

SPIRIT

Missouri School-based Substance Abuse Prevention
Intervention and Resource Initiative

Eighth Year Report

2009-2010

Missouri Department of Mental Health
Division of Alcohol and Drug Abuse

This report was prepared for the State of Missouri by:
The Missouri Institute of Mental Health
Division of Child and Family Mental Health Research Services
University of Missouri – St. Louis

Carol J. Evans, Ph.D.
Liz Sale, Ph.D.
Virginia Weil, MSW
Karen M. Breejen, BA



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Executive Summary

Introduction – An Overview of the SPIRIT Project

The School-based Prevention Intervention and Resources Initiative (SPIRIT) is a project sponsored by the Missouri Department of Mental Health, Division of Alcohol and Drug Abuse (ADA). SPIRIT was launched in 2002; FY2010, the school year spanning from the fall of 2009 to spring 2010, was the eighth year of the project. The purpose of the initiative is to delay the onset and decrease the use of substances, improve overall school performance, and reduce incidents of violence among children and youth in high-risk school districts.

Each of Missouri's five ADA regions are represented by the five school districts participating in SPIRIT. They serve high-risk populations characterized by: 1) greater than 60% free/reduced lunch; 2) standardized test scores below state average; 3) ATOD use above state average; 4) low graduation rate; and 5) high number of referrals to juvenile authorities. The individual needs of each district vary as do the demographics such as the size of the population, the average student/teacher ratio, race/ethnicity distribution, location, resources and community setting (e.g., urban or rural). The five school districts participating in the SPIRIT initiative are Carthage R-IX, Hickman Mills C-I, Knox Co. R-1, New Madrid Co. R-1, and Ritenour. Initially, regardless of the number of schools in a district, SPIRIT was implemented in only one school of each level (elementary, middle, high), equaling 41% of the total number of schools in the participating districts. During the 2009-2010 school year SPIRIT was expanded to include 91% of all schools within participating districts by including all schools serving students through grade 9, therefore increasing the number of students served from approximately 3900 in 2002 to over 10,000 in 2010.

In the SPIRIT implementation model, a prevention agency is paired with each participating high-risk school district. Prevention specialists from the agencies assist in facilitating the evidence-based prevention programs, help to identify and respond to additional needs of some students for selective or indicated services, provide screening and referral services upon request, and offer resources and technical assistance as needed. Each district and school determines whether prevention specialists or classroom teachers implement the prevention programs. Thus, who implements the program varies by site and school level (elementary, middle, high school).

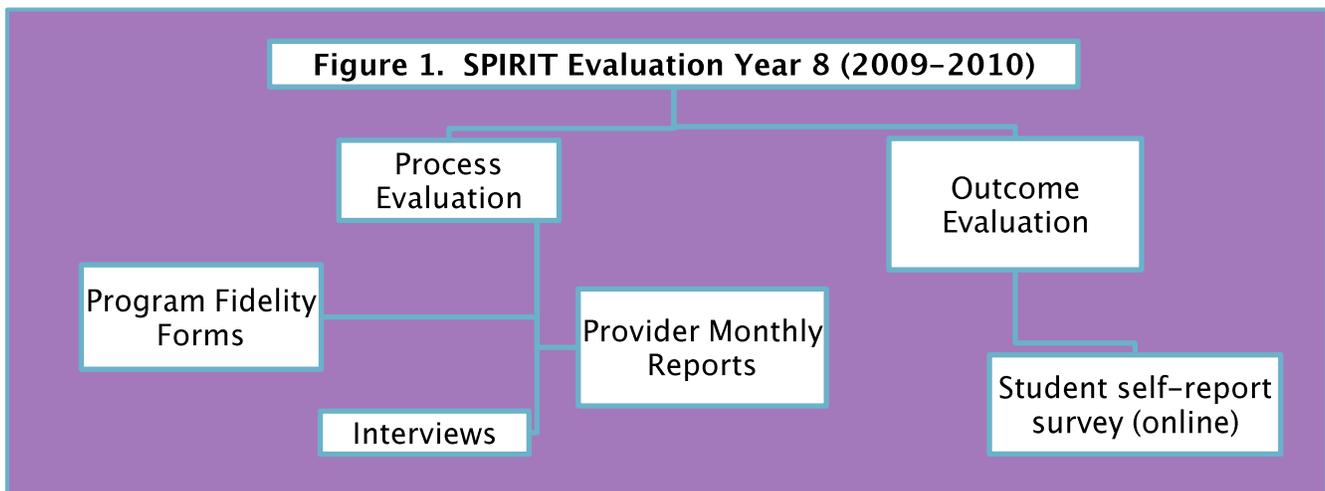
All prevention programs implemented were listed on an approved list i.e., the Substance Abuse and Mental Health Services Administration (SAMHSA) National Registry of Evidence-based Programs and Practices (NREPP). Each participating district identified specific behavioral challenges within their student population, such as bullying, aggressive behavior and substance use, and particular prevention programs were selected to address these issues. Programs implemented in SPIRIT FY2010 included PeaceBuilders or Second Step in the elementary schools (supplemented by Too Good For Drugs in some districts), Life Skills Training or Second Step in the middle schools and Too Good For Drugs or Project Towards No Drug Abuse in the high schools.

Evaluation. Evaluation of the SPIRIT program was conducted by the Child and Family Mental Health Services Research Division of the Missouri Institute of Mental Health (MIMH). The evaluation included an annual student survey, interviews with SPIRIT providers and school administrators, review of monthly reports submitted by the provider agencies, and analysis of program fidelity from forms documenting program implementation submitted by program implementers. (Figure 1)

The self-report survey instrument used to assess the main goals of the program explored students' substance use, attitudes toward substance use and perceived risk of use, aggression and problem behaviors, school performance and attitudes toward school, individual protective factors and perceptions of SPIRIT effectiveness. Data collection timing and methods changed as the number of students and schools in participating districts have increased and on-line data collection methods have improved. Initially, in 2002, all consented students completed two surveys per year (pre/post) using paper-pencil instruments. Beginning in the fifth year of the project (2006-2007), only one survey per year was administered toward the end of the school year and results from this instrument was compared to those of previous years. In 2010, all sites shifted to on-line surveying methods.¹

Throughout this report, SPIRIT student responses were compared to samples of Missouri and U.S. youth. Data for Missouri youth were drawn from the 2010 Missouri Student Survey (MSS), a statewide survey of 6th – 12th grade students attending public school. The U.S. sample was drawn from youth who completed the 2009 National Survey on Drug Use and Health (NSDUH).

All students attending schools in which SPIRIT was implemented receive prevention programming (n = 10,342 in the 2009-2010 school year). In order to participate in the evaluation, students must be in the 4th grade or higher and have parental consent. The consent rates vary by district, but across all SPIRIT sites 76.3% of all participating students were consented. Each consented and eligible 4th – 9th grade student was assigned a unique identification code in order to match and track responses over time while maintaining confidentiality. A stratified random sample of 1,233, adjusting for district size and student age, was selected for the analyses presented here.



¹ One site with limited computer access in its elementary schools continues to use paper/pencil methods of data collection.

Summary of Outcome Findings

Substance Use

- *Cigarette use.* Lifetime rates of cigarette use for students from 6th – 9th grade were approximately the same across SPIRIT, Missouri, and the nation. Thirty-day cigarette use, however, was lower for students in SPIRIT than the two comparison samples.
- *Alcohol use.* SPIRIT students had lower 30-day use rates than Missouri and U.S. youth. However, the age of first use was lower for SPIRIT students than those in the Missouri sample.
- *Marijuana use.* Lifetime marijuana use rates were about the same for both SPIRIT and Missouri samples. Thirty-day use by the SPIRIT sample was lower than either the Missouri or national samples.
- *Other drug use.* Lifetime rates of inhalant use were higher nationally than in either the SPIRIT or Missouri samples. For 30-day use, however, inhalant use rates for the SPIRIT sample were lower than the Missouri sample, but higher than the national sample. Prescription drug use (lifetime) was lower in the SPIRIT sample than in Missouri and 30-day use was considerably lower than Missouri.

Table 1. SPIRIT, Missouri and US Drug Use Comparison

		SPIRIT ¹	Missouri ²	US ³
Cigarettes	Lifetime use	22.4	21.2	22.2
	Past month (30-day)	6.9	10.7	8.9
	Age of initiation	11.07	12.29	n/a
Alcohol	Lifetime use ⁴	43.6	---	---
	Past month (30-day)	13.5	15.3	14.7
	Age of initiation	11.07	12.54	n/a
Marijuana	Lifetime use	11.2	11.8	17.0
	Past month (30-day)	5.5	6.4	7.3
	Age of initiation	12.85	13.53	n/a
Inhalants	Lifetime use	6.6	6.6	9.2
	Past month (30-day)	2.8	3.4	1.0
	Age of initiation	12.14	11.95	n/a

¹ SPIRIT, spring 2010, 6th – 9th grade, n = 766 (average age = 13.54); note: there were no participating youth in the 9th grade from the Hickman Mills and Knox school districts.

² Missouri Student Survey (MSS) 2010, 6th – 9th grade, n = 92,901 (average age = 13.72)

³ National Survey on Drug Use and Health (NSDUH) 2009, n = 24,625 (12 – 17 years of age)

⁴ The SPIRIT survey alcohol use question was worded differently from the MSS and NSDUH; thus comparison data have not been included in this report. SPIRIT students were asked “how old were you the first time you had more than a sip or two of alcohol”. The Missouri and U.S. questionnaires included more specific instructions: “We are not asking about times when you only had a sip or two from a drink or drank only for religious purposes. Throughout these questions, by a ‘drink,’ we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it.” SPIRIT youth were not instructed to only count those times when they consumed an entire can, bottle, glass, or shot, but rather anything more than a sip or two.

Attitudes toward Substance Use

- *Substance Use Norms.* Just under half (45%) of students in the 6th – 9th grades thought that most teenagers use cigarettes and alcohol. Fifty-seven percent thought that most adults use cigarettes; slightly more (64.3%) thought that most adults use alcohol. A little more than one third (35%) of students thought that most teenagers and adults use marijuana.
- *Substance Use Intentions.* Thirty percent of students agreed or strongly agreed that they might use alcohol. About 7% of students reported that they might use cigarettes and 10.8% might use marijuana in the future.
- *Risk of Harm from Substance Use.* Cigarettes and alcohol were perceived to be less risky than other drugs. A total of 60% of students thought that use of cigarettes and alcohol posed a moderate to great risk of harm. More students, approximately three-quarters of the sample, thought that marijuana use posed a moderate to great risk. Over 85% of students reported that ecstasy, methamphetamine, inhalants, and the use of prescription drugs without a prescription were risky.
- *Disapproving Attitudes toward Substance Use.* Students were less likely to think that using alcohol was wrong compared to other substances. Around three-quarters (73%) of students thought using cigarettes, marijuana, ecstasy, methamphetamine, inhalants, or the unintended use of prescription medications was very wrong.

Problem Behavior

- *Emotional/Relational Problem Behavior.* Around 40% of students in 4th – 9th grades reported being harassed or bullied by others in the past three months. More reported they were made fun of (57.0%) than had rumors or lies spread about them (42.5%). While reports of being made fun of and making fun of others is approximately the same (57.0% and 61.0% respectively), the percentage of youth who report having rumors or lies spread about them (42.5%) is significantly higher than the number who report spreading rumors about others (19.3).
- *Emotional/Relational Problem Behavior Using Cell Phones or the Internet.* A very small percentage of youth (under 10%) reported either using the Internet or a cell phone to embarrass or hurt another student or having that technology used by someone else to embarrass or hurt them.
- *Physically Aggressive Problem Behavior.* The percentage of students who were afraid of being physically beaten up (21.2%) was very similar to the percentage who reported having been in a physical fight in the past three months (20.1%). A greater percentage of youth reported physically assaulting another student (34.0%) or being assaulted by another (35.0%).
- *Use of weapons to threaten or bully.* A very small percentage of youth reported using a weapon to threaten or bully another (4.5%) or having a weapon used against them in a similar manner (8.5%).

School Performance

- *Grades.* The majority of students (80.1%) reported average grades last school year of either A's or B's, with females reporting higher grades than males.
- *Attendance.* Although very few students (2.2%) reported skipping 10 or more days, 34.2% of students reported skipping school for at least one day.
- *Discipline.* Fourth – 9th grade students reported receiving in-school suspensions or detentions (21.9%) at almost twice the rate as out-of-school suspensions (11.2%) in the past 3 months.
- *Attitudes toward school.* Generally students held positive attitudes about school, although around one-third of students in grades 6-9 did not believe that teachers treated them fairly. Fourth through eighth grade students reported feeling safer at school than did 9th graders.

Program Effectiveness

- The majority of youth liked the program at least a little (83.5%) and most thought the program was effective, especially in helping them with resistance skills and anger management. The area in which the program was thought to be least effective was in getting others to be nicer.
- In general, the higher the grade level, the lower the percentage of students who rated the program positively in all categories. Despite this, around 75% of students in 9th grade reported liking the program.
- A greater percentage of females liked the program than males, thought the program increased their resistance skills, and thought it improved their self-esteem. Females were also more likely to think that the time spent on the program was helpful.

Protective Factors

- *Empathy.* The majority of students, from about 79% to 87%, reported they were sad when someone was left out, were upset when they saw an animal hurt, and felt bad when someone else got their feelings hurt. Being upset at seeing an animal hurt was most frequently reported. Females were significantly more empathetic than males.
- *Decision making.* Students were more likely to report making good decisions than thinking about their choices, the consequences of their actions, and other people's feelings. Younger students were more likely than older youth to report thinking about their choices and others' feelings before making decisions.
- *Caring adults.* The vast majority of students reported there were caring adults at both their school and home. In general, more students in rural districts than in urban districts thought there were caring adults at school.

