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## The Consumption and Consequences of Alcohol, Tobacco, and Drugs in Porter County: A Local Epidemiological Profile

### Community Research and Service Center Valparaiso University

June, 2014

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### **COMMUNITY RESEARCH & SERVICE CENTER**

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#### Introduction

This is the sixth Porter County Epidemiological Report. The first one was in 2008. Earlier versions of the report are available from the Community Research and Service Center and some of the previous reports are still online at the Porter County United Way web page. In response to comments made about previous reports, this one is a little bit different. Most of the very complex tables have been removed and simpler figures and graphs have been created for easier reading. While still lengthy, the current report is much briefer than in the past. There has been an effort to make the summary at the beginning of the report much more concise and easier to read.

There continue to be issues and cautions that need to be raised about the data used in this report. First, there are some concerns about the data that comes from the survey given to students in the  $6^{th} - 12^{th}$  grades entitled the Alcohol, Tobacco, and Other Drug (ATOD) Survey. First, as a precondition of getting cooperation from schools to get the survey data, it was promised that reports would not reveal results from individual school districts, but rather would be only for Porter County students. Thus no matter how many and what schools completed the ATOD survey, the report always referred to the data as being the data for Porter County. This creates a problem because not all of the school districts do the survey every year which has resulted in a substantial difference in the number of surveys reported each year. Table 1 presents the number of students included in the study for each year. As indicated, it ranges from a high of 10,260 in 2008 to a low of 6252 in 2009. This has made interpreting trends across time very difficult because of the far fewer number of students in some of the more recent years. In addition, there are seven school districts in Porter County and some are relatively urban/suburban while others are more suburban/rural. In most years there has not been a good mixture of urban and rural schools in all of the years that raises questions about how representative the sample of students is for each year. Interpretations of trends across time have been very problematic given the limitations of the data. As a result, there has been a reluctance to place a good deal of faith in trends across time. However, all the schools participated in the 2013 and the number of students is roughly equal to the number in 2008. In many instances, the data coming out of the 2013 survey confirms that the trends uncovered in previous years were "real" and not just a function of the number and types of students included in the survey. Still, it is important to be cautious in interpreting any trends, because even six years is not a long enough time to confirm major trends.

Secondly, as indicated in Table 2, there are a large number of nonuseable ATOD surveys. Nonuseable surveys are those that are determined to have substantial errors or omissions, or where students refuse to complete the survey. In 2008, there were only 6.1% and that figure almost doubled in 2011 to 11.6%, but has dropped to 9% in 2013. It is not clear if the nonuseable surveys were generated by persons more likely to use drugs, however, once again, this needs to be kept in mind as the data is interpreted.

In addition to issues with the ATOD surveys, there are similar issues with data on diagnoses for mental health. Porter-Starke Services, the major mental health provider in Porter County, changed the way they report data after 2009 which has made comparisons across time somewhat difficult. For this reason, only current data from 2011 - 2013 are used from this source.





Finally, the current report includes data from Porter Regional Hospital for the years 2011 -2013. There are up to ten separate diagnoses listed for each of the 31,000+ patients over the three year period. Some persons had only one diagnosis, others had several. In some instances the drug related diagnosis was the primary diagnosis – the first one listed – and in other cases it was a secondary diagnosis. In the use of the data in this report, all the diagnoses are treated the same whether they are primary or secondary. So when the report states that 818 people were diagnosed with an alcohol-related abuse disorder in a particular year, that includes whether it was the primary or secondary diagnosis. In addition, the number of diagnoses are treated separately. That is, a person may be diagnosed with multiple substance abuse issues, and each diagnosis would be counted separately.

# **Summary**

### **Risk and Protective Factors**

Studies have identified various risk and protective factors that can predict alcohol and drug use and other risky behaviors. A series of questions have been designed to measure a student's level of risk in each of these categories and subcategories. The following summarizes how Porter County students score on these measures. Percentages referred to in the following section indicate the percentage of students in that grade level at high-risk.

| Risk factor                                     | Status or Trend  |
|---|--|
| Laws and norms favorable to drug use            | $\frac{\text{Recent increase}}{2013 \text{ of } 38.2\% \text{ of } 10^{\text{th}} \text{ graders at-risk}}$  |
| Perceived availability of drugs                 | Decline of high-risk students from $2011 - 2012$ ,<br>but <u>increase</u> in % of high-risk students in 2013 |
| Academic failure                                | Mixed pattern with high in 2013 of 33.1% of 10 <sup>th</sup> graders at risk                                 |
| Low school commitment                           | <u>Very slight increase</u> across time with high in 2013 of 46.2% of $12^{\text{th}}$ graders at risk       |
| Family management                               | Decline in all grades across time with high in 2013 of 24.7% of 8 <sup>th</sup> graders at risk              |
| Family conflict                                 | Stable across time with high in 2013 of 52.6% of $8^{th}$ graders at risk                                    |
| Parental attitudes toward drug use              | Decline across time with high in 2013 of 36.1% of $12^{th}$ graders at risk                                  |
| Parental attitudes toward anti-social behavior  | Substantial decline across time with a high in 2013 of 42.4% of 12 <sup>th</sup> graders at risk             |
| Rebelliousness                                  | Decline over time in high-risk students except for sudden increase of $6^{th}$ graders in 2013               |
| Early initiation of drug use                    | Decline in all grades over time with a high in 2013 of 23.8% of 12 <sup>th</sup> graders at risk             |
| Attitudes favorable toward anti-social behavior | Decline in all grades over time with a high in 2013 of 31.7% in 12 <sup>th</sup> grade at risk               |
| Attitudes favorable toward drug use             | Slight decline over time in all grades with a high in 2013 of 36.7% of 12 <sup>th</sup> graders at risk      |

| Perceived risk of drugs                  | <u>Substantial increases</u> in all grades in high-risk students peaking at 58.2% of 12 <sup>th</sup> graders in 2013 |
|--|---|
| Anti-social peers                        | Decline in all grades over time in % of high-risk students, high in 2013 of 43.6% of 12 <sup>th</sup> graders         |
| Peer rewards for anti-social involvement | Increases/declines but relative stability across time, high in 2013 of 44.1% of 12 <sup>th</sup> graders at risk      |

## **Protective Factors**

| Community rewards for involvement             | <u>Increasing number at-risk</u> , in 2013 $2/3$ of $8^{th}$ , $10^{th}$ , & $12^{th}$ graders and $\frac{1}{2}$ of $6^{th}$ graders at risk. |
|---|---|
| Family opportunities for involvement          | <u>Declines in grades 6, 8, &amp; 12</u> and stable in $10^{\text{th}}$ , in 2013 over 1/3 at high risk                                       |
| Family rewards for involvement                | Slight decline with a high in 2013 of 41.5% of 10 <sup>th</sup> graders at high risk  |
| School opportunities for involvement          | <u>Mixed, recent increases</u> for $10^{\text{th}}$ , $12^{\text{th}}$ & $8^{\text{th}}$ graders, over time $6^{\text{th}}$ graders decline   |
| School Rewards for Involvement                | Substantial increase in high-risk students except $6^{th}$ grade, high in 2013 of 55.5% of $12^{th}$ graders                                  |
| Peer-individual interaction with social peers | <u>Mixed</u> , overall decline, increase in 2013 except 8 <sup>th</sup> grade, high in 2013 of 53.1% of 12 <sup>th</sup> graders              |

In all of the following categories, data on monthly, lifetime, comparison to state, and various risk factors come from the ATOD surveys

## Alcohol

| Reported monthly use of alcohol           | Significant declines over time, in 2013 high of 35% of 12 <sup>th</sup> graders                            |
|---|--|
| Reported lifetime use of alcohol          | Significant declines over time, in 2013 high of 64.2% of 12 <sup>th</sup> graders                          |
| Reported Binge drinking in past two weeks | Decline over time except for 6 <sup>th</sup> graders, in 2013<br>high of 23.6% of 12 <sup>th</sup> graders |
| Comparison to State: Lifetime Use         | Recent significant decline all grades equal to or below state averages (2011 - 2013)                       |
| Comparison to State: Monthly Use          | Recent decline all grades equal to or below state averages (2012 - 2013)                                   |

| Perception of no risk of occasional use of alcohol          | Significant decline in perception of <u>no risk</u> in all grades particularly in 2013                                    |
|---|---|
| Perception of great risk of occasional drinking             | Recent significant <u>increase in perception of great</u><br><u>risk</u>  |
| Perception of no risk weekly binge drinking                 | Mixed pattern over time, but <u>recent increase in</u><br>perception of no risk, but still low %                          |
| Perception of great-risk in binge drinking                  | Mixed pattern over time, but <u>recent decrease in</u><br>perception of great-risk, but still high %                      |
| Perception of peer approval of occasional drinking          | <u>Mixed perception</u> down for 10th & 12 <sup>th</sup> graders up slightly for 6 <sup>th</sup> graders                  |
| Perception of peer disapproval of occasional drinking       | Perception of disapproval is up for all grades  |
| Perception of strong peer approval of binge drinking        | Perception is down over time in all grades  |
| Perception of peer disapproval of binge drinking            | Perception has <u>mixed pattern over time</u> , but down in 2013  |
| Perceptions of parental approval: think it's very wrong     | Varies by grade level, but going up over time   |
| Perceived availability of alcohol                           | By high school most say easy to get   |
| Community consumption                                       | Generally exceeds state and national levels   |
| Students driving or riding with someone under the influence | Generally increasing over time, <u>almost half of <math>10^{\text{th}}</math></u><br>and $12^{\text{th}}$ graders say yes |
| Arrests for public intoxication                             | Substantial <u>decline in arrests</u> over time results from change in law  |
| Arrests for DUI   | Increase in arrests from 2009 – 2012, slight decline in 2013  |
| Referrals to adult probation                                | Continuous decline from 2008 - 2013   |
| Referrals to juvenile probation                             | Recent declines 2010 - 2013, 206 in 2013  |
| DUI arrest rates compared to state                          | Mixed over time, but most <u>recently higher than</u><br><u>state</u>   |

| Public Intoxication arrests compared to state    | Less than state   |
|--|---|
| Alcohol related collisions                       | Declining over time   |
| Liquor law violation arrests                     | Consistently higher than the state  |
| Percent alcohol related collisions               | Generally higher than the state   |
| Hospital diagnoses for Alcohol-Related disorders | Increasing over time, 867 in 2013   |
| More specific hospital alcohol disorders         | <u>Abuse is most</u> and declining, but dependent, intoxication, and withdrawal going up                  |
| Hospital diagnoses for alcohol by age            | Increases somewhat with age, but numerous across all age groups   |
| Hospital diagnoses for alcohol by sex            | Generally more males treated  |
| Mental health diagnoses for alcohol disorders    | Recent increase in 2013 (818)   |
| Mental health diagnoses for alcohol by sex       | More males treated  |
| Mental diagnoses for alcohol by age              | Increases somewhat with age but numerous across all age groups  |
| Tobacco  |   |
| Monthly use of cigarettes                        | Over time in most grades <u>use is declining</u> , in 2013<br>78.6% of 12 <sup>th</sup> graders not smoke |
| Lifetime use of cigarettes                       | Over time in all grades <u>use is declining</u> , in 2013 61.7% of 12 <sup>th</sup> graders not smoke     |
| Lifetime use of cigarettes compared to states    | Substantial recent decline (2012, 2013), most grades below state averages                                 |
| Monthly use of cigarettes compared to states     | Substantial recent decline (2012, 2013), most grades below state averages.                                |
| Perception of risk of cigarette smoking          | Perception of risk going up across time   |

| Perception of peer approval of cigarettes             | Increase in strong peer disapproval over time  |
|---|--|
| Perception of parental approval of smoking cigarettes | Most see parents as saying very wrong, in 2013<br>70.3% of 12 <sup>th</sup> graders  |
| Monthly use of cigars                                 | Mixed trends over time, but recent (2013) decline  |
| Lifetime use of cigars                                | Mixed trends over time, but <u>recent (2013) decline</u> , 2013 high of 13.1% of 12 <sup>th</sup> graders                  |
| Lifetime use of cigars compared to states             | $\frac{\text{Mixed tendencies and trends}}{32.6\% \text{ of } 12^{\text{th}} \text{ graders}}$                             |
| Monthly use of cigars compared to states              | Mixed trends, <u>but recent (2013) tendency to be</u><br>equal or less than state averages                                 |
| Monthly use of pipes                                  | Slight decline over time except for 12 <sup>th</sup> graders but they decline in 2013 (16.2%)                              |
| Lifetime use of pipes                                 | Relatively stable across time, high in 2013 of $33.6\%$ of $12^{th}$ graders   |
| Lifetime use of pipes compared to states              | $\frac{10^{\text{th}} - 12^{\text{th}} \text{ graders way above state averages}}{(2012-2013), \text{ other grades equal}}$ |
| Monthly use of pipes compared to states               | $\frac{10^{\text{th}} - 12^{\text{th}} \text{ graders way above state averages}}{(2012-2013), \text{ other grades equal}}$ |
| Monthly use of smokeless tobacco                      | Mixed trends, 2013 slight decline in most grades,<br>high in 2013 of 7.3% of 12 <sup>th</sup> graders                      |
| Lifetime use of smokeless tobacco                     | Mixed trends across time recent stability most grades, 2013 high of 19.1% of 12 <sup>th</sup> graders                      |
| Lifetime use of smokeless tobacco compared to states  | Since 2011 below state averages in most grades   |
| Monthly use of smokeless tobacco compared to states   | Since 2011 below state averages in most grades   |
| Porter Hospital tobacco use disorder diagnoses        | Going up over time, 7,333 diagnoses in 2013  |
| Marijuana   |  |
| Monthly Use of Marijuana                              | Overall tendency for <u>decline over time</u> , high in 2013 of 17.8% of 12 <sup>th</sup> graders                          |

| Lifetime Use of Marijuana  | Overall tendency for <u>decline over time</u> , high in 2013 of 37.6% of 12 <sup>th</sup> graders            |
|--|--|
| Comparison to State: Lifetime Use                                    | <u>Recent decline</u> tendency to be equal or below state averages   |
| Comparison to State: Monthly Use                                     | <u>Recent decline</u> tendency to be equal or below state<br>averages except 12 <sup>th</sup> grade 2012     |
| Perceived Risk of Marijuana Use:<br>Occasional Use                   | Slight increase over time in great-risk but sharp decline in most grades in 2013                             |
| Perceived Risk of Marijuana Use: Regular<br>Use                      | Slight increase over time in great-risk but sharp decline in most grades in 2013                             |
| Peer Approval and Disapproval:<br>Occasional Use                     | <u>Increased</u> strong peer disapproval in $6^{th}$ and $8^{th}$ , <u>stable</u> in $10^{th}$ and $12^{th}$ |
| Peer Approval and Disapproval: Regular<br>Use                        | <u>Increased strong peer disapproval</u> in $6^{th}$ and $8^{th}$ , <u>stable</u> in $10^{th}$ and $12^{th}$ |
| Perceptions of Parental Approval                                     | Increase in parents seeing as "very wrong" in all but 8 <sup>th</sup> grade, but declines with grade         |
| Access to marijuana  | Increase in perception of easy access across time<br>and with grade level                                    |
| Arrests for marijuana related offenses                               | Increased arrests over time, but slight decrease in 2013   |
| Arrests for marijuana by age   | Arrests decline with age, <u>18-25 year olds most</u><br>arrested by large amount                            |
| Positive tests adult probation                                       | Relatively stable across time, but recent (2013) increase  |
| Positive tests juvenile probation                                    | Decline over time, but slight increase in 2013, but substantial decline in synthetic                         |
| Marijuana related deaths   | Slight decrease in 2013 to 5   |
| Persons diagnosed with marijuana related disorder at hospital        | 102 in 2011, 132 in 2012, 104 in 2013.   |
| Persons diagnosed with marijuana related disorder at hospital by age | Largest group is 18-25 and then declines after that  |
| Mental health diagnoses for marijuana related disorders              | 482 in 2011, 475 in 2012, and 375 in 2013  |

Mental health diagnoses for marijuana related disorders by age

<u>Largest group is 18-25</u> and then declines after that

| <b>Opioids and Heroin</b>   |   |
|---|---|
| Monthly Use of Heroin   | Low use overall and recent decline (2013)   |
| Lifetime Use of Heroin  | Low use overall and recent decline (2013)   |
| Comparison to State: Lifetime Use   | <u>Currently (2013) equal</u> to state slight decline since 2011                          |
| Comparison to State: Monthly Use  | Currently (2013) equal to state slight decline since 2011                                 |
| Positive tests adult probation  | Substantial increases over time to 720 in 2013  |
| Positive tests juvenile probation   | <u>Very few</u> , 3 in 2012 and 4 in 2013   |
| Heroin related deaths   | Mixed but up since 2010 with 16 in 2013   |
| Mental Health diagnoses   | <u>Increase over time</u> with 418 in 2011, 452 in 2012, 633 in 2013                      |
| Mental Health diagnoses by age  | Up with age peaks in 26-34 age cohort and declines after that                             |
| Opioid related diagnoses Porter Regional<br>Hospital                                | 183 in 2011, 165 in 2012, and 185 in 2013   |
| Opioid related diagnoses Porter Regional<br>Hospital, abuse, dependence, accidental | Most cases abuse, followed by dependence, abuse declining over time, <u>dependence up</u> |
| Opioid related diagnoses Porter Regional<br>Hospital, by age                        | Use peeks with $36 - 35$ year olds and goes down after that                               |
| Cocaine   |   |
| Monthly Use of Cocaine  | Low use overall and recent decline, high in 2013, $1.7\%$ of $10^{th}$ graders.           |
| Lifetime Use of Cocaine   | Low use overall and recent decline, high in 2013, $5.1\%$ of $12^{th}$ graders            |

| Comparison to State: Lifetime Use                            | Decline since 2011 with only 12 <sup>th</sup> graders (2012) & 10 <sup>th</sup> grades exceeding state averages    |
|--|--|
| Comparison to State: Monthly Use                             | Overall decline, currently (2013) only above in 10 <sup>th</sup> grade, and equal in all others and in all of 2012 |
| Cocaine related deaths                                       | Decline since 2008 with only 2 in 2013   |
| Cocaine related arrests                                      | Overall down since 2006 with another drop in 2013 to 62  |
| Cocaine related arrests by age                               | <u>Very mixed with no clear pattern</u> over time, some tendency to go down with age                               |
| Positive tests adult probation                               | <u>High of 562 in 2006, stable since 2009</u> with 103 in 2013   |
| Positive tests juvenile probation                            | Down to 2 in 2013 from high of 13 in 2006  |
| Cocaine related diagnoses Porter Regional<br>Hospital        | 37 in 2011, 22 in 2012, <u>and 27 in 2013</u>  |
| Cocaine related diagnoses Porter Regional<br>Hospital by age | In most years use peaks in 26 – 35 year old age group  |
| Mental Health diagnoses for cocaine                          | 133 in 2011, 143 in 2012, and <u>104 in 2013</u>   |
| Mental Health diagnoses for cocaine by age                   | <u>Tendency to increase with age</u> , but high number in 26-34, 35-44, and still quite a few in 45-54 cohort      |

