2008 Prevention Outcomes Annual Report

South Carolina
DAODAS
Department of Alcohol and Other Drug Abuse Services

Pacific Institute
FOR RESEARCH AND EVALUATION

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EXECUTIVE SUMMARY

This report summarizes prevention outcomes generated by the South Carolina county authority substance abuse prevention system in Fiscal Year 2007-2008. A majority of the content of this report focuses on the outcomes generated through pre- and post-testing of multi-session youth prevention curricula because those evaluation methods were the most standardized across sites.

The key outcome findings from these **youth prevention curricula** are:

- There were 5,631 participants with matched pre- and post-tests. A majority (86%) of participants were between the ages of 10 and 14. The race demographics were roughly 46% Black or African American, 43% White, and 5% "Other" race.

- The results showed statistically significant positive changes on four risk factor measures: perceived risk, favorable attitudes, decision-making, and perceived peer norms ($p<.05$). Perceived parental attitudes showed a statistically near-significant improvement ($p<.10$).

- For substance use, there were statistically significant reductions in the number of users of cigarettes (14.0%), other tobacco products (18.2%), alcohol (21.7%), other illegal drugs (23.1%), inhalants (41.1%), non-medical prescription drugs use (29.0%), and non-medical over-the-counter drug use (34.4%). There was a statistically near-significant reduction in the number of marijuana users (11.9%).

- Between 94% and 99% of participants that were non-users at pre-test remained non-users at post-test for each substance. Around 70-90% of substance users at pre-test were using less or not at all by post-test.

- Of the programs with multiple implementations, Project Alert, Project Northland, and Project TNT had some of the most consistently positive results.

- 89% of the matched program participants were served in an evidence-based program. On most measures, evidence-based programs had greater positive change results for participants than programs that were not evidence-based. The difference was most distinct for impact on past 30-day use as there were no statistically significant reductions in the number of users for any substance for non-evidenced programs but there were significant reductions for all eight substances for evidence-based programs.

- Average ages of 1st use for cigarettes, other tobacco products, and alcohol were between 10.5 and 11.5. First use of marijuana averaged 12.3.

Key findings for prevention efforts other than youth prevention curricula are:

- County authority prevention staff returned forms on 5,261 alcohol compliance checks and 1,599 tobacco compliance checks, up substantially from last year's 1,349 alcohol compliance checks and 585 tobacco checks. Just less than 20% of alcohol purchase attempts were successful compared to about 16% of tobacco attempts. Having posted signage about checking IDs or having age verification equipment were both statistically significantly associated with being less likely to sell.

- 2.697 merchants were served in the Palmetto Retailer Education Program in FY '08.

- Primarily through Alcohol Enforcement Teams, counties reported 452 public safety checkpoints, resulting in more than 12,000 tickets, and 136 dispersed parties during which 612 underage drinking violations were written.

- The FFY 2009 Youth Access to Tobacco Study (Synar) showed a retailer violation rate of 11.6%, which is down from last year's 12.4%, which was the highest in the study for providing tobacco products to youth under 18 since 2001. The rate remains far lower than the 63.2% in 1994.

- A total of 9,981 participants were registered for any type of recurring programs during the year. This would include adult program participants.

- Many **other prevention activities** are not well suited to generating valid outcomes and some interventions were implemented too infrequently to generate conclusions, though there were limited examples of both successes and shortcomings. A lack of outcomes is not necessarily an indication that an approach is unimportant or ineffective.

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SECTION I: EVALUATION REPORT OVERVIEW

State Prevention Evaluation Efforts

The South Carolina Department of Alcohol and Other Drug Abuse Services (DAODAS) is one of the primary funders for substance abuse prevention services in the state. A majority of their funds are distributed to the county alcohol and drug authority system, 33 agencies serving the state's 46 counties. Every county authority offers prevention services, primarily using funds that pass through DAODAS and originate from the U.S. Substance Abuse and Mental Health Services Administration's (SAMHSA) Substance Abuse Prevention and Treatment Block Grant (SAPTBG). In addition, DAODAS also receives Safe and Drug-Free Schools and Communities (SDFS) funds through the U.S. Department of Education that are distributed to community providers in a competitive process. A handful of these SDFS grant recipients are not part of the county authority system, but their outcomes are included in this report where appropriate.

