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Next we would like to acknowledge the Bowling Green Independent and Warren County Public School Systems. We are fortunate to have two of the most forward-thinking schools in the state when it comes to protecting our children. The collaboration between systems and efforts to assist The Save Our Kids Coalition are monumental. Without their cooperation, this assessment would not have been possible.

Although not an exhaustive list, those named below have all contributed to the creation of this assessment for the Warren County Community:

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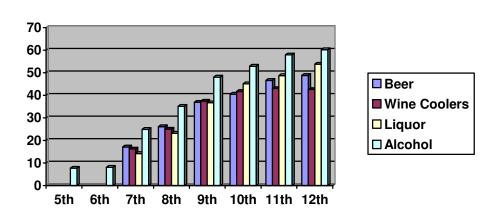
Tommy Loving, Warren County Drug Task Force

The Community Champions who were inadvertently omitted from this list

# Warren County Drug Assessment

#### **Youth Alcohol Use Rates:**

#### **Annual Use of Alcohol (%)**



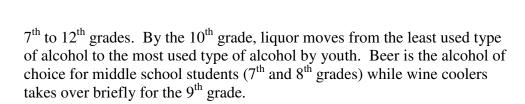
							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th**</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Alcohol	7.7	8.1	24.9	35.1	48.1	52.9	57.9	60.2
Beer			17.1	26.1	36.9	40.5	46.6	48.8
Coolers			16.2	25.0	37.4	41.7	43.0	42.6
Liquor			14.2	23.2	36.7	45.1	48.7	53.8

<sup>\*</sup>Yellow band denotes largest increase in use

As our primary goal includes the reduction of youth use of alcohol, annual usage rates provide a benchmark to evaluate long-term changes in use. However, it is vital to take a deeper look at the numbers to identify key trends that must be addressed. In the table above, the transitions between grades where the largest increases in use occur are highlighted. The largest increase in the use of alcohol occurs between the 6<sup>th</sup> (8.1%) and 7<sup>th</sup> (24.9%) grades. By identifying this jump in use, we can develop a strategic plan to more efficiently address the issue at a critical point for increased use. It is important to note that Elementary school use data is only reported for overall alcohol use. Based on the data we have for 7<sup>th</sup> through 12<sup>th</sup> grades, the largest increase in use based on individual type occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades. However, if data collected within the elementary school systems was more extensive, we may find that the largest increase for the different types begins earlier.

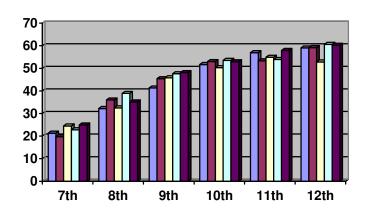
There is another noticeable trend in the transition of liquor use from

<sup>\*\*</sup>Elementary PRIDE data only reports overall Alcohol use





#### **Annual Use Five Year Trend (%)**



<b>2002-2003</b>
<b>2003-2004</b>
□ 2004-2005
<b>2005-2006</b>
■ 2006-2007

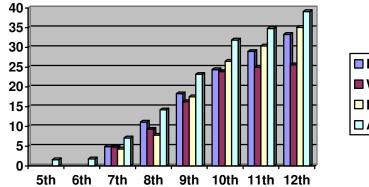
					PRIDE, 2007
Grade/School Year	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7 <sup>th</sup>	21.3	19.7	24.5	22.8	24.9
8 <sup>th</sup>	32.2	36.0	32.5	38.9	35.1
9 <sup>th</sup>	41.3	45.4	45.8	47.6	48.1
10 <sup>th</sup>	51.7	53.0	50.3	53.5	52.9
11 <sup>th</sup>	56.9	53.3	54.9	53.9	57.9
12 <sup>th</sup>	59.0	59.2	52.8	60.6	60.2

\*Yellow band denotes Five Year High

Based on a five year comparison of annual alcohol use rates, the most recently surveyed 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade students report the highest annual alcohol use rates in five years. Rates for the 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grades decreased slightly from the previous survey where those grades each reported the highest annual use rates over the five year period. Please note that the 8<sup>th</sup> grade students who reported a five year high in 2006 are the same 9<sup>th</sup> grade students who reported a five year high in 2007, etc.



#### Monthly Use of Alcohol (%)



■Beer
■ Wine Coolers
□ Liquor
□Alcohol

							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th**</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Alcohol	1.6	1.8	7.1	14.2	23.2	31.9	34.8	39.1
Beer			4.9	11.1	18.3	24.4	29.0	33.3
Coolers			4.8	9.3	16.3	23.9	25.0	25.6
Liquor			4.3	7.8	17.5	26.5	30.4	35.1

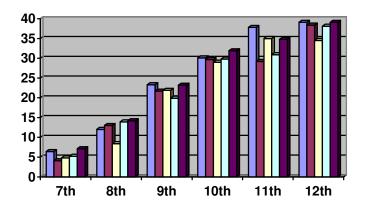
<sup>\*</sup>Yellow band denotes largest increase in use

While annual use rates include those students who initiated or experimented with use during the past year, monthly use rates give a better indication of youth who use on a more consistent basis. From the chart above, one can see that, with the exception of Wine Coolers, the largest increase in monthly use occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades. The largest increase in monthly use for Wine Coolers occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades. Beer continues to be the alcohol of choice for middle and early high school students (grades 7 though 9), but is replaced by liquor by the 10<sup>th</sup> grade.

<sup>\*\*</sup>Elementary PRIDE data only reports overall Alcohol use



### Monthly Use Five Year Trend (%)



2002-2003
■ 2003-2004
<b>2004-2005</b>
□ 2005-2006
■ 2006-2007

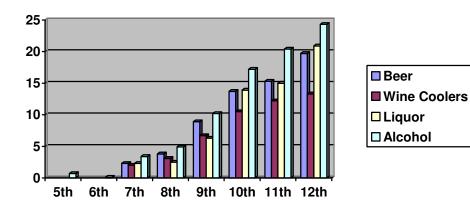
					<b>PRIDE, 2007</b>
Grade/School Year	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7 <sup>th</sup>	6.4	4.1	4.8	5.2	7.1
8 <sup>th</sup>	12.0	13.0	8.4	13.9	14.2
9 <sup>th</sup>	23.3	21.7	21.9	19.9	23.2
10 <sup>th</sup>	30.1	29.7	29.0	29.8	31.9
11 <sup>th</sup>	37.8	29.2	35.0	30.9	34.8
12 <sup>th</sup>	39.1	38.4	34.5	38.1	39.1

\*Yellow band denotes Five Year High

Based on a five-year period, the 7th,  $8^{th}$ ,  $10^{th}$ , and  $12^{th}$  grades report a five year high for monthly alcohol use. It is important to note that the  $9^{th}$  grade missed a five year high by .1%. Finally, and perhaps most importantly, the reported monthly alcohol use increased across all grades from the 2006 to 2007 school years.



#### Weekly Use of Alcohol (%)



							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th**</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Alcohol	.7	.1	3.4	4.9	10.2	17.2	20.4	24.3
Beer			2.3	3.8	8.9	13.7	15.3	19.7
Coolers			2.0	3.1	6.7	10.5	12.2	13.3
Liquor			2.3	2.5	6.3	13.9	15.0	20.9

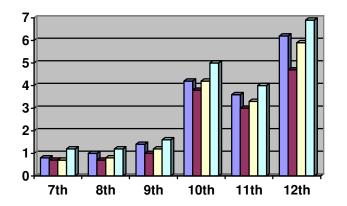
<sup>\*</sup>Yellow band denotes largest increase in use

By assessing the percentage of those students who reported using alcohol at least once per week, we gain a better picture of the students who are using on a very consistent basis. The transition to using at least once a week can, potentially, mark the beginning of some form of dependence (whether psychological or social). The transition for the largest increase in use shifts to the 9<sup>th</sup> to 10<sup>th</sup> grade transition with the exception of Beer which remains at the 8<sup>th</sup> to 9<sup>th</sup> grade transition. Beer and Liquor tied for the alcohol of choice for 7<sup>th</sup> grade students who report using at least weekly. Beer was the weekly alcohol of choice for 8<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grades whereas the 10<sup>th</sup> and 12<sup>th</sup> grades reported using Liquor most often on a weekly basis. To put alcohol use in perspective, more than 1 in 10 9<sup>th</sup> grade students report using alcohol on a weekly basis. That climbs to 1 in 5 and 1 in 4 for 11<sup>th</sup> and 12<sup>th</sup> grades respectively.

<sup>\*\*</sup>Elementary PRIDE data only reports overall Alcohol use



#### Daily Use of Alcohol (%)



■Beer		
■ Wine Coolers		
□Liquor		
□ Alcohol		

					PRIDI	E, <b>2007</b>
Substance/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Alcohol**	1.2	1.2	1.6	5.0	4.0	6.9
Beer	8.0	1.0	1.4	4.2	3.6	6.2
Coolers	0.7	0.7	1.0	3.8	3.0	4.7
Liquor	0.7	8.0	1.2	4.2	3.3	5.9

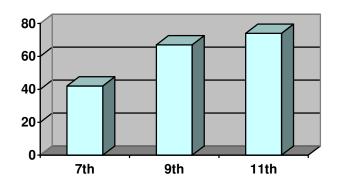
<sup>\*</sup>Yellow band denotes largest increase in use

Daily use of alcohol shows strong signs of dependence if not a transition to addiction. It is important to keep in mind that some of these students may have been using alcohol for four or more years at this point (i.e. those that initiated use in the  $7^{th}$  grade). The transition that shows the largest increase for all forms of alcohol occurs between the  $9^{th}$  and  $10^{th}$  grades. Beer is the alcohol of choice for daily use by all grades except the  $10^{th}$  grade which reported using Liquor at an equal rate. This transition identifies a key point in youth development when treatment options need to be explored for our youth. During the  $9^{th}$  to  $10^{th}$  grade transition, there is more than a 200% increase in daily use across all forms of alcohol (alcohol = 212.5%, Beer = 200%, Coolers = 280%, and Liquor = 250%).

<sup>\*\*</sup>Elementary PRIDE data does not report daily use



#### Lifetime Use of Alcohol (%)



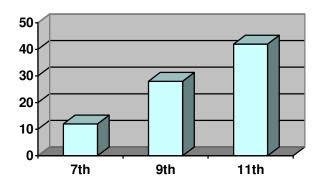
			pmental s, 2006
Occurrence/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>
Lifetime	42	67	74
Past 12 Months	23	55	65
12 Mo. % of Lifetime	54.8	82.1	87.8

\*Yellow band denotes largest increase in use

Additionally, student reported Lifetime Use as provided by the most recent Developmental Assets Survey provides insight into the drinking behavior of our youth. The table above indicates that the largest increase in reported Lifetime Use occurs at some point between the 7<sup>th</sup> and 9<sup>th</sup> grades. The Developmental Assets data for Past 12 Months Use is included to assess what percentage of students who reported using "During their lifetime" have also used in the past 12 months. One must hesitate to draw too many inferences from this comparison. However, it does include the same critical period (8<sup>th</sup>-9<sup>th</sup> Grade) identified thus far in the data above. Furthermore, one has to consider the lack of information for 5<sup>th</sup> and 6<sup>th</sup> grade students. As found in the PRIDE data, this data may be missing a key transitional point for youth use.



#### Past 30 Day Use of Alcohol (%)



		Develop Assets,	
Occurrence/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>
Past 30 Day	12	28	42

\*Yellow band denotes largest increase in use

One other piece of complementary information obtained from the most recent Developmental Assets Survey relates to the percentage of 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade students who report using alcohol over the past 30 days (April-May of 2006). Past 30 day data provides more specific data for a particular point in time and includes the 30 days leading up to the students participation in the survey. Once again, it is important to note that the critical period highlighted in the table above corresponds with the identified 8<sup>th</sup> to 9<sup>th</sup> grade critical period identified in the PRIDE data. Also, once again, it is important to note the lack of data for 5<sup>th</sup> and 6<sup>th</sup> grade students.

#### Where and When Youth are Using Alcohol:

7<sup>th</sup>

After

School

Week

Night

After

School

Substance/Grade

Beer

Coolers

Liquor



#### **Location of Use**

**PRIDE, 2007** 

Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	$11^{th}$	12 <sup>th</sup>
Beer	Home	Friend's	Friend's	Friend's	Friend's	Friend's
Coolers	Home	Home/Friend's	Friend's	Friend's	Friend's	Friend's
Liquor	Home	Friend's	Friend's	Friend's	Friend's	Friend's

The above table provides the primary location of alcohol use for all grades across all types of alcohol. For 7<sup>th</sup> grade students, the primary location of use is in their own home. For 8<sup>th</sup> grade students who use Wine Coolers, the primary location of use was a tie between "Home" and a "Friend's House". For all other grades across all forms of alcohol, the primary location of use was at a "Friend's House".

#### Time of Use

8th

After

School

After

School

After

School

9<sup>th</sup>

Week

Night

Week

Night

Week

Night

10<sup>th</sup>

Week

Night

Week

Night

After

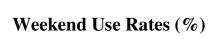
School

11<sup>th</sup> 12<sup>th</sup>
Week Week
Night Night
Week Week
Night Night
Week Night Night
Week Week

Night

Night

The Time of Use Table shows the primary time frame that youths choose to use alcohol. For the sake of comparison, Weekend use was omitted from the comparison as it includes use over a 2-3 day period as opposed to a specific time of day. For the 7<sup>th</sup> and 8<sup>th</sup> grades, the primary time of use occurs "After School" (the lone exception being the case of the 7<sup>th</sup> grade's reported use of Wine Coolers). For grades 9 through 12, the primary time of use occurs during a "Week Night" (the lone exception being the 10<sup>th</sup> grade's reported use of Liquor).





					PRID.	E, 2007
Weekend Use	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Beer	10.1	17.7	29	31.5	35.5	37.4
Coolers	11.7	18.9	30.3	31.1	30.2	35.3
Liquor	9.3	16.3	30.2	32.3	36.1	40.6

\*Yellow band denotes largest increase in use

The above chart is included for reference concerning the percentage of students who report using various forms of alcohol on the weekends.

#### **Alcohol Use Snapshot**

			<b>PRIDE, 2007</b>
Grade	Alcohol (Annual)	Location	Time
$7^{\text{th}}$	Beer	Home	After School
8 <sup>th</sup>	Beer	Friend's House	After School
9 <sup>th</sup>	Wine Coolers	Friend's House	Week Night
10 <sup>th</sup>	Liquor	Friend's House	Week Night
11 <sup>th</sup>	Liquor	Friend's House	Week Night
12 <sup>th</sup>	Liquor	Friend's House	Week Night

The Above chart gives a quick snapshot that shows the most likely type of alcohol, location, and time that each grade is most likely to use. For example, Seventh grade students are more likely to drink "Beer" at "Home" "After School", etc. One conclusion that can be drawn from this data is that beginning in the 8<sup>th</sup> grade, students are more likely to consume alcohol at a friend's house than at home.

### **Alcohol Use and College Students**



Having a college campus in Warren County adds a different dimension when discussing alcohol. During the college years, you have a mixture of students who are underage, and therefore not legal to consume alcohol along with students past the age of twenty-one. Since many of the college students are not native to Warren County, we cannot draw inferences from most Warren County risk factors and college use. However, the drinking behavior of WKU students does impact the community and it is vital that we investigate and encourage intervention within this population.

#### Reported Use of Alcohol by WKU Students (%)

			ACHA*
Year/Rate of Use	Lifetime	Past 30 Days	Daily
2004	76.2	62.4	1.0
2006	78.9	65.8	1.4

\*American College Health Association Survey

It's important to note that of those who report ever drinking alcohol, a high percentage (83.4% in 2006) report drinking in the past 30 days. Also of great importance is to note that 59.4% of all respondents to the survey were 20 years old or younger. When comparing 2004 to 2006, there appears to be a slight increase in the consumption of alcohol.

#### **Risk Factors in Relation to Youth Alcohol Use**

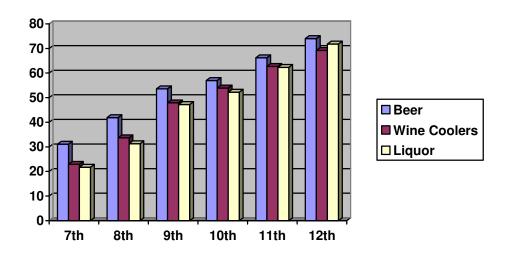


#### **Introduction:**

In the previous section, the information presented related to the "What" of the youth alcohol use equation. Key transitions in youth use can be identified through reported usage numbers, but, it gives us very little in identifying the underlying issues in youth use. Research has identified a variety of risk factors that are associated with youth use of alcohol and other drugs. Students who are identified as having elevated indicators in these risk factors will be more likely to engage in alcohol and other drug use. This section will take a deeper look at those related factors in an attempt to identify critical points for coalition intervention in the risk factors as they relate to youth alcohol use.

#### **Availability:**

#### **Perceived Availability (Alcohol)**



Availability (7<sup>th</sup>-12<sup>th</sup>) - (Fairly/Very Easy to Get (%))

					PRID	E, 2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Beer	31.1	41.9	53.6	57.0	66.2	74.0
Coolers	22.9	33.7	47.9	53.9	62.7	69.2
Liquor	21.7	31.3	47.2	52.2	62.3	71.8

\*Yellow band denotes largest increase

There are two forms of availability, social availability and illegal retail availability. Social availability is acquiring drugs from a friend, family members, or the legal sale of legal substances (i.e. cold medication, spray paint, etc.). Illegal retail availability includes the illegal sale of legal sub-stances

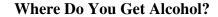
(alcohol/tobacco) to minors as well as the sale of illegal substances (all other drugs). The above numbers represent those students who reported that alcohol is "Fairly Easy" or "Very Easy" to get. The largest increase of perceived availability occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades. This corresponds with the largest reported increase in annual and monthly youth use of alcohol.

