2006 Florida Youth Substance Abuse Survey

Seminole County Report

FLORIDA DEPARTMENT OF CHILDREN & FAMILIES

Executive Office of the Governor

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EXECUTIVE SUMMARY

The 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 *2006 FYSAS* was administered to 2,076 Seminole County students in grades 6 through 12 in the spring of 2006. 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

- Surveyed students reported a substantial reduction in past-30-day cigarette use. The rate dropped from 17.1% in 2000 to 10.0% in 2006.
- Past-30-day prevalence rates for Rohypnol (0.4%), GHB (0.4%), ketamine (0.3%), methamphetamine (0.6%), crack cocaine (0.9%), heroin (0.4%) and steroids (0.4%) are all less than 1.0%.
- Relatively few students reported that they would be seen as "cool" by their peers if they drank alcohol regularly (14.8%), smoked cigarettes (6.1%) or smoked marijuana (12.1%).
- A substantial proportion of students indicated that it would be "wrong" or "very wrong" for someone their age to smoke cigarettes (77.1%), smoke marijuana (79.6%) or use other illicit drugs (93.7%).
- A majority of respondents reported that each of the following behaviors poses a "great risk" of harm: smoking a pack or more of cigarettes per day (70.5%) and regular use of marijuana (62.1%).
- Prevalence rates for *Carrying a Handgun* (4.3%), *Attempting to Steal a Vehicle* (2.8%), *Being Arrested* (4.6%) and *Taking a Handgun to School* (1.0%) are all less than 5.0%.

Opportunities for Improvement

- With overall prevalence rates of 58.4% for lifetime use and 33.3% for past-30-day use, alcohol is the most commonly used drug among Seminole County students.
- Binge drinking (defined as the consumption of five or more drinks in a row within the last two weeks) is more prevalent than past-30-day tobacco and marijuana use.
- After alcohol, students reported cigarettes (30.6% lifetime and 10.0% past-30-day) and marijuana (23.4% lifetime and 11.6% past-30-day) as the most commonly used drugs. Prevalence rates for other drugs are substantially lower.

- More than one student out of every 10 reported lifetime use of any illicit drug (30.7% lifetime and 15.0% past-30-day).

- Among Seminole County students, lifetime use of inhalants increased from 9.7% in 2000 to 11.7% in 2006. Past-30-day use also increased from 2.5% in 2000 to 3.8% in 2006.

- Of surveyed Seminole County students, 12.0% reported *Getting Suspended*, 12.1% reported *Attacking Someone with Intent to Harm* and 13.1% reported *Being Drunk or High at School*.

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

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

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The *2006 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 6th through 12th 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 2006 Florida Youth Survey effort, the *FYSAS* was administered to Florida youth jointly with the *Florida Youth Tobacco Survey* in May of 2006. 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 Seminole County students in (1) December of 1999 and January of 2000, (2) May of 2002 and (3) May of 2004. 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 and 2004 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/.

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 Seminole County, this method resulted in a sample target of 1,161 middle school students and 1,177 high school students. After invalid responses were removed, valid questionnaires from 1,087 middle school students and 970 high school students were included in the dataset. This final sample includes 94% of the target middle school sample and 82% of the target high school sample.

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

In statewide school-based survey projects like the *FYSAS*, nonrandom variations in participation across grade levels are common. Inconsistencies between the grade-level distribution of the sample and the student population are especially problematic because ATOD use is strongly associated with age.

Inconsistencies between the gender-group distribution of the sample and the student population are less common in school-based surveys. This type of inconsistency also has less impact on ATOD and

risk and protective factor results because most of these variables are not highly correlated with gender. Nevertheless, gender-group sampling inconsistencies can have some negative impact on survey results.

In order to generate drug use prevalence estimates and risk and protective factor scale scores that more accurately represent students in Seminole County, it is necessary to adjust the grade and gender distributions of the sample to match the population. This is achieved with a statistical technique called weighting. Through this process, responses from grade levels and gender groups that were underrepresented relative to the true 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. This creates a sample that proportionately matches student enrollments across grade levels.

The 2000, 2002 and 2004 Seminole 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 Seminole County respondents, the maximum 95% confidence interval estimate ("the margin of error") is ±3.0 percentage points for prevalence rates approximating 50% (such as alcohol or tobacco). The maximum 95% confidence interval estimate is ±1.8 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 ±2.0%, then the population value should fall within a range of 38% to 42%.

For subgroup analyses, confidence intervals are larger. Estimates for Seminole County middle school students have confidence intervals ranging from ±4.1 percentage points (50% prevalence rates) to ±2.4 percentage points (10% prevalence rates). Estimates for high school students have confidence intervals ranging from ±4.3 percentage points (50% prevalence rates) to ±2.6 percentage points (10% prevalence rates).

Also note that the variance estimates used for these confidence interval calculations include a design effect of 2.0 to adjust for the complex design of the *2006 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 Seminole County sample before weights were applied. Please note that some categories do not sum to 100% due to missing values.

Despite covering only three out of seven surveyed grades, middle school students constituted slightly more than one half of the sample (52.4% middle school versus 46.7% high school). A higher percentage of the respondents were female (52.6% female versus 44.4% male). White, non-Hispanic students represent 52.6% of the sample. The largest minority population is Hispanic/Latino students (16.6%), followed by African American students (11.4%). The rest of the ethnic breakdown ranges from 0.5% for Native Hawaiian/Pacific Islander students to 14.2% 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 *2006 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.

Tables 2 and 3 and Graphs 1 and 2 show the percentage of surveyed Seminole 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 2006 survey are presented in Tables 2 and 3 and Graphs 3 through 8. Trend comparisons to Seminole County results from the 2000, 2002 and 2004 surveys are presented in Tables 4 and 5 and Graphs 3 through 6.

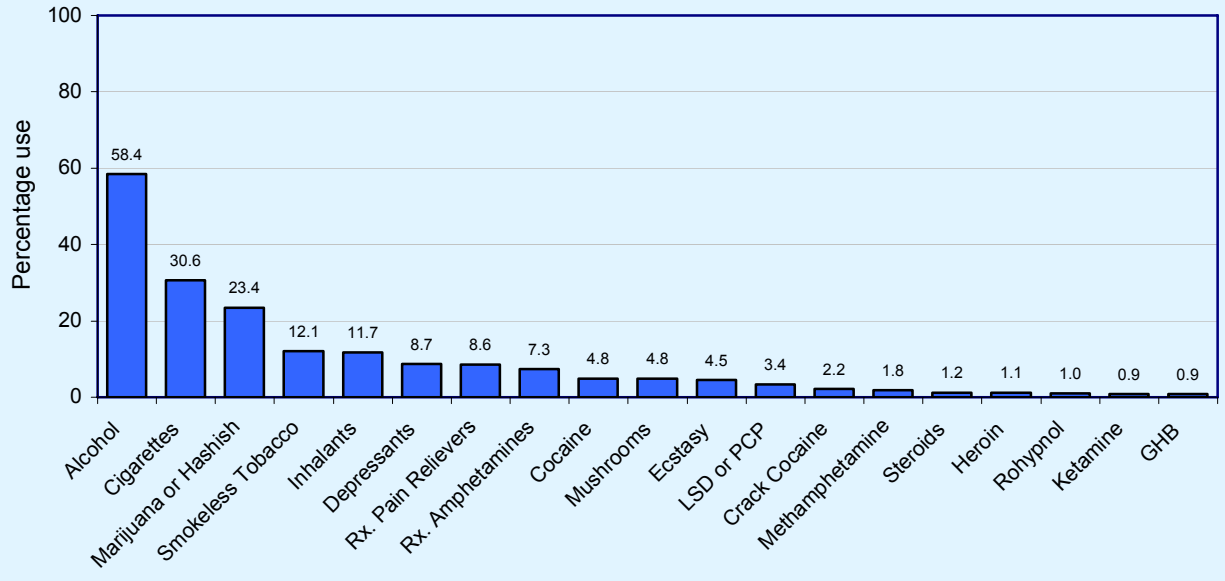
Alcohol

In most communities, alcohol is the drug used by the largest number of adolescents. As Graph 1 shows, this is indeed the case in Seminole County.

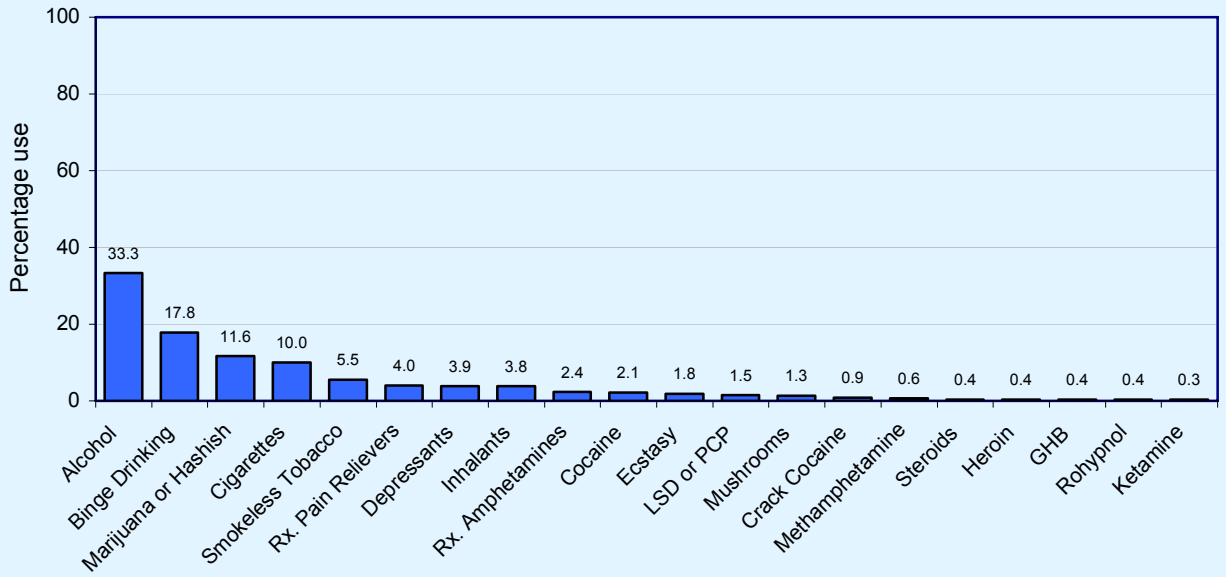
Prevalence of Use. Of the students surveyed in Seminole County in 2006, 58.4% have used alcohol on at least one occasion in their lifetimes. This corresponds to a rate of 40.4% among middle school students and 72.0% among high school students. Current use is substantially lower. Overall, 33.3% of surveyed Seminole County students reported the use of alcohol in the past 30 days, with grade-cohort averages of 19.5% for middle school students and 43.6% for high school students.

Statewide Comparison. As Graph 3 shows, the prevalence of past-30-day alcohol use for 2006 is higher in Seminole County compared to the state of Florida as a whole. Overall, 33.3% of surveyed Seminole County students reported the use of alcohol in the past 30 days compared to 32.0% of surveyed students statewide. Grade-cohort analysis shows that this overall increased rate of use is concentrated in high school (43.6% for Seminole County versus 41.8% statewide) rather than middle school (19.5%

Graph 1 Lifetime use of alcohol, tobacco and other drugs by Seminole County youth, 2006



Graph 2 Past-30-day use of alcohol, tobacco and other drugs by Seminole County youth, 2006



for Seminole County versus 19.0% statewide).

2000-2006 Trend. In Seminole County, between 2000 and 2006, overall past-30-day alcohol use increased 0.5 percentage points. Among middle school students, use increased 3.1 percentage points, and among high school students, use increased 0.3 percentage points. Between 2004 and 2006, the two most recent waves of the Seminole County survey, overall past-30-day alcohol use increased 1.4 percentage points. Among middle school students, use increased 3.0 percentage points, and among high school students, use decreased 0.1 percentage points.

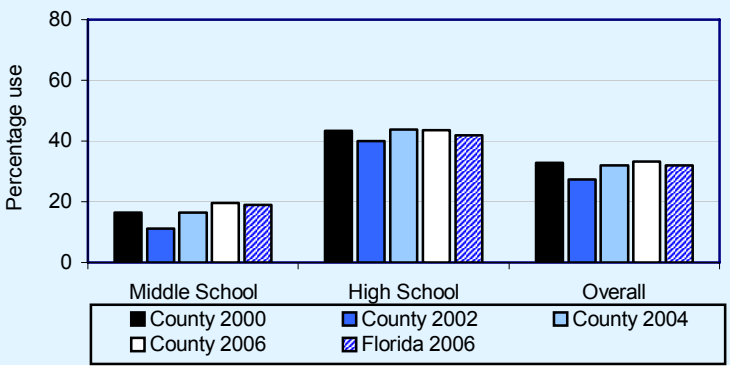
Binge Drinking. Findings on binge drinking (defined as consuming five or more drinks in a row within the past two weeks) are likely to be among the most important findings related to alcohol use (Johnston, O'Malley, Bachman & Schulenberg, 2006). In Seminole County, 17.8% of surveyed students reported binge drinking, with corresponding rates of 8.1% among middle school students and 24.7% among high school students. While this represents a similar rate of middle school binge drinking compared to the state as a whole (8.4%), Seminole County high school students reported a higher rate compared to results from across Florida (23.0%).