Beginning in FY '05, county alcohol and drug abuse authorities were required to use the DAODAS Standard Survey for recurring programs delivered to youth between the ages of 10 and 20 years old. PIRE developed the original DAODAS Standard Survey after DAODAS prevention staff selected the SAMHSA core measures they wanted included. In response to the federally issued National Outcome Measures (NOMs) in 2006, DAODAS and PIRE, with significant input from local prevention staff, adapted the DAODAS Standard Survey for FY '08.

Local prevention staff administer the surveys and enter student responses into the KIT Prevention online reporting system. PIRE staff are sent a cumulative outcome database quarterly. The deadline for pre- or post-tests to be included in the final database for FY '08 was June 15. This report, written by the Columbia, SC office of the Pacific Institute for Research and Evaluation, focuses on the findings based on the year-end cumulative database for FY '08, though we also present results where appropriate from past years for comparison purposes.

Contents of This Report

This report will not focus exclusively on outcomes generated through pre- and post-testing of middle and high school youth, but those results will receive the most analysis and discussion because it is the most standardized, valid method implemented across county authority sites. Other sections of the report will deal with those outcomes that can be assessed across sites for environmental strategies, the Youth Access to Tobacco Study (Synar), and other interventions.

Section II will focus on the overall results generated by the DAODAS Standard Survey. Section II will also present and discuss the pre- and post-test findings by demographic groups: age, gender, race, and ethnicity.

Section III will present and discuss analyses for the pre- and post-test results by program. In addition, we will present a comparison of the results for evidence-based programs versus non-evidence-based programs and Block Grant funded programs versus SDFS funded programs.

Section IV will be a discussion of some of the methods and issues key to analyzing and interpreting the pre- and post-test results in Section II and Section III.

Section V will discuss findings from county alcohol and tobacco environmental strategies with a focus on compliance checks and Alcohol Enforcement Team efforts.

Section VI will cover results from the FFY '09 Youth Access To Tobacco Study (Synar).

Section VII will address the findings for other prevention interventions not included in the previous sections.

Many of the most detailed data tables are included in Appendix A of this report to make the report more readable, while more succinct tables or summaries are presented in the narrative sections. Appendix B includes a copy of the DAODAS Standard Survey in effect for FY '08.

SECTION II: OVERALL PRE- AND POST-TEST FINDINGS

This section will present findings for the general state prevention system generated through youth participant pre- and post-testing (the DAODAS Standard Survey) when a valid pre- and post-test could be matched to the same participant. We present data on demographic characteristics of the participants, results for the risk-factor measures, and results for substance use measures.

The Pre-Post Test Outcome Evaluation Instrument

The revised DAODAS Standard Survey is comprised of SAMHSA National Outcome Measures (NOMs) and other measures from the Core Measure Initiative. The measures used were **perceived risk/harm of ATOD use, favorable attitudes toward ATOD use, decision-making, perceived peer norms regarding ATOD use, perceived parental attitudes regarding ATOD use, and 30-day use of cigarettes, other tobacco products, alcohol, marijuana, other illegal drugs, inhalant drugs, non-medical use of prescription drugs, and non-medical use of over-the-counter drugs.** The DAODAS Standard Survey is included in Appendix B. The survey stayed unchanged for the first three years, but adaptations were made for FY '08 to ensure compatibility with the National Outcome Measures (NOMs). Some measures stayed consistent across the two versions, but most required changes.

Providers were instructed to administer the pre-test within two weeks prior to the start of the program content and administer the post-test within two weeks following the end of the content. Local staff were expected to enter the student responses into the KIT Prevention online reporting system. Providers were instructed on participant protection procedures that would ensure likely confidentiality.

