



# 2008 Florida Youth Substance Abuse Survey



## Hernando County Report



**Executive Office  
of the Governor**

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# EXECUTIVE SUMMARY

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**T**he Florida Legislature's 1999 Drug Control Summit recommended the establishment of an annual, multi-agency-directed, statewide school-based survey effort, combining several survey instruments, with specific variations in odd and even years. The *Florida Youth Substance Abuse Survey (FYSAS)*, one of these instruments and the focus of this report, is administered to a county-level sample of students in even years, and a smaller statewide sample in odd years.

The *FYSAS* is based on the *Communities That Care Youth Survey*, developed from the nationally recognized work of Dr. J. David Hawkins and Dr. Richard F. Catalano. It not only measures the prevalence of alcohol, tobacco and other drug use and delinquent behavior, but also measures the risk and protective factors related to these behaviors.

The 2008 *FYSAS* was administered to 1,715 Hernando County students in grades 6 through 12 in the spring of 2008. The results supply a valuable source of information to help reduce and prevent the use of alcohol, tobacco and other drugs by school-aged youth.

## Key Survey Results

### Strengths to Build on

- Marijuana use has declined in Hernando County. Overall lifetime marijuana use has gone from 31.9% in 2000 to 24.4% in 2008. Overall past-30-day marijuana use has gone from 17.8% in 2000 to 12.6% in 2008.
- Surveyed students reported a substantial reduction in past-30-day cigarette use. The rate dropped from 25.3% in 2000 to 11.3% in 2008.
- Among Hernando County middle school students, the past-30-day prevalence rate for depressants (1.5%) is less than 2.0%. Among Hernando County high school students, the past-30-day prevalence rate for Ecstasy (1.1%) is less than 2.0%.
- Among Hernando County middle school students, past-30-day prevalence rates for club drugs (0.2%), LSD, PCP or mushrooms (0.3%), cocaine or crack cocaine (0.3%), methamphetamine (0.1%), heroin (0.1%), prescription amphetamines (0.4%) and steroids (0.7%) are all less than 1.0%. Among Hernando County high school students, past-30-day prevalence rates for Rohypnol (0.6%), GHB (0.3%), ketamine (0.4%), LSD or PCP (0.2%), hallucinogenic mushrooms (0.7%), cocaine (0.4%), crack cocaine (0.2%), methamphetamine (0.4%), heroin (0.1%), prescription amphetamines (0.6%) and steroids (0.1%) are all less than 1.0%.
- Relatively few students reported that they would be seen as “cool” by their peers if they drink alcohol regularly (10.6%), smoke cigarettes (4.3%) or smoke marijuana (9.9%).
- A substantial proportion of students indicated that it would be “wrong” or “very wrong” for someone their age to smoke cigarettes (76.2%), smoke marijuana (80.6%) or use other illicit drugs (95.5%).
- A majority of respondents reported that each of the following behaviors poses a “great risk” of harm: smoking a pack or more of cigarettes every day (65.5%) and regular use of marijuana (59.3%).
- Middle school students reported a particularly low rate of risk for one risk factor scale that is directly associated with alcohol, tobacco and other drug use: *Laws and Norms Favorable to Drug Use* (45%). High school students reported particularly low rates of risk for two risk factor scales that are directly associated with alcohol, tobacco and other drug use: *Laws and Norms Favorable to Drug Use* (40%) and *Perceived Availability of Drugs* (43%).

- .....
- Prevalence rates for *Carrying a Handgun* (4.3%), *Attempting to Steal a Vehicle* (2.7%), *Being Arrested* (3.6%) and *Taking a Handgun to School* (1.0%) are all less than 5.0%.

## Opportunities for Improvement

- With overall prevalence rates of 55.2% for lifetime use and 30.9% for past-30-day use, alcohol is the most commonly used drug among Hernando County students.
- After alcohol, students reported cigarettes (30.0% lifetime and 11.3% past-30-day) and marijuana (24.4% lifetime and 12.6% past-30-day) as the most commonly used drugs. Prevalence rates for other drugs are substantially lower.
- Among Hernando County middle school students, 41.1% reported being verbally bullied within the past 30 days.
- Hernando County students reported one of their lowest rates of protection for the reward-based protective factor scale *School Rewards for Prosocial Involvement* (43%). This means that schools need to provide additional positive feedback to students, to help them form prosocial bonds in their schools.
- Of surveyed Hernando County students, 16.0% reported *Getting Suspended*, 12.8% reported *Attacking Someone with Intent to Harm* and 12.7% reported *Being Drunk or High at School*.

These key findings illustrate the complexity of drug use and antisocial behavior among Hernando County's youth and the possible factors that may contribute to these activities. While some of the findings compare favorably to the national findings, Hernando County youth are still reporting drug use and delinquent behavior that will negatively affect their lives and our society.

The *FYSAS* data will enable Hernando County's planners to learn which risk and protective factors to target for their prevention, intervention and treatment programs.

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# 2008 Florida Youth Substance Abuse Survey

## Hernando County Report

**T**he 2008 Florida Youth Substance Abuse Survey (FYSAS) provides scientifically sound information to communities on the prevalence of alcohol, tobacco and other drug (ATOD) use, and risk and protective factors among 6<sup>th</sup> through 12<sup>th</sup> grade students. This information is essential to support effective substance abuse needs-assessment and services planning, and to measure performance outcomes at local and state levels.

This report is one in a series of reports that describes the findings from the FYSAS. As part of the 2008 Florida Youth Survey effort, the FYSAS was administered to Florida youth jointly with the Florida Youth Tobacco Survey in May of 2008. The Florida Youth Survey effort was a collaboration among the Florida Departments of Health, Education, Children and Families, Juvenile Justice, and the Florida Office of Drug Control. This report was prepared by Rothenbach Research and Consulting, LLC.

The FYSAS was previously administered at the county level to Hernando County students in December of 1999 and January of 2000, and in the spring of 2002, 2004 and 2006. While the survey form has been updated over this period, the majority of the instrument has remained unchanged. As a result, the present report includes both an analysis of current survey results and comparisons with the 2000, 2002, 2004 and 2006 survey findings.

This report contains only a brief discussion of methodology. More extensive information on survey administration, methodology and statewide findings can be found in the statewide report, available online at:

[www.dcf.state.fl.us/mentalhealth/publications/fysas/](http://www.dcf.state.fl.us/mentalhealth/publications/fysas/).

### Methodology

The sampling strategy was designed to produce survey results that are representative at both the state and county levels, with a minimal margin of error. In Hernando County, this method resulted in a final sample of 834 middle school students and 881 high school students.

### Questionnaires

In 2008, for the first time, two versions of the questionnaire were administered to Florida students. High school students received a questionnaire identical to the one used in recent FYSAS efforts. Middle school students received a shortened version of the questionnaire.

While the survey has an excellent track record of yielding high-quality data, concerns have been raised by the FYSAS Workgroup about the ability of some middle school students to complete the questionnaire in a standard classroom period. Analysis of historical data revealed that for some of the items positioned toward the end of the questionnaire, more than 25% of 6<sup>th</sup> grade students fail to provide valid responses.

To address this issue, a shorter version of the standard FYSAS questionnaire—with 176 items compared to 211 on the standard questionnaire—was developed for middle school students. To reach this reduced length, items were removed for eight risk factor scales and four protective factor scales deemed less critical for middle school prevention planning. Also, several ATOD items with very low prevalence among young respondents were either removed or aggregated. Finally, two items that measure the use of over-the-counter drugs in order to get high and eight items that assess bullying behavior were added.

A field test of the new middle school questionnaire, conducted as part of the 2007 FYSAS, yielded



missing value rates that were about 15 percentage points lower than standard questionnaire among 6<sup>th</sup> graders, and about 10 percentage points lower among 7<sup>th</sup> and 8<sup>th</sup> graders.

### ***Validity of Survey Data***

Five strategies were used to assess the validity of survey responses. Data were eliminated from the analysis for students who (1) reported unrealistically high levels of substance use, (2) reported unrealistically high levels of other antisocial behaviors, (3) reported use of a fictitious drug, (4) reported logically inconsistent patterns of substance use, or (5) answered less than 25% of the questions on the survey. These five strategies have been shown to consistently identify most surveys that were completed in a random fashion, those that were not taken seriously, and/or those that were not valid for other reasons.

### ***Weighting***

Before analysis, a set of statistical weights was applied to the 2008 FYSAS dataset. The application of the weights served three purposes. First, weighting compensates for certain elements of the sample design so that the sample selection probability for each student was equal. Second, weighting adjusts for nonresponse at both the school and classroom levels.

Third, weighting adjusts the distribution of the sample across grade levels and gender groups to match the distribution across the full population of Hernando County public school students. Through this process, responses from the grade levels and gender groups that were underrepresented relative to the population are given more weight in the data analysis, while responses from the grade levels and gender groups that were overrepresented are given less weight. The step, called post-stratification, is important because variations in participation across grade levels are common with statewide, school-based survey projects like the FYSAS. Post-stratification makes the sample more representative of the population, and improves the comparability of samples over time.

The 2000, 2002 and 2004 Hernando County datasets were weighted across grade levels but not gender groups. Additional weights were also applied to the 2000 dataset to help adjust for the earlier administration dates (December and January) that were employed in that survey effort. (See the 2002 FYSAS statewide report for a complete description of the methods used to prepare the 2000 data for analysis.)

### ***Confidence Intervals***

For the full sample of Hernando County respondents, the maximum 95% confidence interval estimate (“the margin of error”) is  $\pm 3.8$  percentage points for prevalence rates approximating 50% (such as alcohol or tobacco). The maximum 95% confidence interval estimate is  $\pm 2.3$  percentage points for prevalence rates of 10% or lower (such as Ecstasy or cocaine). The level of certainty, in this case 95%, means that 95 out of 100 times the “true” population value will fall within the range of the confidence interval. For example, if 40% of the sample indicate using alcohol and the confidence interval is  $\pm 2.0\%$ , then the population value should fall within a range of 38% to 42%.

For subgroup analyses, confidence intervals are larger. Estimates for Hernando County middle school students have confidence intervals ranging from  $\pm 5.4$  percentage points (50% prevalence rates) to  $\pm 3.2$  percentage points (10% prevalence rates). Estimates for high school students have confidence intervals ranging from  $\pm 5.3$  percentage points (50% prevalence rates) to  $\pm 3.2$  percentage points (10% prevalence rates).

Also note that the variance estimates used for these confidence interval calculations include a design effect of 3.0 to adjust for the complex design of the 2008 FYSAS sample.

### ***Demographics***

The survey measures a variety of demographic characteristics. The first two data columns of Table 1 (see Appendix A for data tables) describe the demographic profile of the Hernando County sample before weights were applied. Please note that some categories do not sum to 100% due to missing values.

Consisting of four out of seven surveyed grades, high school students constituted slightly more than half of the sample (51.4% high school versus 48.6% middle school). A slightly higher percentage of the respondents were female (50.7% female versus 46.7% male). White, non-Hispanic students represent 62.6% of the sample. The largest minority population is Hispanic/Latino students (12.2%), followed by African American students (5.8%). The rest of the ethnic breakdown ranges from 0.2% for Native Hawaiian/Pacific Islander students to 14.5% for students who indicated Other/Multiple ethnic backgrounds.

The second set of data columns in Table 1 presents the demographic profile information for the statewide sample.

## Alcohol, Tobacco and Other Drug Use

Alcohol, tobacco and other drug (ATOD) use is measured by a set of 39 items on the 2008 FYSAS. While most of the survey items are identical to those used in previous waves of the survey, several key changes have been made.

Starting in 2001, the survey included items measuring: (a) the use of so-called “club drugs” such as Ecstasy, GHB, ketamine and Rohypnol, (b) the use of hallucinogenic mushrooms, and (c) the use of amphetamines, including Ritalin® and Adderall®, without a doctor’s orders. In addition, the use of marijuana and the use of hashish were combined into a single item, and the use of “LSD and other psychedelics” was reworded to read “LSD or PCP.” Also starting in 2001, a parenthetical mentioning the street names “ice” and “crystal meth” was added to the methamphetamine item.

Three changes were made to the ATOD section in 2002: (a) a new item measuring the use of OxyContin® without a doctor’s orders, (b) the prescription drug Xanax® was added to the list of

examples given in the “depressants and downers” question, and (c) the “other narcotics” item was replaced by a new question measuring the use of “prescription pain relievers” without a doctor’s orders.

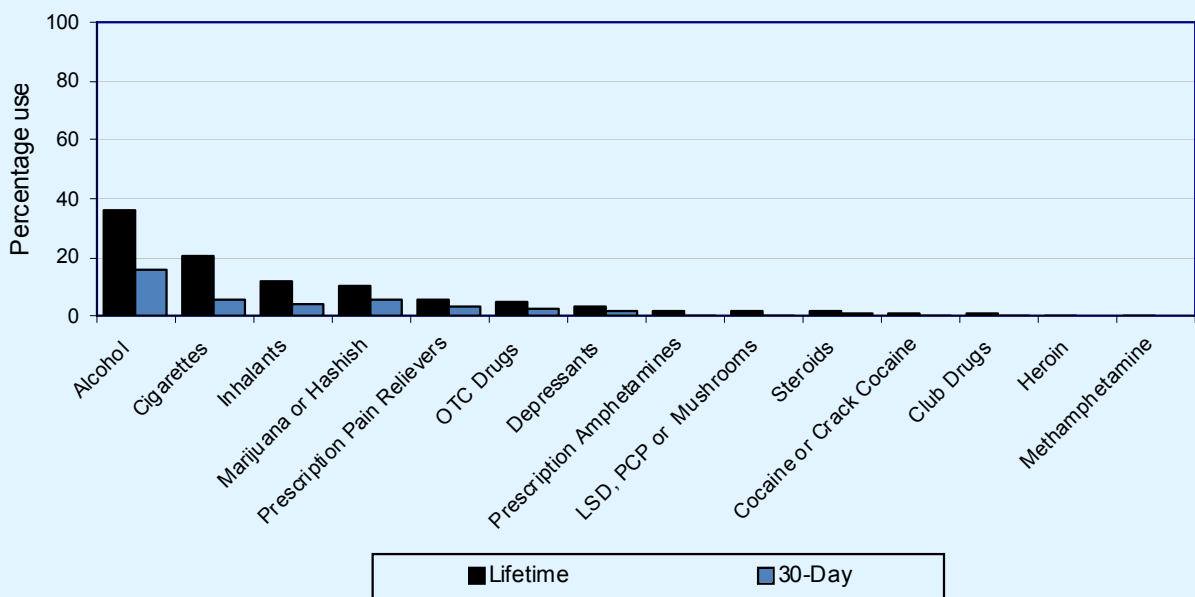
On the 2006 questionnaire, OxyContin® was removed as an individual item and added to the list of examples included in the prescription pain reliever item. Also, the question for GHB was changed to include a more up-to-date set of slang or street names for the drug.

In 2008, the questionnaire administered to high school students remained unchanged, but the ATOD section of the new middle school questionnaire reduced the number of items by asking broader categories of ATOD use rather than only asking about individual drugs. The new middle school questionnaire also introduces an important new category of ATOD use to the FYSAS. A description of these changes is below:

- Items for smokeless tobacco have been removed.
- Items for the club drugs Ecstasy, GHB, ketamine and Rohypnol have been replaced by single items that ask about the use of “club drugs such as Ecstasy, Rohypnol, GHB or ketamine.”
- Items for LSD/PCP and hallucinogenic

**Graph 1**

Lifetime and past-30-day use of alcohol, tobacco and other drugs among Hernando County MIDDLE SCHOOL students, 2008



mushroom use have been combined into a pair of single items that ask about all three drugs.

- Items for cocaine and crack cocaine use have been combined into a pair of single items that ask about both drugs.
- Items that measure the use of over-the-counter drugs in order to get high have been added.

Tables 2 through 5 and Graphs 1 and 2 show the percentage of surveyed Hernando County students who reported using ATODs. These results are presented for both lifetime and past-30-day prevalence of use periods. Lifetime prevalence of use (whether the student has ever used the drug) is a good measure of student experimentation. Past-30-day prevalence of use (whether the student has used the drug within the last month) is a good measure of current use. In addition to the standard lifetime and past-30-day prevalence rates for alcohol use, binge drinking behavior (defined as a report of five or more drinks in a row within the past two weeks) is also measured.

Comparisons to the statewide results of the 2008 survey are presented in Tables 2 through 5 and Graphs 3 through 6. Trend comparisons to Hernando County results from the 2000, 2002, 2004 and 2006 surveys are presented in Tables 6 through 9 and

Graphs 3 through 6.

### Alcohol

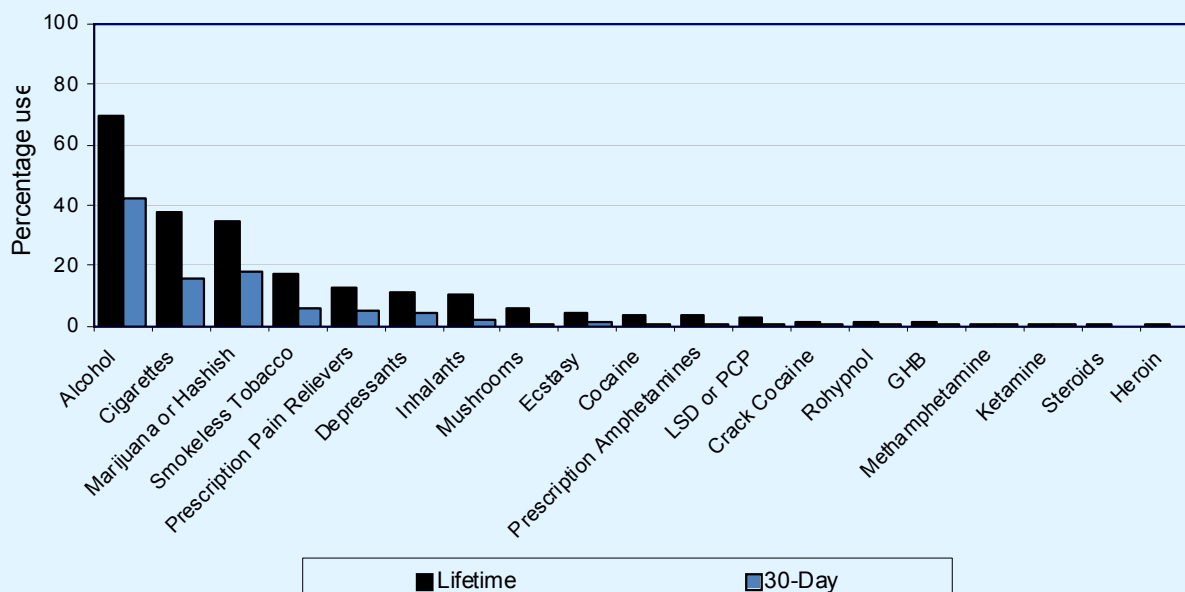
In most communities, alcohol is the drug used by the largest number of adolescents. As Graphs 1 and 2 show, this is indeed the case in Hernando County.

Prevalence of Use. Of the students surveyed in Hernando County in 2008, 55.2% have used alcohol on at least one occasion in their lifetimes. This corresponds to a rate of 36.0% among middle school students and 69.9% among high school students. Current use is substantially lower. Overall, 30.9% of surveyed Hernando County students reported the use of alcohol in the past 30 days, with grade-cohort averages of 16.0% for middle school students and 42.3% for high school students.

