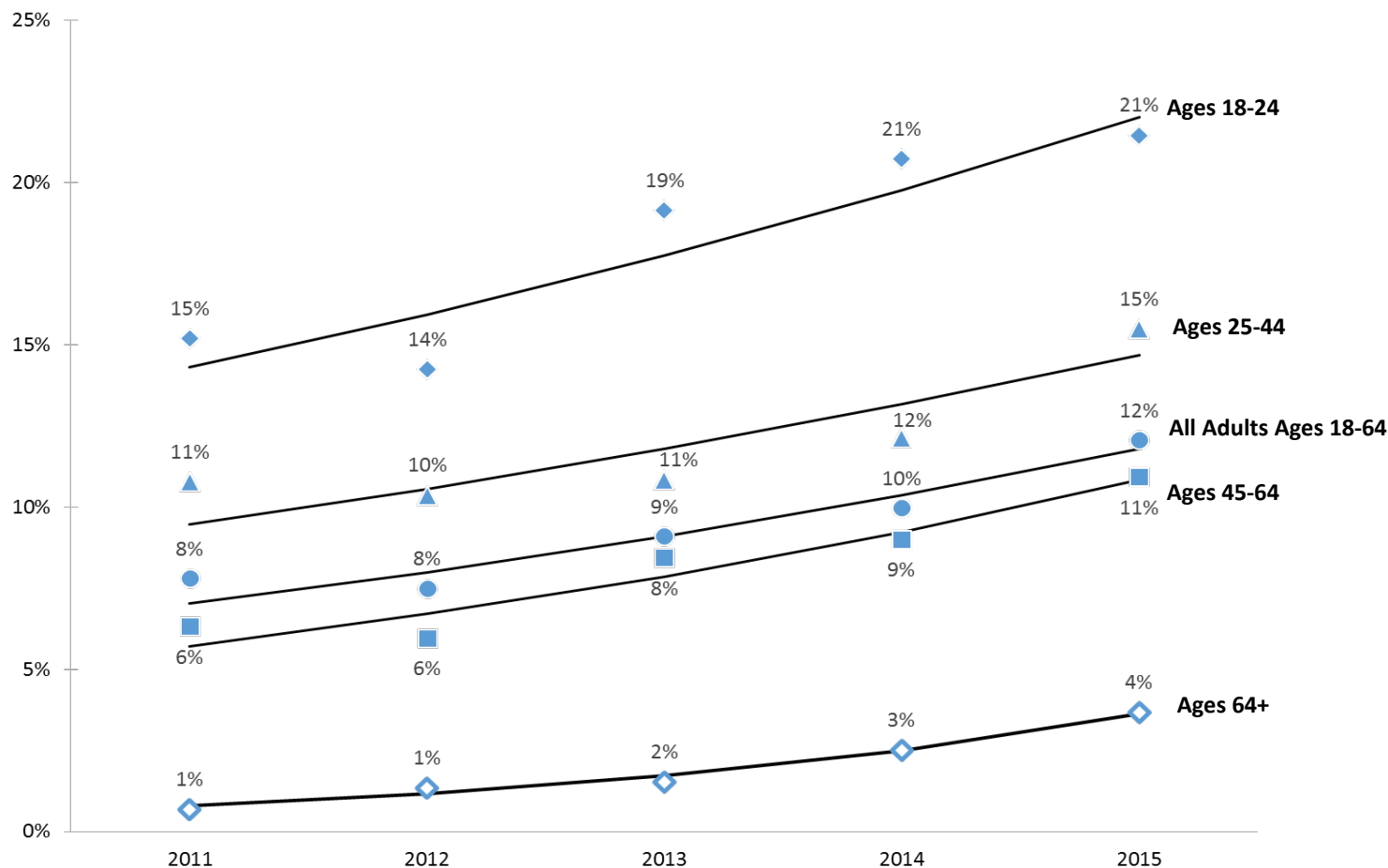


* No significant trend

1.2 Current Use – Adults

Current use among all adults, 12 percent in 2015, has increased by 14 percent per year since 2010. For those ages 18-24, current use was 21 percent in 2015, with an increase of 11 percent per year since 2010. Among those ages 25 to 44, 15 percent were current users in 2015, with a 12 percent per year increase from since 2010. Eleven percent of those ages 45 to 64 were current users in 2015, with a 17 percent per year increase in usage from 2010. Those ages 65 and older had the lowest percent of current usage in 2015, four percent; however, this constitutes a 46 percent per year increase since 2010.

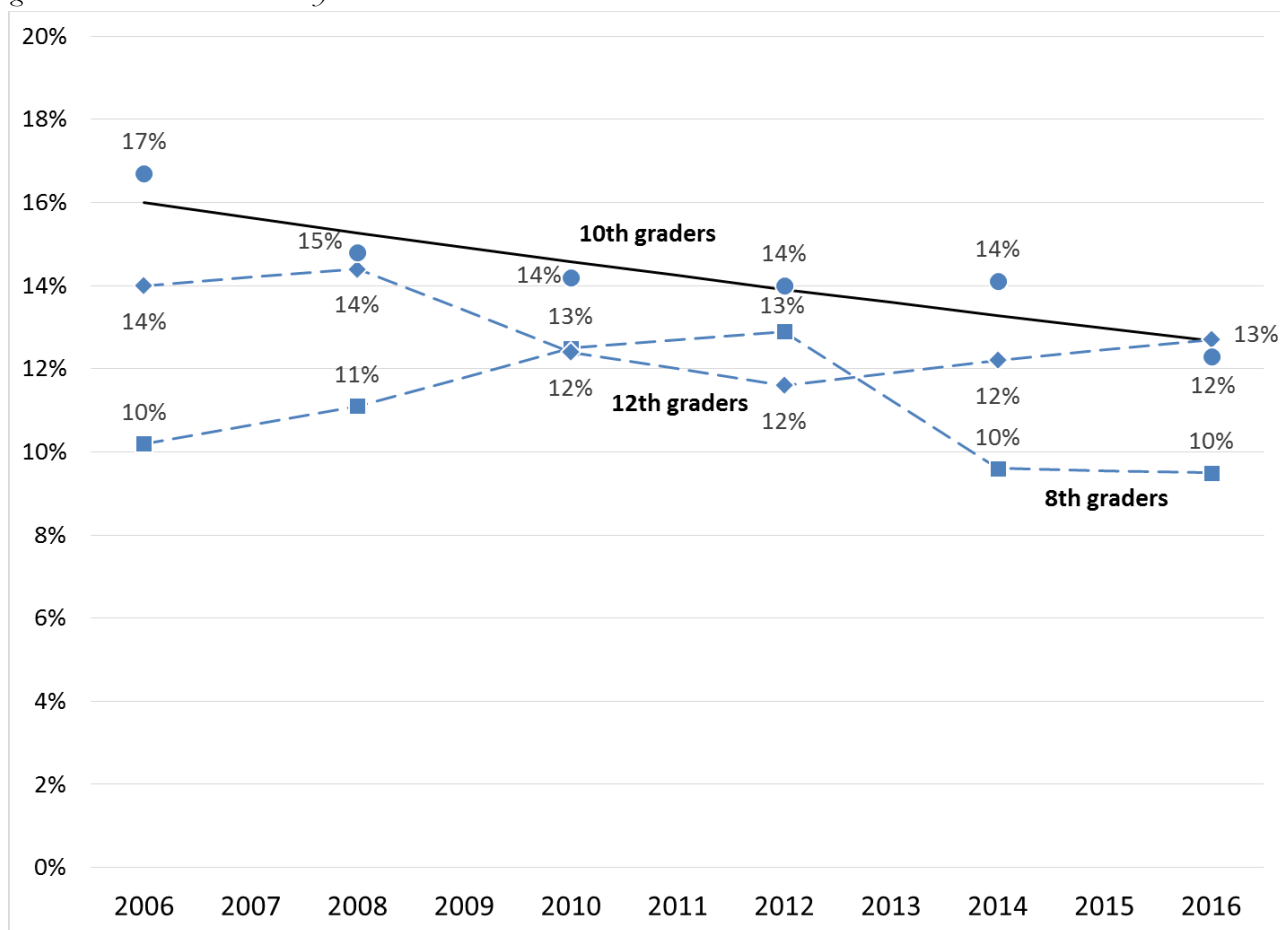
Source: Washington State Behavioral Risk Factors Surveillance System



1.3 Age at First Use – Students

Among 8th and 12th graders asked, “How old were you the first time you smoked marijuana?” no significant trends were seen among those responding that they were age 13 or younger; however, among 10th graders there is a 2.3 percent per year downward trend in those starting at age 13 or younger.

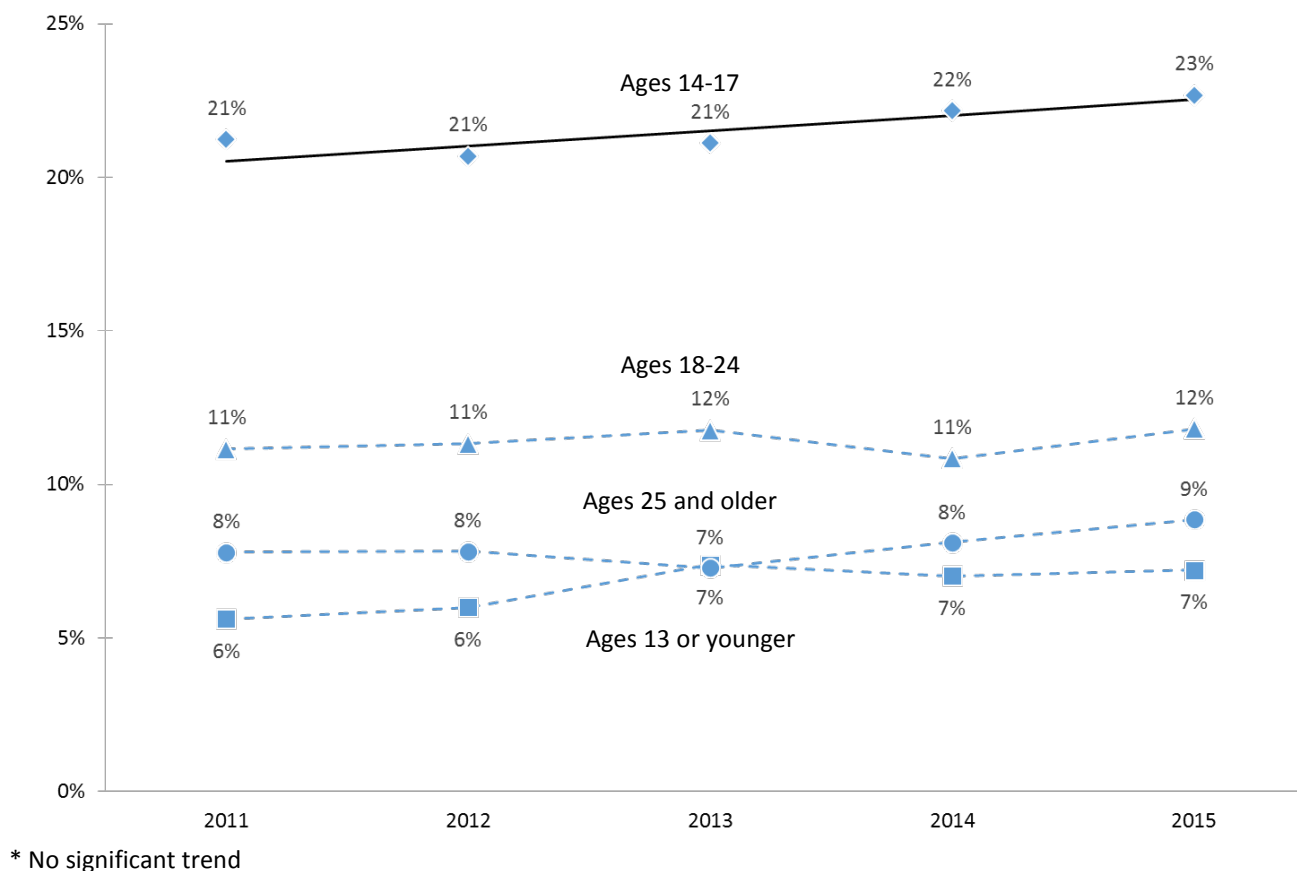
Source: Washington State Health Youth Survey



1.4 Age at First Use – Adults

Among adults who had ever used marijuana, there was a significant increase of 2.4 percent per year between 2011 and 2015 in the percentages of those respondents saying that they were between the ages of 14 and 17 when they first tried marijuana. There was no trend in the percentages of those reporting having first tried at ages 13 or younger, ages 18 to 24 or at ages 25 and older.

Source: Washington State Behavioral Risk Factors Surveillance System



1.5 Access – Students

In response to the question, “If you wanted to get some marijuana, how easy would it be to get some?” this measure includes, by convention, those answering “sort of hard,” “sort of easy” and “very easy.” While access differs by grade level, no significant trends are seen over time.

Source: Washington State Health Youth Survey

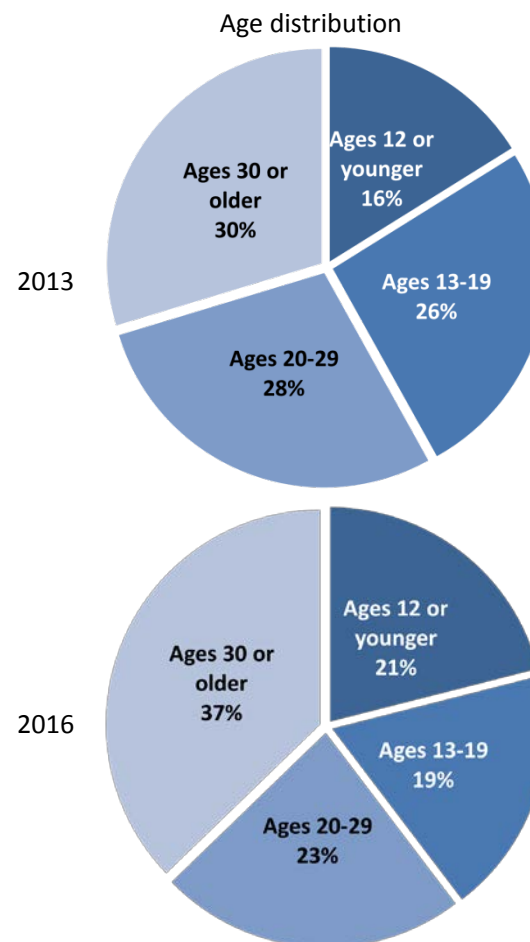
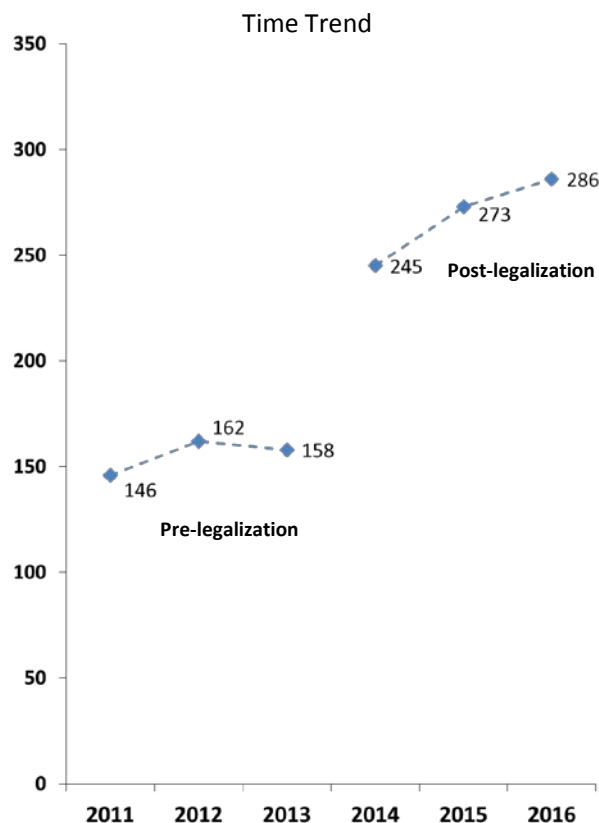


* No significant trend

1.6 Poisonings

The average number of marijuana-related calls to the Washington Poison Center for the three years pre-legalization (2011-13) increased by 70 percent compared to the three years post-legalization (2014-16). And while there appear to be shifts in the age distribution from the last year pre-legalization to the most current year post-legalization – where in 2013 more than half the calls were for those ages 13 to 29, while in 2016 more than half the calls were for those ages 12 or younger and 30 or older – those differences are not statistically significant.