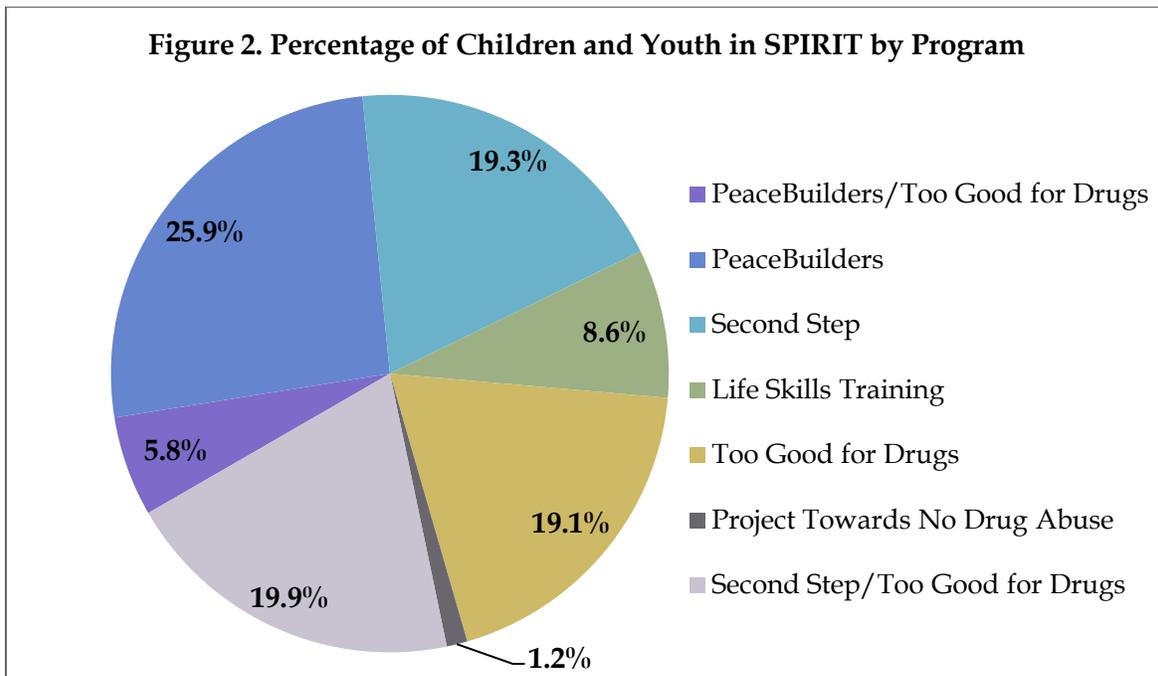
Recommendations

- *Age of Initiation.* Because the age of initiation of cigarettes, alcohol and marijuana is younger among SPIRIT youth than the Missouri sample, it is recommended that the elementary school curricula be reviewed to assure adequate discussion of the harmfulness of these three substances.
- *Use of Alcohol, Tobacco and Marijuana.* Use of all of these substances increased significantly between grades 4-5 and grades 6-8 suggesting the continuing need to strengthen substance use lessons in grades 4-5.
- *Inhalants.* Although 30-day inhalant use by the 6th – 9th grade students in the SPIRIT sample is slightly lower than the Missouri sample, use in both SPIRIT and Missouri samples is still higher than that reported nationally. Because of the deadly nature of inhalants, it is important to follow previous recommendations to educate students about the effects of using these substances.
- *Alcohol Use.* Although the percentage of students reporting 30-day use was lower in the SPIRIT sample than in the Missouri and national samples, more education on the effects of alcohol is recommended, particularly because about 30% of 6th – 9th grade students reported that they intended to use alcohol in the future. *Binge Drinking.* When students were asked, specifically, if they had five or more drinks on one occasion (binge drinking) in the past 30 days, only 7.8% of students reported doing so. However, when asked how many drinks they typically have on the days that they drink, of those students who reported drinking any alcohol in the previous month 40.5% reported usually have five or more drinks at one time. More education on binge drinking and the ramifications of excessive consumption is needed.
- *Marijuana.* The use of marijuana in SPIRIT 6th-9th graders (5.5%) in the past 30 days was lower than both Missouri (6.4%) and the nation (7.3%). Nonetheless, a continued emphasis on the effects of marijuana is recommended.
- *Prescription Drugs.* Approximately 3% of SPIRIT students in the 6th – 9th grades said they had used prescription drugs without a doctor's prescription. While this is slightly fewer than the percentage who reported doing so in the past 2 years, recent national surveys indicate unprescribed medicine use as a growing problem. Because this use is not covered by any of the currently used curricula, it is recommended that providers include information on the addictive qualities of many prescription drugs and the dangers of drug interactions when mixing drugs.
- *Substance Use Norms and Risk of Harm.* All grade levels had distorted ideas about the use of substances by teenagers and adults. More normative education is recommended. Of particular note is that students in the 4th – 5th grades were less likely than youth in higher grades to think that cigarette use was risky. Based on this information, a focus on the dangers of cigarette smoking in younger grades is warranted. Almost two-thirds of the students thought that most adults drink alcohol.

- *Problem behaviors (4th – 9th grades).* In the past three months, over 50% of 4th – 9th grade youth reported making fun of others and being made fun of. Additionally, bullying was mentioned by most principals as a problem behavior. To address these problems, continued emphasis on bullying is recommended, including education about the role of bystanders.

Chapter 1 - The SPIRIT Programs

In the eighth year of the SPIRIT project, prevention programming was implemented at all school levels in the five participating school districts. Program implementation information for the evaluation was collected from interviews with prevention providers and school administrators during the 2009-2010 school year, monthly reports by the prevention provider agency, and program implementation fidelity forms completed by the teachers of the evidence-based prevention programs. The following are brief descriptions of the information gathered from these sources.



Carthage School District

Within Carthage School District, PeaceBuilders was implemented by prevention specialists from the provider agency in all five elementary schools (K – 4th grade), PeaceBuilders and Too Good For Drugs were implemented in the new middle school for 5th- 6th grade students, and Life Skills Training was taught by health and PE teachers in the junior high school (7th – 8th grade) and to 9th grade students in the high school.

Hickman Mills School District

SPIRIT was implemented in all eight elementary schools (4th – 5th grade) and in both middle schools (6th – 8th grade) in the Hickman Mills School District. Prevention specialists from the provider agency implemented Second Step and Too Good For Drugs in the elementary schools and Second Step in the middle schools.

Knox School District

In the Knox School District, SPIRIT was implemented by classroom teachers in the elementary school (K – 5th grade). The prevention specialist also implemented lessons twice a month in each class room. A prevention specialist from provider the agency implemented the program in the middle school (6th – 8th grade). PeaceBuilders was taught at the elementary school and Second Step was taught at the middle school. Knox also implemented a mentoring program and an in-school suspension program in order to reduce the number of students dropping out of school.

New Madrid School District

SPIRIT was implemented in all three elementary schools (K – 5th grade) in the New Madrid School District. The program was also implemented in the middle school (6th – 8th grade) and to 9th grade students at the high school. A prevention specialist from the provider agency taught Peace Builders at one elementary school, and classroom teachers implemented PeaceBuilders at the other two elementary schools with some lessons taught by the prevention specialist. A prevention specialist also taught Second Step at the middle school and Project Towards No Drug Abuse to the 9th grade students at the high school.

Ritenour School District

In the Ritenour School District, SPIRIT was implemented by prevention specialists from the provider agency in all six elementary schools (4th – 5th grade), both middle schools (6th – 8th grade), and to ninth grade students in the high school. Second Step was taught in the elementary schools with supplements from Too Good For Drugs. Too Good For Drugs was taught in the two middle schools and the high school.

Fidelity Documentation and Interviews

Fidelity forms were completed by each program implementer. These documented the degree to which a particular program adhered to its evidence-based model. The specific lesson taught, the number of minutes, and the frequency of implementation were recorded as were any changes that the teacher made to the lessons (lengthened, shortened, material added, made more age or culturally appropriate). Data show that programs at all of the districts were implemented with fidelity. Most modifications to programs were to make them more age and/or culturally appropriate.

Interviews were held with all school administrators and provider agency site coordinators and prevention specialists. Without exception, principals expressed appreciation for being included in

the SPIRIT program, most commented on the ability of the prevention specialists to effectively work with the students in both program implementation and small group work, and they cited examples of ways in which SPIRIT positively impacted their students and their schools. Following are some of those comments:

“SPIRIT was the biggest contributor to reduction of discipline in the high school.” –High school principal

“I can’t imagine not having SPIRIT here! We really depend on SPIRIT as character education.”— Elementary principal

“This is my first year as a principal in this school, but I have noticed positive changes in student behavior, especially among the girls participating in the small groups.” --Elementary principal

“A student allowed her mother to read the journal that she had kept as part of their SPIRIT program. As a result, the parent became aware of the serious problem she and her daughter had in communication. She came to school for help and by working together, mother and daughter achieved a breakthrough. I believe that this may not have happened without SPIRIT.” --Elementary principal

“The interactive way that [the provider] teaches helps the kids to learn and retain the information. When the topics of drugs or violence come up, the kids remember the lessons. Our data in these areas continue to improve.” –Middle school teacher

“Students frequently say, ‘[the provider] taught us that’when they have been praised for their actions. The students are transferring what they learn to other situations.” --Elementary principal

“Teachers comment about the SPIRIT lessons-- that the kids “get it.” --High school principal

“Girls at this age bicker and hold grudges. [The provider] has really helped them to get along better.” --Middle school principal

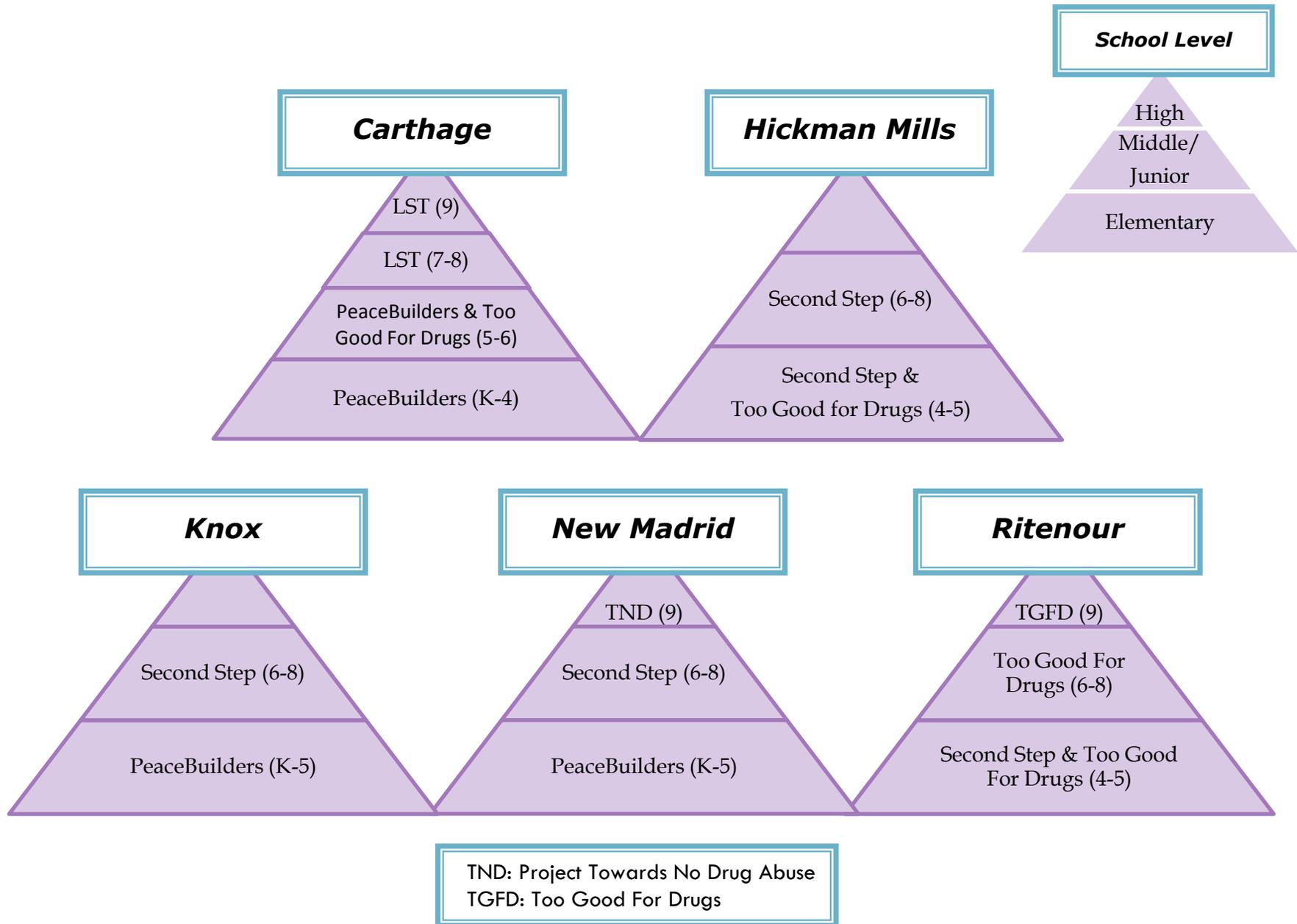
“We are lucky to have SPIRIT!” –Superintendent

“When parents are surveyed about programs and practices they would like to see continued in our district, SPIRIT receives the highest praise.” --Superintendent

All of the principals, regardless of district, spoke of the need for increased parental involvement, and cited the difficulty of getting many of the parents to attend any school activity, even parent-teacher conferences. Additionally, poverty and transiency were two problems identified that severely impact the schools. A majority of principals stated that the parents of many of their students teach them to respond to any provocation by fighting, while neglecting to impart the benefits of good manners and other social skills. Principals cited lack of parental supervision and parental drug use or incarceration as problems that many students have to deal with. These factors make prevention programming and SPIRIT more important in providing protective factors that can buffer against substance use and violence.

The figure below displays the prevention program being implemented in each district and grade level.

