

SPIRIT

FIFTH YEAR REPORT

PREPARED FOR
MISSOURI DEPARTMENT OF MENTAL HEALTH
DIVISION OF ALCOHOL AND DRUG ABUSE

PREPARED BY
MISSOURI INSTITUTE OF MENTAL HEALTH
DIVISION OF CHILD AND FAMILY MENTAL HEALTH RESEARCH SERVICES
UNIVERSITY OF MISSOURI - COLUMBIA

CAROL J. EVANS, PH.D.
LIZ SALE, PH.D.
VIRGINIA WEIL, MSW
KAREN M. BREEJEN, BA

December 2007



MATT BLUNT
GOVERNOR
KEITH SCHAFER, Ed.D.
DIRECTOR



STATE OF MISSOURI
DEPARTMENT OF MENTAL HEALTH

1706 EAST ELM STREET
P.O. BOX 687
JEFFERSON CITY, MISSOURI 65102
(573) 751-4122
(573) 751-8224 FAX
www.dmh.mo.gov

MARK STRINGER
Director
DIVISION OF ALCOHOL AND DRUG ABUSE
(573) 751-4042
(573) 751-7814 FAX

JOE PARKS, M.D.
DIRECTOR
DIVISION OF COMPREHENSIVE
PSYCHIATRIC SERVICES
(573) 751-8017
(573) 751-7815 FAX

BERNARD SIMONS
DIRECTOR
DIVISION OF MENTAL RETARDATION AND
DEVELOPMENTAL DISABILITIES
(573) 751-4054
(573) 751-8207 FAX

September 24, 2007

The Missouri Division of Alcohol and Drug Abuse is pleased to present this Fifth Year Report of the Missouri School-based Substance Abuse Prevention Intervention Resources Initiative (SPIRIT).

The report, prepared by the Missouri Institute of Mental Health (MIMH), was made possible through the Division's partnership with five school districts: Knox County, Hickman Mills (Kansas City), Jennings (St. Louis County), New Madrid County, and Carthage (Jasper County).

SPIRIT objectives are to delay onset and decrease use of substances, improve overall school performance, and reduce incidents of violence. The report shows positive outcomes and suggests future enhancements. I hope it gives you a deeper understanding of this exciting project.

A handwritten signature in black ink, appearing to read "Mark Stringer".

Mark Stringer,
Director

The Department of Mental Health does not deny employment or services because of race, sex, creed, marital status, religion, national origin, disability or age of applicants or employees.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
I. OUTCOME FINDINGS.....	2
II. NEEDING IMPROVEMENT.....	3
III. RECOMMENDATIONS.....	5
FINDINGS.....	7
I. PROGRAMMATIC FINDINGS.....	7
II. OUTCOME FINDINGS.....	11
A. SUBSTANCE USE	12
B. SCHOOL RECORDS	14
C. PROBLEM BEHAVIORS	15
D. VICTIMIZATION	17
E. YOUTH SATISFACTION	18
F. ATTITUDES TOWARDS SUBSTANCE USE, WRONGFULNESS AND HARM	19
G. RISK AND PROTECTIVE FACTORS	23
SUMMARY.....	28
INDEX OF TABLES AND FIGURES	31

EXECUTIVE SUMMARY

Over the past five years, more than 7,500 children and youth have participated in the **School-based Prevention Intervention and Resources Initiative (SPIRIT)** substance abuse prevention program initiated by the Alcohol and Drug Abuse division of the Department of Mental Health. Five school districts are currently being served: Carthage, Hickman Mills, Jennings, Knox and New Madrid school districts. The program offers a variety of evidence-based prevention programs selected by the districts including PeaceBuilders, Positive Action, Life Skills Training, Too Good For Drugs, Project Towards No Drug Abuse (TND), Reconnecting Youth, and Second Step. In the fifth year of SPIRIT, 5217 children and youth participated in the program and 3673 (70.4%) of those received parental consent to participate in the evaluation. Because the evaluation used a random sampling method, there was a total of 1407 youth who participated in the SPIRIT evaluation from all school districts. The evaluation was performed by the Missouri Institute of Mental Health (MIMH).

This report provides fifth year outcomes of the main goals of the project, which are to 1) reduce violence and aggressive behaviors, 2) improve overall school performance, 3) decrease the use of alcohol, tobacco, and other drugs, and 4) delay the onset of substance use. Data were collected through behavioral checklists completed by K-3 teachers, self-report surveys completed by students in grades 4-9, satisfaction questions answered by all students (K-9), program fidelity forms, monthly reports from the sites, an on-line teacher survey and site visits that included observations of program implementation and interviews with providers and administrative personnel.

It should be noted that the Jennings School District terminated its participation in SPIRIT in February, 2007. Although programming continued in the middle and high school through completion of the curriculum, lessons were not continued at the elementary school. Because at the time of termination, the majority of lessons had been taught to the elementary students, it is believed that fidelity was still achieved.

OUTCOME FINDINGS

Substance Use and Substance Use Attitudes

Substance Use Lifetime, Age of Initiation, and 30-day Use.

	<i>Lifetime Use</i>		<i>Age of Initiation</i>		<i>30-day Use 4th-5th</i>		<i>30-day Use 6th-9th</i>	
	Fall 2006	Spring 2007	Fall 2006	Spring 2007	Fall 2006	Spring 2007	Fall 2006	Spring 2007
Cigarettes	41.2%	50.1%	11.67	11.60	2.5%	2.3%	5.0%	8.8%
Alcohol (more than a sip)	58.0%	67.9%	11.89	12.20	3.4%	4.0%	11.1%	15.3%

Note: This table includes only students for whom there was both a pretest (Fall 2006) and post-test (Spring 2007). 4th and 5th grade students were only asked about 30 day use, so lifetime use and age of initiation include only grades 6-9.

- Rates of 30-day use are low for alcohol (15.3%) and cigarettes (8.8%).
- Most students believed that use of drugs, particularly the “other illegal drugs” was wrong (Spring 2007: illegal drugs, “wrong” or “very wrong”=96.8%).
- Most youth in grades 6-9 (55.2%-59.7%) maintained their belief over time that alcohol use was harmful.
- Youth in PeaceBuilders, Positive Action, and Life Skills Training increased their perception of harmfulness of cigarette (Fall 2006=64.1%; Spring 2007=72.9%) and ecstasy (Fall 2006=61.9%; Spring 2007=74.3%) use over time. The perception of harm is closely correlated with the choice to use or not use drugs, so this is a positive finding.
- The perception of the harmfulness of inhalant use increased significantly for a majority of students from Fall 2006 (60.5%) to Spring 2007 (64.5%).
- Very few youth reported that they might use cigarettes (Fall 2006=6.6%; Spring 2007=7.7%) or marijuana (Fall 2006=6.8%; Spring 2007=6.2%) when they were older and this remained constant over the course of the year indicating that SPIRIT may be influencing future choices of students. Significantly more youth reported that they might use alcohol when they were older (Fall 2006=19.7%; Spring 2007=24.2%).

School Performance Indicators

- There were no disciplinary incidents related to alcohol, tobacco, or other drugs in Year 5 or in Year 4 in the districts reporting school level data.

- In the districts reporting school level data, there was a significantly smaller percentage of children and youth with at least one disciplinary incident in Year 5 (25.1%) than in Year 4 (34.4%).

Problem Behaviors

- PeaceBuilders has improved behavior at all schools where it is implemented with fewer in-school suspensions and better attendance reported. Because PeaceBuilder principles are not necessarily modeled in all home environments, having the program in the school provides children with exposure to positive ways of handling anger and conflict.
- The bullying lessons from PeaceBuilders have helped to make students more aware of their own behaviors and to lessen bullying in one of the districts. Schools have also adopted a no-tolerance attitude toward bullying.

Satisfaction

- Overall, students were satisfied with the program. Approximately 60% of students said they were “satisfied” or “very satisfied” with the program. RY students reported a high level of program satisfaction and that the time spent on the program was helpful.

Risk and Protective Factors

- There was a significant increase in pro-social behavior and emotion regulation in K-3 showing an overall improvement in social competence. Social competence is an important protective factor against violence and drug use. Fifty-four percent of the children increased their pro-social behavior and 49% increased emotion regulation.
- K-3 children in Positive Action showed a decrease in both proactive and reactive aggression over time.
- A majority of students agreed that there was a teacher or another adult at school that they could go to if there was something bothering them. By Spring 2007, 86.1% agreed or strongly agreed.

NEEDING IMPROVEMENT

Substance Use and Substance Use Attitudes

- Lifetime inhalant use (23.9%) is more than twice as high as either the Missouri Student Survey (MSS) or the NSDUH. Inhalant use is not directly addressed by any of the prevention programs, so we recommend program supplements to address inhalants.

- Although lifetime use rates for all drugs used by the SPIRIT sample are higher than those found in the MSS and NSDUH samples, 30-day use of tobacco, alcohol and inhalants are lower. This indicates that there is a high level of experimentation, but not consistent use.