Statewide Comparison. As Graph 3 shows, the prevalence of past-30-day alcohol use for 2008 is higher in Hernando County compared to the state of Florida as a whole. Overall, 30.9% of surveyed Hernando County students reported the use of alcohol in the past 30 days compared to 29.8% of surveyed students statewide. Grade-cohort analysis shows that this overall increased rate of use is due to the higher rate of usage in high school (42.3% for Hernando County versus 39.5% statewide). Usage in middle school is actually lower in Hernando County than the state as a whole (16.0% for Hernando County versus

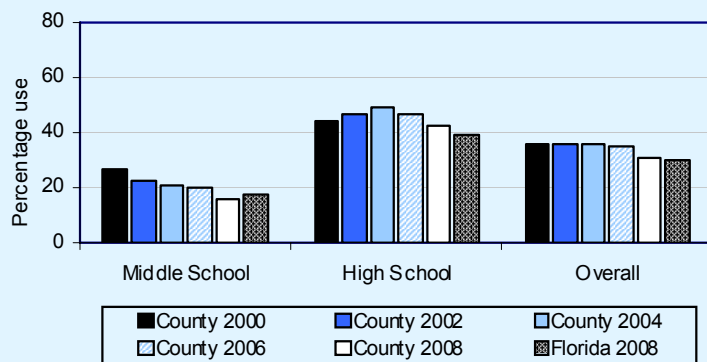
**Graph  
2**

Lifetime and past-30-day use of alcohol, tobacco and other drugs among Hernando County HIGH SCHOOL students, 2008



**Graph 3**

Past-30-day alcohol use, Hernando County 2000-2008 and Florida 2008



17.3% statewide).

**2000-2008 Trend.** In Hernando County, between 2000 and 2008, overall past-30-day alcohol use decreased 5.1 percentage points. Among middle school students, use decreased 10.5 percentage points, and among high school students, use decreased 1.9 percentage points. Between 2006 and 2008, the two most recent waves of the Hernando County survey, overall past-30-day alcohol use decreased 4.1 percentage points. Among middle school students, use decreased 4.3 percentage points, and among high school students, use decreased 4.7 percentage points.

**Binge Drinking.** Findings on binge drinking (defined as consuming five or more drinks in a row within the past two weeks) are likely to be among the most important findings related to alcohol use (Johnston, O'Malley, Bachman & Schulenberg, 2008). In Hernando County, 16.4% of surveyed students reported binge drinking, with corresponding rates of 6.2% among middle school students and 24.2% among high school students. This represents the same rate of middle school binge drinking as is found for the state as a whole and a higher rate of high school binge drinking (21.5%).

### Tobacco

This section of the report discusses the prevalence of tobacco use as measured by the 2008 FYSAS. Another survey, the 2008 Florida Youth Tobacco Survey (Florida Department of Health), was administered simultaneously with the 2008 FYSAS, and was specifically tobacco related. That survey is Florida's official source for youth tobacco use

information. The information presented in this report is consistent with findings reported in the 2008 Florida Youth Tobacco Survey.

**Prevalence of Use.** Of the students surveyed in Hernando County in 2008, 30.0% have used cigarettes on at least one occasion in their lifetimes. This corresponds to a rate of 20.3% among middle school students and 37.4% among high school students. Current use is substantially lower. Overall, 11.3% of surveyed Hernando County students reported the use of cigarettes in the past 30 days, with grade-cohort averages of 5.8% for middle school students and

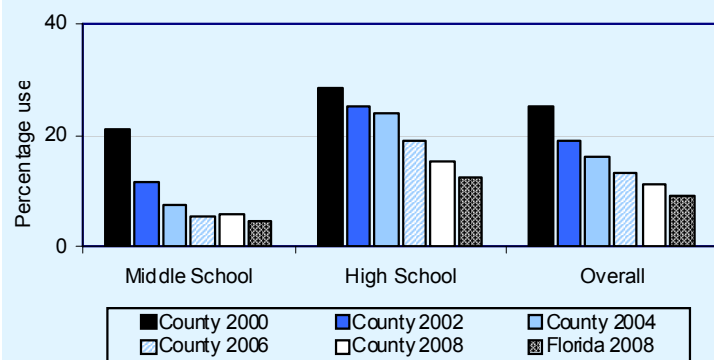
15.4% for high school students.

**Statewide Comparison.** As Graph 4 shows, the prevalence of past-30-day cigarette use for 2008 is higher in Hernando County compared to the state of Florida as a whole. Overall, 11.3% of surveyed Hernando County students reported the use of cigarettes in the past 30 days compared to 9.1% of surveyed students statewide. This increased rate of use applies both to middle school (5.8% for Hernando County versus 4.7% statewide) and high school (15.4% for Hernando County versus 12.6% statewide) grade-cohorts.

**2000-2008 Trend.** In Hernando County, between 2000 and 2008, overall past-30-day cigarette use decreased 14.0 percentage points. Among middle school students, use decreased 15.2 percentage points, and among high school students, use decreased 13.2 percentage points. Between 2006 and 2008, the two most recent waves of the Hernando County survey, overall past-30-day cigarette use

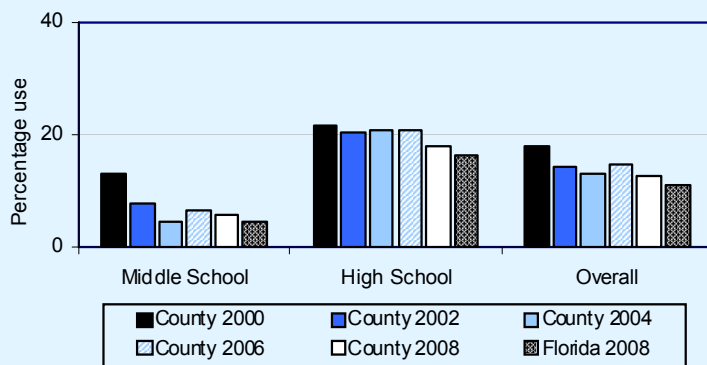
**Graph 4**

Past-30-day cigarette use, Hernando County 2000-2008 and Florida 2008



**Graph 5**

Past-30-day marijuana or hashish use, Hernando County 2000-2008 and Florida 2008



decreased 2.0 percentage points. Among middle school students, use increased 0.2 percentage points, and among high school students, use decreased 3.8 percentage points.

**Smokeless Tobacco.** The prevalence of smokeless tobacco use among high school students is substantially lower than cigarette use. Overall, 17.2% of surveyed Hernando County high school students reported using smokeless tobacco in their lifetimes and 5.5% reported using it within the past 30 days.

### ***Marijuana or Hashish***

During the 1990s, there were major changes in trends of marijuana use throughout the United States. Results from the *Monitoring the Future* study show dramatic increases in both lifetime and past-30-day prevalence rates through the early and mid 1990s (Johnston et al., 2008). For 8<sup>th</sup> and 10<sup>th</sup> graders the past-30-day rates more than doubled during this period. Since 1996 and 1997, when marijuana use peaked, rates have declined.

**Prevalence of Use.** Of the students surveyed in Hernando County in 2008, 24.4% have used marijuana or hashish on at least one occasion in their lifetimes. This corresponds to a rate of 10.7% among middle school students and 34.8% among high school students. Current use is substantially lower. Overall, 12.6% of surveyed Hernando County students

reported the use of marijuana or hashish in the past 30 days, with grade-cohort averages of 5.6% for middle school students and 17.9% for high school students.

**Statewide Comparison.** As Graph 5 shows, the prevalence of past-30-day marijuana or hashish use for 2008 is higher in Hernando County compared to the state of Florida as a whole. Overall, 12.6% of surveyed Hernando County students reported the use of marijuana or hashish in the past 30 days compared to 11.1% of surveyed students statewide. This increased rate of use applies both to middle school (5.6% for Hernando County versus 4.4% statewide) and high school (17.9% for Hernando County versus 16.2% statewide) grade-cohorts.

**2000-2008 Trend.** In Hernando County, between 2000 and 2008, overall past-30-day marijuana use decreased 5.2 percentage points. Among middle school students, use decreased 7.5 percentage points, and among high school students, use decreased 3.6 percentage points. Between 2006 and 2008, the two most recent waves of the Hernando County survey, overall past-30-day marijuana use decreased 2.2 percentage points. Among middle school students, use decreased 1.0 percentage points, and among high school students, use decreased 3.0 percentage points.

### ***Inhalants***

After alcohol, tobacco and marijuana, the most commonly used drug among Florida students is inhalants. Inhalant use is measured by the survey question, "On how many occasions (if any) have you used inhalants (whippets, butane, paint thinner, or glue to sniff, etc.)?" Inhalant use is more prevalent with younger students, perhaps because it is often the easiest drug for them to obtain. The negative consequences of inhalant use can be substantial; one of them being that it is associated with the use of other illicit drugs later in life.



**Prevalence of Use.** Of the students surveyed in Hernando County in 2008, 11.0% have used inhalants on at least one occasion in their lifetimes. This corresponds to a rate of 11.8% among middle school students and 10.5% among high school students. Current use is substantially lower. Overall, 3.1% of surveyed Hernando County students reported the use of inhalants in the past 30 days, with grade-cohort averages of 4.3% for middle school students and 2.2% for high school students.

**Statewide Comparison.** As Graph 6 shows, the prevalence of past-30-day inhalant use for 2008 in Hernando County is similar to the rate for the state of Florida as a whole. Across all surveyed grades, 3.1% of surveyed Hernando County students reported the use of inhalants in the past 30 days compared to 3.5% of surveyed students statewide. This similarity in the rates of use also applies to middle school (4.3% for Hernando County versus 5.2% statewide); the high school rate of use is identical in Hernando County and Florida statewide.

**2000-2008 Trend.** In Hernando County, between 2000 and 2008, overall past-30-day inhalant use decreased 3.1 percentage points. Among middle school students, use decreased 3.6 percentage points, and among high school students, use decreased 2.5 percentage points. Between 2006 and 2008, the two most recent waves of the Hernando County survey, overall past-30-day inhalant use decreased 1.9 percentage points. Among middle school students, use decreased 2.2 percentage points, and among high school students, use decreased 1.7 percentage points.

### Club Drugs

Club drugs are a broad category of illicit substances that are classified together because their use started at dance clubs and “raves,” not because they are of a similar chemical class (like amphetamines). Their use, however, has expanded beyond these settings. For the purpose of the 2008 FYSAS, club drugs include Ecstasy, GHB, ketamine and Rohypnol. Note that this list is not meant to be exclusive, as other drugs are used at clubs and raves.

### Club Drugs in Middle School

**Prevalence of Use.** Of the middle school students surveyed in Hernando County in 2008, 0.9% have used club drugs on at least one occasion in their lifetimes

and 0.2% have used club drugs in the past 30 days.

**Statewide Comparison.** The prevalence of past-30-day club drug use for 2008 in Hernando County is similar to the rate for the state of Florida as a whole. In middle school, 0.2% of surveyed Hernando County students reported the use of club drugs in the past 30 days compared to 0.6% of surveyed students statewide.

### Club Drugs in High School

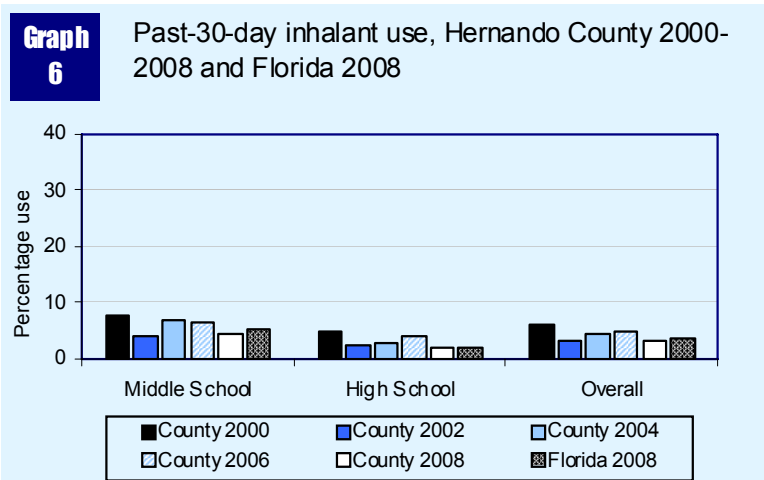
**Prevalence of Use.** Hernando County high school students reported lifetime prevalence-of-use rates of 4.6% for Ecstasy, 1.0% for Rohypnol, 1.0% for GHB, and 0.6% for ketamine. The prevalence of use within the past 30 days is lower. None of the rates of current use reported by Hernando County students is above 2.0%.

**Statewide Comparison.** In high school, lifetime prevalence rates for club drug use in Hernando County are similar to those found for the state of Florida as a whole. The two largest differences were for Ecstasy use (4.6% in Hernando County versus 4.9% in Florida) and GHB use (1.0% in Hernando County versus 0.7% in Florida). Past-30-day prevalence rates are too low to allow a meaningful comparison between the samples.

### Over-The-Counter Drugs in Middle School

The use of over-the-counter (OTC) drugs was measured by asking: “On how many occasions (if any) have you used drugs that can be purchased from a store without a prescription—such as cold and cough medication—in order to get high in your lifetime?” and “... in the past 30 days?”

**Prevalence of Use.** Of the middle school students surveyed in Hernando County in 2008, 5.1% have



used OTC drugs on at least one occasion in their lifetimes and 2.3% have used OTC drugs in the past 30 days.

**Statewide Comparison.** The prevalence of past-30-day OTC drug use for 2008 in Hernando County is similar to the rate for the state of Florida as a whole. In middle school, 2.3% of surveyed Hernando County students reported the use of OTC drugs in the past 30 days compared to 2.2% of surveyed students statewide.

### Prescription Drugs

While students across the country have reported declining rates of use for many illicit drugs over the past 10 years, prescription drugs have largely bucked this trend. As a result, prevalence rates for using prescription drugs without a doctor's orders are higher than for many illicit drugs (Johnston et al., 2008). The 2008 FYSAS includes questions that assess the use of prescription pain relievers, depressants and amphetamines. Results for these prescription drugs are presented in Tables 3, 5, 7 and 9.

**Prevalence of Use.** Hernando County middle school and high school students reported lifetime prevalence-of-use rates for this group of drugs that range from a high of 9.8% for prescription pain relievers and 8.1% for depressants to a low of just 2.7% for amphetamines. The prevalence of use

within the past 30 days is lower, with highs of 4.0% for prescription pain relievers and 3.2% for depressants. The remaining illicit drugs have past-30-day prevalence rates of less than 2.0%.

**Statewide Comparison.** Lifetime prevalence rates for prescription drug use are higher in Hernando County than in the state of Florida as a whole. In particular, Hernando County students reported higher rates of depressant use (8.1% in Hernando County versus 6.0% in Florida) and use of prescription pain relievers (9.8% in Hernando County versus 8.0% in Florida) than their counterparts from across the state. Past-30-day prevalence rates are too low to allow a meaningful comparison between the samples.

### Other Illicit Drugs

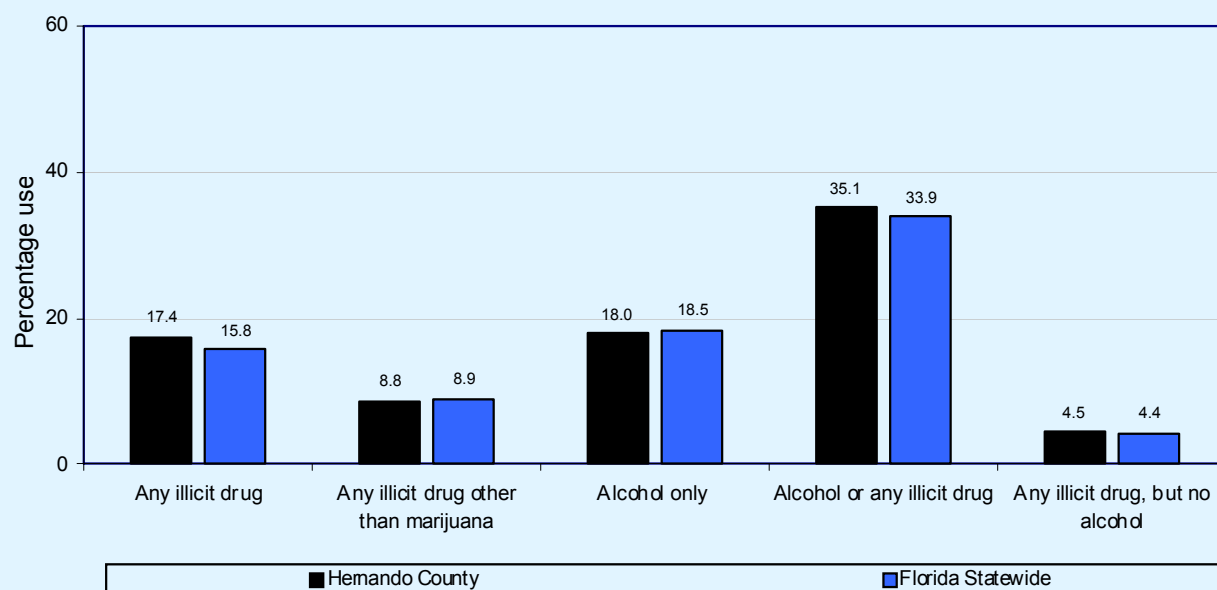
The 2008 FYSAS also measured the prevalence of use of a variety of other illicit drugs among Hernando County students. This includes the use of the following: LSD or PCP, hallucinogenic mushrooms, cocaine, crack cocaine, methamphetamine, heroin and steroids. Results for these illicit drugs are presented in Tables 3, 5, 7 and 9.

### Other Illicit Drugs in Middle School

**Prevalence of Use.** As is typical of adolescent populations, the prevalence-of-use rates in Hernando County for these other illicit drugs are much lower than the rates for alcohol, tobacco and marijuana.

**Graph 7**

Past-30-day drug combination rates for Hernando County and Florida Statewide, 2008



Among middle school students, lifetime prevalence-of-use rates for this group of drugs range from a high of 1.7% for LSD, PCP or mushrooms to a low of 0.3% for methamphetamine. The prevalence of use within the past 30 days is lower, going from a high of 0.7% for steroids to a low of 0.1% for heroin and methamphetamine.

Statewide Comparison. In middle school, lifetime prevalence rates for other illicit drug use in Hernando County are similar to those found for the state of Florida as a whole. The two largest differences were for methamphetamine use (0.3% in Hernando County versus 1.2% in Florida) and steroid use (1.5% in Hernando County versus 0.8% in Florida). Past-30-day prevalence rates are too low to allow a meaningful comparison between the samples.

### Other Illicit Drugs in High School

Prevalence of Use. As is typical of adolescent populations, the prevalence-of-use rates in Hernando County for these other illicit drugs are much lower than the rates for alcohol, tobacco and marijuana. Among high school students, lifetime prevalence-of-use rates for this group of drugs range from a high of 6.1% for mushrooms to a low of 0.3% for heroin. The prevalence of use within the past 30 days is lower, going from a high of 0.7% for mushrooms to a low of 0.1% for steroids and heroin.

Statewide Comparison. In high school, lifetime prevalence rates for other illicit drug use in Hernando County are similar to those found for the state of Florida as a whole. The two largest differences were for cocaine use (3.8% in Hernando County versus 5.5% in Florida) and hallucinogenic mushroom use (6.1% in Hernando County versus 5.3% in Florida). Past-30-day prevalence rates are too low to allow a meaningful comparison between the samples.