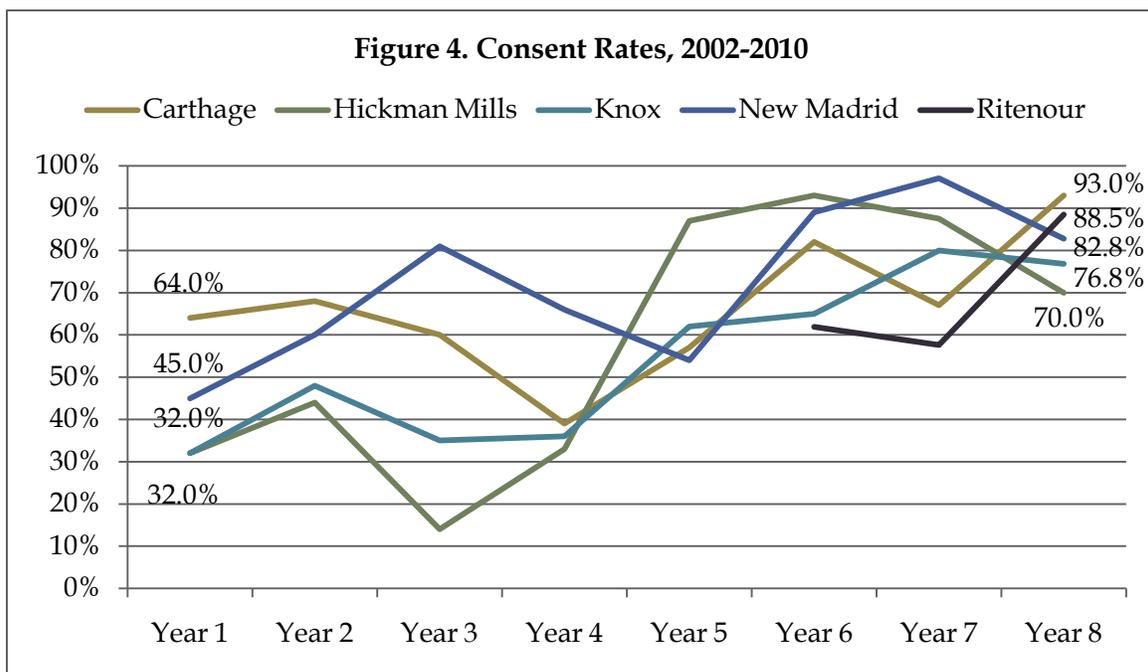
Figure 3. Program Implementation by Site, Year 8 (2009-2010)



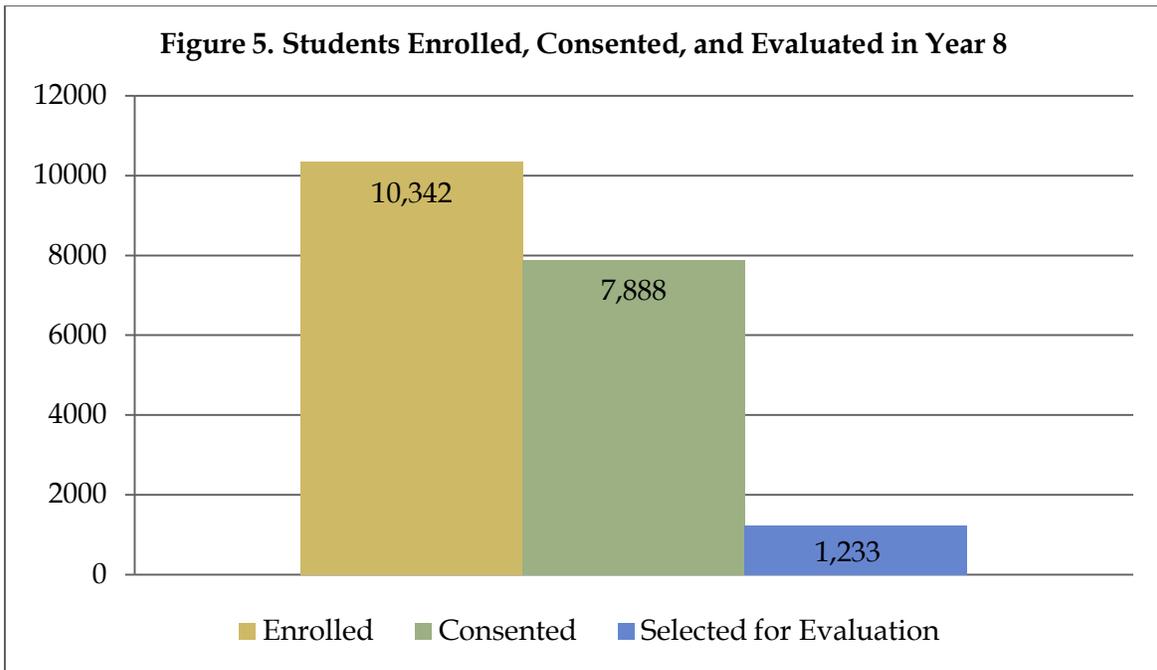
Chapter 2 – Sample Selection and Demographics

Sample Selection

In Year 8, 10,342 children and youth over the five school districts participated in SPIRIT, 2,413 more than the previous year. Approximately 76% (7,888) received parental consent to participate in the evaluation. The overall percentage of consents increased from Year 7 (70%) to Year 8 (76%). Three of the five school districts have a consent rate of 80% or above.



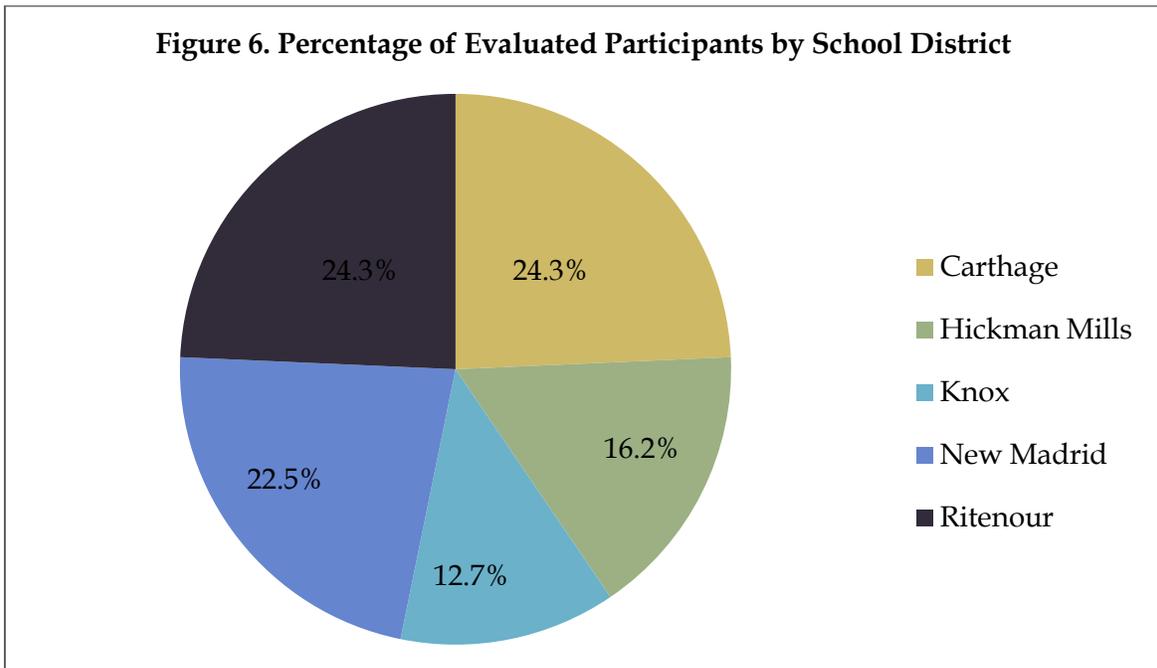
Consented students in grades 4 – 9 in all districts were surveyed. After the surveys were completed, post-stratified random sampling was used to equal the influence of each school district within the total SPIRIT sample. Each district was represented by a sample of 100 students from each grade level (4th – 5th, 6th – 8th, 9th). Within these grade groupings each school within the school district, each gender, and each individual grade were represented equally. This method allowed for data analysis and results representative of SPIRIT as a whole, without excessive influence from any one particular district. Some districts have fewer than 100 youth per grade group, and the grades in which programming is offered varies by district, resulting in a final sample size of 1,233. See Figure 5 below.



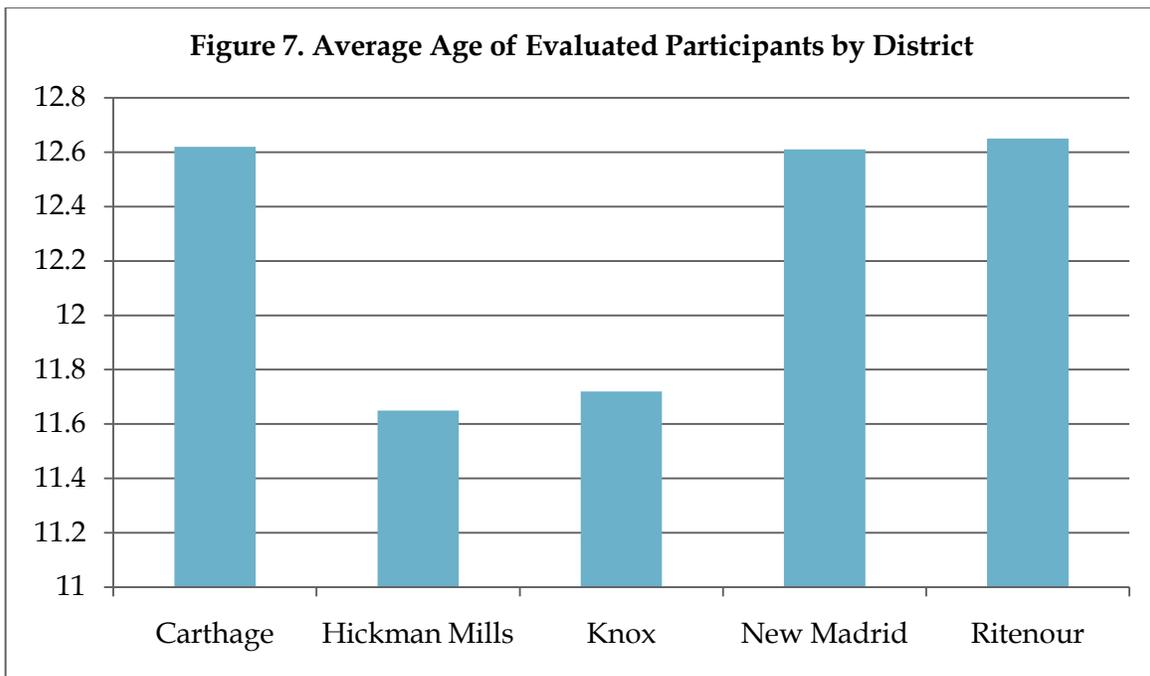
Demographic Distributions by SPIRIT Site

Each participating school district involved in the SPIRIT project was composed of students of varying demographic profiles.

School Districts. The percentage of youth evaluated from each district varied slightly because programming in Hickman Mills and Knox School Districts did not include students in 9th grade, and because the Knox School District was significantly smaller than the other participating districts. See Figure 6 below.



Age. The students evaluated from grades 4th – 9th were on average 12.52 years of age. SPIRIT programming was not offered to 9th grade students in Knox or Hickman Mills school districts. Thus, the average age of each school district’s participants varied. See Figure 7 below.



Race/Ethnicity. Table 2 shows the racial/ethnic distribution of the sample by district. The two urban districts (Ritenour and Hickman Mills) were predominantly African American. Most students in the Carthage, Knox and New Madrid districts were White, though there was a sizable percentage of Latino students in Carthage and African American students in New Madrid.

	Carthage	Hickman Mills	Knox	New Madrid	Ritenour
Not Hispanic or Latino	80.3	92.0	99.4	99.3	85.3
White/Caucasian	89.6	9.2	94.9	70.1	55.5
Black/African-American	2.5	88.0	1.3	28.0	33.2
Native American/Alaskan Native	5.0	1.6	3.2	1.1	3.9
Asian*	1.2	0.5	0.0	0.4	4.3
Native Hawaiian or Other Pacific Islander	0.4	0.0	0.6	0.4	0.4
Other (not otherwise specified)	1.3	0.7	0.0	0.0	2.7
Hispanic/Latino (of any race)	19.7	8.0	0.6	0.7	14.7

The youth populations of Missouri and the United States varied from the SPIRIT sample in the percentage of Latinos, Whites, and Blacks (Table 3). More specifically, the SPIRIT sample had more Latinos than Missouri, but far fewer than the United States. There was a similar percentage of White in SPIRIT and the US, but Missouri was comprised of approximately 20% more Whites. There was a greater percentage of Black youth in the SPIRIT sample than in the US and Missouri.

Table 3. Percentage of Participants by Race/Ethnicity by Survey			
	United States ¹	Missouri ²	SPIRIT ³
Not Hispanic or Latino	82.7	96.8	90.1
White/Caucasian	60.5	81.3	58.3
Black/African-American	13.4	9.0	26.9
Native American/Alaskan Native	1.4	2.3	2.7
Asian*	3.2	1.4	1.3
Native Hawaiian or Other Pacific Islander	0.3	.04	0.4
Other (not otherwise specified)	4.0	2.4	0.5
Hispanic/Latino (of any race)	17.3	3.2	9.9

¹ National Survey on Drug Use and Health (2009), 12-17 years of age

² Missouri Student Survey (2010), 4th – 9th grades

³ SPIRIT Survey (2010), 4th – 9th grade selected participants

Sex. The total SPIRIT sample was 48.8% female and 51.2% male. Males and females were equally represented in district samples with over 100 youth per grade group. There were fewer than 100 consented youth in each grade group at Knox and New Madrid and were slightly more females in the sample than males.

Table 4. Percentage of Evaluated Participants by Sex					
	Carthage	Hickman Mills	Knox	New Madrid	Ritenour
Male	50.0	50.0	43.9	48.0	50.0
Female	50.0	50.0	56.1	56.1	50.0

Chapter 3 - Substance Use

In the following chapter, the substance use, age of initiation, and extent and circumstances of substance use of 4th – 9th grade youth are presented. As noted in the table or chart descriptions, data are most often reported by grade groupings of grades 4 - 5, 6 - 8 and grade 9. Wherever possible, substance use of SPIRIT students was compared to the most current estimates of use from two other surveys: 1) the 2010 Missouri Student Survey (MSS), and 2) the 2009 National Survey on Drug Use and Health (NSDUH).

Lifetime Substance Use

Students in 4th – 5th grade were asked whether they had ever, even once, smoked part or all of a cigarette, had more than a sip or two of alcohol, or used marijuana. Students in the 6th – 9th grade were asked how old they were the first time they had smoked part or all of a cigarette, had more than a sip or two of alcohol, used marijuana, or a variety of other drugs. Among the selected 4th – 9th grade sample, 16.5% reported having smoked a cigarette. Over 33% reported ever having had more than a sip or two of alcohol and 7.6% reported use of marijuana in their lifetime.

Lifetime Substance Use Comparisons with State and National Samples. Among SPIRIT youth in 6th – 9th grade, 22.4% reported using cigarettes in their lifetime, similar to Missouri and national reports of youth usage. There were also similar reported use rates of marijuana, inhalants, ecstasy, and methamphetamine between SPIRIT and Missouri youth.