Tobacco

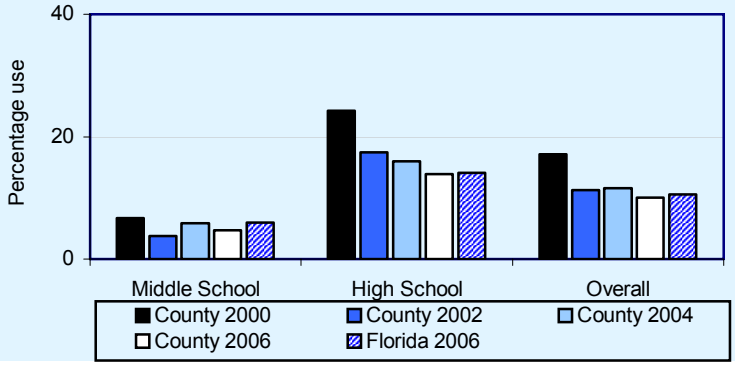
This section of the report discusses the prevalence of tobacco use as measured by the *2006 FYSAS*. Another survey, the *2006 Florida Youth Tobacco Survey* (Florida Department of Health), was administered simultaneously with the *2006 FYSAS*, and was specifically tobacco related. That survey is Florida's official source for youth tobacco use information. The information presented in this report is consistent with findings reported in the *2006 Florida Youth Tobacco Survey*.

Prevalence of Use. Of the students surveyed in Seminole County in 2006, 30.6% have used

Graph 3 Past-30-day alcohol use, Seminole County 2000-2006 and Florida 2006



Graph 4 Past-30-day cigarette use, Seminole County 2000-2006 and Florida 2006



cigarettes on at least one occasion in their lifetimes. This corresponds to a rate of 15.6% among middle school students and 41.8% among high school students. Current use is substantially lower. Overall, 10.0% of surveyed Seminole County students reported the use of cigarettes in the past 30 days, with grade-cohort averages of 4.7% for middle school students and 13.9% for high school students.

Statewide Comparison. As Graph 4 shows, the prevalence of past-30-day cigarette use for 2006 in Seminole County is similar to the rate for the state of Florida as a whole. Overall, 10.0% of surveyed Seminole County students reported the use of cigarettes in the past 30 days compared to 10.6% of surveyed students statewide. Grade-cohort analysis shows that this overall similarity in the rates of use is concentrated in high school (13.9% for Seminole County versus 14.1% statewide). Usage in middle school is 1.3 percentage points lower in Seminole County than the state as a whole (4.7% for Seminole County versus 6.0% statewide).

2000-2006 Trend. In Seminole County, between 2000 and 2006, overall past-30-day cigarette use decreased 7.1 percentage points. Among middle school students, use decreased 2.0 percentage points, and among high school students, use decreased 10.3 percentage points. Between 2004 and 2006, the two most recent waves of the Seminole County survey, overall past-30-day cigarette use decreased 1.6 percentage points. Among middle school students, use decreased 1.1 percentage points, and among high school students, use decreased 2.1 percentage points.

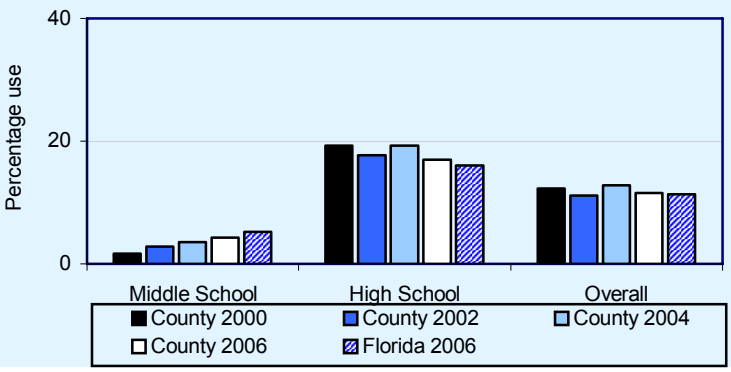
Smokeless Tobacco. The prevalence of current use of smokeless tobacco is similar to the rate of cigarette use in Seminole County. Overall, 12.1% of surveyed Seminole County students reported using smokeless tobacco in their lifetimes, with corresponding rates of 6.6% among middle school students and 16.2% among high school students. The overall prevalence for past-30-day use is 5.5%, with corresponding rates of 2.7% among middle school students and 7.4% among high school students.

Marijuana or Hashish

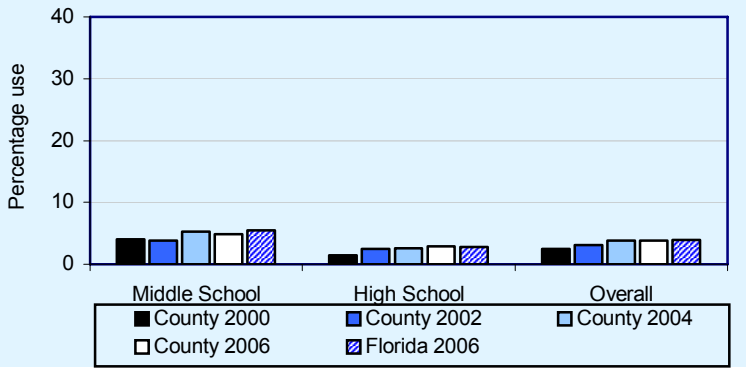
Prevalence of Use. Of the students surveyed in Seminole County in 2006, 23.4% have used marijuana or hashish on at least one occasion in their lifetimes. This corresponds to a rate of 9.1% among middle school students and 33.4% among high school students. Current use is substantially lower. Overall, 11.6% of surveyed Seminole County students reported the use of marijuana or hashish in the past 30 days, with grade-cohort averages of 4.3% for middle school students and 17.0% for high school students.

Statewide Comparison. As Graph 5 shows, the prevalence of past-30-day marijuana or hashish use for 2006 in Seminole County is similar to the rate for the state of Florida as a whole. Overall, 11.6% of surveyed Seminole County students reported the use of marijuana or hashish in the past 30 days compared to 11.4% of surveyed students statewide. Despite this overall similarity, there was a larger usage rate difference in high school (17.0% for Seminole County versus 16.0% statewide). The usage rate in middle school was similar to the statewide rate (4.3%

Graph 5 Past-30-day marijuana or hashish use, Seminole County 2000-2006 and Florida 2006



Graph 6 Past-30-day inhalant use, Seminole County 2000-2006 and Florida 2006



for Seminole County versus 5.2% statewide).

2000-2006 Trend. In Seminole County, between 2000 and 2006, overall past-30-day marijuana use decreased 0.7 percentage points. Among middle school students, use increased 2.6 percentage points, and among high school students, use decreased 2.3 percentage points. Between 2004 and 2006, the two most recent waves of the Seminole County survey, overall past-30-day marijuana use decreased 1.2 percentage points. Among middle school students, use increased 0.8 percentage points, and among high school students, use decreased 2.3 percentage points.

Inhalants

Prevalence of Use. Of the students surveyed in Seminole County in 2006, 11.7% have used inhalants on at least one occasion in their lifetimes. This corresponds to a rate of 12.5% among middle school students and 11.2% among high school students. Current use is substantially lower. Overall, 3.8% of surveyed Seminole County students reported the use of inhalants in the past 30 days, with grade-cohort averages of 4.9% for middle school students and 2.9% for high school students.

Statewide Comparison. As Graph 6 shows, the prevalence of past-30-day inhalant use for 2006 in Seminole County is similar to the rate for the state of Florida as a whole. Across all surveyed grades, 3.8% of surveyed Seminole County students reported the use of inhalants in the past 30 days compared to 3.9% of surveyed students statewide. This similarity in the rates of use applies both to middle school (4.9% for Seminole County versus 5.5% statewide) and high school (2.9% for Seminole County versus 2.8% statewide) grade-cohorts.

2000-2006 Trend. In Seminole County, between 2000 and 2006, overall past-30-day inhalant use increased 1.3 percentage points. Among middle school students, use increased 0.9 percentage points, and among high school students, use increased 1.5 percentage points. Between 2004 and 2006, the two most recent waves of the Seminole County survey, overall past-30-day inhalant use did not change. Among middle school students, use decreased 0.4 percentage points, and among high school students, use increased 0.3 percentage points.

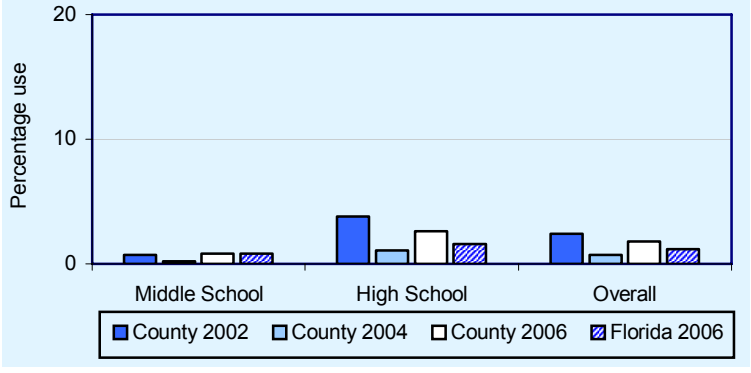
Club Drugs

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 *2006 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.

Ecstasy

Prevalence of Use. As it is across the state as a whole, Ecstasy is the most commonly used club drug in Seminole County. Overall, 4.5% of surveyed Seminole County students have used Ecstasy on at least one occasion in their lifetimes. This corresponds to a rate of 2.0% among middle school students and 6.4% among high school students. Current use is substantially lower. Overall, 1.8% of surveyed

Graph 7 Past-30-day Ecstasy use, Seminole County 2002-2006 and Florida 2006



Seminole County students reported the use of Ecstasy in the past 30 days, with grade-cohort averages of 0.8% for middle school students and 2.6% for high school students.

Statewide Comparison. As Graph 7 shows, the prevalence of past-30-day Ecstasy use for 2006 in Seminole County is similar to the rate for the state of Florida as a whole. Across all surveyed grades, 1.8% of surveyed Seminole County students reported the use of Ecstasy in the past 30 days compared to 1.2% of surveyed students statewide. This similarity in the rates of use also applies to high school (2.6% for Seminole County versus 1.6% statewide); the middle school rate of use is identical in Seminole County and Florida statewide.

2002-2006 Trend. In Seminole County, between 2002 and 2006, overall past-30-day Ecstasy use decreased 0.6 percentage points. Among middle school students, use increased 0.1 percentage points, and among high school students, use decreased 1.2 percentage points. Between 2004 and 2006, the two most recent waves of the Seminole County survey, overall past-30-day Ecstasy use increased 1.1 percentage points. Among middle school students, use increased 0.6 percentage points, and among high school students, use increased 1.5 percentage points.

Other Club Drugs

The remaining club drugs—Rohypnol, GHB and ketamine—all have lower levels of use. In 2006, surveyed Seminole County students reported overall lifetime prevalence rates for Rohypnol, GHB and ketamine of 1.0%, 0.9% and 0.9%, respectively. The past-30-day use rates for these same drugs were 0.4%, 0.4% and 0.3%, respectively. Very few students are experimenting with or currently using these drugs.

Other Illicit Drugs

Prevalence of Use. Lifetime prevalence-of-use rates for this group of drugs range from a high of 8.7% for depressants to a low of 1.1% for heroin. The prevalence of use within the past 30 days is lower, going from a high of 4.0% for prescription pain relievers to a low of 0.4% for steroids and heroin.

Statewide Comparison. On average, lifetime prevalence rates for other illicit drug use in Seminole County are similar to those found for the state of Florida as a whole. The two largest differences were for amphetamine use (7.3% in Seminole County versus 4.4% in Florida) and depressant use (8.7% in Seminole County versus 6.5% 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 and 3 present lifetime and past-30-day prevalence rates for combinations of drugs (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. This list includes: marijuana or hashish, inhalants, LSD or PCP, cocaine, crack cocaine, methamphetamine, depressants, heroin and steroids. In order to provide comparability with previous reports, only drugs that were included on all previous waves (2000 through 2006) of the *FYSAS* were included.

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

Statewide comparative data are presented in Tables 2 and 3 and Graph 8. Trend comparisons to Seminole County results from the 2000, 2002 and 2004 surveys are presented in Tables 4 and 5.