Source: Washington Poison Center

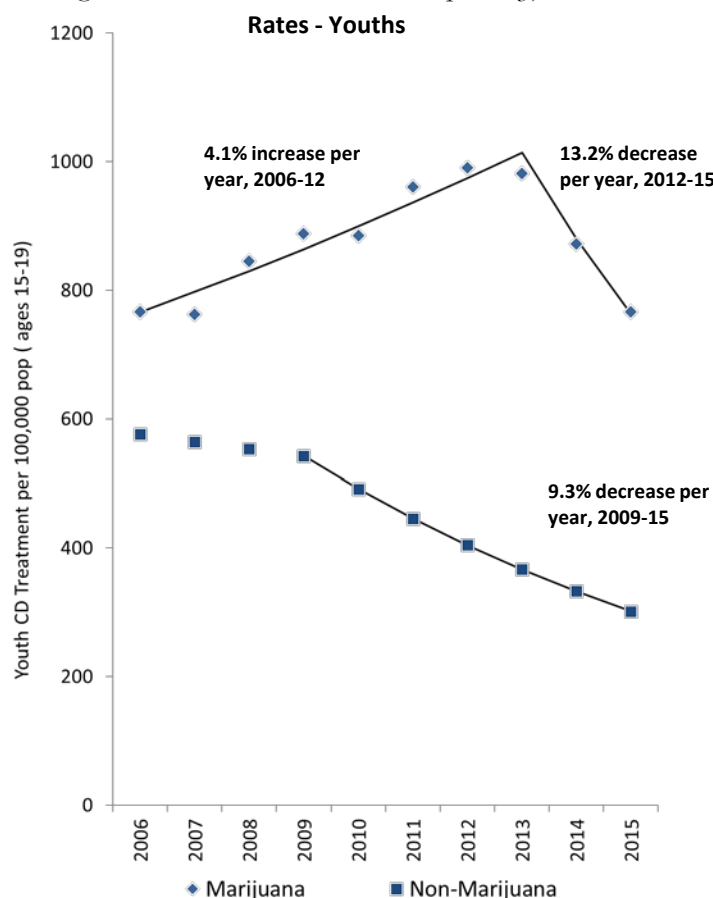
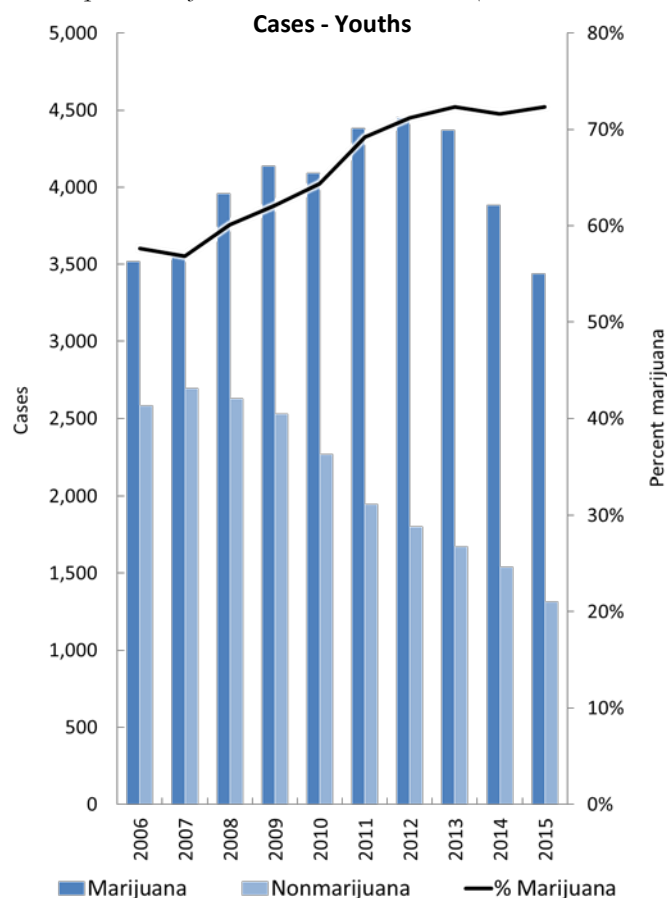


1.7 Substance Use Disorder Treatment Among Youths

Marijuana substance use disorder (SUD) treatment for youths ages 15 to 19 receiving publicly funded services reached a peak in 2012 and has been decreasing since. SUD treatment for non-marijuana substances has been decreasing since 2007. Of the total SUD youths in treatment, marijuana has constituted 72 percent of the cases since 2012.

Rates for youths in marijuana treatment had been increasing by six percent per year until 2012; however, since 2012 those rates have been decreasing by 13 percent per year. Treatment rates for drugs other than marijuana have been decreasing by nine percent per year since 2009.

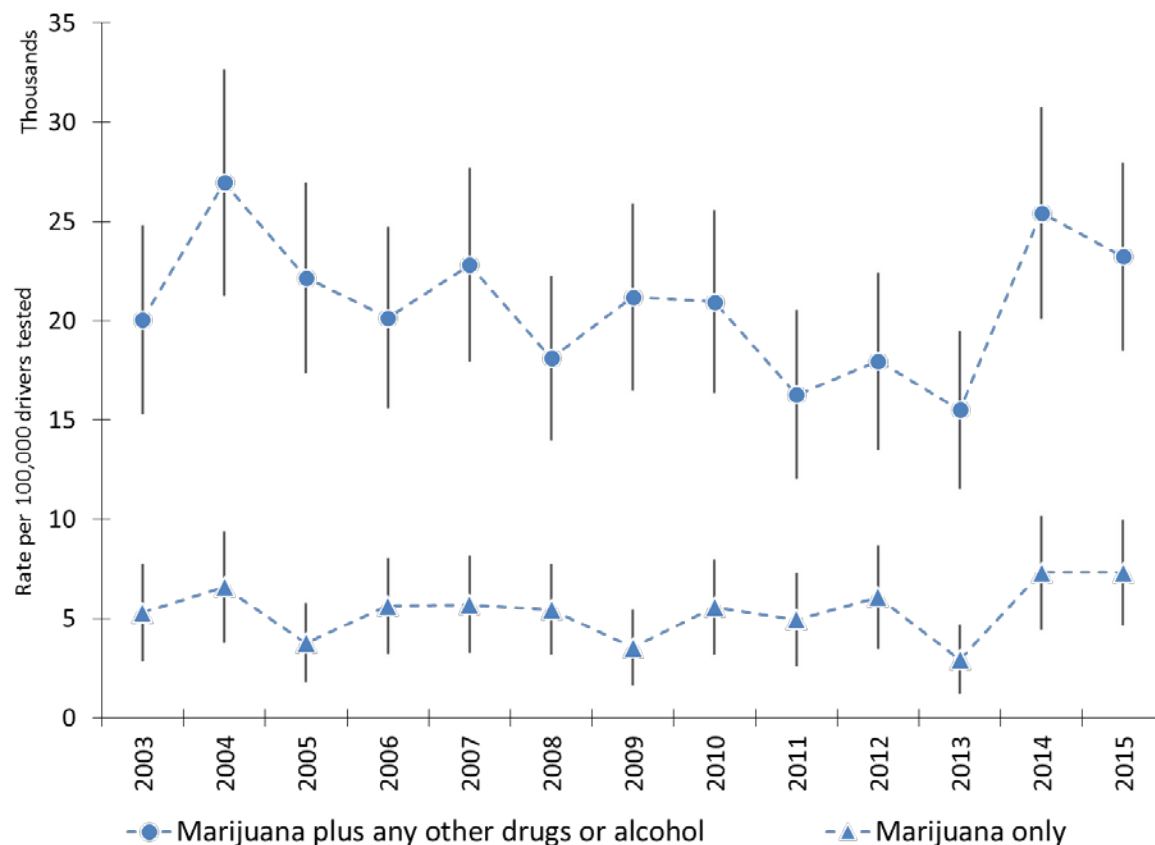
Source: Department of Social and Health Services (Behavioral Health and Service Integration Administration/ Chemical Dependency)



1.8 Traffic Fatalities

These time-series data include the total number of drivers involved in fatal crashes who were tested for drugs and alcohol and, of those tested, the number who tested positive. Rates for those tested and were found positive for marijuana plus alcohol or other drugs as well as rates for those who tested positive for marijuana only show no significant trend. Similarly, differences among the years' rates are generally not statistically significant. Detailed data on the presence of delta-9 THC in blood showed no difference between pre- and post-legalization.

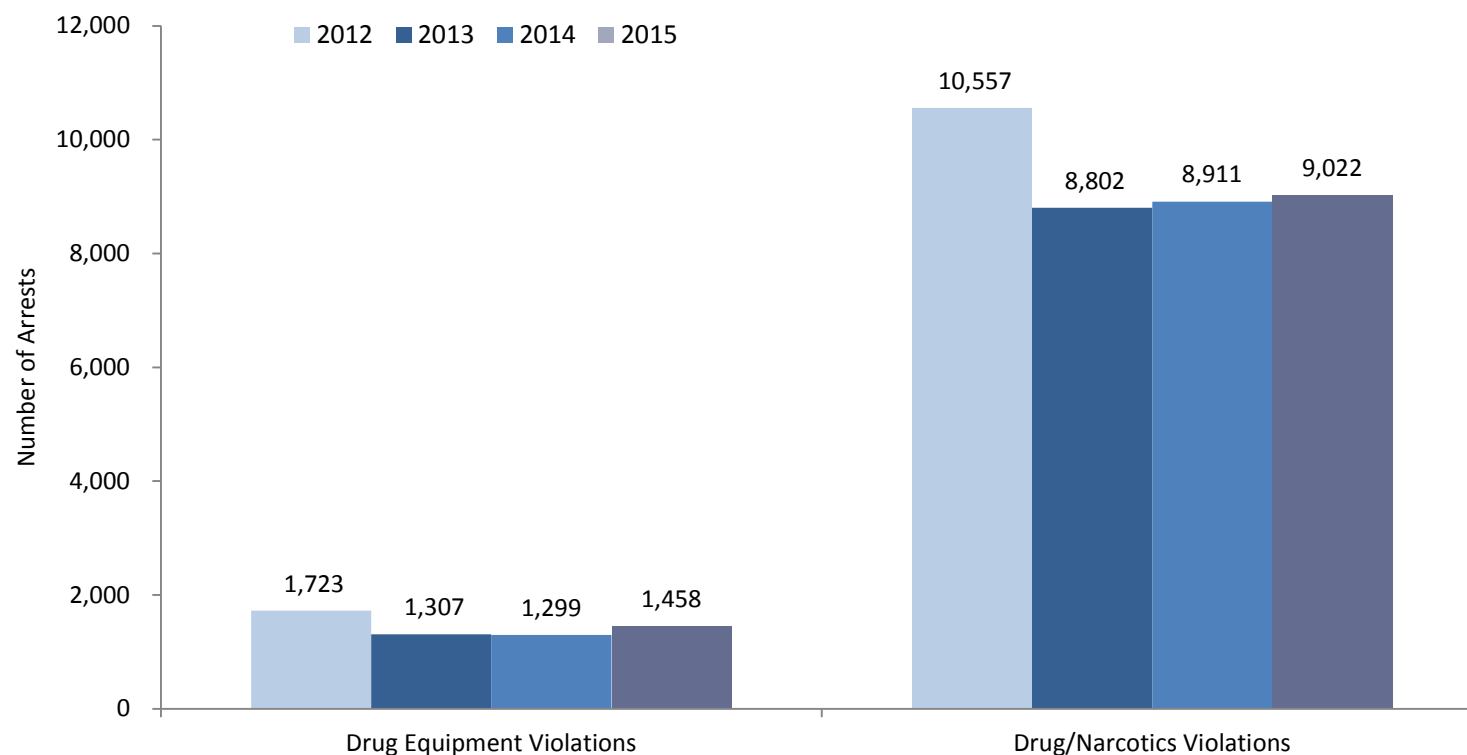
Source: Washington Traffic Safety Commission



2.1 Drug or Narcotic Arrests*

Between 2012 and 2015, there was a 25 percent decrease in arrests for drug equipment violations and a 16 percent decrease in arrests for drug or narcotic violations. However, from 2014 to 2015 there was a 12 percent increase for drug equipment violations and a one percent increase in arrests for drug or narcotic violations. Drug equipment refers to equipment or devices used in preparing and/or using drugs or narcotics.

Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)

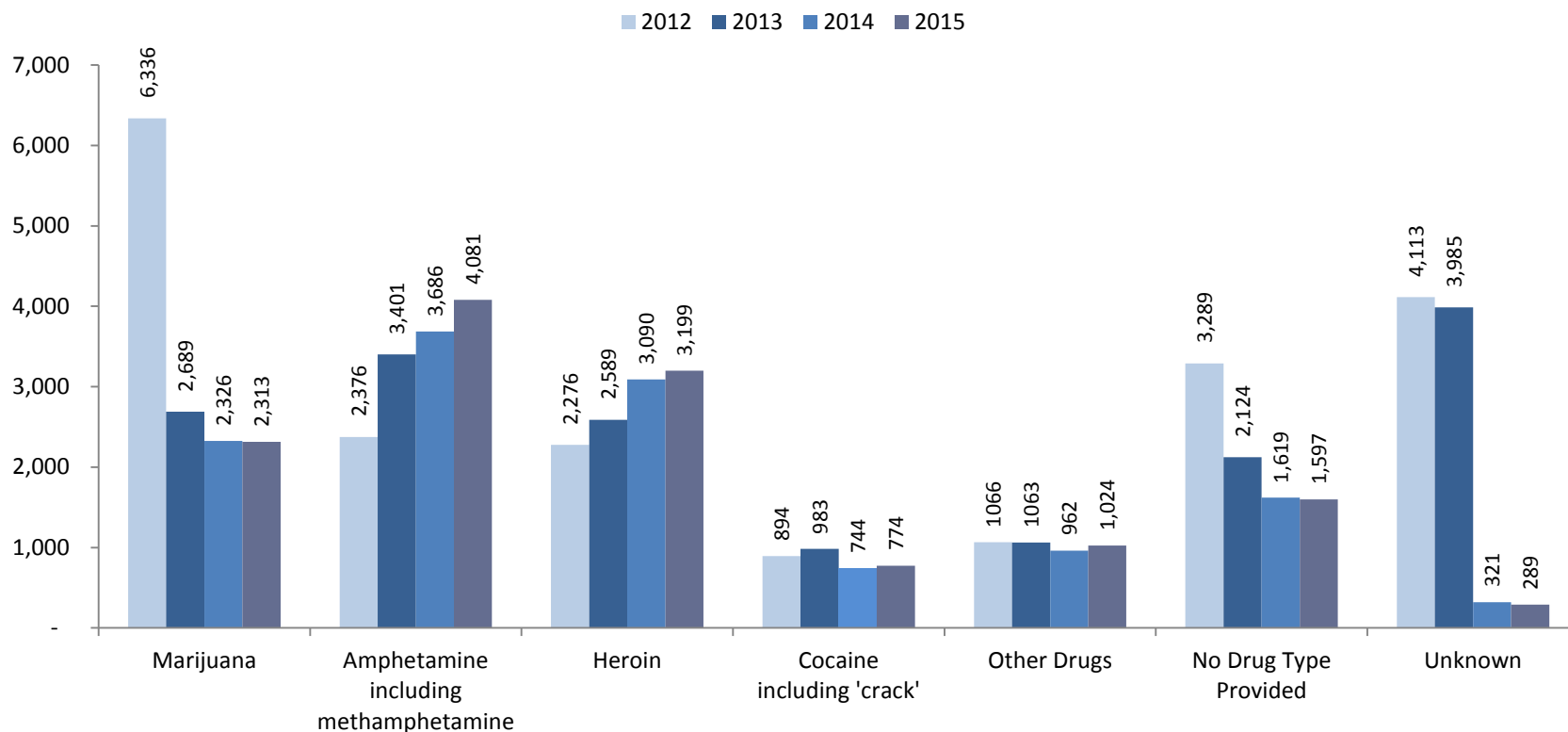


*Each of the arrests may include multiple drug and/or narcotic offenses. Arrests for both equipment and possession violations are counted only once, and are included in whichever category is listed first by the local law enforcement agency. The order used by those agencies is not hierarchical.

2.2 Drug or Narcotic Incidents*

The number of incidents involving marijuana decreased by 63 percent from 2012 to 2015. In contrast, during that same time period, incidents involving amphetamines or methamphetamines increased by 72 percent while those involving heroin increased by 41 percent.

Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)

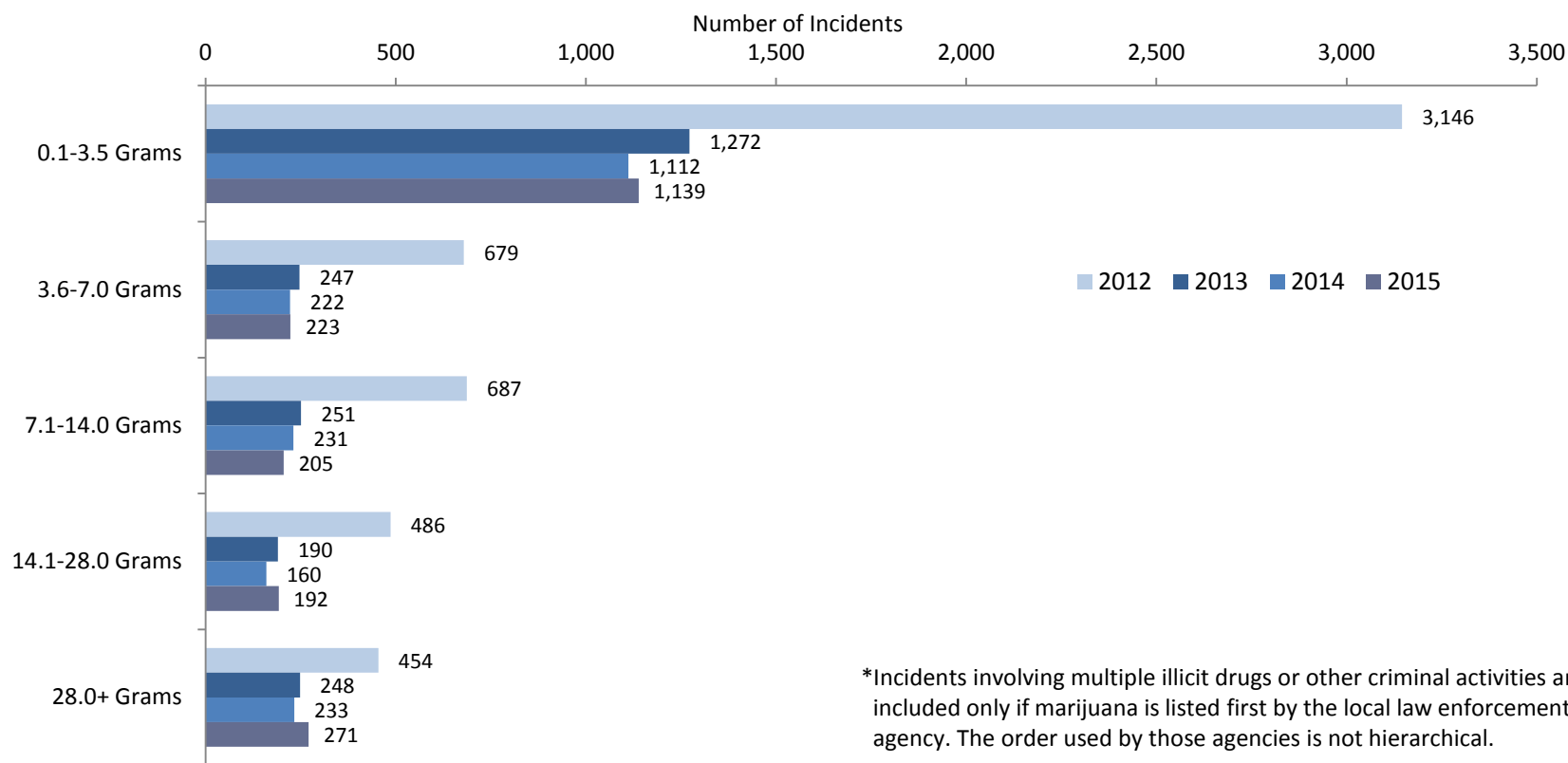


*As defined by the FBI, an "incident" occurs when any law enforcement officer investigates a scene or situation, whether that investigation results in an arrest or not. Incidents involving multiple illicit drugs or other criminal activities are only counted once, and are included in whichever category is listed first by the local law enforcement agency. The order used by those agencies is not hierarchical.

2.3 Marijuana Quantities Seized

Incidents where the quantity of marijuana seized was reported in grams (or in a unit that could be converted) are shown below.* For 2012–15, the most frequent number of seizures continues to be for quantities of 3.5 grams (an eighth of an ounce) or less, and yet, for the same time period, the number of such seizures dropped by 64 percent. Note, however, that there was a slight increase from 2014 to 2015 for that group as well as for arrest pertaining to higher quantities.

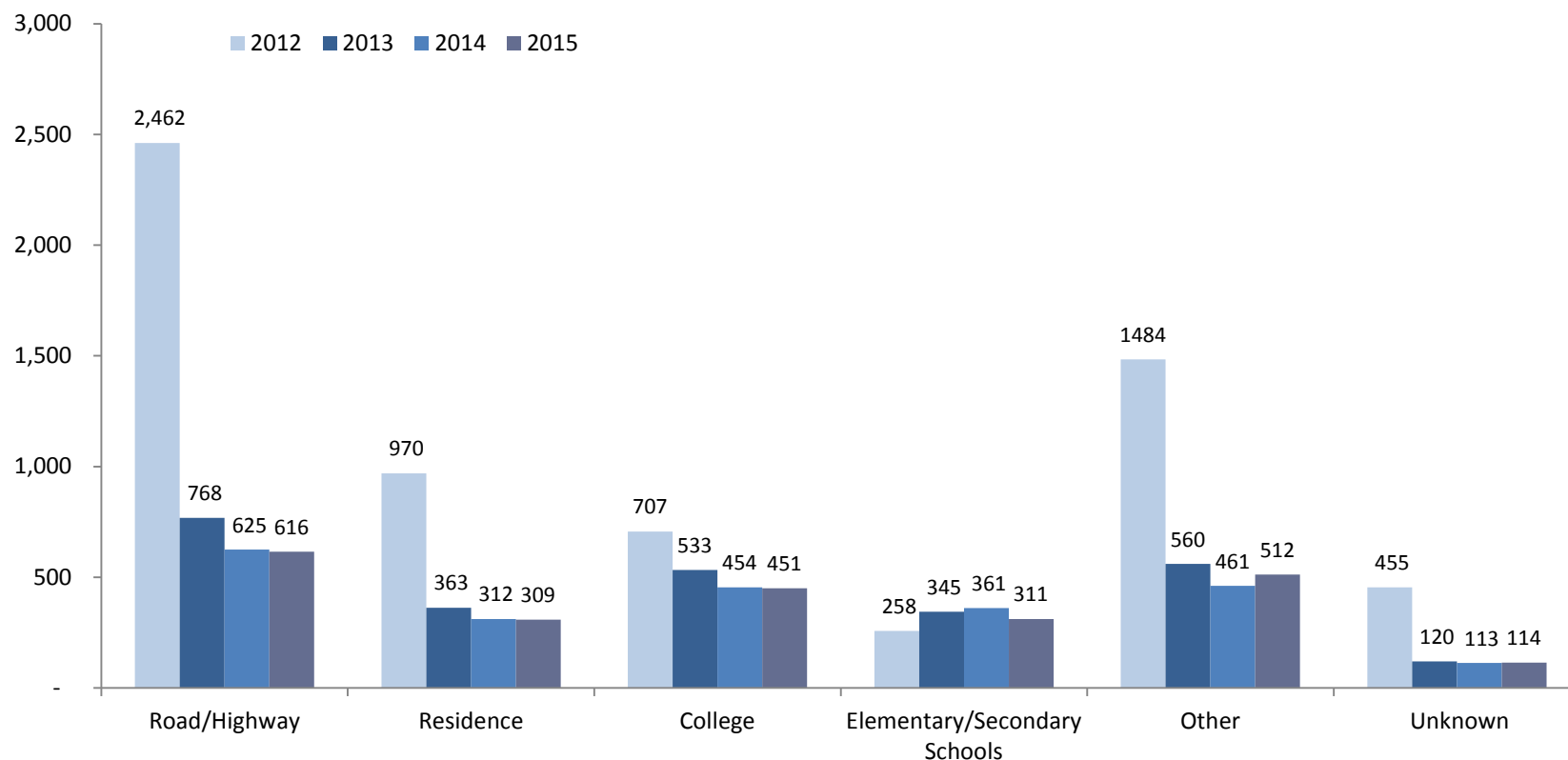
Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)



2.4 Incident Locations

Marked decreases were seen in nearly all locations where there were incidents involving marijuana.* For highways, roads or alleys, the number of incidents decreased by 75 percent, from 2,462 in 2012 to 616 in 2015. No increases are seen in any of the other identified locations.

Source: Washington Association of Sheriffs and Police Chiefs (does not include State Patrol data)

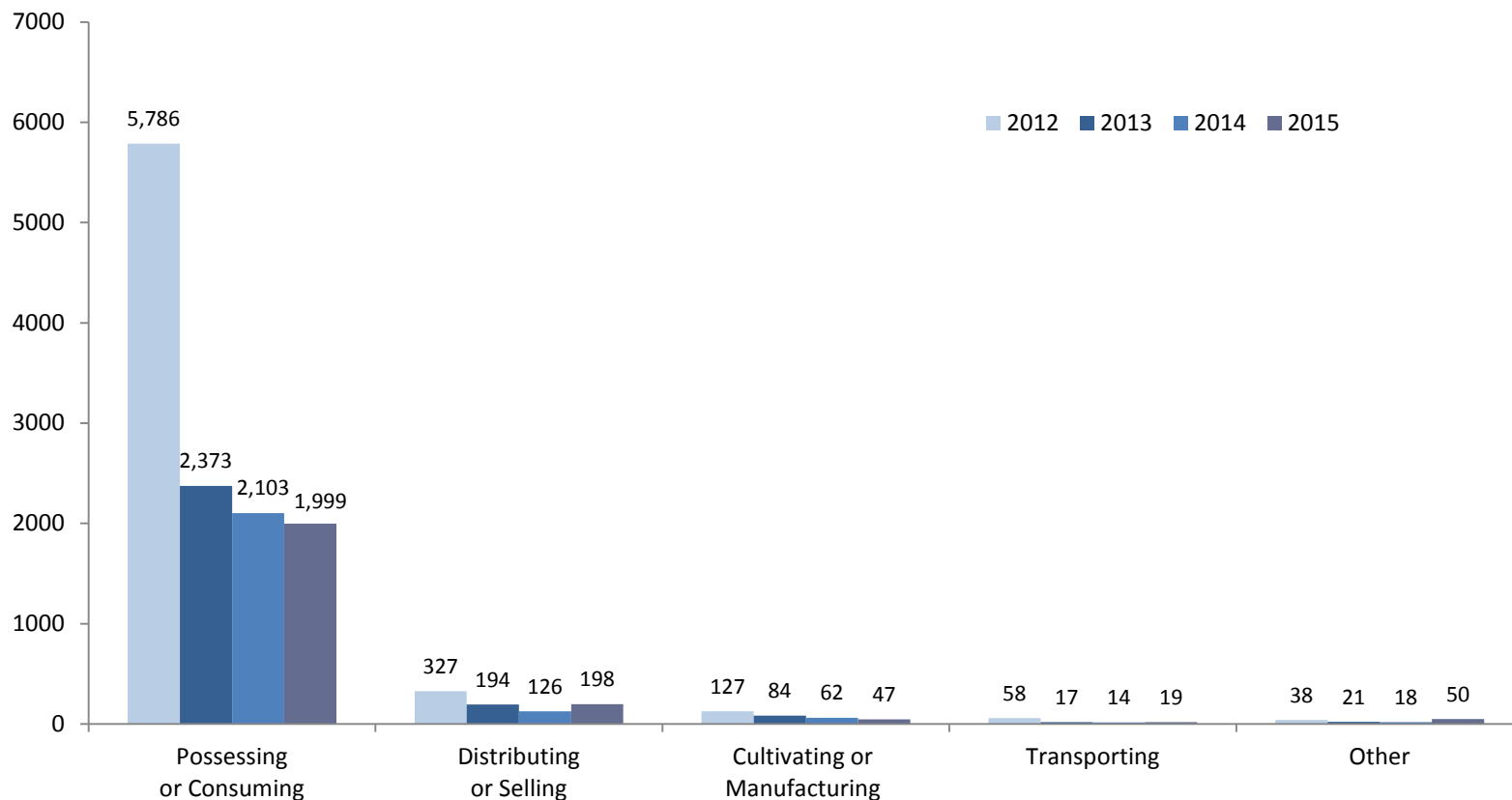


*Incidents involving multiple illicit drugs or other criminal activities are included only if marijuana is listed first by the local law enforcement agency. The order used by those agencies is not hierarchical.

2.5 Criminal Activities Involving Marijuana

From 2012 to 2015, possession and/or consuming was the most common criminal activity involving marijuana. However, the number of such incidents decreased by 65 percent during those four years.* Distribution or selling, however, increased by 57 percent from 126 in 2014 to 198 in 2015.

Source: Washington Association of Sheriffs and Police Chiefs (does not include Washington State Patrol data)

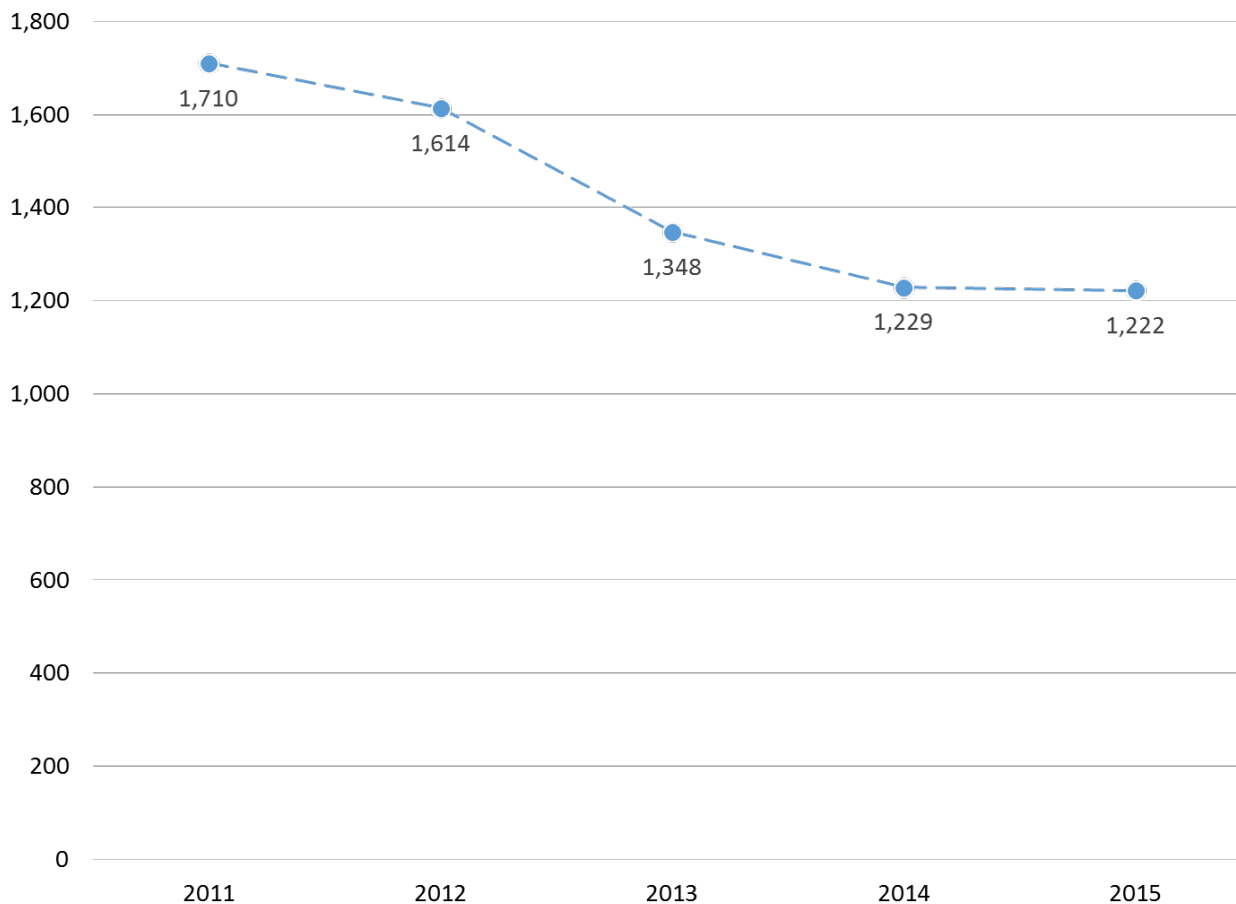


*Incidents involving multiple illicit drugs or other criminal activities are included only if marijuana is listed first by the local law enforcement agency. The order used by those agencies is not hierarchical.

2.6 Drug-only DUI Arrests

Drug-only DUI arrests do not differentiate marijuana from other drugs. These arrests moved from a high of 1,710 in 2011 to a low of 1,222 in 2015, for an overall decrease of 29 percent during those four years.