### Availability (5<sup>th</sup>-6<sup>th</sup>) (Easy to Get (%))

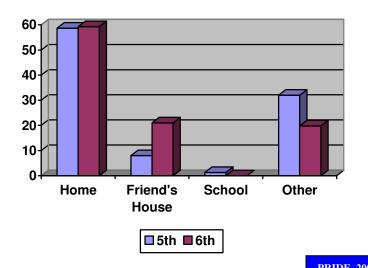
	PRID	E, 2007
Substance/Grade	5 <sup>th</sup>	6th
Alcohol	21.1	24.7

\*Elementary PRIDE only includes three possible options: "Cannot Get," "Hard to Get," and "Easy to Get"

The Elementary PRIDE data only measures the perceived availability of "Alcohol" instead of breaking it down by individual type and therefore a direct comparison is not practical. As one can see from the chart above, there is little difference between the 5<sup>th</sup> and 6<sup>th</sup> grade responses. The numbers do speak volumes about the availability of alcohol to youth in our community as roughly one in five 5<sup>th</sup> grade students believe Alcohol is "Easy to get."



The Elementary version of the PRIDE Survey includes a question that asks students where they obtain alcohol. The percentages listed below are based on those students who reported at least annual use.



			IK	IDE, 2007
Grade/Location	Home	Friend's House	School	Other
5 <sup>th</sup>	58.7	8.0	1.3	32.0
6 <sup>th</sup>	59.3	21.0	0	19.8

Based on the data listed above, the most likely place for a  $5^{th}$  or  $6^{th}$  grade student to obtain alcohol is in the home. Unfortunately, we do not have similar data for Middle and High School students.

Illegal Retail Availability

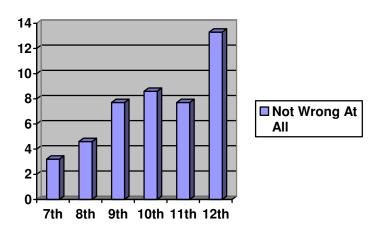
			ABC Compliance
Year	<b>Retailer Visits</b>	Illegal Sales	% of Illegal Sales
2004	20	7	35%
2005	22	2	9%
2006	69	11	16%
2007	57	4	7%

The information listed above includes data as provided by the Kentucky ABC concerning the sale of alcohols to minors. During a compliance check, a minor, under the direction of the ABC attempts to purchase alcohol. Special care is taken to not use assistants who look overly mature for their age and no attempt is made by the assistant to mislead the cashier. As is indicated from the information listed above, the rate of noncompliance improved from 2006 to 2007. However, at 7% noncompliance, one in fourteen ABC checks resulted in an illegal sale.

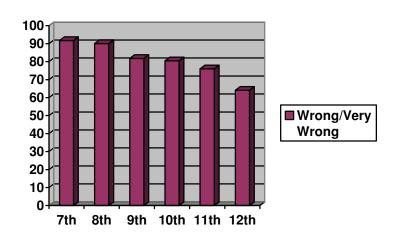
#### **Perception of Parental Disapproval:**



#### Parental Disapproval (Alcohol)



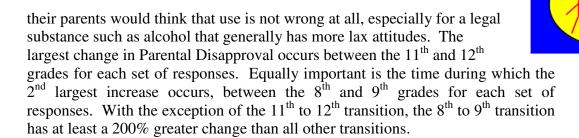
#### Parental Disapproval (Alcohol)



					PRIDE, 2	2007
Disapproval/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Not Wrong At All (%)	3.2	4.6	7.7	8.6	7.7	13.3
Wrong/Very Wrong (%)	91.8	90.1	81.8	80.5	76.0	64.1

\*Yellow band denotes largest increase/decrease

The information above relates to how students answered the question, "How wrong would your parents feel it would be for you to use alcohol?" Favorable Parental Attitudes toward drug use is an important risk factor for youth use, it is important that we measure and evaluate the youths' perception of this factor. For this factor, we look at both ends of the response set, those students who feel that their parents believe that their use would be "Not Wrong At All" and those who feel that their parents would think that behavior to be "Wrong or Very Wrong." It is encouraging to see that relatively few students believe that



Similar, favorable trends are found in the Elementary PRIDE data. When asked, "Would your parents approve of you using alcohol?" very few students answered, "Yes."

#### **Elementary Parent Disapproval (%)**

	<b>PRIDE, 2007</b>			
Grade/Response	No	Not Sure		Yes
5 <sup>th</sup>	91.7	6	5.0	2.2
6 <sup>th</sup>	89.0	8	3.7	2.2

As you can see, the majority of our students believe that their parents would not approve of their use of Alcohol. There is a small percentage of students who reported that they are "Not Sure." This is a vital group to target (both youth and parents).

# If you came home from a party and your parents found out that you had been drinking, how upset do you think they would be? (%)

	Developmental Assets, 2006		
Response/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>
Not/A Little Upset	8	10	15
Very/Extremely Upset	87	77	72

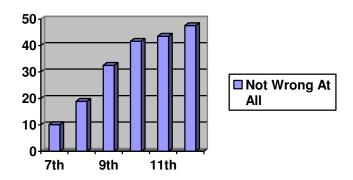
<sup>\*</sup>Yellow band denotes largest increase/decrease

Another indicator of Parental Disapproval can be found in the question listed above as taken from the Developmental Assets Survey. As in the previous data set, it is a good sign that our youth's perception of their parent's attitudes are against youth drinking. However, there is definite room for improvement.

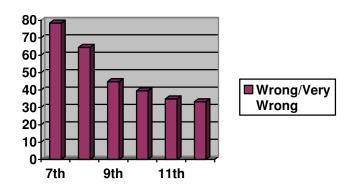




#### Peer Disapproval (Alcohol)



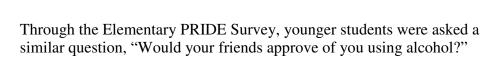
#### Peer Disapproval (Alcohol)



					PRIDE,	2007
Disapproval/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Not Wrong At All (%)	10.1	18.9	32.5	41.6	43.5	47.5
Wrong/Very Wrong (%)	78.5	64.5	44.8	39.6	34.9	33.3

\*Yellow band denotes largest increase/decrease

When evaluating risk factors related to youth use, the influence of peers must be investigated. Referring back to the section that discusses where youth tend to use, "A Friend's House" is the predominate location of use. One of the measures we have from the PRIDE survey relates to a youth's perception of their peer's approval or disapproval of use. Unlike the numbers discussed in the Parental Disapproval section, youth present their peers as being much more accepting of their use. From the chart and graphs above, the greatest change for both sets of responses occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades.





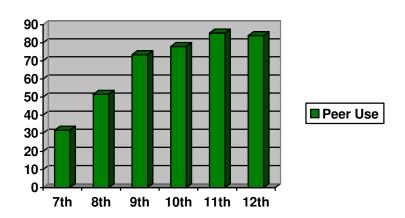
#### **Elementary Peer Disapproval (%)**

	PRIDE	, 2007		
Grade/Response	No	Not Sure		Yes
5 <sup>th</sup>	80.4	1	6.9	2.8
6 <sup>th</sup>	74.6	2	21.5	3.8

Much like the question concerning whether their parents would approve, few students reported "Yes" that their friends would approve. However, the percentage of students who reported that they were "Not Sure" is much larger. This is a very important finding based on the influence of peers on youth. This points to a critical period for prevention efforts aimed at the effects of Peer Influence.

#### **Perception of Peer Use:**

#### Peer Use (Alcohol)

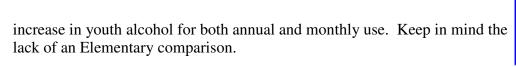


Do your friend's use alcohol? (All responses other than "never") (%)

					PRID	E, 2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	$11^{th}$	12 <sup>th</sup>
Alcohol	31.7	51.5	73.5	78.0	85.4	84.0

\*Yellow band denotes largest increase in use

Similar to Perception of Peer Disapproval, evaluating the perception of how much youth believe their peers are using gives us insight into the influence of peers on youth use. The largest increase in the percentage of students who perceive that their peers are using occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades. When compared to the same data set (7<sup>th</sup>-12<sup>th</sup> grade), this corresponds with the largest





#### **Comparison of Perceived Use with Actual Reported Use (%)**

						<b>PRIDE, 2007</b>	
Factor/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	
Perceived Peer Use	31.7	51.5	73.5	78.0	85.4	84.0	
Reported Monthly Use	7.1	14.2	23.2	31.9	34.8	39.1	
Reported Annual Use	24.9	35.1	48.1	52.9	57.9	60.2	

\*Yellow band denotes largest increase in use

Youth generally overestimate the percentage of their peers who will use alcohol. As we know that peer influence is a powerful risk factor, we need to compare our youth's perception of peer use with actual use rates. Evidenced by the table above, youth believe that their peers are using at a much higher rate than what their peers are self-reporting on the survey. This illuminates the importance of Social Marketing and Social Norming campaigns as a prevention tool. These types of prevention initiatives address this discrepancy in perception and reality. By lowering our youth's misperception that their peers are using, we can affect the peer influence on use. Finally, it is important to note that the largest change in perception of peer use occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades.

# Among the people you consider to be your closest friends, how many would you say drink alcohol once a week or more? (%)

	Developmental Assets, 2006		
Occurrence/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>
At Least 1	17	48	64
A Few/Some	16	39	45
Most/All	2	9	19

<sup>\*</sup>Yellow band denotes largest increase

This question offers a more specific indicator for peer use. This question is more specific than the PRIDE Survey question in that it specifies a youth's "closest friends" as the comparison group and it specifies a more specific behavior (drinking once or more a week). From the table above, you can see two definite shifts. Between the 7<sup>th</sup> and 9<sup>th</sup> grades, the largest increase in those students who believe that at least one of their closest friends drink alcohol once a week or more. During the same interval, the largest increase in those students who believe that a few/some of their friends drink alcohol at least once a week or more. For those students who believe that Most/All of their closest friends drink, the largest increase occurs sometime between the 9<sup>th</sup> and 11<sup>th</sup> grades.

# Comparison of Perceived Use with Actual Reported Use (%)

2%	

		Pevelop Assets,	mental 2006
Occurrence/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>
Perceived Peer Weekly Use	17	48	64
Reported Past 30 Day Use	12	28	42
Difference	5	20	22

\*Yellow band denotes largest increase

As mentioned in a previous, similar comparison within the PRIDE data, youth often perceive that their peers drink more often than they do. In the table above is a comparison of the responses of those students who believe that at least one of their closest friends drinks once a week or more to the actual reported past 30 Day use by the same sample of students. Although the time frames are not exactly the same (i.e. "At least weekly" vs. "within the past 30 days"), it should be relatively safe to assume that if a youth believes that their closest friend drinks on a weekly basis that they would also believe that they would have drunk alcohol in the past 30 days. It appears that the students may be overestimating the percentage of their closest friends who use alcohol on a weekly basis. It is important to take into account that each student and their closest friends do not exist in isolation and therefore there may be some overlap (i.e. five students could have the same close friend who drinks weekly).

# During the last 12 months, how many times have you been to a party where other kids your age were drinking? (%)

	Developmental Assets, 2006			
Occurrence/ Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>	
At Least Once	19	44	68	
1-2 Times	14	23	24	
3+ Times	5	21	44	

<sup>\*</sup>Yellow band denotes largest increase

The students' response to this item is indicative of a variety of risk factors. It is placed in this section due to the influence of a youth's peers in a "party" situation. However, it could just as easily indicate the level of family management by parents and the level of knowledge of where their children are, who they are with, and what they are involved in.





#### Comparisons of Non-Use/Daily Use Perceptions For Past 30 Days (%)

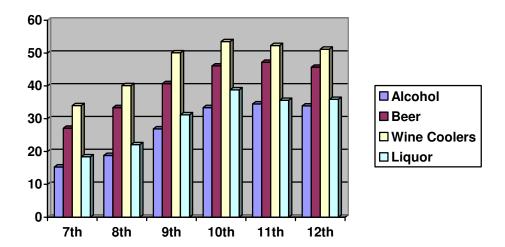
				ACHA, 2006*
<b>Student Estimate</b>	<b>Actual Reported</b>	Student Estimate	Actu	al Reported
of Non-Use	Non-Use	of Daily Use	D	aily Ūse
1.1%	21.1	47.9		1.4

From the data listed above, it is apparent that college students overestimate the number of students consuming alcohol and the rate at which they consume alcohol. The students' estimate of those students who didn't use alcohol during the past 30 days was 19 times lower than what was actually reported. Furthermore, college students' estimate of the percentage of daily college drinkers was over 34 times higher than actual reported numbers. This is a glaring discrepancy in fact versus perception and shows a need to address the norms of drinking within our college population.

#### Harmfulness:



#### **Perceived Harmfulness**



Harmfulness (Some/No Harm (%))

					PRID	E, 2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Alcohol	15.3	18.8	26.9	33.4	34.5	33.9
Beer	27.1	33.4	40.7	46.1	47.2	45.7
Coolers	34.0	40.1	50.1	53.5	52.3	51.2
Liquor	18.4	22.1	31.2	38.8	35.6	35.9

\*Yellow band denotes largest increase

One of the risk factors associated with youth alcohol or substance use is the individual's favorable attitude toward use. In addressing this risk factor, the survey item related to a youth's perception of the harmfulness of a drug can be used as an indicator. The less harmful a youth perceives a particular drug to be, the more favorable an attitude they can develop toward the drug in question. The graph and table above depicts the percentage of youth who responded "Some" or "No Harm" to the question, "Do you feel the following (alcohol) are harmful to your health?" The largest increase in the percentage of students who reported "Some/No Harm" for alcohol and all types of alcohol occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades.

### Perceived Harmfulness of Alcohol (Elementary) (%)



	PRIDE, 2007		
Grade/Response	No	Yes	
5 <sup>th</sup>	11.7	88.3	
6 <sup>th</sup>	12.9	87.1	

The Elementary item varies slightly in that students are asked if they "think using Alcohol is harmful to their health?" The response set (possible answers), however, are quite different. Roughly one in nine of our 5<sup>th</sup> grade students and one in eight of our 6<sup>th</sup> grade students do not believe that Alcohol is harmful to their health.

#### **Individual Value Concerning Drinking Alcohol:**

"It is against my values to drink alcohol while I am a teenager" (%)

		Develop Assets,	
Response/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>
Agree/Strongly Agree	73	49	38
Not Sure	15	22	19
Disagree/Strongly Disagree	12	29	42

\*Yellow band denotes largest increase/decrease

From the Developmental Assets Survey, we are given an additional look into the youth's favorable attitudes toward use. From the table above, one can see that that largest decrease in the percentage of students reporting that it is against their values to drink alcohol as a teen occurs between the 7<sup>th</sup> and 9<sup>th</sup> grades. On the flip side of that, the largest increase in those students who disagree with the statement occurs within the same time period. It is important to take a look at those students who fall in the middle, or rather, those who answered, "Not Sure." This is important for two reasons. First, from the numbers we see the percentage "peak" around the 9<sup>th</sup> grade. This suggests a key transition point in attitudes toward drinking and may show the point where students cross over from "Agree/Strongly Agree" to "Disagree/Strongly Disagree." Second, the students who report that they are "Not Sure" are the ones who should be most heavily targeted by prevention efforts. This is the equivalent of the "swing votes" in an election.

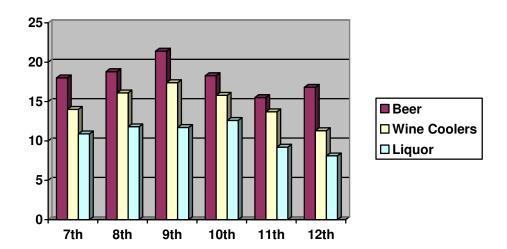
#### **Age of Initiation:**

school years (ages 13-15).

Research indicates that the longer a child delays use of a drug, the less likely they are to suffer long-term consequences associated with that drug. As an identified risk factor associated with youth use, age of onset is tricky to evaluate and to directly address. As it is more of an indicator of the interaction of the other risk factors, it is best used as a benchmark for long-term change in use behavior. However, care must be taken when determining trends in Age of Onset between grades. One cannot compare the self-reported age of first use for 7<sup>th</sup> grade students to 12<sup>th</sup> grade students as the 12<sup>th</sup> grade numbers will be inflated (i.e. the 7<sup>th</sup> grade figure will not, except in the rarest of circumstances, include students who report beginning to use at age 17). In order to get a better picture of this risk factor, two distinct time periods are compared. Early onset is determined by the percentage of students in each grade who reported using for the first time at age 12 or less. A second comparison is made for grades 9<sup>th</sup> through 12<sup>th</sup> based on the

#### Early Onset (Ages 12 and under)

percentage of students who reported using for the first time during the middle



% of Students Reporting Initial Use at Age 12 and Under

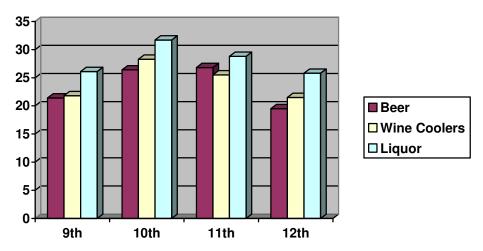
					PRIDI	E, 2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Beer	18	18.8	21.4	18.3	15.5	16.8
Coolers	14	16.1	17.4	15.8	13.7	11.3
Liquor	10.9	11.8	11.7	12.6	9.2	8.1

From the graph and table above, it appears that the percentage of students reporting beginning to use the included types of alcohol has steadily increased over time with the exception of the 7<sup>th</sup> and 8<sup>th</sup> grades which show a new decline.

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#### Middle School Onset (At age 13-15)



% of Students Reporting Initial use in Middle School (Ages 13-15)

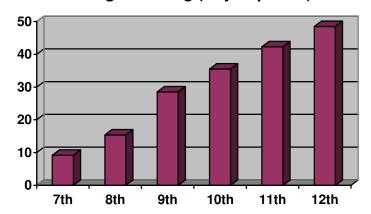
			PRID	E, 2007
Substance/Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Beer	21.4	26.4	26.8	19.5
Coolers	21.8	28.3	25.5	21.5
Liquor	26.1	31.7	28.8	25.8

From the graph and chart above, we see that initiation in the 9<sup>th</sup> grade is down after increasing for three years for the other three grades. It is important to note that the 9<sup>th</sup> grades showed the highest percentage of students reporting beginning use at age 12 and under. With a lower percentage reporting initial use at ages 13-15, it could suggest a shift toward early initiation for this class.