Comparisons cannot be made between SPIRIT, Missouri, and national statistics in the rate of youth who had *more than a sip* of alcohol in their lifetime (see footnote¹). When asked whether or not they had used alcohol regularly (once or twice a month), a slightly smaller percentage of SPIRIT youth (14.5%) reported use compared with those in the US sample (17.0%).

¹The SPIRIT survey alcohol use question was worded differently from the MSS and NSDUH; thus comparison data have not been included in this report. SPIRIT students were asked “how old were you the first time you had more than a sip or two of alcohol.” The Missouri and U.S. questionnaires included more specific instructions: “We are not asking about times when you only had a sip or two from a drink or drank only for religious purposes. Throughout these questions, by a ‘drink,’ we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it.” SPIRIT youth were not instructed to count only those times when they consumed an entire can, bottle, glass, or shot, but rather anything more than a sip or two.

Table 5. Comparison Between Estimates of SPIRIT, Missouri, and US Lifetime Substance Use (6 th – 9 th grade)			
	SPIRIT Total ¹	MO ²	US ³
Cigarettes	22.4	21.2	22.2
Alcohol (more than a sip) ⁴	43.6	---	---
Alcohol (once or twice a month)	14.5	---	17.0
Marijuana	11.2	11.8	---
Ecstasy	2.4	1.5	---
Methamphetamine	1.6	0.7	---
Inhalants	6.6	6.6	9.2
Prescription Drugs without Rx	6.1	9.4	---

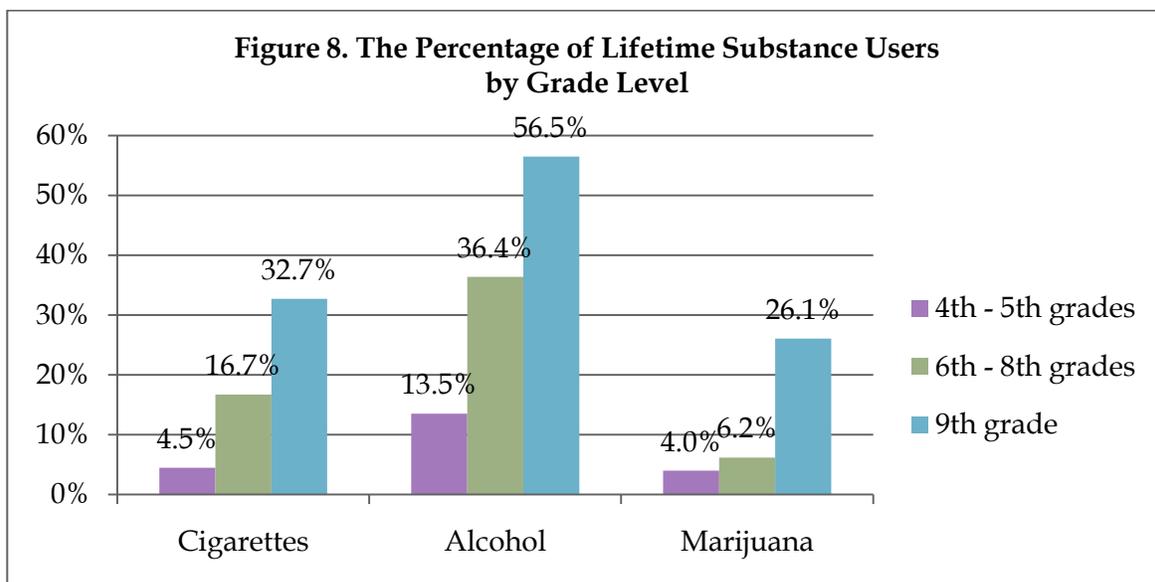
¹ SPIRIT, spring 2010, 6th – 9th grade, n = 766 (average age = 13.54); note: there were no participating youth in the 9th grade from the Hickman Mills and Knox school districts.

² Missouri Student Survey (MSS) 2010, 6th – 9th grade, n = 92,901 (average age = 13.72)

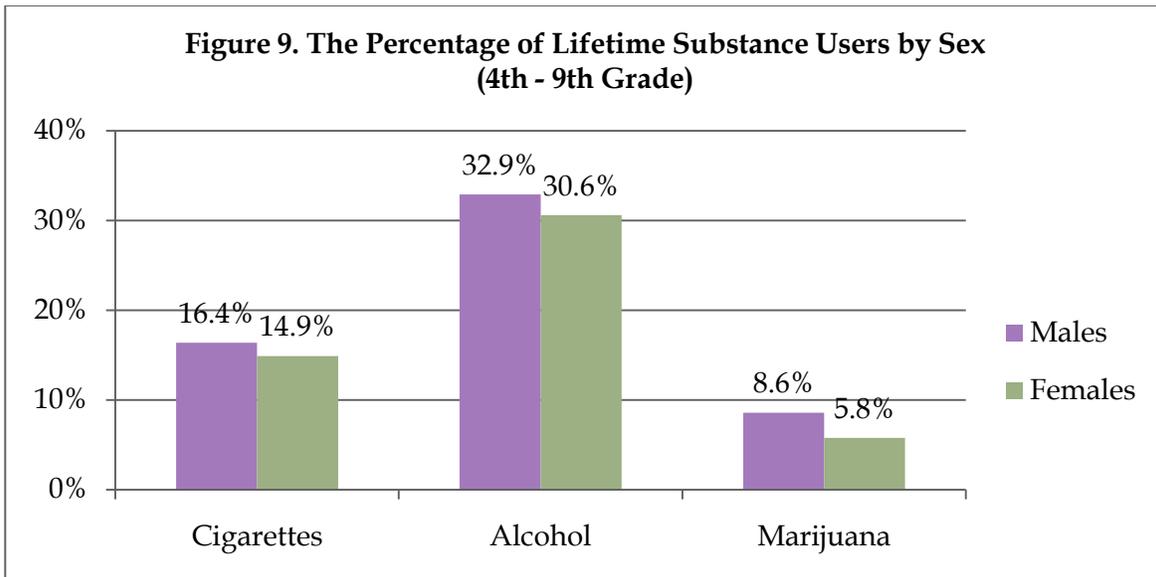
³ National Statistics on Drug Use and Health (NSDUH) 2008, n = 24,625 (12 – 17 years of age)

⁴Please consider the written explanation in the preceding footnote regarding the absence of Missouri and national comparison data.

Lifetime Substance Use by Grade Level. The higher the grade level, the more likely youth were to have used cigarettes, alcohol, and marijuana. The increase in cigarette and alcohol users was relatively consistent between grade levels, with a similar percentage increase between the 4th – 5th and 6th – 8th grade levels and the 6th – 8th and 9th grade levels. The percentage of cigarette users increased by 12 - 16% between grade levels, and the percentage of alcohol users increased by 20 - 23%. The likelihood of trying marijuana showed only a small increase (approximately 9%) between 4th – 5th grade and 6th – 8th grade, but a very large increase (approximately 20%) between middle school and high school (as youth enter 9th grade).



Lifetime Substance Use by Sex. Females were slightly less likely than males to have used alcohol or marijuana in their lifetime.



Past Month (30-day) Substance Use

Students in 4th – 9th grade were asked whether they used substances in the month prior to taking the survey. Among the selected sample, 5.2% reported smoking a cigarette, 10.2% drinking alcohol, and 4.1% using marijuana in the past 30 days.

30-day Substance Use Comparisons with State and National Samples. A smaller percentage of students participating in SPIRIT used cigarettes and prescription medication without a prescription in the past 30 days compared to Missouri youth. SPIRIT 30-day use rates did not vary from United States use rates. The use of alcohol, marijuana, and inhalants in the past month among SPIRIT students did not vary to a great extent from youth in Missouri overall.

Table 6. Comparison Between Estimates of SPIRIT, Missouri, and US 30-day Substance Use (6th – 9th grade)

	SPIRIT Total ¹	MO ²	US ³
Cigarettes	6.9	10.7	8.9
Alcohol	13.5	15.3	14.7
Marijuana	5.5	6.4	7.3
Inhalants	2.8	3.4	1.0
Prescription Drugs without Rx	2.8	5.8	---

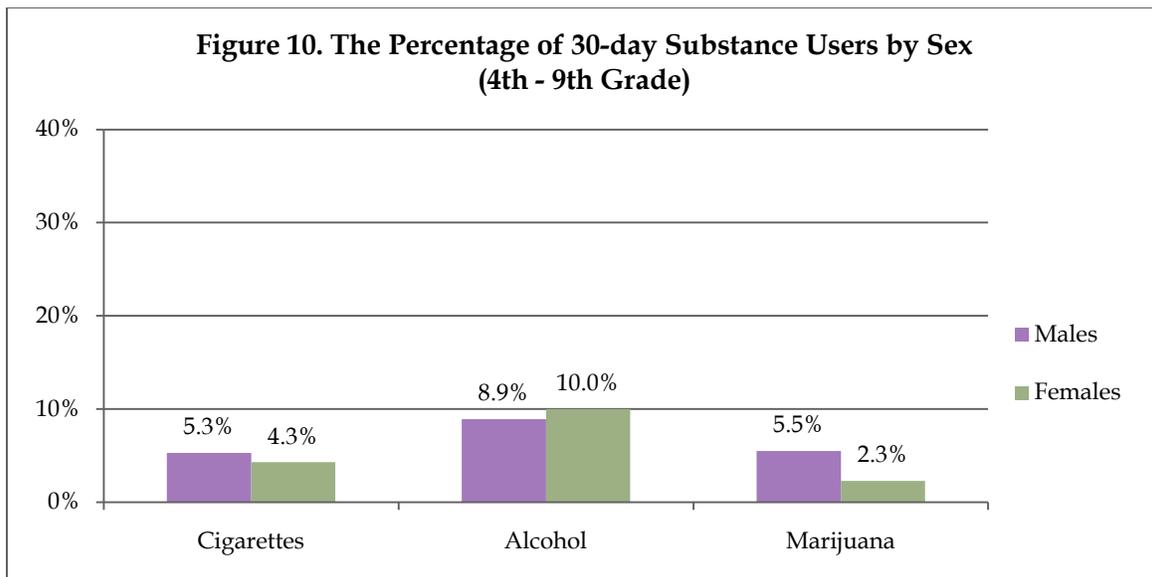
¹ SPIRIT, spring 2010, 6th – 9th grade, n = 766 (average age = 13.54); note: there were no participating youth in the 9th grade from the Hickman Mills and Knox school districts.

² Missouri Student Survey (MSS) 2010, 6th – 9th grade, n = 92,901 (average age = 13.72)

³ US Statistics on Drug Use and Health (NSDUH) 2009, n = 24,625 (12 – 17 years of age)

30-day Substance Use by Grade Level. The percentage of youth who used substances in the past month increased as grade level increased. The largest increase in past month users occurred between the middle school and high school levels.

30-day Substance Use by Sex. Females were less likely than males to have used marijuana in the past 30 days.



Age of 1st Substance Use (Age of Initiation)

Students in 6th – 9th grade were asked to indicate how old they were the first time they used alcohol, cigarettes, and other drugs.

Age of 1st Substance Use Comparisons with State Samples. SPIRIT youth began using cigarettes and marijuana at a younger age than the average youth in Missouri.

	SPIRIT Total ¹	MO ²
Cigarettes	11.07	12.29
Alcohol (more than a sip) ³	11.07	---
Alcohol (once or twice a month)	12.58	---
Marijuana	12.85	13.53
Ecstasy	13.94	---
Methamphetamine	14.08	---
Inhalants	12.14	11.95
Prescription Drugs without Rx	12.91	---

¹ SPIRIT, spring 2010, 6th – 9th grade, n = 766 (average age = 13.54); note: there were no participating youth in the 9th grade from the Hickman Mills and Knox school districts.

² Missouri Student Survey (MSS) 2010, 6th – 9th grade, n = 92,901 (average age = 13.72)

³ Please consider the written explanation in the footnote on page 9 regarding the absence of Missouri comparison data.

Age of 1st Substance Use by Sex. On average, males had their first drink of alcohol and began drinking alcohol regularly over a year earlier than females.

Table 8. Age of 1st Substance Use by Sex

	Males	Females
Cigarettes	11.09	11.05
Alcohol (more than a sip)	10.57	11.61
Alcohol (once or twice a month)	11.87	13.08
Marijuana	12.50	13.34
Ecstasy	14.00	13.88
Methamphetamine	14.20	14.00
Inhalants	12.00	12.26
Prescription Drugs without Rx	12.89	12.93

Substance Use Extent and Circumstances

SPIRIT students in 6th – 9th grade were asked how many cigarettes they smoked, how many drinks they have when they drink, if they binge drank in the past 30 days, if they had been drunk or high at school in the past three months, if they rode in a vehicle when the driver was drinking, and whether they drove drunk.

Among those who reported smoking cigarettes in the past 30 days, 27.9% of students

The binge drinking rate among Missouri (8.0%) and SPIRIT youth (7.8%) is essentially the same.

had one cigarette or less on the days that they smoked. Over 41% reported smoking 2-5 cigarettes, 20.9% smoked 6-15 cigarettes. The remaining 9.7% reported smoking more than 16 cigarettes on the days that they smoked.

Among those who reported drinking alcohol in the past 30 days, 35.6% of students had only one drink on the days that they drank. Over 35% reported having 2-4 drinks. The remaining 28.9% of 6th – 9th graders reported having 5 or more drinks on the days that they drank.

A similar percentage of youth in Missouri (21.9%) and SPIRIT (19.5%) reported having been a passenger in a car, in the past 30 days, with a driver who had been drinking.

Youth were also asked to report if they had participated in binge drinking in the past month. Binge drinking is defined as having five or more drinks on the same occasion. Binge drinking was reported

by 40.5% of youth who drank any alcohol in the past month. Among those who reported having an alcoholic drink in their lifetime, 27.4% binge drank in the past 30 days. A total of 7.8% of all 6th – 9th grade youth reported binge drinking.

Among all 6th – 9th grade youth, 5.6% reported being drunk or high at school in the past 30 days; however, among lifetime alcohol users, the percentage of youth who reported being drunk or high at

Among youth who had drank alcohol in the past 30-days 12.6% of youth in Missouri and 13.0% of youth in the SPIRIT project reported driving after having consumed alcohol.

school in the past month was 11.3%. Over one-fourth (26.7%) of students reporting alcohol use

within the past month reported they were drunk or high at school. Students were also asked to indicate their experience with drunk driving, both as a driver and a passenger. Among all 6th – 9th grade students, 3.3% reported having driven a car when they had been drinking. Among those students 15 years of age or older, 7.3% reported driving after drinking, and among those 15 and older who had consumed alcohol in the past 30 days, almost one-fifth (18.2%) drove after drinking. Importantly, around one-fifth (19.5%) of all SPIRIT 6th – 9th grade youth reported that they rode in a car with a driver who had been drinking.