30-day Use	SPIRIT	MSS	NSDUH
Cigarettes	8.8%	12.6%	10.4%
Alcohol	15.3%	26.6%	16.6%
Inhalants	4.1%	4.8%	4.4%

- Students believed that use of drugs, particularly alcohol, was more wrong (Spring 2007=86.3%) than harmful (Spring 2007=57.7%). Children in grades 6-8 thought that alcohol use was more harmful at Spring 2007 (57.5%) than at Fall 2006 (52.2%). Fourth and 5th grade students believed that use of cigarettes, marijuana and inhalants were significantly less harmful than did students in grades 6-9 indicating a strong need for ATOD programming in the elementary schools. We recommend that implementers increase focus on both the physical and social consequences of alcohol and other drug use.
- Most students thought it was very wrong to use alcohol regularly but less wrong than use of other substances. Almost 73% of students thought that use of cigarettes was very wrong, 81% thought marijuana use to be very wrong and 88% thought other drug use to be wrong. This contrasts with perceptions of 68.8% of youth who thought alcohol use was very wrong at Spring 2007. Significantly fewer youth thought it was “very wrong” at Spring 2007 (68.8%) than Fall 2006 (73%). It is difficult to impact this perception since alcohol is a legal drug and social norms seem to accept alcohol experimentation among youth. It is therefore important to stress “normative education” that presents the information that most teens and adults do not use alcohol (i.e. use is not the “norm.”)
- While youth in PeaceBuilders, Positive Action, and LST increased their perception of harmfulness of cigarette use (Fall 2006=64.1%; Spring 2007=72.9%) and ecstasy (Fall 2006=61.9%; Spring 2007=74.3%) over time, children and youth in Second Step, did not change their opinions significantly (cigarettes, Fall 2006=50.4%, Spring 2007=49.6%; ecstasy Fall 2006=55.4%, Spring 2007=56.2%). Second Step participants and youth in grades 6 – 8, however, thought smoking was significantly more harmful than children in grades 4 – 5. Second Step is implemented in urban districts where use of tobacco and other drugs is more prevalent.
- A majority of youth reported that they thought most teenagers (Spring 2007=52.5%) and adults (Spring 2007=61.8%) smoked cigarettes and many youth reported that most teenagers drink alcohol (Spring 2007=44.4%). Again, this misperception shows a need for normative education to provide more realistic information, particularly because youth often make choices based on what they believe most other youth are doing.
- There was a significant increase from Fall 2006 (19.7%) to Spring 2007 (24.2%) in the number of youth who said they might use alcohol in the future.

School Performance Indicators

- Evaluators were not able to obtain complete school records from all districts so generalizations about GPA, attendance and disciplinary incidents cannot be made.
- In the two districts reporting school level data, grade 9 students had significantly more disciplinary incidents than youth in grades K-8 combined.

Problem Behaviors

- The most prevalent problem behaviors, according to 4th – 9th graders, were making fun of others (Spring 2007=60.9%), hitting or pushing (Spring 2007=29.7%), and spreading rumors/lies (Spring 2007=21.7%). All but one of the problem behavior indicators (out of school suspensions) increased over the school year. There was a significant increase in making fun of others between Fall 2006 (54.7%) and Spring 2007 (60.9%). Most youth, regardless of their sex and program participation increased the frequency of this behavior over time.
- Children in grades 4 – 5 reported hitting/pushing (Spring 2007=50.7%) and spreading rumors (Spring 2007=33.4%) more frequently than youth in grades 6 – 9 (hitting/pushing Spring 2007=40.4%; spreading rumors Spring 2007=20.7%) and 4th - 5th grade males reported more suspensions (21.4 vs. 12.1). Children in grades 4-5 also reported being victims of bullying more frequently (grades 4-5, Spring 2007=39.7 times vs. grades 6-9, Spring 2007=35.5 times) indicating a need for a greater focus on bullying.

Satisfaction

- While children in grades K-3 and youth in grade 9 maintained a consistent level of program satisfaction (Year 4=35.7%; Year 5=41.4%), those in grades 4-6 were less satisfied in Year 5 (56.8%) than Year 4 (78.4%).

Risk and Protective Factors

- Decision-making skills need to be improved at specific grade levels in most of the districts, particularly among 4th & 5th graders in Hickman Mills, middle school students in New Madrid, males in 4th-6th grade in Carthage, and 4th-9th grade students in Jennings.

RECOMMENDATIONS

- More emphasis needs to be placed on resisting use of inhalants.
- Inhalant and other ATOD prevention education should begin in elementary school.
- Greater emphasis needs to be placed on the physical effects of drugs, particularly alcohol and inhalants.

- Bullying behaviors are a problem in all districts. Programs need to focus more on these behaviors.
- More focus needs to be placed on 4th and 5th grade student attitudes and behaviors.
- There is a need for “normative education” in all districts to help students have a more realistic understanding of the number of teenagers and adults who smoke and drink alcohol. Children and youth often believe that they can or should do what the majority of other students do, so correcting misperceptions of substance use is important.

FINDINGS

PROGRAMMATIC FINDINGS

General

- School personnel at all participating schools were very satisfied with the SPIRIT program.
- Principals in all districts were pleased with the SPIRIT providers. One principal said that the provider had “woven herself into the school cloth” by participating in additional school-wide activities, such as conferences and fairs and another stated, “She is a perfect fit for our school.”

PeaceBuilders

PeaceBuilders was implemented with fidelity in two Carthage elementary schools by prevention specialists and in Knox County elementary school by classroom teachers. PeaceBuilder developers do not specify the dosage required for fidelity, and each school in the two districts implemented the program for differing amounts of time. In one of the elementary schools in Carthage, it was taught every other week for 30 minutes to each grade, and in the other, it was taught weekly. In Knox, PeaceBuilder lessons were taught once per week with implementation time varying from 20-45 minutes.

- Generally, PeaceBuilders was widely accepted across the participating school districts.
- Strengths of the PeaceBuilders program included the simplicity of the pledge, the ease with which lessons can be created from it, and the impact it has on students as they recite it at the beginning of each day.
- Because of the success of PeaceBuilders in two elementary schools in Carthage, it will be offered in a third elementary school in Year 6.
- PeaceBuilders has improved behavior at all schools with fewer in-school suspensions and better attendance reported.
- The bullying lessons have helped to make students more aware of their own behaviors and to lessen bullying. Schools have also adopted a no-tolerance attitude toward bullying.

Positive Action

Fidelity requirements are that the primary principle be taught (you feel good when you do positive actions) and that a minimum of 20 lessons are taught. Providers teach Positive Action in elementary schools in Hickman Mills and New Madrid and classroom teachers implement in the middle and high schools in New Madrid. Adaptations are necessary to make the program age and culturally

appropriate. Lessons are taught to each classroom for 30 minutes per week in Hickman Mills, and in New Madrid, for 30 minutes every two weeks. In New Madrid high school, only the basic Positive Action principle is taught and fact sheets from the National Institute of Drug Abuse (NIDA) and the Center for Substance Abuse Prevention (CSAP) are used. Next year they intend to use Project Towards No Drug Abuse.

- Providers in both districts implementing Positive Action expressed the belief that Positive Action was not a strong enough program to adequately affect student behavior and thus programmatic changes will be made during the 2007-2008 school year.
- Although one district implementing Positive Action is urban and the other is rural, principals in both districts identified the home environment and home teachings about conflict resolution to be one of the major problems affecting student behavior and ultimately, school climate.
- In one district, the principal reported that disciplinary incidents had been reduced by 40%. Although he could not attribute this effect solely to Positive Action, he believed that having the provider in the school and involved with all the students made a substantial contribution to this outcome.

Life Skills Training (LST)

LST is implemented by PE teachers in Knox County and Carthage, and in both districts, is implemented as designed thus achieving fidelity. There are 15 lessons in the 1st year curriculum, 10 in the 2nd and 8 in the 3rd.

- LST has been successful in Carthage where teachers have taught the program interactively and supplemented it with information on drugs used locally.
- Students in Knox County have found LST to be boring and repetitive. The providers will make it more interactive in Year 6 in an effort to increase student interest in the program. They will also reduce the number of workbook exercises, a practice approved by the developers.
- Because LST is implemented in only one class, there isn't any carryover to the rest of the school. Other teachers in the schools have little or no awareness of SPIRIT or LST.

Second Step

Providers implemented the program in the elementary school in Jennings and PE teachers implemented at the middle school in Hickman Mills. Some adaptations were made in the elementary school to improve cultural appropriateness of the program. Despite the early termination of the program at Fairview (Jennings), all of the main curriculum areas were covered and thus fidelity was achieved. After a slow start at the middle school in Hickman Mills, all lessons were taught with no adaptations indicated.

- Elementary students were receptive to Second Step and previous interviews indicated that the program was effective in reducing behavioral problems.

- Students at the middle school were resistant to Second Step because it was held during PE and they missed the physical activity. The principal indicated that next year they may implement the program during health to minimize resistance.
- Both schools using Second Step serve a predominantly low-income African American population where violence is prevalent in the communities. Both had originally implemented Positive Action but changed to Second Step to better meet the needs of their students, specifically to deal with anger management and communication. The skills taught in Second Step were identified as those needed by the populations served.