### Drug Combination Rates

Prevalence-of-use rates for combinations of drugs provide a helpful summary of drug use behavior. Tables 2, 4, 6 and 8 and Graph 7 provide lifetime and past-30-day prevalence rates for the use of one or more drugs from a set of illicit drugs. Illicit drugs are substances that are illegal for adults to use, so they include all drugs on the survey except alcohol, cigarettes and smokeless tobacco. Five types of drug combination rates are presented here:

**Any illicit drug** – Use of at least one illicit drug

**Any illicit drug other than marijuana** – Use of at least one illicit drug other than marijuana

**Alcohol only** – The use of alcohol and no illicit drugs

**Alcohol or any illicit drug** – Use of alcohol or at least one illicit drug

**Any illicit drug but no alcohol** – Use of at least one illicit drug, without any use of alcohol

These combination categories are created using all the illicit drug items on the current high school questionnaire: marijuana or hashish, inhalants, Ecstasy, Rohypnol, GHB, ketamine, LSD or PCP, hallucinogenic mushrooms, methamphetamine, cocaine, crack cocaine, depressants, heroin, prescription pain relievers, amphetamines and steroids. Please note that the combination categories for middle school respondents include the same illicit drugs, but as described at the beginning of this section, a reduced set of items is used to ask about these drugs.

Trend comparisons for these drug combination rates begin in 2002. This is because a number of the illicit drugs were not included on the 2000 questionnaire. Also, OxyContin® was combined with prescription pain relievers in 2006, but this change is minor and has almost no impact on the drug combination trend lines.

### Any Illicit Drug

Overall, 33.4% of surveyed Hernando County students reported at least one use of *any illicit drug* in their lifetimes, and 17.4% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 11.4% among middle school students and 21.8% among high school students. As Graph 7 shows, use of *any illicit drug* in the past 30 days is higher in Hernando County than across the state of Florida as a whole (17.4% for Hernando County versus 15.8% statewide).

### Any Illicit Drug Other than Marijuana

The purpose of this drug combination rate is to provide prevention planners with an overall indicator of so-called “hard” drug use (Johnston et al., 2008). Overall, 21.7% of surveyed Hernando County students reported at least one use of *any illicit drug other than marijuana* in their lifetimes, and 8.8% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 7.7% among middle school students and 9.7% among high school students. As Graph 7 shows, use of *any illicit drug other than marijuana* in the past 30 days is similar in Hernando County and the state (8.8% for Hernando County versus 8.9% statewide).



It is important to note that this measure—the current use of all illicit drugs other than marijuana *combined*—is less than the past-30-day prevalence of use of alcohol (30.9%), marijuana (12.6%) and cigarettes (11.3%), as well as the prevalence of binge drinking (16.4%).

### Alcohol Only

Overall, 25.4% of surveyed Hernando County students reported at least one use of *alcohol only*—the use of alcohol and no illicit drugs—in their lifetimes, and 18.0% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 8.8% among middle school students and 25.0% among high school students. As Graph 7 shows, use of *alcohol only* in the past 30 days is similar in Hernando County and the state (18.0% for Hernando County versus 18.5% statewide).

### Alcohol or Any Illicit Drug

*Alcohol or any illicit drug* use is a summary measure that included all drugs from the 2008 survey, with the exception of cigarettes and smokeless tobacco. Overall, 58.7% of surveyed Hernando County students reported at least one use of *alcohol or any illicit drug* in their lifetimes, and 35.1% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 20.1% among middle school students and 46.5% among high school students. As Graph 7 shows, use of *alcohol or any illicit drug* in the past

30 days is higher in Hernando County than across the state of Florida as a whole (35.1% for Hernando County versus 33.9% statewide).

### Any Illicit Drug, but No Alcohol

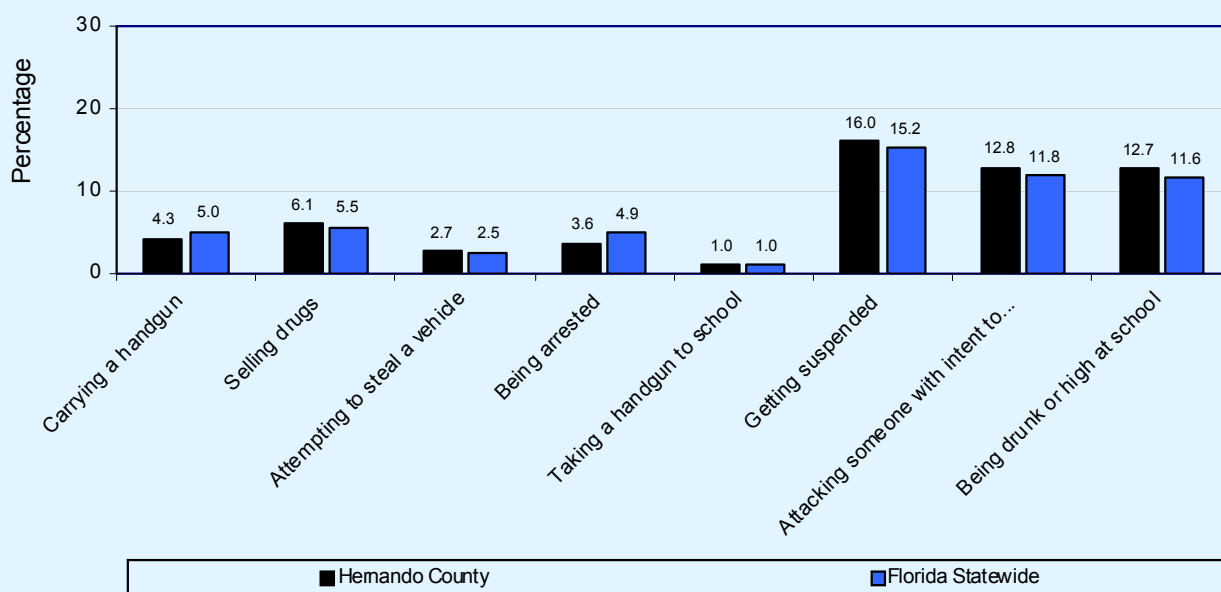
The final drug combination category measures the use of illicit drugs by students who are not using alcohol. As Tables 2 and 4 show, this combination is quite rare. Overall, 3.8% of surveyed Hernando County students reported having used illicit drugs in their lifetimes but never using alcohol. Current use of illicit drugs (within the past 30 days) without the accompanying use of alcohol is also rare (4.5%). The past-30-day prevalence rate corresponds to 4.3% among middle school students and 4.6% among high school students. As Graph 7 shows, use of *any illicit drug, but no alcohol* in the past 30 days is similar in Hernando County and the state (4.5% for Hernando County versus 4.4% statewide).

### Other Antisocial Behaviors

The 2008 *FYSAS* also measures a series of eight other problem or antisocial behaviors—that is, behaviors that run counter to established norms of good behavior. Note that information on antisocial behaviors is collected only for a prevalence period of the past 12 months. The survey measured the following antisocial behaviors: *Carrying a Handgun*, *Selling Drugs*, *Attempting to Steal a Vehicle*, *Being Arrested*, *Taking a Handgun to School*, *Getting Suspended*, *Attacking someone with intent to...*, *Being drunk or high at school*.

**Graph 8**

Comparisons of past-12-month delinquent behavior for Hernando County and Florida Statewide, 2008



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*Arrested, Taking a Handgun to School, Getting Suspended, Attacking Someone with Intent to Harm and Being Drunk or High at School.*

Prevalence rates for these behaviors among Hernando County students, as well as comparison rates from the statewide survey, are presented in Table 10 and Graph 8. Trend comparisons to Hernando County results from the 2000, 2002, 2004 and 2006 surveys are presented in Table 16.

As Table 10 shows, the prevalence rates reported by Hernando County students differ substantially across the eight antisocial behaviors measured in the survey. Reports of *Taking a Handgun to School* (1.0%), *Attempting to Steal a Vehicle* (2.7%), and *Being Arrested* (3.6%) are rare, while *Getting Suspended* (16.0%), *Attacking Someone with Intent to Harm* (12.8%), and *Being Drunk or High at School* (12.7%) are more common.

*Carrying a Handgun.* In Hernando County, 4.3% of students reported carrying a handgun in the past year, with rates of 3.7% and 4.8% for middle school and high school students, respectively. Male students (6.6%) were more likely than female students (2.3%) to have reported this behavior. Across the state as a whole, 5.0% of students reported carrying a handgun.

*Selling Drugs.* In Hernando County, 6.1% of students reported selling drugs in the past year, with rates of 3.7% and 7.9% for middle school and high school students, respectively. Male students (8.5%) were more likely than female students (3.9%) to have reported this behavior. Across the state as a whole, 5.5% of students reported selling drugs.

*Attempting to Steal a Vehicle.* In Hernando County, 2.7% of students reported attempting to steal a vehicle in the past year, with rates of 2.6% and 2.7% for middle school and high school students, respectively. Male students (3.6%) were more likely than female students (1.8%) to have reported this behavior. Across the state as a whole, 2.5% of students reported attempting to steal a vehicle.

*Being Arrested.* In Hernando County, 3.6% of students reported being arrested in the past year, with rates of 2.5% and 4.4% for middle school and high school students, respectively. Male students (4.8%) were more likely than female students (2.3%) to have reported this behavior. Across the state as a whole, 4.9% of students reported being arrested.

*Taking a Handgun to School.* In Hernando County, 1.0% of students reported taking a handgun to school

in the past year, with rates of 0.8% and 1.2% for middle school and high school students, respectively. Male students (1.5%) and female students (0.5%) reported similar rates for this behavior. Across the state as a whole, 1.0% of students reported taking a handgun to school.

*Getting Suspended.* In Hernando County, 16.0% of students reported getting suspended in the past year. There was no difference in prevalence across grade cohorts, with both middle school and high school students reporting rates of 16.0%. Male students (21.6%) were more likely than female students (10.8%) to have reported this behavior. Across the state as a whole, 15.2% of students reported getting suspended.

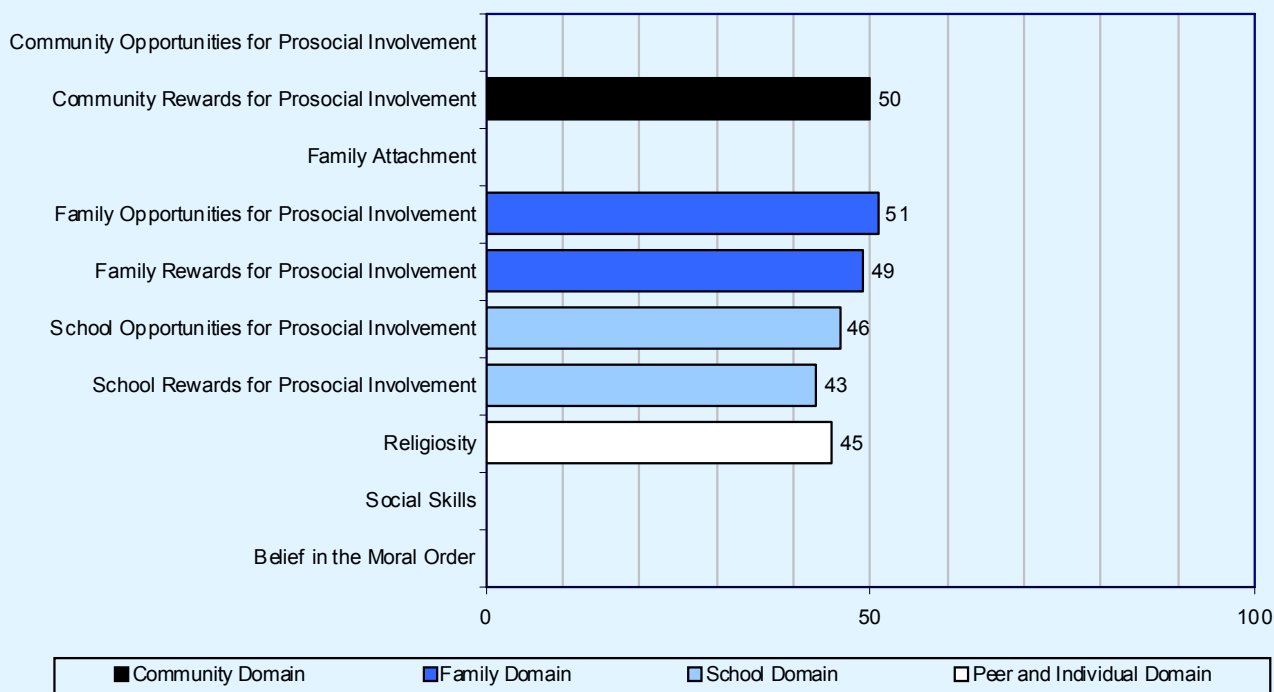
Note, however, that the questionnaire item used to measure *Getting Suspended* does not define “suspension.” Rather, it is left to the individual respondent to define. Because suspension policies vary substantially from county to county, comparisons to statewide results should be interpreted with caution for this item.

*Attacking Someone with Intent to Harm.* In Hernando County, 12.8% of students reported attacking someone with intent to harm in the past year, with rates of 11.8% and 13.6% for middle school and high school students, respectively. Male students (15.3%) were more likely than female students (10.4%) to have reported this behavior. Across the state as a whole, 11.8% of students reported attacking someone with intent to harm.

*Being Drunk or High at School.* In Hernando County, 12.7% of students reported being drunk or high at school in the past year, with rates of 7.5% and 16.6% for middle school and high school students, respectively. Male students (11.7%) were less likely than female students (13.8%) to have reported this behavior. Across the state as a whole, 11.6% of students reported being drunk or high at school.

**Graph  
9**

## MIDDLE SCHOOL protective factor prevalence rates for Hernando County, 2008



### ***Risk and Protective Factors***

Just as smoking is a risk factor for heart disease and getting regular exercise is a protective factor against heart disease and other health problems, there are factors that can help protect youth from, or put them at risk for, drug use and other problem behaviors.

**Protective factors**, also known as “assets,” are conditions that buffer children and youth from exposure to risk by either reducing the impact of the risks or changing the way that young people respond to risks.

**Risk factors** are conditions that increase the likelihood of a young person becoming involved in drug use, delinquency, school dropout and/or violence. For example, children living in families with poor family supervision are more likely to become involved in these problems.

Research during the past 30 years supports the view that delinquency; alcohol, tobacco and other drug use; school achievement; and other important outcomes in adolescence are associated with specific risk and protective factors in the student’s community, school and family environments, as well as with characteristics of the individual (Hawkins,

Catalano & Miller, 1992). In fact, these risk and protective factors have been shown to be more important in understanding these behaviors than ethnicity, income or family structure (Blum et al., 2000).

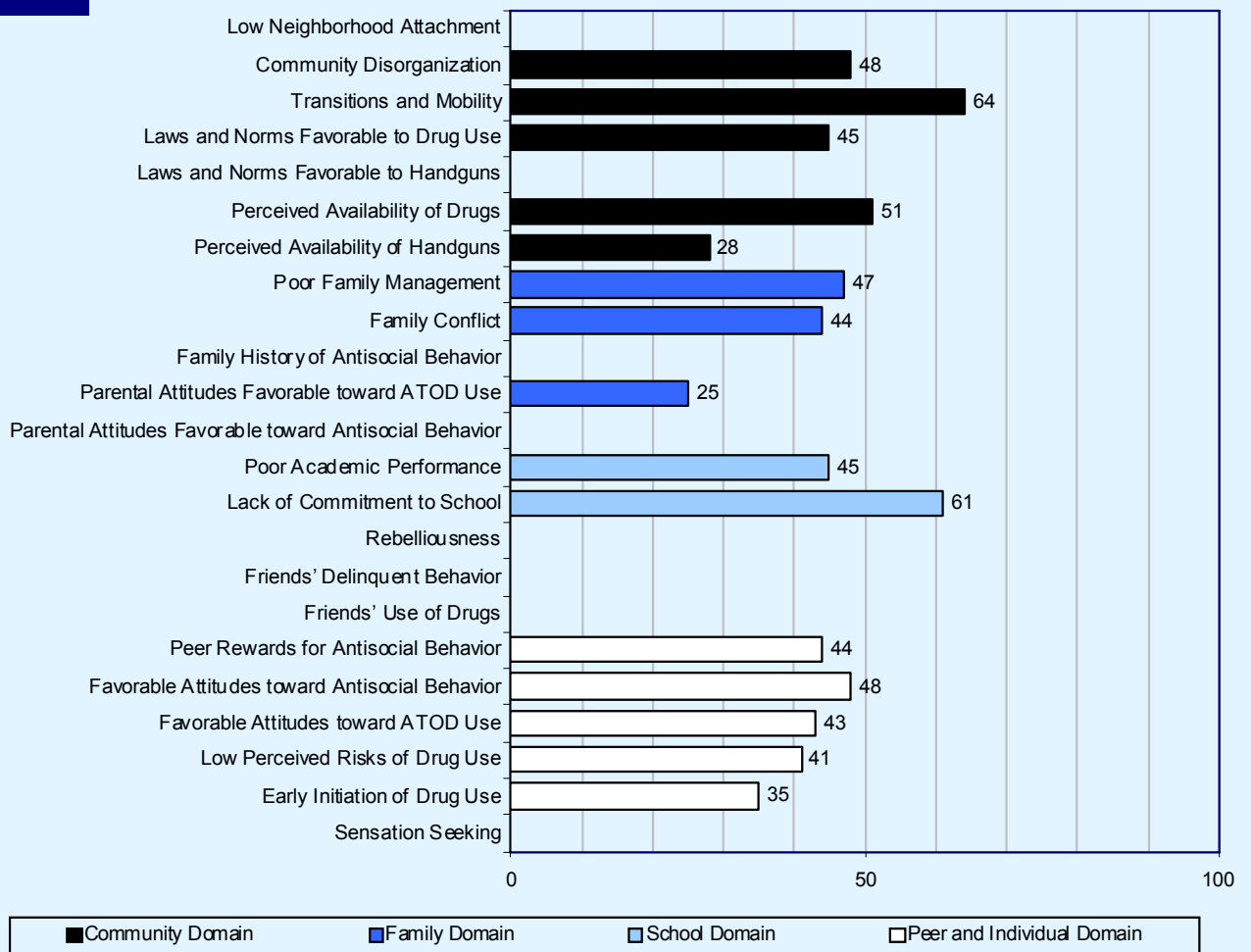
There is a substantial amount of research showing that adolescents’ exposure to a greater number of risk factors is associated with more drug use and delinquency. There is also evidence that exposure to a number of protective factors is associated with lower prevalence of these problem behaviors (Bry, McKeon & Pandina, 1982; Newcomb, Maddahian & Skager, 1987; Newcomb & Felix-Ortiz, 1992; Newcomb, 1995; Pollard et al., 1999).