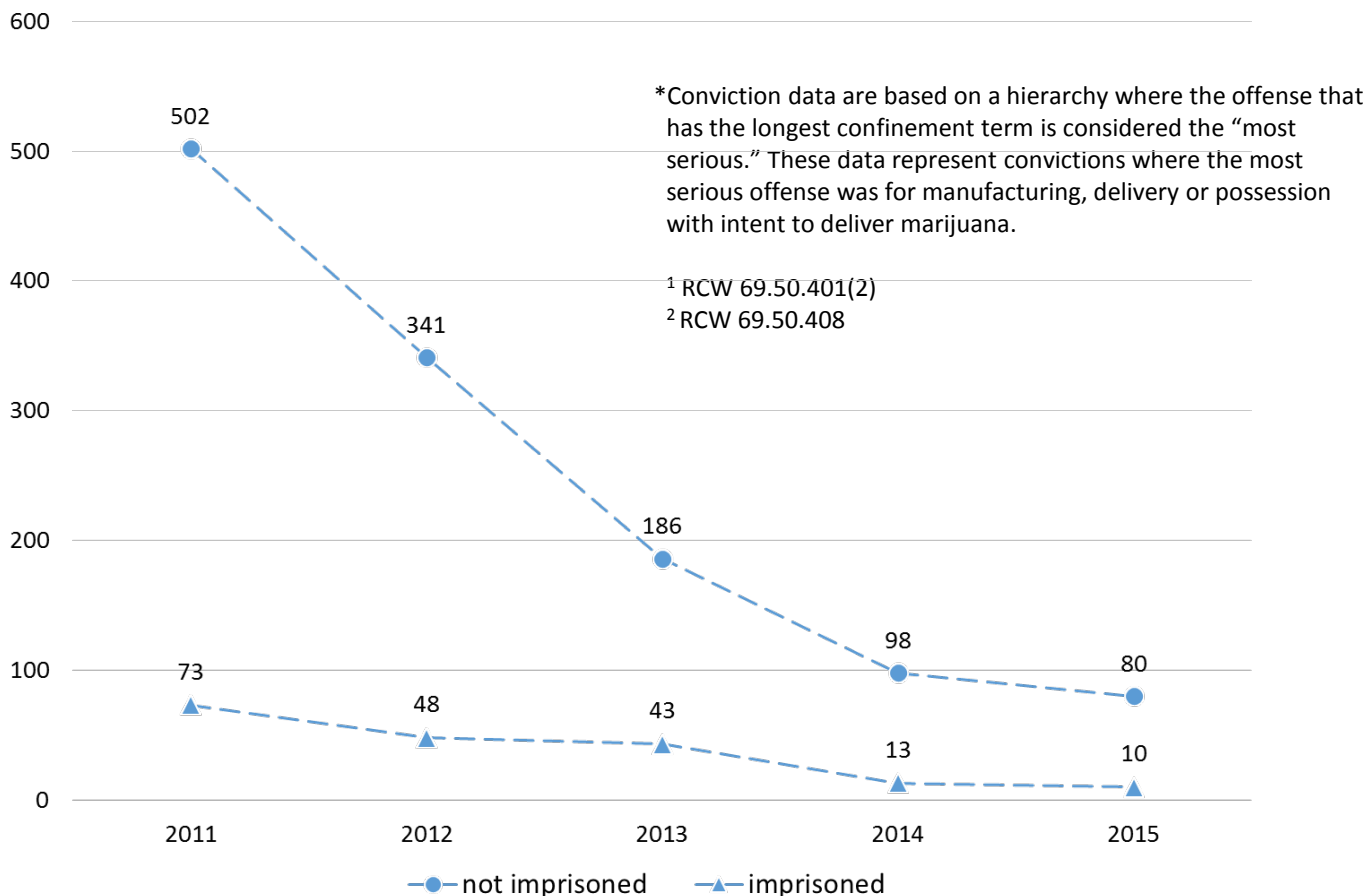
Source: Washington State Patrol



2.7 Marijuana-related Convictions

From 2011 to 2013, the only convictions for the manufacturing, delivery or possession with intent to deliver marijuana¹ were first-time convictions; in 2014, five of the 98 nonprison convictions were repeat convictions² and in 2015 two were repeat offenders. Overall, marked decreases are seen in both nonprison convictions, dropping by 84 percent from 2011 to 2015, and in-prison convictions, dropping by 86 percent during that same time period.

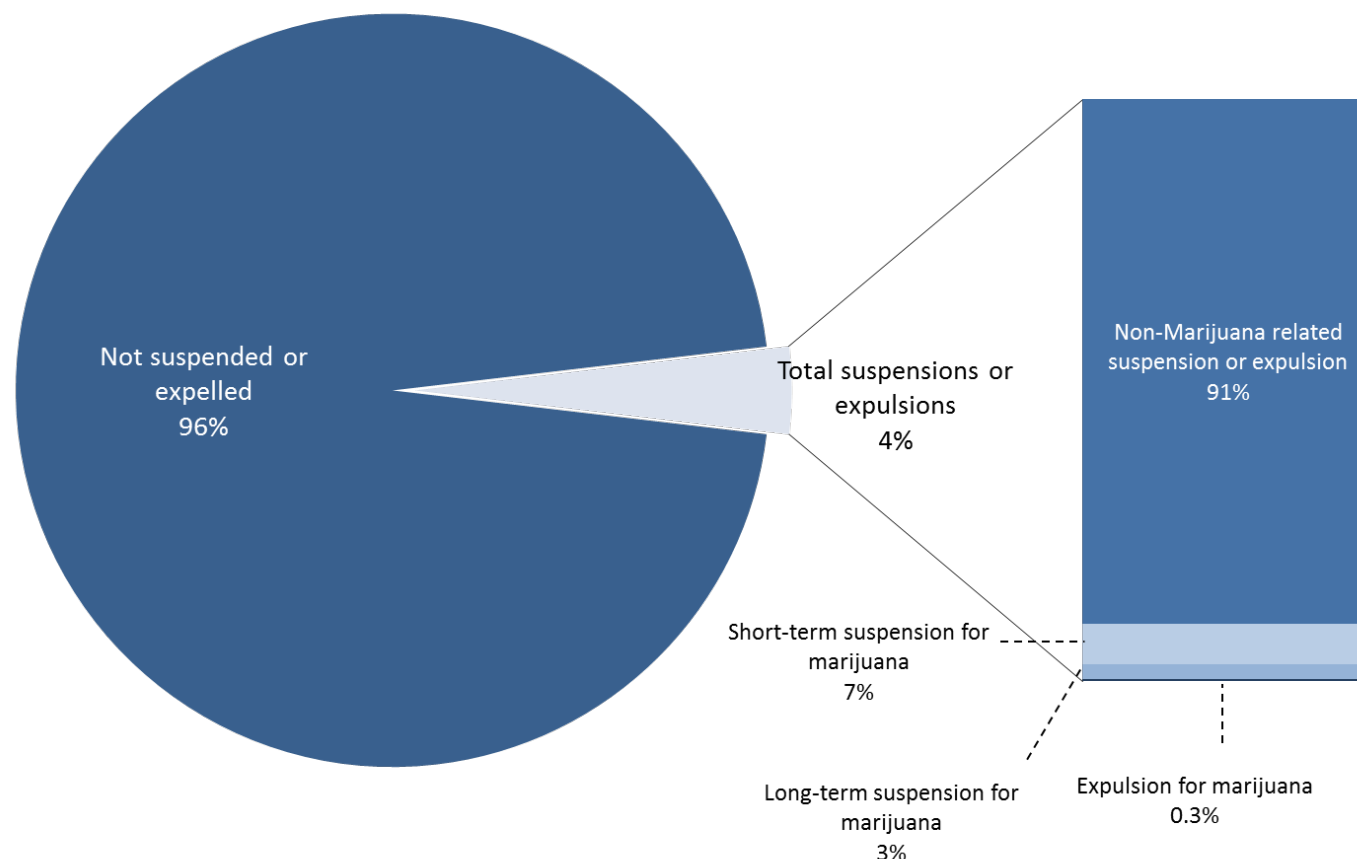
Source: Washington State Caseload Forecast Council, *Statistical Summary of Adult Felony Sentencing*



2.8 Suspensions or Expulsions from Schools – Students

For the 2015-16 school year, 4 percent of all students were suspended or expelled. Of those suspended or expelled, 9 percent (or 0.4 percent of all students) were suspended or expelled due to marijuana possession, with 7 percent of those suspended or expelled receiving a short-term suspension (10 or fewer consecutive days), 3 percent receiving a long-term suspension (more than 10 consecutive days) and 0.3 percent being expelled.

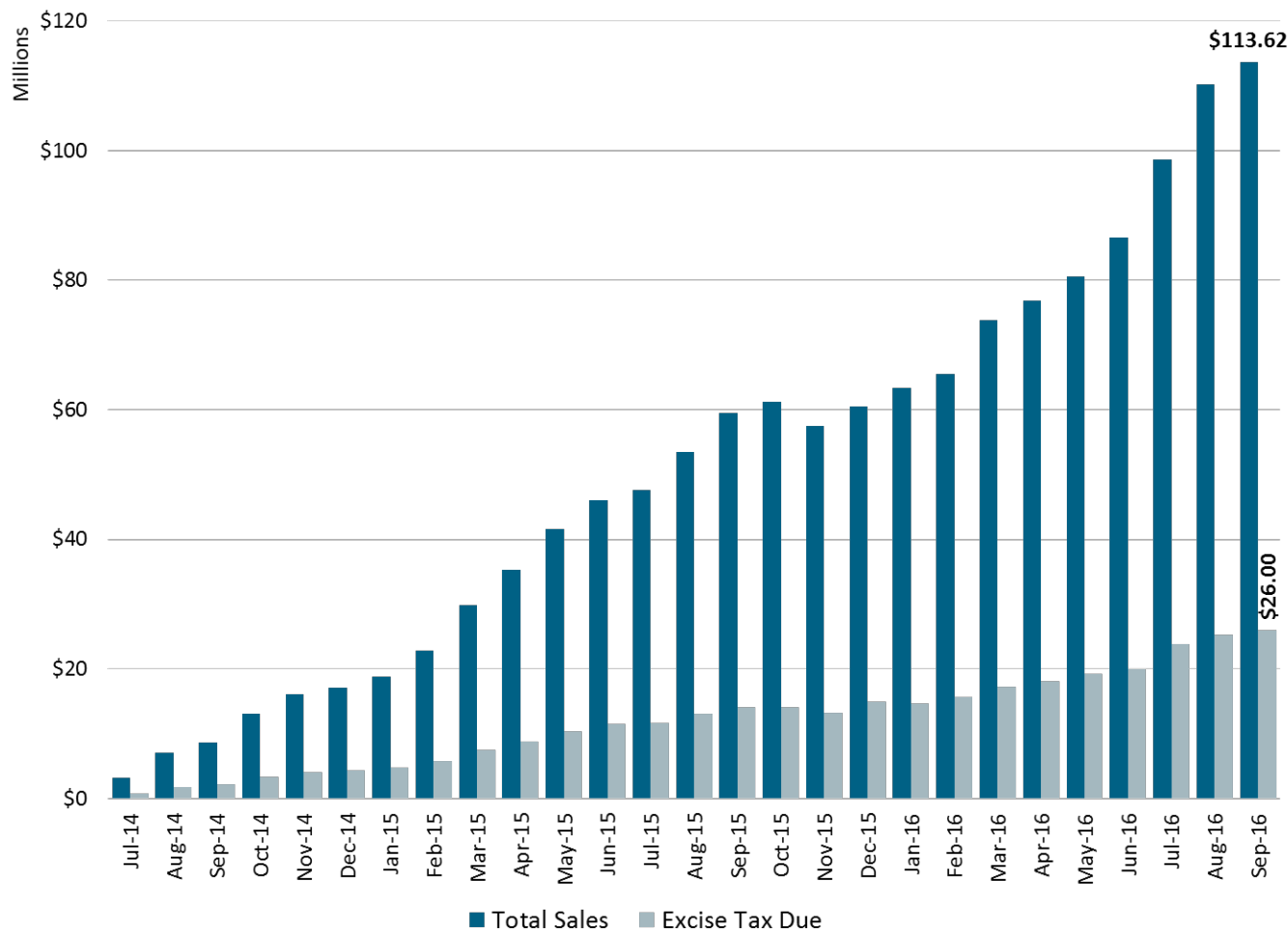
Source: Office of Superintendent of Public Instruction



3.1 Recreational Marijuana Revenues with 25 Percent Excise Tax

Sales increased by an average of 69 percent per month during the first three months of legalization. They then increased by 20 percent per month for the next eight months, October 2014 to May 2015. Since then, sales have been increasing by six percent per month. In September, 2016, sales had reached \$114 million with excise taxes reaching \$26 million.

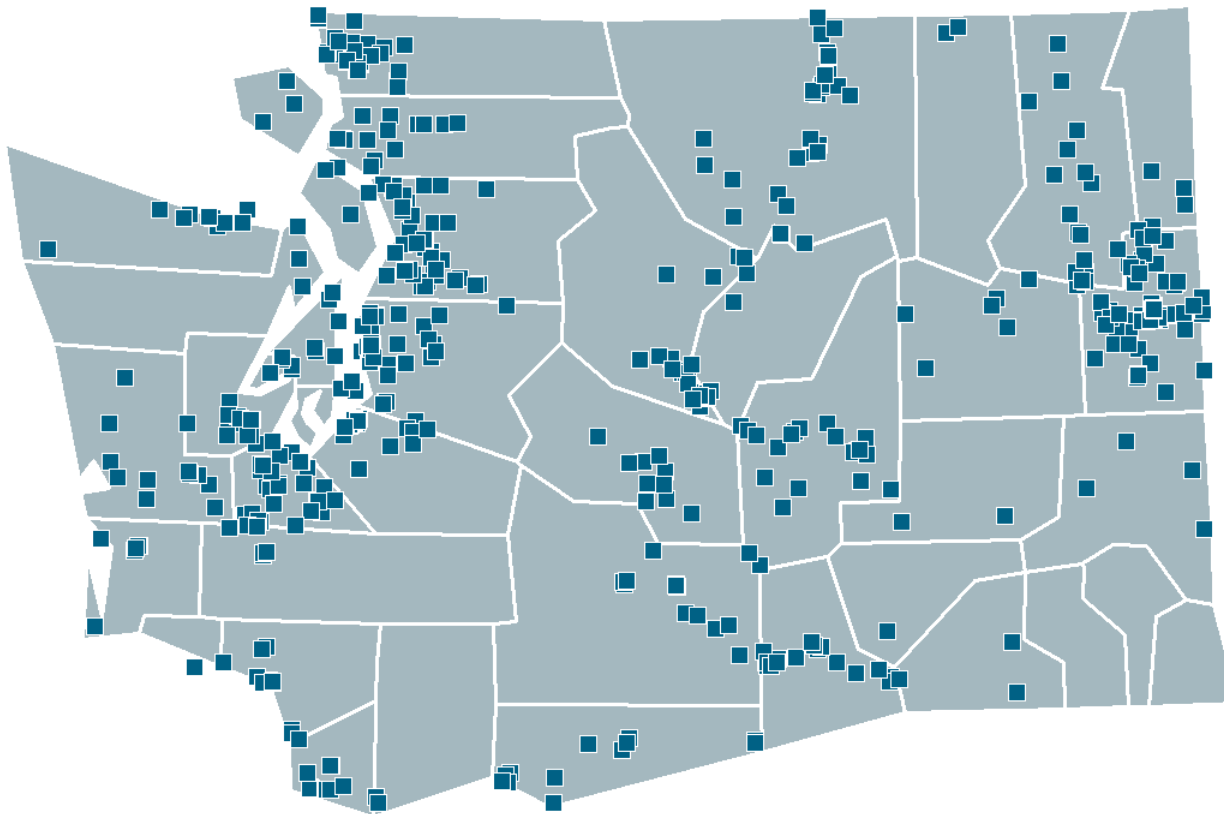
Source: Washington State Liquor and Cannabis Board



4.1a Producers/Processors – Locations

The 745 active licensed producers' (for January 2017) are spread throughout the state. Producers are active in all but three counties: Columbia, Garfield and Asotin. In general, producers also act as processors.