### **Alcohol and High Risk Behaviors**



#### **Binge Drinking (Any Reported)**

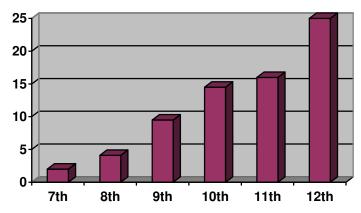


					PRID	E, 2007	
Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	
Binge Drinking (%)	9.2	15.4	28.5	35.5	42.3	48.5	

\*Yellow band denotes largest increase

The chart and graph above shows the percentage of students who report ever drinking 5 or more glasses of beer, coolers, breezers, or liquor within a few hours. The largest increase occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades.

### **Binge Drinking (Often/A Lot)**



	PRI	PRIDE, 2007				
Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Frequent Binge Drinking (%)	2.0	4.1	9.5	14.5	16.0	25.0

\*Yellow band denotes largest increase



The table and graph above shows the percentage of students who report drinking 5 or more glasses of beer, coolers, breezers, or liquor within a few hours "often" or "a lot." The largest increase occurs between the 11<sup>th</sup> and 12<sup>th</sup> grades. It is important to note that at this rate, one in every four high school seniors report frequent binge drinking behavior.

Think back over the last two weeks. How many times have you had five or more drinks in a row? (A "drink" is a glass of wine, a bottle or can of beer, a shot glass of liquor, or a mixed drink.) (%)

			evelopi Assets,	
Occurrence/Grade	7	th	9 <sup>th</sup>	11 <sup>th</sup>
At Least Once	8	3	19	29

\*Yellow band denotes largest increase

The question above addresses binge drinking behavior over the past two weeks (May 2006). The largest increase in binge drinking for the reported time period occurs between the 7<sup>th</sup> and 9<sup>th</sup> grades.

#### **Binge Drinking and College Students (%)**

Percentage Reporting Consuming 5 or More Drinks in a Sitting Within The Past 2 Weeks

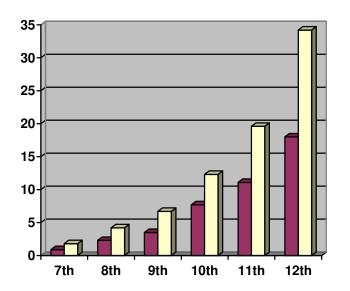
			ACHA, 2006
None	1-2 Times	3-5 Times	6 + Times
57.3	20.1	16.3	6.4

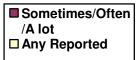
Note that 42.7% of all college students surveyed reported binge drinking within the past two weeks. Furthermore, 6.4% reported binge drinking on at least 6 of the previous 14 days.





#### Have you driven a car after or while drinking alcohol? (%)





					PRID	E, 2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Sometimes/Often/A	0.9	2.3	3.5	7.7	11.1	18.0
Lot						
Any Reported	1.8	4.2	6.7	12.3	19.6	34.2

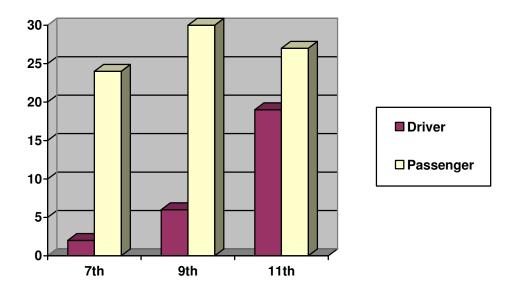
\*Yellow band denotes largest increase

This question surrounds impaired judgment that puts other individuals within the community at risk. It reflects a need to increase efforts to address impaired driving within the later high school grades. The largest increase in the percentage of students reporting either behavior occurs between the 11<sup>th</sup> and 12<sup>th</sup> grades.



During the last 12 months, how many times have you driven a car after you had been drinking? (Percent who responded with any response other than "Never") (%)

During the last 12 months, how many times have you ridden in a car whose driver has been drinking? (Percent who responded with any response other than "Never") (%)



	Developmental Assets, 2006			
Substance/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>	
Driver	2	6	19	
Passenger	24	30	27	

\*Yellow band denotes largest increase

The chart and graph above combines two questions from the Developmental Assets Survey. The largest increase in the percentage of students reporting driving after drinking occurs between the 9<sup>th</sup> and 11<sup>th</sup> grades. The largest increase in the percentage of students reporting riding with someone who had been drinking occurs between the 7<sup>th</sup> and 9<sup>th</sup> grades. Unfortunately, we cannot determine what percentage of students are referring to riding with intoxicated parents.

ACHA, 2006

6.3% of college students reported driving after having 5 or more drinks in one sitting within the past 30 days. Based on a rounded total enrollment of 19,000, that equals **1197** students who reported driving after heavy drinking in the previous 30 day period.





KSP CRASH

Year	<b>Total Collisions</b>	<b>Injury Collisions</b>	Number Injured
2005	34	12	17
2006	16	7	9
2007	20	8	11

The data in the table above shows an increase in Total Collisions, Injury Collisions, and the Number Injured in underage DUI accidents following a decline from 2005 to 2006. In 2005, Warren County was 4<sup>th</sup> in the state in Total and Injury Collisions related to underage DUI. When compared to the top four counties, Warren County ranked 1<sup>st</sup> per capita for Total Collisions and Injury Collisions related to underage DUI. In 2006, Warren County's rank fell to 11<sup>th</sup> in Total Collisions and 9<sup>th</sup> in Injury Collisions.

#### **All DUI Related Accidents**

KSP CRASH

Year	<b>Total Collisions</b>	<b>Injury Collisions</b>	Deaths	Number Injured
2005	233	91	11	151
2006	171	51	6	82
2007	204	70	2	107

As can be seen from the data above, Adult DUI related accidents show a similar trend when compared to underage DUI accidents. After a decline in 2006, the numbers for most categories increased in 2007. Fortunately, the number of deaths associated with DUI related accidents continued to decline in 2007.

#### **Other Community Alcohol Indicators**



# Adult DUI Related Charges (Number of Charges)

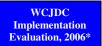
	Administrative Office of the Courts	
Charge	<b>DUI Related Cases</b>	
2004	1779	
2005	1256	
2006	1628	
2007	1740	

Looking at data made available through the Administrative Office of the Courts, we can look for similar trends in other DUI related cases. From the data shown above, one can see that DUI related cases (charges that included the operation of a motor vehicle under the influence) have steadily increased after a sharp drop in 2005. Current totals still remain below the 1779 charges in 2004.

#### **Warren County Prisoners Related to Alcohol**

			Warren County Jail	
Year/Charge	Public	DUI	Driving on DUI	
	Intoxication		Suspended License	
2004	1179	2660	218	
2005	1124	1085	163	
2006	1408	1372	195	

#### Warren County Juvenile Drug Court



In June of 2006, the Center on Drug and Alcohol Research at the University of Kentucky conducted an implementation evaluation of the Warren County Juvenile Drug Court. Of the seventeen (17) juveniles who had participated in the program, 100% reported using alcohol, the only drug used by all participants.





				The Medical Center
Year	# of	Financial	Most Affected Age	# Cases under
	<b>Patients</b>	Cost	Range	15
2004	2811	\$3,551,297.64	30-44	8
2005	3422	\$4,407,147.77	15-29	11
2006	2837	\$3,959,960.88	15-29	9

Although our emergency room data combines alcohol with all other drugs, the figures give a good representation of a fraction of the cost to society. It's important to notice the shift in "Most Affected Age Range" from "30-44" in 2004 to "15-29" in 2005 and 2006.

# Poison Control Data (Alcohol Related)

Poiso	Poison Control Center						
	2006	2007					
Suicide Exposures	9	19					
<b>Intentional Misuse</b>	1	0					
<b>Intentional Abuse</b>	4	4					

Poison Control data gives us an additional community indicator to track in regards to the effect of Alcohol on the community. It's important to note that the number of Suicide exposures related to alcohol increased from 9 to 19 between 2006 and 2007.



# Warren County Substance Abuse Treatment Intake Data (Community Mental Health Services)

	KTOS, 2006*
Data	Rate
Past 12 Month Use	75.9%
Past 30 Day Use	32.7%
Arrested in Past 12 Month	hs 59.1%
Arrested in Past 30 Days	90.4%

<sup>\*</sup>Kentucky Treatment Outcome Study (University of Kentucky)

Alcohol was the most reported substance used by those at substance abuse treatment intake with 75.9% of respondents reporting using alcohol in the past 12 months.

### **Summary**



Alcohol continues to be the drug of choice for our youth and, given its status as a gateway drug, should be the priority for our community when addressing substance abuse issues in our community. In looking at use of alcohol by youth, the greatest discovery with this assessment may have been found in the first aggregation of elementary school data. In collaboration with both school districts, the coalition worked with PRIDE Surveys to combine the elementary data from both school systems. This data revealed that the largest increase in annual use occurs between the 6<sup>th</sup> and 7<sup>th</sup> grades where rates more than triple from 8.1% to 24.9%. This helps to identify a key time period for initiation of alcohol use by our youth and supports the coalition's efforts to support prevention initiatives in the elementary schools. Although the largest increase in the percentage of youth reporting monthly use occurs between the 8<sup>th</sup> (14.2%) and 9<sup>th</sup> (23.2%) grades, monthly use between the 6<sup>th</sup> (1.8%) and 7<sup>th</sup> (7.1%) grade almost quadruples as it increases by 294.4%. Although annual use percentages will also include those youth who have "experimented" with alcohol during that time frame, the numbers should not be dismissed. Research holds that persons who initiate drinking before age 15 (9<sup>th</sup> grade) are five times more likely to develop long-term problems related to alcohol than those who delay drinking until age 19 (National Survey on Drug Use and Health Report, 2004).

Monthly, weekly, and daily use provide a more defined picture, however, of youth who are currently engaged in relatively frequent if not problematic drinking behavior. The largest increase in monthly alcohol use occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades. The largest increase in weekly and daily alcohol use occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades. Whereas the annual numbers show the importance of prevention efforts with elementary school students, the monthly numbers show the importance of maintaining an adequate prevention initiative during the middle school years. Likewise, the large increases in use between the 9<sup>th</sup> and 10<sup>th</sup> grades for weekly and daily use shows the importance of integrating sound intervention practices in early high school. As use continues to increase throughout high school, it is important to note that the preferred alcohol of choice (annual) shifts from beer (5-8<sup>th</sup> grade) to wine coolers (9<sup>th</sup> grade) to liquor (10<sup>th</sup>-12<sup>th</sup> grade).

Data related to when and where our youth are using suggests that the majority of our youth are obtaining alcohol in homes at times when adult supervision is lacking. When asked where they obtain alcohol, 58.7% of 5<sup>th</sup> graders and 59.3% of 6<sup>th</sup> graders report obtaining alcohol in the home. When asked if they had been to a party where youth their age were drinking, 19% of 7<sup>th</sup> grade students, 44% of 9<sup>th</sup> grade students, and 68% of 11<sup>th</sup> grade students reported attending at least one of these parties in the past twelve months. Anecdotal evidence from student and parent sources site parties in homes, fields, etc. that are supported by adults. Student reports of availability of alcohol support this data. At least half of high school students, one third of middle school students, and one fifth of elementary (5<sup>th</sup> and 6<sup>th</sup> grade) students report that alcohol is easy or fairly easy to get.

With a high level of social availability, we can use ABC data to determine if illegal retail availability is an issue. Although the percentage of illegal sales encountered by the ABC was high in 2004, there appears to be a steady



decline since that time. During 2007, the percentage of vendors that sold to an ABC assistant was the lowest in four years at 7%. Although more than desired, it does not appear that retail stores are the primary source of alcohol for minors.

One area of concern is the rate at which our youth are binge drinking. Binge drinking is the consumption of five or more drinks in one sitting. It's important that we are not fooled by the numbers. The 48.5% of 12<sup>th</sup> grade students who reported ever binge drinking is not 48.5% of those 12<sup>th</sup> grade students who drink, but rather 48.5% of the entire 12<sup>th</sup> grade (including those who do not drink). The data is staggering across all assessed grade levels with 1 in 11 7<sup>th</sup> grade students, 1 in 7 8<sup>th</sup> grade students, and over 1 in 4 9<sup>th</sup> grade students reporting ever binge drinking. The data is equally disturbing for those students who report binge drinking "often" or "a lot." By the 9<sup>th</sup> grade, almost 1 in 10 students report frequent binge drinking climbing to 1 in 4 by the 12<sup>th</sup> grade. This trend continues to climb into the college years.

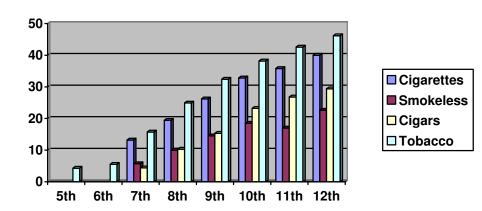
Another risky behavior related to our youth is drinking and driving. Once again, the results are staggering with over 1 in 3 high school seniors reporting ever driving after drinking. Similarly, almost 1 in 4 7<sup>th</sup> grade students reported riding with a driver who had been drinking. The data does not allow us to determine if these accounts are with other students or parents, grandparents, etc.

Finally, we can see from the data that the cost to society from alcohol misuse is substantial. Alcohol is the most used substance by youth admitted to Juvenile Drug Court and by adults admitted into treatment. Automobile accidents by youth and adults showcase personal loss. Additionally, the figures attributed to Emergency Room visits not only shows a substantial financial cost, but a shift in those affected to the 15-29 year age range. The number of court cases and prisoners related to alcohol reflect the cost to and the burden placed on society.

# Warren County Drug Assessment

#### **Youth Tobacco Use Rates**

## **Annual Use of Tobacco (%)**



							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th</sup> **	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Tobacco	4.3	5.5	15.7	24.9	32.4	38.2	42.6	46.2
Cigarettes			13.2	19.4	26.2	32.8	35.8	40.0
Smokeless			5.7	10.0	14.5	18.5	17.0	22.6
Cigars			4.4	10.3	15.3	23.2	26.8	29.4

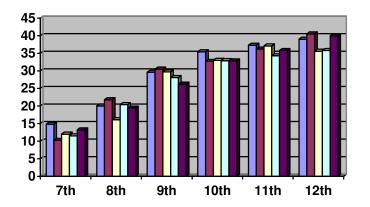
<sup>\*</sup>Yellow band denotes largest increase in use

As our primary goal includes the reduction of youth use of tobacco, annual usage rates provide a benchmark to evaluate long-term changes in use. However, it is vital to take a deeper look at the numbers to identify key trends that must be addressed. In the table above, we have highlighted the transitions between grades where the largest increases in use occur. As you can see, the largest increase in the use of tobacco occurs between the 6<sup>th</sup> (5.5%) and 7<sup>th</sup> (15.7%) grades. By identifying this jump in use, a strategic plan can be developed to more efficiently address the issue at a critical point for increased use. It is important to note that Elementary school use data is only reported for overall tobacco use. Based on the data for 7<sup>th</sup> through 12<sup>th</sup> grades, the largest increase in use based on individual type varies from grade to grade. If the data collected within the elementary school systems was more extensive, we may find that the largest increase for the different types begins earlier. The differences in the various types of tobacco could be affected by a variety of issues. Availability, Method of Delivery, and Cultural differences could all play a part.

<sup>\*\*</sup>Elementary PRIDE data only reports overall Tobacco use



## **Annual Use Five Year Trend (%)**



2002-2003
2003-2004
<b>2004-2005</b>
□ 2005-2006
■ 2006-2007

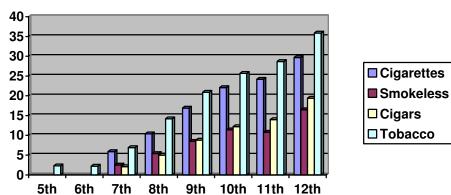
					<b>PRIDE, 2007</b>
Grade/School Year	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7 <sup>th</sup>	14.8	10.2	12.0	11.5	13.2
8 <sup>th</sup>	20.0	21.8	16.1	20.4	19.4
9 <sup>th</sup>	29.6	30.5	29.7	28.1	26.2
10 <sup>th</sup>	35.4	32.7	33.0	32.9	32.8
11 <sup>th</sup>	37.3	36.2	37.1	34.3	35.8
12 <sup>th</sup>	39.0	40.5	35.6	35.8	40.0

\*Yellow band denotes Five Year High in Cigarette Use

Based on a five year comparison of annual tobacco use rates, there appears to be a decline of youth use of cigarettes over time. There was a slight increase in use for 7<sup>th</sup> grade students in the most recent survey (1.7%). The 12<sup>th</sup> grade experienced the largest increase in annual use according to the most recent survey. The annual usage rate of cigarettes for 12<sup>th</sup> grade students was the second highest reported rate in the past five years (40.0%).



## Monthly Use of Tobacco (%)



							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th**</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Tobacco	2.3	2.2	6.9	14.2	20.9	25.7	28.7	35.9
Cigarettes			5.9	10.4	16.9	22.1	24.2	29.7
Smokeless			2.5	5.4	8.5	11.4	10.8	16.5
Cigars			2.1	5.0	8.8	12.2	14.0	19.4

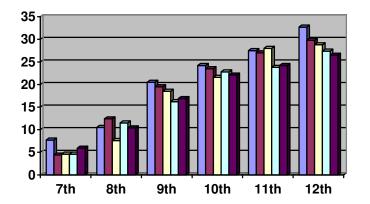
<sup>\*</sup>Yellow band denotes largest increase in use

While annual use rates include those students who initiated or experimented with use during the past year, monthly use rates gives a better indication of youth who use on a more consistent basis. From the chart above, one can see that the largest increase for monthly Tobacco use as a whole occurs between the  $7^{th}$  and  $8^{th}$  grade. The largest increase in monthly use of cigarettes occurs between the  $8^{th}$  and  $9^{th}$  grades. Unlike Alcohol, data for the Elementary grades would not hold the potential for a larger increase in use.