### ***The Social Development Strategy***

The Social Development Strategy (Hawkins, Catalano & Associates, 1992) organizes these risk and protective factors into a framework that families, schools and communities can use to help children develop healthy behaviors. This strategy, which is graphically depicted in Appendix C, shows how three broad categories of protective factors—healthy beliefs and clear standards, bonding, and individual characteristics—work together to promote positive youth development and healthy behaviors (Hawkins, Arthur & Catalano, 1995). The Social Development

**Graph  
10**

## MIDDLE SCHOOL risk factor prevalence rates for Hernando County, 2008



Strategy begins with a goal of healthy behaviors for all children and youth. In order for young people to develop healthy behaviors, adults must communicate healthy beliefs and clear standards for behavior to young people (Catalano & Hawkins, 1996). Bonding (an attached, committed relationship) between a child and an adult who communicates healthy beliefs and clear standards motivates the child to follow healthy beliefs and clear standards. A child who forges a bond with an adult is less likely to threaten the relationship by violating the beliefs and standards held by the adult. Research has identified three conditions for bonding (Catalano & Hawkins, 1996):

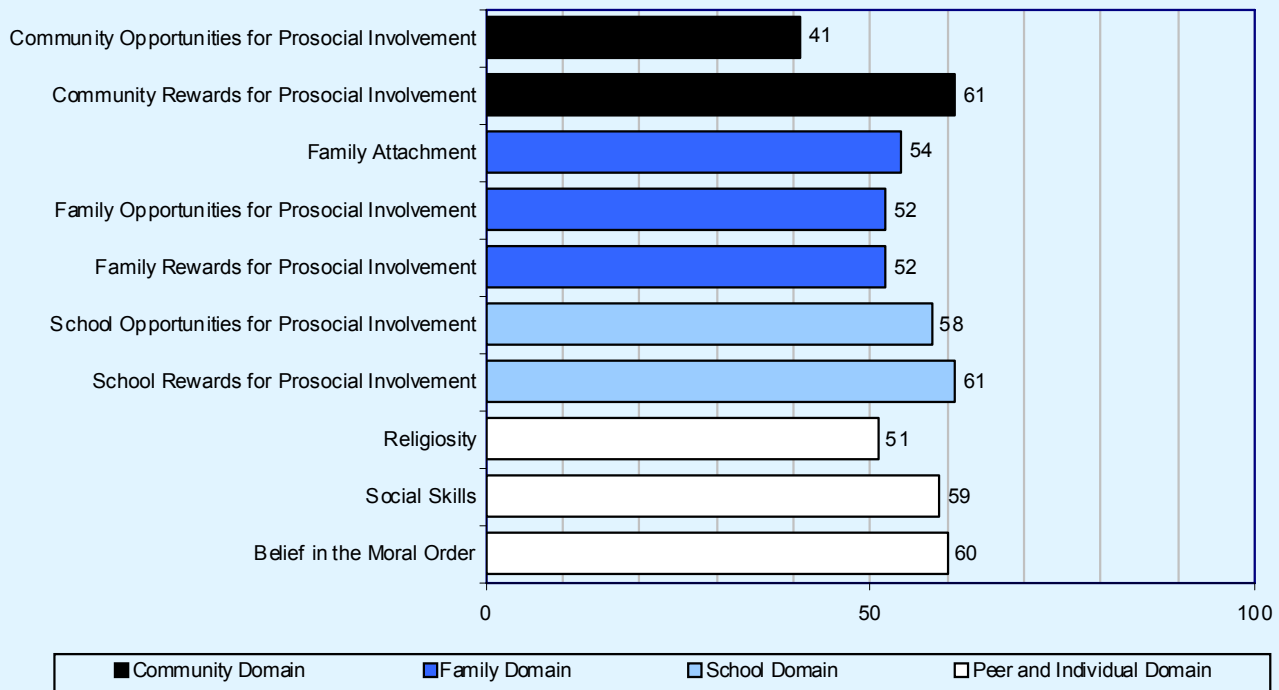
- First, children need developmentally appropriate opportunities for meaningful involvement with a positive social group (community, family, school, etc.) or individual.

- Second, children need the emotional, cognitive, social and behavioral skills to successfully take advantage of opportunities.
- Third, children must be recognized for their involvement. Recognition sets up a reinforcing cycle in which children continue to look for opportunities and learn skills and, therefore, receive recognition.

Certain characteristics with which some children come into the world (positive social orientation, resilient temperament and high intelligence) can also help protect children from risk. For children who do not have the protective advantages of these characteristics, in order to build strong bonds to family, school and community, it is even more important for community members to:

**Graph  
11**

## HIGH SCHOOL protective factor prevalence rates for Hernando County, 2008



- make extra efforts to provide opportunities for involvement
- teach the social, emotional, and cognitive skills needed to be successful
- recognize children's efforts as well as their successes.

The developmental process outlined in this model has important implications for prevention planning. Programs that seek to change the attitudes young people hold about the pros and cons of ATOD use, for example, may produce an immediate reduction in the prevalence of problem behaviors. The effectiveness of these efforts will be limited, however, by the risk and protective factors that underlie the acquisition of healthy beliefs and clear standards. If young people have weak bonds to prosocial groups and strong bonds to antisocial groups, they will be less receptive to drug abuse prevention messages.

An alternative prevention strategy might involve targeting the risk and protective factors that operate at an earlier point in the developmental process. While programs and policies that increase the opportunities for prosocial involvement in the family,

at school and in the community may not yield an immediate reduction in the rates of ATOD use, they will encourage young people to form attachments to sources of positive social influence, thereby building the foundation for healthy behavioral choices in the future.

### Measurement

The *FYSAS* assesses 23 risk factors and 10 protective factors across four domains: Community Domain, Family Domain, School Domain, and Peer and Individual Domain. Each factor is measured by a set of survey items called a scale.

The 2008 *FYSAS* uses the same risk and protective factors scales employed in previous survey efforts. In other words, the same survey items are still used to construct each scale. (Please note that the middle school survey employs a reduced set of risk and protective factor scales. The difference between the middle school and high school questionnaires is described below.)

This year, a new method is being used to convert these scales into scores. This change is a response to requests for a risk and protective factor scoring system that is more intuitive, and therefore easier to incorporate into the prevention planning process.

For each risk and protective factor scale, the new scoring method sets a threshold above which respondents are considered to have a high level of risk or protection and below which they are considered to have a low level of risk or protection. It then becomes possible to count the number of students with high levels of risk or protection on each scale. This approach, in turn, allows risk and protective factor data to be reported in the same way as ATOD data: as prevalence rates.

Under this new system, a score of 60 for the protective factor *School Rewards for Prosocial Involvement* would indicate that 60% of surveyed students reported a high level of protection for this protective factor, while 40% reported a low level of protection. Risk factor scales are scored in the same way. For example, a score of 55 for the risk factor *Friends' Use of Drugs* would indicate that 55% of surveyed students reported a high level of risk for this

risk factor, while 45% reported a low level of risk.

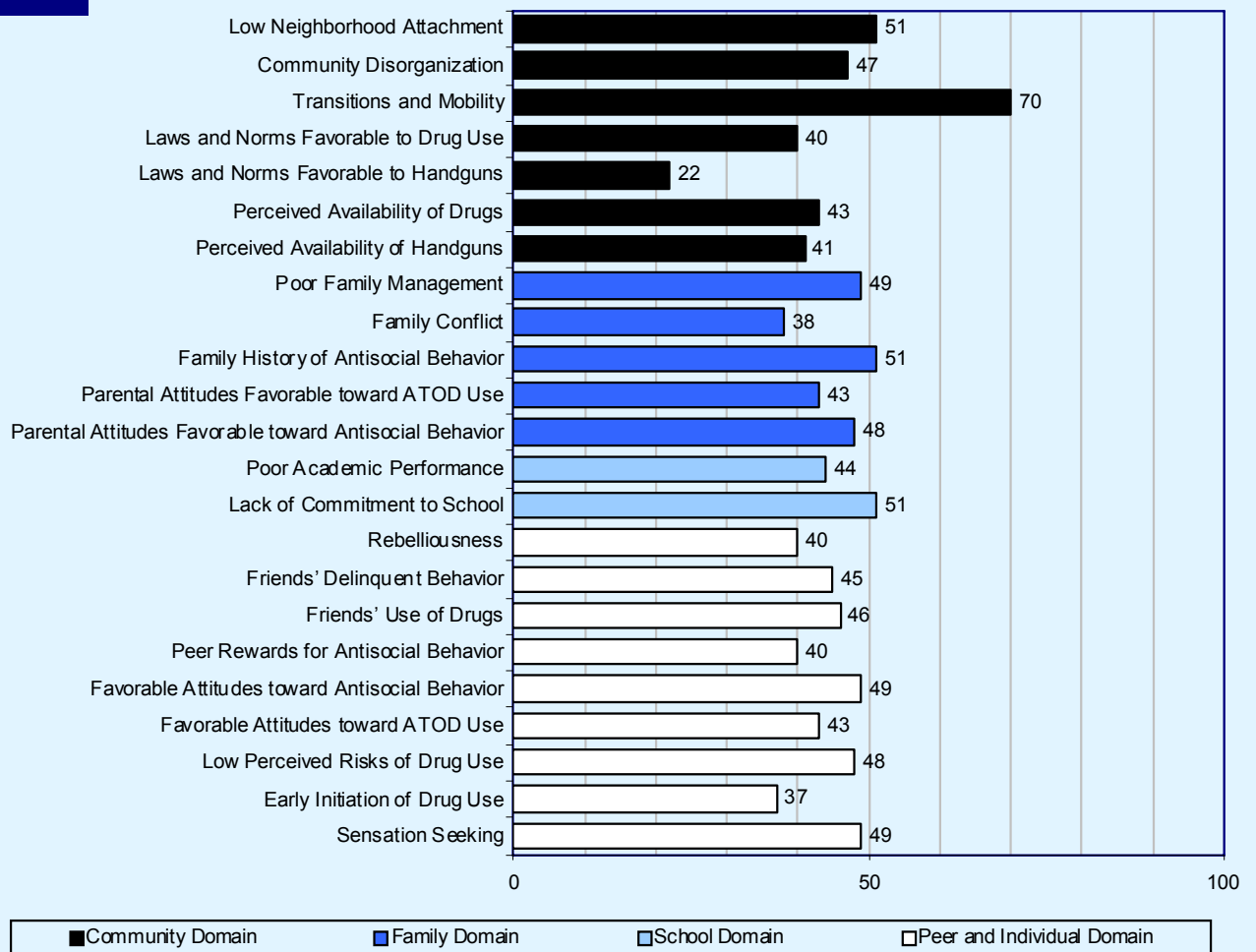
Risk and protective factor scale prevalence rates for the overall sample of Hernando County middle school and high school students are presented in Tables 18 and 19 and Graphs 9 to 12.

### Calculation of Risk and Protective Factor Thresholds

The high-risk and high-protection thresholds used to calculate the risk and protective factor prevalence rates were calculated using a method recommended by Arthur et al. (2007). For risk factor scales, the high-risk threshold is the normative median—that is the scale's median value in the *Communities That Care* normative database—plus .15 times the mean absolute deviation (a measure of central tendency similar to the standard deviation). In other words, risk factor thresholds are set slightly above the normative median. For protective factor scales, the high-

**Graph  
12**

**HIGH SCHOOL risk factor prevalence rates for Hernando County, 2008**





protection threshold is the normative median minus .15 times the mean absolute deviation. In other words, protective factor thresholds are set slightly below the normative median.

It is also important to note that risk and protection thresholds are calculated separately for each grade level. For most risk factors, this means that older students must report a higher level of risk before crossing the scoring threshold and being designated as at risk. For most protective factors, this means that older students must report a lower level of protection before crossing the scoring threshold and being designated as protected.

### **Comparing Risk and Protective Factor Prevalence Rates**

The simplicity of the new prevalence rate scoring method will make it easier for prevention planners to analyze and compare risk and protective factor scores. However, comparisons to national risk and protective factor norms from the *Communities That Care* normative database must now be done differently.

Under the old percentile scoring system, the national median score was 50 for all risk and protective factor scales. Scores above 50 were, by definition, higher than the national median and scores below 50 were lower than the national median. Under the new method, median scores from the *Communities That Care* normative database differ for each risk and protective factor scale. These new national risk and protective factor norms are presented in Tables 18 and 19.

The risk factor scale *Early Initiation of Drug Use* provides an example. As shown in Table 52, 36% of surveyed Florida middle school and high school students reported scale scores above the high-risk threshold. In other words, 36% of surveyed Florida students are at risk due to early experimentation with drugs. Table 54 shows that across the national *Communities That Care* normative sample, 43% of survey students are at risk due to early experimentation with drugs. Florida's score of 36% is seven percentage points below the normative score.

### **Normative Data**

The *Communities That Care* normative database contains survey responses from over 280,000 students in grades 6 through 12. It was compiled by combining the results of selected *Communities That Care Youth Survey* efforts that were completed in 2000, 2001 and 2002. To enhance representativeness,

statistical weights were applied to adjust the sample to exactly match the population of U.S. public school students on four key demographic variables: ethnicity, sex, socioeconomic status and urbanicity. Information on the U.S. public school student population was obtained from the Common Core of Data program at the U.S. Department of Education's National Center for Education Statistics.

### **Trend Analysis**

Risk and protective factor scale scores generated with the new prevalence rate scoring system are not directly comparable to scores generated with the previous percentile scoring system. As a result, scores from the 2000 to 2008 FYSAS have been recalculated using the new methodology in order to support trend analysis. These results are presented in Tables 20 through 23.

### **The Middle School Questionnaire**

As previously noted, middle school students were given a shorter version of the FYSAS questionnaire. The following 12 risk and protective factor scales, which were deemed less critical for middle school prevention planning, are not included in the middle school survey:

- *Community Opportunities for Prosocial Involvement*
- *Family Attachment*
- *Social Skills*
- *Belief in the Moral Order*
- *Low Neighborhood Attachment*
- *Laws and Norms Favorable to Handguns*
- *Family History of Antisocial Behavior*
- *Parental Attitudes Favorable toward Antisocial Behavior*
- *Rebelliousness*
- *Friends' Delinquent Behavior*
- *Friends' Use of Drugs*
- *Sensation Seeking*

For these risk and protective factor scales, results are only presented for high school students.

### **Using Your Risk and Protective Factor Data**

The analysis of risk and protective factors is the most powerful tool available for understanding what promotes both positive and negative adolescent

behavior and for helping design successful prevention programs for young people. To promote positive development and prevent problem behavior, it is necessary to address the factors that predict these outcomes. By measuring these risk and protective factors, specific factors that are elevated can be prioritized in the community. This process also helps in selecting tested-effective prevention programming shown to address those elevated factors and consequently provide the greatest likelihood for success.

### **Risk and Protective Factor Prioritization**

In general, a prevention strategy that focuses on a relatively narrow set of developmental factors can be more effective than a strategy that spreads resources across a broad set of factors. Risk and protective factor data from the *FYSAS* can provide critical guidance in this prioritization process. That is, prevention planners can use the information gathered by the survey to identify youth development areas where programs, policies and practices are likely to have the greatest positive impact.

Start the prioritization process by identifying the protective factor scales with the lowest percentage of protected students and the risk factor scales with the highest percentage of at risk students. It may also be helpful to identify scales with particularly high percentages of protected students or low percentages of at risk students. These areas represent strengths that prevention planners in Hernando County may wish to build on. In addition, it is also important to compare the rates of risk and protection reported by Hernando County students to the rates reported by students in the national normative sample.

#### ***Lowest Protective Factor Scales***

- Across all 10 protective factor scales, middle school students in Hernando County reported the lowest level of protection for the *School Rewards for Prosocial Involvement* scale. Their score of 43% was two points lower than the statewide average of 45%. In the national normative sample, 53% reported an elevated level of protection, 10 points higher than Hernando County. Low scores on this scale indicate that students receive less praise and encouragement when they work hard and do well in school. This lack of positive feedback, in turn, may weaken the bonds students form with teachers, coaches and prosocial peers.
- High school students in Hernando County reported the lowest level of protection for the

*Community Opportunities for Prosocial Involvement* scale. Their score of 41% was two points higher than the statewide average of 39%. In the national normative sample, 52% reported an elevated level of protection, 11 points higher than Hernando County. Students who reported low scores on this scale have fewer opportunities to interact closely with positive adult role models in their neighborhoods and to participate in sports, clubs and other prosocial community activities. As a result, these students are less likely to form strong community bonds that encourage the adoption of prosocial norms and values.

- Additionally, both middle school and high school students in Hernando County reported a low level of protection for the *Religiosity* scale. Among middle school students, 45% reported an elevated level of protection, six points lower than the statewide average of 51%. In the national normative sample, 56% reported an elevated level of protection, 11 points higher than Hernando County. Among high school students, 51% reported an elevated level of protection, 10 points lower than the statewide average of 61%. In the national normative sample, 62% reported an elevated level of protection, 11 points higher than Hernando County. Students who reported low scores on this scale attend religious services and activities less frequently. As a result, they are less likely to benefit from relationships with prosocial adults and peers, opportunities for prosocial activities, and the teaching of prosocial values that are often part of religious involvement.

#### ***Highest Risk Factor Scales***

##### Community Domain:

- Within the Community Domain, both middle school and high school students in Hernando County reported the highest level of risk for the *Transitions and Mobility* scale. Among middle school students, 64% reported an elevated level of risk, three points higher than the statewide average of 61%. In the national normative sample, 47% reported an elevated level of risk, 17 points lower than Hernando County. Among high school students, 70% reported an elevated level of risk, six points higher than the statewide average of 64%. In the national normative sample, 46% reported an elevated level of risk, 24 points lower than Hernando County. High scores on this scale indicate that students are



changing homes and schools more frequently. Dislocations of this type can inhibit the ability of young people to become involved with prosocial organizations and individuals within their school and community.

#### Family Domain:

- Within the Family Domain, middle school students in Hernando County reported the highest level of risk for the *Poor Family Management* scale. Their score of 47% was two points lower than the statewide average of 49%. In the national normative sample, 44% reported an elevated level of protection, three points lower than Hernando County. Students with high scores on this scale live in families in which child supervision is a lower priority. Parents in these families place less emphasis on making sure homework is completed on time, monitoring children's activities outside of the home, and setting clear rules about alcohol and drug use. Delinquent behaviors such as drug use, skipping school and carrying a weapon are also less likely to be noticed and punished.
- High school students in Hernando County reported the highest level of risk for the *Family History of Antisocial Behavior* scale. Their score of 51% was eight points higher than the statewide average of 43%. In the national normative sample, 45% reported an elevated level of protection, six points lower than Hernando County. Students with high scores on this scale indicated that their families have a history of antisocial behavior, such as substance use or criminal behavior. When family members model the use of alcohol, tobacco or other drugs, their children are more likely to initiate ATOD use, and if they start using, they are likely to use more frequently. For example, research has shown that having a household member who smokes cigarettes nearly doubles the chances that a child either has smoked or expects to start smoking.

#### School Domain:

- Within the School Domain, both middle school and high school students in Hernando County reported the highest level of risk for the *Lack of Commitment to School* scale. Among middle school students, 61% reported an elevated level of risk, six points higher than the statewide average of 55%. In the national normative sample, 47% reported an elevated level of risk,

14 points lower than Hernando County. Among high school students, 51% reported an elevated level of risk, four points higher than the statewide average of 47%. In the national normative sample, 46% reported an elevated level of risk, five points lower than Hernando County. Students with high scores on this scale have negative feelings about school, and are less likely to report that school work is meaningful or important for their future. Young people who have lost this commitment to school are at higher risk for a variety of problem behaviors.