# **Amphetamines Only through 2011**

| Monthly Use of Amphetamines  | <u>Low use but small increase</u> over time, high in 2013 of 5% of $10^{\text{th}}$ graders        |
|--|--|
| Lifetime Use of Amphetamines                                       | Low use, early increase, but large drop recently, high in 2013 of 3.4% of 12 <sup>th</sup> graders |
| Comparison to State: Lifetime Use                                  | Most grades substantially higher than state and increasing over time                               |
| Comparison to State: Monthly Use                                   | Most grades since 2009 higher than state especially<br>in 2011                                     |
| Mental Health patients diagnosed with amphetamine related disorder | 40 in 2011, 43 in 2012, and 35 in 2013   |

| Mental Health patients diagnosed with amphetamine related disorder | <u>Use peeks in the 18-25 year</u> old age group and declines after that                |  |
|--|---|--|
| Amphetamine related diagnoses Porter<br>Regional Hospital          | 14 in 2011, 5 in 2012, and <u>6 in 2013</u>   |  |
| Amphetamine related diagnoses Porter<br>Regional Hospital by age   | Use peeks in the 18-25 year old age group and declines after that                       |  |
| Adult probation tests  | Recent increases from 39 in 2009 to 107 in 2012   |  |
| Methamphetamines   |   |  |
| Monthly Use of methamphetamines                                    | <u>Low use and recent decline</u> — high in 2013 of $1.1\%$ of $10^{\text{th}}$ graders |  |
| Lifetime Use of methamphetamines                                   | <u>Low use and recent decline</u> — high in 2013 of $1.7\%$ of $10^{\text{th}}$ graders |  |
| Comparison to State: Lifetime Use                                  | <u>Generally equal to state averages</u> – all grades equal<br>in 2013                  |  |
| Comparison to State: Monthly Use                                   | <u>Generally equal to state averages</u> – all grades equal<br>in 2012 - 2013.          |  |
| Juvenile Probation tests   | General increase recently, 10 in 2010 and 31 in 2013.                                   |  |
| Inhalants  |   |  |
| Monthly Use of inhalants   | Low use recent decline, high in 2013 of 1.4% 10 <sup>th</sup> graders.                  |  |
| Lifetime Use of inhalants  | Low use all grades recent decline, high in 2013 of $6.4\%$ of $12^{\text{th}}$ graders  |  |
| Comparison to State: Lifetime Use                                  | Exceeds state less recently, only exceeds in 2 grades in 2012 & 2013                    |  |
| Comparison to State: Monthly Use                                   | Exceeds state less recently, all equal in 2012 and 2013                                 |  |
| Mental Health diagnoses  | Only 3 in 2011, 6 in 2012, <u>and 5 in 2013</u>   |  |

| Ecstasy  |  |
|--|--|
| Monthly Use of ecstasy   | Low use recent decline in all except 10 <sup>th</sup> grade,<br>highest use in 2013, 3.1% of 12 <sup>th</sup> graders              |
| Lifetime Use of ecstasy  | Recent slight decline 10 <sup>th</sup> and 12 <sup>th</sup> grades<br>stability in others, 2013 high 8.1% 12 <sup>th</sup> graders |
| Comparison to State: Lifetime Use  | Exceeds state averages in most grades,<br>somewhat less recently   |
| Comparison to State: Monthly Use   | Exceeds state averages in many grades, but somewhat less recently, especially 2013   |
| Other Drugs  |  |
| Referrals for all drugs to Juvenile Probation                                | Decline since 2006, but slight increase in past 3 years to 262 in 2013   |
| Referrals for all drugs for adult Probation                                  | Relatively steady number over time, 421 in 2013  |
| Arrests for other drugs  | Slight increase over time, high of 726 in 2012,<br>dropped to 654 in 2013  |
| Arrests for other drugs by age   | $\frac{18-25 \text{ age group}}{\text{significant amount}}$ exceeds others in all years by a                                       |
| Mental health Diagnoses for Polysubstance abuse                              | 131 in 2011, 116 in 2012, and <u>170 in 2013</u>   |
| Mental health Diagnoses for Polysubstance abuse by age                       | Use peaks in both 18-25 and 26-34 year old age groups  |
| Other drugs Porter Regional Hospital   | 322 in 2011, 268 in 2012, and <u>330 in 2013</u>   |
| Other drugs Porter Regional Hospital, abuse,<br>dependence, withdrawal       | Most are abuse, followed by withdrawal, and then dependence abuse rising   |
| Other drugs Porter Regional Hospital by age                                  | Quite stable across age groups from 18-55+   |
| Diagnoses for "Accidental" Drug Use Porter<br>Regional Hospital              | 164 in 2011, 126 in 2012, <u>188 in 2013</u>   |
| Diagnoses for drug reaction in "therapeutic<br>use" Porter Regional Hospital | 313 in 2011, 287 in 2012, <u>293 in 2013</u>   |

Suicide attempts involving drugs Porter Regional Hospital

117 in 2011, 121 in 2012, <u>131 in 2013</u>

### **Over the Counter Drugs**

| Monthly Use of over the counter drugs  | Increasingly less use over time, high in 12 <sup>th</sup> grade in 2013, 2.8% reporting use        |
|--|--|
| Lifetime Use of over the counter drugs | Increasingly less use over time, high in 12 <sup>th</sup> grade in 2013, 10.2% reporting use       |
| Comparison to State: Lifetime Use      | Recent decline and all equal to state in 2012, only 12 <sup>th</sup> graders above average in 2013 |
| Comparison to State: Monthly Use       | Recent decline and all equal to state in 2012 and 2013   |
| Mental Health diagnoses                | Very low numbers no pattern  |

### **Ritalin and Adderall only 2008-2009**

| Monthly Use of Ritalin and Adderall  | <u>Mixed results</u> , high in 2008 by $10^{\text{th}}$ graders (6.5%) and $11^{\text{th}}$ graders in 2009 at 8.5%   |
|--------------------------------------|---|
| Lifetime Use of Ritalin and Adderall | Substantial use and increase, high of 21.3% of 11 <sup>th</sup> graders and 18.5% of 12 <sup>th</sup> graders in 2009 |
| Comparison to State: Lifetime Use    | <u>Generally exceeds state</u> , but exceeds state at greater levels more recently                                    |
| Comparison to State: Monthly Use     | <u>Generally exceeds state</u> , but much more recently   |

### **Sedatives/benzoids/other tranquilizers**

| Monthly Use of Tranquilizers                       | Relatively low use and recent decline with high in 2011 of 3.5% of 12 <sup>th</sup> graders |
|--|---|
| Lifetime Use of Tranquilizers                      | Relatively low use and recent decline with high in 2011 of 6.6% of 12 <sup>th</sup> graders |
| Comparison to State: Lifetime Use of Tranquilizers | Still exceed state in most grades, but recent decline.                                      |
| Comparison to State: Monthly Use of Tranquilizers  | Still exceed state in most grades, but recent decline.                                      |

| Mental health diagnoses                      | Recent decline, 114 in 2011, 118 in 2012, and 46 in 2013          |
|--|---|
| Porter County Adult Probation positive tests | <u>Increase over time</u> , 174 in 2010, 199 in 2011, 245 in 2013 |
| Juvenile Probation positive tests            | High of 22 in 2011, 1 in 2012, and <u>0 in 2013</u>               |

## **Prescription Drugs**

| Monthly Use of prescription drugs  | <u>Decline over time</u> , highest use in 2013, 7.7% of $12^{th}$ graders  |
|------------------------------------|--|
| Lifetime Use of prescription drugs | Decline over time except slight increase in 6 <sup>th</sup> grade, high in 2013, 17.5% of 12 <sup>th</sup> graders |
| Comparison to State: Lifetime Use  | Decline over time, exceed state averages in most grades 2010 & 2011, less in 2012 & 2013                           |
| Comparison to State: Monthly Use   | Decline over time, exceed in most grades in 2010 & 2011, exceed less in 2012 and 2013                              |

# **Prescription Pain Killers 2010-2011**

| Monthly Use of prescription drugs  | Slight increase over time, high in 2011 of 9.3% of 12 <sup>th</sup> graders                     |
|------------------------------------|---|
| Lifetime Use of prescription drugs | Relatively consistent over time, high of 21.4% of 11 <sup>th</sup> graders in 2011              |
| Comparison to State: Lifetime Use  | Exceed in almost all grades both years, highest total in any year, $7.3\%$ of $10^{th}$ graders |
| Comparison to State: Monthly Use   | Recent decline, exceed averages in almost all grades both years, much less above in 2011        |

# Hallucinogens 2010 - 2013

| Monthly use of hallucinogens      | $\frac{2013 \text{ increases in } 10^{\text{th}} \& 12^{\text{th}}}{\text{decline over time in } 6^{\text{th}} \& 8^{\text{th}}} \text{ grades}$ |
|-----------------------------------|--|
| Lifetime use of hallucinogens     | Slight decline $6^{th} \& 8^{th}$ grades, <u>2013 increases in</u><br><u>10<sup>th</sup> &amp; 12<sup>th</sup> graders</u>                       |
| Comparison to State: Lifetime Use | Decline over time 2011 to 2013, exceed only in 12 <sup>th</sup> grade in 2011 and 2012   |

| Comparison to State: Monthly Use                   | Decline over time, exceed in 2012 – 2013 only<br>in 11 <sup>th</sup> & 12 <sup>th</sup> grades in 2012 |
|--|--|
| Hospital hallucinogen diagnoses 2011-2013          | 7 in 2011, 5 in 2012, <u>6 in 2013</u>   |
| Mental health hallucinogen diagnoses 2011-<br>2013 | Decline over time, 29 in 2011, 16 in 2012, 3 in 2013   |

### Chapter 1

#### The Community: Risk and Protective Factors

Issues related to substance abuse take place within the framework of the community. The community provides the context in which these issues evolve, are debated, and efforts to solve them are made. An understanding of some of the basic characteristics of our community is an essential first step in beginning to deal collectively with our problems. Previous reports have included extensive information about the general characteristics of Porter County, including population, race and ethnicity, income level, poverty, educational attainment, housing, and mobility. Because this data does not change much from year to year, it is not included in this year's report. For information about this please examine last year's Epidemiological Report

#### **Risk Factors**

This section of the report will focus on the Communities that Care Risk and Protective Factors. In efforts to understand why youth may or may not become involved in problem behaviors in adolescence and beyond, studies have identified various risk factors that can predict alcohol and drug use and other risky behaviors. In the most recent ATOD surveys, questions related to the presence of various risk factors have been included. These risk factors are put into four categories and various subcategories:

#### **Community Domain**

Laws and norms favorable to drug use Perceived availability of cigarettes, alcohol, marijuana, and other drugs School Domain Academic failure Low school commitment **Family Domain** Family management Family conflict Parental attitudes toward drug use Parental attitudes favorable toward anti-social behavior **Peer Individual Domain** Rebelliousness Early initiation of drug use Attitudes favorable toward anti-social behavior Attitudes favorable toward drug use Perceived risk of drug use Anti-social peers Peer rewards for anti-social involvement

Studies have developed questions to measure a student's level of risk in each of these categories and subcategories. Students with high risk factors are more likely to engage in risky behavior including the illegal use of drugs and alcohol. Research has determined cut off points to indicate whether persons are at high or low risk for engaging in risky behavior depending on their responses to a series of questions.<sup>1</sup>

#### **Protective Factors**

While risk factors make it more likely that an individual will engage in risky behavior, protective factors make it less likely that they will engage in risky behavior. Questions also have been developed to measure students' possession of these characteristics and cutoff points developed to determine high risk levels.

#### **Protective Factors**

Community rewards for involvement Family opportunities for involvement Family rewards for involvement School opportunities for involvement School rewards for involvement Peer-individual interaction with prosocial peers

### **Communities that Care Risk Factors Across Time**

In the following section, the data is presented across time to examine trends from 2010 to 2013 which is the period in which these questions were included in the ATOD survey. It is important to keep in mind that over time there was a change in the schools who participated in the ATOD survey. In 2013 we have the full participation of all the school systems in Porter County. Any patterns or trends in the data must therefore be considered in this light. Patterns may be a result of changes in the composition of the schools and students included and not necessarily of any actual change in the general population of Porter County students.

<sup>&</sup>lt;sup>1</sup> Arthur, Michael W. Briney, John S. Hawkins, J. David Abbott, Robert D. Brooke-Weiss, Blair

L. Catalano, Richard F. Measuring risk and protection in communities using the Communities that Care Youth Survey. *Evaluation and Program Planning*, Vol 30(2), May, 2007, pp. 197-211.

### **Community Domain**

**Laws and Norms Favorable to Drug Use.** This domain includes responses to questions about student perception as to whether they think they would get caught if they drank alcohol, used drugs, smoked cigarettes, or carried a gun in their neighborhood. As indicated in Figure 1.1, the percentage of high-risk students in 2013 ranges from a low of 26.5% of 6<sup>th</sup> graders to 38.1% of 10<sup>th</sup> graders. Overall, there is a steady decline in the percentage of high risk students in all grades from 2010 to 2012, but then an increase in all grades in 2013.



**Perceived Availability of Cigarettes, Alcohol, Marijuana, and Other Drugs.** This domain includes perceptions of the availability of drugs and alcohol in the community. Figure 1.2 only contains data from 2011 to 2013 because questions concerning this risk factor were first asked in 2011. In 2013, the percentage of high-risk students ranged from 25% in the 6<sup>th</sup> grade to 41.4% in the 12<sup>th</sup> grade. There is a decline in all grades from 2011 to 2012, but there are slight increases in all grades in 2013.



### School Domain

<u>Academic Failure</u>. This domain includes responses to questions about how many times the student missed school, their feelings that their homework is meaningful or makes sense, how interesting most of their courses are, how important their courses are for later in life, and whether their grades are better than most in school. As indicated in Figure 1.3, the percentage of at risk students in 2013 ranges from a low of 26.3% of  $6^{th}$  graders to 33.1% of  $10^{th}$  graders. Across time there is a mixed pattern with  $6^{th}$  graders remaining quite stable, but other grades changing. Students in grades 6, 8, and 12 decline in 2013, while students in grade 10 increased slightly.



**Low School Commitment.** This includes responses to questions about how often in the past students have enjoyed being in school or hated school, and how often in the past have they tried to do their best in school. As indicated in Figure 1.4, in 2013 the percentage of high-risk students ranged from 36.9% of 6<sup>th</sup> graders to 46.2% of 12<sup>th</sup> graders. Over time, most grades have remained the same except for an increase for 6<sup>th</sup> graders between 2012 and 2013.



#### Family Domain

**<u>Family Management</u>**. This domain includes responses to questions about student perceptions of the existence of clear rules in the family, if parents ask about homework, if parents know where their children are, and if parents know whether their children get home on time. As indicated in Figure 1.5, in 2013 there is not much variation over grades with most grades hovering around 25%. While all grades are not identical, there is a general trend toward a decline of at-risk students from 2010 - 2013.



**<u>Family Conflict</u>**. This domain includes responses to questions about student perceptions of whether people in their family yell at each other a lot, argue a lot, and/or insult each other a lot. As indicated in Figure 1.6, in 2013 there is a range from 41.8% of  $12^{th}$  graders and  $6^{th}$  graders to 52.6% of  $8^{th}$  graders who were high risk. Over time most grades are stable with  $8^{th}$  graders declining a bit and  $6^{th}$ ,  $10^{th}$ , and  $12^{th}$  graders declining initially, but then increasing slightly in 2013.



**Parental Attitudes toward Drug Use**. This domain includes responses to questions about student perceptions of the existence of clear rules about the use of alcohol and drugs, and the expectation that if they did use alcohol or drugs that they would get caught. As indicated in Figure 1.7, in 2013 the percentage of high-risk students ranged from 8.1% of  $6^{th}$  graders to 36.1% of  $12^{th}$  graders. Since 2010 there has been a tendency for the percentage of high-risk students to decline.



**Parental Attitudes Favorable Toward Anti-Social Behavior**. This domain includes responses to questions about student perceptions of the existence of rules and expectations that if they broke rules, like skipping school or carrying a hand gun without permission, they would not be caught. As indicated in Figure 1.8, in 2013 the percentage of at-risk students ranged from 27.3% of 6<sup>th</sup> grade students to 42.4% of 12<sup>th</sup> graders. There is a general decline in all grades over time, but a particular steep decline between 2012 and 2013.



#### **Peer Individual Domain**

**<u>Rebelliousness.</u>** This domain includes student responses to questions such as, "I like to see what I can get away with," "I ignore rules," and "I do the opposite of what I am told." As indicated in Figure 1.9, in 2013 there is little variability across grades with 23.6% of 8<sup>th</sup> graders at high risk and 29% of the 6<sup>th</sup> graders. There is a decline in the percentage of high-risk youth in this domain for all grades from 2010 to 2012. Particularly noticeable is the decline in all grades from 2011 to 2012. The decline continues at a lower rate in 2013 for 6<sup>th</sup> and 10<sup>th</sup> and 12<sup>th</sup> graders, but there is a significant increase for 6<sup>th</sup> graders.



**Early Initiation of Drug Use.** This domain includes responses to questions about when students first used cigarettes, alcohol, and other drugs. As indicated in Figure 1.10, the percentage of high-risk youths in 2013 runs from 14.2% in  $6^{th}$  grade to 23.8% in  $12^{th}$  grade. There is a steady decline in the percentage of high-risk students from 2010 to 2012 and that continues for  $8^{th}$  graders into 2013. However, for other grades the percentage is stable between 2012 and 2013.



Attitudes Favorable toward Anti-Social Behavior. This domain includes responses to statements such as, "it is wrong to take a gun to school," "wrong to steal something more than \$5," "wrong to attack someone," "wrong to pick a fight," and "wrong to skip school." As indicated in Figure 1.11, the variability across grades in 2013 is quite small with 28.2% of 8<sup>th</sup> graders and 31.7% of 12<sup>th</sup> graders being at high risk. While the percentage of high-risk students has stabilized over the past few years, overall there has been a significant decline in high-risk students in this category.



<u>Attitudes Favorable toward Drug Use</u>. This domain includes responses to statements such as, "it is wrong to drink alcohol regularly," "wrong to smoke cigarettes," "wrong to smoke marijuana," and "wrong to use illegal drugs." As indicated in Figure 1.12, there is a substantial difference across grades in the percentage of high-risk students in 2013 with 12.4% of 6<sup>th</sup> graders and 36.7% of  $12^{th}$  graders being at high-risk. There is a tendency for the percentage of high-risk youth to decline between 2010 and 2012 for most students, and then increase slightly in 2013. The percentage of high-risk  $12^{th}$  graders declines from 2010 - 2011, but then returns to 2010 levels in 2012 and 2013.



**Perceived Risk of Drug Use.** This domain includes responses to questions such as, "how much do you think people risk harming themselves if they smoke cigarettes," "smoke marijuana occasionally," "smoke marijuana regularly," "occasionally consume 1-2 drinks," or "have 5 or more drinks once or twice a week." As indicated in Figure 1.13, there is some variability among students in different grades in 2013 with 41.8% of 6<sup>th</sup> graders and 58.2% of 12<sup>th</sup> graders being at high risk. While there is a slight variability in the patterns, there is a substantial increase in all grades in the percentage of high-risk students from 2010 to 2013.



<u>Anti-Social Peers</u>. This domain includes responses to questions such as, "the number of their best friends suspended," "number of best friends who carry guns," "number of best friends who use drugs," "number of best friends who have stolen a vehicle," "number of best friends arrested," and "the number of best friends who have dropped out of school." As indicated in Figure 1.14, there is some variability across grades in 2013 with 27% of 6<sup>th</sup> graders and 43.6% of 12<sup>th</sup> graders being at high risk. There is a trend toward a decline in the percentage of high-risk students between 2010 and 2012 followed by substantial increases for 6<sup>th</sup> graders in 2013 and relative stability in all other grades.



<u>Peer Rewards for Anti-Social Involvement</u>. This domain includes student responses to statements such as, "kids think I'm cool if I smoke cigarettes," "drink alcohol," "smoke marijuana," or "carry a gun." As indicated in Figure 1.15, the percentage of high-risk students varies by grade and time. For example, in 2013 23.6% of 6<sup>th</sup> graders and 44.1% of 12<sup>th</sup> graders are at high risk. Unlike most other categories, there is little variation across time for each grade.



#### At Risk Youth with Low Protective Factors

In addition to including questions about risk factors, in 2011 the ATOD survey began to include questions about protective factors. Given the shorter time span, additional caution is needed in drawing conclusions in trends from the data.

<u>Community Rewards for Involvement</u>. This domain includes student responses to statements such as, "my neighbors notice when I am doing a good job and let me know," "there are people in my neighborhood who encourage me to do my best," "and there are people in my neighborhood who are proud of me when I do something well." As indicated from the data presented in figure 1.16, this is the domain with the highest percentage of at-risk youth. There also is a wide gap in every year between the percentage of 6<sup>th</sup> graders who are at risk and students in the other grades. With the exception of 6<sup>th</sup> graders, there is an increase in the number of at-risk youth from 2011 to 2013.