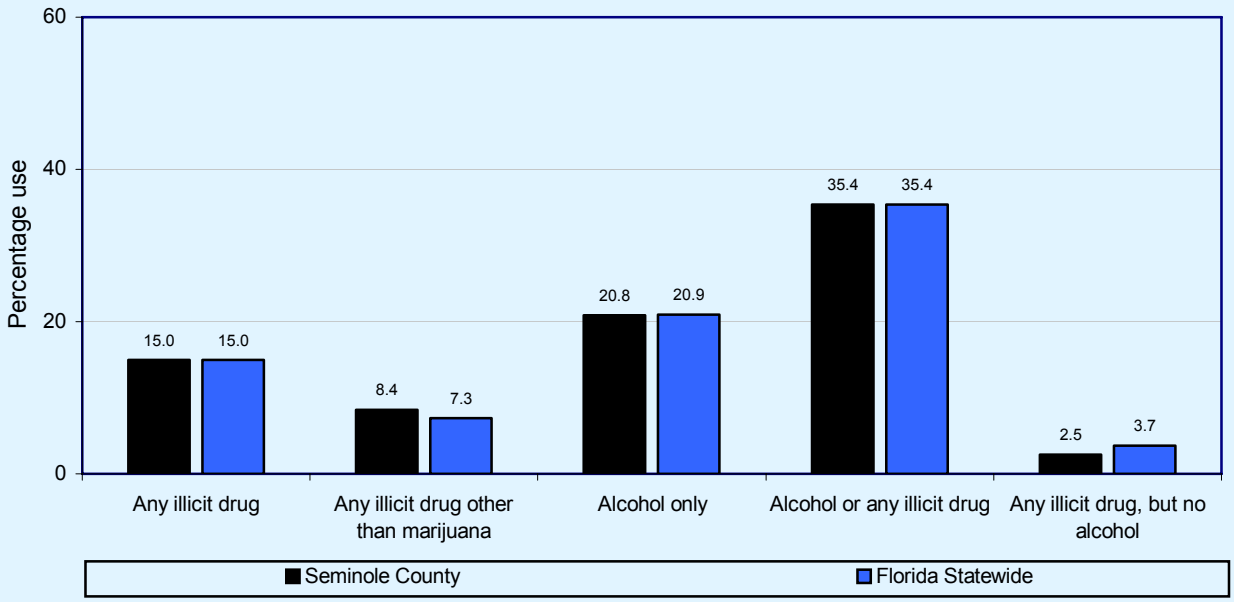
Any Illicit Drug

Overall, 30.7% of surveyed Seminole County students reported at least one use of *any illicit drug* in their lifetimes, and 15.0% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 8.6% among middle school students and 19.8% among high school students. As Graph 8 shows, use of *any illicit drug* in the past 30 days is the same in Seminole County and the state of Florida as a whole (15.0%).

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., 2006).

Graph 8 Past-30-day drug combination rates for Seminole County and Florida Statewide, 2006



Overall, 18.8% of surveyed Seminole County students reported at least one use of *any illicit drug other than marijuana* in their lifetimes, and 8.4% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 5.9% among middle school students and 10.3% among high school students. As Graph 8 shows, use of *any illicit drug other than marijuana* in the past 30 days is higher in Seminole County than across the state of Florida as a whole (8.4% for Seminole County versus 7.3% 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 (33.3%), marijuana (11.6%) and cigarettes (10.0%), as well as the prevalence of binge drinking (17.8%).

Alcohol Only

Overall, 30.3% of surveyed Seminole County students reported at least one use of *alcohol only*—the use of alcohol and no illicit drugs—in their lifetimes, and 20.8% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 12.5% among middle school students and 26.8% among high school students. As Graph 8 shows, use of *alcohol only* in the past 30 days is similar in Seminole County and the state (20.8% for Seminole County versus 20.9% statewide).

Alcohol or Any Illicit Drug

Alcohol or any illicit drug use is a summary measure that included all drugs from the 2006 survey, with the exception of cigarettes and smokeless tobacco. Overall, 60.7% of surveyed Seminole County students reported at least one use of *alcohol or any illicit drug* in their lifetimes, and 35.4% reported use in the past 30 days. The past-30-day prevalence rate corresponds to 21.2% among middle school students and 46.0% among high school students. As Graph 8 shows, use of *alcohol or any illicit drug* in the past 30 days is the same in Seminole County and the state of Florida as a whole (35.4%).

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 through 5 show, this combination is quite rare. Overall, 2.9% of surveyed Seminole 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 (2.5%). The past-30-day prevalence rate corresponds to 2.1% among middle school students and 2.8% among high school students. As Graph 8 shows, use of *any illicit drug, but no alcohol* in the past 30 days is lower in Seminole County than across the state of Florida as a whole (2.5% for Seminole County versus 3.7% statewide).

Other Antisocial Behaviors

The *2006 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 Harm* and *Being Drunk or High at School*.

Prevalence rates for these behaviors among Seminole County students, as well as comparison rates from the statewide survey, are presented in Table 6 and Graph 9. Trend comparisons to Seminole County results from 2000, 2002 and 2004 surveys are presented in Table 12.

As Table 6 shows, the prevalence rates reported by Seminole 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* (2.8%), and *Carrying a Handgun* (4.3%) are rare, while *Being Drunk or High at School* (13.1%), *Attacking Someone with Intent to Harm* (12.1%), and *Getting Suspended* (12.0%) are more common.

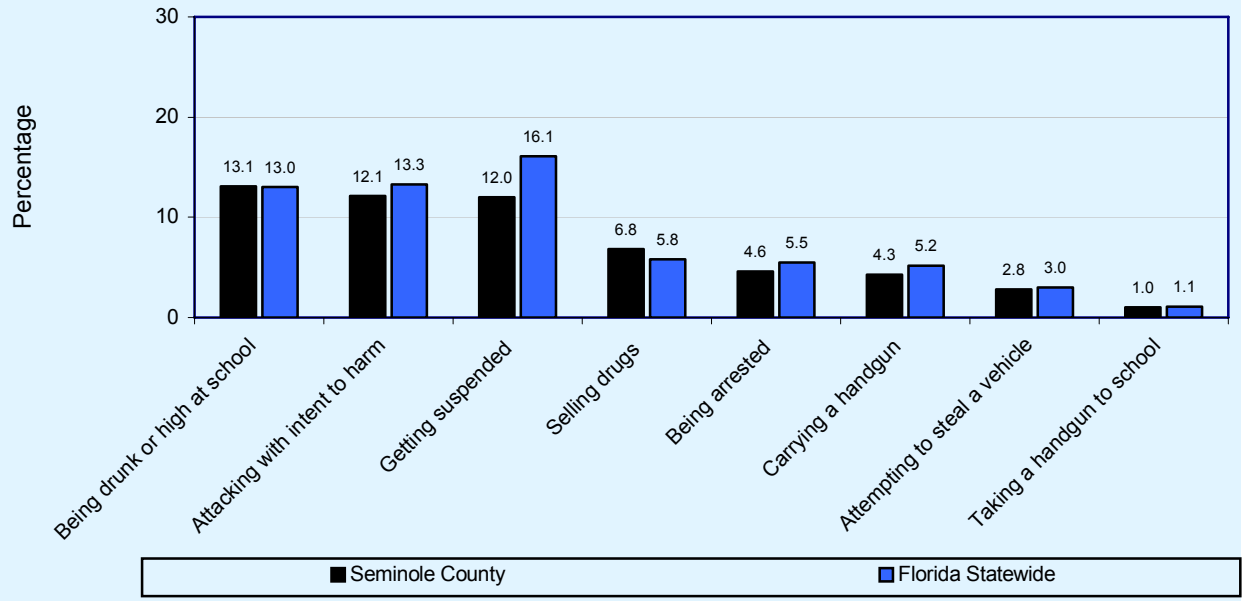
Carrying a Handgun. In Seminole County, 4.3% of students reported carrying a handgun in the past year, with rates of 2.8% and 5.4% for middle school and high school students, respectively. Male students (6.9%) were more likely than female students (1.7%) to have reported this behavior. Across the state as a whole, 5.2% of students reported carrying a handgun.

Selling Drugs. In Seminole County, 6.8% of students reported selling drugs in the past year, with rates of 2.6% and 9.8% for middle school and high school students, respectively. Male students (8.9%) were more likely than female students (4.9%) to have reported this behavior. Across the state as a whole, 5.8% of students reported selling drugs.

Attempting to Steal a Vehicle. In Seminole County, 2.8% of students reported attempting to steal a vehicle in the past year, with rates of 2.2% and 3.2% for middle school and high school students, respectively. Male students (3.8%) were more likely than female students (2.0%) to have reported this behavior. Across the state as a whole, 3.0% of students reported attempting to steal a vehicle.

Being Arrested. In Seminole County, 4.6% of students reported being arrested in the past year, with rates of 3.1% and 5.7% for middle school and high school students, respectively. Male students (5.9%) were more likely than female students (3.2%) to have reported this behavior. Across the state as a whole,

Graph 9 Comparisons of past-12-month delinquent behavior for Seminole County and Florida Statewide, 2006



5.5% of students reported being arrested.

Taking a Handgun to School. In Seminole County, 1.0% of students reported taking a handgun to school in the past year, with rates of 0.7% and 1.2% for middle school and high school students, respectively. Male students (1.6%) and female students (0.4%) reported similar rates for this behavior. Across the state as a whole, 1.1% of students reported taking a handgun to school.

Getting Suspended. In Seminole County, 12.0% of students reported getting suspended in the past year, with rates of 11.4% and 12.3% for middle school and high school students, respectively. Male students (15.2%) were more likely than female students (8.4%) to have reported this behavior. Across the state as a whole, 16.1% 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 Seminole County, 12.1% of students reported attacking someone with intent to harm in the past year, with rates of 11.4% and 12.7% for middle school and high school students, respectively. Male students (15.0%) were more likely than female students (9.3%) to have reported this behavior. Across the state as a whole, 13.3% of students reported attacking someone with intent to harm.

Being Drunk or High at School. In Seminole County, 13.1% of students reported being drunk or high at school in the past year, with rates of 6.1% and 18.0% for middle school and high school students, respectively. Male students (13.0%) and female students (13.4%) reported similar rates for this behavior. Across the state as a whole, 13.0% of students reported being drunk or high at school.

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.

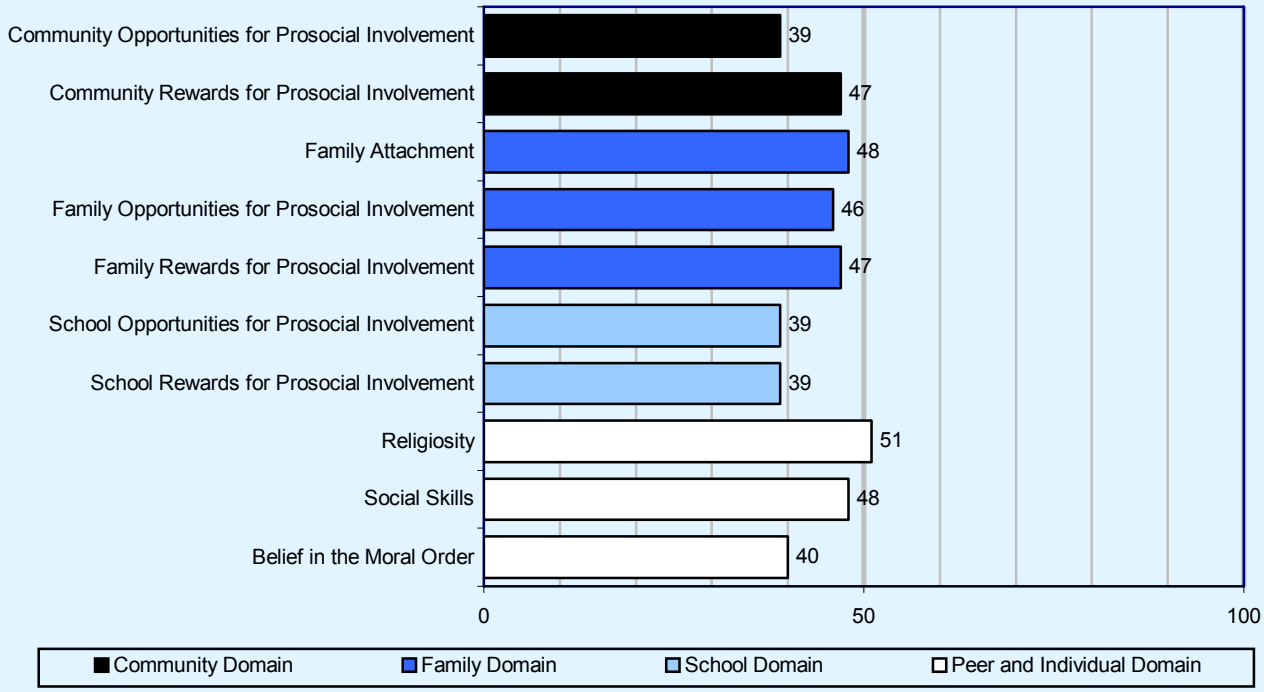
Research during the past 30 years supports the view that delinquency; alcohol, tobacco and other drug use; school achievement; and other important outcomes in adolescence are associated with specific risk and protective factors in the student's community, school and family environments, as well as with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

Graph 10 Middle school protective factor scales for Seminole County, 2006



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:

- 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* measures a variety of risk and protective factor scales across four domains: Community Domain, Family Domain, School Domain, and Peer and Individual Domain. Percentile scores for the 23 risk factor and 10 protective factor scales for middle school and high school grade cohorts are presented in Graphs 10 through 13. Comparisons between the survey results for Seminole County and the state of Florida as a whole are presented in Tables 14 and 15. Results for the overall Seminole County sample and comparisons to Seminole County results from the 2000, 2002 and 2004 surveys are presented in Table 15.