#### Peer and Individual Domain:

- Within the Peer and Individual Domain, both middle school and high school students in Hernando County reported the highest level of risk for the *Favorable Attitudes toward Antisocial Behavior* scale. Among middle school students, 48% reported an elevated level of risk, equaling the statewide average. In the national normative sample, 40% reported an elevated level of risk, eight points lower than Hernando County. Among high school students, 49% reported an elevated level of risk, two points higher than the statewide average of 47%. In the national normative sample, 46% reported an elevated level of risk, three points lower than Hernando County. A high score on this scale indicates that fewer students express disapproval for fighting, skipping school and other forms of antisocial behavior. During the elementary school years, children usually express anticrime and prosocial attitudes and have difficulty imagining why people commit crimes or drop out of school. However, in middle school, as others they know begin to participate in such activities, their attitudes often shift toward greater acceptance of these behaviors. This acceptance places them at higher risk for antisocial behaviors.
- High school students also reported the highest level of risk for one scale within the Peer and Individual Domain, *Sensation Seeking*. Their score of 49% was five points higher than the statewide average of 44%. In the national normative sample, 45% reported an elevated level of protection, four points lower than Hernando County. Students who reported high scores on this scale indicated that they are more likely to engage in thrill-seeking behavior or act without regard for consequences. Sensation seeking is a constitutional risk factor that may

have a biological or physiological basis. It has been linked to an increased risk of substance use, delinquent behavior and violent acts.

### ***Strengths to Build on***

In addition to specifying problem areas, the prioritization process also benefits from identifying the scales for which students reported the highest levels of protection and the lowest levels of risk. These areas represent strengths that Hernando County may wish to build on.

#### Highest Protective Factor Scales:

- Across all 10 protective factor scales, middle school students in Hernando County reported the highest level of protection for the *Family Opportunities for Prosocial Involvement* scale. Their score of 51% was five points lower than the statewide average of 56%. In the national normative sample, 59% reported an elevated level of protection, eight points higher than Hernando County. High scores on this scale indicate that activities that promote family attachment—such as family recreation and involvement in family decisions—are available to students. These prosocial activities reinforce family bonds and cause students to more easily adopt the norms projected by their families. For instance, children whose parents have high expectations for their school achievement are less likely to drop out of school.
- High school students reported the highest levels of protection for two scales. The first of these was *School Rewards for Prosocial Involvement*. Their score of 61% was five points higher than the statewide average of 56%. In the national normative sample, 58% reported an elevated level of protection, three points lower than Hernando County. High scores on this scale indicate that students receive praise and encouragement when they work hard and do well in school. This positive feedback, in turn, may strengthen the bonds students form with teachers, coaches and prosocial peers.
- The second protective factor scale with the highest score in high school was *Community Rewards for Prosocial Involvement*. Their score of 61% was the same as the statewide average. In the national normative sample, 63% reported an elevated level of protection, two points higher than Hernando County. Students who reported high scores on this scale receive encouragement

and praise from neighbors and other members of their communities. With this type of support, young people may be more likely to accept the guidance available from the positive role models in their communities.

- Middle school students also reported a high level of protection for one other scale, *Community Rewards for Prosocial Involvement*. Their score of 50% was one point lower than the statewide average of 51%. In the national normative sample, 56% reported an elevated level of protection, six points higher than Hernando County.

#### Lowest Risk Factor Scales:

- Across all 23 risk factor scales, middle school students in Hernando County reported the lowest level of risk for the *Parental Attitudes Favorable toward ATOD Use* scale. Their score of 25% was three points higher than the statewide average of 22%. In the national normative sample, 23% reported an elevated level of protection, two points lower than Hernando County. Students with low scores on this scale have parents who strenuously disapprove of youth ATOD use. Parental attitudes is one of the strongest predictors of youth ATOD use.
- High school students in Hernando County reported the lowest level of risk for the *Laws and Norms Favorable to Handguns* scale. Their score of 22% was one point lower than the statewide average of 23%. In the national normative sample, 23% reported an elevated level of protection, one point higher than Hernando County. Students with low scores on this scale believe that police are likely to catch young people who carry handguns. When young people believe that the laws and norms concerning firearms are strictly enforced, they are less likely to engage in dangerous behavior.
- Additionally, middle school students in Hernando County also reported a low level of risk for the *Perceived Availability of Handguns* scale. Their score of 28% was one point higher than the statewide average of 27%. In the national normative sample, 25% reported an elevated level of protection, three points lower than Hernando County. A low score on this scale indicates that it is difficult for students to get a handgun.

- High school students in Hernando County also reported a low level of risk for the *Early Initiation of Drug Use* scale. Their score of 37% was two points higher than the statewide average of 35%. In the national normative sample, 46% reported an elevated level of protection, nine points higher than Hernando County. Low scores on this scale indicate either the absence or postponed initiation of alcohol, cigarette and marijuana use. Young people who experiment with drug use at an earlier age are more likely to engage in frequent use and extend their usage to more dangerous drugs, and are less likely to discontinue use as they enter adulthood.

### Further Considerations

In addition to identifying the highest risk factor scales and lowest protective factor scales, the prevention prioritization process may include several supplemental steps, such as:

- Compare county-level results to state-level results. Risk and protective factor scale scores from the statewide *FYSAS* are presented in Tables 18 and 19. A comparison to statewide results may reveal additional strengths and weaknesses in Hernando County's risk and protective factor profile. For example, a risk factor scale that is not the most elevated within its domain may be designated as a target for prevention programming because it is notably higher in Hernando County than across the state as a whole.
- Review the prevalence of ATOD use and other antisocial behaviors in your community. A high rate of alcohol use, for example, may dictate a different prevention strategy than a high rate of youth violence. The table on the second page in Appendix C provides a resource for this analysis by showing the behavioral outcomes that have been linked, in multiple longitudinal studies, to each risk factor.
- Use archival data to fill the gaps in the *FYSAS* data, and to support findings in the survey. For example, Teen Pregnancy and School Drop-Out are problem behaviors not measured by the survey that may influence prevention planning. Archival data are information sources that have already been collected and/or documented at the local, state or national level. They can include records that are kept by governmental and other agencies, and records that are normally kept as

part of the operation of an institution or organization.

- Consider which risk and protective factors the community can realistically tackle at this time. Some factors may be too big, or there may be other efforts already underway in the community to address them. If your community does not have extensive financial or human resources, then it may be appropriate to narrow the list down to one or two priority factors.
- Consider political, social and economic factors in the community. What is best for the community? Which risk and protective factors would policy makers find acceptable to address at this time?

### Choosing Effective Prevention Strategies

After completing the prioritization process and identifying key risk and protective factors for focused prevention efforts, the next step for communities is to select research-based, proven-effective programs that target these problem areas.

A major breakthrough in the field of positive youth development in the past two decades has been the development and testing of programs, policies and practices that are shown to work to reduce adolescent drug use, violence, risky sexual behavior and school failure. State and national agencies have become increasingly interested in and committed to programs, policies and practices that have been rigorously tested for effectiveness.

Prevention strategies identified as "tested, effective" are those that have been tested in well-controlled trials comparing schools, families, young people or communities that received the strategy with those that did not. Results of those trials showed that those who received the strategies were better off than those that did not, in terms of lower risk, greater protection and better behavioral outcomes.

A good first step in the strategy selection process is to review published lists of tested, effective prevention resources. A number of organizations have constructed lists that link research-based programs with the risk and protective factors they have been shown to effectively address. Additional information on the four lists presented below is available in Appendix D of this report.

- The *Communities That Care* Prevention Strategies Guide

- The U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration's (SAMHSA) Model Programs list
- The University of Colorado at Boulder's Blueprints for Violence Prevention initiative, sponsored by the Office of Juvenile Justice and Delinquency Prevention (OJJDP)
- The Western Center for the Application of Prevention Technologies (CAPT) list of Best Practices and Promising Practices

In addition to selecting research-based, proven-effective programs to target areas of low protection and high risk, communities should also consider the impact of environmental factors and public policies. For example, a strategy to combat a high level of *Perceived Availability of Drugs* might incorporate changes to local laws or provide resources to strengthen the enforcement of existing laws.

## Special Topics

Several analyses were conducted to investigate alcohol, tobacco and other drug (ATOD) use results. These include early initiation of ATOD use and attitudes toward ATOD use (perceived risk of harm, personal disapproval and peer approval).

### Early Initiation of ATOD Use

Students were asked to report on when they began using alcohol, cigarettes and marijuana. Early initiation for these drugs is of special importance, since they are often precursors to the use of harder drugs, such as methamphetamine and cocaine. The question related to cigarettes is "How old were you when you first smoked a cigarette, even just a puff?" The question about marijuana is "How old were you when you first smoked marijuana?" Two questions about alcohol were asked, one asking when the student first "had more than a sip or two of beer, wine or hard liquor (for example, vodka, whiskey or gin)" and one asking the student when he or she "began drinking alcoholic beverages regularly, that is, at least once or twice a month."

Tables 13 and 17 present the percentage of high school students, age 14 years or older, who started using alcohol, cigarettes or marijuana at age 13 or younger. This percentage is the early initiation rate.

Hernando County high school students reported the highest rate of early ATOD initiation for "more than

a sip or two" of alcohol (32.6%), followed by cigarette use (22.5%), marijuana use (11.3%) and drinking at least once a month (5.5%).

### Perceived Risk of Harm

Perception of risk is an important determinant in the decision-making process young people go through when deciding whether or not to use alcohol, tobacco or other drugs. Evidence also suggests that the perceptions of the risks and benefits associated with drug use sometimes serve as a leading indicator of future drug use patterns in a community (Bachman, Johnston, O'Malley & Humphrey, 1986). Tables 14 and 17 present prevalence rates for surveyed Hernando County students assigning "great risk" of harm to four drug use behaviors: near daily use of alcohol, daily use of cigarettes, regular use of marijuana, and trying marijuana once or twice.

Surveyed Hernando County students assigned the highest risk of harm to daily use of cigarettes (65.5%), followed by regular use of marijuana (59.3%), near daily use of alcohol (41.9%) and trying marijuana once or twice (30.7%).

Daily Use of Alcohol. In Hernando County, 41.9% of students reported that having one or more drinks nearly every day would pose a "great risk" of harm. This is up 6.3 percentage points from 2000. Middle school students reported a rate of 46.0% and high school students reported a rate of 38.9%. Across the state as a whole, 41.9% of students reported that near daily use of alcohol would pose a "great risk" of harm.

Daily Use of Cigarettes. In Hernando County, 65.5% of students reported that smoking a pack or more of cigarettes every day would pose a "great risk" of harm. This is up 3.7 percentage points from 2000. Middle school students reported a rate of 66.8% and high school students reported a rate of 64.5%. Across the state as a whole, 67.6% of students reported that near daily use of cigarettes would pose a "great risk" of harm.

Regular Use of Marijuana. In Hernando County, 59.3% of students reported that smoking marijuana regularly would pose a "great risk" of harm. This is up 3.9 percentage points from 2000. Middle school students reported a rate of 73.0% and high school students reported a rate of 49.2%. Across the state as a whole, 59.8% of students reported that smoking marijuana regularly would pose a "great risk" of harm.



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Trying Marijuana Once or Twice. In Hernando County, 30.7% of students reported that trying marijuana once or twice would pose a “great risk” of harm. This is up 3.3 percentage points from 2000. Middle school students reported a rate of 42.6% and high school students reported a rate of 21.7%. Across the state as a whole, 32.5% of students reported trying marijuana once or twice would pose a “great risk” of harm.

### ***Personal Disapproval***

In addition to perceptions of risk, personal approval or disapproval of drugs has been linked to the prevalence of ATOD use (Bachman, Johnston & O’Malley, 1996). Personal disapproval was measured by asking students how wrong it would be for someone their age to drink alcohol regularly, smoke cigarettes, smoke marijuana, or use other illicit drugs (“LSD, cocaine, amphetamines or another illegal drug”). The rates presented in Tables 14 and 17 represent the percentages of students who thought it would be “wrong” or “very wrong” to use each drug.

Surveyed Hernando County students were most likely to disapprove of other illicit drug use (95.5%), followed by smoking marijuana (80.6%), smoking cigarettes (76.2%) and drinking alcohol regularly (65.0%).

Smoking Cigarettes. In Hernando County, 76.2% of students reported that they think it would be “wrong” or “very wrong” for someone their age to smoke cigarettes. This is up 12.7 percentage points from 2000. Middle school students reported a rate of 87.8% and high school students reported a rate of 67.6%. Across the state as a whole, 80.5% of students reported disapproval of smoking cigarettes.

Drinking Alcohol Regularly. In Hernando County, 65.0% of students reported that they think it would be “wrong” or “very wrong” for someone their age to drink alcohol regularly. This is up 5.6 percentage points from 2000. Middle school students reported a rate of 81.4% and high school students reported a rate of 52.8%. Across the state as a whole, 65.4% of students reported disapproval of drinking alcohol regularly.

Smoking Marijuana. In Hernando County, 80.6% of students reported that they think it would be “wrong” or “very wrong” for someone their age to smoke marijuana. This is up 7.7 percentage points from 2000. Middle school students reported a rate of 90.7% and high school students reported a rate of 73.2%. Across the state as a whole, 80.2% of students reported disapproval of smoking marijuana.

Using Other Illicit Drugs. In Hernando County, 95.5% of students reported that they think it would be “wrong” or “very wrong” for someone their age to use other illicit drugs. This is up 6.9 percentage points from 2000. Middle school students reported a rate of 97.3% and high school students reported a rate of 94.3%. Across the state as a whole, 94.9% of students reported disapproval of using other illicit drugs.

### ***Peer Approval***

In addition to perceived risk of harm and disapproval, expectations of how one’s peer group might react have an impact on whether or not young people choose to use drugs. The data presented in Tables 14 and 17 show the percentage of students who said that there is a “pretty good” or “very good” chance that they would be seen as cool if they smoked cigarettes, drank alcohol regularly or smoked marijuana.

Drinking Alcohol Regularly. In Hernando County, 10.6% of students reported that there is a “pretty good” or a “very good” chance that they would be seen as cool if they drank alcohol regularly. This is down 0.3 percentage points from 2000. Middle school students reported a rate of 6.9% and high school students reported a rate of 13.3%. Across the state as a whole, 12.0% of students reported peer approval of drinking alcohol regularly.

Smoking Cigarettes. In Hernando County, 4.3% of students reported that there is a “pretty good” or a “very good” chance that they would be seen as cool if they smoked cigarettes. This is down 6.0 percentage points from 2000. Middle school students reported a rate of 5.4% and high school students reported a rate of 3.5%. Across the state as a whole, 5.8% of students reported peer approval of smoking cigarettes.

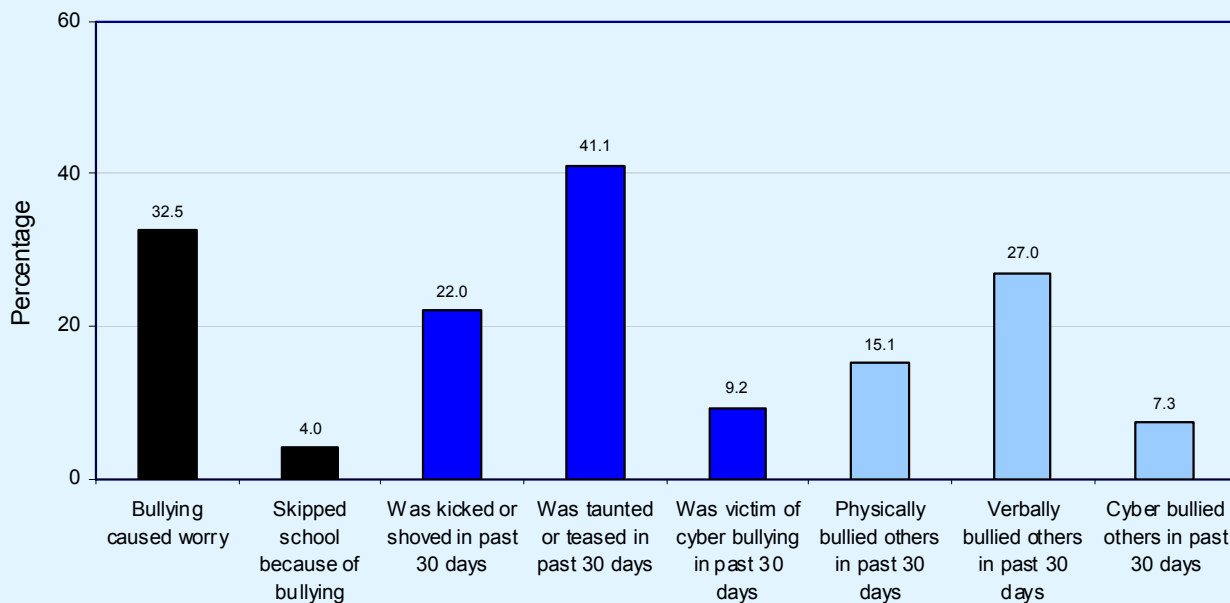
Smoking Marijuana. In Hernando County, 9.9% of students reported that there is a “pretty good” or a “very good” chance that they would be seen as cool if they smoked marijuana. This is down 4.5 percentage points from 2000. Middle school students reported a rate of 8.4% and high school students reported a rate of 11.0%. Across the state as a whole, 11.3% of students reported peer approval of smoking marijuana.

### ***Extracurricular Activities***

In 2006 a new item was added to the *FYSAS* questionnaire that measures participation in five extracurricular activities: school sports, organized sports outside of school, school band, school clubs,

**Graph  
13**

### Bullying-related behaviors among Hernando County MIDDLE SCHOOL students, 2008



and community clubs. Results for these items are presented in Table 15. Participation in these activities help students build stronger ties to their school and community. Through these connections students are also more likely to develop attachments to prosocial peers and to positive adult role models. Since these bonds encourage students to engage in developmentally positive activity, they serve as a buffer against ATOD use and other antisocial behaviors. Please note that this measure is similar to two of the protective factor scales discussed earlier in this report: *Community Opportunities for Prosocial Involvement* and *School Opportunities for Prosocial Involvement*.

***School Sports.*** In Hernando County, 39.4% of students reported participation in school sports. Middle school students participated at a rate of 36.1% and high school students participated at a rate of 41.8%. Across the state as a whole, the rate of participation was 37.0%.

***Organized Sports Outside of School.*** In Hernando County, 33.6% of students reported participation in organized sports outside of school. Middle school students participated at a rate of 45.2% and high school students participated at a rate of 24.9%.

Across the state as a whole, the rate of participation was 33.7%.

***School Band.*** In Hernando County, 7.0% of students reported participation in school band. Middle school students participated at a rate of 10.3% and high school students participated at a rate of 4.5%. Across the state as a whole, the rate of participation was 10.0%.

***School Clubs.*** In Hernando County, 18.1% of students reported participation in school clubs. Middle school students participated at a rate of 8.9% and high school students participated at a rate of 25.0%. Across the state as a whole, the rate of participation was 26.4%.

***Community Clubs.*** In Hernando County, 8.4% of students reported participation in community clubs. Middle school students participated at a rate of 6.8% and high school students participated at a rate of 9.5%. Across the state as a whole, the rate of participation was 12.4%.

### ***Bullying Behavior***

In 2008 a new item set was added to the *FYSAS* middle school questionnaire that assesses student involvement with bullying. The new items include

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(1) worry or fear due to bullying, (2) skipping school because of being bullied, (3) being physically bullied (kicking, shoving, stealing, etc.), (4) being verbally bullied (taunting, teasing, name-calling, etc.), (5) being cyber bullied (mean emails, mean text messages, etc.), (6) physically bullying others, (7) verbally bullying others, and (8) cyber bullying others. Table 12 and Graph 13 present prevalence rates for these behaviors.