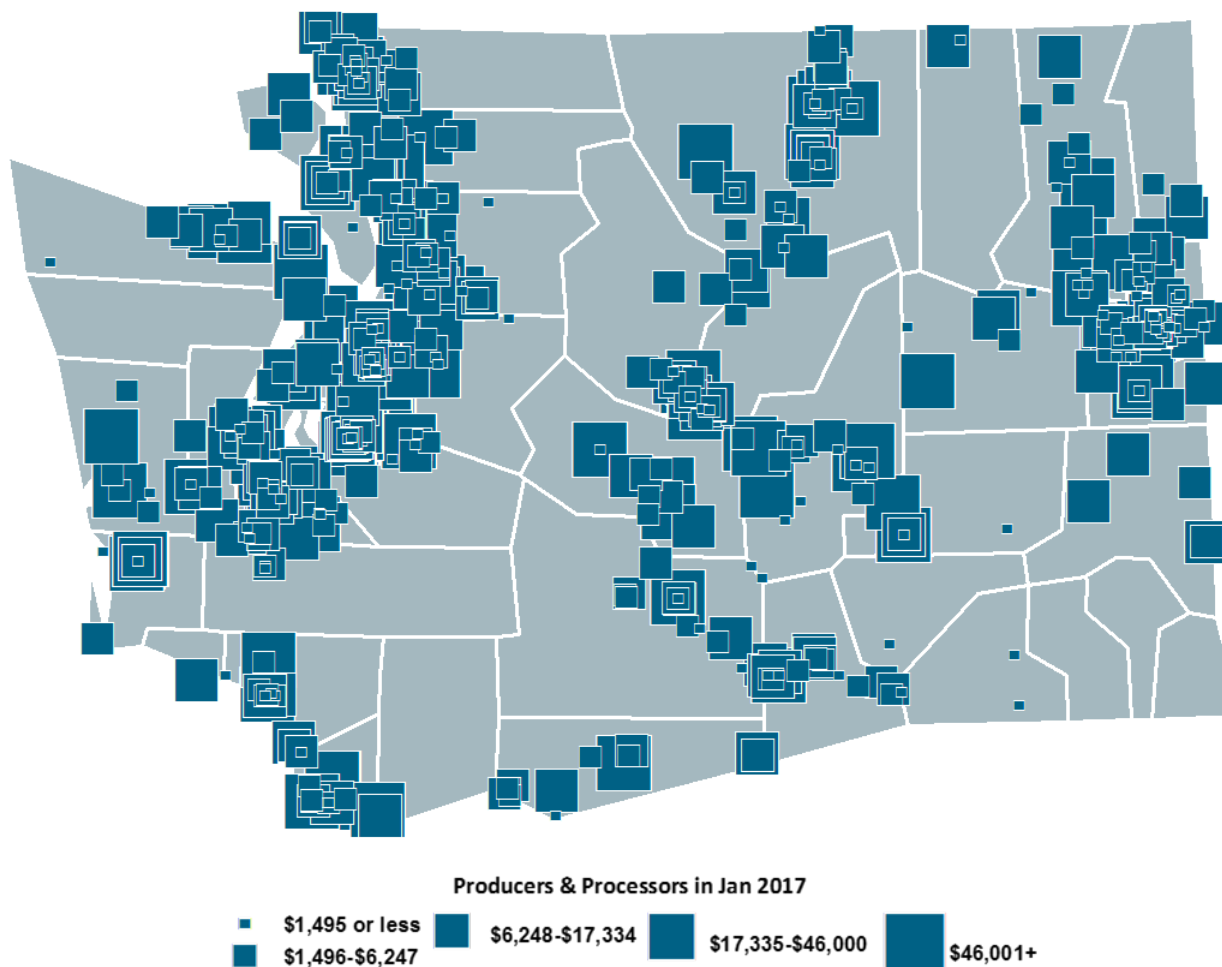
Source: Washington State Liquor and Cannabis Board



4.1b Producers/Processors – Volumes

Volumes of sales by producers/processors (for January 2017) suggest that large-volume producers are not limited to any specific geographic areas but instead are spread throughout the state.

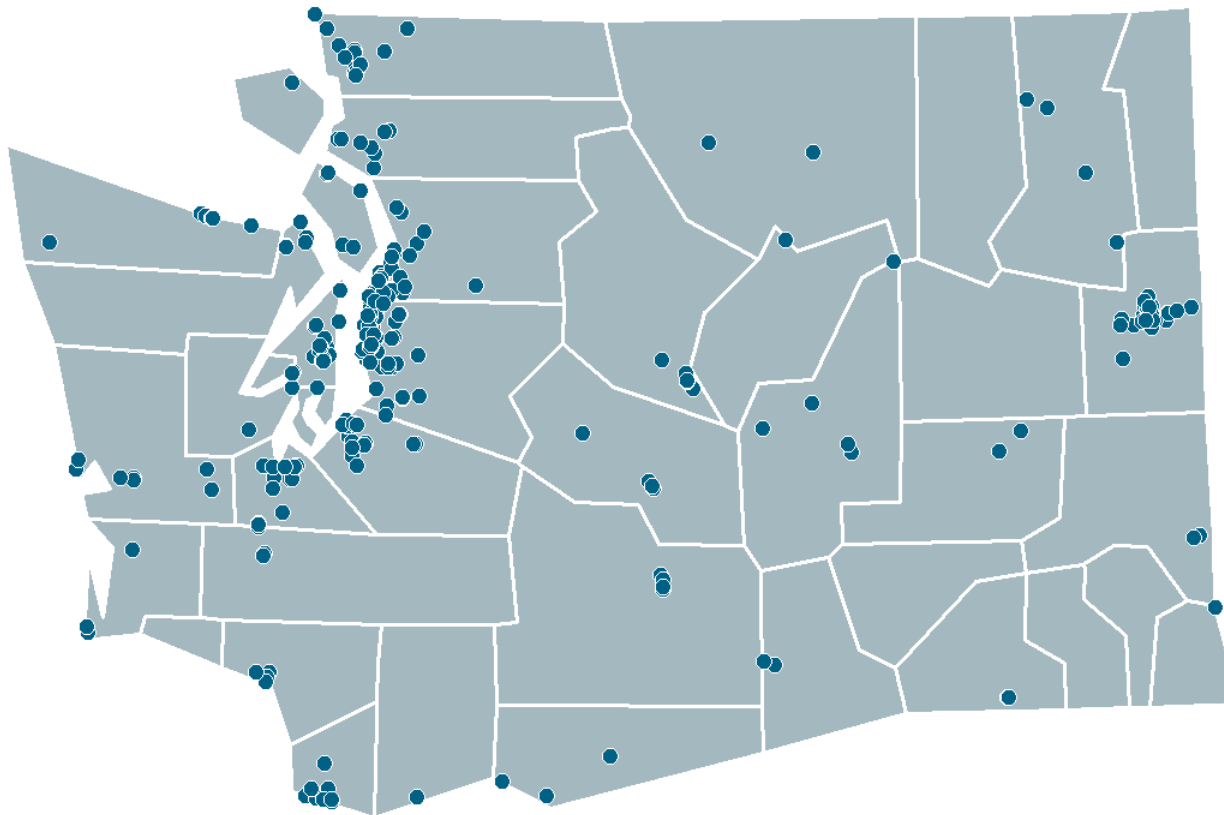
Source: Washington State Liquor and Cannabis Board



4.2a Retailers – Locations

The 310 active licensed recreational marijuana retailers' locations (in January 2017) suggest that most are located in urban and city environs. Active retailers are in all but six counties: Columbia, Franklin, Garfield, Lincoln, Pend Oreille and Wahkiakum.

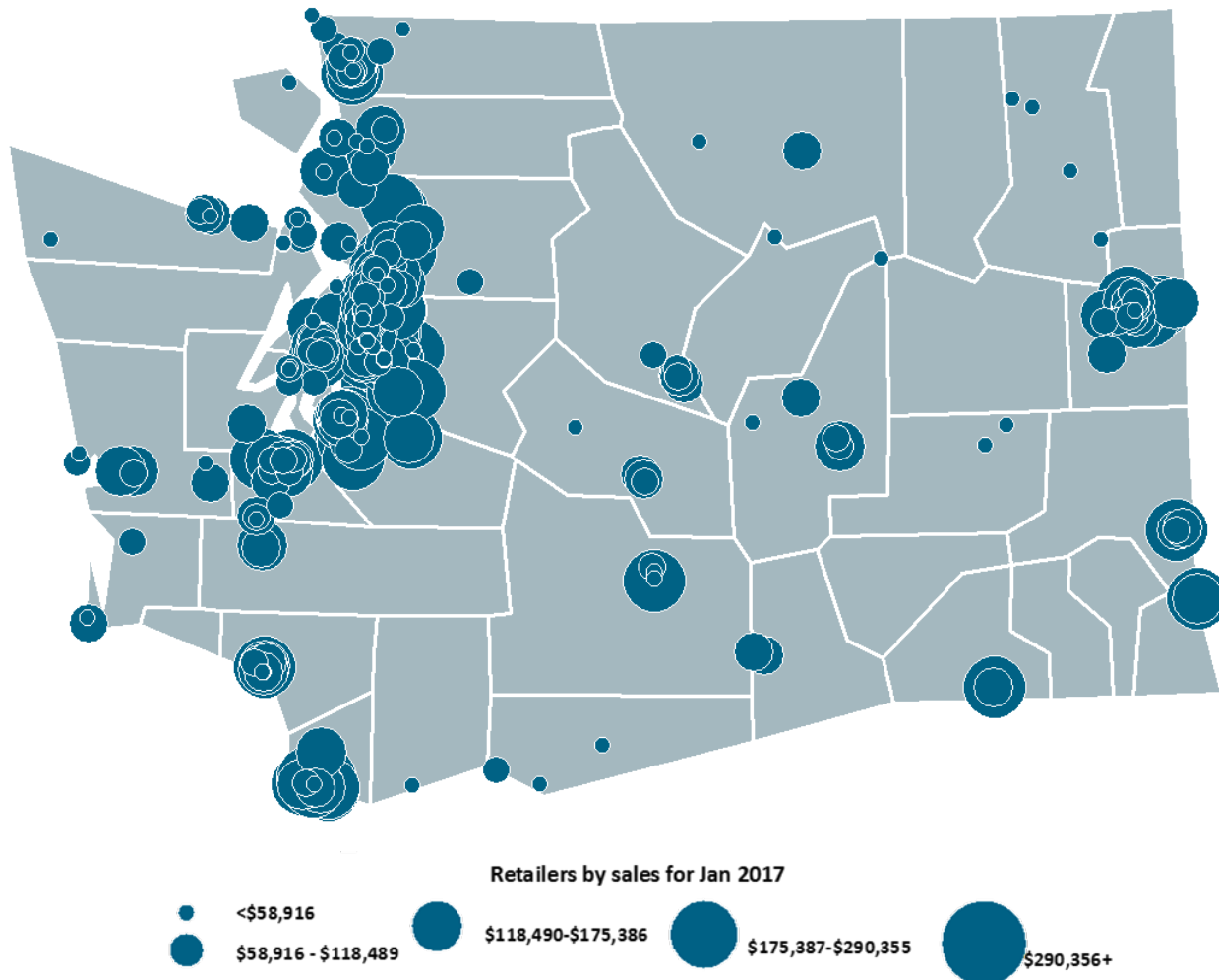
Source: Washington State Liquor and Cannabis Board



4.2b Retailers – Volumes

Retail sale volumes for recreational marijuana also generally suggest that large sales occur in more urban areas, with seemingly notable exceptions in Benton and Whitman counties.

Source: Washington State Liquor and Cannabis Board



Retail sales of recreational marijuana sold per 1,000 persons living within the county where the sales occurred (for January 2017) are mapped below. Of the six counties with the highest per capita sales, three (Spokane, Whitman and Asotin) are on the Idaho state border. No sales occurred in Columbia, Franklin, Garfield, Lincoln, Pend Oreille and Wahkiakum counties.

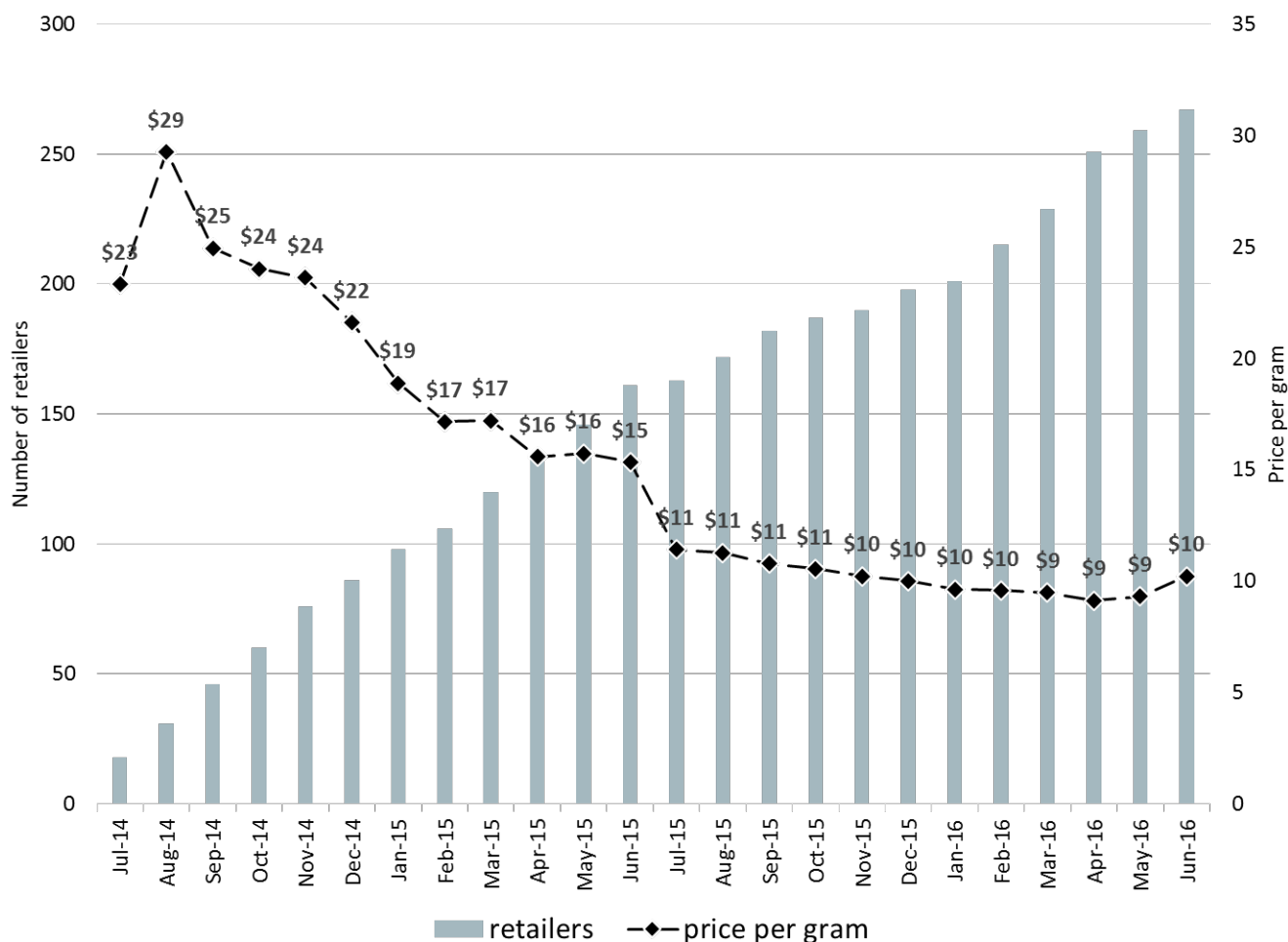
The map displays the average annual salary for each state in the United States. The data is as follows:

| State | Average Annual Salary |
|----------------------|-----------------------|
| Alaska | \$9,877.25 |
| Alabama | \$3,070.19 |
| Arizona | \$8,881.08 |
| Arkansas | \$11,890.31 |
| California | \$10,908.46 |
| Colorado | \$8,915.63 |
| Connecticut | \$11,666.28 |
| Delaware | \$11,310.08 |
| District of Columbia | \$11,149.14 |
| Florida | \$9,846.03 |
| Georgia | \$4,629.25 |
| Hawaii | \$7,623.28 |
| Idaho | \$8,064.16 |
| Illinois | \$8,674.18 |
| Indiana | \$8,804.52 |
| Iowa | \$7,884.41 |
| Kansas | \$7,884.41 |
| Kentucky | \$9,783.43 |
| Louisiana | \$1,767.61 |
| Maine | \$9,531.33 |
| Maryland | \$11,310.08 |
| Massachusetts | \$11,149.14 |
| Michigan | \$8,881.08 |
| Minnesota | \$8,064.16 |
| Mississippi | \$3,070.19 |
| Missouri | \$8,674.18 |
| Montana | \$9,877.25 |
| Nebraska | \$8,064.16 |
| Nevada | \$8,881.08 |
| New Hampshire | \$11,149.14 |
| New Jersey | \$11,310.08 |
| New Mexico | \$8,064.16 |
| New York | \$11,310.08 |
| North Carolina | \$7,884.41 |
| North Dakota | \$9,877.25 |
| Ohio | \$8,674.18 |
| Oklahoma | \$3,070.19 |
| Oregon | \$8,881.08 |
| Pennsylvania | \$11,310.08 |
| Rhode Island | \$11,149.14 |
| South Carolina | \$3,070.19 |
| South Dakota | \$9,877.25 |
| Tennessee | \$7,884.41 |
| Texas | \$8,674.18 |
| Utah | \$8,064.16 |
| Vermont | \$11,149.14 |
| Virginia | \$7,884.41 |
| Washington | \$10,908.46 |
| West Virginia | \$3,070.19 |
| Wisconsin | \$8,064.16 |
| Wyoming | \$9,877.25 |

4.4 Retailers and Price per Gram

The average price per gram dropped from a high of \$29 in August 2014 to a low of \$9 in April 2016, and has risen slightly since to \$10 in June, 2016, when, concurrently, the number of retailers reached its all time high of 267.