**Family Opportunities for Involvement**. This domain includes student responses to statements such as, "my parents give me lots of chances to do fun things with them," "my parents ask me what I think before most family decisions affecting me are made," and "if I had a personal problem, I could ask my mom or dad for help." As shown in Figure 1.17, there is not much variability across grades and across time. In 2013 the percentage of at-risk students ranges from 34.5% in 6<sup>th</sup> grade to 39.9% in 10<sup>th</sup> grade. Over time, the percentage of at-risk students goes down in grades 6, 8, and 12 and remains relatively the same in the 10<sup>th</sup> grade.



**Family Rewards for Involvement**. This domain includes student responses to statements and questions such as, "my parents notice when I am doing a good job and let me know about it," "how often do your parents tell you they're proud of you for something you've done?" "do you enjoy spending time with your mother?" and "do you enjoy spending time with your father?" 2012 was the first year this question was asked so there is only data for two years. There is some variability across grades as indicated in Figure 1.18, where in 2013 36.3% of 8<sup>th</sup> graders and 41.5% of 10<sup>th</sup> graders are at high risk. From 2012 – 2013 there is a slight decline in all of the grades in the number of high-risk students



<u>School Opportunities for Involvement</u>. This domain includes student responses to statements such as, "in my school students have lots of chances to decide things like class activities and rules," "there are lots of chances for students in my school to talk with a teacher one-on-one," "teachers ask me to work on special classroom projects," "there are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class," and "I have lots of chances to be part of class discussions or activities." As shown in Figure 1.19, the percent of Porter County high-risk students varies from 27.5% in 6<sup>th</sup> grade to 36.9% in the 10<sup>th</sup> grade in 2013. Patterns across time are not direct, but in general the number of high-risk students in the 8<sup>th</sup> and 10<sup>th</sup> grades increases across time, while the percentage of 6<sup>th</sup> and 12<sup>th</sup> graders tends to decline.



School Rewards for Involvement. This domain includes student responses to statements such as, "my teacher(s) notices when I am doing a good job and lets me know about it," "the school lets my parents know when I have done something well," "I feel safe at my school," and "my teachers praise me when I work hard in school." As seen in Figure 1.20, the percent of high-risk students in Porter County varies considerably across grade levels. For example, in 2013 39.6% of 6<sup>th</sup> graders are at risk and 55.5% of the 12th graders. As for trends, 6<sup>th</sup> graders tend to be quite stable across time, while 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders increase from 2011 to 2013.



<u>Peer-Individual Interaction with Pro-Social Peers</u>. This domain includes student responses to questions such as, "how many of your best friends participate in clubs, organizations or activities at school?" "How many of your best friends have made a commitment to stay drug-free?" "How many of your best friends regularly attend religious services?" and "How many of your best friends have tried to do well in school?" As shown in Figure 1.21, in 2013 the percent of high-risk Porter County students varies across grades from a high of 53.1% in the 6<sup>th</sup> grade to 46.6 % in the 8<sup>th</sup> grade. The percentage of high-risk students declines for all grades between 2011 and 2012 and continues to decline for 8<sup>th</sup> graders in 2013, but increases for 6<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders in 2013.



### **Overall Percentage of High-Risk Students and Change Across Grades**

**Percentage of High-Risk Students per category.** Up to this point, each of the risk or protective factors has been considered separately. In an effort to see overall where the greatest risks might be, students from the 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grades in 2013 were combined for each of the factors and the percentage of all the students in the survey who were at risk in that category was computed. The results of this analysis are presented in Figure 1.22. In this Figure, the number 48.5 indicates that 48.5% of all students in 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grades were at risk in this category. Based on this analysis, the area with the most students at risk is the perception of the risk involved in the use of alcohol and drugs (48.5%). This is followed by high family conflict at 45.4%, low school commitment (40.1%), interacting with anti-social peers (36.4%), parental attitudes favoring anti-social behavior (35.8%), peer rewards for antisocial involvement (34.8%), perceived availability of drugs (31.9%), laws and norms favorable to drugs (31.5%), and school academic failure (30.1%). The remainder of the categories have less than 30% at-risk students.

**Change across Grade Level**. The previous Figure examines the total percentage of highrisk youth in each category. Figure 1.23 focuses on the increasing number of at-risk students as they move from the 6<sup>th</sup> to the 12<sup>th</sup> grade. Once again, this is limited to the 2013 data. As in the previous Figure, 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grade students are included together. The numbers in this Figure refer to the difference between the percentage of high-risk youth in the 6<sup>th</sup> grade and the percentage of high-risk youth in the 12<sup>th</sup> grade. The number 28 in this table indicates the absolute increase in percentage of students in this category. This is not a 28% increase, but the actual number of percentage points of change. The greatest change in all the categories was parental attitudes favorable to drug use indicating that the students perceived their parents as having more favorable attitudes toward drug use as they went from 6<sup>th</sup> to 12<sup>th</sup> grade. Second and third on the list were Peer-Individual Attitudes Favorable to Drug Use at an increase of 24.3% points and Peer-Individual Rewards for Anti-social Involvement with a 20.5% increase. On the other hand, factors like high family conflict (0), poor family management (.7) seem to change very little from the 6<sup>th</sup> through the 12<sup>th</sup> grades.





<u>Percentage of Students with Low Protective Factors.</u> As in the two previous figures, the data in Figure 1.24 includes all of the  $6^{th}$ ,  $8^{th}$ ,  $10^{th}$ , and  $12^{th}$  grade students together. In this instance, the numbers indicate the percentage of students who have low protective factors or in other words, are at high risk in each area. For example, 59.6% of these students are at high risk with reference to community rewards for involvement, and 50.2% are at high risk because they do not have adequate interaction with prosocial peers. In addition, 46.9% are at high risk because they do not get school rewards for involvement, and another 39.2% are at high risk because they do not think they get adequate family rewards for involvement. A total of 36.4% and 32.7% respectively are at high risk because they do not think they show opportunities for involvement in the family or in the school.



**<u>Change across Grade Level.</u>** Figure 1.25 reports the change in the percentage of  $6^{th}$ ,  $8^{th}$ ,  $10^{th}$ , and  $12^{th}$  grade students with low protective factors from  $6^{th} - 12^{th}$  grade. As indicated, as students go from  $6^{th}$  to  $12^{th}$  grade the number of students who do not think they get adequate rewards for community involvement increases by 17.5 percentage points. Similarly, there is an increase of 15.9 and 8.6 percentage points respectively in the number of at-risk students who do not see adequate opportunities or rewards for school involvement. The percentage of at-risk students in the family rewards for involvement, family opportunities for involvement, and peer individual interactive with prosocial peers do not seem to change much across grades.



# Chapter 2 Alcohol

#### Introduction

In this section, the consumption and consequences of the use of alcohol are examined. First, patterns of consumption are investigated by examining the data reported in the Porter County ATOD Survey. Second, risk factors from the ATOD survey are reported. Third, data on the consequences of alcohol consumption are examined by looking at treatments at the hospital, mental health facilities, arrests, and accidents.

#### **Consumption Patterns: The ATOD Survey**

The following data is taken from the *Porter County Alcohol, Tobacco, and Other Drug Survey* referred to generally as the ATOD Survey. It includes data from reports from 2008 through 2013. Data on Porter County schools is available only beginning in 2008. It also should be emphasized that the data is cross sectional and not longitudinal. Keep this in mind when comparisons are made across different grades.

Students were asked about their monthly and lifetime use of alcohol and their binge drinking. In previous years, students were asked about their daily and annual use of alcohol. These questions were excluded in the 2010 through 2013 surveys. Persons interested in responses to these questions may consult earlier reports.

**Monthly Use of Alcohol.** Students were asked how often they had consumed alcohol in the past month. The responses to this question, as well as the ones that follow, were grouped into the following categories: Never, 1-5 times, 6-19 times, 20-40 times, and 40+ times. The responses presented in Figure 2.1 only refer to the total percentage of students who said they consumed any alcohol at all in the past month. As indicated in Figure 2.1, monthly consumption of alcohol increases as grade levels increase in all the years. Between 2008 and 2010 there were reports of increased consumption among  $6^{th}$ ,  $8^{th}$ , and  $10^{th}$  graders and a decline among  $12^{th}$  graders. The pattern is reversed somewhat between 2010 and 2012 with  $12^{th}$  graders registering little change and  $6^{th}$ ,  $8^{th}$ ,  $10^{th}$ , and  $12^{th}$  graders, but increased slightly for  $6^{th}$  graders. Overall, the trend is a reduction of monthly consumption of alcohol.



Figure 2.1 Percentage of Porter County Students Reporting Monthly

Lifetime Consumption of Alcohol. Figure 2.2 presents the data on lifetime consumption for 6<sup>th</sup>, 8<sup>th</sup>,10<sup>th</sup>, and 12<sup>th</sup> graders in Porter County. As indicated, reported lifetime consumption increases with grade level for all years. For example, in 2013 12.4% of 6<sup>th</sup> graders, 29.2% of 8<sup>th</sup> graders, 45.5% of 10<sup>th</sup> graders, and 64.2% of 12<sup>th</sup> graders report consuming alcohol in their lifetime. Overall, however, there has been a general decline in reported lifetime consumption from 2008 through 2013 for students in all grades.



**<u>Binge Drinking</u>**. Students were asked about the amount of binge drinking they had done in the past two weeks. Binge drinking is defined as having 5 or more drinks at one sitting. The data for 2008 - 2013 is plotted for grades 6, 8, 10, and 12 and presented in Figure 2.3. Clearly, there is an increase in reported binge drinking in all years as grade levels increase. The overall trend reflected in the data for each grade, however, is mixed. There is an overall decline for 12<sup>th</sup> graders despite a slight increase in 2012. Tenth graders gradually reported decreased binge drinking across time. Eighth graders exhibit an up-and-down pattern peaking in 2010 at 20.4%, but then declining substantially to 8.1% in 2012. Sixth graders increase slightly between 2008 and 2010, but then decline and end up close to their 2008 level at 3.9% reporting binge drinking in 2012. In 2013, binge drinking by 12<sup>th</sup> graders decreased, but binge drinking by 6<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> graders increased. Overall, using 2008 as the base year, there is a decline in reporting binge drinking in all grades except the 6<sup>th</sup> grade.



#### **State and Porter County Comparisons**

In the previous section, data was presented that demonstrated patterns of consumption of alcohol among students in Porter County schools. Another way of looking at the data from the ATOD survey is to compare the responses of local students to those from across the state. In Figures 2.4 through 2.6, data is presented that compares local students with statewide students on monthly consumption, lifetime consumption, and binge drinking. The data in the figures represent the absolute size of the difference between local and state rates expressed in percentage points. Differences are presented only when there is a statistically significant difference between state and local numbers at the p < .05 level. What this means is that differences this large would occur less than 5 times out of 100 by pure chance, suggesting that the difference is not due to chance or sampling error; rather, differences this large suggest real differences in the populations.

Monthly Drinking. In Figure 2.4 data is presented which compares Porter County with statewide averages on the monthly consumption of alcohol for 2008 - 2013. Focusing attention on the entire pattern of data in figure 2.4, it is clear that the number of grades in which Porter County students exceed state averages to a statistically significant degree declines with time. For example, in 2008 and 2009 Porter County students exceeded state averages in all grades except 6<sup>th</sup> and 7<sup>th</sup> in 2008 and 6<sup>th</sup> in 2009. Similarly, in 2010, Porter County students exceeded state averages in all grades except 6<sup>th</sup> and 12<sup>th</sup>. In 2011, however, Porter County students exceeded state averages in only three grades (8<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup>), and in 2012, Porter County youth were not above average in any grade and were statistically below average in three grades (6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup>). In 2013, Porter County youth in 8<sup>th</sup> and 9<sup>th</sup> grade were below state averages. Given the different number of students and schools included over time, caution has to be exercised in interpreting trends, but it appears safe to conclude that reported monthly consumption of alcohol by Porter County students relative to students across the state is declining.

Figure 2.4 Percentage Differences Between Statewide and Porter County Students in the Monthly use of Alcohol, 2008-2013



Lifetime Drinking. The data comparing Porter County students with other students across the state on lifetime drinking between 2008 and 2013 is presented in Figure 2.5. Overall, the pattern is quite similar to that in Figure 2.4 with a decline across time in the number of grades where Porter County students exceed state averages. While most grades exceed state averages in 2008 and 2009, the number declines in 2010. In 2011, there are no grades exceeding state averages, and in 2012 four grades are below state averages to a significant degree. In 2013, 8<sup>th</sup> through 10<sup>th</sup> graders are below state averages. Again, given the different number of students and schools included over time, caution has to be exercised in interpreting trends, but it appears safe to conclude that reported lifetime consumption of alcohol by Porter County students relative to students across the state is declining.



ATOD 2008-2013



**Binge Drinking**. Figure 2.6 presents the magnitude of differences between state and Porter County students in reported binge drinking. In 2008, Porter County students exceeded state averages in grades 9 through 12. There were no differences in 2009, but in 2010 Porter County students exceeded state averages in grades 7 through 12. In 2011, Porter County students exceeded state averages in the 10<sup>th</sup> grade, and in 2012 they were below state averages in grades 6 through 8 and 10<sup>th</sup> grade. In 2013, they were below state averages in 9<sup>th</sup> grade. Once again, given the different number of students and schools included over time, caution has to be exercised in interpreting trends, but it appears safe to conclude that reported binge drinking by Porter County students relative to students across the state is declining.



# **Risk Factors**

ATOD Survey Data. The next section reports data on student perception of the risk associated with occasional and binge drinking, and their perception of both their peers' and parents' approval of occasional and binge drinking.

<u>Perceived Risk of Occasional and Binge Drinking.</u> Figures 2.7 and 2.8 contain data on the perceived risk of occasional and binge drinking for 2010 through 2013. Figures 2.7 and 2.8 only include percentages for those students who saw no risk in either drinking occasionally or binge drinking.

First, when looking at occasional drinking – drinking 1-2 drinks per week – there is a clear pattern in which the perception of no risk increases as grade level goes up. For example, in 2013, 12.1% of  $6^{th}$  graders perceive no risk and this figure grows to 21.2% for  $12^{th}$  graders. This pattern holds up for all years except 2009. Over time, as indicated, there is a general pattern of decline in the percentage of students in all grades who perceive no risk. This is an interesting pattern because, as indicated in Figures 2.1 and 2.3, it is contrary to what one would expect given the overall decline in the percentage of students who report drinking. Again caution needs to be exercised in interpreting trends across time.



Figure 2.8 reports the percentage of students who perceive a great risk in consuming 1-2 drinks per week. As expected, in most grades and in most years the perception of great risk decreases as students get older. Across time, risk perception appears quite stable and then suddenly in 2013 the perception of a great risk in the consumption of 1-2 drinks per week increases substantially. The data in Figure 2.7 and Figure 2.8 presents an interesting situation where, on the one hand, the perception of no risk declines over time, but the perception of a great risk in occasional drinking increases. The latter figure may help explain why there appears to be a decline in overall reported drinking among Porter County students.



Figures 2.9 and 2.10 present data on the perception of no risk and great risk in binge drinking. As indicated in Figure 2.9, in all grades and in all years the total percentage of students who perceive no risk never exceeds 10 percent. In 2013, the greatest perception of no risk is among  $6^{th}$  graders with 8.4% seeing no risk in binge drinking. This is contrary to the usual pattern where  $6^{th}$  graders generally perceive greater risk. Across time, although there looks like a lot of change, there actually is only a small amount of change for each grade level.

When it comes to the perception of great risk, it generally varies by grade level, with students in the higher grades seeing less risk, but there are not a lot of differences. The most significant change occurs among 12<sup>th</sup> graders who decline in perceiving a great risk over time, and the 8<sup>th</sup> graders who increase in seeing a great risk in binge drinking.





<u>Peer Approval and Disapproval of Occasional Drinking.</u> Critical to understanding why students drink is their perception of their peers' approval of drinking. Students were asked to rate the perception of their peers' approval of both occasional drinking and binge drinking. As indicated in Figure 2.11, the percentage of students who perceive their peers approving of occasional drinking increases across grade levels rising, for example, in 2013 from 9% for 6<sup>th</sup> graders to 48.2% for 12<sup>th</sup> graders. With the exception of 6<sup>th</sup> graders, there seems to be a slight - very slight in the case of 8<sup>th</sup> graders -- decline from 2008 to 2013 in perceived peer approval of occasional drinking.



The percentage of students who report peer disapproval of occasional drinking is presented in Figure 2.12. As indicated, percentages change with grade level. For example, in 2013, 46.4% of  $12^{th}$  graders see that their peers disapprove and 76.2% of the  $6^{th}$  graders see that their peers disapprove of occasional drinking. Over time and in all grades there seems to be an increase in the percentage of students who see their peers disapproving of occasional drinking.



**Peer Approval and Disapproval of Binge Drinking.** The patterns of perceived peer approval for binge drinking are similar to those for occasional drinking and are presented in Figure 2.13. While still quite low, the percentage of students who perceive that their peers strongly approve of binge drinking rises in 2013 from 2.6% in 6<sup>th</sup> grade to 20.0% in the 12<sup>th</sup> grade. Overall, there is a decline in the percentage of students who see their peers strongly approving of binge drinking.



Figure 2.14 reports on student perception of peer disapproval of binge drinking. As indicated, in grades 6 and 8 in most years the vast majority of students see their peers as disapproving of binge drinking. In most years, more than 50% of 10<sup>th</sup> grade students see their peers as disapproving of binge drinking. As to 12<sup>th</sup> graders, they range from a low of 41.4% of them seeing their peers as strongly disapproving in 2013 to a high of 56.4% in 2012. Disapproving for all grades declines from 2008 to 2010 and then rises and peaks in 2012 and then declines significantly in 2013.



<u>Parental Approval of the Regular Drinking of Alcohol.</u> As indicated in Figure 2.15, students do not generally see their parents as being very approving of the regular drinking of alcohol. For example, 91.7% of  $6^{th}$  graders in 2013 perceive that their parents would view their regular drinking as "very wrong." However, for  $12^{th}$  graders this perception of disapproval drops to 61.7%.



## **Risk Factors and the Consumption of Alcohol**

**Expenditures.** General risk factors already have been discussed. An additional part of the environment affecting patterns of alcohol consumption in the community relates to the amount of money persons in the community spend on alcohol. Residents of Porter County spend more money on alcohol than does the average household in Indiana and in the nation. This includes spending on all types of alcohol (beer, wine, and liquor) and purchasing it to consume in the home, away from home, or on trips. This data is reported in Table 2.1.

| Category of<br>Alcohol<br>Spending                    | Porter (2009) | Indiana<br>(2009) | U.S.<br>(2009) | Porter<br>(2010) | Indiana<br>(2010) | U.S.<br>(2010) | <b>Porter</b> (2012) | Indiana<br>(2012) | U.S.<br>(2012) |
|---|---------------|-------------------|----------------|------------------|-------------------|----------------|----------------------|-------------------|----------------|
| Annual Alcohol<br>Spending per<br>Household           | \$657.0       | \$557.0           | \$617.0        | \$652.0          | \$578.0           | \$642.0        | \$668                | \$588             | \$670          |
| Beer and ale not at home                              | 91.0          | 78.0              | 86.0           | 91.0             | 81.0              | 90.0           | 93                   | 82                | 94             |
| Wine away from home                                   | 45.0          | 38.0              | 42.0           | 45.0             | 39.0              | 44.0           | 46                   | 40                | 46             |
| Whiskey away<br>from home                             | 75.0          | 63.0              | 70.0           | 74.0             | 66.0              | 73.0           | 76                   | 67                | 76             |
| Alcohol On Out-<br>of-Town Trips                      | 81.0          | 68.0              | 76.0           | 80.0             | 71.0              | 79.0           | 82                   | 72                | 82             |
| Beer and ale at home                                  | 195.0         | 165.0             | 183.0          | 194.0            | 171.0             | 190.0          | 198                  | 174               | 199            |
| Wine at home  | 105.0         | 89.0              | 99.0           | 104.0            | 92.0              | 103.0          | 107                  | 94                | 107            |
| Whiskey at home                                       | 26.0          | 22.0              | 24.0           | 25.0             | 22.0              | 25.0           | 26                   | 23                | 26             |
| Whiskey and<br>other Liquor at<br>Home                | 63.0          | 54.0              | 59.0           | 62.0             | 55.0              | 62.0           | 64                   | 57                | 64             |
| Median<br>Household<br>Income                         | 65,260        | 51,385            | 51,684         | 67,620           | 53,451            | 53,713         | 53,856               | 41,809            | 42,306         |
| Total Spending<br>Per HH as % of<br>Med. HH<br>Income | 1.0           | 1.10              | 1.2            | 0.96             | 1.08              | 1.20           | 1.2                  | 1.4               | 1.6            |
| Rank for<br>Spending as %<br>of Median HH             | 80            | 48 of 51          | -              | -                | -                 | -              | -                    | -                 | -              |
| Year  | 2007          | 2007              | 2007           | 2009             | 2009              | 2009           | 2011                 | 2011              | 2011           |

# Table 2.1Spending on Alcohol in Porter CountyRisk and Protective Factor Data, IPRC, 2009, 2010, 2012

# **Consequences of Alcohol Consumption: ATOD Study Data**

The ATOD survey also asked questions concerning the consequences of ATOD consumption. The actual survey did not generally distinguish if the consequences were from drugs or alcohol or both. The following data has been included in the section on alcohol, but keep in mind the data includes results from drugs, tobacco, and/or alcohol.