Across the state as a whole, 6.4% reported cyber bullying others.

Worry or Fear. In Hernando County, 32.5% of middle school students reported that bullying causes them to be “somewhat” or “a whole lot” worried or fearful. Across the state as a whole, 30.1% reported being worried or fearful.

Skipping School. In Hernando County, 4.0% of middle school students reported skipping school because someone was bullying them. Across the state as a whole, 2.9% reported skipping school because of bullying.

Was Physically Bullied. In Hernando County, 22.0% of middle school students reported experiencing “somewhat” or “a whole lot” of physical bullying in the past 30 days. Across the state as a whole, 20.7% reported experiencing physical bullying.

Was Verbally Bullied. In Hernando County, 41.1% of middle school students reported experiencing “somewhat” or “a whole lot” of verbal bullying in the past 30 days. Across the state as a whole, 41.3% reported experiencing verbal bullying.

Was Cyber Bullied. In Hernando County, 9.2% of middle school students reported experiencing “somewhat” or “a whole lot” of cyber bullying in the past 30 days. Across the state as a whole, 8.2% reported experiencing cyber bullying.

Physically Bullied Others. In Hernando County, 15.1% of middle school students reported physically bullying others “somewhat” or “a whole lot” in the past 30 days. Across the state as a whole, 15.8% reported physically bullying others.

Verbally Bullied Others. In Hernando County, 27.0% of middle school students reported verbally bullying others “somewhat” or “a whole lot” in the past 30 days. Across the state as a whole, 28.0% reported verbally bullying others.

Cyber Bullied Others. In Hernando County, 7.3% of middle school students reported cyber bullying others “somewhat” or “a whole lot” in the past 30 days.

# Appendix A

## Detailed Tables

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**Table 1. Major demographic characteristics of surveyed Hernando County youth and Florida Statewide youth**

	Hernando County			Florida Statewide	
	N	%		N	%
<b>Sex</b>					
Female	870	50.7		43,913	48.0
Male	801	46.7		45,413	49.6
<b>Race/Ethnic group</b>					
African American	99	5.8		16,647	18.2
American Indian	31	1.8		1,011	1.1
Asian	28	1.6		1,994	2.2
Hispanic/Latino	210	12.2		20,767	22.7
Native Hawaiian/Pacific Islander	3	0.2		490	0.5
Other/Multiple	249	14.5		12,821	14.0
White, non-Hispanic	1,073	62.6		37,000	40.4
<b>Age</b>					
10	2	0.1		98	0.1
11	102	5.9		3,294	3.6
12	301	17.6		10,971	12.0
13	234	13.6		13,299	14.5
14	263	15.3		14,098	15.4
15	252	14.7		14,339	15.7
16	234	13.6		13,913	15.2
17	208	12.1		12,824	14.0
18	109	6.4		7,552	8.3
19 or older	5	0.3		718	0.8
<b>Grade</b>					
6th	352	20.5		13,265	14.5
7th	264	15.4		13,552	14.8
8th	218	12.7		12,869	14.1
9th	292	17.0		14,738	16.1
10th	221	12.9		13,593	14.9
11th	209	12.2		12,297	13.4
12th	159	9.3		11,157	12.2
Overall Middle School	834	48.6		39,686	43.4
Overall High School	881	51.4		51,785	56.6
<b>Total</b>	<b>1,715</b>	<b>100.0</b>		<b>91,471</b>	<b>100.0</b>

Note: Some categories do not sum to 100% of the total due to missing values (e.g., not all survey questions were answered). In addition, rounding can produce totals that do not equal 100%. "N" represents the number of valid cases. In this table, county data are unweighted while statewide data are weighted.

**Table 2. Percentages of Hernando County youth and Florida Statewide youth who reported having used various drugs in their lifetimes**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
Alcohol	36.0	69.9	58.7	52.1	37.6	69.4	55.2	36.3	66.2	54.9	51.5	37.4	65.6	53.2
Cigarettes	20.3	37.4	32.3	28.3	19.3	39.2	30.0	17.4	34.4	27.4	26.4	17.1	34.3	27.0
Smokeless Tobacco	--	17.2	7.6	26.8	--	16.4	--	--	12.5	6.9	18.1	--	12.0	--
Marijuana or Hashish	10.7	34.8	23.5	24.8	10.5	35.8	24.4	8.5	30.8	20.0	22.1	8.4	30.5	21.1
Inhalants	11.8	10.5	13.3	9.1	11.7	10.6	11.0	13.2	10.1	12.9	10.0	13.0	10.5	11.4
Over-The-Counter Drugs	5.1	--	6.8	3.2	5.2	--	--	4.9	--	5.9	3.9	4.6	--	--
Any illicit drug	21.9	42.2	33.6	33.0	21.8	43.4	33.4	21.2	37.5	30.7	30.1	21.1	37.4	30.4
Any illicit drug other than marijuana	17.1	25.3	23.1	20.7	17.2	25.9	21.7	17.5	23.1	21.7	19.6	17.4	23.0	20.7
Alcohol only	20.0	29.5	28.3	23.2	21.2	27.9	25.4	20.8	31.7	28.0	25.9	21.8	31.3	26.9
Alcohol or any illicit drug	42.0	71.3	62.0	55.9	43.0	71.0	58.7	41.9	68.9	58.5	55.7	42.7	68.4	57.1
Any illicit drug, but no alcohol	6.2	1.9	3.4	4.3	5.6	2.1	3.8	5.8	3.0	3.9	4.6	5.6	3.1	4.2

Note: The first set of data rows show results for alcohol, tobacco, marijuana, inhalants and over-the-counter drugs. The second set of data rows show results for various combinations of drugs. The symbol "--" indicates that data are not available.

**Table 3. Percentages of Hernando County youth and Florida Statewide youth who reported having used various drugs in their lifetimes**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
Club Drugs <sup>1</sup>	0.9	--	1.4	0.5	0.7	--	--	1.6	--	1.4	1.8	1.4	--	--
LSD, PCP or Mushrooms	1.7	--	1.7	1.8	1.5	--	--	1.5	--	1.1	1.9	1.4	--	--
Cocaine or Crack Cocaine	1.3	--	2.4	0.2	1.2	--	--	1.8	--	1.7	1.9	1.7	--	--
Ecstasy	--	4.6	5.4	3.5	--	4.7	--	--	4.9	4.9	5.1	--	4.7	--
Rohypnol	--	1.0	1.4	0.5	--	0.5	--	--	1.2	1.0	1.4	--	1.2	--
GHB	--	1.0	1.2	0.7	--	0.7	--	--	0.7	0.4	0.9	--	0.6	--
Ketamine	--	0.6	0.8	0.4	--	0.5	--	--	0.8	0.6	0.9	--	0.7	--
LSD or PCP	--	2.6	2.8	2.2	--	2.6	--	--	3.0	2.3	3.7	--	2.9	--
Hallucinogenic Mushrooms	--	6.1	4.7	7.2	--	5.8	--	--	5.3	3.9	6.8	--	5.1	--
Cocaine	--	3.8	4.3	3.5	--	4.4	--	--	5.5	5.5	5.6	--	5.4	--
Crack Cocaine	--	1.3	1.5	1.0	--	1.3	--	--	1.8	1.8	1.7	--	1.7	--
Methamphetamine	0.3	0.8	0.9	0.2	0.2	0.8	0.6	1.2	1.5	1.3	1.4	1.2	1.5	1.4
Heroin	0.5	0.3	0.7	0.1	0.4	0.4	0.4	0.8	1.0	0.8	1.1	0.8	1.0	0.9
Depressants	3.8	11.3	8.9	7.3	3.6	11.4	8.1	2.4	8.7	6.5	5.4	2.5	8.5	6.0
Prescription Pain Relievers	6.0	12.7	10.2	9.6	5.8	13.6	9.8	4.9	10.4	8.3	7.6	4.8	10.3	8.0
Prescription Amphetamines	1.9	3.4	3.6	2.0	1.9	3.4	2.7	1.6	5.3	3.8	3.5	1.6	5.0	3.7
Steroids	1.5	0.5	0.6	1.3	1.3	0.6	0.9	0.8	1.2	0.6	1.4	0.8	1.2	1.0

Note: The first set of data rows show results for items that are on the middle school questionnaire. The second set of data rows show results for items that are on the high school questionnaire. The third set of data rows show results for items that are on both questionnaires. The symbol "--" indicates that data are not available.

<sup>1</sup> Ecstasy, Rohypnol, GHB and ketamine are provided as examples in the question about club drugs.

**Table 4. Percentages of Hernando County youth and Florida Statewide youth who reported having used various drugs in the past 30 days**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
Alcohol	16.0	42.3	30.5	31.2	16.4	42.0	30.9	17.3	39.5	30.6	29.0	17.8	38.6	29.8
Binge Drinking	6.2	24.2	14.1	19.1	6.9	22.0	16.4	6.2	21.5	14.0	15.6	6.4	20.5	14.8
Cigarettes	5.8	15.4	12.2	10.8	5.4	15.8	11.3	4.7	12.6	8.8	9.4	4.5	12.2	9.1
Smokeless Tobacco	--	5.5	1.9	8.7	--	5.6	--	--	5.3	2.4	8.3	--	5.0	--
Marijuana or Hashish	5.6	17.9	11.2	13.9	5.3	18.0	12.6	4.4	16.2	9.8	12.3	4.3	16.1	11.1
Inhalants	4.3	2.2	4.5	1.8	3.9	2.5	3.1	5.2	2.2	4.1	2.8	4.9	2.4	3.5
Over-The-Counter Drugs	2.3	--	3.0	1.6	2.3	--	--	2.2	--	2.6	1.8	2.1	--	--
Any illicit drug	11.4	21.8	17.3	17.5	11.0	22.2	17.4	10.6	19.9	15.2	16.3	10.3	19.8	15.8
Any illicit drug other than marijuana	7.7	9.7	10.2	7.7	7.3	10.3	8.8	8.0	9.7	9.1	8.7	7.8	9.5	8.9
Alcohol only	8.8	25.0	16.9	18.9	9.5	24.7	18.0	11.4	24.0	19.7	17.4	12.0	23.5	18.5
Alcohol or any illicit drug	20.1	46.5	34.4	35.8	20.4	46.4	35.1	21.7	43.3	34.6	33.2	22.0	42.7	33.9
Any illicit drug, but no alcohol	4.3	4.6	4.1	4.9	4.2	4.9	4.5	4.7	4.2	4.2	4.5	4.5	4.4	4.4

Note: The first set of data rows show results for alcohol, tobacco, marijuana, inhalants and over-the-counter drugs. The second set of data rows show results for various combinations of drugs. The symbol "--" indicates that data are not available.

**Table 5. Percentages of Hernando County youth and Florida Statewide youth who reported having used various drugs in the past 30 days**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
Club Drugs <sup>1</sup>	0.2	--	0.3	0.2	0.1	--	--	0.6	--	0.5	0.7	0.5	--	--
LSD, PCP or Mushrooms	0.3	--	0.0	0.6	0.3	--	--	0.6	--	0.3	0.8	0.5	--	--
Cocaine or Crack Cocaine	0.3	--	0.5	0.0	0.1	--	--	0.6	--	0.5	0.7	0.5	--	--
Ecstasy	--	1.1	1.9	0.3	--	0.9	--	--	1.5	1.2	1.9	--	1.4	--
Rohypnol	--	0.6	1.0	0.3	--	0.3	--	--	0.4	0.3	0.6	--	0.4	--
GHB	--	0.3	0.2	0.4	--	0.2	--	--	0.3	0.1	0.4	--	0.2	--
Ketamine	--	0.4	0.2	0.6	--	0.2	--	--	0.2	0.1	0.3	--	0.2	--
LSD or PCP	--	0.2	0.5	0.0	--	0.1	--	--	1.1	0.7	1.5	--	1.1	--
Hallucinogenic Mushrooms	--	0.7	1.0	0.5	--	0.8	--	--	1.5	0.9	2.0	--	1.3	--
Cocaine	--	0.4	0.3	0.6	--	0.4	--	--	1.6	1.4	1.7	--	1.5	--
Crack Cocaine	--	0.2	0.5	0.0	--	0.3	--	--	0.5	0.4	0.6	--	0.5	--
Methamphetamine	0.1	0.4	0.4	0.1	0.1	0.3	0.2	0.6	0.5	0.4	0.6	0.5	0.5	0.5
Heroin	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.2	0.5	0.3	0.3	0.3
Depressants	1.5	4.5	3.7	2.7	1.3	4.7	3.2	1.0	3.0	2.4	2.0	1.0	3.0	2.1
Prescription Pain Relievers	3.0	4.8	3.9	4.3	2.6	5.4	4.0	2.3	3.9	3.2	3.2	2.3	3.8	3.2
Prescription Amphetamines	0.4	0.6	0.5	0.5	0.3	0.6	0.5	0.6	1.6	1.0	1.3	0.7	1.5	1.2
Steroids	0.7	0.1	0.1	0.6	0.6	0.1	0.4	0.3	0.5	0.2	0.7	0.3	0.5	0.4

Note: The first set of data rows show results for items that are on the middle school questionnaire. The second set of data rows show results for items that are on the high school questionnaire. The third set of data rows show results for items that are on both questionnaires. The symbol "--" indicates that data are not available.

<sup>1</sup> Ecstasy, Rohypnol, GHB and ketamine are provided as examples in the question about club drugs.

**Table 6. Lifetime trend in alcohol, tobacco and other drug use for Hernando County youth, 2000, 2002, 2004, 2006 and 2008**

	2000			2002			2004			2006			2008		
	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>
Alcohol	47.6	72.4	60.8	41.7	75.7	59.7	41.6	77.9	61.2	43.3	71.5	59.0	36.0	69.9	55.2
Cigarettes	42.7	58.9	51.4	27.4	54.6	41.8	25.9	52.6	40.2	21.8	43.5	34.1	20.3	37.4	30.0
Smokeless Tobacco	14.6	21.4	18.2	9.8	23.2	16.9	9.7	16.5	13.3	8.5	18.7	14.3	--	17.2	--
Marijuana or Hashish	17.7	43.5	31.9	14.9	43.4	29.7	13.1	42.3	28.9	10.5	38.2	26.2	10.7	34.8	24.4
Inhalants	15.1	14.5	14.7	11.1	13.4	12.2	16.0	12.1	13.8	14.2	11.2	12.5	11.8	10.5	11.0
Over-The-Counter Drugs	--	--	--	--	--	--	--	--	--	--	--	--	5.1	--	--
Any illicit drug	--	--	--	20.9	46.5	34.3	25.7	48.9	38.2	22.2	45.2	35.1	21.9	42.2	33.4
Any illicit drug other than marijuana	--	--	--	16.6	30.4	23.8	20.2	29.2	25.0	18.9	27.7	23.9	17.1	25.3	21.7
Alcohol only	--	--	--	24.6	31.2	28.1	21.6	31.3	26.8	25.1	29.5	27.5	20.0	29.5	25.4
Alcohol or any illicit drug	--	--	--	45.2	77.1	62.0	46.9	79.9	64.6	46.9	74.6	62.4	42.0	71.3	58.7
Any illicit drug, but no alcohol	--	--	--	4.0	1.6	2.8	5.4	2.2	3.7	4.1	3.3	3.8	6.2	1.9	3.8

Note: The first set of data rows show results for alcohol, tobacco, marijuana, inhalants and over-the-counter drugs. The second set of data rows show results for various combinations of drugs. Results for combinations of drugs are not presented for 2000 because new ATOD items were added between 2000 and 2002. The symbol "--" indicates that data are not available.

**Table 7. Lifetime trend in alcohol, tobacco and other drug use for Hernando County youth, 2000, 2002, 2004, 2006 and 2008**

	2000			2002			2004			2006			2008		
	Middle School	High School	Total	Middle School	High School	Total	Middle School	High School	Total	Middle School	High School	Total	Middle School	High School	Total
Club Drugs <sup>1</sup>	--	--	--	--	--	--	--	--	--	--	--	--	0.9	--	--
LSD, PCP or Mushrooms	--	--	--	--	--	--	--	--	--	--	--	--	1.7	--	--
Cocaine or Crack Cocaine	--	--	--	--	--	--	--	--	--	--	--	--	1.3	--	--
Ecstasy	--	--	--	4.4	9.2	6.9	2.0	7.7	5.1	2.8	6.1	4.7	--	4.6	--
Rohypnol	--	--	--	1.6	1.5	1.6	1.2	1.8	1.6	1.6	2.4	2.1	--	1.0	--
GHB <sup>2</sup>	--	--	--	0.6	1.3	1.0	2.3	0.7	1.4	1.1	1.9	1.6	--	1.0	--
Ketamine	--	--	--	0.8	2.1	1.5	0.5	0.7	0.6	0.6	2.1	1.4	--	0.6	--
LSD or PCP <sup>3</sup>	4.6	10.1	7.6	2.0	5.5	3.9	1.2	3.3	2.3	1.8	3.4	2.7	--	2.6	--
Hallucinogenic Mushrooms	--	--	--	5.6	9.5	7.6	3.5	10.3	7.2	4.4	9.7	7.4	--	6.1	--
Cocaine	3.4	6.3	5.1	2.3	7.1	4.9	2.0	7.3	4.9	2.4	7.5	5.3	--	3.8	--
Crack Cocaine	1.6	3.5	2.7	2.1	2.4	2.3	1.6	2.2	1.9	1.9	2.9	2.5	--	1.3	--
Methamphetamine	1.7	7.6	4.9	2.8	4.6	3.7	2.7	2.4	2.5	2.1	3.2	2.7	0.3	0.8	0.6
Heroin	1.4	4.2	3.0	1.3	1.8	1.7	0.5	0.9	0.7	1.1	1.2	1.2	0.5	0.3	0.4
Depressants <sup>4</sup>	2.3	9.9	6.4	4.9	14.4	9.9	3.4	14.5	9.4	4.8	12.1	8.9	3.8	11.3	8.1
Prescription Pain Relievers <sup>5</sup>	--	--	--	7.5	20.7	14.6	5.1	19.5	13.0	6.1	14.8	11.1	6.0	12.7	9.8
Prescription Amphetamines	--	--	--	2.8	4.4	3.6	1.5	4.3	3.1	2.9	6.4	4.9	1.9	3.4	2.7
Steroids	2.3	1.5	1.8	1.9	3.1	2.5	1.5	2.4	2.0	1.9	0.4	1.0	1.5	0.5	0.9

Note: The first set of data rows show results for items that are on the middle school questionnaire. The second set of data rows show results for items that are on the high school questionnaire. The third set of data rows show results for items that are on both questionnaires. The symbol "--" indicates that data are not available.

<sup>1</sup> Ecstasy, Rohypnol, GHB and ketamine are provided as examples in the question about club drugs.

<sup>2</sup> In 2006, the question for GHB was changed to include a more up-to-date set of slang or street names for the drug.

<sup>3</sup> Measured as "LSD or other psychedelics" in the 2000 survey, and as "LSD or PCP" in the 2002, 2004, 2006 and 2008 surveys.

<sup>4</sup> In 2002, the prescription drug Xanax<sup>®</sup> was added to the list of examples given in the depressants question.

<sup>5</sup> In 2006, OxyContin<sup>®</sup> was removed as an individual item and added to the list of examples included in the prescription pain relievers item.