<sup>\*\*</sup>Elementary PRIDE data only reports overall Tobacco use



# Monthly Use Five Year Trend (%)



2002-2003
■ 2003-2004
<b>2004-2005</b>
□ 2005-2006
■ 2006-2007

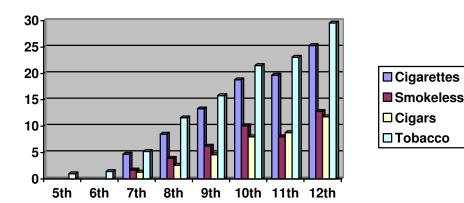
					PRIDE, 2007
Grade/School Year	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7 <sup>th</sup>	7.7	4.4	4.6	4.6	5.9
8 <sup>th</sup>	10.5	12.4	7.6	11.5	10.4
9 <sup>th</sup>	20.5	19.5	18.5	16.2	16.9
10 <sup>th</sup>	24.2	23.5	21.6	22.8	22.1
11 <sup>th</sup>	27.5	27.0	28.0	23.8	24.2
12 <sup>th</sup>	32.7	29.8	28.8	27.4	26.5

\*Yellow band denotes Five Year High

Based on a five-year period, monthly trends in cigarette use appear to be on the decline. There was a slight increase (1.3%) in monthly use for  $7^{th}$  grade students.



#### Weekly Use of Tobacco (%)



							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th**</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Tobacco	1.0	1.4	5.2	11.6	15.8	21.5	23.1	29.6
Cigarettes			4.7	8.5	13.3	18.8	19.7	25.3
Smokeless			1.7	3.9	6.2	10.1	8.0	12.8
Cigars			1.3	2.6	4.6	8.0	8.8	11.8

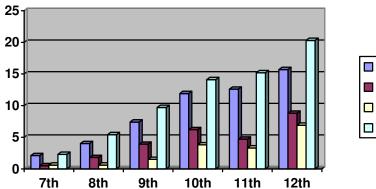
<sup>\*</sup>Yellow band denotes largest increase in use

By observing the data of those students who reported using tobacco at least once per week, we gain a better picture of the students who are using on a very consistent basis. The transition to using at least once a week can, potentially, mark the beginning of some form of dependence (whether psychological or social). With the exception of Cigars, the largest increase across all categories occurs between the 11<sup>th</sup> and 12<sup>th</sup> grades. The 2007 PRIDE Survey was administered in the Spring of 2007. It is important to remember that by that time, many 12<sup>th</sup> grade students may be at the legal age of 18 for the consumption of Tobacco products. Legality, however, does not negate the severe health effects of Tobacco use.

<sup>\*\*</sup>Elementary PRIDE data only reports overall Tobacco use



#### Daily Use of Tobacco (%)



□ Cigarettes
■ Smokeless
□ Cigars
□Tobacco

					PRID	E, 2007
Substance/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Tobacco**	2.3	5.4	9.7	14.1	15.2	20.3
Cigarettes	2.1	4.0	7.4	11.9	12.6	15.7
Smokeless	0.5	1.8	3.9	6.2	4.7	8.8
Cigars	0.6	0.6	1.5	3.8	3.3	6.9

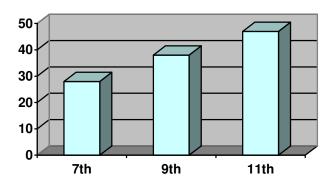
<sup>\*</sup>Yellow band denotes largest increase in use

Daily use of tobacco shows strong signs of dependence if not a transition to addiction. It is important to keep in mind that many of these students may have been using tobacco for four or more years at this point (i.e. those who initiated use in or before the 7<sup>th</sup> grade). With the exception of Cigarettes, the transition that shows the largest increase for all forms of tobacco occurs between the 11<sup>th</sup> and 12<sup>th</sup> grades for daily use. Cigarettes remain the primary delivery method more than likely due to availability. Daily use of Tobacco, requiring more of a constant supply, is probably related to some degree to the accepted norms of the parents who would have to provide the tobacco on a regular basis. Again, one has to consider, given the administration date of the PRIDE Survey and the legal purchasing age of 18, that several 12<sup>th</sup> grade students may be purchasing their own tobacco legally. With a younger legal purchase age, underage youth are also more likely to obtain their tobacco from a friend of legal age.

<sup>\*\*</sup>Elementary PRIDE data does not report daily use



## Lifetime Use of Cigarettes (%)



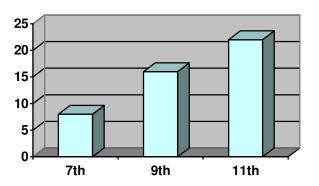
		Developmental Assets, 2006		
Occurrence/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>	
Lifetime	28	38	47	
Past 12 Months	12	25	33	
12 Mo. % of Lifetime	42.9	65.8	70.2	

\*Yellow band denotes largest increase in use

Additionally, one can look at student reported Lifetime Use of Cigarettes as provided by the most recent Developmental Assets Survey. The table above indicates that the largest increase in reported Lifetime Use occurs at some point between the 7<sup>th</sup> and 9<sup>th</sup> grades. The Developmental Assets data for Past 12 Months Use has been included to determine what percentage of students who reported using "During their lifetime" have also used in the past 12 months. The largest increases for Lifetime and Past 12 Month use occur somewhere between the 7<sup>th</sup> and 9<sup>th</sup> grades. This supports the PRIDE data listed previously as the largest increase in Annual Cigarette use occurs during this same time period.



## Past 30 Day Use of Cigarettes (%)



	Developmental Assets, 2006				
Occurrence/Grade	7 <sup>th</sup>	9 <sup>th</sup>	11 <sup>th</sup>		
Past 30 Day	8	16	22		

\*Yellow band denotes largest increase in use

One other piece of complementary information that can be pulled from the most recent Developmental Assets Survey relates to the percentage of 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade students who report using Cigarettes over the past 30 days (April-May of 2006). Past 30 day data provides more specific data for a particular point in time and includes the 30 days leading up to the students participation in the survey.



#### Where and When Youth are Using Alcohol:

#### **Location of Use**

**PRIDE, 2007** 

Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Cigarettes	Home	Friend's	Friend's	Friend's	Friend's	Friend's
Smokeless	Other	Home	Home	Home	Home	Home/Friend's
Cigars	Home	Friend's	Friend's	Friend's	Friend's	Friend's

The above table shows the primary location of Tobacco use for all grades across all types of Tobacco. For 7<sup>th</sup> grade students, the primary location of use is in their own home with the exception of Smokeless Tobacco.

#### Time of Use

						PRIDE, 2007
Substance/Grade	$7^{ ext{th}}$	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Cigarettes After School	After School	After	After	After	After	
	Aitei School	AILEI SCHOOL	School	School	School	School
Smokeless After School	After School	After	Week	After	After	
	Aiter School	Aiter School	School	Nights	School	School
Cigars	After School/Week Nights	After School/Week Nights	After School	After School	Week Nights	After School

The above table indicates the primary time frame that youths choose to use Tobacco. For the sake of comparison, Weekend use was omitted from the comparison as it includes use over a 2-3 day period as opposed to a specific time of day. For the majority of possible responses, the primary time of use occurs "After School". Cigars showed the most variation with "Week Nights" tying "After School" for 7<sup>th</sup> and 8<sup>th</sup> grade students and being the time of choice for 11<sup>th</sup> graders. Tenth grade students were more likely to use Smokeless Tobacco during "Week Nights."



## Weekend Use Rates (%)

					PRID	PRIDE, 2007		
Weekend Use	$7^{\text{th}}$	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>		
Cigarettes	8.7	11.9	17	20.1	22.7	25.8		
Smokeless	2.9	5.5	7.2	9	8.5	10.4		
Cigars	2.8	5.8	10.3	13.2	15.4	16.4		

\*Yellow band denotes largest increase in use

The above table is included for reference concerning the percentage of students who report using various forms of Tobacco on the weekend.

## **Tobacco Use Snapshot**

			<b>PRIDE</b> , 2007
Grade	Alcohol (Annual)	Location	Time
$7^{\text{th}}$	Cigarettes	Home	After School
8 <sup>th</sup>	Cigarettes	Friend's House	After School
9 <sup>th</sup>	Cigarettes	Friend's House	After School
10 <sup>th</sup>	Cigarettes	Friend's House	After School
11 <sup>th</sup>	Cigarettes	Friend's House	After School
12 <sup>th</sup>	Cigarettes	Friend's House	After School

The Above table gives a quick snapshot that shows the most likely type of Tobacco, location, and time that each grade is most likely to use. For example, Seventh grade students are more likely to smoke "Cigarettes" at "Home" "After School", etc.



## **Tobacco Use and College Students**

#### Reported Use of Cigarettes by WKU Students (%)

			ACHA*
Year/Rate of Use	Lifetime	Past 30 Days	Daily
2004	43.1	29.8	11.1
2006	43.8	28.8	8.0

<sup>\*</sup>American College Health Association Survey

Although reported Lifetime use was up slightly (from 43.1% to 43.8%), Past 30 day and Daily use were down for college students. One item that is interesting to note is that despite much higher reported Lifetime and Past 30 Day usage rates for Alcohol than Cigarettes, the rate of Daily Cigarette use was over 4 times that of Alcohol in 2006 (over 11 times more likely in 2004).

#### **Tobacco Use and Adults (%)**

			KCSF.
	Warren County	Barren River Dist.	Kentucky
% of Adult Smokers	21.4	30.1	28.1

\*Percentages are an unweighted, 3-year pooled estimate from the Kentucky Behavioral Risk Factor Surveillance Survey (2003-2005) provided by the Kentucky Center for Smoke-free Policy

The adult smoking rates listed above were derived from the question, "Do you smoke every day, some days, or not at all?" The data listed above is very promising in that the adult smoking rates for Warren County are 6.7% below the State average and 8.7% below the average for the Barren River Districts eight surrounding counties.



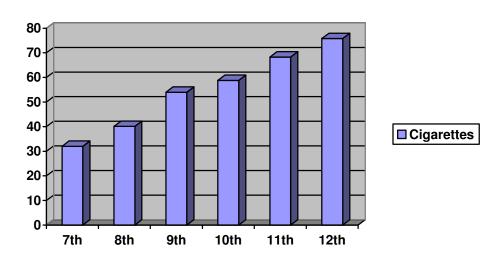
#### **Risk Factors in Relation to Youth Alcohol Use**

#### **Introduction:**

In the previous section, the information presented related to the "What" of the youth Tobacco use equation. Key transitions in youth use can be identified through reported usage numbers, but, it gives us very little in identifying the underlying issues in youth use. Research has identified a variety of risk factors that are associated with youth use of Alcohol, Tobacco and other drugs. Students who are identified as having elevated indicators in these risk factors will be more likely to engage in Alcohol, Tobacc and other drug use. This section will take a deeper look at those related factors in an attempt to identify critical points for coalition intervention in the risk factors as they relate to youth Tobacco use.

#### **Availability:**

#### **Perceived Availability (Tobacco)**



Availability (7<sup>th</sup>-12<sup>th</sup>) - (Fairly/Very Easy to Get) (%)

					<b>PRIDE</b> , 2007	
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	$11^{th}$	12 <sup>th</sup>
Cigarettes**	32	40.1	54	58.8	68.3	75.8

<sup>\*</sup>Yellow band denotes largest increase in use

There are two forms of availability, social availability and illegal retail availability. Social availability is getting drugs from a friend, family members, or the legal sale of legal substances (i.e. cold medication, spray paint, etc.). Illegal retail availability includes the illegal sale of legal substances

<sup>\*\*</sup>Perceived Availability of Smokeless and Cigars not reported

(alcohol, tobacco) to minors as well as the sale of illegal substances (all other drugs). The above numbers represent those students who reported that cigarettes are Fairly Easy or Very Easy to Get. The largest increase of perceived availability occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades. This corresponds with the largest reported increase in annual and monthly youth use of cigarettes.

# Availability (5<sup>th</sup>-6<sup>th</sup>) (Easy to Get) (%)

	PRID	PRIDE, 2007		
Substance/Grade	5 <sup>th</sup>	6th		
Tobacco	18.3	24.7		

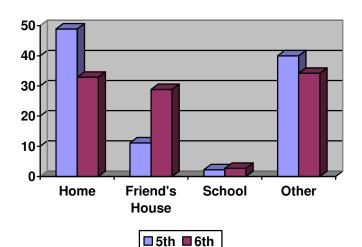
\*Elementary PRIDE only includes three possible options: "Cannot Get," "Hard to Get," and "Easy to Get"

The Elementary PRIDE data only measures the perceived availability of "Tobacco" instead of breaking it down by individual type and therefore a direct comparison is not practical. There is a little more disparity between the 5<sup>th</sup> and 6<sup>th</sup> grade responses for Tobacco than with Alcohol. A possible explanation could be that tobacco is more often carried "on the person" whereas alcohol tends to remain "stored" in a particular location in the home (refrigerator, cabinet, etc.). Regardless, easy availability of tobacco to our youth remains high.



#### Where Do You Get Tobacco? (%)

The Elementary version of the PRIDE Survey includes a question that asks students where they obtain alcohol. The percentages listed below are based on those students who reported at least annual use.



			110	IDE, 2007
<b>Grade/Location</b>	Home	Friend's House	School	Other
5 <sup>th</sup>	48.9	11.1	2.2	40.0
6 <sup>th</sup>	32.9	28.8	2.7	34.2

For 5<sup>th</sup> grade students, the principle place for obtaining tobacco is in the home. However, the "Other" category is ranked second and actually surpasses the home as the primary place for obtaining tobacco for 6<sup>th</sup> grade students. The unfortunate aspect of this category is that it does not provide specific location data. This category could represent anything from a relative's house to "on the street." It does show a need for increased, responsible adult supervision for youth in this age range.



#### Illegal Retail Availability

AB			

Year	<b>Retailer Visits</b>	Illegal Sales	% of Illegal Sales
2004	48	0	0%
2005	41	0	0%
2006	12**	0	0%
2007	43	0	0%

<sup>\*</sup>Alcohol Beverage Control,

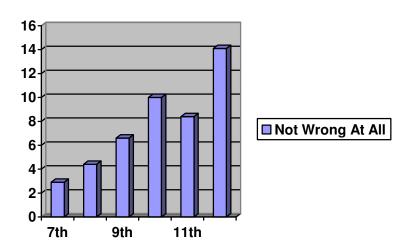
The information listed above includes data as provided by the Kentucky ABC concerning the sale of tobacco to minors. During a compliance check, a minor, under the direction of the ABC attempts to purchase tobacco. Special care is taken to not use assistants who look overly mature for their age and no attempt is made by the assistant to mislead the cashier. Fortunately, local vendor compliance through ABC compliance checks has been perfect for the past four years.

<sup>\*\*</sup>Through June of 2006 only reported due to system change

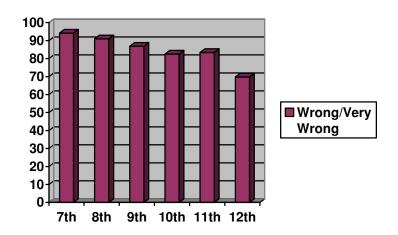
### **Perception of Parental Disapproval:**



#### Parental Disapproval (Tobacco)



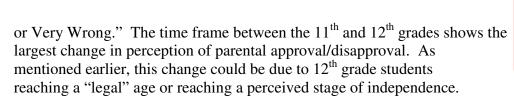
#### Parental Disapproval (Tobacco)



					PRID	E, 2007
Disapproval/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Not Wrong At All (%)	2.9	4.4	6.6	10.0	8.4	14.1
Wrong/Very Wrong (%)	94.2	91.0	86.9	82.5	83.4	69.8

\*Yellow band denotes largest increase/decrease

The information above relates to how students answered the question, "How wrong would your parents feel it would be for you to use tobacco?" As Favorable Parental Attitudes toward drug use is an important risk factor for youth use, it is important that we measure and evaluate the youths' perception of this factor. For this factor, we look at both ends of the response set, those students who feel that their parents believe that their use would be "Not Wrong At All" and those who feel that their parents would think that behavior to be "Wrong





Similar trends are found in the Elementary PRIDE data. When asked, "Would your parents approve of you using tobacco?" very few students answered, "Yes."

#### **Elementary Parent Disapproval (%)**

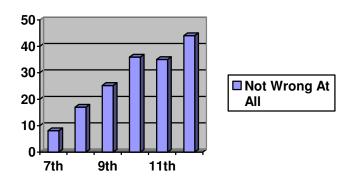
	PRIDE	, 2007		
Grade/Response	No	Not	Sure	Yes
5 <sup>th</sup>	95.0	3	3.5	1.5
6 <sup>th</sup>	94.1	3	3.9	1.9

As you can see, the majority of our students believe that their parents would not approve of their use of tobacco. There is a small percentage of students who reported that they are "Not Sure." This is a vital group to target (both youth and parents).

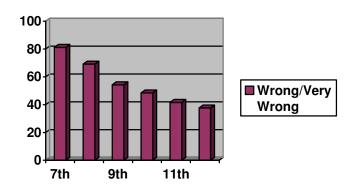


#### **Perception of Peer Disapproval:**

### Peer Disapproval (Tobacco)



## Peer Disapproval (Tobacco)



						2007
Disapproval/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Not Wrong At All (%)	8.1	17.0	25.2	35.9	35.0	44.0
Wrong/Very Wrong (%)	81.2	69.2	54.3	48.5	41.7	37.7

\*Yellow band denotes largest increase/decrease

When evaluating risk factors related to youth use, one must investigate the influence of peers. Referring back to the section that discusses where youth tend to use, "A Friend's House" is the predominate location of use. One of the measures we have from the PRIDE survey relates to a youth's perception of their peer's approval or disapproval of use. Unlike the numbers discussed in the Parental Disapproval section, youth present their peers as being much more accepting of their use.