Table 2.2 reports the responses from Porter County students on how often they had nausea, memory loss, did poorly on a test, got into a fight, damaged property, or had a hangover from ATOD use. The number of people reporting that they experienced negative consequences from ATOD use increases with grade level. For example, 91.5% of 6<sup>th</sup> graders report never experiencing nausea from ATOD consumption, but that figure drops to 65.4% for 12<sup>th</sup> graders. At the same time, 20.4% of 12<sup>th</sup> graders report having had nausea multiple times. Similarly, 92.9% of 6<sup>th</sup> grade students report never having had a hangover, but for 12<sup>th</sup> graders that figure drops to 58.4%, with 28% of them reporting to have had hangovers multiple times, including 7.4% reporting having hangovers more than 11 times.

Following the same pattern, 93.2% of  $6^{th}$  graders report never having memory loss, but that figure drops to 73.0% of  $12^{th}$  graders. However, when asked about having done poorly on a test, those reporting "Never" having done so only fell by 2% from  $6^{th}$  grade (91.4%) to  $12^{th}$  grade (89.4%). On the other hand, by the time they reach the  $12^{th}$  grade, 8.5% of the students report having done poorly on a test, 8.7% report missing school, and 4.4% report having damaged property as a result of ATOD consumption. When asked about getting into a fight the number generally increases across grade levels with 13.5% of  $12^{th}$  graders indicating that they have gotten into a fight because of ATOD consumption; 9.8% indicate fighting on multiple occasions.

| ATOD, 2013                |                  |      |              |      |      |      |      |      |
|---------------------------|------------------|------|--------------|------|------|------|------|------|
| Grade                     |                  |      |              |      |      |      |      |      |
| Condition                 | Frequency        | 6th  | $7^{\rm th}$ | 8th  | 9th  | 10th | 11th | 12th |
| Had a<br>Hangover         | Never            | 92.9 | 92.5         | 87.1 | 81.3 | 71.2 | 63.4 | 58.4 |
|                           | Once             | 1.4  | 2.7          | 4.6  | 7.3  | 10.0 | 11.0 | 12.0 |
|                           | Twice            | 0.6  | 0.7          | 2.2  | 3.0  | 5.0  | 7.2  | 7.9  |
|                           | 3-5 times        | 0.2  | 0.5          | 2.2  | 2.2  | 5.5  | 8.7  | 8.4  |
|                           | 6-10 times       | 0.2  | 0.5          | 0.3  | 1.2  | 1.8  | 2.9  | 4.3  |
|                           | 11 or more times | 0.2  | 0.8          | 1.1  | 1.3  | 3.9  | 3.5  | 7.4  |
| Had a<br>memory<br>loss   | Never            | 93.2 | 94.9         | 90.4 | 86.5 | 79.2 | 73.9 | 73.0 |
|                           | Once             | 1.4  | 0.9          | 3.1  | 4.7  | 6.1  | 8.9  | 8.8  |
|                           | Twice            | 0.3  | 0.5          | 1.4  | 1.3  | 3.5  | 4.5  | 5.4  |
|                           | 3-5 times        | 0.3  | 0.2          | 1.1  | 1.6  | 4.0  | 4.9  | 5.0  |
|                           | 6-10 times       | 0.1  | 0.3          | 0.5  | 0.9  | 1.2  | 1.6  | 2.0  |
|                           | 11 or more times | 0.2  | 0.3          | 0.9  | 0.9  | 2.6  | 2.5  | 3.8  |
| Poor on<br>school<br>test | Never            | 91.4 | 94.3         | 92.3 | 91.0 | 88.7 | 89.3 | 89.4 |
|                           | Once             | 1.4  | 1.3          | 1.7  | 1.8  | 2.1  | 2.2  | 2.3  |
|                           | Twice            | 0.9  | 0.6          | 0.9  | 0.7  | 1.6  | 0.9  | 1.9  |
|                           | 3-5 times        | 1.0  | 0.3          | 1.3  | 0.7  | 1.8  | 1.7  | 1.9  |
|                           | 6-10 times       | 0.3  | 0.1          | 0.2  | 0.3  | 0.9  | 1.0  | 1.0  |
|                           | 11 or more times | 0.7  | 0.6          | 1.1  | 1.0  | 1.8  | 1.5  | 1.4  |

| <b>Table 2.2</b>            |         |      |             |  |  |  |  |  |
|-----------------------------|---------|------|-------------|--|--|--|--|--|
| <b>Consequences of Alco</b> | hol and | Drug | Consumption |  |  |  |  |  |
| 4 T                         | 0D 201  | 2    |             |  |  |  |  |  |

| Grade                       |                  |      |                 |      |      |      |      |      |
|-----------------------------|------------------|------|-----------------|------|------|------|------|------|
| Condition                   | Frequency        | 6th  | 7 <sup>th</sup> | 8th  | 9th  | 10th | 11th | 12th |
| Missed<br>school            | Never            | 91.7 | 94.5            | 93.3 | 92.5 | 89.5 | 90.3 | 89.0 |
|                             | Once             | 1.1  | 1.3             | 1.4  | 1.5  | 2.2  | 1.7  | 2.5  |
|                             | Twice            | 0.6  | 0.3             | 0.8  | 0.7  | 1.6  | 0.7  | 1.7  |
|                             | 3-5 times        | 0.8  | 0.7             | 0.9  | 0.4  | 1.6  | 1.7  | 2.4  |
|                             | 6-10 times       | 0.5  | 0.1             | 0.2  | 0.1  | 0.6  | 1.1  | 0.6  |
|                             | 11 or more times | 0.6  | 0.3             | 0.8  | 0.5  | 1.4  | 1.2  | 1.5  |
|                             | Never            | 90.1 | 92.5            | 89.5 | 88.6 | 85.3 | 84.0 | 84.1 |
|                             | Once             | 2.1  | 2.3             | 3.3  | 2.6  | 3.8  | 4.7  | 3.7  |
| Got into a<br>fight         | Twice            | 0.5  | 0.8             | 1.4  | 1.6  | 2.8  | 2.8  | 3.7  |
|                             | 3-5 times        | 0.7  | 0.5             | 1.3  | 1.0  | 1.6  | 2.6  | 3.3  |
|                             | 6-10 times       | 0.4  | 0.2             | 0.6  | 0.9  | 1.0  | 0.8  | 0.9  |
|                             | 11 or more times | 1.4  | 0.8             | 0.9  | 1.0  | 2.0  | 1.6  | 1.9  |
|                             | Never            | 91.5 | 92.7            | 89.1 | 83.9 | 75.0 | 67.2 | 65.4 |
| Had                         | Once             | 2.7  | 2.7             | 4.1  | 6.8  | 12.1 | 13.4 | 1.3  |
| Had<br>Nausea or<br>Vomited | Twice            | 0.6  | 0.7             | 1.2  | 1.9  | 3.0  | 5.5  | 6.9  |
|                             | 3-5 times        | 0.3  | 0.4             | 1.7  | 2.1  | 2.8  | 6.1  | 7.5  |
|                             | 6-10 times       | 0.1  | 0.2             | 0.9  | 0.5  | 1.6  | 1.8  | 3.2  |
|                             | 11 or more times | 0.3  | 0.3             | 0.6  | 0.6  | 2.5  | 2.6  | 2.8  |
| Damaged<br>Property         | Never            | 94.0 | 95.6            | 94.8 | 93.3 | 92.9 | 92.7 | 93.6 |
|                             | Once             | 0.6  | 0.6             | 1.1  | 0.7  | 1.2  | 1.2  | 1.2  |
|                             | Twice            | 0.1  | 0.2             | 0.3  | 0.6  | 0.3  | 1.1  | 1.3  |
|                             | 3-5 times        | 0.2  | 0.3             | 0.8  | 0.4  | 0.8  | 0.6  | 0.8  |
|                             | 6-10 times       | 0.0  | 0.1             | 0.1  | 0.4  | 0.4  | 0.1  | 0.2  |
|                             | 11 or more times | 0.3  | 0.3             | 0.5  | 0.4  | 1.0  | 0.6  | 0.9  |

Table 2.2 ContinuedConsequences of Alcohol and Drug Consumption

One of the consequences is that youth either drive themselves or with someone under the influence of alcohol or drugs. To illustrate the extent of the problem of driving under the influence, Figure 2.16 plots the percentage of students who report driving under the influence by grade level and compares these rates for 2008, 2009, 2010, and 2011. The data is not available for more recent years. As shown in Figure 2.16, as students grow older they are more likely to have ridden with someone or driven under the influence. From 2009 to 2010, there was an increase in the percentage of students riding or driving under the influence for all grades. In 2011, there were increases for  $6^{th}$  and  $12^{th}$  graders and decreases for  $8^{th}$  and  $10^{th}$  graders.



<u>Consequences: Arrests for Public Intoxication</u>. Figure 2.17 presents data on arrests for public intoxication in Porter County for the years 2003 through 2013. In 2003 there were 431 arrests and that number peaked in 2005 and has since declined back to 306 in 2012 and only 175 in 2013. The sharp decline in arrests for public intoxication in 2012 and 2013 can be attributed to a change in the law. It is now more difficult to arrest persons for public intoxication. As of July 1, 2012 you can arrest for public intoxication only if the person: (1) endangers the person's life; (2) endangers the life of another person; (3) breaches the peace or is in imminent danger of breaching the peace; or (4) harasses, annoys, or alarms another person.



The data can also be broken down more specifically by age to see what has happened to various age groups across time. Figure 2.18 presents this data. As indicated, 18-25 year olds are arrested for public intoxication much more than any other age group and this is the case in every year from 2003 through 2012, but not in 2013 where the 26-34 year olds surpass them. In general terms, the number of arrests varies with the age of the population; the older a person, the less likely he or she is to get arrested for public intoxication.



<u>Consequences: Arrests for Driving Under the Influence</u>. Figure 2.19 presents data on arrests by the Porter County Sheriff's Department for driving under the influence. There were 989 arrests in 2003 and that number increased to 1218 in 2007 and declined to 1043 in 2010. In 2012, there were a record high 1266 arrests for driving under the influence, but that number declined to 1165 in 2013.



The data also can be broken down more specifically by age to see what has happened to various age groups across time. Figure 2.20 presents this data. As indicated, generally 18-25 year olds are arrested for DUI more than any other age group, and this is the case in every year from 2003 through 2012, but in 2013 the 26-34 year old cohort surpasses them as they did with arrests for public intoxication. As in the case of arrests for public intoxication, and in general terms, the number of arrests varies with the age of the population, and the older a person is the less likely they are to get arrested for driving under the influence. However, note the gradual increase in arrests for persons 55 and over from 45 in 2003 to 97 in 2013.



<u>Consequences: Alcohol-Related Referrals to Adult Probation.</u> Another way of looking at the consequences of alcohol consumption is to look at the number of referrals to the Porter County Adult Probation Department for alcohol-related offenses. These data refer to persons who were actually convicted rather than simply arrested for alcohol-related offenses. The data for all referrals for the years 2002 through 2013 is presented in Figure 2.21. As indicated, the number of alcohol-related referrals peaked in 2006 at 1611 and has declined slightly every year since reaching an all-time low of 1112 in 2013.



<u>Consequences: Alcohol-Related Referrals to Juvenile Probation.</u> Figure 2.22 presents data on the number of alcohol-related offenses referred to Porter County Juvenile Probation from 2005-2013. As indicated, there were 272 in 2005, 378 in 2006, 319 in 2007, 330 in 2008, 278 in 2009, 320 in 2010, and 230 in 2011. In 2012, only 201 juveniles were referred for alcohol-related offenses and in 2013 there were 206.


<u>Comparing Alcohol-Related Arrests in Porter County to Arrests in the State.</u> Figure 2.23 compares the arrest rate (per 1,000 population) for DUIs in Porter County and the state of Indiana for 2006 through 2010 which is the last year data was available. During this time period, the arrest rates of Porter County and the state remain similar and consistent. In most years, the state has slightly lower arrest rates than Porter County, with exceptions in 2006 and 2009. Porter County rates exceed state rates in 2007, 2008, and 2010.



Figure 2.24 compares the arrest rate (per 1,000 population) for public intoxication in Porter County and the state. The state arrest rate is slightly higher than the Porter County rate and ranges from 3.54 in 2008 to 3.0 in 2010. The Porter County rate ranges from 2.56 in 2006 to 2.0 in 2009. There was a slight decrease in the Porter County arrest rate between 2006 and 2009, but in 2010 the arrest rate increased slightly to 2.3.



Figure 2.25 shows the arrest rate (per 1,000 population) for liquor law violations in Porter County and the state as a whole. These violations generally include selling to a minor, selling during a specified illegal time or day, and selling to someone who is obviously drunk. Porter County's arrest rates are substantially higher than the state's rates in every year.



<u>Alcohol-Related Collisions</u>. Figures 2.26, 2.27, and 2.28 present data for alcohol-related collisions. Figure 2.24 shows the total number of alcohol-related collisions in Porter County from 2007 through 2012. The number of alcohol-related collisions in Porter County has remained fairly consistent over time. The largest number of alcohol related accidents was 299 in 2008, and the lowest number of accidents was 177 in 2012. Since the high in 299 there has been an overall decline in alcohol-related collisions in Porter County.



Figure 2.27 shows the rate (per 1,000 population) of alcohol-related collisions in Porter County and the state of Indiana. Porter County rates tend to be slightly higher than state rates in most years. For example, in 2011 the rate for alcohol-related collisions was 1.42 in Porter County and 1.28 in the state of Indiana. The rate of accidents for both Porter County and the state remain fairly consistent across time, except in 2008 when both Porter County and the state experienced a sharp decline in the collision rate.



Figure 2.28 plots the percentage of accidents in both the state and Porter County that involved alcohol. Relative to the state, a larger percentage of vehicle accidents in Porter County involve alcohol. At the same time, for both state and county, most accidents do not involve alcohol.



Figure 2.29 presents the percentage of fatal motor vehicle accidents that involve alcohol in Porter County and Indiana from 2007 through 2012. Rates vary in Porter County from 17.4% to 40.0% of fatal accidents involving alcohol. Generally, a smaller percentage of fatal accidents involve alcohol in Porter County than in the rest of the state with the exception of the big jump to 40% in Porter County in 2012.



Alcohol-Related Diagnoses Porter Regional Hospital. Another indicator of alcohol related problems in the community is the number of Porter County residents treated at or admitted to Porter Regional Hospital who are diagnosed with some type of alcohol disorder. Porter Regional Hospital has provided data from 2011 – 2013 on persons who were diagnosed with some type of alcohol-related disorder ranging from alcohol abuse, acute intoxication, alcohol dependence, or symptoms related to withdrawal. There were 21 separate ICD-9 codes related to alcohol. Figure 2.30 includes the number of persons treated who resided in Porter County. The data indicates there has been a gradual increase across time in the number of persons diagnosed with alcohol-related disorders. There were 769 in 2011, 836 in 2012, and 867 in 2013.



To break this down in greater detail, the 21 separate alcohol related diagnoses were collapsed into 4 categories. Those related to alcohol abuse (e.g., Alcohol Abuse, Continuous Drinking Behavior), alcohol dependence (e.g., Other and Unspecified Alcohol Dependence, Continuous Use), acute intoxication (e.g., Acute Alcoholic Intoxication in Alcoholism, Continuous Use), and withdrawal symptoms (e.g., Alcohol Withdrawal Delirium) and a few other categories related to the accidental consumption of alcohol. Figure 2.31 presents the data for Porter County residents. There was a gradual decline over the years in the abuse-related category from 457 in 2011 to 405 in 2013. However, there were increases in all the other categories. Persons diagnosed with alcohol dependence increased from 65 in 2011 to 111 in 2013. Persons diagnosed with withdrawal or other symptoms increased from 62 in 2010 to 89 in 2013.



<u>Alcohol and Age Porter Regional Hosptal.</u> Figure 2.32 looks at the relationship between age and the number of alcohol-related diagnosis. This figure focuses on Porter County residents, but puts all three years together. As indicated, there is a dramatic rise from a low of 35 for those persons 17 and under, to 592 to those persons in the 46-55 age category. The numbers then drop off after that with only 256 persons 66 and over.



Figure 2.33 breaks this data down by both age and time. As indicated, over time the number of 17 and under diagnosed with an alcohol disorder goes up, as do the numbers in the 36-45 and the 66+ cohorts. In the other years, there is no consistent pattern.



<u>Gender and Alcohol Porter Regional Hospital.</u> Figure 2.34 breaks down the data for alcohol by gender across three years. As indicated, in 2011 and 2013 an alcohol-related diagnosis is far more prevalent among males than females. That is turned around a bit in in 2012 where there were more females than males diagnosed with an alcohol disorder.



<u>Alcohol-related treatments at Porter-Stark Services</u>. An important indicator of alcohol related problems in the community is the number of persons who seek treatment at local mental health facilities. To examine this, Porter-Starke Services has provided data on the number of persons who have been diagnosed with various disorders related to alcohol and drugs. Previous reports included data from as far back as 2004. However, Porter-Starke altered the way they reported data in 2009 and 2010 which makes the data difficult to compare across time. The data from 2011 - 2013 has been gathered in a consistent manner, so only data from that period is reported here. Persons interested in previous years can consult earlier reports

As indicated in Figure 2.35, there has been a change in the number of persons diagnosed with an alcohol-related disorder at Porter-Starke. In 2011, there were 789 persons, in 2012 there were 729, and in 2013 there were 818 persons diagnosed with an alcohol-related disorder.



Figure 2.36 breaks the data down by gender and, as indicated, males are more likely to seek treatment for alcohol-related disorders than females in all three years. Over time, the frequency of males seeking treatment increases from 492 in 2011 to 582 in 2013. At the same time, the number of females seeking treatment for alcohol-related disorders is declining. There were 297 in 2011, but that figure dropped to 236 in 2013.



Figure 2.37 breaks the data down by age with all three years combined so as to better see any patterns. As indicated, the number of persons with an alcohol-related disorder is quite stable in person between 18 and 54 years old. There are 442 18-25 year olds, 523 26-43 year olds, and 504 45-54 year olds. After that it drops down to 215 persons in the 55–64 year old category, and 50 in the 65+ group.



Finally, in Figure 2.38 the data is presented by both age and time. There seems to be no clear pattern with age groups across time. With the exception of the youngest and oldest cohorts, alcohol related disorders are fairly equally distributed across the life cycle, unlike other drugs that have definite relationships to the age cycle. The only other thing that stands out is the large number of persons in the 26 - 34 year old group who sought treatment in 2013.