**Table 8. Past-30-day trend in alcohol, tobacco and other drug use for Hernando County youth, 2000, 2002, 2004, 2006 and 2008**

	2000			2002			2004			2006			2008		
	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>
Alcohol	26.5	44.2	36.0	22.6	46.9	35.5	20.4	49.3	36.1	20.3	47.0	35.0	16.0	42.3	30.9
Binge Drinking	15.2	23.3	19.7	11.3	30.8	21.6	6.4	28.8	18.6	8.7	28.6	19.8	6.2	24.2	16.4
Cigarettes	21.0	28.6	25.3	11.6	25.3	18.9	7.6	23.9	16.3	5.6	19.2	13.3	5.8	15.4	11.3
Smokeless Tobacco	6.0	11.1	8.8	4.8	9.5	7.3	3.4	6.7	5.2	3.2	8.2	6.1	--	5.5	--
Marijuana or Hashish	13.1	21.5	17.8	7.7	20.2	14.3	4.3	20.6	13.2	6.6	20.9	14.8	5.6	17.9	12.6
Inhalants	7.9	4.7	6.2	3.9	2.5	3.1	6.7	2.9	4.6	6.5	3.9	5.0	4.3	2.2	3.1
Over-The-Counter Drugs	--	--	--	--	--	--	--	--	--	--	--	--	2.3	--	--
Any illicit drug	--	--	--	10.7	25.2	18.4	11.4	24.7	18.6	13.3	24.0	19.4	11.4	21.8	17.4
Any illicit drug other than marijuana	--	--	--	6.6	14.2	10.6	10.0	11.2	10.7	9.9	11.7	10.9	7.7	9.7	8.8
Alcohol only	--	--	--	15.0	26.1	20.9	13.4	29.7	22.3	13.4	27.3	21.1	8.8	25.0	18.0
Alcohol or any illicit drug	--	--	--	25.3	50.4	38.6	24.8	54.2	40.7	26.2	50.7	39.9	20.1	46.5	35.1
Any illicit drug, but no alcohol	--	--	--	3.3	3.2	3.2	4.7	5.2	4.9	6.3	4.1	5.2	4.3	4.6	4.5

Note: The first set of data rows show results for alcohol, tobacco, marijuana, inhalants and over-the-counter drugs. The second set of data rows show results for various combinations of drugs. Results for combinations of drugs are not presented for 2000 because new ATOD items were added between 2000 and 2002. The symbol "--" indicates that data are not available.



**Table 9. Past-30-day trend in alcohol, tobacco and other drug use for Hernando County youth, 2000, 2002, 2004, 2006 and 2008**

	2000			2002			2004			2006			2008		
	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>
Club Drugs <sup>1</sup>	--	--	--	--	--	--	--	--	--	--	--	--	0.2	--	--
LSD, PCP or Mushrooms	--	--	--	--	--	--	--	--	--	--	--	--	0.3	--	--
Cocaine or Crack Cocaine	--	--	--	--	--	--	--	--	--	--	--	--	0.3	--	--
Ecstasy	--	--	--	1.3	3.1	2.3	0.5	1.5	1.1	0.6	1.9	1.3	--	1.1	--
Rohypnol	--	--	--	0.4	0.9	0.7	0.9	0.2	0.5	0.4	0.6	0.5	--	0.6	--
GHB <sup>2</sup>	--	--	--	0.2	0.5	0.4	1.3	0.0	0.6	0.2	0.5	0.4	--	0.3	--
Ketamine	--	--	--	0.0	0.9	0.5	0.3	0.4	0.3	0.2	0.2	0.2	--	0.4	--
LSD or PCP <sup>3</sup>	2.2	4.7	3.5	0.9	1.5	1.2	0.7	0.6	0.6	0.6	0.8	0.7	--	0.2	--
Hallucinogenic Mushrooms	--	--	--	1.5	1.6	1.5	1.2	1.5	1.3	1.3	1.5	1.4	--	0.7	--
Cocaine	0.8	2.4	1.8	0.9	2.3	1.6	0.7	1.5	1.1	1.3	1.1	1.3	--	0.4	--
Crack Cocaine	0.4	1.6	1.1	0.4	1.3	0.9	0.8	0.4	0.6	0.8	0.2	0.5	--	0.2	--
Methamphetamine	1.4	3.4	2.5	1.1	1.8	1.5	1.3	0.6	0.9	0.4	0.8	0.6	0.1	0.4	0.2
Heroin	0.6	2.6	1.8	0.2	1.2	0.7	0.3	0.7	0.5	1.0	0.2	0.5	0.1	0.1	0.1
Depressants <sup>4</sup>	1.7	3.6	2.7	2.5	6.7	4.7	1.0	5.6	3.5	1.8	5.3	3.8	1.5	4.5	3.2
Prescription Pain Relievers <sup>5</sup>	--	--	--	3.8	9.4	6.9	1.9	6.9	4.7	2.0	5.6	4.0	3.0	4.8	4.0
Prescription Amphetamines	--	--	--	1.1	2.2	1.7	0.5	1.4	1.0	0.2	1.7	1.1	0.4	0.6	0.5
Steroids	1.8	0.6	1.1	0.5	0.9	0.7	0.5	1.3	0.9	0.6	0.2	0.4	0.7	0.1	0.4

Note: The first set of data rows show results for items that are on the middle school questionnaire. The second set of data rows show results for items that are on the high school questionnaire. The third set of data rows show results for items that are on both questionnaires. The symbol "--" indicates that data are not available.

<sup>1</sup> Ecstasy, Rohypnol, GHB and ketamine are provided as examples in the question about club drugs.

<sup>2</sup> In 2006, the question for GHB was changed to include a more up-to-date set of slang or street names for the drug.

<sup>3</sup> Measured as "LSD or other psychedelics" in the 2000 survey, and as "LSD or PCP" in the 2002, 2004, 2006 and 2008 surveys.

<sup>4</sup> In 2002, the prescription drug Xanax<sup>®</sup> was added to the list of examples given in the depressants question.

<sup>5</sup> In 2006, OxyContin<sup>®</sup> was removed as an individual item and added to the list of examples included in the prescription pain relievers item.

**Table 10. Percentages of Hernando County youth and Florida Statewide youth who reported engaging in delinquent behavior within the past 12 months**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
Carrying a handgun	3.7	4.8	2.3	6.6	3.8	4.6	4.3	4.3	5.6	2.1	8.0	3.9	5.8	5.0
Selling drugs	3.7	7.9	3.9	8.5	3.6	7.5	6.1	2.7	7.6	3.2	7.8	2.5	7.9	5.5
Attempting to steal a vehicle	2.6	2.7	1.8	3.6	2.7	2.3	2.7	2.4	2.6	1.7	3.3	2.2	2.9	2.5
Being arrested	2.5	4.4	2.3	4.8	2.7	4.0	3.6	4.0	5.6	3.3	6.4	3.6	6.2	4.9
Taking a handgun to school	0.8	1.2	0.5	1.5	0.8	0.3	1.0	0.8	1.1	0.4	1.5	0.8	1.2	1.0
Getting suspended	16.0	16.0	10.8	21.6	15.7	16.9	16.0	16.2	14.4	11.5	18.9	14.9	16.1	15.2
Attacking someone with intent to harm	11.8	13.6	10.4	15.3	11.7	14.4	12.8	11.4	12.1	9.9	13.7	10.9	12.9	11.8
Being drunk or high at school	7.5	16.6	13.8	11.7	7.2	17.3	12.7	6.6	15.5	10.9	12.3	6.4	15.8	11.6

**Table 11. Percentages of Hernando County youth and Florida Statewide youth who reported gambling and arguing about gambling in the past 12 months**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
Gambling	53.7	53.6	43.5	63.2	53.3	54.5	53.6	57.0	54.0	44.7	65.6	56.8	54.3	55.3
Arguing about gambling	14.8	11.7	9.5	16.4	15.5	10.9	13.1	17.4	14.4	11.5	19.7	17.1	14.8	15.7

**Table 12. Percentages of Hernando County youth and Florida Statewide middle school youth who reported involvement in bullying behavior**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
Bullying caused worry	32.5	--	39.5	25.5	33.2	--	--	30.1	--	36.0	24.6	30.7	--	--
Skipped school because of bullying	4.0	--	5.1	3.1	4.2	--	--	2.9	--	3.5	2.3	2.8	--	--
Was kicked or shoved in past 30 days	22.0	--	16.6	27.5	22.2	--	--	20.7	--	17.3	23.9	21.1	--	--
Was taunted or teased in past 30 days	41.1	--	42.1	40.5	41.2	--	--	41.3	--	42.3	40.4	41.8	--	--
Was victim of cyber bullying in past 30 days	9.2	--	13.8	5.1	9.4	--	--	8.2	--	11.2	5.2	8.2	--	--
Physically bullied others in past 30 days	15.1	--	10.9	19.2	13.9	--	--	15.8	--	13.3	18.1	15.5	--	--
Verbally bullied others in past 30 days	27.0	--	24.5	29.3	26.6	--	--	28.0	--	27.8	28.2	27.8	--	--
Cyber bullied others in past 30 days	7.3	--	9.2	5.4	7.0	--	--	6.4	--	7.9	4.8	6.2	--	--

The symbol "--" indicates that data are not available.

**Table 13. Percentages of Hernando County youth and Florida Statewide high school youth who started using alcohol at age 13 or younger**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
More than a sip of alcohol	--	32.6	30.8	35.7	--	33.1	--	--	32.3	31.0	33.9	--	32.4	--
Drinking at least once a month	--	5.5	4.9	6.4	--	6.2	--	--	5.9	5.5	6.4	--	5.9	--
Cigarettes	--	22.5	20.7	23.9	--	24.4	--	--	19.9	19.6	20.3	--	20.2	--
Marijuana	--	11.3	8.7	14.3	--	12.1	--	--	10.6	8.8	12.4	--	10.7	--

Note: The symbol "--" indicates that data are not available.

**Table 14. Percentages of Hernando County youth and Florida Statewide youth who reported a perceived risk of harm, personal disapproval and peer approval**

	Hernando County							Florida Statewide						
	Middle School	High School	Female	Male	Ages 10-14	Ages 15-17	Total	Middle School	High School	Female	Male	Ages 10-14	Ages 15-17	Total
<b><i>Perceive great risk of harm if...</i></b>														
One or more drinks every day	46.0	38.9	45.7	38.4	46.1	39.0	41.9	43.2	40.8	46.2	37.6	43.4	40.7	41.9
Smoke a pack or more every day	66.8	64.5	69.5	61.8	66.5	65.7	65.5	67.0	68.0	70.6	64.7	68.3	67.3	67.6
Smoke marijuana regularly	73.0	49.2	63.8	55.0	71.6	48.9	59.3	71.2	51.0	63.8	56.0	71.7	50.7	59.8
Try marijuana once or twice	42.6	21.7	31.1	30.1	41.4	20.9	30.7	42.6	24.7	34.3	30.8	42.0	24.6	32.5
<b><i>Think it would be wrong for someone their age to...</i></b>														
Smoke cigarettes	87.8	67.6	75.7	76.4	87.3	70.0	76.2	90.5	72.9	80.7	80.3	90.4	74.9	80.5
Drink alcohol regularly	81.4	52.8	66.0	64.3	81.3	53.4	65.0	81.2	53.5	65.7	65.4	80.2	54.6	65.4
Smoke marijuana	90.7	73.2	82.4	79.4	91.3	72.8	80.6	91.1	71.9	82.2	78.4	91.0	72.3	80.2
Use other illicit drugs	97.3	94.3	96.8	94.3	97.1	94.8	95.5	96.8	93.5	95.6	94.2	96.8	93.4	94.9
<b><i>Good chance of being seen as cool if...</i></b>														
Drink alcohol regularly	6.9	13.3	11.5	9.1	7.0	13.3	10.6	8.1	14.9	12.5	11.5	8.4	14.6	12.0
Smoke cigarettes	5.4	3.5	4.4	4.0	5.0	3.7	4.3	6.2	5.6	5.7	6.0	6.1	5.6	5.8
Smoke marijuana	8.4	11.0	10.4	8.9	7.9	12.2	9.9	9.2	12.9	11.1	11.5	9.1	13.4	11.3

**Table 15. Percentages of Hernando County youth and Florida Statewide youth who reported participation in extracurricular activities**

	Hernando County							Florida Statewide						
	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Female</i>	<i>Male</i>	<i>Ages 10-14</i>	<i>Ages 15-17</i>	<i>Total</i>
School Sports	36.1	41.8	38.6	40.4	37.4	40.0	39.4	35.7	37.9	33.2	40.4	35.5	39.2	37.0
Organized Sports Outside of School	45.2	24.9	30.4	36.5	43.7	25.5	33.6	43.9	26.0	29.5	38.0	43.1	26.5	33.7
School Band	10.3	4.5	7.3	6.8	10.1	4.6	7.0	13.5	7.3	9.6	10.4	13.3	7.4	10.0
School Club(s)	8.9	25.0	24.4	12.6	9.4	24.2	18.1	18.5	32.5	35.0	18.1	19.6	31.1	26.4
Community Club(s)	6.8	9.5	11.5	5.4	7.3	9.1	8.4	11.0	13.5	16.4	8.7	11.2	13.1	12.4

**Table 16. Trends in delinquent behaviors for Hernando County youth, 2000, 2002, 2004, 2006 and 2008**

	2000			2002			2004			2006			2008		
	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>	<i>Middle School</i>	<i>High School</i>	<i>Total</i>
Carrying a handgun	4.3	8.2	6.4	4.5	4.2	4.3	4.1	5.0	4.6	5.2	5.7	5.4	3.7	4.8	4.3
Selling drugs	6.3	12.5	9.6	4.7	8.4	6.7	2.3	8.0	5.5	4.5	10.7	8.1	3.7	7.9	6.1
Attempting to steal a vehicle	5.0	6.5	5.8	3.7	2.7	3.1	2.1	3.6	3.0	2.6	3.3	3.0	2.6	2.7	2.7
Being arrested	7.7	7.7	7.9	5.4	4.3	4.7	3.7	7.8	6.0	5.7	8.6	7.3	2.5	4.4	3.6
Taking a handgun to school	0.8	1.9	1.4	0.9	1.6	1.3	0.4	0.9	0.7	1.2	1.4	1.3	0.8	1.2	1.0
Getting suspended	18.5	17.1	17.8	15.0	13.3	14.2	15.5	14.1	14.9	18.4	22.9	21.1	16.0	16.0	16.0
Attacking someone with intent to harm	20.8	22.6	21.9	12.1	14.1	13.1	15.7	14.1	14.8	15.8	15.6	15.6	11.8	13.6	12.8
Being drunk or high at school	13.0	23.7	18.9	9.6	24.5	17.7	6.7	21.4	14.8	8.3	21.1	15.6	7.5	16.6	12.7

**Table 17. Trends in early ATOD use and attitudes toward substance use for Hernando County youth, 2000, 2002, 2004, 2006 and 2008**

	2000			2002			2004			2006			2008		
	Middle School	High School	Total	Middle School	High School	Total	Middle School	High School	Total	Middle School	High School	Total	Middle School	High School	Total
<b><i>Early ATOD use (age 13 or younger)</i></b>															
More than a sip or two of alcohol	--	43.7	--	--	45.9	--	--	39.0	--	--	32.8	--	--	32.6	--
Drinking at least once a month	--	12.7	--	--	12.2	--	--	9.2	--	--	7.9	--	--	5.5	--
Cigarettes	--	45.7	--	--	41.8	--	--	34.8	--	--	29.1	--	--	22.5	--
Marijuana	--	22.0	--	--	21.1	--	--	14.6	--	--	17.4	--	--	11.3	--
<b><i>Perceive great risk of harm if...</i></b>															
One or more drinks every day	35.3	35.8	35.6	31.0	34.0	33.0	33.0	29.4	31.1	41.5	32.4	36.6	46.0	38.9	41.9
Smoke a pack or more every day	59.5	63.8	61.8	54.8	59.6	57.6	61.0	63.2	62.1	66.0	62.3	63.8	66.8	64.5	65.5
Smoke marijuana regularly	64.5	47.9	55.4	64.9	45.3	54.8	71.5	51.1	60.3	69.8	47.1	57.1	73.0	49.2	59.3
Try marijuana once or twice	36.6	19.7	27.4	36.9	18.8	27.5	42.6	19.6	30.0	43.3	23.4	32.2	42.6	21.7	30.7
<b><i>Think it wrong if...</i></b>															
Smoke cigarettes	74.7	53.8	63.5	82.1	60.4	70.7	84.4	60.5	71.7	87.0	62.5	73.4	87.8	67.6	76.2
Drink alcohol regularly	72.1	48.0	59.4	74.4	48.2	60.5	77.3	42.6	58.7	77.1	46.9	60.2	81.4	52.8	65.0
Smoke marijuana	81.7	65.2	72.9	86.1	63.5	74.1	88.4	66.4	76.7	90.5	65.9	76.8	90.7	73.2	80.6
Use other illicit drugs	91.5	86.0	88.6	95.0	89.5	92.0	96.0	92.2	94.0	96.8	93.4	94.9	97.3	94.3	95.5
<b><i>Seen as cool if...</i></b>															
Drink alcohol regularly	9.5	12.4	10.9	8.3	16.5	12.8	8.3	17.1	12.9	7.3	15.3	11.7	6.9	13.3	10.6
Smoke cigarettes	11.8	9.2	10.3	8.6	6.1	7.3	7.8	5.8	6.7	5.4	5.4	5.4	5.4	3.5	4.3
Smoke marijuana	13.1	15.7	14.4	13.2	15.7	14.7	9.3	14.3	11.9	8.2	12.8	10.7	8.4	11.0	9.9

Note: The symbol "--" indicates that data are not available.



**Table 18. Protective factor prevalence rates for Hernando County, Florida Statewide and the national normative database, 2008**

Domain	Scale	Hernando County		Florida Statewide		National Norms	
		<i>Middle School</i>	<i>High School</i>	<i>Middle School</i>	<i>High School</i>	<i>Middle School</i>	<i>High School</i>
<b>Community</b>	Community Opportunities for Prosocial Involvement	--	41	--	39	--	52
	Community Rewards for Prosocial Involvement	50	61	51	61	56	63
<b>Family</b>	Family Attachment	--	54	--	55	--	56
	Family Opportunities for Prosocial Involvement	51	52	56	53	59	54
	Family Rewards for Prosocial Involvement	49	52	50	54	54	55
<b>School</b>	School Opportunities for Prosocial Involvement	46	58	47	59	57	60
	School Rewards for Prosocial Involvement	43	61	45	56	53	58
<b>Peer and Individual</b>	Religiosity	45	51	51	61	56	62
	Social Skills	--	59	--	62	--	57
	Belief in the Moral Order	--	60	--	59	--	62
<b>Average Prevalence Rate</b>		<b>47</b>	<b>54</b>	<b>50</b>	<b>56</b>	<b>56</b>	<b>57</b>

Note: Because risk is associated with negative behavioral outcomes, it is better to have lower risk factor scale scores, not higher. Conversely, because protective factors are associated with better student behavioral outcomes, it is better to have protective factor scale scores with high values. The symbol "--" indicates that data are not available.