Too Good For Drugs™

The program was taught at Jennings to both junior high (7th and 8th grade) and high school (9th grade) students. All lessons were taught completely with adaptations to make the lessons more interactive and to add material. Junior high lessons were semester-long for 50 minutes in each lesson and there were five 90 minute high school lessons.

- Our site visit was conducted after the Jennings decided it could not continue in the SPIRIT program. The junior high principal and health teachers and the senior high counselor all expressed disappointment with this outcome as they believed that the program was helpful to the students. The junior high principal particularly cited the small group work facilitated by the provider as making a big difference with those students who participated. He said that the program is as good as the facilitators, and they were excellent. The senior high counselor stated: “The program would not be implemented if [the provider] didn’t implement it. [The provider] covers more than the teachers can because of time. Students need to get the information but teachers don’t have the time.”
- Lessons were observed at the junior and senior high schools. The lessons were highly interactive and appeared to be well received by the students.

Project Towards No Drug Abuse (TND)

All 12 lessons of the program were delivered interactively, sequentially, and at minimum, twice a week as recommended. The program was taught by providers to all 9th grade (and some 10th grade) students during health class in Knox County.

- There are evaluation materials that come with the TND curriculum, and the providers used the pre- and post tests with students. According to self-report tests, student knowledge increased, attitudes changed in that they saw greater danger in ATOD use at post-test, and some student behaviors changed (i.e. days of cigarette use at pre-test was 20-29 and at post-test it dropped to 0).
- Providers believe that TND covers much of the same material as LST, but, that because of the way it is presented, the program has greater impact.

Reconnecting Youth (RY)

Implementation of RY, an indicated high school program, had several fidelity and adaptation issues. RY was taught in Carthage, Knox and Hickman Mills, but only implemented with fidelity in Carthage. At Knox, students were assigned into the non-credit class and were reportedly unreceptive to the program. The classes were not taught on a schedule that would allow for continuity. In Year 6, credit will be given and students will be invited into the program. Because RY was implemented with 9th grade students only in Hickman Mills, it did not meet the requirement for heterogeneous grouping. Also, the curriculum was only partially implemented because the class met only twice per week. Although RY will only be offered to 9th grade students in Year 6, it will be taught as a daily, semester-long for-credit class.

- High school principals and providers hoped RY would be offered as a for-credit class next year at the two sites that have only partially implemented the program, and it has been approved for Year 6.
- The high school principal at one site sees a great need for RY because “getting students into a program like RY can save lives.”
- The teachers at two sites were not formally trained in RY and this affected their ability to teach the program as effectively. They were trained over the summer for Year 6 implementation.
- “Those relationships built in RY help them to have a positive relationship with a person, rather than drugs or alcohol.”
- In the Carthage school district, SPIRIT has now been implemented for five years—long enough to see some long term effects. The RY teacher likes the fact that SPIRIT touches all grade levels and she can see the results of earlier programming, both LST and PeaceBuilders. She stated that students who had PeaceBuilders have more familiarity with appropriate manners.

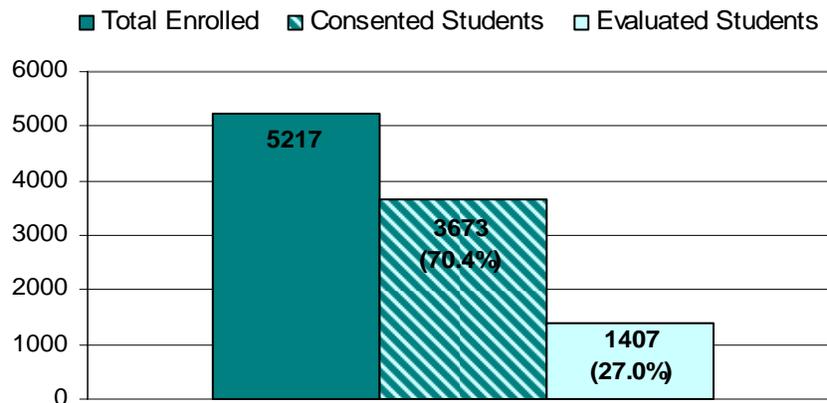
OUTCOME FINDINGS

In the fifth year of SPIRIT, 5,217 children and youth from all districts participated in the program and 3,673 (70.4%) received parental consent for the evaluation. Because a random sampling technique was used in the Spring of 2007, the number of participants (1,407) was smaller than the number of students with consent.

DEMOGRAPHICS

A total of 1,407 youth (48.2% male; 51.8% female) participated in the SPIRIT evaluation from all school districts: Carthage (30.1%), Hickman Mills (20.0%), Jennings (20.1%), Knox (15.3%), and New Madrid (14.4%). The majority of participants were White/Caucasian (58.8%), 34.9% were Black or African-American, 1.6% were American Indian or Alaskan Native, 0.4% were Asian, 0.2% were Native Hawaiian or Other Pacific Islander, and 4.0% were of mixed or other races. Of these 9.4% identified themselves as being of Latino/a ethnicity.

Figure 1. Students Enrolled, Consented, and Evaluated.



Of the total participants, 438 (31.1%) children were in grades K – 3, 357 (25.4%) youth were in grades 4 – 5, 447 (31.8%) were in grades 6 – 8, and 165 (11.7%) youth were in grades 9 – 12.

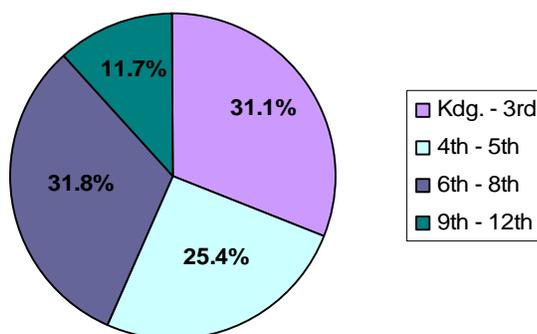
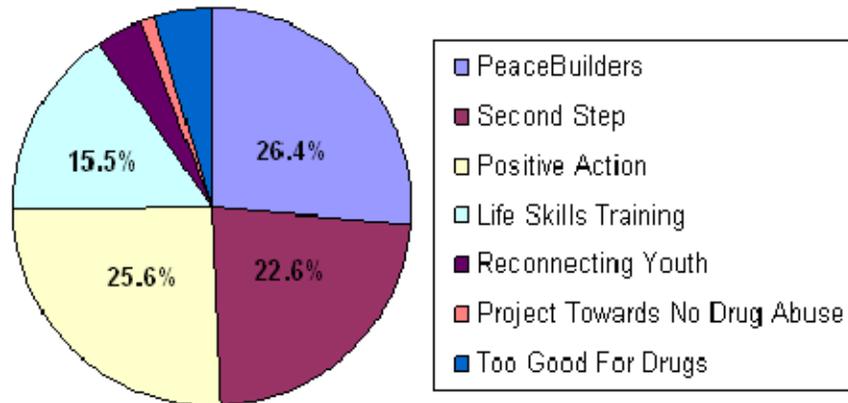


Figure 2. Percentage of Children/Youth by Grade Level in the SPIRIT Evaluation.

There were 372 (26.4%) children and youth participating in PeaceBuilders, 318 (22.6%) in Second Step, 360 (25.6%) in Positive Action, 218 (15.5%) in Life Skills Training, 65 (4.6%) in Too Good For Drugs, 58 (4.1%) in Reconnecting Youth, and 16 (1.1%) in Project Towards No Drug Abuse. Too Good For Drugs, Reconnecting Youth and Project Towards No Drug Abuse had relatively few youth participating in relation to other programs and, because of this, participants in those programs are not included in the main analyses presented in this report.

Figure 3. Percentage of Children/Youth in Specific Programs.



SUBSTANCE USE

Alcohol is the drug of choice for students when data from all school districts are combined. It is followed by cigarettes, marijuana, and inhalants. By Spring 2007, over 2/3's of those in grades 6 -9 participating in SPIRIT had at least one sip of alcohol, and half had smoked at least one cigarette. Although lifetime use of some substances appeared high, 30-day use was relatively low indicating that there was a lot of experimentation, but not as much continued use of substances. Inhalant use is of particular concern because of the high lifetime use and the fact that the curricula do not address these substances. The rate of inappropriate use of prescription drugs was slightly lower over the course of the year.

**Table 1. Substance Use Lifetime, Age of Initiation, and 30-day Use Grades 4-9.
T-9=Fall 2006, T-10=Spring 2007**

	<i>Lifetime Use 6th-9th</i> n=825-1000		<i>Age of Initiation 6th-9th</i> n=825-1000		<i>30-day Use 4th-5th</i> n=353		<i>30-day Use 6th-9th</i> n=760	
	Fall 2006	Spring 2007	Fall 2006	Spring 2007	Fall 2006	Spring 2007	Fall 2006	Spring 2007
Cigarettes	41.2%	50.1%	11.67	11.60	2.5%	2.3%	5.0%	8.8%
Alcohol (more than a sip)	58.0%	67.9%	11.89	12.20	3.4%	4.0%	11.1%	15.3%
Alcohol (once or twice a month)	19.7%	26.1%	13.15	13.24	n/a	n/a	n/a	n/a
Marijuana	23.7%	28.6%	12.93	13.29	n/a	n/a	4.7%	7.3%
Inhalants	16.9%	23.9%	11.59	11.41	n/a	n/a	2.9%	4.1%
Prescription Drugs	n/a	n/a	n/a	n/a	n/a	n/a	3.5%	3.3%
Other illegal drugs	n/a	n/a	n/a	n/a	n/a	n/a	1.9%	4.0%

Note: This table includes only students for whom there was both a pre and post-test. 4th and 5th grade students were only asked about 30 day use, so lifetime use and age of initiation include only grades 6-9.