Risk and protective factor scales are scored against the *Communities That Care* normative database. Like the scoring systems used by many national testing programs—such as the SAT® and ACT™—this method of norm-referencing generates percentile scores ranging from 0 to 100. A score of 50, which matches the normative median, indicates that 50% of the respondents in the normative sample reported a score that is lower than the average for Florida and 50% reported a score that is higher. Similarly, a score of 75 indicates that 75% of the normative sample reported a lower score and 25% reported a higher score. 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 behavioral outcomes, it is better to have higher protective factor scale scores, not lower.

Changes to the Risk and Protective Factor Measurement and Scoring Model

Beginning with the *2005 FYSAS*, risk and protective factor scale scores were calculated using an enhanced measurement and scoring model. These enhancements fall into four categories: (1) updates to several risk and protective factor scales, (2) the introduction of a new normative database, (3) changes to grade-level scoring and (4) trend analysis.

New Risk and Protective Factor Scales

1. The risk factor scale *Perceived Availability of Drugs and Handguns* has been divided into two independent scales: *Perceived Availability of Drugs* and *Perceived Availability of Handguns*. This change improves the utility of prevention data by creating separate measures for two distinct risk factors.

2. The risk factor scale *Laws and Norms Favorable to Drug Use and Handguns* has also been divided into two independent scales: *Laws and Norms Favorable to Drug Use* and *Laws and Norms Favorable to Handguns*. This change improves the utility of prevention data by creating separate measures for two distinct risk factors.

3. The other antisocial behavior components of the risk factor scale *Early Initiation (of Drug Use and Antisocial Behavior)* have been removed, and the scale has been renamed *Early Initiation of Drug Use*. This change improves both the reliability of the measure and its utility for prevention planning.

4. The risk factor scales *Poor Family Supervision* and *Poor Family Discipline* have been combined into a single scale called *Poor Family Management*. Analysis of *Communities That Care Youth Survey* data showed that the items that constitute the two scales are highly correlated across scales. This indicates that the items are more effective at representing a single dimension of family life.

5. The risk factor scale *Personal Transitions and Mobility* has been renamed *Transitions and Mobility*. The survey items constituting this scale remain unchanged.

6. The risk factor scale *Family Conflict* has been added.

7. The protective factor scale *Community Opportunities for Prosocial Involvement* has been added.

New Normative Data

The new *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.

Grade-Level Scoring

In previous *FYSAS* efforts, risk and protective factor scale scores were calculated by comparing all respondents against a combined normative sample of students in grades 6, 8, 10, and 12. Because it contains a large number of respondents within each of the survey's seven grade levels, the new *Communities That Care* normative database allows the comparisons to be done on a grade-by-grade basis. This means that 6th graders who take the *FYSAS* will only be compared with 6th grade responses in the normative database, 7th graders will only be compared with 7th grade responses, and so on. Grade-level comparisons improve the accuracy of norm-referenced scores.

Overall percentile scores for risk and protective factor scales are created by weighting the *Communities That Care* normative database to match the grade-level distribution of the *FYSAS* sample.

Trend Analysis

Risk and protective factor scale scores generated with the new measurement and scoring model are not directly comparable to scores generated with the previous model. As a result, overall scores from the *2000*, *2002* and *2004 FYSAS* have been recalculated using the new methodology in order to support trend analysis. These results are presented in Table 15.

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 percentile scores and the risk factor scales with the highest percentile scores. Because of the smaller number of protective factor scales compared to the number of risk factor scales, protective factors should be prioritized across domains while risk factors should be prioritized within domains. Conduct this analysis separately for students in middle school and students in high school. This is necessary because risk and protective factor profiles can change as students get older, and because many prevention programs target specific stages of youth development.

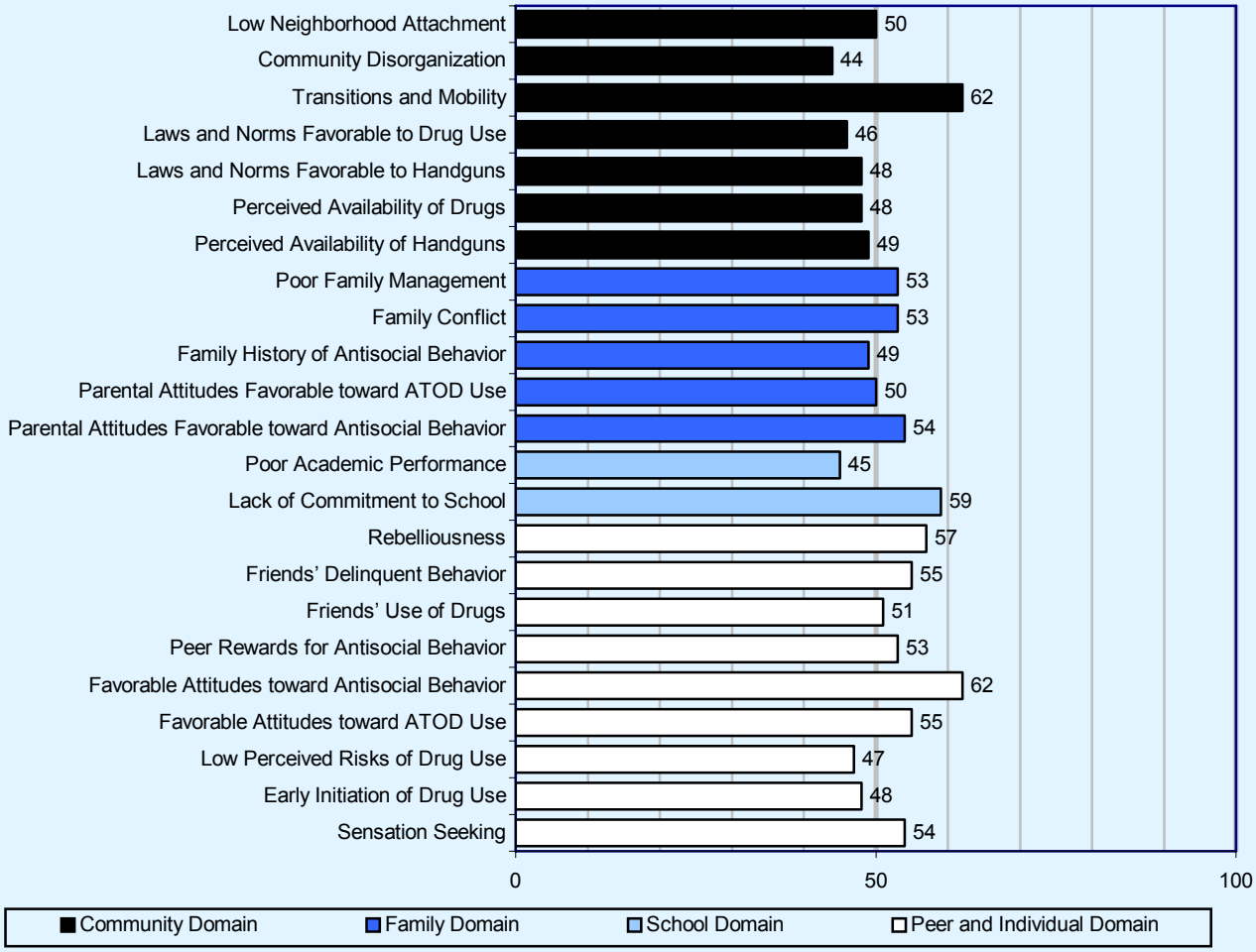
Lowest Protective Factor Scales

- Across all 10 protective factor scales, both middle school and high school students in Seminole County reported the lowest level of protection for the *Community Opportunities for Prosocial Involvement* scale. Middle school students scored a 39, two points higher than the statewide average of 37. High school students scored a 42, four points higher than the statewide average of 38. 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.

- Middle school students also reported the lowest levels of protection for two other scales. The first of these was *School Rewards for Prosocial Involvement*. Their score of 39 was two points lower than the statewide average of 41. 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.

- The second protective factor scale with the lowest score in middle school was *School Opportunities for Prosocial Involvement*. Their score of 39 was one point lower than the statewide average of 40. Students with low scores on this scale have fewer opportunities to interact closely with teachers, get involved with special projects and activities in the classroom, and participate in sports, clubs and other school

Graph 11 Middle school risk factor scales for Seminole County, 2006



activities outside of the classroom. This lack of involvement deprives students of the opportunity to form healthy relationships with teachers and prosocial peers.

- High school students in Seminole County reported a low level of protection for the *Belief in the Moral Order* scale. Their score of 44 was two points lower than the statewide average of 46. Low scores on this scale indicate that students are less likely to accept commonly held beliefs about what constitutes appropriate and inappropriate behavior. When students reject basic social values they may be more likely to engage in ATOD use and other forms of delinquent behavior.

Highest Risk Factor Scales

Community Domain:

- Within the Community Domain, both middle school and high school students in Seminole County reported the highest level of risk for the *Transitions and Mobility* scale. Middle school students scored a 62, two points lower than the statewide average of 64. High school students scored a 68, three points higher than the statewide average of 65. 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, both middle school and high school students in Seminole County reported the highest level of risk for the *Parental Attitudes Favorable toward Antisocial Behavior* scale. Middle school students scored a 54, equaling the statewide average. High school students scored a 53, three points higher than the statewide average of 50. High scores on this scale indicate that parents are less likely to voice opposition to their children's involvement in crime and violence. When parents fail to strenuously oppose behaviors like stealing and fighting, children are more likely to develop problems with juvenile delinquency.

School Domain:

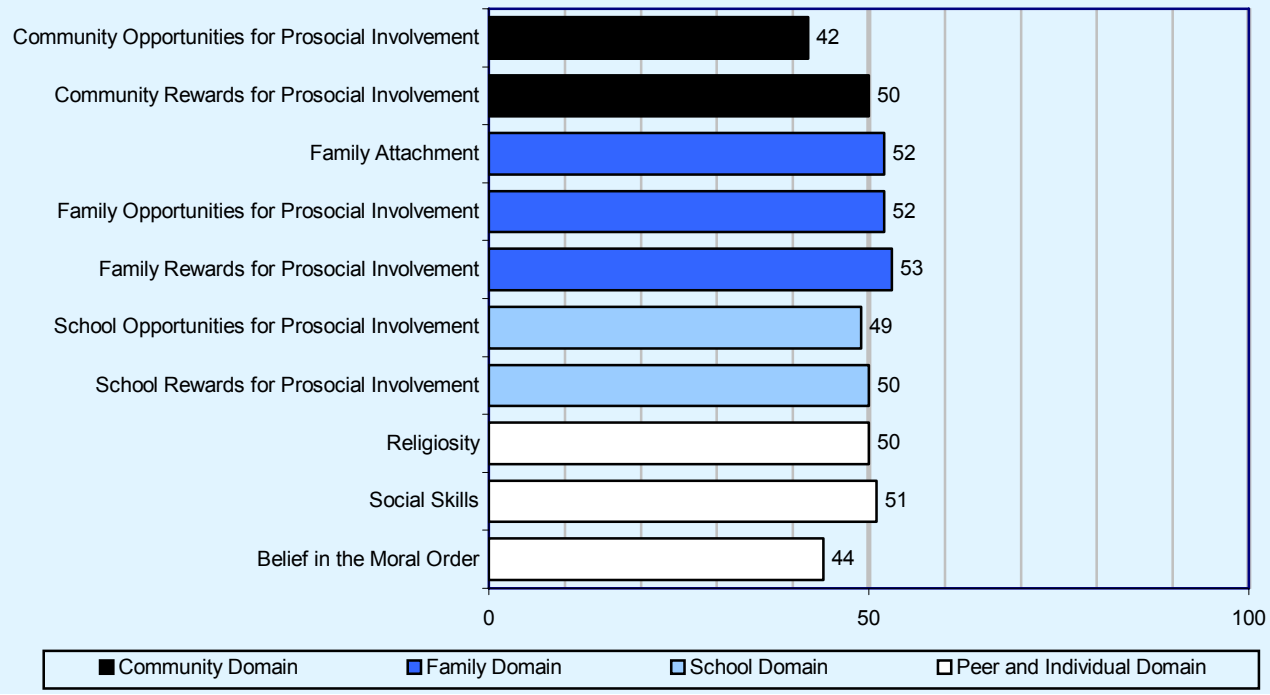
- Within the School Domain, both middle school and high school students in Seminole County reported the highest level of risk for the *Lack of Commitment to School* scale. Middle school students scored a 59, two points higher than the statewide average of 57. High school students scored a 52, equaling the statewide average. 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, middle school students in Seminole County reported the highest level of risk for the *Favorable Attitudes toward Antisocial Behavior* scale. Their score of 62 was one point higher than the statewide average of 61. 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 in Seminole County reported the highest level of risk for the *Rebelliousness* scale. Their score of 55 was three points higher than the statewide average of 52. Students with high scores on this scale are more likely to reject basic social rules that prohibit antisocial behavior. This alienation from dominant social values increases the chance that young people will become involved with drug use and other forms of delinquent behavior.