Table 9. Percentage of youth within the past month who rode with a driver who had been drinking or drove themselves after drinking (6 th – 9 th Grade)			
	Total Sample (regardless of reported alcohol use)	Among Lifetime Alcohol Users	Among 30-day Alcohol Users
Rode in a vehicle with a driver who had been drinking	19.5	32.1	47.5
Drove after having drunk alcohol	3.3	6.1	13.0
Drove after having drunk alcohol (15 years of age or older)	7.3	10.6	18.2

Summary

- *Cigarette use.* Lifetime rates of cigarette use for students from 6th – 9th grade were approximately the same across SPIRIT, Missouri, and the nation. Thirty-day cigarette use, however, was lower for students in SPIRIT than the two comparison samples.
- *Alcohol Use.* SPIRIT students had a lower 30-day day alcohol use than comparison samples. Age of first use was lower for SPIRIT students than those in the Missouri sample. On average, males had their first drink of alcohol and began drinking alcohol regularly over a year earlier than females. Among 6th – 9th graders who reported having an alcoholic drink in their lifetime, 27.4% binge drank in the past 30 days.
- *Marijuana.* Lifetime marijuana use rates were about the same for both SPIRIT and Missouri samples. Thirty-day use was lower than either Missouri or national samples in SPIRIT sites. The likelihood of trying marijuana showed only a small increase (approximately 9%) between 4th – 5th grade and 6th – 8th grade, but a very large increase (approximately 20%) between middle school and high school (as youth enter 9th grade). Females were less likely than males to have used marijuana in the past 30 days.
- *Other drugs.* Lifetime rates of inhalants were higher nationally than in both the SPIRIT and Missouri samples. For 30-day use, however, inhalants were lower than those in Missouri, but higher than the national sample. Prescription drug use (lifetime) was lower in the SPIRIT sample than in the Missouri sample and considerably lower for 30-day use.
- *Drinking and driving.* A fairly high percentage (18.2%) of youth who are eligible to drive (15 and older) and who have consumed alcohol in the past 30 days had driven after they had consumed alcohol. Around as many (19.5%) were passengers with drivers who had been drinking.

Chapter 4 - Substance Use Attitudes

Students in the 4th – 9th grades were asked to report on their attitudes toward substance use. Specifically, they were asked about the extent to which they thought most teenagers and adults used drugs, whether they might use drugs when they were older, how risky drugs were to the health of those who use, and how wrong they thought the use of drugs was. The majority of students (88.0%) strongly disagreed that smoking makes you look cool. Most (83.4%) also strongly disagreed that smoking cigarettes makes you look more grown-up. Fewer students, but still a majority (67.7%), strongly disagreed that drinking lets you have more fun.

Substance Use Norms

Just under half (approximately 45%) of youth in the 6th – 9th grades thought that most teenagers use cigarettes and alcohol. Fewer (35%) thought that most teenagers use marijuana. A greater percentage overestimated the percentage of adults who use cigarettes, alcohol and marijuana. Over 57% thought that most adults use cigarettes, far more than the actual average adult users in Missouri (23.1%; BRFSS, 2009¹). Around two-thirds (64.3%) of youth thought that most adults use alcohol, although the national average of adult users is 50.1%(BRFSS, 2009²). Approximately 35% of youth thought that most adults use marijuana.

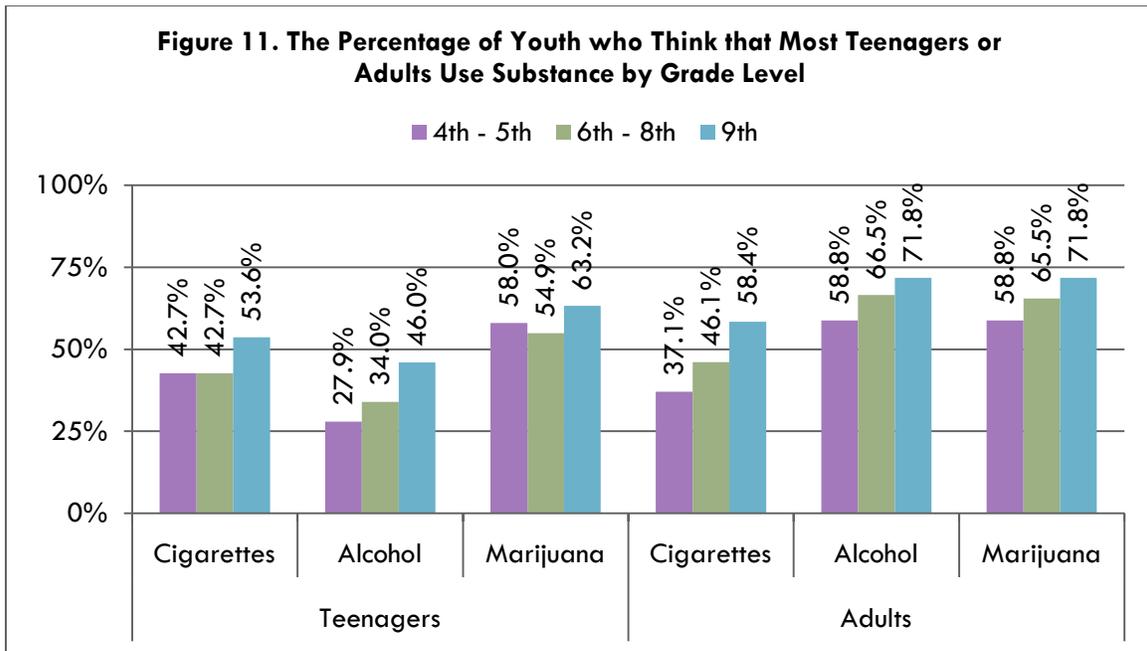
Table 10. Youths' Perception of Substance Use among Adults and Teenagers
(Response to the statement: Most teenagers/adults use "substance.")

		Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Teenager Use	Cigarettes	31.1	23.8	32.4	12.7
	Alcohol	29.0	25.5	33.8	11.7
	Marijuana	41.9	23.7	25.3	9.1
Adult Use	Cigarettes	22.1	20.0	38.4	19.5
	Alcohol	21.1	14.5	40.6	23.7
	Marijuana	38.8	26.3	23.9	10.9

Substance Use Norms by Grade Level. Youth were more likely to think that most adults use cigarettes, alcohol, and marijuana as grade level increased. Perceptions of teenage alcohol use revealed a similar pattern. However, as seen in Figure 12 below, perceptions of teenage cigarette and marijuana use did not follow this pattern.

¹Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, (2009).

² Ibid.



Substance Use Norms by Sex. Males and females did not differ in their perceptions of substance use norms among teenagers or adults.

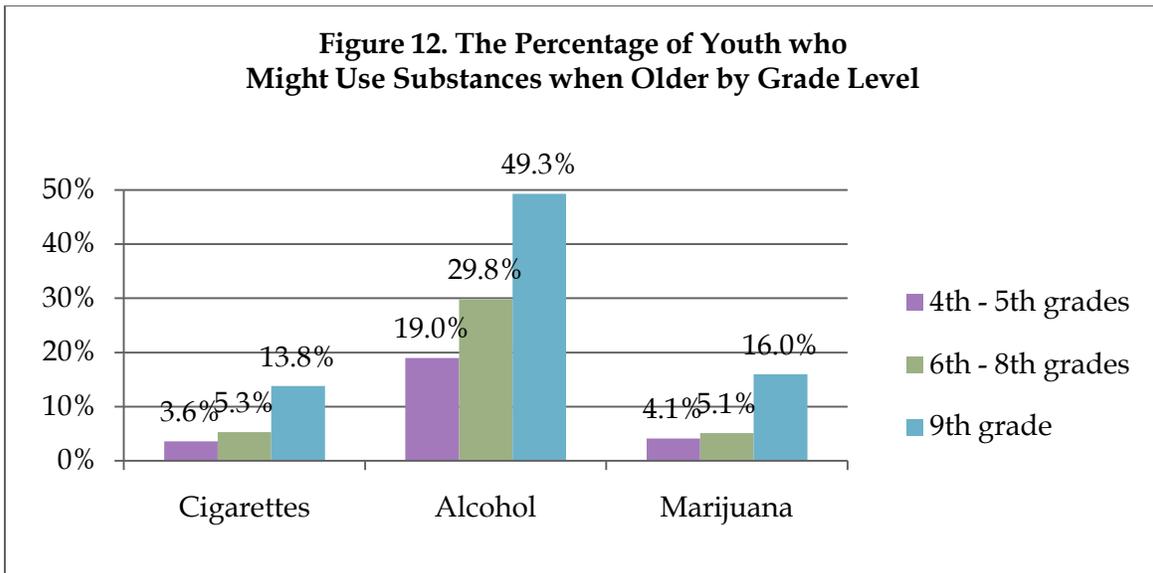
Substance Use Intentions

Students were more likely to indicate they might use alcohol in the future than cigarettes or marijuana, with 30.0% agreeing or strongly agreeing that they might use alcohol. Approximately 7% of students reported that they agreed or strongly agreed they might use cigarettes and 10.8% might use marijuana in the future.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Cigarettes	79.4	13.8	4.5	2.3
Alcohol	53.3	16.7	21.8	8.2
Marijuana	79.3	9.9	5.8	5.0

Substance Use Intentions by Grade Level. Students' intentions to use substances increased as grade level increased, with the largest increase occurring between the middle school and high school levels. Youth in the 4th – 5th grade and 6th – 8th grade were equally as likely to report that they may use cigarettes or marijuana when older. However, youth in the 6th – 8th grades were more likely than those in the 4th – 5th to indicate they may use alcohol.

Figure 12. The Percentage of Youth who Might Use Substances when Older by Grade Level



Substance Use Intention by Sex. Males and females were equally as likely to report that they might use cigarettes, alcohol, or marijuana in the future.

Risk of Harm from Substance Use

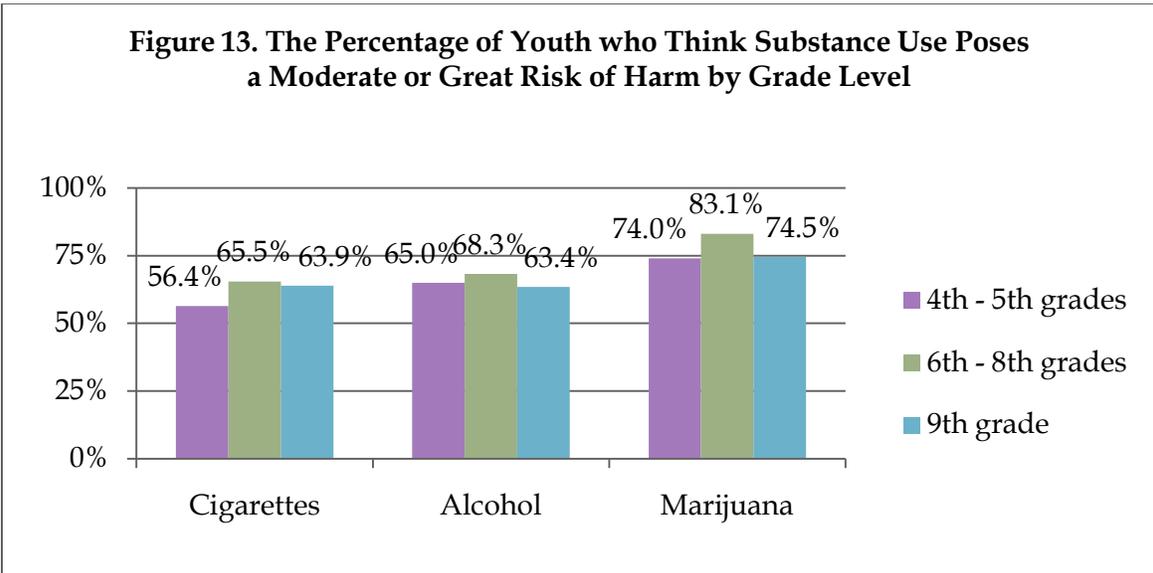
Students were asked to indicate how much they thought people risked harming themselves physically, or in other ways, if they used substances. Approximately 60% of students thought that the use of cigarettes and alcohol posed a moderate to great risk of harm. Around three quarters of the sample thought that marijuana use posed a moderate to great risk. Almost all participants, over 85%, reported that the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription were risky. Methamphetamine use was perceived to be most risky.

Table 12. Youths' Perception of Risk of Harm from Using Substances (4th – 9th grade)

	No Risk	Slight Risk	Moderate Risk	Great Risk
Smoke part or all of a cigarette	17.4	20.9	25.8	35.9
Drink any type of alcohol	11.9	22.1	29.9	36.1
Use Marijuana	13.4	8.8	19.2	58.5
(6 th – 9 th grade)				
Use ecstasy occasionally	8.6	7.3	17.7	66.5
Use meth occasionally	7.9	4.1	10.8	77.2
Use inhalants	7.0	5.7	17.3	70.1
Use prescription drugs w/out Rx	7.7	6.1	17.5	68.8

Risk of Harm by Grade Level. Students in the 4th – 5th grades were less likely than youth in the higher grade levels to think that the use of cigarettes was risky. Almost half (43.6%) of 4th – 5th graders did not perceive cigarette use as harmful, and around 35% did not see alcohol use as harmful.

Figure 13. The Percentage of Youth who Think Substance Use Poses a Moderate or Great Risk of Harm by Grade Level



Risk of Harm by Sex. Males and females associated a similar extent of risk with the various substances.