Through the Elementary PRIDE Survey, younger students were asked the similar question, "Would your friends approve of you using tobacco?"

#### **Elementary Peer Disapproval (%)**

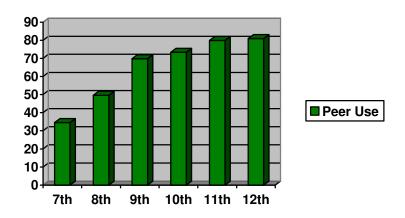
	PRIDE	2, 2007		
Grade/Response	No	Not Sure		Yes
5 <sup>th</sup>	82.0	1.	5.1	2.9
6 <sup>th</sup>	77.8	1	8.4	3.8

Much like the question concerning whether their parents would approve, few students reported "Yes" that their friends would approve. However, the percentage of students who reported that they were "Not Sure" is much larger. This is a very important finding based on the influence of peers on youth. This points to a critical period for prevention efforts aimed at the effects of Peer Influence.



#### **Perception of Peer Use:**

### Peer Use (Tobacco)



Do your friends use tobacco? (All responses other than "never") (%)

	PRID	E, 2007				
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Tobacco	34.5	49.6	69.8	73.4	79.9	81.0

\*Yellow band denotes largest increase in use

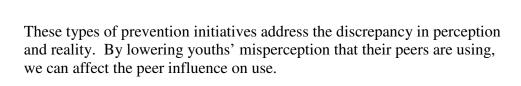
Similar to Perception of Peer Disapproval, evaluating the perception of how much youth believe their peers are using gives us insight into the influence of peers on youth use. The largest increase in the percentage of students who perceive that their peers are using occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades. Keep in mind the lack of an elementary comparison.

#### **Comparison of Perceived Use with Actual Reported Use (%)**

	PRID	E, 2007				
Factor/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Perceived Peer Use	34.5	49.6	69.8	73.4	79.9	81.0
Monthly Use	6.9	14.2	20.9	25.7	28.7	35.9
Annual Use	15.7	24.9	32.4	38.2	42.6	46.2

\*Yellow band denotes largest increase in use

Youth generally overestimate the percentage of their peers who will use a particular substance. Since peer influence is a powerful risk factor, we need to compare our youth's perception of peer use with actual use rates. The table above indicates that youth believe that their peers are using at a much higher rate than what their peers are self-reporting on the survey. This illuminates the importance of Social Marketing and Social Norming campaigns as a prevention tool.







## **College Student Perception of Peer Cigarette Use**

#### Comparisons of Non-Use/Daily Use Perceptions For Past 30 Days (%)

ACHA, 2006\*

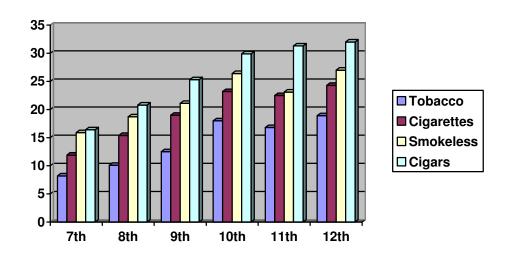
Student Estimate of Non-Use	Student Estimate of Non-Use Actual Reported Non-Use		Actual Reported Daily Use		
3.5%	56.2	57.6	8.0		

From the data listed above, it is apparent that college students overestimate the number of students smoking cigarettes and the rate at which they smoke cigarettes. The students' estimate of those students who didn't use cigarettes during the past 30 days was 16 times lower than what was actually reported. Furthermore, college students' estimate of the percentage of daily college smokers was over 7 times higher than actual reported numbers. Although the discrepancy between fact and perception is not as wide as with alcohol, the data above suggest a need to address the norms of smoking within our college population.



#### Harmfulness:

#### **Perceived Harmfulness**



Harmfulness (Some/No Harm) (%)

						<b>PRIDE</b> , 2007	
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	
Tobacco	8.2	10.1	12.5	18.0	16.8	18.9	
Cigarettes	11.9	15.4	19.0	23.2	22.5	24.3	
Smokeless	15.9	18.7	21.1	26.4	23.1	27.0	
Cigars	16.4	20.8	25.3	29.9	31.3	32.0	

\*Yellow band denotes largest increase

One of the risk factors associated with youth use is the individual's favorable attitude toward use. In addressing this risk factor, we can use the survey item related to a youth's perception of the harmfulness of a drug. The less harmful a youth perceives a particular drug to be, the more favorable an attitude they can develop toward the drug in question. The graph and table above depicts the percentage of youth who responded "Some" or "No Harm" to the question, "Do you feel the following (tobacco) are harmful to your health?" The largest increase in the percentage of students who reported Some/No Harm for tobacco and all types of tobacco occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades. It is interesting to note that a smaller percentage of students see Some or No Harm with the broad category of tobacco than when broken down into individual types of tobacco.



## Perceived Harmfulness of Tobacco (Elementary) (%)

	<b>PRIDE</b> , 2007			
Grade/Response	No	Yes		
5 <sup>th</sup>	7.6	92.4		
6 <sup>th</sup>	7.4	92.6		

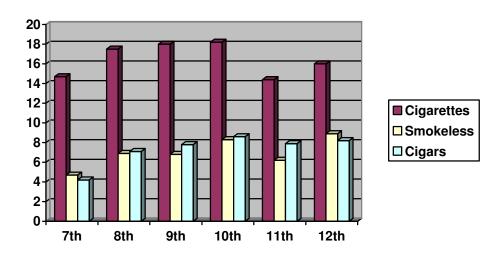
The Elementary item varies slightly in that students are asked if they "think using tobacco is harmful to their health?" The response set (possible answers), however, are quite different. Roughly one in fourteen of our  $5^{th}$  and  $6^{th}$  grade students do not believe that tobacco is harmful to their health.



#### Age of Initiation:

Research indicates that the longer a child delays use of a drug, the less likely they are to suffer long-term consequences associated with that drug. As an identified risk factor associated with youth use, Age of Onset is difficult to evaluate and to directly address. As it is more of an indicator of the interaction of the other risk factors, it is best used as a benchmark for long-term change in use behavior. However, one must be careful when determining trends in Age of Onset between grades. One cannot compare the self-reported age of first use for 7<sup>th</sup> grade students to 12<sup>th</sup> grade students as the 12<sup>th</sup> grade numbers will be inflated (i.e. the 7<sup>th</sup> grade figure will not, except in the rarest of circumstances, include students who report beginning to use at age 17). In order to get a better picture of this risk factor, we compare two distinct time periods. To look at early onset, we compare the percentage of students in each grade who reported using for the first time at age 12 or less. Second, we make a comparison between the 9<sup>th</sup> through 12<sup>th</sup> grades on the percentage of students who reported using for the first time during the middle school years (ages 13-15).

### Early Onset (Ages 12 and under)



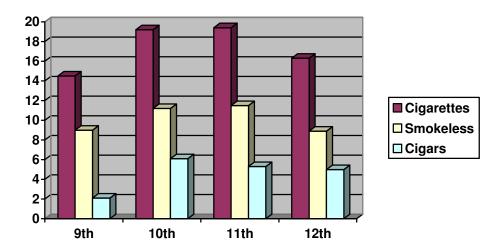
% of Students Reporting Initial Use at Age 12 and Under

					PRIDE,	2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Cigarettes (%)	14.7	17.5	18.0	18.2	14.4	16
Smokeless (%)	4.7	6.9	6.8	8.3	6.2	8.9
Cigars (%)	4.2	7.1	7.8	8.6	7.9	8.2

From the graph and table above, it appears that the percentage of students reporting beginning to use the included types of tobacco at 12 or under spiked for 10<sup>th</sup> grade students but has been on a steady decline for the younger classes.



# Middle School Onset (At age 13-15)



% of Students Reporting Initial use in Middle School (Ages 13-15) (%)

			PRIDI	<b>PRIDE, 2007</b>		
Substance/Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>		
Cigarettes	14.5	19.2	19.4	16.3		
Smokeless	9.0	11.2	11.5	8.9		
Cigars	2.1	6.1	5.3	5.0		

From the graph and table above, we see that middle school initiation in the  $9^{th}$  grade is down after increasing for three years for the other three grades.



#### **Additional Factors**

Located in South Central Kentucky, Warren County's history is deeply rooted in a culture of tobacco cultivation. As smaller, working farms become a thing of the past and as the tobacco industry continues to evolve, tobacco production in Warren County continues to decline. Attitudes and societal norms are also continuing to evolve.

In September of 2007, when a proposed ordinance was voted down with a split vote of 3-2, Bowling Green solidified its position as the largest city in Kentucky without a clean indoor air ordinance.



#### **Summary**

The ability to integrate Elementary (5<sup>th</sup> and 6<sup>th</sup> grade) data into an assessment provides a clearer picture of tobacco use among youth. The addition of data from this age range now points to an earlier jump in youth use with the largest increase in youth use of tobacco occurring between the 6<sup>th</sup> and 7<sup>th</sup> grades. Consequently, prevention initiatives within the community that address tobacco use should target these two grades if not earlier. The largest increase in monthly use fell within the transition from 7<sup>th</sup> to 8<sup>th</sup> grade, a transition that only fell .1% behind the leading transition in weekly use (11<sup>th</sup> to 12<sup>th</sup> grade). To date, the majority of prevention curricula has targeted the middle school years (6<sup>th</sup> through 9<sup>th</sup> grade). However, a new effort must be made to focus more prevention efforts toward elementary grade level students and more intervention (cessation) efforts toward middle and early high school students.

Responsible adult supervision surfaces as a need based on the availability data as well as the preferred time and location of use. Data from the ABC suggests a high compliance rate among local vendors which points to the need to address the social availability of tobacco. As indicated by data from the Elementary PRIDE Survey, the primary location for 5<sup>th</sup> and 6<sup>th</sup> grade students to obtain tobacco is in the home. If parents choose to smoke, they should ensure that tobacco is not left easily accessible to their children. The preferred time and location of use (after school at a friend's house) suggests that youth are primarily using tobacco at times when adult supervision is not available. A concerted effort must be made to educate parents and to encourage an increased effort in assuring responsible adult supervision after school or any other time when their child is outside of their care.

Youth perception of parental disapproval remains relatively high. However, the perception of peer disapproval is much more suspect. A positive can be found in that students tend to overestimate the percentage of students who actually smoke. This misperception lends itself to initiatives designed to correct the misconceptions of youth about youth use of tobacco. Social norms strategies are excellent ways to target this "everyone is doing it" mentality. Furthermore, these types of strategies would also benefit the college population based on their misperceptions of peer use.

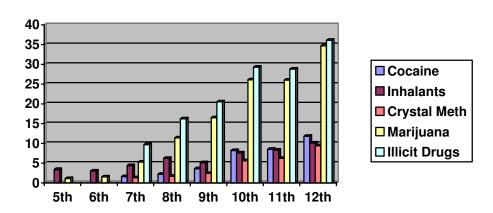
The harm associated with tobacco use has been well documented by medical experts for over 30 years. Despite the increasing evidence surrounding the hazards of tobacco use, the percentage of students who believe there is little harm in using tobacco products remains too high.



# Warren County Drug Assessment

#### **Youth Illicit Drug Use Rates:**

## Annual Use of Illicit Drugs (%)



							PRIDE	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th</sup> **	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Cocaine	**	**	1.6	2.2	3.6	8.2	8.5	11.8
Inhalants	3.4	3.0	4.4	6.2	5.1	7.6	8.3	10.1
Crystal Meth	**	**	1.3	1.7	2.4	5.6	6.2	9.4
Marijuana	1.1	1.5	5.3	11.4	16.5	26.1	26.0	34.7
Illicit Drugs	**	**	9.7	16.2	20.5	29.3	28.8	36.1

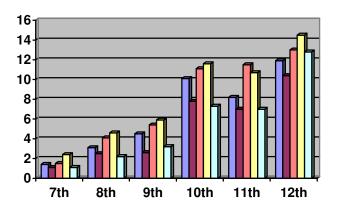
<sup>\*</sup>Yellow band denotes largest increase in use

The illicit drugs listed above tend, especially with youth, to be ingested either by inhalation (direct or smoking) or snorting (absorption through nasal passages). For comparison, totals for "illicit drugs" have also been added. From the data listed in the above table, the largest increase in youth use of the listed substances occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades. Interestingly, there is little change between 10<sup>th</sup> and 11<sup>th</sup> grade use before another sizeable increase from 11<sup>th</sup> to 12<sup>th</sup> grade. This could be due to the 11<sup>th</sup> grade reporting less annual illicit drug use overall. Although the total increase in % is not the highest from 6<sup>th</sup> to 7<sup>th</sup> grade for Marijuana, usage rates more than triple during that time period.

<sup>\*\*</sup>Elementary PRIDE data only reports on Marijuana and Inhalants. Elementary Illicit Item varies too much for comparison



## Annual Use of Illicit Drugs (%)





					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Oxycontin	1.4	3.1	4.5	10.1	8.2	11.9
Ecstasy	1.1	2.5	2.6	7.8	7.0	10.4
Uppers	1.5	4.1	5.4	11.1	11.5	13.0
Downers	2.4	4.6	5.9	11.6	10.7	14.5
Hallucinogens	1.1	2.2	3.2	7.3	7.0	12.8
Illicit Drugs**	9.7	16.2	20.5	29.3	28.8	36.1

<sup>\*</sup>Yellow band denotes largest increase in use

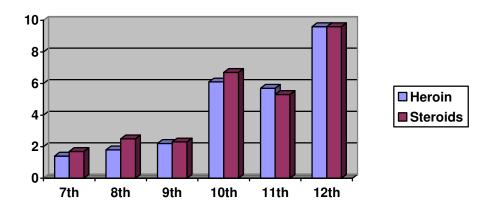
The illicit drugs listed in the above table are often ingested orally. It is important to note that some of the substance categories do, in actuality, include some of the other individual substances listed. For example, Ecstasy is often classified as an "Upper" or sometimes as a "Hallucinogen." Uppers may also include Cocaine, Methamphetamine, etc. However, each category is represented by its own, individual item on the PRIDE Survey.

From the table listed above, the largest increase in use occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades with the exception of Hallucinogens (11<sup>th</sup> to 12<sup>th</sup>). The overall percentages for "Illicit Drugs" were included for comparison. However, it is important to remember that the Illicit Drug category includes Marijuana use which elevates the figures.

<sup>\*\*</sup>Elementary PRIDE data does not include these substances Elementary Illicit Item varies too much for comparison



## **Annual Use of Illicit Drugs (%)**



					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Heroin	1.4	1.8	2.2	6.1	5.7	9.6
Steroids	1.7	2.5	2.3	6.7	5.3	9.6
Illicit Drugs**	9.7	16.2	20.5	29.3	28.8	36.1

<sup>\*</sup>Yellow band denotes largest increase in use

Heroin and Steroids are substances that tend to be used intravenously. The largest increase in Steroid use occurs between the 9<sup>th</sup> and 10<sup>th</sup> grade. There are two equal large increases with Heroin use. These occur between the 9<sup>th</sup> and 10<sup>th</sup> grade as well as the 11<sup>th</sup> and 12<sup>th</sup> grade. It is important to note, however, that reported 11<sup>th</sup> grade use is lower than reported 10<sup>th</sup> grade use. This "dip" in use could account for the equality of this time period for Heroin use. The overall percentages for "Illicit Drugs" were included for comparison. However, it is important to remember that the Illicit Drug category includes Marijuana use which elevates the figures.

It is understandable that the majority of reported illicit drug use results from marijuana use. However, the percentages reported for the other illicit drugs points to substantial poly-drug use. Many of those students who reported using Cocaine during the past year more than likely also use marijuana and possibly combinations of the other reported illicit drugs.

<sup>\*\*</sup>Elementary PRIDE data does not include these substances Elementary Illicit Item varies too much for comparison



### **Annual Use Five Year Trends (%)**

#### Marijuana

					PRIDE, 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	6.1	3.9	4.8	4.7	5.3
8th	11.5	11.5	8.0	10.7	11.4
9th	19.4	23.5	20.6	18.7	16.5
10th	29.5	29.9	24.4	23.8	26.1
11th	35.4	29.7	30.5	24.2	26.0
12th	37.4	34.6	30.8	30.7	34.7

<sup>\*</sup>Yellow denotes highest rate for five year period

Although the current marijuana usage rates are not the highest for the five year trend, there has been a steady increase in use since the 2004-2005 survey.

#### Cocaine

					<b>PRIDE, 2007</b>
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	1.8	1.3	1.2	1.1	1.6
8th	2.5	3.3	1.1	2.7	2.2
9th	4.9	5.2	6.3	5.0	3.6
10th	7.8	8.2	7.9	8.5	8.2
11th	10.6	7.5	10.5	9.0	8.5
12th	9.2	14.0	13.1	13.9	11.8

<sup>\*</sup>Yellow denotes highest rate for five year period

The trends related to annual cocaine use are very interesting. The progression in the highest annual usage rates appear to follow a particular educational "class" than a grade. The youth who were 7<sup>th</sup> grade students in 2002-2003, maintained the highest annual rate up until their senior year for the five year period.



#### **Uppers**

					PRIDE, 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	1.3	1.2	0.6	2.5	1.5
8th	3.0	2.5	1.3	5.5	4.1
9th	6.7	6.3	6.6	8.1	5.4
10th	10.1	9.6	7.2	12.9	11.1
11th	12.0	9.0	8.6	12.8	11.5
12th	9.9	12.2	12.6	17.2	13.0

<sup>\*</sup>Yellow denotes highest rate for five year period

Annual use of Uppers dropped after a spike during the 2005-2006 PRIDE survey. Annual use continues to remain relatively high for the 7<sup>th</sup> and 8<sup>th</sup> grades when compared to previous surveys.