When comparing the Spring 2007 SPIRIT sample with the 2006 Missouri Student Survey (MSS) and the National Survey on Drug Use and Health (NSDUH), it must be remembered that the school districts in SPIRIT are considered high risk districts where it might be expected that there would be more ATOD use. The comparison shows that:

- The SPIRIT sample had a higher percentage of lifetime use with approximately the same age of initiation as the MSS.
- The SPIRIT sample had lower 30-day use rates for cigarettes, alcohol and inhalants than the comparison groups although they had a higher lifetime use rate. *This indicates a high level of experimentation, but a lower level of continued use.*
- Thirty-day use of marijuana was about the same as the MSS, but higher than the NSDUH.
- Inhalant use is particularly concerning as SPIRIT lifetime use is more than double that of either the Missouri or the national samples. This indicates a need for programming that focuses specifically on inhalant use.

**Table 2. 2006 MSS, NSDUH Drug Use Comparison.
(Ages 12 – 17)**

		SPIRIT 6th-9th Spring 2007 n=760-1000	MSS 2006 (ages 12 – 17) n=64,493-64,868	NSDUH 2006 (ages 12 – 17) n=22,912
Cigarettes	Lifetime use	50.1%	35.6%	25.8%
	Past month (30-day)	8.8%	12.6%	10.4%
	Age of initiation	11.60	11.59	n/a
Alcohol	Lifetime use	67.9%	62.1%	40.4%
	Past month (30-day)	15.3%	26.6%	16.6%
	Age of initiation	12.20	12.19	n/a
Marijuana	Lifetime use	28.6%	16.1%	17.3%
	Past month (30-day)	7.3%	7.2%	6.7%
	Age of initiation	13.29	13.16	n/a
Inhalants	Lifetime use	23.9%	11.1%	10.1%
	Past month (30-day)	4.1%	4.8%	4.4%
	Age of initiation	11.41	n/a	n/a

SCHOOL RECORDS

Grade Point Averages. Cumulative grade point averages were obtained for middle and high school students from only two districts, one for which it was necessary to transform grades from an 11 point to a 4 point scale. The cumulative grade point average in Year 4 was 3.27 out of 4.0. In Year 5, GPA decreased significantly to 3.18. This difference is due to the fact that the GPA in one district decreased significantly, while in the other, there was a significant increase in grade averages. GPA did not vary dependent upon grade level or program participation. Females (3.38) had a significantly higher GPA than males (3.07).

Absences. Unexcused absences were also obtained from two of the five districts. Absence rates decreased from Year 4 to Year 5, though not significantly. In Year 4, 25.8% of children and youth had been absent at least one day over the course of the school year, with an average number of days absent, 0.75. In Year 5 the percentage of children with unexcused absences dropped, with 21.3% of children and youth absent at least one day over the course of the school year and an average number of days absent, 0.61 days.

Disciplinary Incidents. Disciplinary incidents were obtained from two districts. The number of disciplinary incidents increased slightly over the course of the two year period (1.21 in Year 5 and 0.54 in Year 4), and significantly for youth in grades 6 – 8. In addition within Year 5, youth in grades 6 – 8 had significantly more disciplinary incidents than children in grades 4 – 5. There was a significantly smaller percentage of children and youth with at least one disciplinary incident in Year 5 (25.1%) than in Year 4 (34.4%).

In *both* Year 4 and Year 5, youth in grade 9 received significantly more disciplinary incidents than youth in all other grades (K – 8). There were no incidents related to alcohol, tobacco, or other drugs in Year 5 or in Year 4).

Suspensions. Suspensions were also obtained for two districts. The number of suspensions both in and out of school were very low. The percentage of children and youth with suspensions increased slightly but not significantly over the two year period. In Year 5, 9.6% of children and youth, compared to 9% in Year 4, had at least one suspension over the course of the school. The number of suspensions increased with an average of 0.18 in Year 4 and an average of 0.22 in Year 5. In Year 4, an average of 0.15 suspensions were in-school and 0.03 were out-of-school. In Year 5, an average of 0.19 suspensions were in-school and 0.02 were out-of-school. As would be expected, grade 9 students had significantly more total in-school suspensions than K-3 grades.

Table 3. Suspended, Absent (Unexcused), or Disciplined at Least Once During the Year.

	Year 4 (05-06)	Year 5 (06-07)
Suspensions	9.0%	9.6%
Disciplinary Incidents***	34.4%	25.1%
Absences (unexcused)	25.8%	21.3%

*** Significant reduction in the percentage of youth who had received at least 1 disciplinary incident over the course of the school year from Year 4 to Year 5.

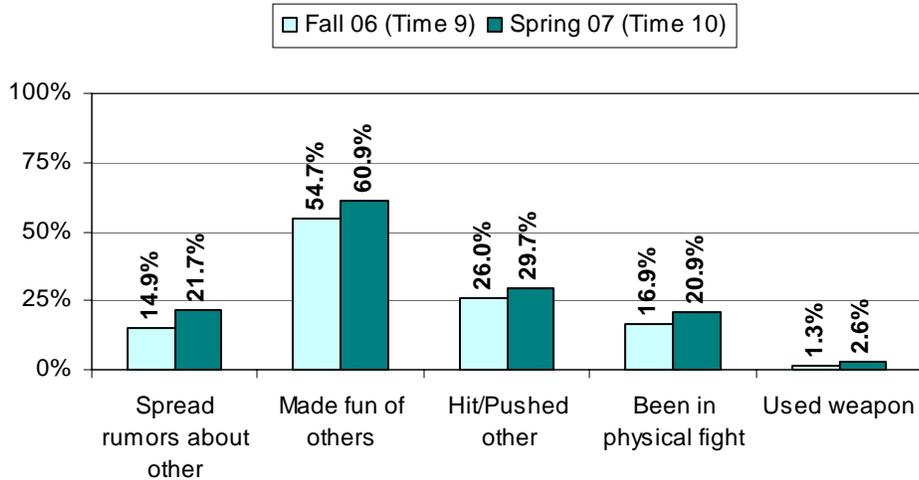
PROBLEM BEHAVIORS

Bullying. The most prevalent problem behaviors, according to 4th – 9th graders, were making fun of others, hitting or pushing, and spreading rumors/lies. All but one of the indicators (out of school suspensions) increased over the school year. There was a significant increase in making fun of others between Fall 2006 and Spring 2007. Most youth, regardless of their sex and program participation increased the frequency of this behavior over time.

The percentage change of those youth reporting having hit or pushed others was not significant. Males reported pushing and/or hitting more frequently than females. Children in grades 4 – 5 reported hitting/pushing more frequently than youth in grades 6 – 9.

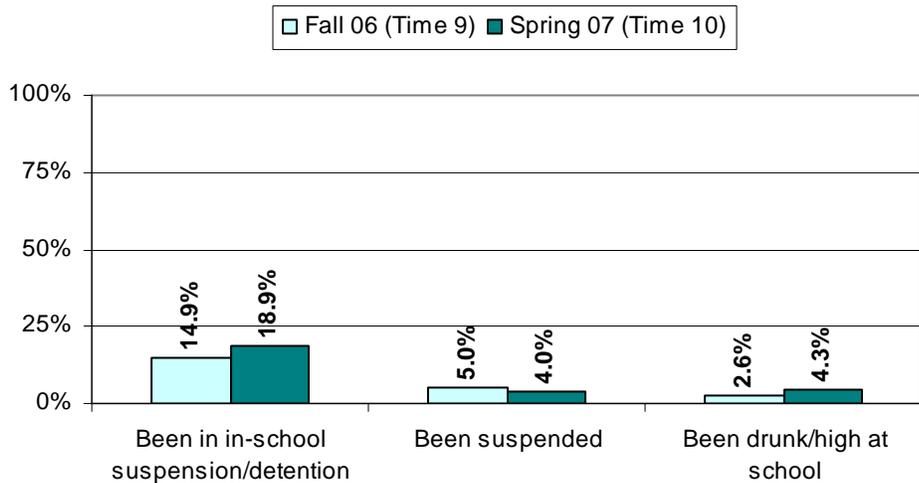
Between Fall 2006 and Spring 2007, the percentage of youth reporting having spread rumors about others increased significantly. Children in grades 4 – 5 reported a greater frequency of spreading rumors than youth in grades 6 – 9.

Figure 4. Problem Behaviors Grades 4-9.



Although the percentage of youth who reported fighting did not significantly increase overall during the year, males reported fighting significantly more frequently than females. Children in grades 4 – 5 reported fighting significantly more frequently than youth in grades 6 – 9.