# Chapter 3 Tobacco

#### Introduction

The following section discusses tobacco use in Porter County. The primary focus is on youth, and this section relies primarily on the ATOD survey given to all students in grades 6-12 in Porter County in 2008, 2009, 2010, 2011, 2012, and 2013, and data on tobacco use disorder from Porter Regional Hospital.

### **Consumption: ATOD Study**

The ATOD survey asked Porter County students about their use of tobacco. The focus was on the use of cigarettes, cigars, pipes, and smokeless tobacco. The use of pipes includes smoking tobacco in a pipe, the use of a water pipe, or the use of a hookah. Students were asked about their monthly and lifetime use of these various ways to consume tobacco. In addition, they were asked about their perception of the risk, peer approval, and parental approval of smoking cigarettes. The following presents the responses to these questions.

#### Cigarettes

<u>Monthly Use of Cigarettes.</u> The authors of the ATOD survey changed the way responses to the questions about cigarette use were coded in 2010 which makes comparisons with 2008 and 2009 difficult. The 2010 version asked questions about the number of times students had smoked in the past month, rather than the number of packs smoked in the past month. Because of this, comparison to previous years is difficult with the exception of those who reported they had never smoked in the past month. For that reason, Figures 3.1 and 3.2 compare the "never" responses for all four years. Figure 3.1 displays this information for monthly use of cigarettes.

Those students who report smoking in the past month increases with grade level. For example, in 2013 the percentage of students who never used cigarettes in the past month in the  $6^{\text{th}}$  grade is 96.9% and that number drops to 78.6% for  $12^{\text{th}}$  graders. There is a general trend in the data for smoking levels to decrease in all grades across time.



**Lifetime Use of Cigarettes.** Figure 3.2 presents the responses to questions about the lifetime use of cigarettes. As mentioned above, the questions were altered slightly on the 2010 questionnaire so comparisons to 2008 and 2009 are presented only for the responses of those who reported they never smoked. As indicated, reported lifetime smoking increases with grade level. For example, in 2013 96.3% of 6<sup>th</sup> graders have never smoked cigarettes in their lifetime, and that figure drops to 61.7% in the 12<sup>th</sup> grade. There is a decline in reported lifetime use of cigarettes by students between 2008 and 2013.



**State and Porter County Comparisons.** Figures 3.3 and 3.4 compare monthly and lifetime cigarette use by Porter County students and other students across the state. As with the case of the comparisons with alcohol use, the numbers in the table represent the absolute size of the difference between local and state rates expressed in percentage points. Differences are presented only when there is a statistically significant difference between state and local numbers at the p < .05 level. This means that differences this large would occur less than 5 times out of 100 by pure chance, suggesting that it is not chance or error due to sampling. Rather, differences this large suggest there are actual differences in the populations. Where there is a 0, there are no statistically significant differences on this measure. Positive numbers indicate Porter County students have a greater pattern of usage and negative numbers indicate cigarette use at a lesser rate than the state.

A large number of the cells in Figure 3.3 reporting lifetime use are 0 indicating that patterns of use in those grades are statistically identical to state averages. There are some differences, however. In 2008 Porter County students exceeded state averages in the 8<sup>th</sup> and 12<sup>th</sup> grades, in 2009 in the 8<sup>th</sup> and 11<sup>th</sup> grades, in 2010 in the 8<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> grades, and in 2011 in the 9<sup>th</sup> and 12<sup>th</sup> grades. In the 7<sup>th</sup> grade in 2008 and in all grades except grade 12 in 2012, Porter County students were below state averages. These findings reinforce the idea that smoking by Porter County students has declined somewhat over the years.



When it comes to monthly use of cigarettes, there are also a large number of the cells in Figure 3.4 with a 0, indicating that patterns of use in those grades are statistically identical to state averages. There are some differences, however. In 2008 Porter County students exceeded state averages in the 11<sup>th</sup> grade, in 2009 in the 8<sup>th</sup> and 10<sup>th</sup> grades, in 2010 in the 8<sup>th</sup> through the 11<sup>th</sup> grades, and in 2011 in the 9<sup>th</sup> and 12<sup>th</sup> grades. In 2012 Porter County students were lower than state averages in the 6<sup>th</sup> through 9<sup>th</sup> grades, and the 7<sup>th</sup> - 9th grades in 2013. In all other grades during those years Porter County students were equal to state averages. These findings reinforce the idea that smoking by Porter County students has declined somewhat over the years.



## **Risk Factors: ATOD Study**

<u>Perceived Risk of Smoking.</u> Students also were asked about the perceived risk of smoking cigarettes. Data on those who perceived a great risk in smoking more than 1 pack a day are presented in Figure 3.5. General patterns are difficult to determine. Perception of risk tends to raise for all grades in 2010, but declines after that. Overall, looking at the data over the long term, there seems to be a slight increase in the perception of great risk of smoking.



**Perceived Peer Approval of Cigarette Smoking.** From 2008 through 2012, students were asked whether or not they thought their peers approved or disapproved of smoking more than one pack of cigarettes a day. In 2013 the question wording changed and students were asked if their peers thought smoking more than one pack of cigarettes was wrong, very wrong, etc. These responses proved to be incompatible with previous data. Therefore, data for 2008 – 20012 are in Figure 3.6 and the data for 2013 is presented separately in Figure 3.7.

Figure 3.6 presents the percentage of students who perceived their peers to strongly disapprove of smoking more than one pack of cigarettes a day. As indicated, disapproval generally varies by grade. For example, in 2012  $6^{th}$  graders are the most likely to see their peers

as strongly disapproving (75.3%) and  $12^{th}$  graders the least (45.6%). With the exception of  $12^{th}$  graders who, despite some ups and downs, are about the same over time, the percentage of students seeing strong disapproval of their peers seems to be going up slightly.



Figure 3.7 looks at the 2013 data separately. As indicated, the focus is on the perception of whether smoking more than one pack per day is wrong. What is most revealing in the Figure is the extent to which students change over time in seeing smoking this much as "very wrong." A total of 67.1% of 6<sup>th</sup> graders see this as very wrong, and that figure drops to 47.8% for 8<sup>th</sup> graders, 26.7% for 10<sup>th</sup> graders, and to 19.4% for 12<sup>th</sup> graders. Similarly, but not as dramatic, is the increase across grades of those who see this as "not at all wrong." Only 2.9% of 6<sup>th</sup> graders, 8.4% of 8<sup>th</sup> graders, 15.9% of 10<sup>th</sup> graders, and then 23.5% of 12<sup>th</sup> graders view this as "not at all wrong."



<u>Perceived Parental Approval of Smoking Cigarettes</u>. In previous years questions were not asked about parental approval of smoking, but they were in 2013. Students were asked if their parents viewed smoking cigarettes as very wrong, wrong, a little bit wrong, or not wrong at all. The results are plotted in Figure 3.8. As indicated, 93.8% of  $6^{th}$  graders think their parents view smoking as very wrong. This number drops to 91% in the  $8^{th}$  grade, 82.6% in the  $10^{th}$ grade, and 70.3% in the  $12^{th}$  grade. This decline is similar to the one on perceived peer approval, but it does not come near to the magnitude of that decline. A very small number of students perceive that their parents see smoking as not at all wrong. For example, only 1.3% of  $6^{th}$  graders and 5.8% of  $12^{th}$  graders perceive their parents as viewing smoking as not at all wrong.



## Cigars

The ATOD survey asked students a similar series of questions about student monthly and lifetime use of cigars. They did not, however, ask about perceived risk, peer approval, or parental approval.

<u>The Monthly Use of Cigars.</u> Figure 3.8 presents the responses of Porter County students about their monthly use of cigars. Somewhat surprisingly, there is a good deal of reported use in the past month, particularly by persons in the 12<sup>th</sup> grade. For example, in 2008 22.3% reported use and 20.6% reported use in 2011. This number has dropped considerably to only 13.1% of 12<sup>th</sup> graders reporting use in the past month in 2013. Overall, there is less use of cigars at lower grade levels and this continues across all years. There also is a decline in reported use across time in all grade levels.



**Lifetime Use of Cigars.** Figure 3.9 presents the responses of Porter County students to questions about their use of cigars during their entire lifetime. In every year, the overall use of cigars increases with grade level. In 2013, as indicated, 0.9% of  $6^{th}$  graders report using cigars, and that figure increases to 32.6% for  $12^{th}$  grade students. With the exceptions of 2010 and 2013, the percentage of Porter County students reporting lifetime use either exceeds or is close to 40% of  $12^{th}$  graders. Overall, there has been a gradual tendency for reported use to go down in all grades across time.



Figure 3.9

State and Porter County Comparisons. Figures 3.10 and 3.11 present the differences between Porter County and state averages for various grades and levels of use of cigars. Only differences that are statistically significant at the < .05 level are reported; otherwise, the difference is represented as a zero. If the number is preceded by a negative sign (-) that means Porter County students use cigars at a rate below the state average. If positive, it means they use cigars at a rate above the state average.

As indicated in 2008 in Figure 3.10, Porter County students exceeded state averages for lifetime use in the 9<sup>th</sup> grade, but were less than state averages in the 7<sup>th</sup> grade. In 2009 they exceeded state averages in the 10<sup>th</sup> grade, and in 2010 they were below state averages in 8<sup>th</sup> through 11<sup>th</sup> grades. In 2011 they exceeded state averages in the 9<sup>th</sup> grade, and in 2012 they exceeded state averages in the 10<sup>th</sup> and 12<sup>th</sup> grade, but were below state averages in the 7<sup>th</sup> and 9<sup>th</sup> grades. In 2013, Porter County students exceeded state averages for the 11<sup>th</sup> grade but were below state averages in the 6<sup>th</sup>, 7<sup>th</sup>, and 9<sup>th</sup> grades.



Differences in monthly use are reported in Figure 3.11. As indicated, Porter County students exceeded state averages in 2008 in the 8<sup>th</sup> and 10<sup>th</sup> through 12<sup>th</sup> grades. In 2009 they exceeded state averages in the 11<sup>th</sup> and 12<sup>th</sup> grades, and in 2010 they exceeded state averages in the 8<sup>th</sup> grade and were below state averages in the 10<sup>th</sup> and 11<sup>th</sup> grades. In 2011 and 2012 they exceeded state averages in the 12<sup>th</sup> grade. In 2013, Porter County students were below state averages in the 9<sup>th</sup> grade.



#### **Pipes: Tobacco, Hookah, Water-pipes**

The ATOD survey asked a similar series of questions to students about their use of pipes. Pipes in this context refer to smoking tobacco in a traditional pipe, the use of a water pipe, or the use of a hookah. The questionnaire did not include questions about perceived peer approval, and parental approval, but they did ask about monthly and lifetime use of a pipe.

The Monthly Use of Pipes. Figure 3.12 presents Porter County student responses to the question about the monthly use of a pipe. Overall there is not a lot of heavy use of pipes among students. Use increases with grade level. For example, in 2013, 0.6% of 6<sup>th</sup> graders report using a pipe, and that number increases to where 16.2% of  $12^{th}$  graders report using a pipe in the past month. Pipe use has consistently decreased in all grades except the  $12^{th}$ , but that declined somewhat in 2013.



**Pipes** 

Figure 3.12 Percentage of Porter County Students Reporting Monthly Use of **Lifetime Use of a Pipe.** Figure 3.13 displays the information on the percentage of Porter County students reporting lifetime use of a pipe. For every grade and every year, the percentage of students who have ever used a pipe is about double that of the percentage of students who report monthly use. With the exception of  $12^{th}$  graders, lifetime use seems to be declining a bit across time.



<u>State and Porter County Comparisons.</u> While there does not appear to be a high level of use of pipes by students in Porter County, the level of use generally exceeds levels of use across the rest of the state in most grades for both monthly and lifetime use. These results are presented in and Figures 3.14 and 3.15.

As indicated in Figure 3.14, Porter County students exceeded state averages in lifetime use in 2008 in the 8<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grades, but were below state averages in the 7<sup>th</sup> grade. In 2009 they exceeded state averages in the 8<sup>th</sup> and 10<sup>th</sup> through 12<sup>th</sup> grades. In 2010 and 2011 they exceeded state averages in the 7<sup>th</sup> through 12<sup>th</sup> grades. In 2012 and 2013 they exceeded state averages in 10<sup>th</sup> through 12<sup>th</sup> grades.



As indicated in Figure 3.15, Porter County students exceeded state averages in monthly use in 2008 in the 8<sup>th</sup> through 12<sup>th</sup> grades. In 2009 they exceeded state averages in the 8<sup>th</sup> and 11<sup>th</sup> and 12<sup>th</sup> grades. In 2010 they exceeded state averages in the 7<sup>th</sup> through 12<sup>th</sup> grades. In 2011 they exceeded state averages in 9<sup>th</sup> through 12<sup>th</sup> grades, and in 2012 and 2013 they exceeded state averages in the 10<sup>th</sup> through 12<sup>th</sup> grades.



## **Smokeless Tobacco**

The ATOD surveys asked a similar series of questions about student use of smokeless tobacco. They did not ask about perceived risk, peer approval, and parental approval, but they did ask about monthly and lifetime use of smokeless tobacco.

<u>The Monthly Use of Smokeless Tobacco.</u> Figure 3.16 reports responses to the question regarding use of smokeless tobacco in the previous month. Reported use of smokeless tobacco increases with grade level. For example, in 2013 increases in reported use run from .6% in the  $6^{th}$  grade to 7.3% for 12<sup>th</sup> graders. Over time, use appears quite stable for  $6^{th}$  and  $8^{th}$  graders, but fluctuates for 10<sup>th</sup> and 12<sup>th</sup> graders, especially in 2010 where reported use dropped considerably. In the past two years, there appears to be some decline in reported use.



**Lifetime Use of Smokeless Tobacco.** Students also were asked how often they have used smokeless tobacco in their lifetime. Responses are presented in Figure 3.17. Most Porter County students have never used smokeless tobacco. Lifetime use does, however, increase across grade level, and by the time students reach the 12<sup>th</sup> grade in 2013, 19.1% of students and in 2012 19.9%, say they have used smokeless tobacco. When looking at use of smokeless tobacco across time, as was the case with monthly use, reported use is quite stable for students in the 6<sup>th</sup> and 8<sup>th</sup> grades, but varies considerably for students in the 10<sup>th</sup> and 12<sup>th</sup> grades, particularly in 2010 when it drops considerably and then rises again in 2011.


State and Porter County Comparisons. The data comparing Porter County students with state averages for lifetime use is presented in Figure 3.18. As indicated, with the exceptions of the 9<sup>th</sup> through 11<sup>th</sup> grade in 2009, Porter County students are below average in most grades and in most years. In the remainder of years and grades they are consistent with state averages. This is one area where Porter County students consume much less than their peers across the state.



For monthly use, as indicated in Figure 3.19, Porter County students are below state averages in the 7<sup>th</sup> through 10<sup>th</sup> grades in 2008, the 8<sup>th</sup> grade in 2009, the 7<sup>th</sup> and 10<sup>th</sup> grades in 2011, the 7<sup>th</sup> through 12<sup>th</sup> grades in 2012, and 8<sup>th</sup> through 10<sup>th</sup> and 12<sup>th</sup> grades in 2013. They were above state averages in the 10<sup>th</sup> through 12<sup>th</sup> grades in 2009. In the remainder of the grades they consumed the same amount as their peers across the state.



Adult Tobacco Abuse: Porter-Starke and Porter Regional Hospital. Both Porter-Starke Services and Porter Regional Hospital diagnosis persons with either nicotine dependence or tobacco use disorder. In the case of Porter-Starke there is only data from 2011 where they had 329 persons diagnosed with nicotine dependence. There was no data available for other years. The data from Porter Regional Hospital is presented in Figures 3.20 and 3.21. These were the persons who were treated at the hospital who were diagnosed with tobacco use disorder. As indicated in Figure 3.20, there were 4800 in 2011, 5511, in 2012, and 7333 in 2013. Figure 3.21 combines all three years and breaks the data down by age. As is the pattern with many other drugs in this report, abuse increases with age, peaks in the 26 - 35 year old cohort and then declines after that.





## Chapter 4 Marijuana

The focus of this section turns to the consumption and consequences of the use of marijuana. The same outline is followed as in previous sections. First, patterns of consumption are examined by looking at the data reported in the Porter County ATOD surveys. The data examining risk factors will be reported followed by data on the consequences of marijuana consumption as seen in treatments at the hospital and mental health facilities, arrests for marijuana-related offenses, and referrals and tests at adult and juvenile probation.

### Patterns of Consumption: ATOD Data

<u>Monthly Use of Marijuana.</u> Students were asked whether they had used marijuana in the past month. Figure 4.1 plots the responses for students in grades 6, 8, 10, and 12. In most years, marijuana use increases as grade level increases, reaching about 20% of students in 12<sup>th</sup> grade reporting they had smoked marijuana in the past month. Overall, there is a decline in reported use over time.



Lifetime Use of Marijuana. Students also were asked if they ever have and how often they have used marijuana in their entire lives. Figure 4.2 plots the data for students in grades 6, 8, 10, and 12. The same pattern emerges as in the previous figure. Lifetime consumption of marijuana goes up quite substantially as grade level increases. In all years, over one-fourth of 9<sup>th</sup> grade students report having used marijuana during their lives, a number increasing to about 40 percent among 12<sup>th</sup> grade students. As indicated in Figure 4.2, there seems to be a tendency for reported lifetime use to decline across time.



<u>**Comparison to State.</u>** As part of the ATOD survey, comparisons are made between patterns of use at the state level and local level. The results of these comparisons are presented in Figures 4.3 and 4.4. The numbers listed in the Figures indicate the number of percentage points of difference between use of marijuana at the state level and in Porter County. Positive numbers indicate greater use in Porter County than state averages, while negative numbers indicate less use in Porter County than state averages. A 0 indicates no difference between Porter County students and state averages. Only percentages that are statistically significant at the p < .05 level are reported.</u>

<u>Comparison to State: Lifetime Use.</u> As indicated in Figure 4.3, in more instances than not, Porter County students use marijuana at higher levels than the state average in 2008, 2009, 2010, and 2011, although the differences decrease in magnitude from 2009 to 2011. In 2012 and 2013, the consumption level of Porter County youth is either equal to or substantially less than state consumption for all grades.



<u>Comparison to State: Monthly Use.</u> As indicated in figure 4.4, in most grades in 2008 – 2011, Porter County students exceed state averages in monthly use of marijuana, although once again the differences decrease in magnitude from 2009 to 2011. That changes substantially in 2012, where only  $12^{th}$  graders exceed state averages and  $6^{th}$  graders are actually below state averages. In 2013,  $9^{th}$  graders were below state averages while other grades were not statistically different from state averages.



### **Risk Factors: ATOD Survey**

<u>Perceived Risk of Marijuana Use.</u> It is reasonable to assume that whether or not someone would use marijuana relates to the level of perceived risk. The ATOD survey includes questions that ask about the perceived risk of occasional and regular use of marijuana. Figures 4.5 and 4.6 examine the trends over time for occasional and regular use for 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders.

As indicated in Figure 4.5, perceived risk of occasional use of marijuana generally declines as grade level increases. For example, in 2013 34.7% of  $6^{th}$  graders saw a great risk in occasionally using marijuana, but only 13.4% of  $12^{th}$  grades saw a great risk in occasional use. From 2008 to 2013 there is a decline in the percentage of students seeing a great risk of occasional use of marijuana in every grade. In particular, there was a decline in the perception of risk for  $6^{th}$  graders and  $8^{th}$  graders between 2012 and 2013.



Students see much greater risk in the regular use of marijuana than in occasional use. For example, in Figure 4.6 in 2013, 52.3% of 6<sup>th</sup> graders see a great risk in the regular use of marijuana compared to 34.7% (Figure 4.5) of 6<sup>th</sup> graders who see a great risk in the occasional use of marijuana. Perceived risk of regular use declines as grade level increases and over time, there is a general decline in the perceived great risk of regular use from 2008 - 2013. In this instance there is a substantial drop in perceived risk for all grades from 2012 to 2013.