#### **Downers**

					<b>PRIDE</b> , 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	1.3	1.5	1.2	6.8	2.4
8th	2.7	2.9	1.9	8.3	4.6
9th	6.5	6.9	7.7	11.0	5.9
10th	10.2	11.0	9.3	14.6	11.6
11th	12.7	9.2	11.3	14.5	10.7
12th	9.1	13.5	13.7	18.7	14.5

<sup>\*</sup>Yellow denotes highest rate for five year period

Much like uppers, rates recovered when compared to a spike in use as reported on the 2005-2006 survey. Similarly, rates for the  $7^{th}$  and  $8^{th}$  grades remain high when compared to previous years.



#### **Inhalants**

					<b>PRIDE, 2007</b>
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	4.4	2.5	3.9	5.2	4.4
8th	5.3	5.3	4.1	6.6	6.2
9th	6.1	6.1	8.0	7.1	5.1
10th	6.9	7.5	6.9	6.9	7.6
11th	7.4	5.7	7.4	7.1	8.3
12th	4.7	9.0	9.6	8.9	10.1

<sup>\*</sup>Yellow denotes highest rate for five year period

Inhalant use increased to five year highs for grades ten through twelve. Rates reported for the  $7^{th}$  and  $8^{th}$  grades were the second highest in five years.

## Hallucinogens

					<b>PRIDE</b> , 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	1.1	1.2	1.1	1.2	1.1
8th	2.1	2.2	1.1	1.9	2.2
9th	5.5	4.6	5.6	4.5	3.2
10th	7.5	8.3	6.2	6.9	7.3
11th	9.3	7.4	7.9	7.7	7.0
12th	10.1	12.0	11.8	11.1	12.8

<sup>\*</sup>Yellow denotes highest rate for five year period

The  $8^{th}$  grade tied a five year high and the  $12^{th}$  grade reported the highest annual hallucinogen rate in five years. There is a possibility that this category is capturing an increase in the use of an over-the-counter medication Dextromethorphan.



## **Illicit Drugs**

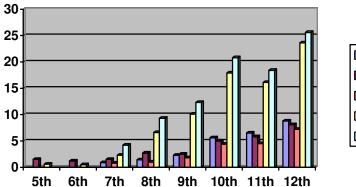
					<b>PRIDE, 2007</b>
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	9.1	5.3	7.9	12.9	9.7
8th	15.0	15.1	10.0	19.7	16.2
9th	22.0	26.9	23.7	24.7	20.5
10th	32.0	32.4	27.5	29.2	29.3
11th	37.0	31.6	32.6	29.1	28.8
12th	37.9	36.2	32.5	35.6	36.1

\*Yellow denotes highest rate for five year period

When looking at overall illicit drug use, the 10<sup>th</sup> and 12<sup>th</sup> grades showed increases from the 2005-2006 survey. It is important to note that, despite having the lowest annual illicit drug use rate, 7<sup>th</sup> grade students still report that almost 1 in 10 students reported using an illicit drug during the past year.



### Monthly Use of Illicit Drugs (%)





							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th</sup> **	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Cocaine	**	**	0.9	1.4	2.3	5.6	6.5	8.8
Inhalants	1.5	1.2	1.5	2.7	2.5	5.0	5.8	8.1
Crystal Meth	**	**	8.0	1.0	1.8	4.4*	4.5	7.2
Marijuana	.6	.5	2.3	6.6	10.1	17.9	16.1	23.6
Illicit Drugs	**	**	4.2	9.3	12.3	20.8	18.4	25.6

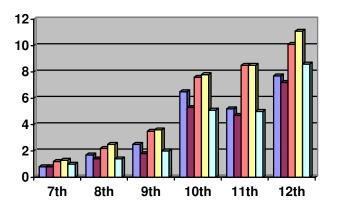
<sup>\*</sup>Yellow band denotes largest increase in use

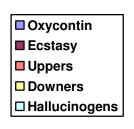
From the data listed in the above table, the largest increase in youth use of the listed substances occurs between the  $9^{th}$  and  $10^{th}$  grades with the exception of Crystal Meth where the largest increase in monthly use occurs between the  $11^{th}$  and  $12^{th}$  grades. It is important to note that the increase in reported Crystal Meth use between the  $9^{th}$  and  $10^{th}$  grades was only .1% behind the  $11^{th}$  to  $12^{th}$  grade increase. When investigating elementary school illicit drug use data, it is important to note that  $5^{th}$  and  $6^{th}$  grade students are using inhalants more than twice as much as marijuana. By the  $7^{th}$  grade, marijuana overtakes inhalants in reported use. More than likely, availability plays a major role in this trend.

<sup>\*\*</sup>Elementary PRIDE data only reports on Marijuana and Inhalants. Elementary Illicit Item varies too much for comparison



#### Monthly Use of Illicit Drugs (%)





					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Oxycontin	8.0	1.7	2.5	6.5	5.2	7.7
Ecstasy	8.0	1.4	1.8	5.3	4.7	7.2
Uppers	1.2	2.2	3.5	7.6	8.5	10.1
Downers	1.3	2.5	3.6	7.8	8.5	11.1
Hallucinogens	1.0	1.4	2.0	5.1	5.0	8.6
Illicit Drugs**	4.2	9.3	12.3	20.8	18.4	25.6

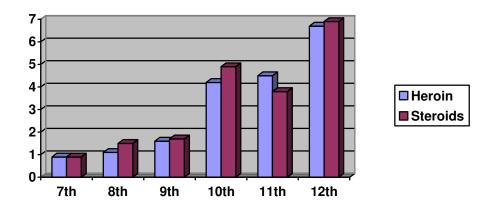
<sup>\*</sup>Yellow band denotes largest increase in use

From the table listed above, the largest increase in use occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades with the exception of Hallucinogens (11<sup>th</sup> to 12<sup>th</sup>). The overall percentages for "Illicit Drugs" were included for comparison. However, it is important to remember that the Illicit Drug category includes Marijuana use which elevates the figures. Once again, it is important to note that the 11<sup>th</sup> grade reported less monthly use than the 10<sup>th</sup> grade for all substances except for uppers. Especially troubling is the percentage of 12<sup>th</sup> grade students who report using uppers and downers on a monthly basis.

<sup>\*\*</sup>Elementary PRIDE data does not include these substances Elementary Illicit Item varies too much for comparison



## Monthly Use of Illicit Drugs (%)



					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Heroin	0.9	1.1	1.6	4.2	4.5	6.7
Steroids	0.9	1.5	1.7	4.9	3.8	6.9
Illicit Drugs**	4.2	9.3	12.3	20.8	18.4	25.6

<sup>\*</sup>Yellow band denotes largest increase in use

The largest reported increase in Steroid and Heroin use occurs between the  $9^{th}$  and  $10^{th}$  grade. The overall percentages for "Illicit Drugs" were included for comparison. However, it is important to remember that the Illicit Drug category includes Marijuana use which elevates the figures.

<sup>\*\*</sup>Elementary PRIDE data does not include these substances Elementary Illicit Item varies too much for comparison



#### Monthly Use Five Year Trends (%)

#### Marijuana

					PRIDE, 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	3.5	2.6	1.7	2.1	2.3
8th	7.0	6.8	4.5	6.9	6.6
9th	14.0	15.5	13.3	12.2	10.1
10th	21.2	20.2	15.2	15.6	17.9
11th	27.1	19.0	22.2	16.8	16.1
12th	26.6	26.0	21.8	21.1	23.6

<sup>\*</sup>Yellow denotes highest rate for five year period

The most recent PRIDE survey shows an increase in monthly marijuana use for the  $7^{th}$ ,  $10^{th}$ , and  $12^{th}$  grades. All three cases were the highest reported use rates in three years for the three grades respectively. However, rates remain lower when compared to the beginning of the five year period.

#### Cocaine

					PRIDE, 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	1.1	0.8	0.7	0.7	0.9
8th	1.6	2.1	0.8	1.7	1.4
9th	4.1	3.1	5.2	3.4	2.3
10th	5.3	6.1	5.6	5.9	5.6
11th	6.8	5.4	6.7	5.9	6.5
12th	5.3	9.8	10.4	11.3	8.8

\*Yellow denotes highest rate for five year period

On the 2006-2007 PRIDE Survey, 7<sup>th</sup> and 11<sup>th</sup> grade students reported increases in monthly use of cocaine over the previous survey. The most current rates, however, are not reported as the highest over the five year period.



## **Uppers**

					<b>PRIDE, 2007</b>
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	0.7	0.8	0.4	1.4	1.2
8th	1.8	1.4	0.8	3.2	2.2
9th	4.1	4.2	4.8	5.3	3.5
10th	6.8	6.9	5.2	9.6	7.6
11th	9.1	6.3	6.5	9.2	8.5
12th	6.8	9.0	9.3	11.4	10.1

<sup>\*</sup>Yellow denotes highest rate for five year period

Similar to annual usage rates, all grades reported a reduction in use of uppers during the 2006-2007 school year when compared to the previous class.

#### **Downers**

					<b>PRIDE, 2007</b>
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	0.6	1.0	0.8	2.4	1.3
8th	1.3	1.4	0.7	4.4	2.5
9th	4.4	4.6	5.5	6.5	3.6
10th	6.5	7.9	7.2	11.0	7.8
11th	8.4	6.3	8.3	10.5	8.5
12th	6.0	10.5	10.4	13.1	11.1

<sup>\*</sup>Yellow denotes highest rate for five year period

Once again, the reported rates of the use of downers decreased from the '05-'06 school year. For the 7<sup>th</sup> and 8<sup>th</sup> grade, it is important to note that the most recent reported use rates are the second highest over a five year period.



#### **Inhalants**

					<b>PRIDE</b> , 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	1.5	1.2	1.2	1.4	1.5
8th	2.8	2.7	1.7	3.1	2.7
9th	3.7	3.3	5.0	4.1	2.5
10th	4.0	5.7	4.9	4.9	5.0
11th	5.2	4.4	5.5	4.8	5.8
12th	2.9	7.2	7.6	6.5	8.1

<sup>\*</sup>Yellow denotes highest rate for five year period

On the most recent survey, reported monthly use rates for  $7^{th}$  grade students ties for the highest in five years. Rates reported by  $11^{th}$  and  $12^{th}$  grade students were five year highs.

## Hallucinogens

					PRIDE, 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	0.3	0.7	0.7	0.7	1.0
8th	1.2	1.5	0.6	1.6	1.4
9th	3.5	3.0	4.3	3.3	2.0
10th	5.1	5.0	5.0	5.0	5.1
11th	5.9	4.5	5.4	5.3	5.0
12th	4.8	7.8	8.5	7.6	8.6

<sup>\*</sup>Yellow denotes highest rate for five year period

Seventh and twelfth grade students reported the highest monthly usage rates in five years for Hallucinogens. The tenth grade rates tie for the highest in five years.



## **Illicit Drugs**

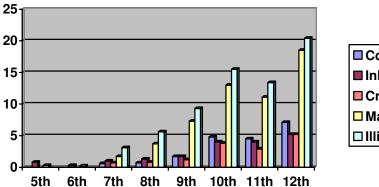
					PRIDE, 2007
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
7th	5.1	3.0	2.6	4.9	4.2
8th	9.5	9.4	5.8	10.5	9.3
9th	14.7	17.3	14.8	15.6	12.3
10th	22.8	22.9	18.1	21.0	20.8
11th	28.2	20.5	24.2	21.4	18.4
12th	27.8	27.3	23.0	25.7	25.6

\*Yellow denotes highest rate for five year period

Overall, Illicit drug use was down slightly across all grades based on comparisons of the two most recent surveys. Keep in mind that this decrease is for the general category of "Illicit" drugs.



### Weekly Use of Illicit Drugs (%)





							PRID	E, 2007
Substance/Grade	5 <sup>th**</sup>	6 <sup>th</sup> **	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Cocaine	**	**	0.6	0.7	1.7	4.8	4.5	7.1
Inhalants	.8	.3	1.0	1.3	1.7	4.0	4.0	5.2
Crystal Meth	**	**	0.7	8.0	1.2	3.8	2.9	5.2
Marijuana	.3	.2	1.7	3.7	7.3	13.0	11.1	18.5
Illicit Drugs	**	**	3.1	5.6	9.3	15.5	13.4	20.4

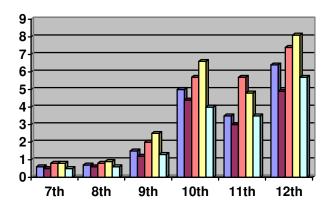
<sup>\*</sup>Yellow band denotes largest increase in use

From the data listed in the above table, the largest increase in youth use of the listed substances occurs between the  $9^{th}$  and  $10^{th}$  grades with the exception of Marijuana where the largest increase in monthly use occurs between the  $11^{th}$  and  $12^{th}$  grades. Consequently, we see a shift in the largest increase in overall reported illicit drug use based on the influence of reported marijuana use. It is important to note that the largest increase in reported crystal meth use now occurs between the  $9^{th}$  and  $10^{th}$  grades. Whereas the largest increase in annual and monthly crystal meth use occurs between the  $11^{th}$  and  $12^{th}$  grades.

<sup>\*\*</sup>Elementary PRIDE data only reports on Marijuana and Inhalants. Elementary Illicit Item varies too much for comparison



## Weekly Use of Illicit Drugs (%)





					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Oxycontin	0.6	0.7	1.5	5.0	3.5	6.4
Ecstasy	0.5	0.6	1.2	4.4	3.0	4.9
Uppers	8.0	8.0	2.0	5.7	5.7	7.4
Downers	8.0	0.9	2.5	6.6	4.8	8.1
Hallucinogens	0.5	0.6	1.3	4.0	3.5	5.7
Illicit Drugs**	3.1	5.6	9.3	15.5	13.4	20.4

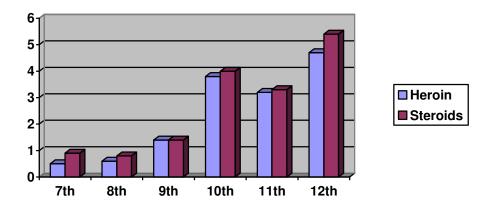
<sup>\*</sup>Yellow band denotes largest increase in use

From the table listed above, the largest increase in use occurs between the  $9^{th}$  and  $10^{th}$  grades with the exception of overall illicit drugs as discussed in the previous section ( $11^{th}$  to  $12^{th}$ ). Once again, it is important to note that the  $11^{th}$  grade reported less monthly use than the  $10^{th}$  grade for all substances except for uppers.

<sup>\*\*</sup>Elementary PRIDE data does not include these substances Elementary Illicit Item varies too much for comparison



## Weekly Use of Illicit Drugs (%)



					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Heroin	0.5	0.6	1.4	3.8	3.2	4.7
Steroids	0.9	8.0	1.4	4.0	3.3	5.4
Illicit Drugs**	3.1	5.6	9.3	15.5	13.4	20.4

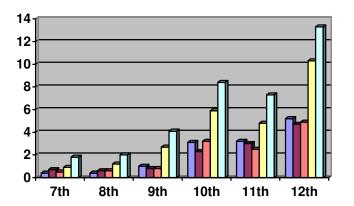
<sup>\*</sup>Yellow band denotes largest increase in use

The largest reported increase in Steroid and Heroin use occurs between the  $9^{th}$  and  $10^{th}$  grade. The overall percentages for "Illicit Drugs" were included for comparison. However, it is important to remember that the Illicit Drug category includes Marijuana use which elevates the figures.

<sup>\*\*</sup>Elementary PRIDE data does not include these substances Elementary Illicit Item varies too much for comparison



## Daily Use of Illicit Drugs (%)



□ Cocaine
■Inhalants
■ Crystal Meth
■ Marijuana
□ Illicit Drugs

	<b>PRIDE, 2007</b>					
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Cocaine	0.4	0.4	1.0	3.1	3.2	5.2
Inhalants	0.7	0.6	8.0	2.3	3.0	4.7
Crystal Meth	0.5	0.6	0.8	3.2	2.5	4.9
Marijuana	0.9	1.2	2.7	5.9	4.8	10.3
Illicit Drugs	1.8	2.0	4.1	8.4	7.3	13.3

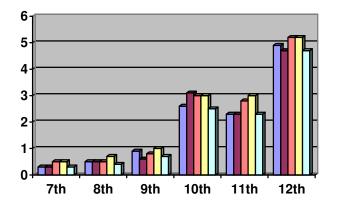
<sup>\*</sup>Yellow band denotes largest increase in use

When looking at daily use, we see a slight shift in the largest increase in reported inhalant use to the  $11^{th}$  to  $12^{th}$  grade transition. The transition between the  $9^{th}$  and  $10^{th}$  grades is the time frame for the largest increase in reported use of cocaine. Crystal Meth shows an equal increase between the  $9^{th}$  and  $10^{th}$  grades as well as the  $11^{th}$  to  $12^{th}$  grades.

<sup>\*\*</sup>Daily use rates not reported in Elementary PRIDE data



## Daily Use of Illicit Drugs (%)





					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Oxycontin	0.3	0.5	0.9	2.6	2.3	4.9
Ecstasy	0.3	0.5	0.6	3.1	2.3	4.7
Uppers	0.5	0.5	8.0	3.0	2.8	5.2
Downers	0.5	0.7	1.0	3.0	3.0	5.2
Hallucinogens	0.3	0.4	0.7	2.5	2.3	4.7
Illicit Drugs**	1.8	2.0	4.1	8.4	7.3	13.3

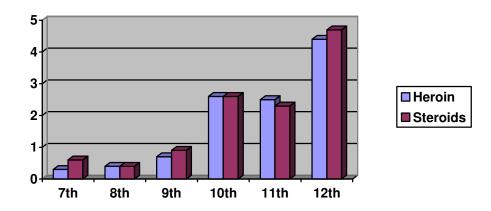
<sup>\*</sup>Yellow band denotes largest increase in use

From the table listed above, the largest increase in use occurs between the  $11^{th}$  and  $12^{th}$  grades with the exception of ecstasy where the largest increase occurs between the  $9^{th}$  and  $10^{th}$  grades. For ecstasy, it is important to note that the  $11^{th}$  to  $12^{th}$  grade increase is only .1% behind the  $9^{th}$  to  $10^{th}$  grade transition. Although the changes in reported use rates are more subtle when discussing daily use, it is important to realize that around one in twenty  $12^{th}$  grade students report daily illicit drug use.