Disapproving Attitudes toward Substance Use

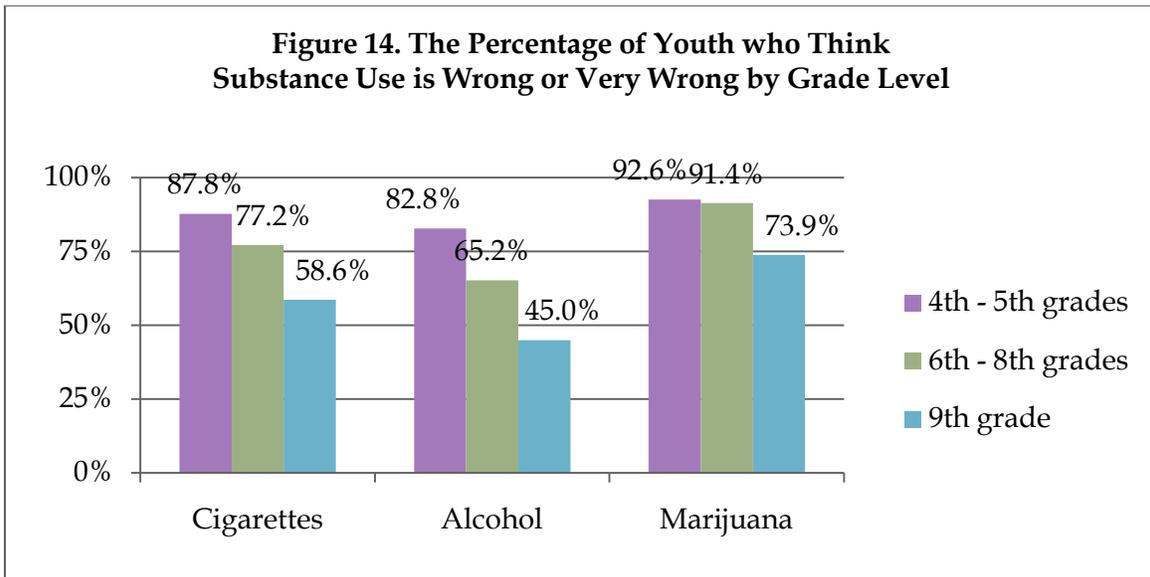
Although most students thought that the use of any substance was wrong, they were least likely to think that alcohol use was wrong and also less likely to think that cigarette smoking was wrong. Over 73% of students thought using marijuana, ecstasy, methamphetamine, inhalants, or the unintended use of prescription medications was very wrong. Occasional methamphetamine use was perceived to be most harmful.

Table 13. Youths' Perception of Wrongfulness of Substance Use (4th – 9th grade)

	Not Wrong at All	A Little Bit Wrong	Wrong	Very Wrong
Smoke part or all of a cigarette	8.4	14.8	26.5	50.3
Drink any type of alcohol	12.2	21.1	22.8	43.9
Use Marijuana	5.8	6.5	13.8	73.9
(6 th – 9 th grade)				
Use ecstasy occasionally	3.4	6.7	16.5	73.4
Use meth occasionally	3.2	3.2	13.0	80.7
Use inhalants	3.6	5.4	15.6	75.3
Use prescription drugs w/out Rx	3.7	5.4	16.0	74.9

Disapproving Attitudes by Grade Level. As grade level increased, youth were less likely to think that the use of cigarettes and alcohol were wrong. However, youth in the 4th – 5th grades were equally as likely as youth in 6th – 8th grades to think that using marijuana was wrong.

Figure 14. The Percentage of Youth who Think Substance Use is Wrong or Very Wrong by Grade Level



Summary

- Substance Use Norms.** Just under half, about 45%, of students in the 6th – 9th grades thought that most teenagers used cigarettes and alcohol. Over 57% thought that most adults used cigarettes; more, 64.3%, thought that most adults used alcohol. A little more than one third (35%) of students thought that most teenagers and adults used marijuana.
- Substance Use Intentions.** Thirty percent of students agreed or strongly agreed that they might use alcohol. About 7% of students reported that they agreed or strongly agreed they might use cigarettes and 10.8% might use marijuana in the future. Students' intentions to use substances increased as grade level increased, with the largest increase occurring between the middle school and high school levels. Youth in the 4th – 5th grade and 6th – 8th grade were equally as likely to report that they may use cigarettes or marijuana when older. However, youth in the 6th – 8th grades were more likely than those in the 4th – 5th to indicate they may use alcohol.
- Risk of Harm from Substance Use.** About 60% of students thought that use of cigarettes and alcohol posed a moderate to great risk of harm. A larger percentage, around three quarters of the sample, thought that marijuana use posed a moderate to great risk. Over 85% of students reported that ecstasy, methamphetamine, inhalants, and the use of prescription drugs without a prescription were risky. Students in the 4th – 5th grades were less likely than youth in the higher grade levels to think that cigarettes use was risky.
- Disapproving Attitudes toward Substance Use.** Although most students thought that the use of any substance was wrong, students were least likely to think that alcohol use was wrong and also less likely to think that cigarette smoking was wrong. Over 73% of students thought using marijuana, ecstasy, methamphetamine, inhalants, or the unintended use of prescription medications was very wrong. Occasional methamphetamine use was perceived to be most harmful.

Chapter 5 - Problem Behavior

The link between problem behaviors and substance use has been well documented. Both students who bully and those who are bullied have been shown to have higher rates of substance use, depression and suicidal ideation. Because of this relationship, the SPIRIT survey included questions on bullying behaviors. Specifically, students in the 4th – 9th grades reported the number of times they had engaged in aggressive and problem behaviors in the past three months. Youth similarly reported the number of times other students acted aggressively, threatened, or bullied them in the past three months.

When asked generally about the number of times they had been harassed or bullied in the past three months, approximately 40% of youth in the 4th – 9th grades reported being a victim of one of these behaviors at least once. While most reported only being a victim one or two times, 9.5% (or around one in ten youth) had been harassed or bullied six or more times. When asked about specific bullying behaviors, even more reported that they were made fun of (57.0%) and had rumors or lies spread about them (42.5%). Interestingly, while the percentage of youth that reported being made fun of (57.0%) was similar to the percentage of youth that had made fun of others (61.0%), the percentage of youth that had rumors or lies spread about them (42.5%) was significantly higher than the percentage that reported spreading rumors about others (19.3%).

A very small percentage of youth (under 10%) reported using the Internet or a cell phone to embarrass or hurt another student or having that same technology used by someone else to embarrass or hurt them.

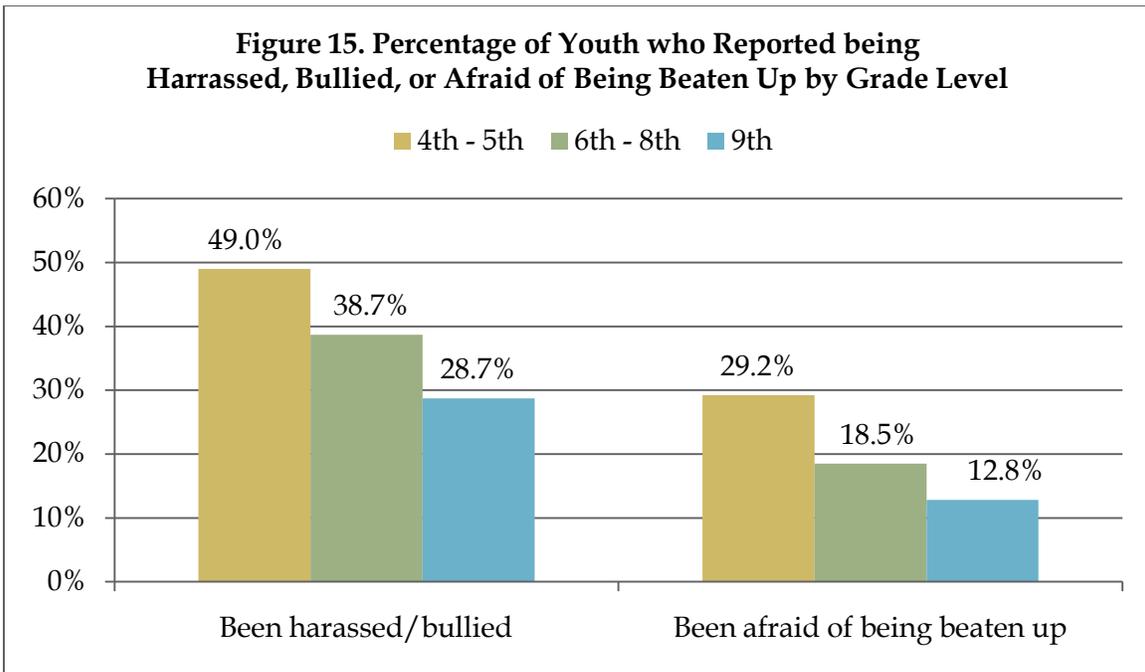
Over 21% of youth were afraid of being physically beaten up, which was very similar to the 20.1% who reported having been in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student (34%) or being assaulted by another student (35%).

A very small percentage of youth reported using a weapon to threaten or bully another (4.5%) or having a weapon used against them in a similar manner (8.5%).

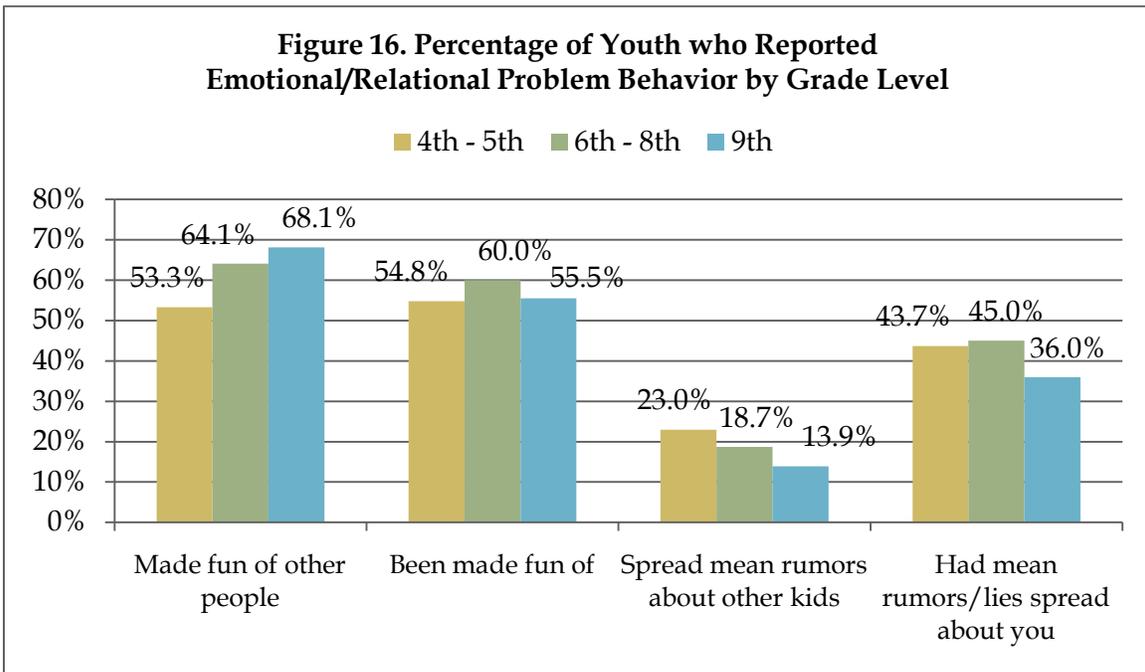
Table 14. Frequency of Problem Behavior in Past 3 months

	Never	1-2 times	3-5 times	6-9 times	10 or more times
Been harassed or bullied	59.6	23.2	7.7	3.7	5.8
Been afraid of being beaten up	78.8	12.9	3.3	1.3	3.7
<i>Emotional/Relational Problem Behavior</i>					
Made fun of other people	39.0	34.4	10.0	4.4	12.2
Been made fun of	43.0	29.7	11.9	5.0	10.4
Spread mean rumors or lies about other kids at school	80.7	14.0	2.5	1.1	1.7
Had mean rumors or lies spread about you at school	57.5	25.1	7.3	3.7	6.3
<i>Emotional/Relational Problem Behavior through Technology</i>					
Used the Internet to post pictures or text that might embarrass or hurt another student	91.1	5.3	1.8	0.6	1.2
Had pictures or text that embarrassed or hurt you posted through the Internet	91.4	6.2	1.0	0.4	1.0
Used a cell phone to send text messages or pictures that might embarrass or hurt another student	90.3	6.0	1.6	0.7	1.4
Had text or picture cell phone messages sent about you that were embarrassing or hurtful	91.3	6.0	1.3	0.4	1.0
<i>Physically Aggressive Problem Behavior</i>					
Hit/pushed other kids at school when not playing around	66.0	22.0	6.8	2.7	2.5
Been pushed, shoved, slapped, hit or kicked by someone who wasn't just kidding around	65.0	18.6	8.0	3.1	5.3
Been in a physical fight	79.9	1.1	0.2	14.0	4.8
<i>Use of weapons to threaten or bully</i>					
Used any weapon to threaten or bully someone	95.5	2.3	1.0	0.4	0.8
Been threatened or injured with a weapon, such as a gun, knife, or other weapon	91.5	5.2	1.2	0.4	1.7

Problem Behavior by Grade Level. The percentage of youth who reported being harassed or bullied and being afraid of being beaten up steadily decreased as youth increased in grade level. Regardless of grade level, youth are more likely to be harassed or bullied than they are to fear being beaten up.

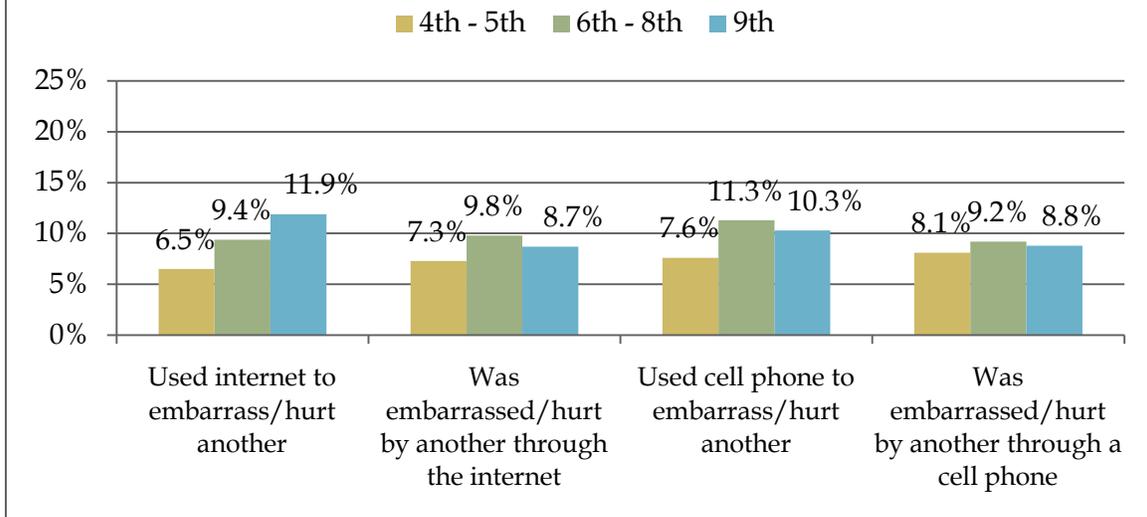


Older youth were more likely to make fun of other people than younger students and those in 6th – 8th grade were slightly more likely than other grade groups to report being made fun of. Youth in 9th grade were less likely than any other grade group to report having rumors spread about them.