Figure 5. Additional Problem Behaviors Grades 4-9.

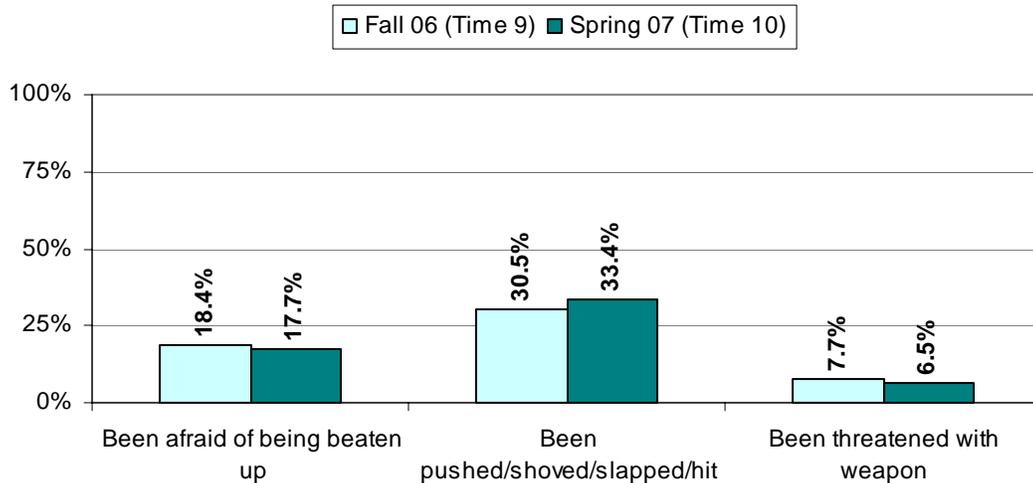
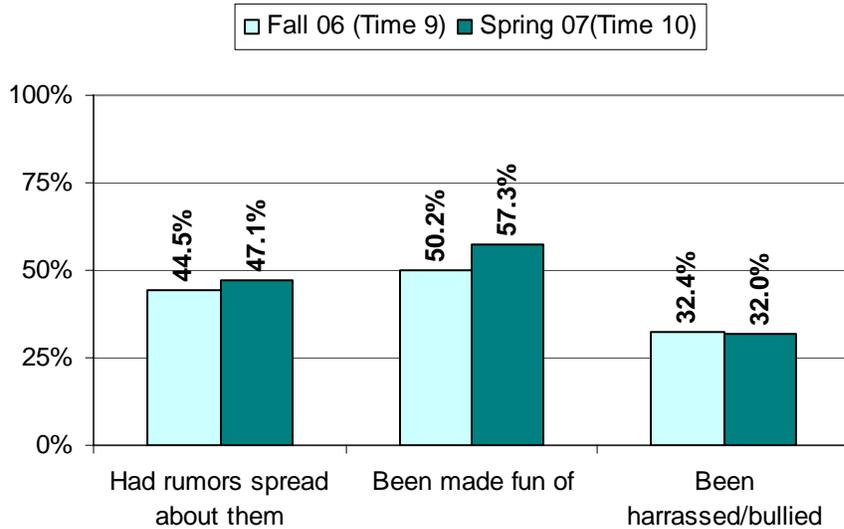


There was no significant change in the percentage of youth being suspended or having detentions; youth in Second Step received in-school suspension/detention more frequently than youth in any other program. Males in grades 4 – 5 were suspended the most frequently.

VICTIMIZATION

The biggest victim related problem behaviors identified by students were been made fun of, having rumors/lies spread, and being harassed/bullied. There were no significant changes over time.

Figures 6 & 7. Victimizing Behaviors Grades 4-9.



Children in grades 4 – 5 reported that they had rumors spread about them significantly more frequently than those in grades 6 – 9. This is consistent with the reported spreading of rumors. While there was no significant difference between the percentage of youth having been bullied during the year, children in grades 4 – 5 reported being bullied significantly more frequently than youth in grades 6 – 8. Males reported that they were pushed/shoved significantly more frequently than were females. A very small percentage of youth reported being “threatened or injured with a weapon” within the past three months. Youth in the Second Step program reported being threatened with a weapon significantly more frequently than youth participating in any other program, which is perhaps a reflection of the inner-city locations of the districts implementing Second Step.

YOUTH SATISFACTION

Youth completed satisfaction questionnaires at the end of the school year. Generally, satisfaction levels were very high, with around 50% of youth indicating very high (“yes, a lot” responses) satisfaction.

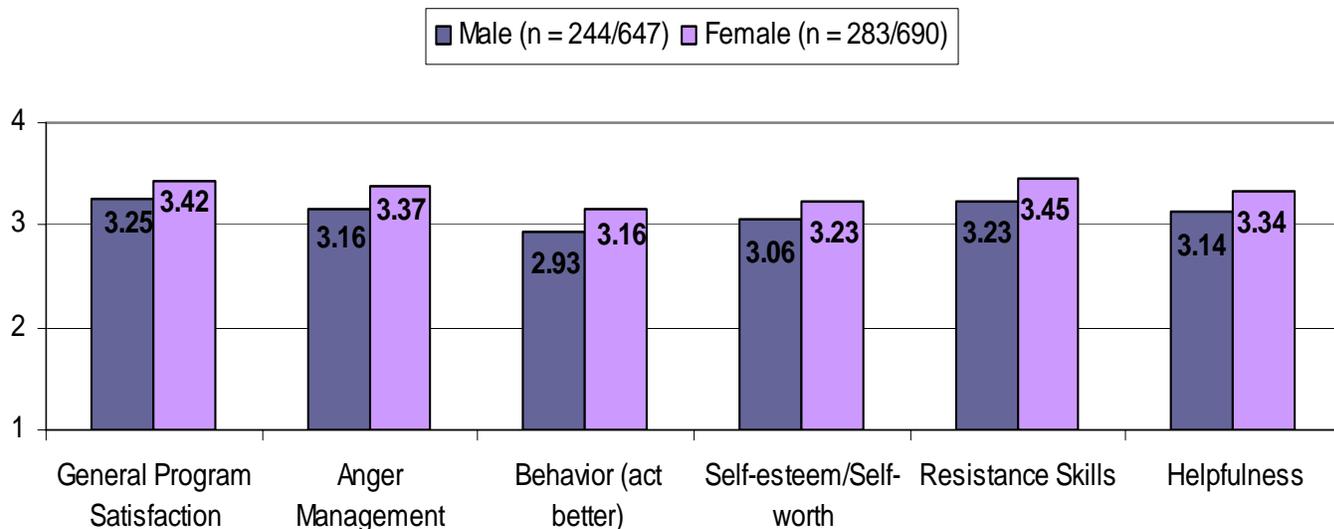
When findings in Years 4 and 5 were compared, children in grades K-3 and youth in grade 9 maintained a constant level of program satisfaction. Those in grades 4-6 were less satisfied in Year 5 than Year 4.

Analysis of individual questions revealed that most youth liked the program, thought time spent on it was helpful, thought it helped them to say no to harmful things and taught them what to do when they were angry. They were least likely to say that the program made other children act nicer toward them.

Table 4. Individual Satisfaction Questionnaire Items, K-9.

	No, not at all	No, not much	Yes, a little	Yes, a lot
Did you like the program?	6.0%	8.1%	35.6%	50.3%
Did the program teach you what to do when you are angry?	8.8%	11.8%	33.2%	46.3%
Do you act better because of the program?	10.5%	17.0%	34.5%	38.0%
Did the program help you feel better about yourself?	9.4%	15.4%	30.3%	44.6%
Does the program help you to say no to harmful things other kids might want you to do?	10.5%	9.2%	26.4%	54.0%
Has the program helped you to get along better with other people?	9.7%	14.5%	34.2%	41.6%
Are other kids nicer to you because of the program?	21.0%	23.1%	26.5%	29.3%
Was the time spent on the program helpful?	7.5%	8.7%	33.6%	50.3%

Figure 8. Male and Female Perceptions of Program Effectiveness, K-9.



ATTITUDES TOWARDS SUBSTANCE USE, WRONGFULNESS AND HARM

WRONGFULNESS OF USE

At both the beginning and end of the school year, the majority of youth thought it was very wrong to use substances. Most students thought it was very wrong to use alcohol regularly but less wrong than using other substances. Significantly fewer youth thought it was very wrong at Spring 2007 than Fall 2006.

Table 5. Wrongfulness of Use Grades 4-9.
How wrong do you think it is for someone your age to...

	Fall 2006 (Time 9)				Spring 2007 (Time 10)			
	Not wrong at all	A little bit wrong	Wrong	Very wrong	Not wrong at all	A little bit wrong	Wrong	Very wrong
... smoke cigarettes?	1.8%	6.1%	14.4%	77.7%	3.3%	7.7%	16.2%	72.8%
... drink alcohol regularly?	2.4%	8.6%	16.0%	73.0%	4.1%	9.6%	17.5%	68.8%
... smoke marijuana?	1.9%	4.8%	9.4%	84.0%	3.3%	5.8%	9.9%	81.1%
... use LSD, cocaine, amphetamines, or another illegal drug?	1.5%	1.4%	5.7%	91.4%	1.8%	1.8%	8.5%	88.0%

When asked how wrong it is for someone their age to smoke marijuana, most youth replied that it was “very wrong” both times (Fall 2006: 84.0%; Spring 2007: 81.1%), however, this was a significant decrease over time.