<u>Perceptions of Peer Approval and Disapproval.</u> Understanding perceptions of peer approval is an important factor in understanding teen behavior. In this section we focus on the perception of peer disapproval. For reasons we don't understand, the ATOD survey changed the wording of the question on approval from asking students if they saw their peers as strongly approving, approving, etc. of their use of marijuana and other drugs. In 2013, they changed the

focus to if their peers saw the use of marijuana as very wrong, wrong, etc. Initially the effort was to cast them in some comparable manner, but it became clear that the difference in wording made the data from 2013 not comparable to previous data on this question. Therefore, the data in Figure 4.7 and Figure 4.8 runs from 2008 to 2012. In Figures 4.9 and 4.10 the data from 2013 is presented separately and focuses on the various responses across grades. In these figures, data is limited to 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders.

Figure 4.7 examines student's perceptions of strong peer disapproval for occasional use of marijuana. Strong peer disapproval decreases as grade level increases. For example, in 2012 78.3% of  $6^{th}$  graders, but only 30.9% of  $12^{th}$  graders perceive strong peer disapproval for occasional use of marijuana. This pattern holds across every year in the study. Over time, perceptions of strong disapproval remain relatively constant for  $10^{th}$  and  $12^{th}$  graders, but there is a gradual increase in the perception of strong disapproval for  $6^{th}$  and  $8^{th}$  graders.



Figure 4.8 examines student's perceptions of strong peer disapproval of regular use of marijuana. Once again disapproval declines as grade level increases. For example, in 2012 80.3% of 6<sup>th</sup> graders, but only 43.3% of 12<sup>th</sup> graders perceive strong peer disapproval. Not surprisingly, these figures are substantially higher than those for just occasional use. Perceived strong disapproval remains relatively stable for 10<sup>th</sup> and 12<sup>th</sup> graders, but goes up a bit for 6<sup>th</sup> and 8<sup>th</sup> graders.



**Disapproval Of Regular Use of Marijuana** ATOD 2008-2012

Figure 4.8 Percentage of Porter County Students Perceiving Peer Strong Figure 4.9 treats responses from 2013 differently because of their different wording from previous years. In this figure, the perception of various degrees of "wrong" are plotted over different grade levels. To more easily identify the patterns, only the two most extreme categories are plotted, "very wrong" and "not at all wrong." Interestingly, 68.4% of 6<sup>th</sup> graders think their friends see smoking marijuana occasionally as "very wrong" and that percentage drops to 44.9% in the 8<sup>th</sup> grade, 23.4% in the 10<sup>th</sup> grade, and 16.9% in the 12<sup>th</sup> grade. At the same time, the percentage of students who don't see their peers as seeing this as not at all wrong increases from 2.7% in the 6<sup>th</sup> grade to 33.7% in the 12<sup>th</sup> grade.



Figure 4.10 examines student perceptions of the views of their peers on smoking marijuana regularly. In this figure the perception of various degrees of "wrong" are plotted over different grade levels for 2013. To more easily identify the patterns, only the two most extreme categories are plotted, "very wrong" and "not at all wrong." The patterns are similar to the previous figure except they are a bit larger. For example, a similar drop occurs in the percentage of students who see their peers as believing regular smoking of marijuana is very wrong; 71.2% of 6<sup>th</sup> graders, 48.9% of 8<sup>th</sup> graders, 27.4% of 10<sup>th</sup> graders, and 20.5% of 12<sup>th</sup> graders think their peers believe that smoking marijuana regularly is "very wrong." At the same time, the percentage of students who believe their peers do not see smoking marijuana as wrong regularly increases as grade level increases. Only 1.9% of 6<sup>th</sup> graders and 9.7% of 8<sup>th</sup> graders, but 19.1% of 10<sup>th</sup> graders and 27.3% of 12<sup>th</sup> graders believe their peers see the regular smoking of marijuana as not wrong at all.



<u>Perceptions of Parental Approval.</u> Students also were asked about their parents' views on marijuana. The results from 2008 - 2009 are not included because the question wording changed. In 2010 and beyond, students were asked if their parents saw using marijuana as very wrong, wrong, etc. As indicated in Figure 4.11, 95.6% of 6<sup>th</sup> graders thought their parents viewed smoking marijuana as very wrong, while 71.5% of the  $12^{th}$  graders held similar views. The percentage of students who see their parents as thinking marijuana use is very wrong increases over time for all grades except the  $10^{th}$  where it stays about the same.



<u>Access to Marijuana.</u> Beginning in 2010, Porter County students were asked about the availability of marijuana. Figure 4.12 combines the students who see it as easy and fairly easy to get marijuana and plots this percentage for students in 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> grade from 2010-2013. As indicated, the perception of easy access to marijuana increases significantly with grade level for all years. For example, in 2013 only 6.0% of 6<sup>th</sup> graders, but 65.8% of 12<sup>th</sup> graders perceive easy access. Over time, there is a tendency in all grades, but particularly in 10<sup>th</sup> and 12<sup>th</sup> grades.



### Consequences

<u>Consequences: Arrests for Marijuana Related Offenses.</u> Figure 4.13 presents data on the number of arrests in Porter County by the Porter County Sheriff's Department for marijuanarelated offenses. As indicated, the number of arrests started to decline after 2006, then bottomed out in 2008 with 374 arrests, but then has steadily risen to 563 arrests in 2012, but then dropped off a bit in 2013 to 506 arrests.



The data also can be broken down more specifically by age to see what happens to various age groups across time. Figure 4.14 presents this data. As indicated, 18-25 year olds are arrested for marijuana at a much higher rate than any other age group. This is the case in every year from 2003 through 2012. The number of 18-25 years olds arrested peaked at 331 in 2004, declined to 210 in 2008, but then increased to 315 in 2011 and 333 in 2012. As with arrests for other substance related offenses, the number of arrests generally declines with age.



<u>Consequences: Positive Tests for Marijuana (THC) Among Adults on Probation.</u> Persons on probation are regularly tested for the use of drugs and alcohol. The data on the number of positive tests for THC is presented in Figure 4.15. As indicated, there has been a steady increase in the number of positive tests beginning in 2006 and peaking at 393 in 2009. The total number of positive tests dropped substantially to 291 in 2012, but then increased significantly to 360 in 2013.



<u>Consequences: Positive Tests for Marijuana (THC) Among Juveniles on Probation.</u> Persons on juvenile probation are regularly tested for the use of drugs and alcohol. The data on the number of positive tests for THC is presented in Figure 4.16. As indicated, there has been a relatively steady number of tests that return positive results. After a high of 277 in 2009, the number dropped substantially in 2010 to 203. In 2011, tests were done for both marijuana and synthetic THC. A total of 281 juveniles tested positive for THC, with 182 testing positive for marijuana and 99 testing positive for synthetic THC. In 2012, the number of positive tests for THC sharply decreased with 108 positive tests for marijuana and 23 positive tests for synthetic THC, for a total of 131 positive tests. The number of positive tests increased slightly in 2013 for THC to 147 and dropped off substantially for synthetic marijuana to only 2.



<u>Marijuana-Related Deaths.</u> There is no precise data on marijuana-related deaths in Porter County. A review of the reports from the Porter County Coroner's Office does indicate that marijuana (THC) was "involved" in some deaths. The number of deaths where marijuana was involved is presented in Figure 4.17. As indicated, there are not many marijuana-related deaths, with a high of 6 in 2004 and a low of 1 in 2009. In 2011, there were 4 deaths involving THC, and in 2012 there were 7, and 5 in 2013.



<u>Consequences: Porter Regional Hospital Cannabis Diagnoses.</u> Indications of problems with marijuana can also been seen by the number of persons who are diagnosed with marijuana-related disorders when treated at Porter Regional Hospital. Data has been provided for the past three years. All the data that follows refers only to Porter County residents treated at the hospital. Figure 4.18 shows the number of persons diagnosed with either dependence or abuse of marijuana. These two categories have been grouped together because there were very few persons diagnosed with dependence on marijuana. As indicated, there were 102 persons in 2011, 132 in 2012, and 104 in 2013.



Figures 4.19 and 4.20 break the data down by age and by year. In Figure 4.19, all three years are combined. This indicates that most problems are detected in persons in the 18-25 year old group (101) and the 26-34 year old group (87). When the same data is broken down more specifically by age and year as in Figure 4.20, it reveals a quite erratic pattern. Persons in the 26-35 year old cohort exhibit a steady decline over the three year period. At the same time, in 2012 there are only 13 persons in the 18-25 year old cohort who overall, are usually more likely to be diagnosed with marijuana related problems. There is something different about 2012 where there is a skewing of the data toward older persons. For example, in 2012 there were 27 in 46 - 55 year old category, 18 in the 56-65 category, and 22 in the 66 and over group, while in 2011 there were 5 in the 46-55 category, 2 in the 56-65 group, and 1 in the 66+ cohort. Why there is such a pattern at this time is difficult to explain.





<u>Consequences: Porter-Starke Services Treatments.</u> One valuable source of data to help understand the impact and consequences of drug use is to track the number of persons treated at local mental health facilities for specific problems. Porter-Starke Services is the largest mental health treatment center in Porter County. Over the years there has been inconsistency in the way Porter-Starke data has been reported. Previous reports have included data from 2004 through 2012. In those reports there was a substantial increase in the number of treatments for cannabis related issues in 2010 and it was not clear whether the increases were due to the way the data was reported or an actual increase in treatments for marijuana. After 2010, the number of treatments drops slightly and then stabilizes. As a result, it has been determined to only report data beginning in 2011 - 2013 when the way the data is reported is more consistent. Persons interested in the early pattern of data can consult earlier reports.

Figure 4.21 reports the total number of persons diagnosed with a cannabis-related problem. As indicated, since 2011 where there were 482 cases there has been a relatively significant decline to the point that there were only 375 persons in 2013.



Figure 4.22 breaks this data down by age. As indicated, persons in the 18 -25 year old age group are much more likely to seek treatment followed by 26-34 year olds. While it varies in some cohorts and with the exception of the 55+ age group, there have been declines in the persons seeking treatment in every age cohort. Most noticeable is the decline in the 18-25 year old group.



# Chapter 5 Opioids and Heroin

### Introduction

In this section, the focus is on the consumption and consequences related to the use of opioids and heroin. Because the sources used in this project gather and report data in different ways, it is often difficult to compare the data from different sources. For example, the ATOD survey asks questions primarily about heroin, while adult probation reports include data about opioids and then divides them into different types. Similarly, the hospital has fourteen different codes related to opioid use and abuse and only in a few instances is heroin referred to specifically. These various drugs are considered together in this chapter because of their similar derivations. Care needs to be exercised, however, in drawing conclusions from the data because of the tendency to refer to all of these drugs simply as "heroin."

First, patterns of consumption are examined by looking at the ATOD survey. The consequences of opioid/heroin use are examined by looking at treatments at mental health facilities and Porter Regional Hospital, as well as positive tests for juveniles and adults on probation. In addition, heroin/opioid related deaths as reported by the Coroner's Office are examined.

#### Patterns of Consumption: ATOD Data

Monthly Use of Heroin. Student responses to the question as to whether they had used heroin in the past month are reported in Figure 5.1 for the years 2008-2013. As indicated, most students have not used heroin in the past month. In 2013 only 0.1% of students in the 6<sup>th</sup> grade reported using heroin. Students in the 10<sup>th</sup> through 12<sup>th</sup> grade reported the highest percentage use at 0.7%. Figure 5.1 highlights the increase in monthly consumption for 8<sup>th</sup> graders in 2010, but one needs to be cautious in interpreting these differences. While it could be argued that the amount of reported use by 8<sup>th</sup> graders more than quadrupled from 2008 (0.5%) to 2010 (2.2%), the actual increase is not large and the number of cases in these categories is small which makes generalization about these issues very problematic. Overall, it is reasonable to conclude that there is not a great deal of reported monthly use of heroin by Porter County students, and there appears to be a recent decline in reported use.



Figure 5.1

Lifetime Use of Heroin. As indicated in Figure 5.2, when asked if they have ever used heroin in their lives, few students report ever using heroin. In 2013, 0.1% of 6<sup>th</sup> graders and 0.7% of 12<sup>th</sup> graders report having used heroin in their lifetime. Once again, there needs to be caution in interpreting the differences between years because the actual changes are very small and the number of cases in these categories is also small which makes generalization about these issues very problematic. Once again, there appears to be a recent slight decline in reported use



<u>Comparisons to State.</u> Figures 5.3 and 5.4 present data comparing Porter County students with other students across the state on both lifetime and monthly use of heroin. The data on lifetime comparisons is presented in Figure 5.3 and data comparing monthly use in Figure 5.4. The numbers in the Figures indicate the number of percentage points of difference between use of heroin at the state level and in Porter County. All positive numbers reported indicate greater use in Porter County than the state averages, while negative numbers indicate less use in Porter County. A 0 indicates no differences between Porter County students and state averages. Only figures that are statistically significant at the p < .05 level are reported.

As indicated Figure 5.3, there is no difference in reported <u>lifetime use</u> of heroin by Porter County students and state averages in 2008, 2009, and 2013. However, in 2010, 7<sup>th</sup>, 8<sup>th</sup>, and 12<sup>th</sup> graders exceeded state averages, but 10<sup>th</sup> graders were lower than state averages. In 2011, Porter County students exceeded state averages in 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grades, and in 2012 they exceeded state averages in 9<sup>th</sup> and 12<sup>th</sup> grade. In 2013, Porter County students were statistically equal to state averages in all grades.



Similarly, as indicted in Figure 5.4, there is no difference in reported <u>monthly use</u> of heroin by Porter County students and state averages in 2008, 2009, and 2013. In 2010, Porter County students exceeded state averages in  $8^{th}$  and  $11^{th}$  grades, and in 2011 they exceeded state averages in  $8^{th} - 10^{th}$  grades and  $12^{th}$  grade. In 2012, Porter County students exceeded state averages in  $9^{th}$  and  $12^{th}$  grades. The absence of a difference in both lifetime and monthly reported use between Porter County and state students in 2013 parallels the slight decline in reported use indicated in Figures 5.1 and 5.2.



### Consequences

<u>Consequences: Positive Tests for Opiates among Adults on Probation.</u> Adults on probation are required to submit to periodic drug and alcohol tests. The data provided does not report specifically for heroin, but does report data on positive tests for opiates. The number of positive tests for opiates between 2003 and 2013 is presented in Figure 5.5. In contrast to the data with Porter County students, there has been a general upward trend in positive tests with the number rising to 574 in 2011 and 720 in 2013. It is important to emphasize that the data represents number of positive tests and not the number of persons who failed tests, since it is probable that some of the positive tests were failed by the same person.



In 2011, but not in other years, the data provided to us from adult probation was broken down further and the specific drugs found in this category can be identified. The specific drugs identified include 6-Monoacetylmorphine (6MAM), Codeine (CODE), Hydrocodone (HYDC), Hydromorphone (HYDM), Morphine (MOR), Oxycodone (OXCY), and Oxymorphone (OXYM). Figure 5.6 indicates that the most frequent drug found in failed adult probation tests is Hydrocodone (HYDC) found in 233 tests, followed by Morphine in 149 failed tests. Note should be made that the data does not distinguish between what might be prescription or nonprescription use of these drugs. It also is clear that males are much more likely to fail opiate tests than are females.



Figure 5.7 breaks down the data for 2011 further and examines both the age and sex of those persons who failed tests for opiates. In this figure, all opiates are considered together. As indicated, the number of positive tests peaks in the 26 - 34 age group for men, begins to decline slowly in the 35-44 year old age group, and then begins to decline rapidly after that. Women on the other hand, peak in the 18-25 year old age group and decline sharply after the 35-44 age group. Males exceed females in all the age categories.



<u>Consequences: Positive Tests for Opioids for Juveniles on Probation.</u> Juveniles on probation are required to submit to periodic drug tests. The data in Figure 5.8 reports the number of positive tests for opioid related drugs for juveniles on probation. As indicated, there are not a large number of positive tests, and no clear patterns except that there is a decline in recent years. This is in stark contrast to data for adults, but corresponds to the data from the ATOD survey where students report low levels of use of heroin and opioid related drugs.



**Heroin-Related Deaths.** The Porter County Coroner's Office provides a report on the causes of drug related deaths. A review of the reports from the Porter County Coroner's Office indicates that heroin was "involved" in 18 deaths in 2011. This is an increase in the number reported in previous years, but in 2012 there were 11 heroin-related deaths, a decrease from the two previous years. In 2013, there were 16 heroin-related deaths. This data is presented in Figure 5.9. A problem in determining heroin deaths is that heroin converts to morphine in the body and the cause of death is sometimes reported as morphine. The Coroner determines if it is a heroin-related death with reference to other evidence. The data reported in Figure 5.9 is based on a literal reading of the actual listed cause of death. The data reported for 2008 was adjusted from 9 to 11 based on clarifications provided by the Coroner's Office.



**Porter-Starke Services Treatments.** One way to assess the consequences of the consumption of opioids is to examine the number of treatments at local mental health facilities. Porter-Starke Services is the largest mental health treatment center in Porter County. Over the years there has been inconsistency in the way Porter-Starke data has been reported. Previous reports have included data from 2004 through 2012. In those reports there was a substantial increase in the number of treatments for opioid related issues in 2010, and it was not clear whether the increases were due to the way the data was reported or an actual increase in treatments for opioids. After 2010, the number of treatments drops slightly and then stabilizes. As a result, it has been decided to only report data beginning in 2011–2013 when the way the data is reported is more consistent. Persons interested in the early pattern of data can consult earlier reports.

The data in Figure 5.10 includes the number of clients treated for opioids at Porter-Starke from 2011-2013. Interestingly, despite the relatively low level of reported use among Porter County students, there is a significant number of treatments for opioid-related problems and the number is increasing. For example, in 2011 there was a total of 418 persons diagnosed with an opioid-related problem and that number increased to 452 in 2012 and 633 in 2013.


Figures 5.11 and 5.12 break down the Porter-Starke data by age. Figure 5.11 combines all three years and demonstrates a pattern showing that treatments rise with age and peak in the 26-34 year old age group and then decline after that. Figure 5.12 breaks that down further by both age and year. As indicated, there is an increase over time in almost all age groups, but in particular in the 26-34 year old cohort that increases from 163 in 2011 to 175 in 2012 and then to 268 in 2013. There are similar, but not as dramatic increases in the 18-25 year old group where there are increases from 107 in 2011, 126 in 2012, and to 152 in 2013. There also are increases in the 35-44 cohort from 82 in 2011 to 133 in 2013.





<u>Opioid Treatments Porter Regional Hospital.</u> Another indicator of the existence of problems related to opioid use and abuse are the number of persons seen at the local hospital who are diagnosed with some type of opioid-related problem. The following data includes only those persons who were Porter County residents. As indicated in Figure 5.13, there were 183 in 2011, 165 in 2012, and 185 in 2013.



Figure 5.14 breaks this data down a bit and distinguishes between abuse, dependence, or accidental overdose. The number of patients diagnosed with opioid abuse declined a bit over time with 88 in 2011, 81 in 2012 and 77 in 2013. At the same time the number diagnosed with dependence increased slightly from 70 and 65 in 2011 and 2012 respectively, to 84 in 2013. Accidental overdoses remain relatively constant ranging from 19 to 25.



Figure 5.15 reports the ages of persons with opioid related diagnoses initially by combining all three years together to see overall patterns. As is the case with many other drugs, usage goes up with age and peaks in the 26-35 year old cohort and then declines after that. Figure 5.16 breaks this data down by both age and year to examine age related patterns over time. There still is a general tendency for the 26-35 year old group to have the most cases, but in a year like 2012, the 46-55 year cohort had a few more.



## Chapter 6 Cocaine

Chapter 6 focuses on the consumption and consequences of the use of cocaine. First, patterns of consumption are examined by looking at the ATOD survey. Risk factors are then examined by using the same data sources. The consequences of cocaine use are examined by looking at treatments at mental health facilities and Porter Regional Hospital, arrests, and cocaine-related deaths as reported by the Coroner's Office.