**Table 19. Risk factor prevalence rates for Hernando County, Florida Statewide and the national normative database, 2008**

Domain	Scale	Hernando County		Florida Statewide		National Norms	
		<i>Middle School</i>	<i>High School</i>	<i>Middle School</i>	<i>High School</i>	<i>Middle School</i>	<i>High School</i>
<b>Community</b>	Low Neighborhood Attachment	--	51	--	49	--	44
	Community Disorganization	48	47	48	49	47	47
	Transitions and Mobility	64	70	61	64	47	46
	Laws and Norms Favorable to Drug Use	45	40	44	35	42	42
	Laws and Norms Favorable to Handguns	--	22	--	23	--	23
	Perceived Availability of Drugs	51	43	49	40	45	45
	Perceived Availability of Handguns	28	41	27	41	25	42
<b>Family</b>	Poor Family Management	47	49	49	49	44	45
	Family Conflict	44	38	43	37	42	37
	Family History of Antisocial Behavior	--	51	--	43	--	45
	Parental Attitudes Favorable toward ATOD Use	25	43	22	38	23	41
	Parental Attitudes Favorable toward Antisocial Behavior	--	48	--	45	--	48
<b>School</b>	Poor Academic Performance	45	44	45	44	45	48
	Lack of Commitment to School	61	51	55	47	47	46
<b>Peer and Individual</b>	Rebelliousness	--	40	--	41	--	40
	Friends' Delinquent Behavior	--	45	--	44	--	41
	Friends' Use of Drugs	--	46	--	39	--	47
	Peer Rewards for Antisocial Behavior	44	40	42	42	40	46
	Favorable Attitudes toward Antisocial Behavior	48	49	48	47	40	46
	Favorable Attitudes toward ATOD Use	43	43	40	40	39	45
	Low Perceived Risks of Drug Use	41	48	41	44	40	46
	Early Initiation of Drug Use	35	37	37	35	41	46
	Sensation Seeking	--	49	--	44	--	45
<b>Average Prevalence Rate</b>		<b>45</b>	<b>46</b>	<b>43</b>	<b>43</b>	<b>40</b>	<b>44</b>

Note: Because risk is associated with negative behavioral outcomes, it is better to have lower risk factor scale scores, not higher. Conversely, because protective factors are associated with better student behavioral outcomes, it is better to have protective factor scale scores with high values. The symbol "--" indicates that data are not available.

**Table 20. Protective factor prevalence rate trends among middle school students for Hernando County, 2000, 2002, 2004, 2006 and 2008**

Domain	Scale	Hernando County				
		2000	2002	2004	2006	2008
<b>Community</b>	Community Opportunities for Prosocial Involvement	48	35	--	38	--
	Community Rewards for Prosocial Involvement	50	51	46	47	50
<b>Family</b>	Family Attachment	52	53	52	48	--
	Family Opportunities for Prosocial Involvement	52	54	54	51	51
	Family Rewards for Prosocial Involvement	44	48	49	48	49
<b>School</b>	School Opportunities for Prosocial Involvement	40	41	38	46	46
	School Rewards for Prosocial Involvement	37	34	37	42	43
<b>Peer and Individual</b>	Religiosity	51	47	46	51	45
	Social Skills	43	46	50	44	--
	Belief in the Moral Order	43	42	45	43	--
<b>Average Prevalence Rate</b>		<b>46</b>	<b>45</b>	<b>46</b>	<b>46</b>	<b>47</b>

Note: Because risk is associated with negative behavioral outcomes, it is better to have lower risk factor scale scores, not higher. Conversely, because protective factors are associated with better student behavioral outcomes, it is better to have protective factor scale scores with high values. The symbol "--" indicates that data are not available.

**Table 21. Risk factor prevalence rate trends among middle school students for Hernando County, 2000, 2002, 2004, 2006 and 2008**

Domain	Scale	Hernando County				
		2000	2002	2004	2006	2008
<b>Community</b>	Low Neighborhood Attachment	50	50	49	50	--
	Community Disorganization	50	50	49	48	48
	Transitions and Mobility	59	57	61	64	64
	Laws and Norms Favorable to Drug Use	55	51	47	49	45
	Laws and Norms Favorable to Handguns	44	47	43	44	--
	Perceived Availability of Drugs	52	54	49	46	51
	Perceived Availability of Handguns	26	28	27	26	28
<b>Family</b>	Poor Family Management	57	51	53	50	47
	Family Conflict	47	38	44	49	44
	Family History of Antisocial Behavior	56	51	53	50	--
	Parental Attitudes Favorable toward ATOD Use	29	28	25	23	25
	Parental Attitudes Favorable toward Antisocial Behavior	42	39	39	44	--
<b>School</b>	Poor Academic Performance	57	47	52	42	45
	Lack of Commitment to School	64	62	64	58	61
<b>Peer and Individual</b>	Rebelliousness	50	51	52	55	--
	Friends' Delinquent Behavior	52	47	52	56	--
	Friends' Use of Drugs	55	51	43	45	--
	Peer Rewards for Antisocial Behavior	44	43	46	38	44
	Favorable Attitudes toward Antisocial Behavior	49	52	53	53	48
	Favorable Attitudes toward ATOD Use	54	51	49	42	43
	Low Perceived Risks of Drug Use	49	54	47	41	41
	Early Initiation of Drug Use	59	50	45	44	35
	Sensation Seeking	56	52	56	54	--
<b>Average Prevalence Rate</b>		<b>50</b>	<b>48</b>	<b>48</b>	<b>46</b>	<b>45</b>

Note: Because risk is associated with negative behavioral outcomes, it is better to have lower risk factor scale scores, not higher. Conversely, because protective factors are associated with better student behavioral outcomes, it is better to have protective factor scale scores with high values. The symbol "--" indicates that data are not available.

**Table 22. Protective factor prevalence rate trends among high school students for Hernando County, 2000, 2002, 2004, 2006 and 2008**

Domain	Scale	Hernando County				
		2000	2002	2004	2006	2008
<b>Community</b>	Community Opportunities for Prosocial Involvement	38	36	--	38	41
	Community Rewards for Prosocial Involvement	54	56	62	61	61
<b>Family</b>	Family Attachment	52	52	55	48	54
	Family Opportunities for Prosocial Involvement	50	49	54	47	52
	Family Rewards for Prosocial Involvement	47	50	52	45	52
<b>School</b>	School Opportunities for Prosocial Involvement	46	41	49	47	58
	School Rewards for Prosocial Involvement	41	42	49	52	61
<b>Peer and Individual</b>	Religiosity	57	52	52	48	51
	Social Skills	48	51	56	52	59
	Belief in the Moral Order	47	56	59	52	60
<b>Average Prevalence Rate</b>		<b>48</b>	<b>48</b>	<b>53</b>	<b>49</b>	<b>54</b>

Note: Because risk is associated with negative behavioral outcomes, it is better to have lower risk factor scale scores, not higher. Conversely, because protective factors are associated with better student behavioral outcomes, it is better to have protective factor scale scores with high values. The symbol "--" indicates that data are not available.

**Table 23. Risk factor prevalence rate trends among high school students for Hernando County, 2000, 2002, 2004, 2006 and 2008**

Domain	Scale	Hernando County				
		2000	2002	2004	2006	2008
<b>Community</b>	Low Neighborhood Attachment	52	53	48	53	51
	Community Disorganization	53	47	46	51	47
	Transitions and Mobility	56	64	69	67	70
	Laws and Norms Favorable to Drug Use	46	49	44	48	40
	Laws and Norms Favorable to Handguns	37	25	23	28	22
	Perceived Availability of Drugs	59	57	54	46	43
	Perceived Availability of Handguns	53	48	47	46	41
<b>Family</b>	Poor Family Management	55	54	50	58	49
	Family Conflict	42	38	38	41	38
	Family History of Antisocial Behavior	53	59	54	52	51
	Parental Attitudes Favorable toward ATOD Use	43	48	50	48	43
	Parental Attitudes Favorable toward Antisocial Behavior	47	48	50	55	48
<b>School</b>	Poor Academic Performance	59	47	51	52	44
	Lack of Commitment to School	59	59	58	59	51
<b>Peer and Individual</b>	Rebelliousness	51	40	42	48	40
	Friends' Delinquent Behavior	50	45	49	49	45
	Friends' Use of Drugs	55	58	58	49	46
	Peer Rewards for Antisocial Behavior	46	46	47	44	40
	Favorable Attitudes toward Antisocial Behavior	55	52	56	54	49
	Favorable Attitudes toward ATOD Use	56	53	52	53	43
	Low Perceived Risks of Drug Use	52	56	53	50	48
	Early Initiation of Drug Use	54	54	49	40	37
	Sensation Seeking	54	50	51	49	49
<b>Average Prevalence Rate</b>		<b>51</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>46</b>

Note: Because risk is associated with negative behavioral outcomes, it is better to have lower risk factor scale scores, not higher. Conversely, because protective factors are associated with better student behavioral outcomes, it is better to have protective factor scale scores with high values.





# Appendix B

## References

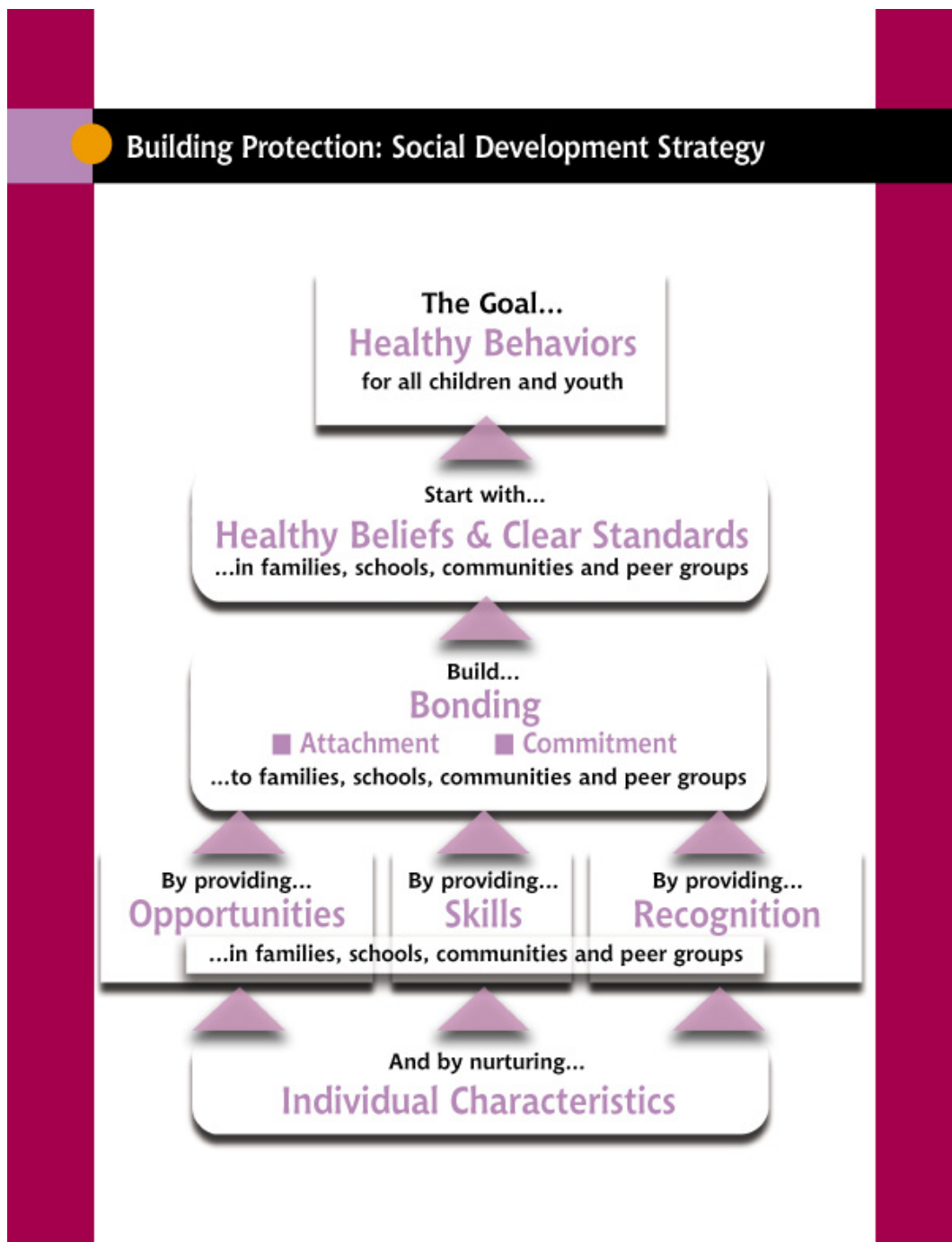
- Arthur, M. W., Briney, J. S., Hawkins, J. D., Abbott, R. D., Brooke-Weiss, B. L. & Catalano, R. F. (2007). Measuring risk and protection in communities using the Communities That Care Youth Survey. *Evaluation and Program Planning, 30*, 197-211.
- Arthur, M. W., Hawkins, J. D., Pollard, J. A., Catalano, R. F. & Baglioni, A. J. (2002). Measuring risk and protective factors for substance use, delinquency, and other adolescent problem behaviors: The communities that care youth survey. *Evaluation Review, 26*, 575-601.
- Bachman, J. G., Johnston, L. D. & O'Malley, P. M. (1996). *The Monitoring the Future project after twenty-two years: Design and procedures*. (Monitoring the Future Occasional Paper No. 38.) Ann Arbor, MI: Institute for Social Research.
- Bachman, J. G., Johnston, L. D., O'Malley, P. M. & Humphrey, R. H. (1986). *Changes in marijuana use linked to changes in perceived risks and disapproval*. (Monitoring the Future Occasional Paper No. 19.) Ann Arbor, MI: Institute for Social Research.
- Blum, R. W., Beuhring, T., Shew, M. L., Bearinger, L. H., Sieving, R. E. & Resnick, M. D. (2000). The effects of race/ethnicity, income, and family structure on adolescent risk behaviors. *American Journal of Public Health, 90*, 1879-1884.
- Bracht, N. & Kingsbury, L. (1990). Community organization principles in health promotion: A five-state model. In N. Bracht (Ed.), *Health promotion at the community level* (pp. 66-88). Beverly Hills, CA: Sage.
- Bry, B. H., McKeon, P. & Pandina, R. J. (1982). Extent of drug use as a function of number of risk factors. *Journal of Abnormal Psychology, 91*, 273-279.
- Catalano, R. F. & Hawkins, J. D. (1996). The social development model: A theory of antisocial behavior. In J. D. Hawkins (Ed.), *Delinquency and crime: Current theories* (pp. 149-197). New York, NY: Cambridge University Press.
- Hawkins, J. D., Arthur, M. W. & Catalano, R. F. (1995). Preventing substance abuse. In M. Tonry & D. Farrington (Eds.), *Building a safer society: Strategic approaches to crime prevention* (Vol. 19, pp. 343-427, Crime and justice: A review of research). Chicago, IL: University of Chicago Press.
- Hawkins, J. D., Catalano, R. F. & Associates. (1992). *Communities that care: Action for drug abuse prevention* (1<sup>st</sup> ed.). San Francisco: Jossey-Bass.
- Hawkins, J. D., Catalano, R. F. & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*, 64-105.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G. & Schulenberg, J. E. (2008). *Monitoring the Future national survey results on drug use, 1975-2007. Volume I: Secondary school students* (NIH Publication No. 08-6418A). Bethesda, MD: National Institute on Drug Abuse.

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- Newcomb, M. D. (1995). Identifying high-risk youth: Prevalence and patterns of adolescent drug abuse. In E. Rahdert & D. Czechowicz (Eds.), *Adolescent drug abuse: Clinical assessment and therapeutic interventions* (NIDA Research Monograph, 156). Washington, DC: U.S. Department of Health and Human Services.
- Newcomb, M. D. & Felix-Ortiz, M. (1992). Multiple protective and risk factors for drug use and abuse: Cross-sectional and prospective findings. *Journal of Personality and Social Psychology*, 51, 564-577.
- Newcomb, M. D., Maddahian, E. & Skager, R. (1987). Substance abuse and psychosocial risk factors among teenagers: Associations with sex, age, ethnicity, and type of school. *American Journal of Drug and Alcohol Abuse*, 13, 413-433.
- Pollard, J. A., Hawkins, J. D. & Arthur, M. W. (1999). Risk and protection: Are both necessary to understand diverse behavioral outcomes in adolescence? *Social Work Research*, 23, 145-158.

# Appendix C

## The Social Development Strategy

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## Communities That Care®

### Risk Factors

### Adolescent Problem Behaviors

Community	Substance Abuse	Delinquency	Teen Pregnancy	School Drop-Out	Violence
Availability of drugs	●				●
Availability of firearms		●			●
Community laws and norms favorable toward drug use, firearms and crime	●	●			●
Media portrayals of violence					●
Transitions and mobility	●	●		●	
Low neighborhood attachment and community disorganization	●	●			●
Extreme economic deprivation	●	●	●	●	●
<b>Family</b>					
Family history of the problem behavior	●	●	●	●	●
Family management problems	●	●	●	●	●
Family conflict	●	●	●	●	●
Favorable parental attitudes and involvement in the problem behavior	●	●			●
<b>School</b>					
Academic failure beginning in late elementary school	●	●	●	●	●
Lack of commitment to school	●	●	●	●	●
<b>Peer and Individual</b>					
Early and persistent antisocial behavior	●	●	●	●	●
Rebelliousness	●	●		●	
Friends who engage in the problem behavior	●	●	●	●	●
Gang involvement	●	●			●
Favorable attitudes toward the problem behavior	●	●	●	●	
Early initiation of the problem behavior	●	●	●	●	●
Constitutional factors	●	●			●

# Appendix D

## Other Resources

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### Web Sites

Office of National Drug Control Policy [www.whitehousedrugpolicy.gov](http://www.whitehousedrugpolicy.gov)

National Clearinghouse for Alcohol and Drug Information [www.health.org/index.htm](http://www.health.org/index.htm)

Substance Abuse and Mental Health Services Administration (SAMHSA) [www.samhsa.gov](http://www.samhsa.gov)

Monitoring the Future [www.monitoringthefuture.org](http://www.monitoringthefuture.org)

National Institute on Drug Abuse (NIDA) [www.nida.nih.gov](http://www.nida.nih.gov) and [www.drugabuse.gov](http://www.drugabuse.gov)

National Institute on Alcohol Abuse and Alcoholism (NIAAA) [www.niaaa.nih.gov](http://www.niaaa.nih.gov)

Social Development Research Group <http://depts.washington.edu/sdrg>

### Prevention Program Guides

Center for Substance Abuse Prevention, Western Center for the Application of Prevention Technologies. (2006). *Building a successful prevention program: list of all practices*. [Data file]. Available at the University of Nevada Reno's Web site, <http://casat.unr.edu/bestpractices/alpha-list.php>.

Center for the Study and Prevention of Violence, Institute of Behavioral Science. (2006). *Blueprints for Violence Prevention*. [Data file]. Available from the University of Colorado Boulder's Web site, [www.colorado.edu/cspv/blueprints](http://www.colorado.edu/cspv/blueprints).

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA). (2006). *Communities That Care Prevention Strategies Guide*. [Datafile]. Available from the SAMHSA Web site, <http://preventionplatform.samhsa.gov>.

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA). (2006). *Model Programs list*. [Data file]. Available from the SAMHSA Web site, <http://modelprograms.samhsa.gov>.

### Prevention Planning

Hawkins, J. D., Catalano, R. F., & Associates. (1992). *Communities that care: Action for drug abuse prevention* (1<sup>st</sup> ed.). San Francisco: Jossey-Bass.