Most youth thought it was very wrong to use illegal drugs at both time points.

HARM

Students in grades 4-9 were asked; “How much do you think people harm themselves (physically or in other ways) if they...smoke one or two packs of cigarettes per day? ... take one or two drinks of an alcoholic beverage nearly every day? ... smoke marijuana regularly? ... sniff anything through their nose to get high?” Additionally, students in grades 6-9 were asked about harm “if they ... use ecstasy occasionally (more than once or twice)? ... use meth (methamphetamine) occasionally (more than once or twice)?”

Generally, youth felt that substance use was less harmful than it was wrong. Fourth and 5th grade students believed that use of cigarettes, marijuana and inhalants were significantly less harmful than did students in grades 6-9 indicating a strong need for ATOD programming in the elementary schools.

Table 6. Harmfulness of Use Grades 4-9.

		Fall 2006				Spring 2007			
		Not at all	Not very much	Some	A lot	Not at all	Not very much	Some	A lot
4 th -5 th	Cigarettes	35.4%	6.7%	12.6%	45.2%	36.0%	3.1%	13.8%	47.2%
	Alcohol	36.3%	9.4%	18.6%	35.7%	33.7%	11.4%	19.4%	35.4%
	Marijuana	39.3%	4.1%	12.4%	44.1%	37.0%	3.6%	11.5%	47.9%
	Inhalants	39.4%	4.1%	12.0%	44.6%	38.5%	2.9%	9.3%	49.3%
6 th -9 th	Cigarettes	36.6%	1.9%	10.5%	51.0%	27.5%	3.1%	15.6%	53.9%
	Alcohol	34.9%	9.9%	24.0%	31.2%	28.6%	11.6%	26.7%	33.0%
	Marijuana	35.0%	3.8%	9.4%	51.8%	27.5%	4.6%	10.8%	57.1%
	Inhalants	35.6%	2.2%	7.9%	54.0%	27.8%	3.3%	8.2%	60.7%
	Ecstasy	36.7%	4.0%	10.0%	49.3%	28.4%	2.9%	14.1%	54.5%
	Methamphetamine	36.0%	3.3%	6.9%	53.9%	28.4%	1.5%	7.9%	62.1%

Cigarettes. Most youth responded that smoking one or two packs of cigarettes a day was harmful. Females thought smoking cigarettes was significantly more harmful than males.

In general, youth in LST thought smoking was more harmful than youth in all other programs, demonstrating the effectiveness of a program with an anti-smoking message. This appeared more effective as youth age; youth in grade 9 thought smoking was significantly more harmful than those in grades 6 – 8. While those in the PeaceBuilders, Positive Action, and LST increased their

perception of harmfulness of cigarette use over time, children and youth in Second Step did not change their opinions significantly. This is not surprising in that Second Step is an anti-violence program rather than one focused on ATOD prevention, but it points to a need to supplement the program with ATOD prevention material, especially for the elementary students. Second Step participants and youth in grades 6 – 8 thought smoking was significantly more harmful than children in grades 4 – 5.

Alcohol. Youth were less inclined to think that regular alcohol use was harmful. Females thought drinking alcohol was significantly more harmful than did males.

Children in grades 4 – 5 and youth in grade 9 did not change their opinions over time concerning the harmfulness of alcohol consumption. Among youth in grades 6 – 8, however, change occurred depending on the program they were receiving. Specifically, youth participating in PeaceBuilders, Positive Action, and LST thought using alcohol was significantly more harmful at Spring 2007 than at Fall 2006. Youth participating in Second Step (grades 6 – 8) thought using alcohol was significantly *less* harmful at Spring 2007 than at Fall 2006. There are a number of factors that may explain this finding. Second Step does not address the effects of alcohol and other drugs, it is implemented in the only schools in urban environments, and it was reported that middle school youth in Second Step resented the fact that the program was taught during PE.

Marijuana. Youth responded that it harms people “a lot” if they smoke marijuana regularly (Fall 2006: 47.9%; Spring 2007: 52.2%). This is a significant increase in the percentage of youth who believe marijuana use is harmful. Youth in grades 6 – 8 thought using marijuana was significantly more harmful at Spring 2007 than at Fall 2006.

Inhalants. When asked how much they thought people harm themselves (physically or in other ways) if they sniff anything through their nose to get high, the majority of youth responded that it harms people “a lot” if they use inhalants, there was a significant increase over time. Females thought using inhalants was significantly more harmful than did males.

Inhalants. Many youth responded that it harms people “a lot” if they use ecstasy “occasionally (more than once or twice)”; there was no over-time change. Among those in Positive Action, PeaceBuilders, and LST, however, youth thought using ecstasy was significantly more harmful at Spring 2007 than at Fall 2006. Youth in Second Step reported that they thought using ecstasy was less harmful at the end of the year than they did at the beginning.

Methamphetamine. When asked how much do they thought people harm themselves (physically or in other ways) if they use methamphetamine (meth) occasionally (more than once or twice), the majority of youth responded that it harms people “a lot” (Fall 2006: 53.5%; Spring 2007: 59.5%), and the percentage increased from Fall 2006 to Spring 2007.

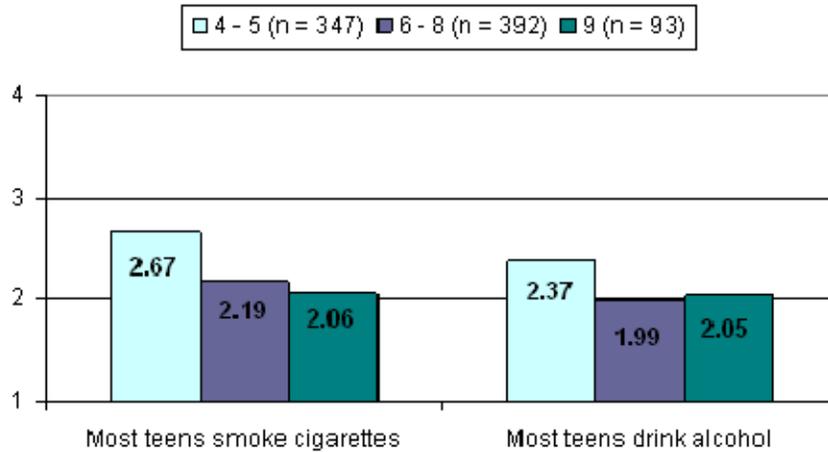
Attitudes Towards Use. Very few youth reported that they might use cigarettes, alcohol, or marijuana when they were older. Of these three substances, youth were most likely to indicate they might use alcohol in the future. When asked if they might drink alcohol when they get older, significantly more answered in the Spring of 2007 than in Fall 2006 that they would drink.

A majority of youth reported that they thought most teenagers and adults smoked cigarettes and many youth reported that most teenagers drink alcohol indicating a strong need for normative education. In actual fact, according to the 2006 NSDUH, only 10.4% of youth between ages 12-17 smoke, 38.4% of adults between ages 18-25 smoke, and 24.7% of adults 26 and older smoke; 16.6% of youth between ages 12-17 drink alcohol, 61.9% of adults between ages 18-25 drink, and 53.7% of adults 26 and older drink.

Table 7. Attitudes Towards Substance Use Grades 4-9.

	Fall 2006 (Time 9)				Spring 2007 (Time 10)			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
I might smoke cigarettes when I get older.	86.4%	7.0%	4.6%	2.0%	82.9%	9.4%	6.0%	1.7%
Smoking cigarettes makes you look cool.	92.8%	4.3%	1.3%	1.6%	92.6%	5.1%	1.3%	1.0%
Kids who smoke cigarettes are more grown-up.	89.8%	4.6%	2.2%	3.4%	91.3%	4.0%	2.6%	2.1%
Most teenagers smoke cigarettes.	28.7%	19.5%	31.5%	20.4%	27.3%	20.1%	31.4%	21.2%
Most adults smoke cigarettes.	22.1%	16.7%	30.9%	30.3%	20.0%	18.2%	32.6%	29.2%
I might drink alcohol when I get older.	65.0%	15.2%	14.4%	5.3%	60.0%	15.8%	18.5%	5.7%
Drinking alcohol lets you have more fun.	85.2%	7.8%	4.6%	2.5%	81.0%	10.9%	5.9%	2.2%
Most teenagers drink alcohol at least once a week.	35.1%	24.5%	27.9%	12.5%	31.8%	23.8%	28.6%	15.8%
I might smoke marijuana when I get older.	89.0%	4.2%	4.3%	2.5%	87.6%	6.1%	4.0%	2.2%

Figure 9. Peer Substance Use Belief Questions by Grade Grouping, Grades 4-9.