Graph 12 High school protective factor scales for Seminole County, 2006



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 Seminole County may wish to build on.

Highest Protective Factor Scales:

- Across all 10 protective factor scales, middle school students in Seminole County reported the highest level of protection for the *Religiosity* scale. Their score of 51 was four points higher than the statewide average of 47. Students who reported high scores on this scale attend religious services and activities more frequently. As a result, they are more 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.

- High school students in Seminole County reported the highest level of protection for the *Family Rewards for Prosocial Involvement* scale. Their score of 53 was five points higher than the statewide average of 48. Students who reported high scores on this scale are more likely to receive praise and support from their parents when they accomplish something positive. This positive feedback, in turn, may strengthen the parent-child bond and support the ability of parents to transfer prosocial values to their children.

- Additionally, both middle school and high school students in Seminole County reported a high level of protection for the *Family Attachment* scale. Middle school students scored a 48, three points higher than the statewide average of 45. High school students scored a 52, four points higher than the statewide average of 48. Students who reported high scores on this scale feel a stronger bond with their parents than students with low scores. A strong bond means that children are more likely to accept guidance from parents that discourages antisocial behavior.

- Middle school students also reported a high level of protection for one other scale, *Social Skills*. Their score of 48 was three points higher than the statewide average of 45. Students with high levels of social skills are better able to resolve

conflicts in a productive manner and avoid risky behaviors in favor of more positive, prosocial choices.

- High school students also reported a high level of protection for one other scale, *Family Opportunities for Prosocial Involvement*. Their score of 52 was four points higher than the statewide average of 48. 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.

Lowest Risk Factor Scales:

- Across all 23 risk factor scales, both middle school and high school students in Seminole County reported the lowest level of risk for the *Community Disorganization* scale. Middle school students scored a 44, six points lower than the statewide average of 50. High school students scored a 43, five points lower than the statewide average of 48. Students with low scores on this scale did not report the presence of abandoned buildings, fighting, drug selling and other indicators of social turmoil in their neighborhoods. Communities that do not experience these problems also tend to benefit from lower rates of juvenile crime.

- High school students also reported the lowest level of risk for one scale, *Laws and Norms Favorable to Drug Use*. Their score of 43 was two points lower than the statewide average of 45. Students with low scores on this scale believe that adults in their community are likely to disapprove of drug use, and that police are more likely to catch young people who are using drugs. When young people believe that the laws and norms concerning drug use are strictly enforced, they are less likely to engage in dangerous behavior.

- Middle school students also reported a low level of risk for one other scale, *Poor Academic Performance*. Their score of 45 was seven points lower than the statewide average of 52. Beginning in the late elementary grades, academic success decreases the risk of drug use, delinquency, violence and school dropout.

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 14 and 15. A comparison to statewide results may reveal additional strengths and weaknesses in Seminole 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 Seminole 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.

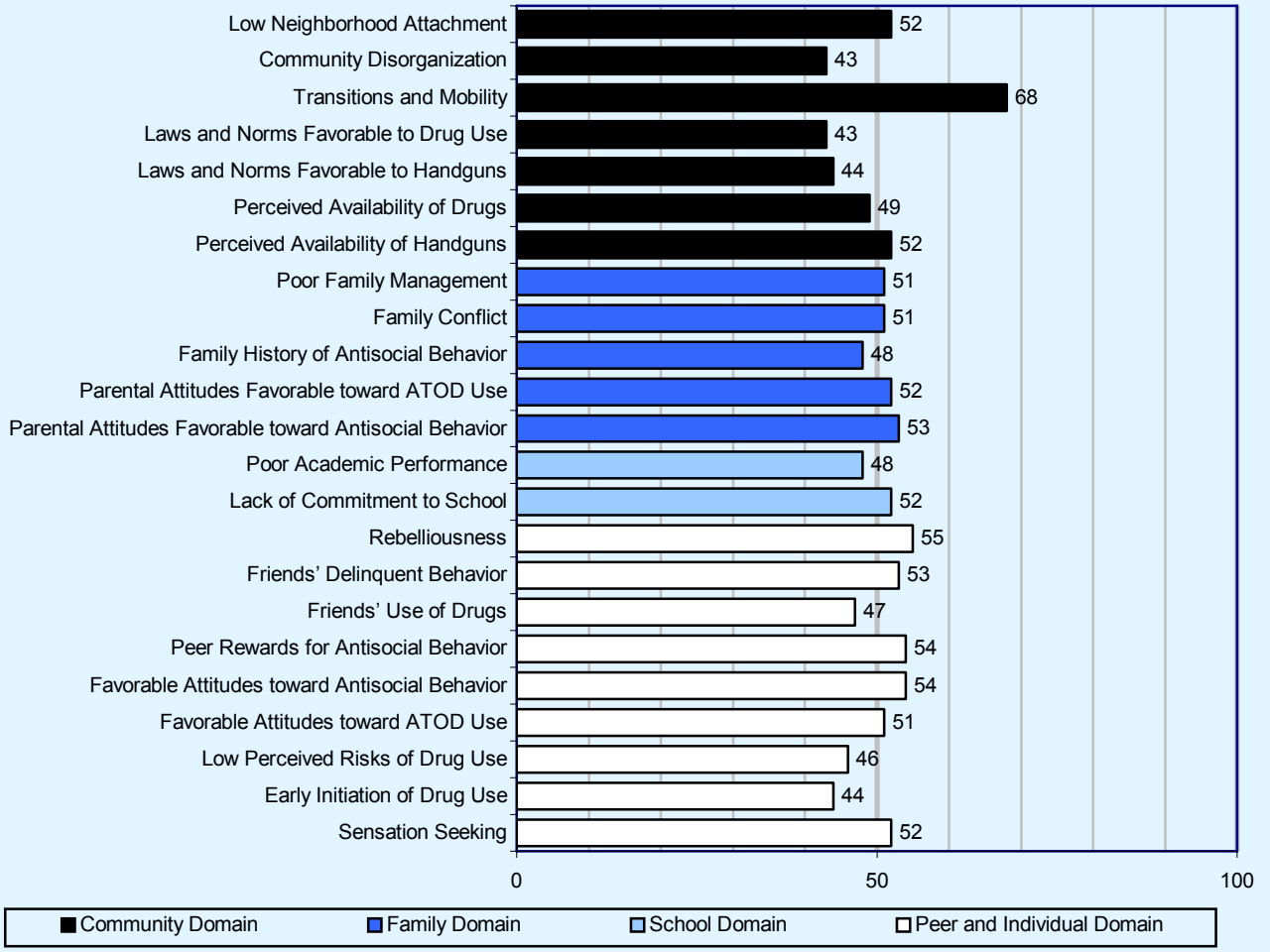
A major breakthrough in the field of positive youth development in the past two decades has been the development and testing of programs, policies and practices that are shown to work to reduce adolescent drug use, violence, risky sexual behavior and school failure. State and national agencies have become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

Graph 13 High school risk factor scales for Seminole County, 2006



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 age of onset of ATOD use and attitudes toward ATOD use (perceived risk of harm, personal disapproval and peer approval).

Age of Onset of ATOD Use

Students were asked to report on when they began using alcohol, cigarettes and marijuana. Age of onset 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 8 and 13 present the average age students reported first engaging in any alcohol use, regular alcohol use, any use of cigarettes, and any use of marijuana. For most items on this survey, averaging the scores of all respondents provides the best overall description of the behavior or attitude under investigation. In contrast, the question "When do Florida students first start using ATODs?" is best answered by examining the responses of high school students. This is because scores for this question are based only on students who reported engaging in the behavior. Consequently, younger students who will eventually experiment with ATODs as they enter higher grades are excluded from the analysis, resulting in an artificial lowering of age of onset scores. Note that in the statewide report, age of onset of ATOD use is discussed for 12th graders rather than high school students.

The earliest age of onset reported by Seminole County's surveyed high school students was for cigarette use (13.4 years of age), followed by "more than a sip or two" of alcohol (13.5 years of age), marijuana use (14.3 years of age) and drinking at least once a month (14.9 years of age).

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 9 and 13 present prevalence rates for surveyed Seminole 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 Seminole County students assigned the highest risk of harm to daily use of cigarettes (70.5%), followed by regular use of marijuana (62.1%), near daily use of alcohol (41.0%) and trying marijuana once or twice (31.9%).

Daily Use of Alcohol. In Seminole County, 41.0% of students reported that having one or more drinks nearly every day would pose a "great risk" of harm. This is down 2.4 percentage points from 2000. Middle school students reported a rate of 41.6% and high school students reported a rate of 40.7%. Across the state as a whole, 40.0% of students reported that near daily use of alcohol would pose a "great risk" of harm.

Daily Use of Cigarettes. In Seminole County, 70.5% of students reported that smoking a pack or more of cigarettes every day would pose a "great risk" of harm. This is up 3.4 percentage points from 2000. Middle school students reported a rate of 69.8% and high school students reported a rate of 71.0%. Across the state as a whole, 66.0% of students reported that

near daily use of cigarettes would pose a "great risk" of harm.

Regular Use of Marijuana. In Seminole County, 62.1% of students reported that smoking marijuana regularly would pose a "great risk" of harm. This is down 1.4 percentage points from 2000. Middle school students reported a rate of 74.9% and high school students reported a rate of 52.9%. Across the state as a whole, 60.4% of students reported that smoking marijuana regularly would pose a "great risk" of harm.

Trying Marijuana Once or Twice. In Seminole County, 31.9% of students reported that trying marijuana once or twice would pose a "great risk" of harm. This is up 0.3 percentage points from 2000. Middle school students reported a rate of 46.1% and high school students reported a rate of 21.6%. Across the state as a whole, 32.6% 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 9 and 13 represent the percentages of students who thought it would be "wrong" or "very wrong" to use each drug.

Surveyed Seminole County students were most likely to disapprove of other illicit drug use (93.7%), followed by smoking marijuana (79.6%), smoking cigarettes (77.1%) and drinking alcohol regularly (62.8%).

Smoking Cigarettes. In Seminole County, 77.1% of students reported that they think it would be "wrong" or "very wrong" for someone their age to smoke cigarettes. This is up 3.5 percentage points from 2000. Middle school students reported a rate of 88.3% and high school students reported a rate of 68.7%. Across the state as a whole, 78.8% of students reported disapproval of smoking cigarettes.

Drinking Alcohol Regularly. In Seminole County, 62.8% of students reported that they think it would be "wrong" or "very wrong" for someone their age to drink alcohol regularly. This is down 1.4 percentage points from 2000. Middle school students reported a rate of 78.4% and high school students reported a rate of 51.3%. Across the state as a whole, 63.6% of students reported disapproval of drinking alcohol regularly.

Smoking Marijuana. In Seminole County, 79.6% of students reported that they think it would be "wrong" or "very wrong" for someone their age to smoke marijuana. This is up 0.2 percentage points from 2000. Middle school students reported a rate of 90.7% and high school students reported a rate of 71.1%. Across the state as a whole, 80.4% of students reported disapproval of smoking marijuana.

Using Other Illicit Drugs. In Seminole County, 93.7% of students reported that they think it would be "wrong" or "very wrong" for someone their age to use other illicit drugs. This is down 0.1 percentage points from 2000. Middle school students reported a rate of 96.3% and high school students reported a rate of 91.7%. Across the state as a whole, 95.0% 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 10 and 13 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 Seminole County, 14.8% 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 up 7.8 percentage points from 2000. Middle school students reported a rate of 8.9% and high school students reported a rate of 19.3%. Across the state as a whole, 13.1% of students reported peer approval of drinking alcohol regularly.