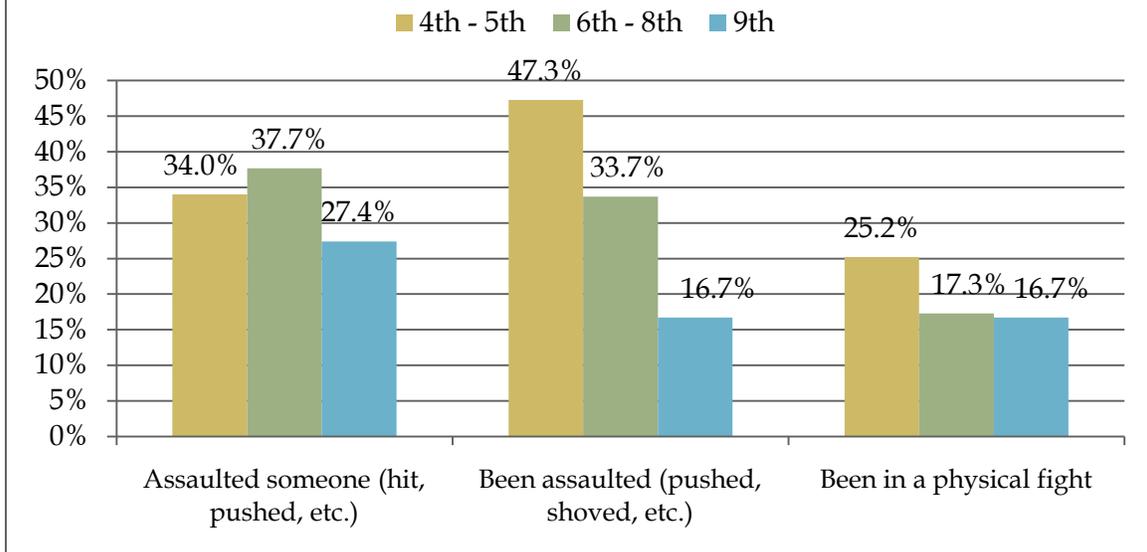
Younger students (4th- 5th grade) were least likely to bully or to be bullied using the Internet or cell phone.

Figure 17. Percentage of Youth who Reported Embarrassment or Hurt through the Use of Technology by Grade Level

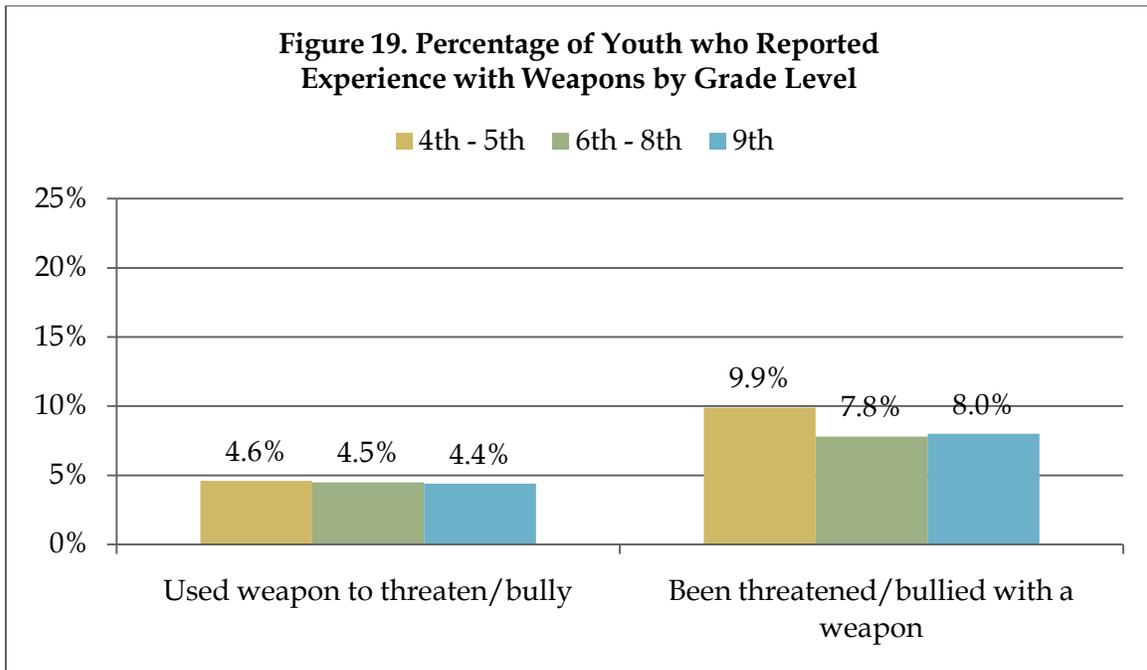


As grade level increased, youth were less likely to report being pushed or shoved. The percentage of youth in the 9th grade who reported assaulting someone else in the past 3 months was significantly lower than the other grade groups. The percentage of youth who reported being in a physical fight was significantly higher in the 4th – 5th grades than any other grade group.

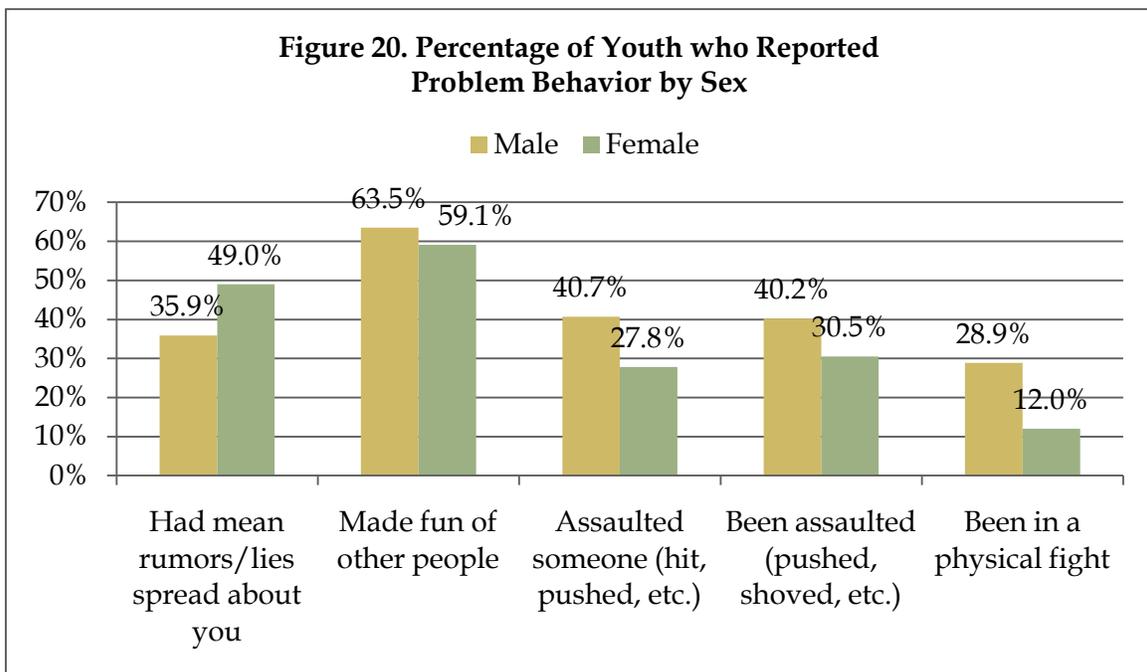
Figure 18. Percentage of Youth who Reported Physically Aggressive Problem Behavior by Grade Level



There were few differences between younger and older youth in the use of weapons to threaten or bully or being bullied with a weapon by someone else. Notably, youth were more likely to report having been threatened or bullied with a weapon than to have threatened or bullied someone else with a weapon.



Problem Behavior by Sex. Females were more likely than males to report that they had rumors or lies spread about them in the past 3 months. Males were more likely to report incidents of physical aggression with a greater percentage of males than females reporting having assaulted others (hit or pushed), been assaulted (pushed, shoved, slapped, hit or kicked), or been in a physical fight. Males were also more likely than females to report making fun of others at school.



Summary

- Emotional/Relational Problem Behavior.** Around 40% in 4th – 9th grades reported being harassed or bullied by others in the past three months. More reported they were made fun of than had rumors (57.0%) or lies spread about them (42.5%). While reports of being made fun of and making fun of others is approximately the same (57.0% and

61.0% respectively), the percentage of youth who report having rumors or lies spread about them (42.5%) is significantly higher than the number who report spreading rumors about others (19.3).

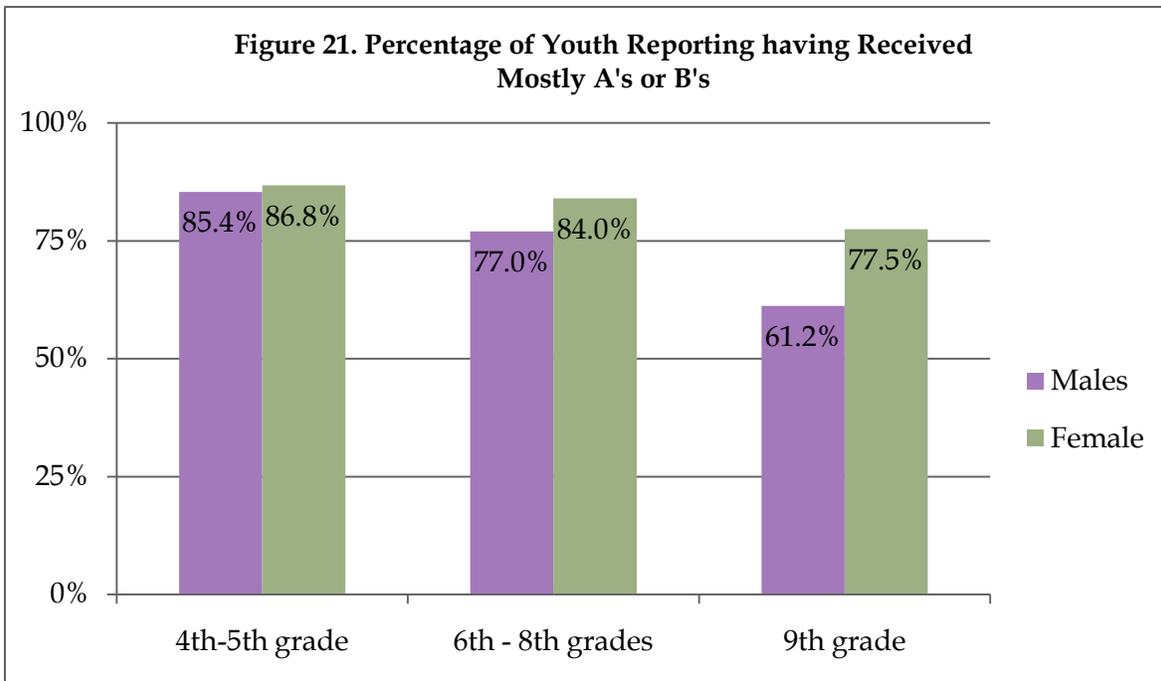
- *Emotional/Relational Problem Behavior Using Cell Phones or the Internet.* A very small percentage of youth (under 10%) reported either using the Internet or a cell phone to embarrass or hurt another student or having that technology used by someone else to embarrass or hurt them.
- *Physically Aggressive Problem Behavior.* The percentage of students who were afraid of being physically beaten up (over 21%) was very similar to the 20.1% who reported having been in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student (34%) or having been assaulted by another student (35%). Younger students were more likely to be afraid of physical fighting than older students.
- *Use of weapons to threaten or bully.* Very few students reported using a weapon to threaten or bully another (4.5%); however, almost twice as many said that they had a weapon used against them in a similar manner (9.5%).

Chapter 6 - School Performance & Attitudes

School performance and attitude data were collected from students in 4th – 9th grade. They were asked to report their average grades, the number of times they skipped school, and the number of times they received discipline in the form of in-school suspension/detention or out-of-school suspension.

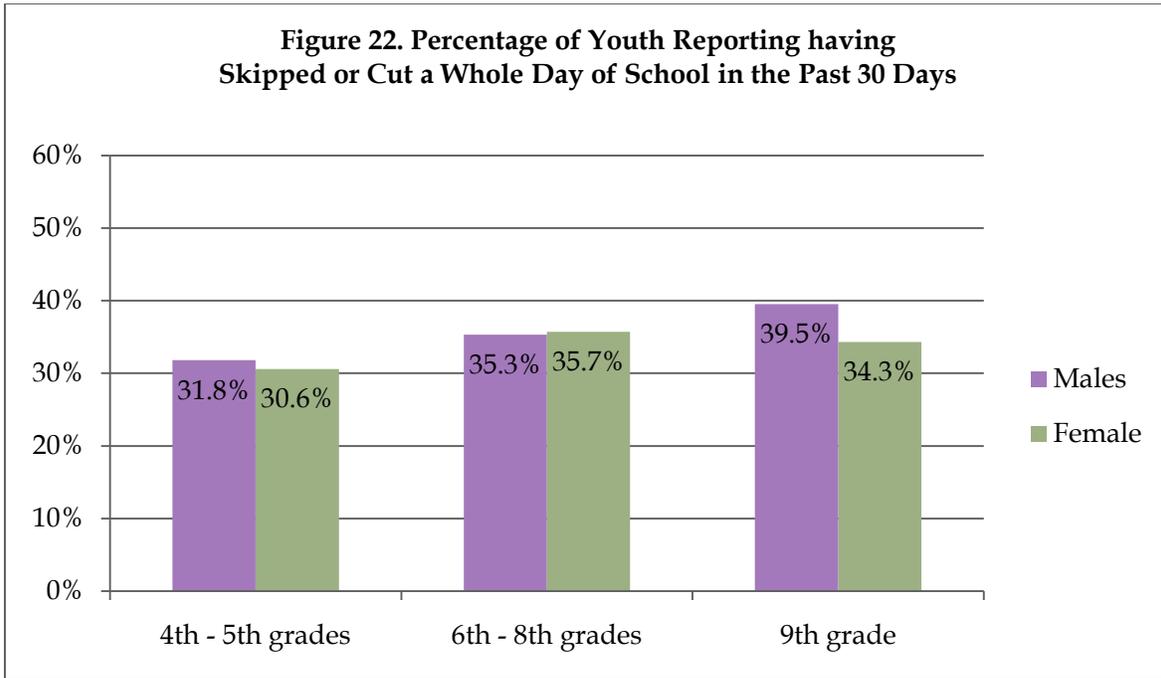
Grades, Absences, & Disciplinary Incidents

The majority of students (80.1%) reported average grades last school year of either A's or B's. A greater percentage of females (83.6%) reported mostly A's or B's than did males (76.8%). The percentage of students reporting mostly A's or B's went down slightly as the grade level increased. The percentage of males in 9th grade receiving mostly A's or B's is significantly lower than males in other grades.