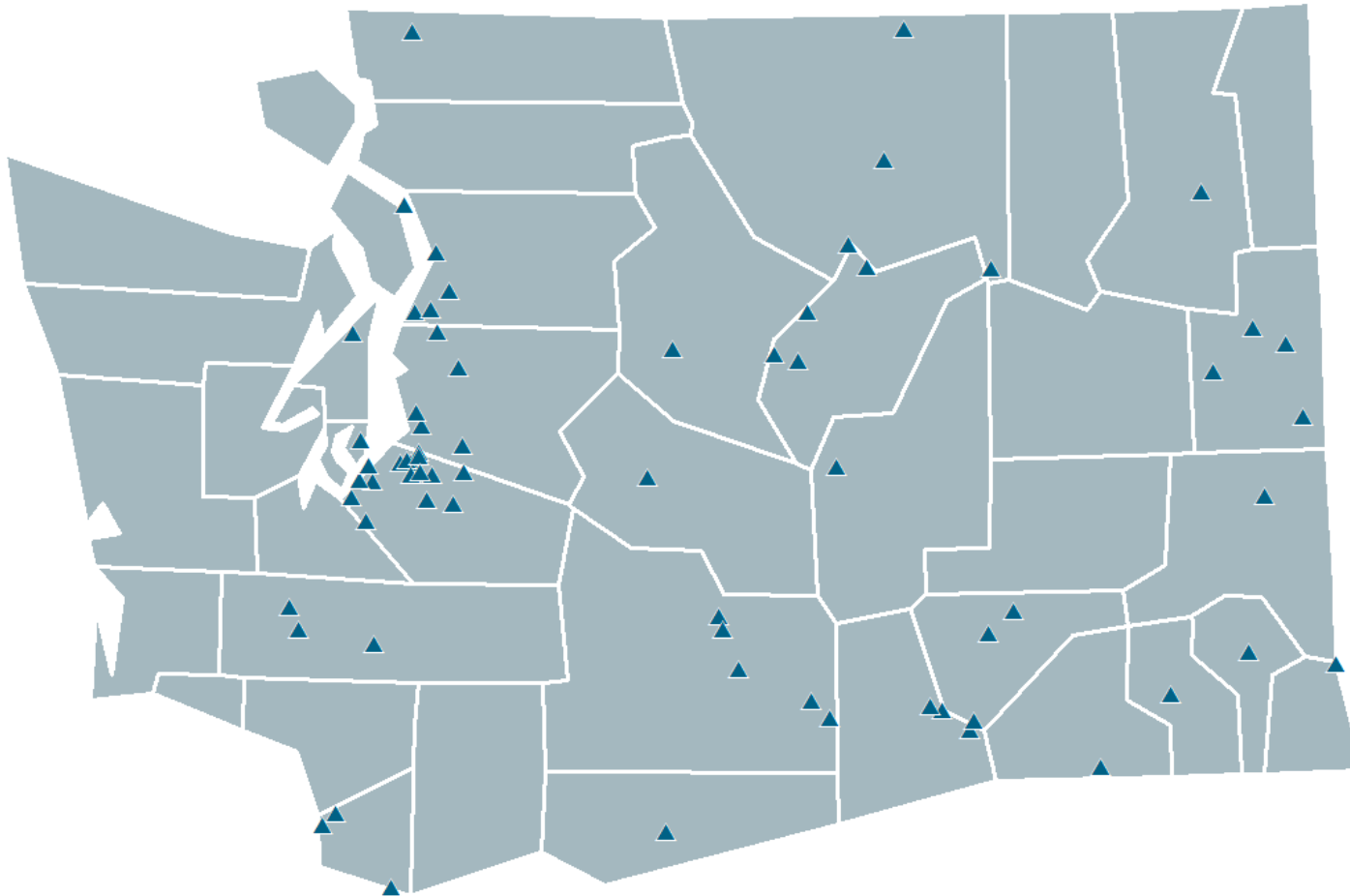
Source: Washington State Liquor and Cannabis Board



5.1 Cities with Prohibitions or Moratoria on Retail Sales

As of January 2017, 67 cities have prohibitions or moratoria on retail sales of recreational marijuana.

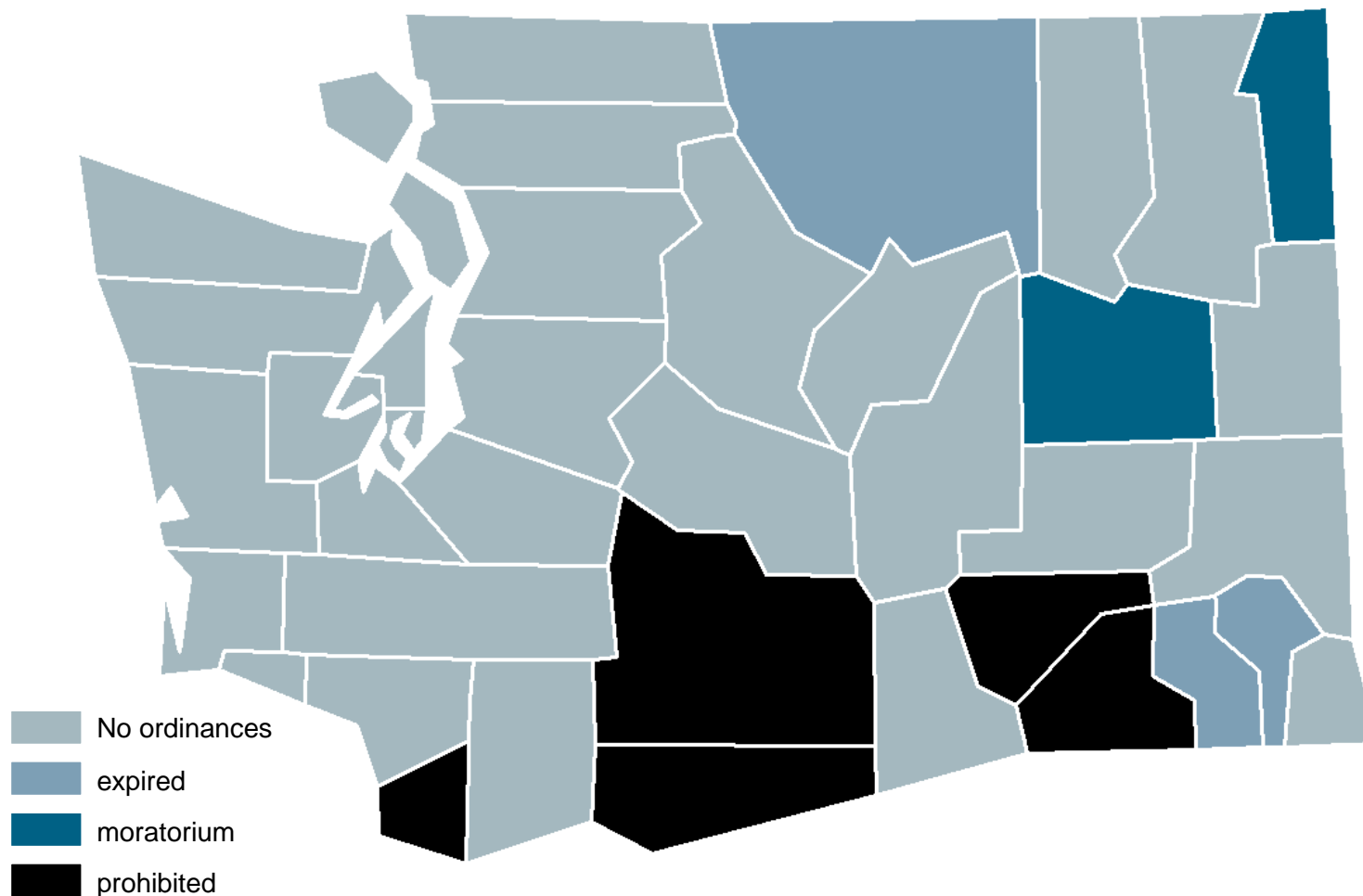
Source: Municipal Research and Services Center



5.2 Counties with Prohibitions or Moratoria on Retail Sales

As of January 2017, two counties have moratoria on the sale of recreational marijuana in their unincorporated regions and five have prohibitions; moratoria in three counties recently expired.

Source: Municipal Research and Services Center



**Office of Financial Management
Forecasting and Research Division**

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Economic, Revenue and Labor Forecasts

Jim Schmidt, Senior Forecasting and Research Manager
Economic, Revenue and Labor Forecasts, and Higher Education



Colorado 2005 – 2017 Results

| Currently Used Marijuana (also called grass, pot, or weed, one or more times during the 30 days before the survey) Colorado, High School Youth Risk Behavior Survey | | | | | |
|---|-------------|--|---------------------------|---------------------------|---------------------------|
| Grade | Year | 2005 | 2009 | 2011 | 2017 |
| Total | | 22.7 (16.9–29.7) 1,478 [†] | 24.8 (20.4–29.7) 1,459 | 22.0 (19.6–24.5) 1,481 | 19.6 (16.1–23.6) 1,368 |
| 9th | | 12.9 (9.5–17.2) 515 | 18.0 (12.9–24.4) 447 | 12.7 (8.9–17.7) 411 | 8.6 (4.6–15.5) 376 |
| 10th | | 21.5 (15.1–29.6) 470 | 25.6 (17.9–35.4) 366 | 20.5 (16.0–25.9) 363 | 19.9 (15.1–25.9) 406 |
| 11th | | 24.0 (19.2–29.5) 301 | 26.5 (20.2–33.9) 391 | 23.9 (18.8–29.8) 376 | 25.4 (20.4–31.1) 292 |
| 12th | | 35.4 (20.7–53.5) 181 | 31.1 (23.1–40.4) 248 | 31.2 (25.8–37.2) 295 | 25.4 (19.9–31.7) 288 |

Footnotes

| | |
|---|--|
| † | Percentage, confidence interval, cell size |
|---|--|

<https://nccd.cdc.gov/YouthOnline/App/Results.aspx?>

TT=L&OUT=0&SID=HS&QID=H48&LID=CO&YID=YY&LID2=&YID2=&COL=G&ROW1=N&ROW2=N&HT=QQ&LCT=LL&FS=S1&FR=R1
&FG=G1&FA=A1&FI=I1&FP=P1&FSL=S1&FRL=R1&FGL=G1&FAL=A1&FIL=I1&FPL=P1&PV=&TST=False&C1=&C2=&QP=G&DP=1&VA=
CI&CS=Y&SYID=2005&EYID=2017&SC=DEFAULT&SO=ASC

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Pã @ã @ã Á! [{ Á@ÁMetroWest Adolescent Health Survey

*Informing data-driven school and community
health policies and practices*

2016 | A YffcK YghF Y[]cb High School Report

GRADES 9-12



METROWEST
HEALTH
FOUNDATION

Funded by:
MetroWest Health Foundation

EDC Learning
transforms
lives.

Submitted by:
Education Development Center, Inc.

Spring 2017

Highlights from the 2016 MetroWest Adolescent Health Survey

MetroWest Region High School Report

Background

The 2016 MetroWest Adolescent Health Survey (MWHAS) marks the beginning of a new decade in monitoring trends in adolescent health behaviors to advance school and community prevention efforts. Since 2006, the MWAHS has been administered every other year in communities served by the MetroWest Health Foundation, with the goal of supporting data-driven improvements in health programs and policies at the local and regional levels. In 2016 alone, over 40,000 students were surveyed in 26 school districts, providing important adolescent health data on key areas of concern and emerging health issues. Over the course of the initiative, the MWHAS data has greatly enhanced school and community efforts to prevent harm from risky behaviors and improve adolescent physical, mental, and emotional wellbeing.

Methodology

The 2016 high school MWAHS was administered to a census of students in grades 9 through 12 in all 26 high schools in the MetroWest region served by the MetroWest Health Foundation. As in previous survey waves, local procedures were followed to inform parents/guardians of the survey and give them the choice to opt out their child(ren). Students were also informed that their participation was voluntary and that no names or other identifying information were being collected. Data collection at each school was guided by a protocol that protected the privacy of students' responses.

In total, 24,385 students in grades 9 through 12 completed the 2016 survey, representing 89% of the youth in all 26 high schools. The data allow for an examination of behavioral trends across six time points from 2006 to 2016. This report summarizes current youth behaviors on key health indicators in the areas of substance use, violence, bullying, mental health, sexual behavior, and physical activity. Current data from 2016 is provided by gender and grade, and trends over the six waves of the MWAHS are highlighted.

Key Findings: Substance Use

Cigarette Smoking

Cigarette smoking among MetroWest high school youth has dropped to one-third the level it was in 2006. The percentage of youth who smoked a whole cigarette in their lifetime decreased steadily from 35% in 2006 to 17% in 2014, and declined further to 13% in 2016.

- » Current smoking (in the past 30 days) has also decreased to one-third the 2006 levels, dropping from 15% in 2006 to 5% in 2016.
- » Smoking continues to decline among both females and males. For example, current smoking decreased from 13% in 2006 to 3% in 2016 among females, and from 16% to 6% among males.
- » As in prior years, more males than females are smoking cigarettes. More males than females have tried smoking in their lifetime (16% vs. 11%), and in the past 30 days (6% vs. 3%).
- » Despite substantial declines in smoking in the MetroWest region, youth continue to experiment with cigarettes during the high school years. From 9th to 12th grade, lifetime smoking triples from 7% to 21%. By 12th grade, one in five youth (21%) have smoked a whole cigarette, and 8% have smoked in the past 30 days.
- » Current cigarette smoking among MetroWest youth (5%) continues to be lower than in Massachusetts (8%)¹ and the United States (11%).² The regional decline in lifetime and current cigarette smoking is consistent with state and national trends.

Electronic Cigarettes

More than one in five MetroWest high school youth (28%) have tried an electronic cigarette or other electronic vapor product. Use of electronic cigarettes is more than double the use of conventional cigarettes.

- » Lifetime electronic cigarette use in 2016 (28%) is lower than in 2014 (31%), when data on electronic cigarettes was first collected on the MWAHS. There are slight decreases among both females and males. Data from future years will show whether this is indicative of a downward trend. (Data in this section refers to use of electronic cigarettes or other electronic vapor products.)
- » 15% of high school youth have used an electronic cigarette in the past 30 days, down from 18% in 2014.
- » Consistent with conventional cigarette smoking, males are more likely than females to smoke electronic cigarettes. For example, 18% of males and 11% of females have recently smoked an electronic cigarette.
- » Experimentation with electronic cigarettes increases during high school. Lifetime use increases from 17% in 9th grade to 38% in 12th grade, and nearly one in five 12th grade students (19%) have used electronic cigarettes in the past 30 days.
- » Fewer than half of students (48%) perceive that using electronic cigarettes is of moderate or great risk. Females and younger students are more likely to perceive greater harm in using electronic cigarettes than males and older students.
- » Lifetime electronic cigarette use in MetroWest (28%) is markedly lower than in Massachusetts and the nation (both 45%).

Alcohol Use

Since 2006, drinking among MetroWest high school students has decreased steadily. Lifetime drinking decreased from 67% in 2006 to 54% in 2014, and further declined to 52% in 2016. Current drinking and binge drinking have also declined substantially over the course of the MWAHS.

- » Reports of current drinking (in the past 30 days) decreased by one-quarter over the course of the MWAHS, from 42% in 2006 to 32% in 2016. The majority of the decline in current drinking took place in the earlier years of the MWAHS (2006 to 2012); from 2012 to 2016, current drinking declined only slightly from 33% to 32%.
- » Binge drinking also decreased from 25% in 2006 to 17% in 2016. (Binge drinking in 2016 was defined as consuming four or more drinks in a row for females, or five or more drinks in a row for males on one or more occasions during the past 30 days. This does not take into account body weight or other factors that influence intoxication levels.)
- » Both females and males are drinking less. For example, lifetime drinking declined at every time point from 2006 to 2016 for both females (67% to 53%) and males (66% to 50%).
- » Current drinking declined steadily for males (from 42% in 2006 to 30% in 2016); for females, current drinking declined from 42% in 2006 to 34% in 2010 and has been in the range of 33-35% over the three most recent surveys.
- » Consistent with 2014 data, females report slightly higher levels of lifetime alcohol use (53% vs. 50%) and current alcohol use (33% vs. 30%) than males.
- » Binge drinking is reported by 17% of both females and males.
- » Despite substantial declines in drinking in the MetroWest region, a concerning number of youth continue to initiate alcohol use in high school: Current drinking more than triples from 14% in 9th grade to 48% in 12th grade, and binge drinking increases from 5% to 29%.
- » Lifetime alcohol use among MetroWest youth (52%) continues to be lower than in Massachusetts (61%) and the United States (63%), but current drinking is similar across all three. The decline in current drinking in MetroWest (from 42% in 2006 to 32% in 2016) is consistent with decreases in the state (from 48% in 2005 to 34% in 2015)¹ and the U.S. (from 43% to 33%).²

Marijuana Use

Marijuana use in MetroWest is lower in recent years. After remaining similar from 2006 to 2010 at 33-35%, lifetime marijuana use declined steadily to 28% over the last three surveys.