Smoking Cigarettes. In Seminole County, 6.1% 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 0.5 percentage points from 2000. Middle school students reported a rate of 6.7% and high school students reported a rate of 5.8%. Across the state as a whole, 6.0% of students reported peer approval of smoking cigarettes.

Smoking Marijuana. In Seminole County, 12.1% 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 up 3.2 percentage points from 2000. Middle school students reported a rate of 8.0% and high school students reported a rate of 15.3%. Across the state as a whole, 11.5% 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, and community clubs. Results for these items are presented in Table 11. 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 Seminole County, 34.1% of students reported participation in school sports. Middle school students participated at a rate of 28.2% and high school students participated at a rate of 38.6%. Across the state as a whole, the rate of participation was 35.8%.

Organized Sports Outside of School. In Seminole County, 38.0% of students reported participation in organized sports outside of school. Middle school students participated at a rate of 51.4% and high school students participated at a rate of 27.6%. Across the state as a whole, the rate of participation was 33.2%.

School Band. In Seminole County, 8.9% of students reported participation in school band. Middle school students participated at a rate of 11.7% and high school students participated at a rate of 6.8%. Across the state as a whole, the rate of participation was 10.2%.

School Clubs. In Seminole County, 22.0% of students reported participation in school clubs. Middle school students participated at a rate of 16.1% and high school students participated at a rate of 26.3%. Across the state as a whole, the rate of participation was 25.8%.

Community Clubs. In Seminole County, 11.4% of students reported participation in community clubs. Middle school students participated at a rate of 10.0% and high school students participated at a rate of 12.5%. Across the state as a whole, the rate of participation was 12.3%.

Appendix A
Detailed Tables

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

	Seminole County		Florida Statewide	
	N	%	N	%
Sex				
Female	1,093	52.6	27,252	47.6
Male	921	44.4	28,304	49.4
Race/Ethnic group				
African American	236	11.4	9,572	16.7
American Indian	28	1.3	821	1.4
Asian	52	2.5	1,206	2.1
Hispanic/Latino	345	16.6	11,336	19.8
Native Hawaiian/Pacific Islander	10	0.5	270	0.5
Other/Multiple	295	14.2	7,367	12.9
White, non-Hispanic	1,091	52.6	26,239	45.8
Age				
10	3	0.1	72	0.1
11	119	5.7	1,951	3.4
12	354	17.1	6,872	12.0
13	355	17.1	8,377	14.6
14	331	15.9	8,781	15.3
15	324	15.6	9,914	17.3
16	292	14.1	8,861	15.5
17	196	9.4	7,453	13.0
18	83	4.0	4,270	7.5
19 or older	10	0.5	483	0.8
Grade				
6th	417	20.1	7,818	13.7
7th	340	16.4	8,435	14.7
8th	330	15.9	8,377	14.6
9th	318	15.3	9,884	17.3
10th	316	15.2	8,545	14.9
11th	221	10.6	7,491	13.1
12th	115	5.5	6,343	11.1
Overall Middle School	1,087	52.4	24,630	43.0
Overall High School	970	46.7	32,263	56.3
Total	**2,076**	**100.0**	**57,274**	**100.0**

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.

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

	Seminole 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*
Alcohol	40.4	72.0	59.1	57.8	41.6	72.9	58.4	39.7	68.4	58.1	54.3	40.5	68.1	56.1
Cigarettes	15.6	41.8	33.0	28.2	16.3	41.6	30.6	20.5	38.1	31.7	29.4	19.9	38.1	30.6
Smokeless Tobacco	6.6	16.2	6.7	17.4	5.8	16.1	12.1	7.9	13.0	6.2	15.3	7.4	13.0	10.9
Marijuana or Hashish	9.1	33.4	23.1	23.8	9.6	34.8	23.4	9.8	32.0	21.5	23.6	9.6	31.7	22.5
Inhalants	12.5	11.2	11.9	11.7	12.3	12.3	11.7	13.8	11.0	13.4	10.9	13.8	11.5	12.2
Ecstasy	2.0	6.4	4.6	4.4	2.1	6.2	4.5	1.8	5.1	3.8	3.6	1.7	4.9	3.7
Rohypnol	0.8	1.1	0.9	0.8	0.7	1.2	1.0	1.0	1.4	1.1	1.3	0.9	1.4	1.2
LSD or PCP	1.6	4.8	2.9	4.0	1.3	5.1	3.4	1.2	3.0	1.9	2.6	1.1	3.0	2.3
Hallucinogenic Mushrooms	1.7	7.1	4.3	5.4	1.7	7.0	4.8	2.5	5.9	3.6	5.3	2.1	6.0	4.4
GHB	1.1	0.7	0.7	0.9	1.0	0.8	0.9	1.2	1.0	0.9	1.3	1.0	1.0	1.1
Ketamine	0.5	1.1	0.9	0.8	0.7	1.2	0.9	0.8	1.0	0.8	1.0	0.7	1.0	0.9
Methamphetamine	1.3	2.2	1.6	2.1	1.1	2.8	1.8	2.0	2.1	2.0	2.1	1.8	2.3	2.1
Cocaine	1.9	7.0	5.3	4.6	1.9	7.8	4.8	2.2	6.4	4.5	4.7	2.0	6.3	4.6
Crack Cocaine	1.8	2.6	2.7	1.8	1.4	2.9	2.2	1.6	2.3	2.2	1.8	1.5	2.4	2.0
Depressants	2.3	13.5	9.7	7.6	2.6	14.4	8.7	2.9	9.1	7.4	5.7	2.9	9.1	6.5
Heroin	0.7	1.3	1.3	0.9	0.7	1.3	1.1	0.9	1.2	1.1	1.0	0.9	1.3	1.1
Prescription Pain Relievers	3.5	12.4	9.6	7.8	3.7	13.3	8.6	4.8	10.8	9.1	7.4	4.7	10.7	8.3
Prescription Amphetamines	2.2	11.0	7.1	7.6	2.7	11.1	7.3	2.2	5.9	4.7	4.0	2.2	6.1	4.4
Steroids	1.0	1.4	0.7	1.7	0.7	1.3	1.2	1.1	1.1	0.6	1.5	0.9	1.2	1.1
Any illicit drug	19.0	39.2	31.1	30.6	19.1	41.0	30.7	20.9	37.4	30.5	30.2	20.6	37.4	30.3
Any illicit drug other than marijuana	15.0	21.8	19.4	18.3	14.8	23.2	18.8	16.3	19.6	19.2	17.1	16.1	19.9	18.1
Alcohol only	23.7	35.2	29.7	30.6	24.9	34.6	30.3	23.6	33.7	30.9	28.1	24.4	33.8	29.4
Alcohol or any illicit drug	42.7	74.0	60.7	60.7	43.9	75.3	60.7	44.2	70.9	61.1	57.9	44.8	70.9	59.5
Any illicit drug, but no alcohol	2.9	2.7	2.0	3.9	2.9	3.1	2.9	4.8	2.8	3.3	4.0	4.6	3.1	3.7

Note: In order to provide comparability with previous reports, only drugs that were included in all previous waves of the *FYSAS* were included in the drug combination rates.

Table 3. Percentages of Seminole County youth and Florida Statewide youth who reported having used various drugs in the past 30 days

	Seminole 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*
Alcohol	19.5	43.6	34.7	31.8	20.3	43.2	33.3	19.0	41.8	33.1	30.9	19.3	40.9	32.0
Binge Drinking	8.1	24.7	17.5	17.9	8.0	24.2	17.8	8.4	23.0	15.8	17.6	8.2	22.4	16.8
Cigarettes	4.7	13.9	11.0	9.2	4.1	14.7	10.0	6.0	14.1	10.9	10.4	5.5	13.9	10.6
Smokeless Tobacco	2.7	7.4	2.5	8.3	2.5	7.2	5.5	3.2	5.6	2.2	6.9	2.9	5.6	4.6
Marijuana or Hashish	4.3	17.0	11.9	11.4	4.6	17.9	11.6	5.2	16.0	10.1	12.6	4.8	16.1	11.4
Inhalants	4.9	2.9	4.2	3.3	4.6	3.2	3.8	5.5	2.8	4.4	3.4	5.4	3.0	3.9
Ecstasy	0.8	2.6	1.8	1.8	0.7	2.5	1.8	0.8	1.6	1.1	1.4	0.7	1.5	1.2
Rohypnol	0.4	0.5	0.5	0.2	0.4	0.4	0.4	0.5	0.5	0.3	0.7	0.4	0.5	0.5
LSD or PCP	1.0	1.8	1.6	1.4	0.9	2.1	1.5	0.6	1.0	0.6	1.0	0.5	1.0	0.8
Hallucinogenic Mushrooms	0.5	1.8	1.0	1.4	0.4	1.9	1.3	0.9	1.4	0.9	1.5	0.7	1.5	1.2
GHB	0.7	0.2	0.2	0.5	0.6	0.1	0.4	0.7	0.4	0.3	0.7	0.6	0.4	0.5
Ketamine	0.3	0.3	0.5	0.1	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Methamphetamine	0.4	0.8	0.8	0.5	0.4	0.8	0.6	0.9	0.5	0.6	0.7	0.8	0.6	0.7
Cocaine	0.7	3.2	2.6	1.8	0.6	3.5	2.1	0.8	2.1	1.4	1.7	0.6	2.1	1.6
Crack Cocaine	0.6	1.2	1.6	0.4	0.5	1.2	0.9	0.6	0.7	0.6	0.6	0.5	0.8	0.6
Depressants	1.2	5.8	4.1	3.7	1.1	6.7	3.9	1.2	3.4	2.8	2.1	1.1	3.5	2.5
Heroin	0.1	0.6	0.5	0.4	0.1	0.6	0.4	0.3	0.4	0.3	0.5	0.3	0.5	0.4
Prescription Pain Relievers	1.9	5.5	4.0	4.1	2.0	6.4	4.0	2.1	4.0	3.5	2.9	2.0	4.1	3.2
Prescription Amphetamines	1.3	3.1	2.4	2.3	1.3	3.8	2.4	1.0	1.7	1.5	1.3	0.9	1.9	1.4
Steroids	0.2	0.6	0.2	0.7	0.2	0.6	0.4	0.5	0.6	0.3	0.8	0.4	0.6	0.5
Any illicit drug	8.6	19.8	15.5	14.7	8.8	21.4	15.0	10.1	18.7	14.2	15.7	9.7	18.8	15.0
Any illicit drug other than marijuana	5.9	10.3	8.9	8.0	5.8	11.5	8.4	7.2	7.4	7.6	7.1	6.9	7.6	7.3
Alcohol only	12.5	26.8	21.7	19.8	13.4	25.0	20.8	12.9	26.8	22.4	19.3	13.5	25.9	20.9
Alcohol or any illicit drug	21.2	46.0	36.8	33.9	22.2	45.8	35.4	22.7	44.9	36.2	34.5	23.0	44.3	35.4
Any illicit drug, but no alcohol	2.1	2.8	2.3	2.8	2.0	3.2	2.5	4.0	3.5	3.4	4.0	3.9	3.7	3.7

Note: In order to provide comparability with previous reports, only drugs that were included in all previous waves of the *FYSAS* were included in the drug combination rates.