RISK AND PROTECTIVE FACTORS

Pro-social Behaviors and Emotion Regulation. Teachers in grades K – 3 were asked 11 questions, on a five point scale (1 = not at all; 5 = very well) about their students’ ability to display pro-social behavior, such as: the child is very good at understanding other people's feelings, is aware of the effect of his/her behavior on others, works well in a group, plays by the rules of the game, controls temper when there is a disagreement, shares materials with others, cooperates with peers without prompting, is helpful to others, listens to others' points of view, can give suggestions and opinions without being bossy, and acts friendly towards others. Results showed that children in grades K-3 displayed significantly increased pro-social behavior from Fall 2006 to Spring 2007, with males less pro-social than females.

Teachers were also asked eight questions, on a five point scale (1 = not at all; 5 = very well), about their students’ ability to regulate their emotions (accepting things not going his/her way, coping well with failure, accepting limits, expressing needs and feelings appropriately, thinking before acting, resolving peer problems on his/her own, calming down when excited and waiting in line patiently when necessary.”

Children displayed higher levels of emotion regulation at the end of the year than at the beginning. Females had higher levels of emotion regulation than males. Children in PeaceBuilders and Positive Action had higher levels of emotion regulation than youth in Second Step. All of these findings are significant.

Figure 10. Pro-Social Behavior and Emotion Regulation (K-3rd grade).

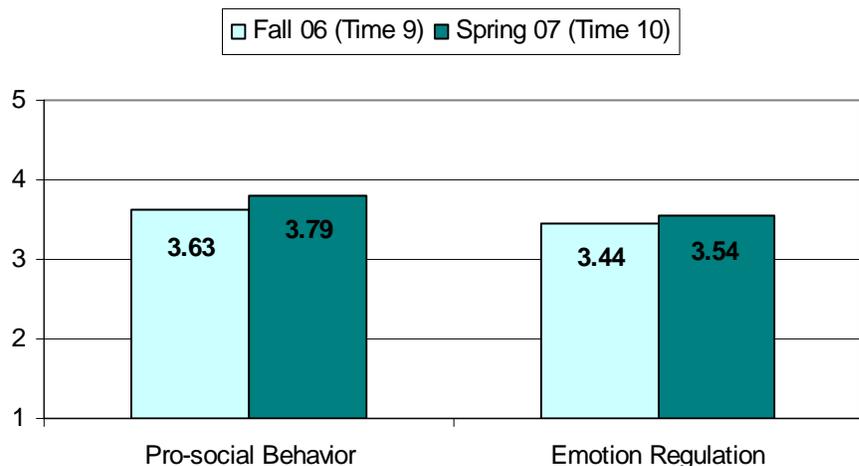
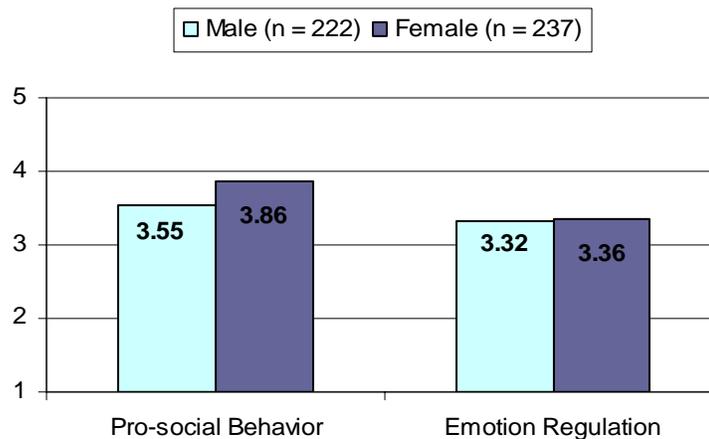


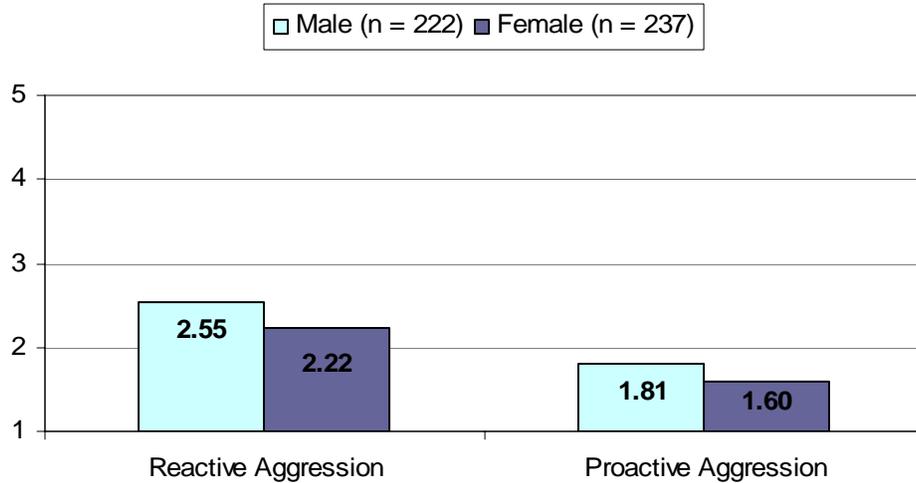
Figure 11. Gender Difference in Pro-Social Behavior and Emotion Regulation (K-3rd grade).



Proactive and Reactive Aggression (K – 3rd Grade). Teachers in grades K – 3 were asked three questions, on a five point scale (1 = never true; 5 = almost always true), about children’s display of proactive aggression: getting other kids to gang up on a peer, using physical force in order to dominate other kids, and threatening or bullying others in order to get his or her own way. Males had higher levels of proactive aggression than females, which might be expected. Children in PeaceBuilders and Second Step did not change their levels of proactive aggression over time. However, children in Positive Action showed decreased levels of proactive aggression at Spring 2007 as compared to Fall 2006, a positive finding.

Teachers were also asked three questions, on a five point scale (1 = never true; 5 = almost always true), about how much children displayed reactive aggression: getting angry easily when teased or threatened, claiming that other children are to blame, and assuming a peer meant to do it when accidentally hurt. Again, males had higher levels of reactive aggression than females. Children in the PeaceBuilders and Second Step program did not change in levels of reactive aggression over time. Children in the Positive Action program, however, showed decreased levels of reactive aggression at Spring 2007 as compared to Fall 2006.

Figure 12. Gender Differences in Proactive and Reactive Aggression (K-3rd grade).



School Attachment and Strength of Child-Adult Relationship. In grades 4 – 9, youth were asked five questions, on a four point scale (1 = strongly disagree; 4 = strongly agree), about their feelings toward school: “I feel close to people at this school,” “I am happy to be at this school,” “I feel like I am part of this school,” “The teachers treat students fairly”; and “I feel safe in my school.” In general, youth had positive feelings toward school and these were maintained over the course of the school year. Males and females, however, felt differently toward school depending on which program they were receiving. Specifically, females in PeaceBuilders had a more positive attitude toward school than did males in the same program. Students in the inner-city schools felt significantly less safe in school at Spring 2007 than at Fall 2006 and had less positive feelings toward school in general.

Table 8. Attitudes Towards School Grades 4-9.

	Fall 2006 (Time 9)				Spring 2007 (Time 10)			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
I feel close to people at this school.	8.4%	13.8%	48.0%	29.8%	7.4%	11.7%	52.8%	28.1%
I am happy to be at this school.	7.1%	13.0%	38.3%	41.6%	10.4%	13.0%	41.2%	35.4%
I feel like I am part of this school.	8.1%	12.5%	36.8%	42.6%	9.1%	12.1%	40.8%	37.9%
The teachers treat students fairly.	7.3%	16.8%	37.0%	38.9%	11.2%	19.0%	37.7%	32.1%
I feel safe in my school.	9.3%	12.5%	35.1%	43.1%	10.2%	15.6%	37.2%	37.0%

Youth in grades 4 – 9 were asked four questions, on a four point scale (1 = strongly disagree; 4 = strongly agree), whether they perceived there were adults in their lives who listened to them and they felt comfortable talking to. Most youth responded positively to these questions showing a high

level of comfort in talking with teachers as well as parents, though they were significantly more comfortable with parents. Females perceived there to be more caring adults in their lives than did males. Although youth in Second Step perceived less caring adults in their lives than did youth in other programs, they showed a significant increase in their perception of caring adults from Fall 2006 to Spring 2007.

Figure 13. Program and Perceptions about the Presence of Caring Adults Grades 4-9.

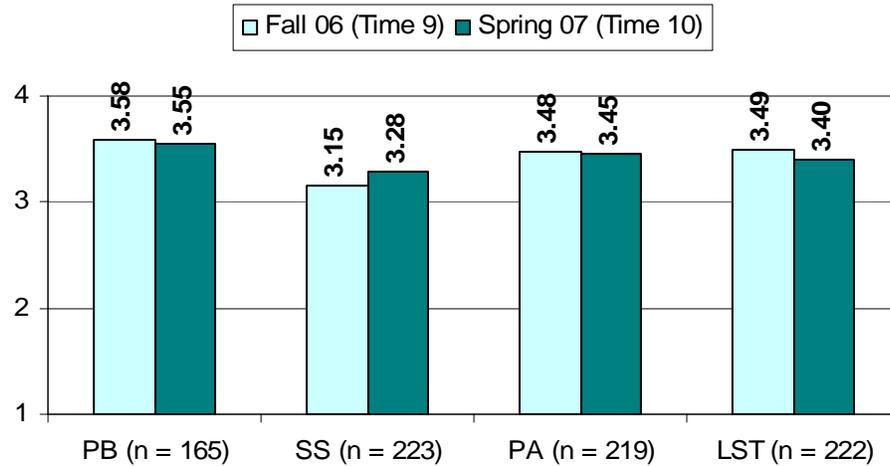


Table 9. Caring Adults (n = 1142 – 1149) Grades 4-9.