<sup>\*\*</sup>Daily use rates not reported in Elementary PRIDE data



## Daily Use of Illicit Drugs (%)



					PRID	E, 2007
Substance**/Grade	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12th
Heroin	.3	.4	.7	2.6	2.5	4.4
Steroids	.6	.4	.9	2.6	2.3	4.7
Illicit Drugs**	1.8	2.0	4.1	8.4	7.3	13.3

<sup>\*</sup>Yellow band denotes largest increase in use

From the table listed above, the largest increase in use occurs between the  $11^{th}$  and  $12^{th}$  grades with the exception of ecstasy where the largest increase occurs between the  $9^{th}$  and  $10^{th}$  grades. For ecstasy, it is important to note that the  $11^{th}$  to  $12^{th}$  grade increase is only .1% behind the  $9^{th}$  to  $10^{th}$  grade transition. Although the changes in reported use rates are more subtle when discussing daily use, it is important to realize that around one in twenty  $12^{th}$  grade students report daily illicit drug use.

<sup>\*\*</sup>Daily use rates not reported in Elementary PRIDE data

PRIDE, 2007



## Where and When Youth are Using Illicit Drugs:

#### **Location of Use**

				PRIDE, 2007
8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>

Substance/Grade	$7^{\text{th}}$	8th	9 <sup>th</sup>	10 <sup>th</sup>	$11^{th}$	12 <sup>th</sup>
Marijuana	Other	Friend's	Friend's	Friend's	Friend's	Friend's
Cocaine	Other	Home	Home	Friend's	Other	Friend's
Crystal Meth	Other	Other	Home	School	School	School

<sup>\*</sup>Marijuana, Cocaine, and Crystal Meth were the only substances reported

The above chart shows the primary location of use for marijuana, cocaine, and crystal meth across all grades (7<sup>th</sup> through 12<sup>th</sup>). There are interesting differences between the three substances. For marijuana, the primary place of use is at a friend's home. Cocaine is split evenly between the youth's home, a friend's house, and "other." At first, it may be surprising that school was reported as the primary place of use for 10<sup>th</sup> through 12<sup>th</sup> grade students for Crystal Meth. However, methamphetamine highs can last as long as 16 hours or longer whereas cocaine highs are closer to 30 minutes. It could be that students report the use at school due to being "high" at school and school being the place where they would spend the largest block of time during the day.

#### Time of Use

						1 Kibb, 2007
Substance/Grade	$7^{ m th}$	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Marijuana	After	After	After	After	After	Week
	School/weeknight	School	School	School	School	Night
Cocaine	After	Before	During	After	During/After	During
	School/weeknight	School	School	School	School	School
Crystal Meth	Before/During/After	Before	During	Week	During	During
	School	School	School	Night	School	School

\*Marijuana, Cocaine, and Crystal Meth were the only substances reported

The above table shows the primary time frame that youths choose to use marijuana, cocaine, and crystal meth. For the sake of comparison, Weekend use was omitted from the comparison as it includes use over a 2-3 day period as opposed to a specific time of day. For Marijuana, the majority of students reported using after school or during week nights. Given the pungent odor of marijuana smoke, it makes sense that this substance is used during times when responsible adult supervision is at a minimum. For cocaine, the primary time of use is after school. However, as students become older, the data suggests either a greater need for use during more risky time periods (i.e. at school) or use during times of increased truancy. This could very well be due to serious dependence issues for those students using cocaine. The same line of reasoning holds true

for those students reporting using methamphetamine. Also, the duration of the "high" associated with meth should also be considered. It is important to remember that this information is gathered from those students who actually reported using a particular substance.

#### Weekend Use Rates (%)

						PRIDE, 2007	
Weekend Use	$7^{\text{th}}$	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	
Marijuana	3.7	7.3	11.5	15.3	17.3	21.7	
Cocaine	8.0	8.0	1.8	4	4.1	5.1	
Crystal Meth	0.4	0.5	1.2	2.2	2.5	3.4	

\*Yellow band denotes largest increase in use

The above chart is included for reference concerning the percentage of students who report using marijuana, cocaine, and crystal meth on the weekends.



#### **Illicit Drug Use Snapshot**

The information below gives a quick snapshot that shows the annual rate of use as well as the primary location and time of use for each grade level for marijuana, cocaine, and crystal methamphetamine.

#### Marijuana

**PRIDE, 2007** 

Grade	Annual Rate	Location	Time
$7^{\text{th}}$	5.3%	Other	After School/Week Night
8 <sup>th</sup>	11.4%	Friend's House	After School
9 <sup>th</sup>	16.5%	Friend's House	After School
10 <sup>th</sup>	26.1%	Friend's House	After School
11 <sup>th</sup>	26.0%	Friend's House	After School
12 <sup>th</sup>	34.7%	Friend's House	Week Night

From the data above, the majority of youth report using marijuana at a friend's house either after school or on a week night, times that youth are generally unsupervised by a responsible adult.

#### Cocaine

PRIDE, 2007

Grade	<b>Annual Rate</b>	Location	Time
$7^{\text{th}}$	1.6%	Other	After School/Week Night
8 <sup>th</sup>	2.2%	Home	Before School
9 <sup>th</sup>	3.6%	Home	During School
10 <sup>th</sup>	8.2%	Friend's House	After School
11 <sup>th</sup>	8.5%	Other	During/After School
12 <sup>th</sup>	11.8%	Friend's House	During School

Data related to the location and time of cocaine use by youth presents with little rhyme or reason. The high potential for addiction could contribute to the high risk times that youth report using (i.e. during school, etc.).



## **Crystal Methamphetamine**

**PRIDE, 2007** 

Grade	<b>Annual Rate</b>	Location	Time
$7^{\text{th}}$	1.3%	Other	Before, During, After School
8 <sup>th</sup>	1.7%	Other	Before School
9 <sup>th</sup>	2.4%	Home	During School
10 <sup>th</sup>	5.6%	School	Week Night
11 <sup>th</sup>	6.2%	School	During School
12 <sup>th</sup>	9.4%	School	During School

As mentioned in the individual location and time sections, the reported use at school could be due to the duration of the methamphetamine "high." It could also be a sign of severe addiction.



#### Marijuana Use and College Students

#### Reported Use of Marijuana by WKU Students (%)

			ACHA*		
Year/Rate of Use	Lifetime	Past 30 Days	Daily		
2004	44.0	21.0	3.6		
2006	32.4	16.6	2.1		

<sup>\*</sup>American College Health Association Survey

From 2004 to 2006, reported Lifetime, Past 30 Day, and Daily use of Marijuana decreased substantially. When reviewing the most recent data, it's important to note that of those who report ever using marijuana, more than half (51.2% in 2006) report using marijuana in the past 30 days. Furthermore, for those who reported ever using marijuana in their lifetime, more than 1 in 16 report being daily users. Finally, there is a higher reported percentage of daily marijuana users than daily alcohol users among WKU's college students.



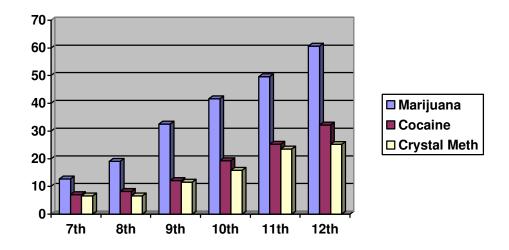
#### Risk Factors in Relation to Youth Illicit Drug Use

#### **Introduction:**

In the previous section, the information presented related to the "What" of the youth illicit drug use equation. We can identify the key transitions in youth use through reported usage numbers, but, it gives us very little in identifying the underlying issues in youth use. Research has identified a variety of risk factors that are associated with youth use of alcohol and other drugs. Students who are identified as having elevated indicators in these risk factors will be more likely to engage in alcohol and other drug use. This section will take a deeper look at those related factors in an attempt to identify critical points for coalition intervention in the risk factors as they relate to youth illicit drug use.

#### **Availability:**

## **Perceived Availability**



Availability ( $7^{th}$ - $12^{th}$ ) - (Fairly/Very Easy to Get) (%)

					PRID	E, 2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Marijuana	12.7	19	32.5	41.6	49.6	60.7
Cocaine	7	8.2	12.1	19.3	25.3	32.2
Crystal Meth	6.6	6.6	11.5	15.8	23.5	25.2

\*Yellow band denotes largest increase

Availability has been identified by research to be a risk factor most highly correlated with youth use. There are two forms of availability, social availability



and illegal retail availability. Social availability is getting drugs from a friend, family members, or the legal sale of legal substances (i.e. cold medication, spray paint, etc.). Illegal retail availability includes the illegal sale of legal substances (alcohol, tobacco) to minors as well as the sale of illegal substances (all other drugs). The above numbers represent those students who reported that marijuana, cocaine, and crystal methamphetamine are Fairly Easy or Very Easy to Get.

## Availability (5<sup>th</sup>-6<sup>th</sup>) (Easy to Get) (%)

	PRIDE, 2007		
Substance/Grade	5 <sup>th</sup>	6th	
Marijuana	6.8	7.8	
"Other Drugs"	11.1	12.0	

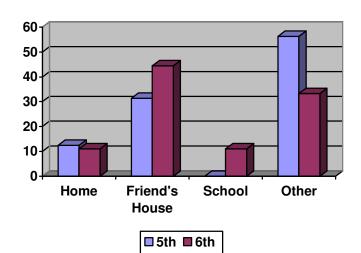
\*Elementary PRIDE only includes three possible options: "Cannot Get," "Hard to Get," and "Easy to Get"

The Elementary PRIDE Survey provides insight into how easy 5<sup>th</sup> and 6<sup>th</sup> grade students perceive it is to get marijuana and other drugs. Based on the series of questions, the item concerning "Other Drugs" could be difficult to interpret. Since separate items ask about the availability of marijuana, students may not have included their perception of marijuana availability in this item. However, other students may have interpreted the item differently. Regardless, it is important to note that the perceived availability of "Other Drugs" is almost double the reported availability of marijuana.



#### Where Do You Get Marijuana?

The Elementary version of the PRIDE Survey includes a question that asks students where they obtain marijuana. The percentages listed below are based on those students who reported at least annual use.



			PR	IDE, 2007
Grade/Location	Home	Friend's House	School	Other
5 <sup>th</sup> (%)	12.5	31.3	0	56.3
6 <sup>th</sup> (%)	11.1	44.4	11.1	33.3

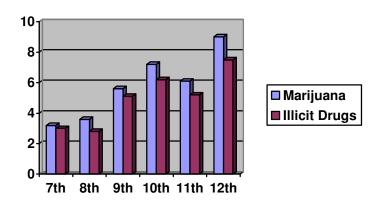
Based on the data listed above, the most likely place for a 5<sup>th</sup> grade student to obtain marijuana is at a place somewhere "other" than home, a friend's house, or school. The most likely place for a 6<sup>th</sup> grade student to obtain marijuana is at a friend's house. It is important to keep the above percentages in perspective. For example, the 6<sup>th</sup> grade students who reported obtaining marijuana at home is 11.1% of the 1.5% of 6<sup>th</sup> grade students who reported using marijuana in the past year. Out of the 1031 6<sup>th</sup> grade students surveyed, this equates to two students.

Contrary to alcohol, the primary location of source is "Other" followed by a "Friend's House" for the 5<sup>th</sup> grade and vice versa for 6<sup>th</sup> grade students. Unfortunately, the "Other" category gives us very information about a true location. One can suspect that this category could include generalized areas such as a neighborhood, etc.

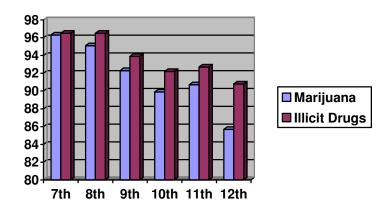


## **Perception of Parental Disapproval:**

# Parental Disapproval (Not Wrong At All)



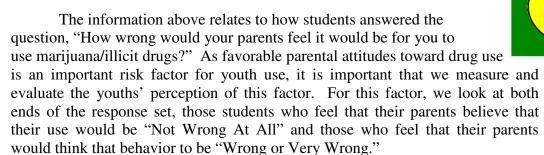
# Parental Disapproval (Wrong/Very Wrong)



					PRID	E, 2007
Disapproval/Grade	$7^{\text{th}}$	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Not Wrong At All						
(Marijuana) (%)	3.2	3.6	5.6	7.2	6.1	9.0
Wrong/Very Wrong						
(Marijuana) (%)	96.3	95.1	92.3	89.9	90.7	85.7
Not Wrong At All						
(Illicit Drugs) (%)	3.0	2.8	5.1	6.2	5.2	7.5
Wrong/Very Wrong						
(Illicit Drugs) (%)	96.5	96.5	93.9	92.2	92.7	90.8

<sup>\*</sup>Yellow band denotes largest increase/decrease

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Based on the perception of the youth as reported in the PRIDE survey, the majority of youth believe that their parents do not approve of marijuana and illicit drug use. There is an interesting comparison to note. The percentage of 7<sup>th</sup> grade students who report that their parents believe that their marijuana use is "Not wrong at all" is identical to same item related to alcohol (3.2%). Also, there is only a slight difference between that figure and the percentage of youth who report that their parents would think their illicit drug use was "Not wrong at all" (3.0%).

Similar, favorable trends are found in the Elementary PRIDE data. When asked, "Would your parents approve of you using Marijuana/Inhalants\*/Other Drugs?" very few students answered, "Yes."

#### **Elementary Parent Disapproval (%)**

	PRIDE	PRIDE, 2007		
Grade/Response	No	Not Sure	Yes	
5 <sup>th</sup> (Marijuana)	97.8	1.1	1.2	
6 <sup>th</sup> (Marijuana)	98.6	.7	.8	
5 <sup>th</sup> (Inhalants)	96.1	2.8	1.1	
6 <sup>th</sup> (Inhalants)	97.0	2.1	.9	
5 <sup>th</sup> (Other Drugs)	97.3	1.7	1.1	
6 <sup>th</sup> (Other Drugs)	98.4	1.1	.6	

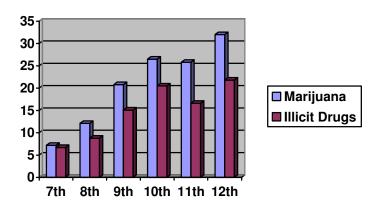
<sup>\*</sup>The question for inhalants reads, "Would your parents approve of you using glue, gas, etc. to get high?

As you can see, the majority of our students believe that their parents would not approve of their use of illicit drugs.

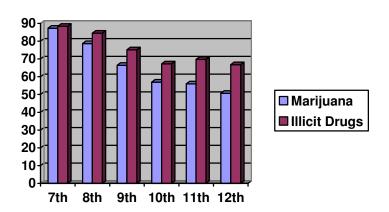
## **Perception of Peer Disapproval:**







# Peer Disapproval (Wrong/Very Wrong)



					PRID	Е, 2007
Disapproval/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Not Wrong At All						
(Marijuana) (%)	7.2	12.1	20.8	26.5	25.8	32.0
Wrong/Very Wrong						
(Marijuana) (%)	87.3	78.6	66.4	57.0	56.0	50.7
Not Wrong At All						
(Illicit Drugs) (%)	6.7	8.8	15.1	20.5	16.6	21.8
Wrong/Very Wrong						
(Illicit Drugs) (%)	88.3	84.5	75.1	67.2	69.7	66.8

\*Yellow band denotes largest increase/decrease

When evaluating risk factors related to youth use, one must investigate the influence of peers. One of the measures we have from the PRIDE survey relates

to a youth's perception of their peer's approval or disapproval of use. Unlike the numbers discussed in the Parental Disapproval section, youth present their peers as being much more accepting of their use. From the chart and graphs above, one can see that the greatest change for both sets of responses occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades.

Through the Elementary PRIDE Survey, our younger students were asked the similar question, "Would your friends approve of you using Marijuana/Inhalants\*/Other Drugs?"

#### **Elementary Peer Disapproval (%)**

		PRIDE	, 2007
Grade/Response	No	Not Sure	Yes
5 <sup>th</sup> (Marijuana)	87.4	10.6	2.0
6 <sup>th</sup> (Marijuana)	85.8	12.1	2.1
5 <sup>th</sup> (Inhalants)	84.2	13.1	2.7
6 <sup>th</sup> (Inhalants)	81.9	16.0	2.0
5 <sup>th</sup> (Other Drugs)	85.7	12.2	2.1
6 <sup>th</sup> (Other Drugs)	84.6	14.1	1.3

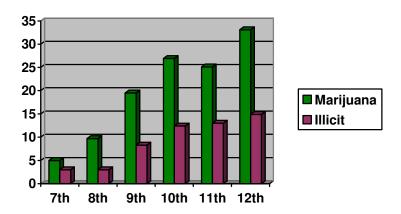
<sup>\*</sup>The question for inhalants reads, "Would your friends approve of you using glue, gas, etc. to get high?

Much like the question concerning whether their parents would approve, few students reported "Yes" that their friends would approve. However, the percentage of students who reported that they were "Not Sure" is much larger. This is a very important finding based on the influence of peers on youth. This points to a critical period for prevention efforts aimed at the effects of Peer Influence.



#### **Perception of Peer Use:**

## Peer Use (Any)



Do your friend's use Marijuana/Illicit Drugs? (All responses other than "never") (%)

					PRIDE, 2007			
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>		
Marijuana	5.0	9.7	19.5	26.9	25.1	33.1		
Illicit Drugs	3.0	3.0	8.3	12.4	13.0	14.9		

\*Yellow band denotes largest increase

Similar to Perception of Peer Disapproval, evaluating the perception of how much youth believe their peers are using gives us insight into the influence of peers on youth use. The largest increase in the percentage of students who perceive that their peers are using occurs between the  $8^{th}$  and  $9^{th}$  grades.