<u>Monthly Use of Cocaine</u>. Figure 6.1 presents data regarding the reported monthly use of cocaine over time from 2008 through 2013 for 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders. There is not a lot of use of cocaine at any grade level in any year. The highest level of use is generally in the 12<sup>th</sup> grade where, for example, 3.9% reported monthly use in 2011 and 2.9% reported monthly use in 2009. There is a tendency for reported use in all grades to decline over time especially in the most recent years. Once again, keep in mind that the number of students actually reporting cocaine use is small which makes drawing conclusions about recent trends problematic.



**Lifetime Use of Cocaine.** Figure 6.2 presents student reported lifetime use of cocaine. As indicated, reported use increases with grade level in every year. For example, in 2013 only 0.5% of  $6^{th}$  grade students, 1.1% of  $8^{th}$  graders, and 5.1% of  $12^{th}$  graders report ever using cocaine. Once again, the trend is toward declining use in recent years.



<u>Comparison to State.</u> The ATOD study reports comparisons of cocaine use at the state and local levels. These comparisons are presented in Figures 6.3 and 6.4. The figures list the differences between use of cocaine at the state and Porter County levels for 2008 through 2013. Only differences that are statistically significant (p < .05) are reported. The numbers indicate the percentage points above or below state averages. A 0 indicates or a blank indicates no differences.

Figure 6.3 shows data on monthly use of cocaine and as indicated, there are no differences in 2009 and 2012 between Porter County students and state averages. Porter County students, however, exceed state averages in 2008 in the 7<sup>th</sup> and 10<sup>th</sup> grades, in the 7<sup>th</sup> and 8<sup>th</sup> grades in 2010, in the 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grades in 2011, and in 10<sup>th</sup> grade in 2013. In 2010, Porter County students reported less use in the 10<sup>th</sup> and 11<sup>th</sup> grades. Note should be made that while these are statistically significant differences, they are not very large.



Comparisons of lifetime use of cocaine are presented in Figure 6.4. Porter County students exceed state averages in 2008 in the 10<sup>th</sup> and 12<sup>th</sup> grades, in the 11<sup>th</sup> grade in 2009, in the 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> grades in 2011, in the 12<sup>th</sup> grade in 2012, and in 10<sup>th</sup> grade in 2013. In 2010, Porter County students reported less use in the 10<sup>th</sup> grade. Note should be made that while these are statistically significant differences and not very large, they are still substantially larger than the differences reported for monthly use. There does seem to be a slight trend in recent years for Porter County students to exceed state averages in fewer grades.



#### Consequences

<u>Cocaine-related Deaths.</u> The Coroner's Office releases regular reports of deaths and the causes of these deaths. Most deaths reported by the coroner are caused by multiple factors. The data presented in Figure 6.5 are the number of deaths where cocaine was involved. This is the result of our analysis of the reports and not necessarily that of the Coroner's Office. This does not mean it was the primary cause of death, but simply that it was involved and the toxicology report indicated a presence of cocaine in the person's system at the time of death. As indicated in Figure 6.5, there had been a steady increase in the number of deaths in Porter County where cocaine was involved from 3 in 2003 to a high of 12 in 2008. Since 2008, there has been no pattern, with numbers of deaths reaching a low of 2 in 2011and 2013, and a high of 7 in 2010.



<u>Consequences: Arrests for Cocaine-related Offenses.</u> Figure 6.6 presents data on arrests for cocaine-related offenses by the Porter County Sheriff's Department. The number of arrests reflects a rather checkered history, with a gradual increase to a peak of 121 arrests in 2006, a decline to 93 in 2007, 67 in 2008, an increase in 2009 to 77, then a decline again in 2010 to 65, and increases in 2011 to 70 and 94 in 2012, and then a decline to 62 in 2013.



The data also can be broken down more specifically by age to see what has happened to various age groups across time. Figure 6.7 presents this data. As indicated, 18-25 year olds and 36-34 year olds are generally arrested for cocaine at a higher rate than other age cohorts with the exception of a spike in the 35-44 year old group in 2006. After that, the 35-44 year old cohort declines considerably. Overall, those persons in the 45 and above categories have the lowest rates of arrest over time.



**Porter County Probation Drug Tests.** Both adult and juvenile probation departments test persons on probation for drug use. Figure 6.8 presents the number of positive tests for adult probationers for cocaine. As indicated, the number of positive tests peaks at 562 in 2006 and then drops off considerably after that until there are only 105 positive tests in 2011, 104 in 2012, and 103 in 2013. The high number of positive tests in 2006 corresponds with the high number of arrests in the same year for cocaine-related offenses.



Figure 6.9 presents the number of positive tests for cocaine for juveniles on probation. As indicated, there are not a lot of positive tests. Again we see a high in 2006 of 13 and this drops off and ranges from 6 to 2 for the following years.



**Porter Regional Hospital.** The number of persons diagnosed with a cocaine-related disorder at the local hospital is another indicator of the extent of the cocaine problem in Porter County. As indicated in Figure 6.10, there are not a lot of persons diagnosed with a cocaine-related disorder. There were 37 in 2011, 22 in 2012, and 27 in 2013.



Figure 6.11 breaks the hospital data down by age and year. As indicated, there is not a real clear pattern in the data. In general, cocaine peaks with the 26-34 year old group and declines after that. However, the data also suggests a good deal of fluctuation across time by age group.



**Porter-Starke Services Diagnoses.** Figure 6.12 presents data on the number of diagnoses at Porter-Starke Services for cocaine. As indicated, in 2011 there were 133, 143 in 2012, and 104 in 2013. Figure 6.13 breaks this data down by age and year. The same pattern of age related use of cocaine occurs in all three years; there is an increase by age cohort that peaks at the 35-44 year group and then drops off after that. Note should be made that cocaine is a bit different than other drugs in that the most prevalent use is among an older age cohort.





# Chapter 7: Other Drugs Amphetamines, Methamphetamines, Inhalants, and MDMA

#### Introduction

This section reports on the use, availability, and consequences resulting from the use of amphetamines, methamphetamines, inhalants, and MDMA (ecstasy). Patterns of consumption are examined by looking at the ATOD survey. The consequences are examined by looking at treatments at mental health facilities and Porter Regional Hospital, arrests, and data from the juvenile and adult probation departments in Porter County. In addition, some data gathered is labeled just "drugs" or "other drugs," and this data is included in this section.

#### **Consumption Patterns: Amphetamines**

Figures 7.1 and 7.2 present the data on reported monthly and lifetime use of amphetamines for 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grade Porter County students from 2008–2011. Reported monthly or lifetime use of amphetamines was not provided for in 2012 and 2013.

<u>Monthly Use.</u> As indicated in Figure 7.1, there is not a lot of reported monthly use of amphetamines by Porter County students. The highest reported use is by  $10^{th}$  graders in 2011, and that number only reaches 5% of those surveyed. In contrast to other data,  $10^{th}$  graders generally report using amphetamines in the past month more frequently than persons in other grades.



**Lifetime Use.** The data presented Figure 7.2, indicates substantially more Porter County students report using amphetamines over their lifetime. For example, in 2010 14% of the 12<sup>th</sup> graders report using amphetamines in their lifetime. At the same time, there is a very dramatic drop off in reported use after 2010, particularly by 10<sup>th</sup> and 12<sup>th</sup> grade students.



<u>Comparisons to State Usage Patterns.</u> Figures 7.3 and 7.4 present a comparison between the use of amphetamines by Porter County youth and youth across the state. As in past sections, the only figures presented are those that represent a statistically significant difference at the p < .05 level. Where there is a 0, there is no difference between local youth and state averages. The numbers represent the differences in percentages between Porter County and the state averages. If the number is positive, it indicates greater consumption among Porter County youth.

Figure 7.3 presents the data on lifetime amphetamine use and demonstrates that Porter County students exceed state averages in the  $10^{\text{th}} - 12^{\text{th}}$  grades in 2008, the  $7^{\text{th}}$  and 8th, and  $10^{\text{th}} - 12^{\text{th}}$  grades in 2009, the  $7^{\text{th}} - 12^{\text{th}}$  grades in 2010, and grades 8 - 12 in 2011.



Figure 7.4 presents data on monthly amphetamine use and indicates that Porter County students exceed state averages in grades 8, 10, and 12 in 2009, and grades 7 - 12 in both 2010 and 2011. Porter county students are similar to others in the state in 2008.



**Porter-Starke Services Treatments for Amphetamine Use.** As with other data from Porter-Stake Services, differences in reporting beginning in 2011 make long-term comparisons difficult. With this in mind, the data presented in Figure 7.5 on amphetamines, indicates there were 40 in 2011, 43 in 2012, and 35 in 2013.



Figure 7.6 breaks the data down by age and indicates that amphetamine use peaks with the 18-25 year old cohort and then declines. This is quite similar to many other drugs considered in this report.



**Amphetamines:** Porter Regional Hospital. Figures 7.7 presents data from Porter Regional Hospital for patients diagnosed with some type of amphetamine use. As indicated in Figure 7.7, there are not a lot of persons with this diagnosis. There were 14 in 2011, 5 in 2012, and 6 in 2013.







**Positive Drug Tests Porter County Adult Probation.** Porter County adult probation regularly tests persons on probation for drug and alcohol use. Figure 7.9 presents this data for amphetamines. Data was not available for 2013. As indicated, the number of positive tests peaks in 2006 at 99, then drops off dramatically to 42 in 2007, remains stable through 2010, and then in 2011 increases to 93, and to 107 in 2012.



#### **Consumption Patterns for Methamphetamines**

<u>Monthly Use.</u> Figures 7.10 presents data on reported monthly use of methamphetamines for Porter County students. As indicated, very few students say they have used meth in the past month. In 2013 for example, the highest reported usage is by 10<sup>th</sup> graders at 1.1 percent. Contrary to most other drugs discussed in this report, there is not a clear pattern where reported use increases with grade level. With methamphetamine use, the pattern is quite mixed with 12<sup>th</sup> graders reporting more use in some years and students in the 8<sup>th</sup> and 10<sup>th</sup> grades reporting more use in other years. In recent years there is a slight decline overall in reported use.



**Lifetime Use.** As indicated in Figure 7.11, not a lot of students say they have used meth in their lifetime. In 2013 for example, the highest reported usage is by 10<sup>th</sup> graders at 1.7%. Contrary to most other drugs discussed in this report and similar to monthly reported meth use, there is not a clear pattern where reported use increases with grade level. With methamphetamine use, the pattern is quite mixed, with 12<sup>th</sup> graders reporting more use in some recent years, and in earlier years, students in the 8<sup>th</sup> and 10<sup>th</sup> grades reporting more use. The data does indicate, however, a decline in use over time.



<u>Comparisons to State-Wide Use Patterns.</u> As part of the ATOD survey, comparisons are made between patterns of use at the state level and local level. The results of these comparisons for lifetime and monthly amphetamine use are presented in Figures 7.12 and 7.13. The numbers listed in the figures indicate the number of percentage points of difference between use of amphetamines at the state level and in Porter County. Positive numbers indicate greater use in Porter County than state averages, while negative numbers indicate less use in Porter County than state averages. A 0 indicates no difference. Only figures that are statistically significant at the p < .05 level are reported.

For lifetime use reported in Figure 7.12, the data indicate that Porter County students do not exceed state averages in 2008, 2009, or 2013, but do exceed state averages in the 8<sup>th</sup> and 11<sup>th</sup> grades in 2010, the 8<sup>th</sup> and 10<sup>th</sup> grades in 2011, and the 9<sup>th</sup> grade in 2012.



Differences in monthly use of methamphetamines are presented in figure 7.13. Porter County students do not exceed state averages in 2008, 2012, or 2013, but do exceed state averages in the 8<sup>th</sup> grade in 2009, the 7<sup>th</sup> – 10<sup>th</sup> grades in 2010, and the 8<sup>th</sup> and 12<sup>th</sup> grades in 2011. As indicated by this data, there appears to be a recent decline in reported use.



<u>Positive Tests for Amphetamines</u>. Figure 7.14 examines the number of failed drug tests for amphetamines by juveniles on probation. The number steadily increases from 12 in 2006, to a high of 25 in 2009, followed by a sharp decline in 2010 to 10. In 2011, the number of failed tests increased to 23. The number of failed tests increased to 27 in 2012 and then to 31 in 2013.



### **Consumption Patterns: Inhalants.**

<u>Monthly Use.</u> Figure 7.15 presents data on reported monthly use of inhalants from 2008 through 2013 by Porter County students. As indicated, there is not a lot of reported monthly inhalant use. The highest reported use is 5.9% by  $10^{th}$  graders in 2010. As with other drugs in this chapter, use does not increase with grade level, except to some degree in 2012. Since 2011 there has been a decline in reported use, but again these are not very large numbers and care needs to taken with drawing conclusions.



**Lifetime Use**. The results for reported lifetime use of inhalants by porter County students are found in Figure 7.16. There is generally more reported lifetime use of inhalants than reported monthly use, with a high of 12.5% of 8<sup>th</sup> graders in 2009 reporting lifetime use. There is some tendency for lifetime use to increase with grade level, most notably in 2012. There is a general tendency toward a decline in reported use over time in all grades.



<u>Comparisons to State Usage Patterns.</u> Figures 7.17 and 7.18 present a comparison between the use of inhalants by Porter County youth and youth across the state. As in previous sections, the only figures presented are those that represent a statistically significant difference at the p < .05 level. Where there are no numbers or zeroes, there is no difference between local youth and state averages. The numbers represent the differences in percentages between Porter County and the state averages. If the number is positive, it indicates greater consumption among Porter County youth.

**Lifetime Use.** The results of these comparisons for lifetime inhalant use are presented in Figure 7.17. The data indicate that Porter County students do not exceed state averages in 2008, but do exceed state averages in the  $8^{th}$ ,  $11^{th}$ , and  $12^{th}$  grades in 2009, the  $6^{th}$  and  $8^{th}$  -  $12^{th}$  grades in 2010, the  $7^{th}$ ,  $9^{th}$ ,  $10^{th}$ , and  $12^{th}$  grades in 2011,  $12^{th}$  grade in 2012, and  $11^{th}$  grade in 2013.


**Monthly Use.** The results of these comparisons for monthly inhalant use are presented in Figure 7.18. The data indicate that Porter County students do not exceed state averages in 2008, 2012, and 2013, but do exceed state averages in the  $8^{th}$  and  $12^{th}$  grades in 2009, the  $8^{th} - 11^{th}$  grades in 2010, and the  $7^{th}$ ,  $10^{th}$ , and  $12^{th}$  grades in 2011. Porter County youth have become more like the rest of the state in their use of inhalants over the past two years.



## Consequences

**Porter-Starke Services Treatments for Inhalant Use.** As indicated in Figure 7.19, only 3 persons were treated in 2011, 6 in 2012, and 5 in 2013.



#### Consumption Patterns: Methylenedioxymethamphetamine (MDMA), "Ecstasy"

<u>Monthly Use.</u> Figure 7.20 presents data on reported monthly use by Porter County students of MDMA, often referred to as "ecstasy." As indicated, there is not a lot of reported use of MDMA by students in the past month. Less than 1% of  $6^{th}$  graders in any year report using MDMA in the past month. The highest reported use is 5.7% of 10<sup>th</sup> graders in 2009. There is generally a tendency toward a decline in reported use over time.



**Lifetime Use**. The results for <u>lifetime use</u> of MDMA are reported in Figure 7.21. Reported use goes up with grade level in all years. The highest reported us is by  $12^{th}$  graders in 2009 and 2012 at 13.6% and 13.1% respectively. There is a decline in reported use over time by  $10^{th}$  and  $12^{th}$  graders, while  $8^{th}$  graders go up and down and  $6^{th}$  graders do not change much.

![](_page_183_Figure_1.jpeg)

<u>Comparisons to State Usage Patterns.</u> Figures 7.22 and 7.23 present a comparison of the reported use of MDMA by Porter County youth and youth across the state. As in previous sections, the only figures presented are those that represent a statistically significant difference at the p < .05 level. A zero indicates no difference between local youth and state averages. The numbers represent the differences in percentages between Porter County and the state averages. If the number is positive, it indicates greater consumption among Porter County youth.

For <u>lifetime use</u> reported in Figure 7.22, the data indicate that Porter County students exceed state averages in grades 9 - 12 in 2008, grades 8 - 12 in 2009, grades 7 - 12 in 2010, grades 7 and 9 - 12 in 2011, grades 9 - 12 in 2012, and grades 10 - 12 in 2013.

![](_page_184_Figure_2.jpeg)

For <u>monthly use</u> reported in Figure 7.23, the data indicate that Porter County students exceed state averages in grades 9 - 12 in 2008, grades 8 and 10 - 12 in 2009, grades 7 - 10 and 12 in 2010, grades 10 and 12 in 2011, grades 8, 9, 11, and 12 in 2012, and grades 10 and 12 in 2013. In the  $11^{\text{th}}$  grade in 2010, Porter County students were below state averages by 0.2 percentage points.

![](_page_185_Figure_1.jpeg)

#### Consequences

<u>Consequences of MDMA Use.</u> There is currently no data available about treatments at the Porter Hospital or at mental health facilities for the use of MDMA.

#### **Consequences of Other Drugs in General**

Some data gathered for this project did not specifically identify a drug, or were labeled as a mixture of drugs. For purposes of analysis, all drugs under either of these categories are labeled as "other drugs." The following reports on data in this category from Porter Regional Hospital, Porter-Starke Services, arrests, and the Juvenile and Adult Probation Departments.

**Drug Related Referrals to Juvenile Probation.** Figure 7.24 reports the number of drugrelated offenses reported by the Porter County Juvenile Probation Department between 2005 and 2013. The data reports offenses and not persons, which means that some persons may have multiple offenses and be counted two or more times in the figure below. The number of reported offenses varies across time with a low of 198 in 2005 and a high of 325 in 2006. The number of offenses declined in 2007, stayed the same from 2008-2009 (219 cases), and then rose again in 2010 to 262. In 2011, there was a decrease to 216 offences, and the number of offences remained steady in 2012 (220 offenses), but then increased again in 2013 to 262.

![](_page_186_Figure_3.jpeg)

**Drug Related Referrals to Adult Probation**. Figure 7.25 reports the number of referrals to Porter County Adult Probation for drug-related issues. As indicated, referrals peaked in 2006 at 511, dropped off considerably in 2008 to 342 and to 351 in 2009. After 2009, they remained steady, going from 434 in 2010 to 421 in 2013.

![](_page_187_Figure_1.jpeg)

**Consequences: Arrests for "All Other" Drug-Related Offenses.** This includes arrests by the Porter County Sheriff's Department for all other drugs not included in previous parts of this report. The data is summarized in Figure 7.26. The number of arrests reflects a rather checkered history. There is a gradual increase to 568 arrests in 2006, followed by declines to 421 in 2007, and 368 in 2008. This is followed by increases in 2009 to 501, 632 in 2010, 689 in 2011, 726 in 2012, and then dropping off to 654 in 2013.

![](_page_188_Figure_1.jpeg)

The data also can be broken down more specifically by age to see what has happened to various age groups across time. Figure 7.27 presents this data. As indicated, 18-25 year olds were arrested for "other drugs" at a much higher rate than other age groups in every year. The 26-34 year old cohort is a distant second, but gradually seems to be increasing across time. Arrests clearly decline with age.

![](_page_189_Figure_1.jpeg)

<u>Porter-Starke Services Diagnoses for Polysubstance Abuse.</u> Polysubstance abuse generally refers to a person who is addicted to being in an intoxicated state and uses multiple drugs to stay in that condition. As indicated in Figure 7.28, in 2011 131 persons were treated at Porter-Starke with this diagnosis, 116 in 2012, and 170 in 2013.

![](_page_190_Figure_1.jpeg)

Figure 7.29 breaks this data down by year and age. As indicated, it is the 18-25 year old and 26-34 year old cohorts that are most likely to be diagnosed with this condition. It also is clear that it is those two groups who contributed the most to the increase noted in Figure 7.30. As is the case with most other drugs considered, abuse drops off after age 34.

![](_page_191_Figure_1.jpeg)

**Porter Regional Hospital: Other Drugs**. This category included instances where there were no specific drug mentioned in the diagnosis. It also included instances where there were multiple drugs involved, none of which were named. As indicated in Figure 7.30, there are a large number of persons who fall into these categories. In 2011 there were 322, in 2012 there were 268, and in 2013 there were 330.