Table 4. Lifetime trend in alcohol, tobacco and other drug use for Seminole County youth, 2000, 2002, 2004 and 2006

	2000			2002			2004			2006		
	Middle School	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*
Alcohol	38.8	69.2	57.3	36.0	72.0	55.9	41.3	71.9	58.6	40.4	72.0	58.4
Cigarettes	22.9	54.4	41.8	17.3	47.6	34.0	16.9	41.0	30.7	15.6	41.8	30.6
Smokeless Tobacco	7.9	13.7	11.4	4.2	11.1	8.0	6.3	14.8	11.2	6.6	16.2	12.1
Marijuana or Hashish	6.1	38.0	25.3	6.1	34.5	21.8	9.3	35.4	24.1	9.1	33.4	23.4
Inhalants	11.2	8.8	9.7	10.7	11.3	11.0	13.0	11.4	12.2	12.5	11.2	11.7
Ecstasy	--	--	--	2.4	11.4	7.4	1.3	5.7	3.8	2.0	6.4	4.5
Rohypnol	--	--	--	--	--	--	0.5	1.4	1.0	0.8	1.1	1.0
LSD or PCP[1]	2.0	9.9	7.0	1.5	7.2	4.7	0.7	2.9	1.9	1.6	4.8	3.4
Hallucinogenic Mushrooms	--	--	--	--	--	--	2.0	7.3	5.1	1.7	7.1	4.8
GHB[2]	--	--	--	--	--	--	1.0	1.1	1.0	1.1	0.7	0.9
Ketamine	--	--	--	--	--	--	0.6	0.6	0.6	0.5	1.1	0.9
Methamphetamine	0.5	5.0	3.4	0.8	2.5	1.7	1.6	2.5	2.1	1.3	2.2	1.8
Cocaine	0.3	5.6	3.7	0.8	4.2	2.7	1.4	4.7	3.3	1.9	7.0	4.8
Crack Cocaine	0.5	2.7	1.9	--	--	--	0.6	1.7	1.2	1.8	2.6	2.2
Depressants[3]	1.2	7.2	4.8	--	--	--	1.3	11.5	7.2	2.3	13.5	8.7
Heroin	0.2	3.4	2.1	0.8	1.2	1.0	0.2	0.9	0.6	0.7	1.3	1.1
Prescription Pain Relievers[4]	--	--	--	--	--	--	3.4	12.8	8.8	3.5	12.4	8.6
Prescription Amphetamines	--	--	--	--	--	--	1.3	8.0	5.1	2.2	11.0	7.3
Steroids	1.0	4.2	2.9	--	--	--	1.7	1.9	1.8	1.0	1.4	1.2
Any illicit drug[5]	16.0	43.4	32.4	14.7	39.5	28.4	19.2	40.9	31.7	19.0	39.2	30.7
Any illicit drug other than marijuana[5]	14.0	22.2	19.0	11.7	17.0	14.6	14.6	20.8	18.3	15.0	21.8	18.8
Alcohol only[5]	25.3	29.2	27.9	24.5	34.8	30.2	27.9	33.5	31.0	23.7	35.2	30.3
Alcohol or any illicit drug[5]	41.2	72.3	60.1	38.9	74.1	58.3	46.8	74.0	62.3	42.7	74.0	60.7
Any illicit drug, but no alcohol[5]	2.8	3.4	3.2	3.0	2.2	2.6	5.8	2.4	4.0	2.9	2.7	2.9

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

[1] Measured as "LSD or other psychedelics" in the 2000 survey, and as "LSD or PCP" in the 2002, 2004 and 2006 surveys.

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

[3] In 2002, the prescription drug Xanax® was added to the list of examples given in the depressants question.

[4] In 2006, OxyContin® was removed as an individual item and added to the list of examples included in the prescription pain relievers item.

[5] In order to provide comparability with previous reports, only drugs that were included in all previous waves of the *FYSAS* were used in the drug combination rates.

Table 5. Past-30-day trend in alcohol, tobacco and other drug use for Seminole County youth, 2000, 2002, 2004 and 2006

	2000			2002			2004			2006		
	Middle School	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*
Alcohol	16.4	43.3	32.8	11.1	40.1	27.3	16.5	43.7	31.9	19.5	43.6	33.3
Binge Drinking	4.2	26.2	17.4	5.0	23.4	15.2	7.7	27.0	18.7	8.1	24.7	17.8
Cigarettes	6.7	24.2	17.1	3.8	17.4	11.3	5.8	16.0	11.6	4.7	13.9	10.0
Smokeless Tobacco	1.7	5.3	3.9	1.2	3.9	2.7	3.7	5.4	4.7	2.7	7.4	5.5
Marijuana or Hashish	1.7	19.3	12.3	2.8	17.7	11.1	3.5	19.3	12.8	4.3	17.0	11.6
Inhalants	4.0	1.4	2.5	3.8	2.5	3.1	5.3	2.6	3.8	4.9	2.9	3.8
Ecstasy	--	--	--	0.7	3.8	2.4	0.2	1.1	0.7	0.8	2.6	1.8
Rohypnol	--	--	--	--	--	--	0.0	0.5	0.3	0.4	0.5	0.4
LSD or PCP[1]	2.1	3.1	2.9	0.7	1.6	1.2	0.2	0.6	0.5	1.0	1.8	1.5
Hallucinogenic Mushrooms	--	--	--	--	--	--	0.5	1.2	0.9	0.5	1.8	1.3
GHB[2]	--	--	--	--	--	--	0.9	0.3	0.6	0.7	0.2	0.4
Ketamine	--	--	--	--	--	--	0.3	0.4	0.3	0.3	0.3	0.3
Methamphetamine	0.4	1.8	1.4	0.4	0.6	0.5	0.8	0.7	0.7	0.4	0.8	0.6
Cocaine	0.3	2.4	1.7	0.2	1.3	0.8	0.6	1.6	1.1	0.7	3.2	2.1
Crack Cocaine	0.3	1.5	1.1	--	--	--	0.2	0.5	0.4	0.6	1.2	0.9
Depressants[3]	0.6	3.0	2.0	--	--	--	0.7	3.5	2.4	1.2	5.8	3.9
Heroin	0.6	2.0	1.5	0.2	0.4	0.4	0.2	0.1	0.2	0.1	0.6	0.4
Prescription Pain Relievers[4]	--	--	--	--	--	--	1.5	4.5	3.2	1.9	5.5	4.0
Prescription Amphetamines	--	--	--	--	--	--	1.0	2.2	1.7	1.3	3.1	2.4
Steroids	0.9	0.4	0.6	--	--	--	0.5	1.0	0.8	0.2	0.6	0.4
Any illicit drug[5]	8.0	22.1	16.6	6.2	19.4	13.5	8.4	22.6	16.8	8.6	19.8	15.0
Any illicit drug other than marijuana[5]	6.9	8.5	8.0	4.2	5.0	4.6	6.5	7.5	7.3	5.9	10.3	8.4
Alcohol only[5]	11.7	25.7	20.2	7.5	24.1	16.8	11.6	24.5	19.1	12.5	26.8	20.8
Alcohol or any illicit drug[5]	19.7	47.6	36.7	13.6	43.3	30.1	19.0	46.9	34.9	21.2	46.0	35.4
Any illicit drug, but no alcohol[5]	3.5	4.5	4.1	2.6	3.5	3.1	2.6	3.5	3.2	2.1	2.8	2.5

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

[1] Measured as "LSD or other psychedelics" in the 2000 survey, and as "LSD or PCP" in the 2002, 2004 and 2006 surveys.

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

[3] In 2002, the prescription drug Xanax® was added to the list of examples given in the depressants question.

[4] In 2006, OxyContin® was removed as an individual item and added to the list of examples included in the prescription pain relievers item.

[5] In order to provide comparability with previous reports, only drugs that were included in all previous waves of the *FYSAS* were used in the drug combination rates.

Table 6. Percentages of Seminole County youth and Florida Statewide youth who reported engaging in delinquent behavior within the past 12 months

	Seminole 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*
Carrying a handgun	2.8	5.4	1.7	6.9	2.7	5.1	4.3	4.6	5.6	2.1	8.2	4.2	5.9	5.2
Selling drugs	2.6	9.8	4.9	8.9	3.1	10.4	6.8	2.9	7.8	3.5	8.1	2.7	8.1	5.8
Attempting to steal a vehicle	2.2	3.2	2.0	3.8	2.2	3.6	2.8	2.6	3.3	2.1	3.9	2.3	3.7	3.0
Being arrested	3.1	5.7	3.2	5.9	3.1	6.0	4.6	4.5	6.2	4.0	7.0	4.0	6.8	5.5
Taking a handgun to school	0.7	1.2	0.4	1.6	0.6	1.3	1.0	0.9	1.3	0.6	1.7	0.9	1.3	1.1
Getting suspended	11.4	12.3	8.4	15.2	10.7	12.9	12.0	17.3	15.2	12.0	20.0	15.9	16.6	16.1
Attacking someone with intent to harm	11.4	12.7	9.3	15.0	10.8	13.8	12.1	13.3	13.2	10.5	16.1	12.5	14.1	13.3
Being drunk or high at school	6.1	18.0	13.4	13.0	6.1	19.0	13.1	7.3	17.1	12.5	13.5	6.9	17.6	13.0

Table 7. Percentages of Seminole County youth and Florida Statewide youth who reported gambling and arguing about gambling in the past 12 months

	Seminole 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*
Gambling	56.2	58.8	46.6	69.0	55.9	59.0	57.7	56.2	56.0	44.7	67.3	56.1	56.6	56.1
Arguing about gambling	17.4	14.3	10.5	20.5	16.2	15.0	15.5	17.7	14.9	11.6	20.4	17.4	15.5	16.1

Table 8. Mean age of first substance use among Seminole County youth and Florida Statewide youth

	Seminole County							Florida Statewide						
Mean Age At First Use…	*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*
More than a sip of alcohol	11.4	13.5	13.0	12.7	11.5	13.4	12.9	11.4	13.3	12.9	12.6	11.5	13.2	12.7
Drinking at least once a month	12.3	14.9	14.4	14.4	12.5	14.7	14.4	12.3	14.8	14.3	14.3	12.4	14.6	14.3
Cigarettes	11.6	13.4	13.0	13.0	11.7	13.4	13.0	11.3	12.9	12.6	12.3	11.4	12.8	12.4
Marijuana	12.3	14.3	14.1	13.7	12.3	14.1	13.9	12.2	14.0	13.8	13.4	12.2	13.8	13.6

Table 9. Percentages of Seminole County youth and Florida Statewide youth who reported a perceived risk of harm or personal disapproval

	Seminole 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*
Perceive great risk of harm if…														
One or more drinks every day	41.6	40.7	43.3	39.0	41.9	39.5	41.0	40.6	39.6	44.5	35.8	41.3	39.1	40.0
Smoke a pack or more every day	69.8	71.0	69.9	70.7	71.0	70.7	70.5	64.5	67.1	68.7	63.7	65.7	66.3	66.0
Smoke marijuana regularly	74.9	52.9	66.5	58.5	74.6	52.3	62.1	70.1	53.2	64.6	56.5	70.8	52.4	60.4
Try marijuana once or twice	46.1	21.6	32.9	31.3	43.6	21.4	31.9	42.3	25.4	34.4	30.9	41.8	25.3	32.6
Think it would be wrong for someone their age to…														
Smoke cigarettes	88.3	68.7	77.4	77.0	88.4	69.5	77.1	88.5	71.3	79.3	78.2	88.5	73.0	78.8
Drink alcohol regularly	78.4	51.3	63.9	62.5	78.4	51.7	62.8	78.8	52.0	64.0	63.3	78.2	52.7	63.6
Smoke marijuana	90.7	71.1	81.3	78.1	90.8	70.7	79.6	90.5	72.8	82.3	78.5	90.5	72.9	80.4
Use other illicit drugs	96.3	91.7	93.1	94.7	96.5	91.7	93.7	96.7	93.8	95.7	94.4	96.9	93.6	95.0

Table 10. Percentages of Seminole County youth and Florida Statewide youth who reported peer approval

	Seminole 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*
Good chance of being seen as cool if…														
Drink alcohol regularly	8.9	19.3	14.5	14.3	9.3	19.3	14.8	8.8	16.4	13.8	12.5	9.2	16.3	13.1
Smoke cigarettes	6.7	5.8	5.7	6.1	6.7	5.8	6.1	6.7	5.3	5.8	6.1	6.7	5.4	6.0
Smoke marijuana	8.0	15.3	11.6	12.3	8.6	15.2	12.1	9.2	13.2	11.4	11.6	9.3	13.5	11.5

Table 11. Percentages of Seminole County youth and Florida Statewide youth who reported participation in extracurricular activities

	Seminole 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*
School Sports	28.2	38.6	31.5	36.6	29.9	39.2	34.1	33.1	37.9	32.3	39.1	33.3	38.7	35.8
Organized Sports Outside of School	51.4	27.6	34.4	41.6	50.2	27.8	38.0	43.0	25.8	29.2	37.0	42.2	26.2	33.2
School Band	11.7	6.8	9.1	9.1	11.5	7.2	8.9	13.9	7.4	10.5	10.0	13.7	7.4	10.2
School Club(s)	16.1	26.3	28.7	15.3	17.4	26.3	22.0	20.0	30.2	34.4	17.7	20.9	29.4	25.8
Community Club(s)	10.0	12.5	14.7	7.7	10.7	12.3	11.4	10.6	13.6	16.5	8.2	10.9	12.9	12.3

Table 12. Trends in delinquent behaviors for Seminole County youth, 2000, 2002, 2004 and 2006

	2000			2002			2004			2006		
	Middle School	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*
Carrying a handgun	2.4	4.9	3.9	2.4	3.4	2.9	2.3	3.8	3.3	2.8	5.4	4.3
Selling drugs	0.9	8.5	5.5	1.4	7.9	4.9	2.4	8.1	5.7	2.6	9.8	6.8
Attempting to steal a vehicle	1.2	3.5	2.6	1.8	3.3	2.6	2.3	3.1	2.8	2.2	3.2	2.8
Being arrested	7.3	6.2	6.6	3.4	7.4	5.6	3.8	7.6	6.0	3.1	5.7	4.6
Taking a handgun to school	0.2	3.0	2.0	0.5	0.7	0.6	0.6	0.8	0.7	0.7	1.2	1.0
Getting suspended	11.6	13.8	13.0	8.5	13.3	11.1	10.9	13.8	12.6	11.4	12.3	12.0
Attacking someone with intent to harm	15.5	16.5	16.2	10.0	15.6	13.1	8.9	11.5	10.4	11.4	12.7	12.1
Being drunk or high at school	3.7	20.6	13.7	3.7	17.0	11.0	5.4	17.2	12.2	6.1	18.0	13.1