	Fall 2006 (Time 9)				Spring 2007 (Time 10)			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
In school there is a teacher or another adult who I can go to if there is something that is really bothering me.	7.0%	10.3%	38.3%	44.4%	5.1%	8.8%	42.2%	43.9%
In school there is a teacher or another adult who listens to me when I have something to say.	4.3%	10.5%	44.1%	41.2%	4.6%	6.7%	48.6%	40.0%
At home there is a parent or other adults who I can go to if there is something that is really bothering me.	3.2%	4.7%	23.2%	68.9%	3.6%	4.8%	26.1%	65.5%
At home there is a parent or other adults who listens to me when I have something to say.	2.4%	5.4%	29.0%	63.2%	3.0%	5.7%	32.3%	59.1%

Empathy. Youth in grades 4 – 9 were asked three questions, on a four point scale (1 = strongly disagree; 4 = strongly agree), about their ability to empathize. Females in PeaceBuilders, Positive Action, and LST were more empathic than males in the same programs.

Table 10. Empathy Grades 4-9.

	Fall 2006 (Time 9)				Spring 2007 (Time 10)			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
It makes me sad if I see someone who is left out.	6.5%	12.7%	49.0%	31.8%	5.5%	17.5%	51.2%	25.8%
I get upset when I see an animal being hurt.	5.3%	11.3%	37.7%	45.7%	6.5%	12.1%	37.3%	44.0%
I feel bad when someone else gets their feelings hurt.	5.1%	11.3%	46.5%	37.2%	4.4%	13.9%	49.4%	32.3%

Decision Making. Youth in grades 4 – 9 were asked four questions, on a four point scale (1 = Never; 4 = All the time) about how they make decisions. Youth in all grades reported a high level of decision-making skills. Females reported a greater ability to make good decisions than did males.

Table 11. Decision Making Grades 4-9.

	Fall 2006 (Time 9)				Spring 2007 (Time 10)			
	Never	Not Often	Often	All the time	Never	Not Often	Often	All the time
How often do you stop to think about your options before you make a decision?	2.6%	19.1%	59.1%	19.2%	3.4%	20.8%	60.8%	15.1%
How often do you stop to think about how your decisions may affect others' feelings?	3.3%	23.0%	51.7%	22.0%	4.3%	26.0%	50.5%	19.2%
How often do you stop and think about all of the things that may happen as a result of your decisions?	2.9%	21.3%	48.7%	27.0%	4.3%	21.5%	50.4%	23.8%
I make good decisions.	1.4%	11.9%	65.2%	21.5%	1.9%	13.5%	66.3%	18.2%

SUMMARY

There are both positive findings and areas which need improvement in SPIRIT.

POSITIVE FINDINGS

Substance Use and Substance Use Attitudes

- Rates of 30-day use are low for alcohol and cigarettes.
- Most students believed that use of drugs, particularly the illegal drugs, was wrong.
- Most youth in grades 6-9 maintained their belief over time that alcohol use was harmful.
- Youth in the PeaceBuilders, Positive Action, and LST increased their perception of harmfulness of cigarette and ecstasy use over time.
- The perception of the harmfulness of inhalant use increased significantly for a majority of students from Fall 2006 to Spring 2007.
- Very few youth reported that they might use cigarettes, alcohol, or marijuana when they were older.
- Most youth in grades 6-9 maintained their belief over time that alcohol use was harmful.

School Performance Indicators

- There were no disciplinary incidents related to alcohol, tobacco, or other drugs in Year 5 or in Year 4 in the districts reporting school level data.
- In the districts reporting school level data, there was a significantly smaller percentage of children and youth with at least one disciplinary incident in Year 5 (25.1%) than in Year 4 (34.4%).

Problem Behaviors

- PeaceBuilders has improved behavior at all schools where it is implemented with fewer in-school suspensions and better attendance reported. Because PeaceBuilder principles are not necessarily modeled in all home environments, having the program provides children with exposure to positive ways of handling anger and conflict.

- The bullying lessons from PeaceBuilders have helped to make students more aware of their own behaviors and to lessen bullying in one district. Schools have also adopted a no-tolerance attitude toward bullying.

Satisfaction

- Overall, students were very satisfied with the program.

Risk and Protective Factors

- There was a significant increase in pro-social behavior and emotion regulation in K-3.
- Children in Positive Action showed a decrease in both proactive and reactive aggression over time.
- A majority of students agreed that there was a teacher or another adult at school that they could go to if there was something bothering them.

NEEDING IMPROVEMENT

- Students believed that use of drugs, particularly alcohol, was more wrong than harmful.
- Fourth and 5th grade students believed that use of cigarettes, marijuana and inhalants were significantly less harmful than did students in grades 6-9 indicating a strong need for ATOD programming in the elementary schools.
- In the districts reporting school level data, grade 9 students had significantly more disciplinary incidents than youth in grades K-8 combined.
- The most prevalent problem behaviors, according to 4th – 9th graders, were making fun of others, hitting or pushing, and spreading rumors/lies. All but one of the problem behavior indicators (out of school suspensions) increased over the school year. There was a significant increase in making fun of others between Fall 2006 and Spring 2007. Most youth, regardless of their sex and program participation increased the frequency of this behavior over time.
- Children in grades 4 – 5 reported hitting/pushing and spreading rumors more frequently than youth in grades 6 – 9 and 4th -5th grade males reported more suspensions. Children in grades 4-5 also reported being victims of bullying behaviors more frequently.
- While children in grades K-3 and youth in grade 9 maintained a constant level of program satisfaction, those in grades 4-6 were less satisfied in Year 5 than Year 4.

- Most students thought it was very wrong to use alcohol regularly but less wrong than use of other substances. Significantly fewer youth thought it was very wrong at Spring 2007 than Fall 2006.
- While youth in the PeaceBuilders, Positive Action, and LST increased their perception of harmfulness of cigarette use and ecstasy over time, children and youth in Second Step, did not change their opinions significantly
- Children in grades 6-8 thought that alcohol use was less harmful at Spring 2007 than at Fall 2006.
- A majority of youth reported that they thought most teenagers and adults smoked cigarettes and many youth reported that most teenagers drink alcohol.
- There was a significant increase in the number of youth who said they might use alcohol in the future from Fall 2006 to Spring 2007.
- Lifetime inhalant use was more than double that of either the MSS or NSDUH.

RECOMMENDATIONS

- More emphasis needs to be placed on resisting use of inhalants.
- Inhalant and other ATOD prevention education should begin in elementary school.
- Greater emphasis needs to be placed on the physical effects of drugs, particularly alcohol and inhalants.
- Bullying behaviors are a problem in all districts. Programs need to focus more on these behaviors.
- More focus needs to be placed on 4th and 5th grade student attitudes and behaviors.
- There is a need for “normative education” in all districts to help students have a more realistic understanding of the number of teenagers and adults who smoke and drink alcohol. Children and youth often believe that they can or should do what the majority of other students do, so correcting misperceptions of substance use is important.

INDEX OF TABLES AND FIGURES

TABLES

1. Substance Use Lifetime, Age of Initiation, and 30-day Use Grades 4-9.....	13
2. 2006 MSS, NSDUH Drug Use Comparison (Ages 12-17).....	14
3. Suspended, Absent (Unexcused), or Disciplined at Least Once During the Year.....	15
4. Individual Satisfaction Questionnaire Items.....	18
5. Wrongfulness of Use Grades 4-9.....	19
6. Harmfulness of Use Grades 4-9.....	20
7. Attitudes Towards Substance Use Grades 4-9.....	22
8. Attitudes Toward School.....	25
9. Caring Adults.....	26
10. Empathy.....	27
11. Decision Making.....	27

FIGURES

1. Students Enrolled, Consented, and Evaluated.....	11
2. Percentage of Children/Youth by Grade Level in the SPIRIT Evaluation.....	11
3. Percentage of Children/Youth in Specific Programs.....	12
4. Problem Behaviors.....	16
5. Additional Problem Behaviors.....	16
6. & 7. Victimizing Behaviors.....	17
8. Male and Female Perceptions of Program Effectiveness.....	19
9. Peer Substance Use Belief Questions by Grade Grouping.....	23
10. Pro-Social Behavior and Emotion Regulation (K-3 rd Grade).....	23
11. Gender Difference in Pro-Social Behavior and Emotion Regulation.....	24
12. Gender Differences in Pro-active and Reactive Aggression.....	25
13. Program and Perceptions about the Presence of Caring Adults.....	26