- » Current (past 30 day) marijuana use increased from 20% in 2006 to 24% in 2010, but then decreased in recent surveys to 19% in 2016.
- » The recent decrease in marijuana use is driven by a decrease among males, narrowing the gap in use between males and females. For example, current marijuana use among males decreased from a high of 30% in 2010 to 21% in 2016, whereas current use among females has remained similar at 17-18% since 2006.
- » Initiation of marijuana use quadruples from 11% in 9th grade to 46% in 12th grade. Nearly one in three 12th grade students (31%) have used marijuana in the past 30 days.
- » Two out of three high school students (66%) report that it is fairly or very easy to obtain marijuana.
- » Marijuana use continues to be lower in MetroWest than in the state and the nation: 28% of MetroWest youth have used marijuana in their lifetime, compared with 41% in Massachusetts¹ and 39% in the U.S.² Data from MetroWest, Massachusetts, and the U.S. all show slight declines in lifetime use over recent surveys.

Prescription Drug Misuse

Fewer MetroWest high school students are misusing prescription drugs. Lifetime reports were similar from 2006-2010 at 10-11% and then decreased over the last three surveys to 6% in 2016.

- » Current (past 30 day) misuse of prescription drugs also declined steadily, from 6% in 2008 to 3% in 2016. (Misuse of prescription drugs is defined as use without a doctor's prescription.)
- » Similar declines in prescription drug misuse were reported among both females and males over the past three surveys.
- » As in prior years, more males than females report lifetime (7% vs. 5%) and current (4% vs. 2%) prescription drug misuse.
- » Prescription drug misuse increases during the high school years. By 12th grade, one in ten youth (10%) youth have misused prescription drugs in their lifetime, and 5% have done so in the past 30 days.
- » In 2016, 5% of youth reported misuse of prescription stimulants, and 3% reported lifetime misuse of prescription opioids. (2016 was the first year the MWAHS asked about misuse of these specific types of prescription drugs.)
- » Lifetime misuse of prescription drugs is substantially lower in MetroWest (6%) compared with Massachusetts (11%)¹ and the nation (17%).²

Key Findings: Violence

Physical fighting, including fighting on school property, declined by nearly half since 2006. From 2006 to 2014, overall reports of fighting in the past 12 months decreased from 26% to 14% and remained at this level in 2016. Weapon carrying over the six surveys has not changed substantially.

Physical Fighting

- » Reports of physical fighting on school property in the past 12 months decreased steadily from 9% in 2006 to 4% in 2016.
- » Fighting is reported by three times as many males as females, but there have been substantial reductions in fighting among both genders. From 2006 to 2014, overall reports of fighting decreased from 36% to 20% among males, and from 16% to 7% among females.
- » Reports of fighting are more common among younger youth, decreasing from 16% in 9th grade to 11% in 12th grade. Reports of fighting on school property also decrease slightly during the high school years.
- » Physical fighting in MetroWest (14%) continues to be lower than in the state (19%)¹ and nation (23%),² though reports have declined in the region, state, and nation in recent years.

Weapon Carrying

- » Reports of weapon carrying in the past 30 days have been in the range of 7-8% since 2006, and reports of weapon carrying on school property have declined very gradually from 3% to 2% over the past six surveys.
- » This slight decrease in weapons at school are due to lower reports among males: Reports decreased from 5% in 2006 to 3% in 2016 among males and remained steady at 1% among females.
- » While reports of weapon carrying have changed little overall, reports of being threatened or injured with a weapon in the past 12 months declined from 9% in 2006 to 6% in 2014 and remained at that level in 2016. Weapons-related threats and injuries on school property declined gradually from 5% to 3%.
- » Males continue to report much higher levels of weapon carrying than females (12% vs. 3%), as well as higher levels of weapons-related threats and injuries (7% vs. 4%).
- » Reports of weapon carrying are slightly higher among older youth, but reports of weapons-related threats and injuries are similar across the high school years.
- » Weapon carrying among MetroWest youth (8%) is much lower than in the state (13%)¹ and nation (16%).² The small decline in weapon carrying in MetroWest is consistent with state and national trends.

Key Findings: Bullying and Cyberbullying

School bullying has declined markedly over the last three surveys. Reports of bullying on school property in the past 12 months decreased from a high of 28% in 2010 to 20% in 2014, and dropped further to 17% in 2016, the lowest level since the MWAHS began. Cyberbullying has declined slightly in recent surveys, though levels are still higher than in early years of the MWAHS.

Bullying

- » Reports of overall bullying victimization in the past 12 months also decreased, from a high of 32% in 2010 to 24% in 2014, lowering further to 21% in 2016.
- » Both females and males are reporting less bullying. For example, bullying on school property decreased from a high of 31% in 2010 to 19% in 2016 among females, and from a high of 25% in 2010 to 15% in 2016 among males. Similar gender trends exist for overall reports of bullying.
- » Despite declines for both females and males, females continue to report higher victimization at school (19% vs. 15%). However, males are more likely than females to report bullying someone else at school (8% vs. 5%).
- » Bullying victimization at school decreases by grade, from 21% in 9th grade to 14% in 12th grade.
- » Data on verbal harassment was collected for the first time in 2016. 14% of youth reported being verbally harassed in the past 12 months due to their race, ethnicity or culture, 6% due to their sexual orientation, 6% due to a disability, and 23% due to their appearance (height, weight, or how they look).
- » Many victims do not seek help from adults: Among students who were bullied at school, only 30% had talked to a school adult and fewer than half (46%) had talked to a parent/adult outside of school about being bullied.
- » 24% of youth have intervened as bystanders by trying to stop a student from bullying someone else at school in the past 12 months, and 8% have told an adult at school that someone else was being bullied.
- » School bullying in MetroWest (17%) is similar to state levels (16%)¹ and is slightly lower than national levels (20%).² While there are recent declines in both the region and the state, school bullying in the United States has not changed notably in the last decade.

Cyberbullying

- » Reports of cyberbullying victimization in the past 12 months increased steadily from 15% in 2006 to 22% in 2012, but declined slightly over the last two surveys to 19% in 2016.
- » While females reported substantially more cyberbullying victimization than males at all surveys, the recent decrease in cyberbullying is driven by a decrease among females, from a high of 28% in 2012 to 24% in 2016; whereas cyberbullying among males was similar at 14-15% during this time period.
- » 8% of youth report that they cyberbullied someone else in the past 12 months; reports are similar by gender.
- » Reports of cyberbullying victimization decrease by grade, from 23% in 9th grade to 16% in 12th grade.
- » 59% of youth spend three or more hours online on an average school day, and 29% spend three or more hours daily on social media. Many more females (37%) than males (20%) report this level of social media use.
- » Youth who spend three or more hours on social media daily are twice as likely to also report cyberbullying victimization (29% vs. 15%) and perpetration (12% vs. 6%) as youth who spend less time on social media.

- » Few cyberbullying victims seek help from adults: Among students who were cyberbullied in the past 12 months, only 16% had talked to an adult at school and 30% had talked to a parent or other adult outside of school about being cyberbullied. These numbers are lower than those reported by school bullying victims.
- » 12% of youth have tried to stop a student from cyberbullying someone else; more females than males (16% vs. 9%) reported intervening in this way.
- » Cyberbullying victimization in MetroWest (19%) remains higher than in the state (13%)¹ and nation (16%).²

Key Findings: Impaired and Distracted Driving

Consistent with trends in alcohol use, drinking and driving has declined at every survey since 2006. Reports of driving after drinking in the past 30 days have decreased by two-thirds, from 19% in 2006 to 6% in 2016. Driving after using marijuana declined slightly since 2012 but is reported by more than twice as many high school drivers (14%) as drinking and driving (6%).

Impaired Driving

- » Reports of riding as a passenger in a car with a driver (adult or high school student) who had been drinking in the past 30 days decreased from 25% in 2006 to 17% in 2014, and declined further to 14% in 2016.
- » Consistent with the above finding, reports of riding in a car with a high school driver who had been drinking decreased from 10% in 2012 to 7% in 2016 (2012 was the first year this data was collected).
- » In 2016, 14% of 11th and 12th grade drivers reported driving after using marijuana in the past 30 days, and 15% of all high school students reported riding with someone who had been using marijuana. These numbers are down slightly from 2012 levels (17% and 18%, respectively), when this data was first collected.
- » Males are twice as likely as females to drive after using alcohol (8% vs. 4%) and marijuana (19% vs. 10%), but there is a smaller gender difference in reports of riding as a passenger with an impaired driver. For example, 7% of males and 6% of females rode with a high school student who had been drinking, and 16% of males and 13% of females rode with a high school student who had been using marijuana.
- » Reports of driving after using alcohol increase substantially from 11th grade (4%) to 12th grade (7%). Similarly, reports of driving after marijuana use also rise notably from 11th to 12th grade (from 11% to 18%).

Distracted Driving

- » In 2016, three out of ten youth (29%) rode in a car driven by a high school student who was texting or emailing while driving in the past 30 days. Reports increased from 29% in 2010, when this was first measured, to 33% in 2012, and then returned to 2010 levels over the two most recent surveys.
- » 36% of 11th and 12th grade students who drive reported driving while texting in the past 30 days. Reports decreased steadily from 44% in 2010 to 38% in 2014, and declined further to 36% in 2016.
- » Reports of texting while driving are similar among males and females, and more than double from 11th grade (23%) to 12th grade (50%).

Key Findings: Mental Health

Stress among MetroWest youth has continued to rise in recent years, but other mental health problems may be starting to decline. Reports of feeling very stressed in the past month were steady from 2006 to 2012 at 28-29% and increased over the last two surveys to 36% in 2016. In contrast, there are slight decreases over the last two years in depressive symptoms and self-injury.

Stress

- » Half of all females (49%) report feeling very stressed in the past 30 days, more than double the levels reported by males (22%).
- » The increase in stress over the last decade is driven by an increase among females. Reports of stress among females rose steadily from 35% in 2006 to 47% in 2014, and then further to 49% in 2016. Reports among males have been steady at 22% since 2014 and have not changed substantially since 2006.
- » As in previous surveys, reports of stress increase during the high school years, nearly doubling from 25% in 9th grade to 48% in 12th grade.
- » Stress related to school issues is most common, reported by two-thirds of youth (66%), followed by stress related to social issues (33%). Specifically, 68% of students are stressed often or very often about getting good grades in school, 62% are stressed about being able to finish all of their work and study enough, and 49% are worried about plans after high school. School-related stress is higher among females than males, and is highest in 11th and 12th grades.

Depressive Symptoms, Self-Injury, and Suicidality

- » There are small declines in reports of depressive symptoms and self-injury in recent surveys. From 2014 to 2016, depressive symptoms declined from a high of 22% to 18%, and self-injury declined from a high of 16% in 2012 to 13% in 2016. Future data will show if these recent differences are the beginning of downward trends.
- » The declines in depressive symptoms and self-injury are driven more by females than males. Over the last two surveys, depressive symptoms declined from 30% to 24% among females, and from 14% to 12% among males; self-injury declined from 23% to 18% among females and remained stable at 7% among males.
- » There has been little change in suicidal thoughts and behaviors in recent years. The proportion of students who seriously considered suicide in the past 12 months has been at 12-13% since 2010, slightly up from earlier reports in 2006 (10%), and the proportion of students who attempted suicide in the past 12 months has been steady at 4-5% since 2006.
- » Despite improvements in some mental health problems among females, reports are still substantially higher among females than males. For example, depressive symptoms are twice as high among females (24% vs. 12%), and suicidal ideation is also higher among females than males (15% vs. 9%).
- » Reports of self-injury and suicidal thoughts and behaviors are similar by grade, whereas there is a slight increase in depressive symptoms from 9th grade (16%) to 12th grade (19%).
- » 7% of youth have missed school on one or more of the past 30 days due to feeling sad or hopeless, or having thoughts about hurting themselves, with more females (10%) than males (4%) reporting this.

- » 17% of youth have talked to a parent/adult outside of school about feeling sad or hopeless, or having thoughts about hurting themselves in the past 12 months. 7% of youth have spoken to a teacher or other adult at school, and 9% have talked to a doctor, nurse, or health care provider.
- » Reports of depressive symptoms in 2016 are lower in MetroWest (18%) than in Massachusetts (27%) and the United States (30%). Similarly, fewer MetroWest youth report seriously considering suicide (12%) compared to Massachusetts youth (15%) and U.S. youth (18%).²

Key Findings: Sexual Behaviors

There has been a decline in sexual intercourse over the last three surveys. Reports of lifetime intercourse were steady at 28-29% through 2010, and then declined at each subsequent survey to a low of 22% in 2016. However, four in ten sexually active youth (38%) didn't use a condom the last time they had intercourse.

Sexual Intercourse and Sexting

- » The proportion of youth who reported that they are currently sexually active (had intercourse in the past 3 months) has also declined, from 23% in 2008 to 17% in 2016.
- » By 12th grade, 42% of youth have had sexual intercourse and one in three (33%) are currently sexually active.
- » Reports of condom use at last intercourse are slightly lower in 2016 (62%) compared with 2012-2014 levels (65-66%).
- » One in four sexually active youth (26%) used alcohol or drugs before they had intercourse the last time, down slightly from 2012-2014 reports of 28-29%. Reports are higher among males than females (31% vs. 20%).
- » The proportion of youth who have ever had intercourse continues to be markedly lower in MetroWest (22%) than in the state (36%)¹ and nation (41%); reports have also declined in the state and nation in recent surveys.²
- » Sexting (defined as sending or forwarding nude, sexually suggestive, or explicit photos or videos of someone you know using the Internet, cell phones or other electronic communications in the past 12 months) has been measured in MetroWest since 2010. There have been steady increases in reports of receiving a sext (from 25% in 2010 to 36% in 2016) and sending a sext of yourself (from 11% in 2012 to 18% in 2016), with females more likely to report sending a sext of themselves than males (21% vs. 15%).
- » Reports of sexting increase during the high school years, with one in four 12th grade youth (25%) reporting they sent a sext of themselves.

Key Findings: Physical Activity, Nutrition, Overweight/Obesity, and Sleep

Half of MetroWest high school youth (51%) exercise moderately on at least five days per week, up from 34% in 2006. Despite this increase, the proportion of youth who are overweight or obese has remained similar at 19-21% since 2006.

Physical Activity

- » There were substantial increases in reports of moderate exercise from 2006 to 2016 among both females (from 28% to 43%) and males (from 40% to 59%). (Moderate physical activity is defined as activity that increases your heart rate and makes you breathe hard for at least one hour on five or more of the past seven days.)
- » As in prior surveys, more males than females engage in both moderate (59% vs. 43%) and vigorous physical activity (74% vs. 63%). (Vigorous physical activity is defined as exercising for at least 20 minutes that makes you sweat and breathe hard on three or more of the past seven days.)
- » Students report less physical activity as they get older. For example, from 9th grade to 12th grade, reports of moderate physical activity decrease from 57% to 44%.
- » 39% of youth (37% of females and 41% of males) reported spending three or more hours a day on “screen time” that is not for school or homework. This may be an indicator of unhealthy sedentary behavior.
- » The proportion of students who exercised moderately on five or more days in the past week is higher in MetroWest (51%) compared with the state (45%),¹ and similar to national levels (49%).²

Nutrition

- » There has been a steady decline in reports of drinking one or more non-diet sodas per day in the week prior to the survey, from 24% in 2006 to 9% in 2016.
- » The proportion of youth who consume 5 or more servings of fruits and vegetables per day is higher in 2016 (16%) relative to reports from prior years, which ranged from 10-13%.
- » In 2016, 23% of youth consumed fried food and 4% consumed fast food at least once per day in the past week.
- » About half of high school youth (46%) in the MetroWest region ate breakfast every day in the past week, higher than in the state (35%)¹ and nation (36%).²

Overweight/Obesity

- » Although there have been improvements in physical activity and nutrition, overweight/obesity has not changed substantially since 2006. One in five (21%) of youth were overweight or obese in 2016; reports from prior years were in the range of 19-20%. (Reports of overweight/obesity are based on self-reported height and weight, which is used to calculate body mass index. Overweight/obesity is defined as being in the 85th percentile or above for body mass index by age and gender, based on reference data.)
- » Consistent with prior surveys, more males (24%) than females (18%) are overweight/obese.
- » Overweight/obesity is relatively similar throughout the high school years.
- » Fewer MetroWest youth are overweight/obese (21%) compared with the state (26%)¹ and the nation (30%).²

Sleep

- » Only 27% of high school youth sleep 8 or more hours on an average school night. This is down slightly from 2014 levels (29%), when this data was first collected.
- » Males are more likely to get this amount of sleep (31%) than females (22%), and reports are lower in 2016 than in 2014 among both genders.
- » The proportion of youth who sleep for 8 or more hours decreases by more than half during the high school years, from 38% in 9th grade to 18% in 12th grade.

Key Findings: Protective Factors

Three out of four MetroWest high school youth (75%) have an adult at school to talk to if they have a problem, and nine out of ten youth (91%) have a supportive adult outside of school. Three-quarters of youth also report high levels of school connectedness. Youth with these protective factors report lower levels of harmful behaviors including substance use, violence, bullying, and mental health problems.