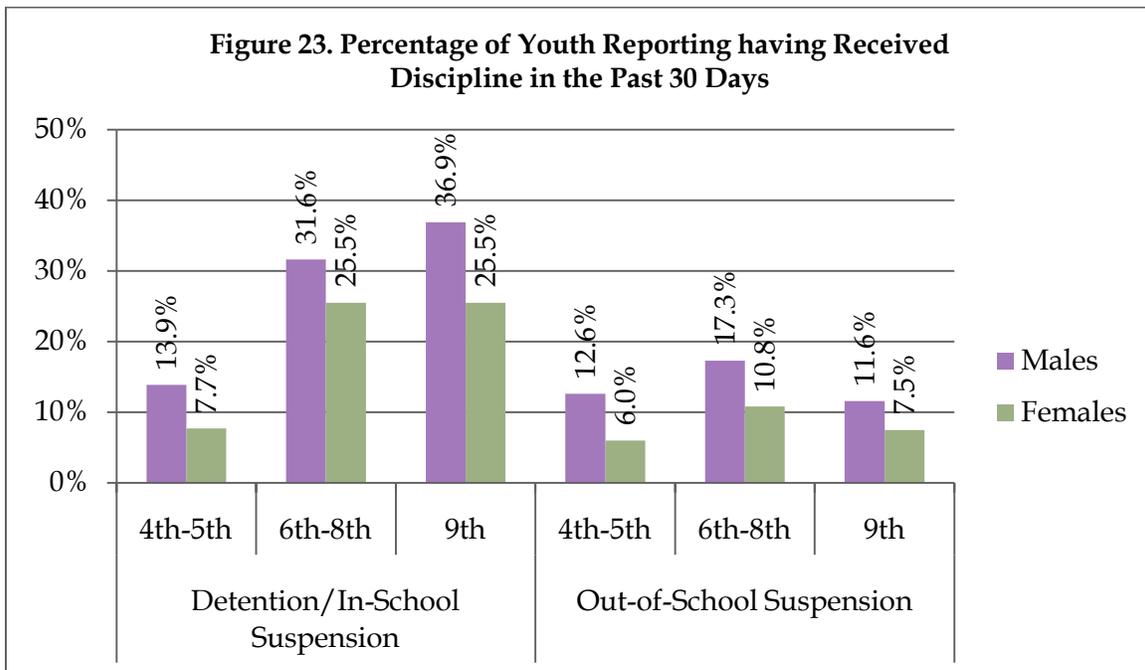
When asked how many whole days of school were skipped or cut in the past 30 days, 34.2% of students reported missing at least one day. Only 2.2% of students reported skipping ten or more days. Males and females in the 4th – 8th grades were equally as likely to have skipped a whole day of school within the past month. However, among 9th grade youth, females were less likely than males to have skipped school.

Figure 22. Percentage of Youth Reporting having Skipped or Cut a Whole Day of School in the Past 30 Days



A fairly high percentage (21.9%) reported receiving in-school suspensions or detentions in the past 3 months. This percentage was a little more than twice the percentage who reported receiving out-of-school suspensions (11.2%). Regardless of grade level, males were more likely than females to receive some sort of school discipline. Sixth through eighth grade students were slightly more likely to receive out-of-school suspensions than students in the other grade levels. The percentage of students who received detentions or in-school suspensions increased as grade level increased.

Figure 23. Percentage of Youth Reporting having Received Discipline in the Past 30 Days



Attitudes toward School

Students in the 4th – 9th grades reported their attitudes toward school by the extent to which they agreed or disagreed with statements concerning their happiness, safety, and connectedness. Overall, a large majority of youth had positive attitudes toward school. Over a quarter of students (27.7%), however, did not think that teachers treated them fairly.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I feel close to people at this school.	3.1	10.3	59.1	27.5
I am happy to be at this school.	5.6	12.4	49.5	32.5
I feel like I am a part of this school.	4.4	12.4	49.9	33.3
The teachers at this school treat students fairly.	8.7	19.0	44.9	27.4
I feel safe at this school.	4.9	10.6	47.6	36.9
I feel safe going to and from this school.	4.0	7.3	47.3	41.4

Attitudes toward School by Grade Level. Although students in 9th grade reported feeling equally close to people in their school as did students in grades 4-8, they were not as happy to be in their school, they did not feel as much a part of school and they did not feel as safe in school as students in other grades. The percentage of youth who reported teachers treated students fairly decreased as the grade level increased with only about one-third of 6th – 9th grade students believing that teachers treated them fairly.

	4 th - 5 th Grade	6 th - 8 th Grade	9 th Grade
I feel close to people at this school.	85.7	87.3	86.9
I am happy to be at this school.	86.2	81.2	76.3
I feel like I am a part of this school.	87.3	84.5	74.1
The teachers at this school treat students fairly.	80.7	68.0	65.9
I feel safe at this school.	87.7	88.3	72.8
I feel safe going to and from this school.	89.1	90.0	85.7

Attitudes toward School by Sex. In general, there were no differences in attitudes toward school between males and females.

Summary

- **Grades.** The majority of students (80.1%) reported average grades last school year of either A's or B's, with females reporting higher grades than males. The percentage of students reporting mostly A's or B's went down slightly as the grade level increased. The percentage of males in 9th grade receiving mostly A's or B's is significantly lower than males in other grades.
- **Attendance.** Although very few students (2.2%) reported skipping 10 or more days, 34.2% of students reported missing at least one day for this reason.

- *Discipline.* Fourth – 9th grade students reported receiving in-school suspensions or detentions (21.9%) at almost twice the rate as out-of-school suspensions (11.2%) in the past 3 months.
- *Attitudes toward school.* Generally students held positive attitudes about school, although around one-third of students in grades 6-9 did not believe that teachers treated them fairly. Fourth through eighth grade students reported feeling safer at school than did 9th graders.

Chapter 7 - Program Effectiveness

Students in 4th – 9th grades responded to questions regarding their satisfaction with the programs implemented in their schools through SPIRIT and the extent to which they thought the programs were effective in meeting the intended goals. Questions were asked such as whether programs helped students learn anger management and resistance skills and whether they helped increase self-esteem. The majority of youth liked the programs at least a little (83.1%) and most thought the programs were effective, especially in helping them with resistance skills and anger management. A little more than three-quarters (72.9%) of the sample reported the program helped them get along better with other people, but only about half of the students thought that other students were nicer to them because of the program. Satisfaction with the program and its perceived effectiveness did not change from Year 7 to Year 8.

Table 17. Effectiveness of and Satisfaction with SPIRIT

	No, not at all	No, not much	Yes, a little	Yes, a lot
Did you like the program?	7.2	9.6	40.4	42.7
Did the program teach you what to do when you are angry?	8.1	10.6	33.6	47.7
Do you act better because of the program?	13.2	19.0	36.4	31.4
Did the program help you feel better about yourself?	11.1	16.8	36.1	35.8
Does the program help you to say no to harmful things other kids might want you to do?	10.7	10.1	29.8	49.4
Has the program helped you to get along better with other people?	13.0	15.2	35.7	36.2
Are other kids nicer to you because of the program?	22.8	25.2	29.0	23.0
Was the time spent on the program helpful?	11.0	11.3	37.0	40.7

Program Effectiveness by Grade Level. In general, the higher the grade level, the smaller the percentage of students who rated the program positively. Still, three-fourths of 9th grade students liked the program and almost as many reported that the program helped with anger management skills.

Table 18. Effectiveness of and Satisfaction with SPIRIT by Grade Level (Yes, a lot & Yes, a little, combined Percentages)			
	4 th – 5 th Grade	6 th – 8 th Grade	9 th Grade
Did you like the program?	91.4	80.0	74.6
Did the program teach you what to do when you are angry?	89.4	77.8	73.4
Do you act better because of the program?	80.1	64.7	51.8
Did the program help you feel better about yourself?	80.7	70.1	59.9
Does the program help you to say no to harmful things other kids might want you to do?	84.2	79.7	69.7
Has the program helped you to get along better with other people?	83.9	67.3	59.2
Are other kids nicer to you because of the program?	62.4	49.7	38.0
Was the time spent on the program helpful?	81.9	78.9	68.4

Program Effectiveness by Sex. A greater percentage of females thought the program improved their self-esteem and strengthened their resistance skills. Females were also somewhat more likely to think that the time spent on the program was helpful.

Table 19. Effectiveness of and Satisfaction with SPIRIT by Sex (Yes, a lot & Yes, a little, combined Percentages)		
	Male	Female
Did you like the program?	80.1	86.7
Did the program teach you what to do when you are angry?	79.7	82.9
Do you act better because of the program?	66.9	68.8
Did the program help you feel better about yourself?	68.2	74.4
Does the program help you to say no to harmful things other kids might want you to do?	76.2	82.2
Has the program helped you to get along better with other people?	70.8	72.8
Are other kids nicer to you because of the program?	52.4	51.2
Was the time spent on the program helpful?	75.4	80.0

Summary

- The majority of youth liked the program at least a little (83.5%) and most thought the program was effective, especially in helping them with resistance skills and anger management. The area in which the program was thought to be least effective was in getting others to be nicer.
- In general, the higher the grade level, the lower the percentage of students who rated the program positively in all categories. Despite this, around 75% of students in 9th grade reported liking the program.
- A greater percentage of females liked the program than males, thought the program increased their resistance skills, and thought it improved their self-esteem. Females were also more likely to think that the time spent on the program was helpful.

Chapter 8 - Protective Factors

Protective factors help safeguard youth against being aggressive and using alcohol, tobacco or other drugs. Important protective factors were measured through self-report, including the levels of empathy, decision making skills, and the presence of caring adults in the lives of students in grades 4-9.

Empathy

The majority of students, approximately 79% to 87%, reported that they were sad when someone was left out, upset when they saw an animal hurt, and felt bad when someone else got their feelings hurt. Being upset at seeing an animal hurt was most likely to be reported.

Table 20. Youth Capacity for Empathy				
	Strongly Disagree	Disagree	Agree	Strongly Agree
It makes me sad if I see someone who is left out.	4.8	15.9	46.9	32.4
I get upset when I see an animal being hurt.	3.8	9.0	33.6	53.5
I feel bad when someone else gets their feelings hurt.	4.7	14.4	48.9	32.0

Empathy by Grade Level. Students in the 4th – 5th grades were the most likely to report being empathetic. The percentage of youth in all age groups who reported getting upset when seeing an animal hurt was higher than the percentage who felt bad or sad about people being left out or having their feelings hurt.

Empathy by Sex. Females were significantly more empathetic in their responses to each of the questions than were males.

Decision Making

Students were significantly more likely to report making good decisions than thinking about their choices, the consequences of their actions, or other people's feelings.

Table 21. Youth Decision Making Skills				
	Never	Sometimes but not Often	Often	All the Time
How often do you stop to think about your choices before you make a decision?	5.2	31.4	47.4	16.0
How often do you stop to think about how your decisions may affect others' feelings?	7.0	31.0	43.6	18.5
How often do you stop to think about all of the things that may happen as a result of your decisions?	6.8	28.7	40.8	23.7
How often do you make good decisions?	1.6	15.2	62.5	20.7

Decision Making by Grade Level. Students in the 4th – 5th grades were more likely than older youth to report thinking about their choices, others’ feelings and the consequences of their decisions before making decisions. Reported decision making skills were lower as grade level increased. Despite the fact that students in grades 6-9 did not report strong decision making skills, they were quite confident in reporting that they made good decisions.

Table 22. Youth Decision Making Skills by Grade Level (Often & All the Time, combined percentages)				
	SPIRIT Total	4 th -5 th Grade	6 th -8 th Grade	9 th Grade
How often do you stop to think about your choices before you make a decision?	63.4	87.3	62.8	57.8
How often do you stop to think about how your decisions may affect others’ feelings?	62.1	69.4	58.6	55.8
How often do you stop to think about all of the things that may happen as a result of your decisions?	64.5	72.0	62.6	55.3
How often do you make good decisions?	83.2	83.8	85.6	77.7

Decision Making by Sex. Males and females were equally as likely to report good decision making skills and the propensity to make good decisions often or all of the time.

Caring Adults

Approximately 84% to 90% of students reported there were caring adults at both their school and home. A slightly greater percentage of youth reported the presence of caring adults at home than at school.

Table 23. Presence of Caring Adults				
	Strongly Disagree	Disagree	Agree	Strongly Agree
At school, there is a teacher or another adult whom I can go to if something is really bothering me.	5.6	11.0	42.4	41.0
At school, there is a teacher or another adult who listens to me when I have something to say.	4.5	10.4	48.7	36.4
At home, there is a parent or another adult whom I can go to if something is really bothering me.	2.4	6.8	29.4	61.4
At home, there is a parent or another adult who listens to me when I have something to say.	2.7	5.7	34.2	57.4

Caring Adults by Grade Level. In general, students in the 4th – 5th grades were most likely to think there was someone at home or at school they could go to if something was bothering them or who would listen if they had something to say. The percentage of students who reported the presence of caring adults at school steadily decreased with grade level. The percentage of students who reported the presence of caring adults at home was similar regardless of age group.

Caring Adults by Sex. Females and males were equally likely to report the presence of caring adults.

Summary

- *Empathy.* The majority of students, from about 79% to 87%, reported they were sad when someone was left out, were upset when they saw an animal hurt, and felt bad when someone else got their feelings hurt. Being upset at seeing an animal hurt was most frequently reported. Females were significantly more empathetic than males.
- *Decision making.* Students were more likely to report making good decisions than thinking about their choices, the consequences of their actions, and other people's feelings. Younger students were more likely than older youth to report thinking about their choices and others' feelings before making decisions.
- *Caring adults.* The vast majority of students reported there were caring adults at both their school and home. In general, more students in rural districts than in urban districts thought there were caring adults at school.

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