#### **Comparison of Perceived Use with Actual Reported Use (%)**

					PRID	E, 2007
Factor/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Perceived Peer Use						
(Marijuana)	5.0	9.7	19.5	26.9	25.1	33.1
Monthly Use (Marijuana)	2.3	6.6	10.1	17.9	16.1	23.6
Annual Use (Marijuana)	5.3	11.4	16.5	26.1	26.0	34.7
Perceived Peer Use (Illicit)	3.0	3.0	8.3	12.4	13.0	14.9
Monthly Use (Illicit)	4.2	9.3	12.3	20.8	18.4	25.6
Annual Use (Illicit)	9.7	16.2	20.5	29.3	28.8	36.1

\*Yellow band denotes largest increase in use

Unlike comparisons of youth perceived and actual alcohol use, the comparisons concerning marijuana and illicit drugs are not as clear cut. Students tend to overestimate the percentage of students using marijuana (monthly), but underestimate the percentage of students using illicit drugs (monthly).

Among the people you consider to be your closest friends, how many would you say have used drugs such as marijuana or cocaine? (%)

		Developmental Assets, 2006			
Occurrence/Grade	7	th	9 <sup>th</sup>	11 <sup>th</sup>	
At Least 1	1	4	41	53	
A Few/Some	1	3	32	37	
Most/All	1		9	15	

\*Yellow band denotes largest increase

This question offers a more specific indicator for peer use. This question is more specific than the PRIDE Survey question in that it specifies a youth's "closest friends" as the comparison group. It also varies in tense from the PRIDE question ("use" vs. "have used"). The percentage of students who report having close friends who have used is substantial.



#### **College Student Perception of Peer Use (Marijuana)**

### Comparisons of Non-Use/Daily Use Perceptions For Past 30 Days

			ACHA, 2006*
<b>Student Estimate</b>	<b>Actual Reported</b>	Student Estimate	Actual Reported
of Non-Use	Non-Use	of Daily Use	Daily Use
14.2%	67.6%	22.8%	2.1%

From the data listed above, it is apparent that college students overestimate the number of students using marijuana and the rate at which they use Marijuana. The students' estimate of those students who didn't use Marijuana during the past 30 days was almost 5 times lower than what was actually reported. Furthermore, college students' estimate of the percentage of daily college marijuana users was over 10 times higher than actual reported numbers. This discrepancy could form the basis for a social marketing campaign to address the misperceived norms of marijuana use within our college population.



#### Harmfulness:

#### Harmfulness (Some/No Harm) (%)

					PRID	E, 2007
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Marijuana	8.7	12.2	20.9	32.1	27.3	32.4
Cocaine	4.7	3.7	7.1	11.4	9.9	11.8
Uppers	9.7	9.5	11.3	17.2	16.6	15.5
Downers	11.6	11.2	13.7	19.2	17.9	17.5
Inhalants	11.0	10.2	12.5	14.5	15.0	12.5
Hallucinogens	6.9	6.2	8.7	12.0	10.2	13.2
Heroin	5.9	4.1	6.5	9.4	8.2	10.6
Steroids	11.1	9.8	13.5	15.3	13.9	14.3
Ecstasy	7.8	5.8	8.3	12.4	11.4	10.9
Oxycontin	8.2	8.3	10.9	14.0	12.6	15.7
Crystal Meth	4.7	3.3	5.3	9.4	8.0	9.6
Illicit Drugs	3.4	2.1	4.2	7.0	6.2	7.4

\*Yellow band denotes largest increase

One of the risk factors associated with youth use is the individual's favorable attitude toward use. In addressing this risk factor, we can use the survey item related to a youth's perception of the harmfulness of a drug. The less harmful a youth perceives a particular drug to be, the more favorable an attitude they can develop toward the drug in question. The graph and chart above depicts the percentage of youth who responded "Some" or "No Harm" to the question, "Do you feel the following are harmful to your health?" The largest increase in the percentage of students who reported Some/No Harm for most of the substances and the overall illicit drug category occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades. The largest increase related to inhalants and steroids occurs between the 8<sup>th</sup> and 9<sup>th</sup> grades.



#### **Perceived Harmfulness (Elementary) (%)**

	PRIDE, 2007			
Grade/Response	No	Yes		
5 <sup>th</sup> (Marijuana)	7.5	92.5		
6 <sup>th</sup> (Marijuana)	6.7	93.3		
5 <sup>th</sup> (Inhalants)	10.5	89.5		
6 <sup>th</sup> (Inhalants)	8.7	91.3		
5 <sup>th</sup> (Other Drugs)	7.5	92.5		
6 <sup>th</sup> (Other Drugs)	6.5	93.5		

<sup>\*</sup>The question for inhalants reads, "Do you think that using glue, gas, etc. is harmful to your health?

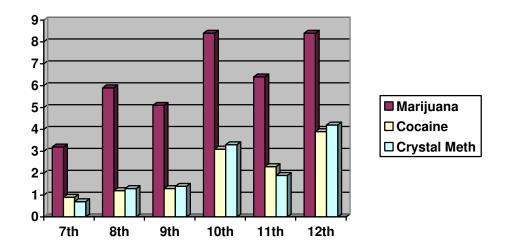
The Elementary item varies slightly in that students are asked if they "think using Marijuana/Inhalants\*/Other Drugs is harmful to their health?" The response set (possible answers), however, are quite different. It's important to note that 5<sup>th</sup> and 6<sup>th</sup> grade students believe that inhalants are less harmful than marijuana and other drugs. Also important to note is that roughly 1 in 13 5<sup>th</sup> grade students do not believe that Marijuana and other drugs are harmful. With more than 1 in 10 5<sup>th</sup> grade students believing that inhalants are not harmful, efforts to increase education should be made in the late elementary grades concerning harmfulness.



#### Age of Initiation:

Research indicates that the longer a child delays use of a drug, the less likely they are to suffer long-term consequences associated with that drug. As an identified risk factor associated with youth use, Age of Onset is tricky to evaluate and to directly address. As it is more of an indicator of the interaction of the other risk factors, it is best used as a benchmark for long-term change in use behavior. However, one must be careful when determining trends in Age of Onset between grades. One cannot compare the self-reported age of first use for 7<sup>th</sup> grade students to 12<sup>th</sup> grade students as the 12<sup>th</sup> grade numbers will be inflated (i.e. the 7<sup>th</sup> grade figure will not, except in the rarest of circumstances, include students who report beginning to use at age 17). In order to get a better picture of this risk factor, we compare two distinct time periods. To look at early onset, we compare the percentage of students in each grade who reported using for the first time at age 12 or less. Second, we make a comparison between the 9<sup>th</sup> through 12<sup>th</sup> grades on the percentage of students who reported using for the first time during the middle school years (ages 13-15).





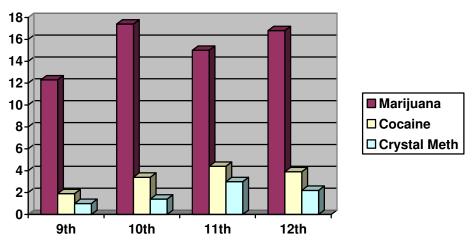
% of Students Reporting Initial Use at Age 12 and Under

		PRIDE	, 2007			
Substance/Grade	7 <sup>th</sup>	8th	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Marijuana	3.2	5.9	5.1	8.4	6.4	8.4
Cocaine	.9	1.2	1.3	3.1	2.3	3.9
Crystal Meth	.7	1.3	1.4	3.3	1.9	4.2

From the graph and chart above, it appears that the percentage of students reporting beginning to use marijuana, cocaine, and crystal meth has steadily decreased over time.



## Middle School Onset (At age 13-15)



% of Students Reporting Initial use in Middle School (Ages 13-15)

	<b>PRIDE, 2007</b>			
Substance/Grade	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Marijuana	12.3	17.4	15	16.8
Cocaine	1.9	3.4	4.4	3.9
Crystal Meth	1	1.4	3	2.2

From the graph and chart above, we see that initiation in the  $9^{th}$  grade dropped when compared to the other three grades across all three reported categories with the exception of Crystal Meth which dropped in the  $10^{th}$  grade.



## **Other Community Drug Indicators**

# **Drug Related Charges** (Number of Cases)

## Marijuana

		Administrative Office of the Courts				
<u>Charge</u>	20	<u>)05</u>	200	<u>)6</u>	2007	'
Trafficking < 8 oz	4	40	24	1	38	
Trafficking 8 oz to 5 lbs	(	58	26	6	50	
Trafficking >5 lbs		9	6		16	
Cultivation <5 plants		2	8		7	
Cultivation 5+ plants		6	5		10	
Possession	6	86	69	3	864	

## **Prescription Drugs**

Administrative Office of the Courts

Charge	<u>2005</u>	<u>2006</u>	<u>2007</u>
Prescription not in	74	97	71
proper container			
Forgery/Possession/Theft	8	7	7
of a Prescription/			
Prescription Blank			
Attempt to obtain	20	16	8
Controlled substance			
through false			
statement/name/script			
Trafficking in Opiates	11	4	5
Trafficking in Codeine	1	1	2
Possession of Opiates	3	10	4
Possession of Codeine	7	12	10



## Methamphetamine

Administrative Office of the Courts

Charge	<u>2002</u>	<u>2003</u>	<u>2004</u>	2005*	<u>2006</u>	2007
Theft of Anhydrous				4	6	0
Ammonia (NH3)						
Possession NH3				62	40	10
Possession of Meth				34	28	76
Precursor						
Trafficking Meth	43	45	90	54	35	14
Possession of Meth	2	0	1	5	31	54
Manufacturing or	102	94	126	78	37	23
Attempting to						
Manufacture Meth						

\*Kentucky Senate Bill 63 went into effect in the summer of 2005. SB63 restricted the sale of products containing pseudoephedrine, the primary precursor in the manufacture of methamphetamine.

#### Cocaine

Administrative Office of the Courts

<u>Charge</u>	2002	<u>2003</u>	2004	<u>2005</u>	<u>2006</u>	<u>2007</u>
Trafficking Cocaine	95	92	132	115	130	177
Possession Cocaine	103	124	212	185	238	192



## **Various Drugs**

<b>Administrative Office</b>	
of the Courts	

<u>Charge</u>	<u>2005</u>	2006	<u>2007</u>
Trafficking LSD	0	0	0
Trafficking	0	0	0
Hallucinogen			
Possession	1	1	2
Hallucinogen			
Trafficking Anabolic	0	1	0
Steroid			
Possession Anabolic	0	1	0
Steroid			
Trafficking Heroin	0	0	0
Possession Heroin	0	1	3
Possession Date Rape	0	0	0
Drug			
Possession PCP	0	1	0
Possession	0	2	3
Amphetamines			

# Warren County Prisoners Related to Drug Charges (Alcohol Not Included)

		Warren Cou	ınty Jail
Charge/Year	2004	2005*	<u>2006</u>
<b>Possession Controlled Substance (Includes Marijuana)</b>	1133	687	887
Trafficking in Controlled Substance	378	251	275
Public Intoxication by Controlled Substance	99	77	97
Drug Paraphernalia	756	498	613
Cultivation of Marijuana	11	4	12
Possession of Marijuana	589	357	451
Trafficking in Marijuana	78	51	37
Manufacturing Meth	91	63	35
Possession Anhydrous Ammonia	75	41	27
Possession of Meth Precursor	56	24	18
Obtaining Controlled Substance by Fraud	11	5	13
Possession of Forged Prescription	6	7	8
Forgery of Prescription	7	7	5

<sup>\*</sup>Kentucky Senate Bill 63 went into effect in the summer of 2005. SB63 restricted the sale of products containing pseudoephedrine, the primary precursor in the manufacture of methamphetamine.



## **Emergency Room\* Visits Related to Alcohol and Other Drugs**

				The Medical Center
Year	# of Patients	Financial Cost	Most Affected Age Range	# Cases under 15
2004	2811	\$3,551,297.64	30-44	8
2005	3422	\$4,407,147.77	15-29	11
2006	2837	\$3,959,960.88	15-29	9

\*The Medical Center

Although our emergency room data includes all drugs and alcohol, the figures give a good representation of a fraction of the cost to society.

## **Juvenile Detention Drug Screen Data**

## Marijuana

Warren County Juvenile Detention Center

Year	<b>Total Youth Tested</b>	<b>Total Youth Positive</b>	% Youth Positive
2004	1293	612	47.3%
2005	1406	517	36.8%
2006	1537	656	42.7%

## Methamphetamine

Warren County Juvenile Detention Center

Year	<b>Total Youth Tested</b>	<b>Total Youth Positive</b>	% Youth Positive
2004	1296	80	6.2%
2005*	1436	89	6.2%
2006	1535	48	3.1%

\*Kentucky Senate Bill 63 went into effect in the summer of 2005. SB63 restricted the sale of products containing pseudoephedrine, the primary precursor in the manufacture of methamphetamine.



## Poison Control Data (Intentional Drug Misuse and Abuse Exposures)

			Poison Co	ntrol
Drug/Year	2004	2005	2006	2007
Over-the-Counter	1	0	4	1
<b>Stimulants and Street Drugs</b>	5	2	1	3
Opiods	4	4	2	5
Benzodiazepines	3	4	1	1
Inhalants	3	5	4	8

Poison Control data gives us an additional community indicator to track in regards to the effect of Alcohol on the community.

## KY All Schedule Prescription Electronic Reporting (KASPER) Warren County

		ŀ	KASPER*
Data	2004	2005	2006
Prescriptions per Capita	1.66	1.80	1.81
<b># of Controlled Substances Prescriptions</b>	161,669	178,562	182,890
# of Controlled Substances Doses	8,296,658	9,513,282	9,499,828
# of Patients	97,168	98,960	101,266

<sup>\*</sup>Kentucky All Schedule Prescription Electronic Reporting



## Warren County Substance Abuse Treatment Intake Data (Community Mental Health Services)

		KTOS, 2006*
Substance	Past 30 Day Use**	Past 12 Month Use***
Marijuana	12.5%	47.5%
Cocaine	5.6%	31.7%
Opiates	7.9%	25.4%
Methadone	.3%	4.6%
Stimulants	1.7%	14.5%
Tranquilizers	5.9%	18.5%
Inhalants	.3%	.7%

<sup>\*</sup>Kentucky Treatment Outcome Study (University of Kentucky)

## **Methamphetamine Laboratory Seizure Information**

			EPIC*
Year/Category	Chemicals/Glassware/ Equipment	Dumpsites	Laboratories
2004	12	8	43
2005**	15	11	26
2006	6	6	14

<sup>\*</sup>El Paso Information Center, Drug Enforcement Administration

Although there were substantial decreases in 2006, Warren County ranked 1<sup>st</sup> in Chemical/Equipment seizures, 3<sup>rd</sup> in dumpsites seized, and tied for 2<sup>nd</sup> in Labs seized.

<sup>\*\*</sup>Past 30 Day use reported at intake

<sup>\*\*\*</sup>Past 12 Month use reported at intake

<sup>\*\*</sup>Kentucky Senate Bill 63 went into effect in the summer of 2005. SB63 restricted the sale of products containing pseudoephedrine, the primary precursor in the manufacture of methamphetamine.



## **Deaths Related to Drug Overdoses**

		Warren County Coroner	
Year	Num	ber of Deaths	
2004	2		
2005	13		
2006	8		

## Juvenile Drug Court Participant Lifetime Use

University of Kentucky\*, 2006

Substance	% Reporting Ever Using (Lifetime)
Marijuana	94.1%
Cocaine	41.2%
Amphetamine	41.2%
Barbituate	23.5%
Hallucinogen	23.5%
Inhalant	23.5%
Methadone	11.8%
Opiate	41/2%
Crack	11.8%
<b>Multi-Drug</b>	76.5%

<sup>\*</sup>Warren County Juvenile Drug Court Implementation Evaluation as completed by the Center on Drug and Alcohol Research at the University of Kentucky



#### **Summary**

With the exception of a few substances, the largest increases in annual, monthly, and weekly use of illicit drugs occurs between the 9<sup>th</sup> and 10<sup>th</sup> grades. The 9<sup>th</sup> to 10<sup>th</sup> grade transition remains the time frame for the largest increase in daily use for Cocaine, Crystal Methamphetamine (equal to 11<sup>th</sup> to 12<sup>th</sup> transition), Ecstasy, and Heroin. However, for all other illicit drugs, the largest increase in daily use occurs between the 11<sup>th</sup> and 12<sup>th</sup> grades. Marijuana and Inhalant use tends to manifest in earlier grades. Consideration should be made to address these substances in mid to late elementary school.

Unlike Alcohol or Tobacco, it is difficult to quantify the list of illicit drugs into one category based on the diverse nature of the substances involved. It is suggested that the reader make a concerted effort to research each drug individually.

The changes in Methamphetamine are more difficult to discern based on school data that is limited by the assessment instrument. The term "Crystal Methamphetamine" is used in the items as opposed to the preferred, basic term "Methamphetamine." Although it provides an indication of use, the item may not capture those students who know the difference between "Crystal/Ice" and the different grades of Methamphetamine.

The additional data related to Methamphetamine does, however, express the importance of the effect of policy changes on drug use. After Senate Bill 63 reduced the availability of the primary precursor Pseudoephedrine, one can see a reduction in a variety of indicators between 2005 and 2006. This trend of the reduction of meth related indicators continued into 2007.

The primary risk factors appear to be availability and family management. In the end, youth tend to use more of what is easily obtainable at times when responsible adult supervision is lowest. This emphasizes the importance of both the community support of enforcement efforts as well as vigilance by parents. First, the community needs to make a concerted effort to report any drug-related issues to the appropriate authorities. Second, parents need to ensure that they know, in depth, all aspects (friends, activities, etc.) of their children's lives and feel empowered to intervene when necessary.

Finally, there is a gap in data related to youth use of Over-The-Counter (OTC) medications in Warren County that needs to be filled. Anecdotal evidence suggests the potential for the discovery of high usage rates of OTC drugs among our youth.



## Resources

- American College Health Association Survey, Western Kentucky University, 2004.
- American College Health Association Survey, Western Kentucky University, 2006.
- Developmental Assets Survey, Bowling Green Independent/Warren County Public Schools Combined Report, 2006.
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- Kentucky Administrative Office of the Courts: Warren County Circuit and District Court Data, 2005.
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