Adult Support

- » Reports of having an adult at school to talk to about things that are important increased from 66% in 2006 to 71% in 2014, and further increased to 75% in 2016, with notable increases among both females and males.
- » Reports of adult support outside of school by parents or other adults have ranged from 88-91% since the MWAHS began, with reports of 91% in 2016. (This is defined as having at least one adult outside of school to talk to about things that are important.)
- » Adult support at school is high among both genders and increases during the high school years, from 69% in 9th grade to 82% in 12th grade. Reports of adult support outside of school are similar across genders and grades.
- » While most MetroWest youth report having adult support in their lives, youth without adult support are more likely to report a variety of risk behaviors. For example, youth without adult support at home are more likely to report current alcohol use (40% vs. 31%), current marijuana use (30% vs. 18%), depressive symptoms (39% vs. 16%) and having seriously considered suicide (31% vs. 10%).

School Attachment and Engagement

- » About three-quarters of youth report being engaged in and connected with their school, as indicated by their agreement with statements such as: “I feel like I am part of this school” (71%), “I am happy to be at this school” (69%), and “I feel safe in my school” (83%).
- » Reports of school attachment have been similar among MetroWest region high school youth since 2006.
- » While a majority of both males and females have high levels of school attachment, reports are slightly higher among males.
- » Reports of school attachment are similar across grade levels.
- » Youth with higher levels of school attachment are less likely to report harmful behaviors than those who report lower levels of school attachment, including substance use, fighting, bullying, and mental health problems.

Conclusions

Over six surveys and more than a decade, the MWAHS has continued to provide a basis for data-driven improvements in health programs and practices, both at the local and regional levels. Since 2006, each wave of the survey has identified areas of continued progress in the region, while also bringing attention to new or existing areas of concern.

For many of the behaviors covered on the survey, there have been substantial improvements over the past decade that have continued through the most recent 2016 survey:

- » Cigarette smoking in MetroWest is now at one-third the levels reported at the beginning of the MWAHS in 2006. There have been substantial declines in the state and nation as well, but MetroWest youth continue to smoke substantially less than youth in Massachusetts and the nation.
- » Alcohol use and drinking and driving have declined steadily, consistent with state and national trends. While alcohol is still the most commonly used substance by adolescents by far, much progress has been made over the last decade alongside local and regional initiatives aimed at reducing alcohol and other substance use and associated consequences.
- » School bullying has declined by more than one-third since it peaked in 2010. This may be related to several targeted bullying prevention and intervention efforts, including school-based programs to improve school climate and enhance social emotional learning, bullying prevention initiatives in several schools sponsored by the MetroWest Health Foundation, and increased awareness and action following the 2010 state anti-bullying legislation.
- » Related to the decline in school bullying, there are also fewer reports of fighting and weapons-related threats and injuries, both on and off school property.

The following areas show signs of progress in recent surveys:

- » Slightly fewer youth are using electronic cigarettes, but with data collected only in the two most recent surveys, it is too early to tell whether this decline is the beginning of a downward trend.
- » Marijuana use has continued to decline since 2010, along with declines in driving after using marijuana. While a majority of youth report that marijuana is easy to get, there does not appear to be a rise associated with the 2009 decriminalization, 2012 legalization of medical marijuana use, and the dialogue around the 2016 legalization of marijuana use for adults 21 and over in Massachusetts. The next survey will give an indication of how marijuana use among youth may be impacted once retail marijuana outlets open in the state.
- » Fewer youth are misusing prescription drugs in recent surveys. While concerns about the opioid epidemic are high, very few MetroWest youth report misusing prescription opioids.
- » Cyberbullying has declined over the last two surveys, though levels are still higher than when the MWAHS began. Despite cyberbullying prevention efforts that are often part of larger bullying prevention programs, there has not been the same progress in this area that has been achieved for school bullying.
- » Fewer youth are at risk of injury due to distracted driving that involves texting or emailing. Despite the pervasive use of smartphones among youth, some teen drivers are taking care to protect themselves and their passengers from the dangers of driving and texting.

- » Youth in MetroWest are less sexually active. While this represents substantial progress, more than a third of youth are still not using condoms to protect themselves against pregnancy and sexually transmitted diseases.

The area of adolescent mental health continues to demand attention:

- » Reports of stress among youth continue to climb, particularly among girls, with school-related stress being the most common cause of stress among MetroWest region high school youth. Despite this rise in stress, the 2016 survey data suggests slight improvements in depressive symptoms and self-injury, though it is too early to know if these trends will continue. In addition, there has not been any recent change in suicidal thoughts and behaviors. The contributors to adolescent mental health are multiple and complex, but there have been many positive efforts in communities across the region including: implementation of screening and prevention programming in schools, coordination of school and community mental health programs and services, and transition programs to support students returning from treatment to re-enter the school environment. Many such local efforts have been supported by the MetroWest Health Foundation's adolescent mental health grant program.

The 6th administration of the MWAHS shows substantial and meaningful progress in reducing harm among adolescents, particularly in the areas of substance use and related consequences, as well as school bullying. While many youth continue to report behaviors that may endanger their physical and emotional health, the MWAHS helps to ensure that efforts to address these risks are driven by local data, targeted to each communities' needs, and supported by regional prevention initiatives.

References

¹ Massachusetts Department of Elementary and Secondary Education and Massachusetts Department of Public Health (2016). Health and Risk Behaviors of Massachusetts Youth 2015. Available at: <http://www.mass.gov/eohhs/docs/dph/behavioral-risk/youth-health-risk-report-2015.pdf>. Accessed March 10, 2017.

² Centers for Disease Control and Prevention. 2015 Youth Risk Behavior Survey. Available at: <https://nccd.cdc.gov/youthonline/App/Default.aspx>. Accessed March 10, 2017.

High School Key Indicators

2006–2016 Trends
2016 Gender Patterns
2016 Grade Patterns

MetroWest Region High School Students (Grades 9-12)

2006-2016 Trends in Key Indicators

MetroWest Adolescent Health Survey

| | Year of Survey (%) | | | | | |
|--|--------------------|------------------|------------------|------------------|------------------|------------------|
| | 2006 (16,680) | 2008 (20,406) | 2010 (23,187) | 2012 (24,459) | 2014 (24,355) | 2016 (24,385) |
| SUBSTANCE USE | | | | | | |
| Lifetime cigarette smoking | 35.3 | 33.3 | 25.9 | 22.0 | 17.3 | 13.2 |
| Current cigarette smoking (past 30 days) | 14.7 | 13.9 | 12.1 | 9.1 | 6.2 | 4.7 |
| Lifetime alcohol use | 66.5 | 62.8 | 58.0 | 55.6 | 53.8 | 51.7 |
| Current alcohol use (past 30 days) | 42.2 | 39.1 | 34.7 | 33.4 | 32.9 | 31.5 |
| Binge drinking (past 30 days)* | 25.1 | 23.2 | 20.8 | 18.7 | 17.5 | 16.9 |
| Rode with driver who had been drinking (past 30 days) | 25.2 | 25.8 | 22.5 | 19.5 | 16.7 | 14.1 |
| Lifetime marijuana use | 33.2 | 33.4 | 34.6 | 32.3 | 30.4 | 27.8 |
| Current marijuana use (past 30 days) | 20.2 | 22.8 | 23.5 | 21.5 | 20.3 | 19.2 |
| Lifetime prescription drug misuse [†] | 11.0 | 10.1 | 10.1 | 8.8 | 7.3 | 5.8 |
| VIOLENCE | | | | | | |
| Physical fighting (past 12 months) | 26.0 | 23.9 | 21.7 | 16.8 | 14.1 | 13.6 |
| Physical fighting on school property (past 12 months) | 8.7 | 8.3 | 7.4 | 5.5 | 4.2 | 3.9 |
| Carried a weapon (past 30 days) | 8.2 | 7.3 | 7.3 | 6.8 | 6.6 | 7.6 |
| Carried a weapon on school property (past 30 days) | 3.3 | 3.1 | 3.0 | 2.5 | 2.0 | 1.9 |
| BULLYING VICTIMIZATION | | | | | | |
| Bullying victim (past 12 months) | 28.6 | 29.3 | 31.8 | 27.0 | 23.7 | 20.8 |
| Bullying victim on school property (past 12 months) | 25.5 | 25.9 | 28.2 | 22.9 | 20.0 | 17.1 |
| Cyberbullying victim (past 12 months) | 14.6 | 15.8 | 20.0 | 21.5 | 21.2 | 19.3 |
| MENTAL HEALTH | | | | | | |
| Life "very" stressful (past 30 days) | 27.9 | 27.9 | 28.3 | 28.9 | 34.9 | 35.8 |
| Depressive symptoms (past 12 months) | 20.1 | 20.3 | 19.1 | 19.7 | 22.0 | 18.1 |
| Self-injury (past 12 months) | 13.2 | 13.2 | 14.0 | 15.6 | 15.2 | 12.9 |
| Considered suicide (past 12 months) | 10.0 | 10.5 | 11.6 | 13.0 | 12.9 | 12.3 |
| Attempted suicide (past 12 months) | 4.1 | 4.1 | 4.0 | 4.7 | 4.5 | 4.0 |
| SEXUAL BEHAVIOR | | | | | | |
| Lifetime sexual intercourse | 28.9 | 29.4 | 28.3 | 26.6 | 24.3 | 21.9 |
| Currently sexually active (past 3 months) | 22.3 | 22.9 | 21.8 | 20.7 | 19.1 | 17.3 |
| Condom use at last intercourse (among sexually active youth) | 66.6 | 65.0 | 63.2 | 66.3 | 65.1 | 62.2 |
| PHYSICAL ACTIVITY AND BODY WEIGHT | | | | | | |
| Exercised for ≥60 minutes on 5 or more days/week | 33.7 | 33.2 | 45.3 | 48.8 | 47.3 | 50.6 |
| Overweight or obese [‡] | 19.9 | 19.3 | 19.3 | 19.2 | 20.3 | 21.0 |

* From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students.

In 2016, binge drinking was defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

† Without a doctor's prescription

‡ Students who were ≥85th percentile for body mass index by age and gender, based on reference data

MetroWest Region High School Students (Grades 9-12)

2016 Gender Patterns for Key Indicators

MetroWest Adolescent Health Survey

| | Gender (%) | | Total (%) |
|--|-------------------|-------------|------------------|
| | Female | Male | |
| | (12,154) | (11,958) | (24,385) |
| SUBSTANCE USE | | | |
| Lifetime cigarette smoking | 10.8 | 15.5 | 13.2 |
| Current cigarette smoking (past 30 days) | 3.1 | 6.1 | 4.7 |
| Lifetime alcohol use | 53.3 | 50.0 | 51.7 |
| Current alcohol use (past 30 days) | 33.2 | 29.6 | 31.5 |
| Binge drinking (past 30 days)* | 17.0 | 16.7 | 16.9 |
| Rode with driver who had been drinking (past 30 days) | 14.1 | 13.9 | 14.1 |
| Lifetime marijuana use | 26.2 | 29.2 | 27.8 |
| Current marijuana use (past 30 days) | 17.1 | 21.2 | 19.2 |
| Lifetime prescription drug misuse [†] | 4.9 | 6.6 | 5.8 |
| VIOLENCE | | | |
| Physical fighting (past 12 months) | 7.1 | 20.0 | 13.6 |
| Physical fighting on school property (past 12 months) | 1.6 | 6.1 | 3.9 |
| Carried a weapon (past 30 days) | 3.2 | 11.8 | 7.6 |
| Carried a weapon on school property (past 30 days) | 0.9 | 2.8 | 1.9 |
| BULLYING VICTIMIZATION | | | |
| Bullying victim (past 12 months) | 24.7 | 16.6 | 20.8 |
| Bullying victim on school property (past 12 months) | 19.3 | 14.6 | 17.1 |
| Cyberbullying victim (past 12 months) | 24.0 | 14.3 | 19.3 |
| MENTAL HEALTH | | | |
| Life "very" stressful (past 30 days) | 49.4 | 21.6 | 35.8 |
| Depressive symptoms (past 12 months) | 24.1 | 11.5 | 18.1 |
| Self-injury (past 12 months) | 18.3 | 7.1 | 12.9 |
| Considered suicide (past 12 months) | 15.1 | 9.0 | 12.3 |
| Attempted suicide (past 12 months) | 4.7 | 3.1 | 4.0 |
| SEXUAL BEHAVIOR | | | |
| Lifetime sexual intercourse | 20.4 | 23.2 | 21.9 |
| Currently sexually active (past 3 months) | 16.5 | 17.9 | 17.3 |
| Condom use at last intercourse (among sexually active youth) | 60.4 | 64.4 | 62.2 |
| PHYSICAL ACTIVITY AND BODY WEIGHT | | | |
| Exercised for ≥60 minutes on 5 or more days/week | 42.6 | 59.2 | 50.6 |
| Overweight or obese [‡] | 18.0 | 24.3 | 21.0 |

* From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students. In 2016, binge drinking was defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

† Without a doctor's prescription

‡ Students who were ≥85th percentile for body mass index by age and gender, based on reference data

MetroWest Region High School Students (Grades 9-12)

2016 Grade Patterns for Key Indicators

MetroWest Adolescent Health Survey

| | Grade (%) | | | | Total (%) |
|--|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------|
| | 9 th (6,491) | 10 th (6,198) | 11 th (6,145) | 12 th (5,383) | (24,385) |
| SUBSTANCE USE | | | | | |
| Lifetime cigarette smoking | 7.0 | 9.8 | 16.0 | 21.0 | 13.2 |
| Current cigarette smoking (past 30 days) | 2.1 | 3.5 | 5.8 | 7.5 | 4.7 |
| Lifetime alcohol use | 32.8 | 47.5 | 60.5 | 69.3 | 51.7 |
| Current alcohol use (past 30 days) | 14.3 | 28.4 | 38.2 | 48.0 | 31.5 |
| Binge drinking (past 30 days)* | 5.1 | 13.9 | 21.6 | 29.2 | 16.9 |
| Rode with driver who had been drinking (past 30 days) | 12.5 | 13.6 | 14.8 | 15.4 | 14.1 |
| Lifetime marijuana use | 10.6 | 21.6 | 36.2 | 45.9 | 27.8 |
| Current marijuana use (past 30 days) | 6.7 | 15.2 | 26.0 | 30.9 | 19.2 |
| Lifetime prescription drug misuse [†] | 2.7 | 3.9 | 7.6 | 9.6 | 5.8 |
| VIOLENCE | | | | | |
| Physical fighting (past 12 months) | 16.2 | 14.2 | 12.0 | 11.2 | 13.6 |
| Physical fighting on school property (past 12 months) | 4.7 | 3.8 | 3.3 | 3.4 | 3.9 |
| Carried a weapon (past 30 days) | 6.9 | 7.7 | 7.6 | 7.8 | 7.6 |
| Carried a weapon on school property (past 30 days) | 1.0 | 1.7 | 2.4 | 2.5 | 1.9 |
| BULLYING VICTIMIZATION | | | | | |
| Bullying victim (past 12 months) | 24.5 | 21.0 | 19.6 | 17.1 | 20.8 |
| Bullying victim on school property (past 12 months) | 20.7 | 17.6 | 15.6 | 13.7 | 17.1 |
| Cyberbullying victim (past 12 months) | 22.8 | 19.6 | 18.0 | 15.8 | 19.3 |
| MENTAL HEALTH | | | | | |
| Life "very" stressful (past 30 days) | 25.0 | 32.6 | 39.7 | 47.9 | 35.8 |
| Depressive symptoms (past 12 months) | 15.8 | 18.2 | 19.4 | 19.2 | 18.1 |
| Self-injury (past 12 months) | 13.0 | 13.6 | 12.2 | 12.7 | 12.9 |
| Considered suicide (past 12 months) | 11.5 | 12.6 | 12.5 | 12.5 | 12.3 |
| Attempted suicide (past 12 months) | 4.2 | 4.1 | 3.7 | 3.8 | 4.0 |
| SEXUAL BEHAVIOR | | | | | |
| Lifetime sexual intercourse | 7.6 | 14.0 | 27.6 | 41.5 | 21.9 |
| Currently sexually active (past 3 months) | 5.6 | 10.8 | 22.5 | 32.8 | 17.3 |
| Condom use at last intercourse (among sexually active youth) | 65.3 | 63.6 | 64.3 | 59.5 | 62.2 |
| PHYSICAL ACTIVITY AND BODY WEIGHT | | | | | |
| Exercised for ≥60 minutes on 5 or more days/week | 57.2 | 53.1 | 47.4 | 43.7 | 50.6 |
| Overweight or obese [‡] | 20.8 | 21.5 | 20.2 | 21.5 | 21.0 |

* From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students.
In 2016, binge drinking was defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

† Without a doctor's prescription

‡ Students who were ≥85th percentile for body mass index by age and gender, based on reference data

This report was prepared by
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