![](_page_192_Figure_1.jpeg)

In Figure 7.31, this data is broken down as to whether the diagnosis involved dependence, abuse, or withdrawal symptoms. In all three years, dependence amounts to the fewest number of cases and is declining over time from 57 in 2011, 41, in 2012, and 22 in 2013. Withdrawal is the second most frequent and it too is declining slightly over time from 89 in 2011, 86 in 2012, and 76 in 2013. Abuse contributes most to these totals and while it declined from 176 in 2011 to 141 in 2012, it increased substantially to 232 cases in 2013.

![](_page_193_Figure_1.jpeg)

Figure 7.32 breaks the data down by year and age. With the exception of a very few in the 17 and under group, and substantially more persons in the 18-25 and 26-35 cohort in 2011, the data is relatively "flat" across the various age groups. With the exception of alcohol, this pattern across the age cycle is much different than any of the other drugs considered in this report.

![](_page_194_Figure_1.jpeg)

**Porter Regional Hospital: Diagnoses for Accidental Drug Use.** There is no clear diagnostic code for the treatment of a drug overdose. However, in the data proided by the hospital, there were around 50 different codes that defined an "accidental" use of a drug. There was no definite way to determine if they were actually "drug overdoses." Figure 7.33 contains the number of patients treated at Porter Regional Hospital that involved "accidental poisoning" by drugs. As indicated, there were 164 persons treated in 2011, 126 in 2012, and 188 in 2013.

![](_page_195_Figure_1.jpeg)

<u>Porter Regional Hospital: Diagnoses for drug reaction in "therapeutic use"</u>. There also were patients diagnosed with adverse effects from a particular drug "in therapeutic use." These appear to be situations where patients had a negative reaction to prescribed drugs. As indicated in Figure 7.34, there were 313 persons diagnosed in 2011, 287 in 2012, and 293 in 2013.

![](_page_196_Figure_1.jpeg)

**Porter Regional Hospital:** Suicide Attempts Involving Drugs. Patients also were treated at Porter Regional Hospital for suicide attempts that involved drugs. As indicated in Figure 7.35, there were 117 in 2011, 121 in 2012, and 131 in 2013.

![](_page_197_Figure_1.jpeg)

# Chapter 8: Other Drugs II Over-the-counter Drugs, Ritalin and Adderall, Sedatives, Benzoids, and other Tranquilizers

#### Introduction

This section reports on the use and where available, the consequences of using over-thecounter drugs, prescription drugs, Ritalin and Adderall, and a group of related sedatives, benzoids, and other tranquilizers. Patterns of consumption are examined by looking at the ATOD survey. The consequences are examined by looking at treatments at mental health facilities, Porter Regional Hospital, and data from the adult and juvenile probation departments.

#### **Consumption Patterns: Over-the-counter Drugs**

<u>Monthly and Lifetime Use.</u> Figures 8.1 and 8.2 present the data on reported monthly and lifetime use of over-the-counter drugs (OCDs) by Porter County students. Specifically, this refers to the use of these drugs for other than their specified purposes.

Figure 8.1, which reports use in the past month, indicates an overall decline in reported use over time to the point that in 2013, the highest reported use is by  $12^{th}$  graders at 2.8%. In earlier years reported use is much higher and peaks in 2010 where 7.8% of  $10^{th}$  graders reported use in the previous month. There also is a pattern in this data that has occurred with some of the other lesser used drugs, where reported monthly use does not always increase with grade level. For example, from 2008 to 2010 the highest reported use is from  $10^{th}$  graders, and in at least two years,  $8^{th}$  graders report the second highest level of use. There is a definite trend over time of less reported use in all grades.

When students are asked about lifetime use of OCDs, as indicated in Figure 8.2, the pattern is similar to monthly use, but the percentage of reported use is nearly double that of monthly use. For example in 2013, 1.5% of  $6^{th}$  graders report use of OCDs, 3.4% of  $8^{th}$  graders, 6.7% of  $10^{th}$  graders, and 10.2% of  $12^{th}$  graders. As with monthly use, the tendency is for reported lifetime use to decline across time.

![](_page_199_Figure_0.jpeg)

Figure 8.1

<u>Comparison to State.</u> Another way to look at this data is to compare Porter County youth with others across the state. Figures 8.3 and 8.4 present these comparisons on lifetime and monthly use of OCDs. As in previous sections, the only figures presented are those that represent a statistically significant difference at the p < .05 level. Where there are no numbers or zeroes, there is no difference between local youth and state averages. The numbers represent the differences in percentages between Porter County and the state averages. If the number is positive, it indicates greater consumption among Porter County youth.

As indicated in Figure 8.3, Porter County students exceed state averages in lifetime use of OCD's in grades 9 - 12 in 2008, 7 - 12 in both 2009 and 2010, 7 and 9 - 12 in 2011, none in 2012, and only in the 12<sup>th</sup> grade in 2013. Rather than consistently exceeding state averages, more recently Porter County students are about the same as other students across the state.

![](_page_200_Figure_2.jpeg)

When monthly use is examined in Figure 8.4, Porter County students exceed state averages in grades 10 in 2008, 7 - 12 in 2009 and 2010, in 7, 9, 10, and 12 in 2011, and none in 2012 and 2013. Once again there is a recent trend for Porter County students to be equal to state averages as opposed to exceeding state averages when it comes to the use of over the counter drugs inappropriately.

![](_page_201_Figure_1.jpeg)

#### Consequences

**Porter-Starke Services Treatments.** There is not a lot of data on the consequences of OCD use. Where there is data, there are not many treatments. Between 2004 and 2008 there were only 7 persons diagnosed at Porter-Starke for the use of over-the-counter drugs, and there were no reported treatments in 2008. After the change in reporting methods in 2010, OCD abuse or dependence is no longer reported as a separate category, so data after 2008 is unavailable.

#### **Consumption Patterns: Ritalin and Adderall**

<u>Monthly and Lifetime Use.</u> The ATOD surveys after 2009 did not ask about the use of Ritalin and/or Adderall. Because of the often wide spread use of these drugs for non-medical purposes, data from previous surveys were still included in this report. Figures 8.5 and 8.6 present the data on reported monthly and lifetime use of Ritalin and Adderall by Porter County students.

In Figure 8.5, which reports use in the past month for 2008 and 2009, there is not a large amount of reported use of Ritalin or Adderall in the  $6^{th} - 8^{th}$  grades. Students in high school, however, begin to use more. For example, in 2009 6.0% of  $9^{th}$  graders report the use of Ritalin/Adderall and that figure rises to 7.0% for  $10^{th}$  graders and 8.5% for  $11^{th}$  graders. The figure drops to 6.0% for  $12^{th}$  graders. Monthly use in 2009 increases in every grade, except grade 12.

![](_page_202_Figure_3.jpeg)

When students are asked about lifetime use of Ritalin or Adderall, the pattern is similar. As presented in Figure 8.6, with the exception of declines in the 12<sup>th</sup> grade in both years, use increases as grade level increases. As was the case with monthly use, the greatest increases appear to begin when students get to high school. It is clear that as with monthly use, lifetime use was greater in 2009.

![](_page_203_Figure_1.jpeg)

<u>Comparison to State.</u> A comparison of the use of Ritalin/Adderall by Porter County youth with others across the state is presented in Figure 8.7. As in previous sections, the only numbers presented are those that represent a statistically significant difference at the p < .05 level. Where there are no numbers or zeroes, there is no difference between local youth and state averages. The numbers represent the differences between Porter County and the state averages. If the number is positive, it indicates greater consumption among Porter County youth.

In terms of lifetime use, in 2008 there are no differences in the  $6^{th}$  -  $8^{th}$  grades, but Porter County students exceeded state averages in the  $9^{th}$  -  $12^{th}$  grades. In 2009, there were no differences in the  $6^{th}$  and  $7^{th}$  grades, but Porter County students exceeded state averages in the  $8^{th}$  -  $12^{th}$  grades. In addition, the differences in 2009 were much larger in every grade than in 2008.

There is a similar pattern for monthly use. In 2008, there were no differences in the  $6^{th}$  -  $8^{th}$  grades, but there were differences in the  $9^{th}$  -  $12^{th}$  grades where Porter County students exceeded state averages. In 2009, there were no differences in the  $6^{th}$  and  $7^{th}$  grades, but Porter County students exceeded state averages in the  $8^{th}$  -  $12^{th}$  grades. Once again, the differences were larger in every grade in 2009 than they were in 2008.

![](_page_204_Figure_1.jpeg)

#### **Consumption Patterns: Sedatives/Benzoids/other Tranquilizers**

<u>Monthly and Lifetime Use.</u> Figures 8.8 and 8.9 present the data on reported monthly and lifetime use of sedatives/benzoids/other tranquilizers, which for simplicity, are grouped together in a category labeled "tranquilizers." In the 2012 and 2013 ATOD survey, questions on tranquilizers were not included, so there is no data for 2012 and 2013.

Figure 8.8 presents reported student use in the past month. There is a general tendency for reported use to increase with grade level. However, the highest level of reported use is by 12<sup>th</sup> graders in 2009 at 6.8%. Reported use increases for most grades between 2008 and 2009 and then drops off in 2010 and 2011.

![](_page_205_Figure_3.jpeg)

When students were asked about use of tranquilizers in their lifetime, as reported in Figure 8.9, the pattern of use is quite similar to monthly use. Reported use generally increases with grade level. After an increase in reported use in all grades in 2009, there is a significant decrease in 2010 and 2011. The highest reported use is by 12<sup>th</sup> graders at 18% in 2009.

![](_page_206_Figure_1.jpeg)

<u>Comparison to State.</u> A comparison of Porter County youth with others across the state is presented in Figures 8.10 and 8.11. As in previous sections, the only numbers presented are those that represent a statistically significant difference at the p < .05 level. Where there is a 0, there is no difference between local youth and state averages. The numbers represent the differences between Porter County and the state averages. If the number is positive, it indicates

greater consumption among Porter County youth. If it is negative, it indicates Porter County rates are less than state averages.

As indicated in Figure 8.10 where lifetime differences are presented, in 2008 Porter County students exceeded state averages in  $8^{th}$  and  $10^{th}$  -  $12^{th}$  grades. In 2009, they exceeded state averages in the  $8^{th}$  -  $12^{th}$  grades. In 2010, they exceeded state averages in the  $7^{th}$  -  $12^{th}$  grades, and in 2011 in the  $8^{th}$  -  $12^{th}$  grades. In the  $7^{th}$  grade in 2008 they were significantly below state averages.

![](_page_207_Figure_2.jpeg)

For monthly use presented in Figure 8.11, in 2008 Porter County students exceeded state averages in the  $12^{th}$  grade, but were significantly under state averages in the  $7^{th}$  grade. In 2009 and 2010, they exceeded state averages in the  $7^{th}$  -  $12^{th}$  grades. In 2011, they exceeded state averages in the  $7^{th}$  and  $10^{th}$  -  $12^{th}$  grades.

![](_page_208_Figure_1.jpeg)

#### Consequences

**Porter-Starke Services Treatments.** Figure 8.12 presents data for treatments at Porter-Starke-Services for sedatives. As indicated, there were 114 in 2011, 118 in 2012, and only 46 in 2013. Why such a substantial decline in 2013 is not clear.

![](_page_209_Figure_2.jpeg)

**Porter County Juvenile and Adult Probation.** Porter County Juvenile and Adult Probation departments give periodic drug tests to persons on probation. Figure 8.13 presents data from adult probation for persons who tested positive for benzoids (benzodiazepine) from 2010 to 2012. Data on this was not reported in the 2013 report from adult probation. There has been a steady increase in positive tests during this period from 174 in 2010, 199 in 2011, and 245 in 2012.

![](_page_210_Figure_0.jpeg)

Figure 8.14 presents the results from juvenile probation. As indicated, not many youth overall test positively for benzoids. There was a high of 22 in 2011, but only 1 in 2012, and there were no reported positive tests in 2013.

![](_page_211_Figure_0.jpeg)

### **Consumption Patterns: Prescription Drugs**

<u>Monthly and Lifetime Use.</u> Figures 8.15 and 8.16 present the data on reported monthly and lifetime use of prescription drugs for nonprescription use by Porter County students. Questions about prescription drug use were added to the ATOD study in 2010 and were not included in previous years.

In the case of monthly use of prescription drugs as presented in Figure 8.15, the highest reported use is by  $10^{\text{th}}$  graders in 2010 at 13.1%. The  $10^{\text{th}}$  grade numbers drop off from there and only 5.1% report use in 2012 and 5.4% in 2013. Overall, while in some grades the change is small, there is a decline in reported use in all grades.

![](_page_212_Figure_0.jpeg)

When reported lifetime use is examined in Figure 8.16, the percentages reporting use are considerably higher than for monthly use, but a similar pattern emerges. Once again,  $10^{th}$  graders record the highest use in 2010 (22.6%), but they drop off considerably by 2012 to 12.5% and in 2013 to 11.6% reporting use. Student reported use in 8<sup>th</sup> grade also declines over the three year period, but 6<sup>th</sup> and 12<sup>th</sup> graders report quite stable use with 19.3% of the 12<sup>th</sup> graders reporting use in 2012 and 1.7% of 6<sup>th</sup> graders. Overall, with the exception of the 6<sup>th</sup> graders who had a slight increase, the tendency is for less reported use.

![](_page_213_Figure_0.jpeg)

<u>Comparison to State.</u> Another way to look at this data is to compare Porter County students with others across the state. Figures 8.17 and 8.18 present these comparisons on lifetime and monthly use of prescription drugs. As in previous sections, the only figures presented are those that represent a statistically significant difference at the p < .05 level. Where there is a 0, there is no difference between local youth and state averages. The numbers represent the differences in percentages between Porter County and the state averages. If the number is positive, it indicates greater consumption among Porter County youth.

As indicated in Figure 8.17, Porter County students exceed state averages in reported lifetime use in grades 7 - 12 in 2010, 9 - 12 in 2011,  $12^{th}$  grade in 2012, and  $11^{th}$  and  $12^{th}$  grades in 2013. In 2012,  $7^{th}$  graders use prescription drugs less than other students across the state. In 2013,  $11^{th}$  and  $12^{th}$  graders in Porter County exceeded state averages. Overall and in general, if there is a pattern in the data it is one of reduced use relative to the rest of the state.

![](_page_214_Figure_1.jpeg)

As indicated in Figure 8.18, Porter County students exceed state averages in monthly use in grades 8 - 12 in 2010, 7 - 12 in 2011, only in  $12^{th}$  grade in 2012, and  $10^{th}$  - $12^{th}$  grades in 2013. In 2013,  $7^{th}$  and  $9^{th}$  graders use prescription drugs less than other students across the state. Overall and in general, there is a decline in reported use relative to state averages.

![](_page_215_Figure_1.jpeg)

#### **Consumption Patterns: Prescription Pain Killers**

<u>Monthly and Lifetime Use.</u> Figures 8.19 and 8.20 present data on reported monthly and lifetime use of prescription pain killers for nonprescription use by Porter County students. Questions about prescription pain killers were included only in the 2010 and 2011 ATOD surveys and not in previous years and not in most recent years. They were included here because of their relationship to other prescription drugs and the amount of reported use by Porter County students.
Figure 8.19 presents data on the monthly use of pain killers. As with many other drugs in this report, use generally increases with grade level. This is the case in 2011, where use increases from 0.8% reporting use in the  $6^{th}$  grade to 9.3% reporting use in the  $12^{th}$  grade. The data in 2010 generally follows that pattern except for the  $10^{th}$  graders who report greater use than other grades, and  $8^{th}$  graders who report slightly more use than  $9^{th}$  graders. There seems to be a very slight increase in reported use from 2010 to 2011.



When reported lifetime use is examined in Figure 8.20, there is a substantial increase over monthly reported use. For example, 21.4% of  $11^{th}$  graders in 2011 report lifetime use and 8.7% of  $11^{th}$  graders report monthly use in that year. Generally, reported use increases with grade level except in 2010, where 21% of  $10^{th}$  and 21.4% of the  $11^{th}$  graders report use. While the difference is not large, there does appear to be a slight decline in reported use from 2010 to 2011.



<u>Comparison to State.</u> Another way to look at this data is to compare Porter County youth with others across the state. Figures 8.21 and 8.22 present these comparisons on lifetime and monthly use of prescription drugs. As in previous sections, the only numbers presented are those that represent a statistically significant difference at the p < .05 level. When there is a 0, there is no difference between local youth and state averages. The numbers represent the differences in percentages between Porter County and the state averages. If the number is positive, it indicates greater consumption among Porter County youth.

As indicated in Figure 8.21, Porter County students exceed state averages in lifetime use in every grade except the  $7^{\text{th}}$  in 2010. In 2011, Porter County students exceeded state averages in  $7^{\text{th}}$  and  $9^{\text{th}}$  -  $12^{\text{th}}$  grades. While not substantial, there is a tendency for Porter County students to exceed state averages to a lesser amount in 2011.



As indicated in Figure 8.22, Porter County students exceed state averages in monthly use of pain killers in every grade except the  $6^{th}$  in 2010. In 2011, Porter County students exceed state averages in  $7^{th}$  and  $9^{th}$  -  $12^{th}$  grades. Porter County students are much less likely to exceed state averages in 2011.



<u>Consumption Patterns: Hallucinogen Use</u>. Figures 8.23 and 8.24 report Porter County students' monthly and lifetime use of hallucinogens. As to monthly use reported in Figure 8.23,  $10^{th}$  and  $12^{th}$  graders generally use these more than others, especially in 2012 and 2013. For example, in 2013 7.2% of  $12^{th}$  graders report use. While  $6^{th}$  and  $8^{th}$  graders are declining in use over time,  $10^{th}$  and  $12^{th}$  graders are increasing their use.



As to lifetime use reported in Figure 8.24, the pattern is somewhat different. After a sudden spike by  $12^{th}$  graders in 2012 when 10.7% of  $12^{th}$  graders said they had tried a hallucinogen in their lifetime, that figure dropped to 7.2%. There are smaller declines reported by  $6^{th}$  and  $8^{th}$  graders across time.



<u>Comparison to State</u>. The comparisons to statewide use for both monthly and lifetime use are presented in Figures 8.25 and 8.26. As indicated in Figure 8.25, which presents data on monthly use, in 2010 Porter County students exceeded others across the state in grades 8-10 and 12, were equal to others in the 6<sup>th</sup> and 7<sup>th</sup> grades, and below state averages in the 11<sup>th</sup> grade. The most striking feature of Figure 8.25 is the absence of any significant differences exceeding state averages in 2013 and differences only for 12<sup>th</sup> graders in 2011 and 2012. Rather than exceeding state averages as in most grades in 2010, the tendency is to be relatively typical of the rest of the state more recently.



Figure 8.26 compares Porter County students in lifetime use of Hallucinogens to other youth across the state. In 2010, state averages are exceeded in the  $7^{\text{th}}$ - $10^{\text{th}}$  and  $12^{\text{th}}$  grades. There is no difference for  $6^{\text{th}}$  graders that year and  $11^{\text{th}}$  graders are below average. In 2011, Porter students are above average in the  $7^{\text{th}}$  and  $10^{\text{th}}$ - $12^{\text{th}}$  grades, and equal to the state in the  $6^{\text{th}}$ ,  $8^{\text{th}}$ , and  $9^{\text{th}}$  grades. In 2012, state averages were exceeded only by  $11^{\text{th}}$  and  $12^{\text{th}}$  graders and in 2013 they did not exceed state averages in any grades. As with the monthly data, there is a tendency, although it is less, for there to be a decline in reported lifetime hallucinogen use in more recent years.



<u>Hallucinogens Porter-Starke Services</u>. Figure 8.27 presents data on the number of persons diagnosed with abuse of hallucinogens at Porter-Starke Services As indicated, there were 29 in 2011, 16 in 2012, and only 3 in 2013.



**Hallucinogens: Porter Regional Hospital.** As indicated in Figure 8.28, there are not a lot of people diagnosed at the local hospital with issues related to hallucinogen abuse. In 2011 there were 7, 5 in 2012, and 6 in 2013.