Table 13. Trends in mean age of first use and attitudes toward substance use for Seminole County youth, 2000, 2002, 2004 and 2006

	2000			2002			2004			2006		
	Middle School	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*	*Middle School*	*High School*	*Total*
Age when first used…												
More than a sip or two of alcohol	11.3	13.2	12.6	11.1	13.1	12.5	11.4	13.4	12.8	11.4	13.5	12.9
Drinking at least once a month	12.5	14.6	14.3	11.8	14.4	14.1	12.8	14.8	14.5	12.3	14.9	14.4
Cigarettes	11.2	12.6	12.2	11.1	12.5	12.1	11.4	13.1	12.7	11.6	13.4	13.0
Marijuana	11.8	13.7	13.5	11.9	13.7	13.5	12.2	14.1	13.8	12.3	14.3	13.9
Perceive great risk of harm if…												
One or more drinks every day	45.0	42.7	43.4	46.6	38.9	42.3	44.0	35.3	38.9	41.6	40.7	41.0
Smoke a pack or more every day	69.9	64.9	67.1	68.8	68.0	68.4	71.7	69.8	70.5	69.8	71.0	70.5
Smoke marijuana regularly	77.4	54.3	63.5	77.1	53.2	63.8	76.9	48.9	60.8	74.9	52.9	62.1
Try marijuana once or twice	45.3	22.9	31.6	46.1	23.8	33.7	48.7	21.1	32.9	46.1	21.6	31.9
Think it wrong if…												
Smoke cigarettes	89.2	62.8	73.6	92.4	73.2	81.8	89.9	69.2	78.1	88.3	68.7	77.1
Drink alcohol regularly	84.9	49.9	64.2	89.7	60.1	73.3	81.6	47.9	62.4	78.4	51.3	62.8
Smoke marijuana	94.8	68.7	79.4	94.9	72.4	82.5	91.7	69.8	79.3	90.7	71.1	79.6
Use other illicit drugs	96.4	92.2	93.8	98.1	92.5	95.0	97.1	94.3	95.5	96.3	91.7	93.7
Seen as cool if…												
Drink alcohol regularly	4.4	8.7	7.0	4.2	15.3	10.3	7.3	12.4	10.2	8.9	19.3	14.8
Smoke cigarettes	7.4	6.1	6.6	4.2	6.0	5.2	6.4	4.6	5.4	6.7	5.8	6.1
Smoke marijuana	6.8	10.2	8.9	5.0	14.1	10.1	9.0	11.2	10.2	8.0	15.3	12.1

Table 14. Protective and risk factor scale scores for Seminole County youth and Florida Statewide youth by grade-cohort, 2006

Protective Factors

Domain	Scale	Seminole County		Florida Statewide	
		Middle School	*High School*	*Middle School*	*High School*
Community	Community Opportunities for Prosocial Involvement	39	42	37	38
	Community Rewards for Prosocial Involvement	47	50	45	49
Family	Family Attachment	48	52	45	48
	Family Opportunities for Prosocial Involvement	46	52	45	48
	Family Rewards for Prosocial Involvement	47	53	44	48
School	School Opportunities for Prosocial Involvement	39	49	40	48
	School Rewards for Prosocial Involvement	39	50	41	48
Peer and Individual	Religiosity	51	50	47	49
	Social Skills	48	51	45	52
	Belief in the Moral Order	40	44	39	46
Average Protective Factor Scale Score		**45**	**50**	**43**	**48**

Risk Factors

Domain	Scale	Seminole County		Florida Statewide	
		Middle School	*High School*	*Middle School*	*High School*
Community	Low Neighborhood Attachment	50	52	55	54
	Community Disorganization	44	43	50	48
	Transitions and Mobility	62	68	64	65
	Laws and Norms Favorable to Drug Use	46	43	52	45
	Laws and Norms Favorable to Handguns	48	44	52	50
	Perceived Availability of Drugs	48	49	51	46
	Perceived Availability of Handguns	49	52	53	53
Family	Poor Family Management	53	51	59	56
	Family Conflict	53	51	52	49
	Family History of Antisocial Behavior	49	48	54	50
	Parental Attitudes Favorable toward ATOD Use	50	52	52	49
	Parental Attitudes Favorable toward Antisocial Behavior	54	53	54	50
School	Poor Academic Performance	45	48	52	48
	Lack of Commitment to School	59	52	57	52
Peer and Individual	Rebelliousness	57	55	58	52
	Friends' Delinquent Behavior	55	53	60	53
	Friends' Use of Drugs	51	47	53	45
	Peer Rewards for Antisocial Behavior	53	54	54	49
	Favorable Attitudes toward Antisocial Behavior	62	54	61	52
	Favorable Attitudes toward ATOD Use	55	51	55	47
	Low Perceived Risks of Drug Use	47	46	51	48
	Early Initiation of Drug Use	48	44	52	45
	Sensation Seeking	54	52	53	48
Average Risk Factor Scale Score		**51**	**50**	**54**	**50**

Note: A score of 50 indicates the average for the normative population, with scores higher than 50 indicating above-average scores, and scores below 50 indicating below-average scores. 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.

Table 15. Overall trends in overall protective and risk factor scale scores for Seminole County youth, 2000, 2002, 2004 and 2006 and Florida Statewide youth, 2006

Protective Factors

Domain	Scale	Seminole County				Florida
		2000	*2002*	*2004*	*2006*	*2006*
Community	Community Opportunities for Prosocial Involvement	33	44	44	41	38
	Community Rewards for Prosocial Involvement	54	48	49	49	47
Family	Family Attachment	53	53	51	51	47
	Family Opportunities for Prosocial Involvement	52	54	51	50	47
	Family Rewards for Prosocial Involvement	54	54	50	50	46
School	School Opportunities for Prosocial Involvement	46	47	44	44	44
	School Rewards for Prosocial Involvement	44	45	42	45	45
Peer and Individual	Religiosity	51	52	51	50	48
	Social Skills	49	52	51	50	50
	Belief in the Moral Order	47	59	44	42	43
Average Protective Factor Scale Score		**48**	**50**	**48**	**48**	**46**

Risk Factors

Domain	Scale	Seminole County				Florida
		2000	*2002*	*2004*	*2006*	*2006*
Community	Low Neighborhood Attachment	46	48	49	51	55
	Community Disorganization	40	44	40	43	49
	Transitions and Mobility	55	68	66	65	65
	Laws and Norms Favorable to Drug Use	47	46	44	45	48
	Laws and Norms Favorable to Handguns	48	43	43	45	51
	Perceived Availability of Drugs	53	46	52	49	48
	Perceived Availability of Handguns	53	46	49	51	53
Family	Poor Family Management	55	48	52	52	57
	Family Conflict	51	49	47	52	50
	Family History of Antisocial Behavior	49	46	47	48	52
	Parental Attitudes Favorable toward ATOD Use	49	48	49	51	50
	Parental Attitudes Favorable toward Antisocial Behavior	49	46	49	53	52
School	Poor Academic Performance	53	47	47	47	50
	Lack of Commitment to School	53	45	59	55	54
Peer and Individual	Rebelliousness	52	42	53	56	54
	Friends' Delinquent Behavior	52	50	53	54	55
	Friends' Use of Drugs	51	47	51	49	47
	Peer Rewards for Antisocial Behavior	45	46	48	54	51
	Favorable Attitudes toward Antisocial Behavior	51	42	57	57	56
	Favorable Attitudes toward ATOD Use	52	43	52	52	50
	Low Perceived Risks of Drug Use	50	48	47	47	50
	Early Initiation of Drug Use	53	47	47	45	48
	Sensation Seeking	54	42	52	53	50
Average Risk Factor Scale Score		**50**	**47**	**50**	**51**	**52**

Note: A score of 50 indicates the average for the normative population, with scores higher than 50 indicating above-average scores, and scores below 50 indicating below-average scores. 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
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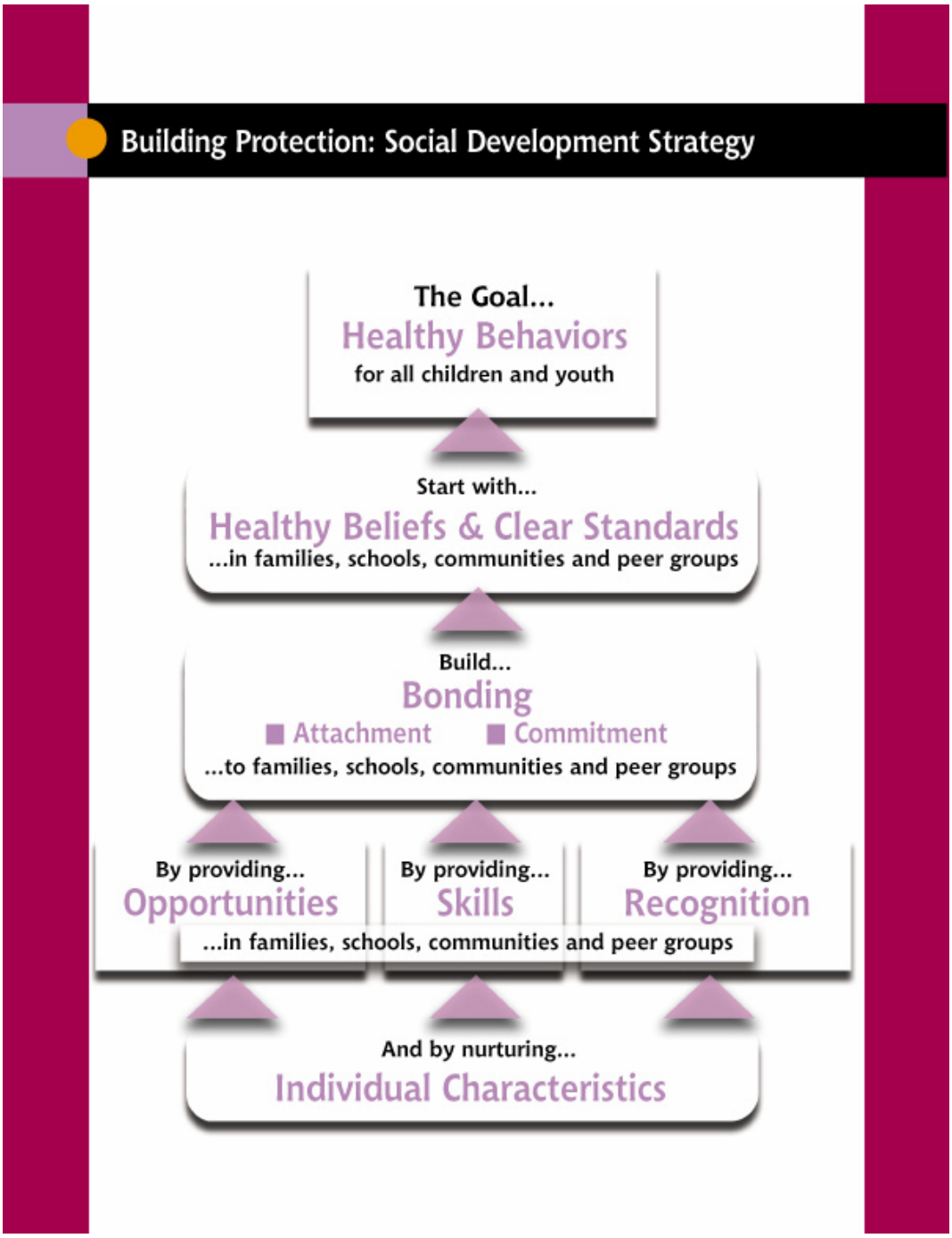
Appendix C
The Social Development Strategy




Communities That Care®
Risk Factors
Adolescent Problem Behaviors
Substance Abuse
Delinquency
Teen Pregnancy
School Drop-Out
Violence
Community
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
Family
Family history of the problem behavior
Family management problems
Family conflict
Favorable parental attitudes and involvement in the problem behavior
School
Academic failure beginning in late elementary school
Lack of commitment to school
Peer and Individual
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

Web Sites

Office of National Drug Control Policy www.whitehousedrugpolicy.gov

National Clearinghouse for Alcohol and Drug Information www.health.org/index.htm

Substance Abuse and Mental Health Services Administration (SAMHSA) www.samhsa.gov

Monitoring the Future www.monitoringthefuture.org

National Institute on Drug Abuse (NIDA) www.nida.nih.gov and www.drugabuse.gov

National Institute on Alcohol Abuse and Alcoholism (NIAAA) 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.

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* (1st ed.). San Francisco: Jossey-Bass.