It is important to note that the evaluation design is non-experimental. That is, pre- and post- surveys are required to be administered only to program participants, and not to control groups, so we cannot tell what would have happened in the absence of the program. Despite this limitation, positive results are expected to provide some level of comfort that the program seems to be leading to the outcomes anticipated for a program.[1] Negative results are expected to raise questions about the fidelity of program implementation and/or the fit of the program to the community but should never be taken as a conclusive indication of program ineffectiveness. Through this monitoring process,

[1] Because adolescents in today's society generally become more tolerant of substance use and more likely to engage in some substance use behaviors as they grow older, it may be difficult to achieve positive changes among program participants over the time span between the pre- and post-surveys, even for a period as short as a few months. Therefore, even seeing no change on some risk factors and/or substance use behaviors may be viewed as a positive impact of program participation. This is particularly true for these data, where most respondents reported very low levels of risk and very low levels of substance use at the beginning of the programs.

the hope is that program implementation receives the attention that is necessary to be of greatest benefit to the community. In addition, the analysis of pre-post data across multiple programs and sites will assist the state in further understanding which programs, implemented under which conditions, appear to be most and least effective.

Matched Participants

For multiple reasons, not every pre-test completed by a participant could be matched to a valid post-test for that participant and vice-versa. This could happen because:

- The participant was absent at the time the pre-test or post-test was administered,
- Something in the test-coding process went wrong (participants were not to put their name on their surveys; a coding system was used to match the pre- and post-test at a later time),
- The participant left so much of the survey blank that it was removed from the analyses,
- The participant refused to take the pre- or the post-test, or
- Surveys were misplaced or not entered by local prevention staff.

If a participant did not have matched, valid pre- and post-tests, then neither test was included in the database that we analyzed.

The final database had 5,631 matched participants, which is lower than the 6,266 matched participants from FY'07, but still higher than the 4,886 matched participants in FY'06. FY'08 is the first year since use of the Standard Survey (FY'05) that the number of participants has declined. An unmatched database provided by KIT Prevention staff showed a total of 7,063 post-tests, meaning a match rate of 79.7%. This is far less than the 98.5% match rate for FY '07. This decrease may be due to an overall decline in the ability of local staff to collect valid pre- and post-tests from the same participants or it may be due to an increase in local staff entering in more of the pre-tests they collect, without waiting to see if a matched post-test is collected at the end of the program. There was not a substantial drop in the number of recurring services participants between years. DAODAS' prevention reporting system had 9,881 registered participants for FY '08 compared to 10,203 in FY '07. The 9,981 count includes all ages in all types of recurring services, but 93% of these individuals were school-aged youth. However, elementary school programs and some other types of programs are allowed exceptions to not use the DAODAS Standard Survey. Year-end reports showed that there were only two or three recurring programs in the state with any substantial numbers of elementary school students.

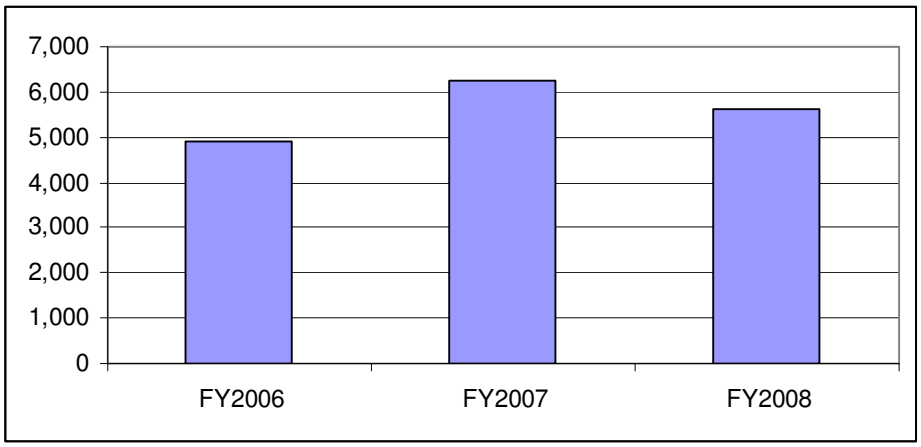
In a review of year-end reports, there were mixed responses regarding whether counties reached the number of youth intended with these curriculum programs. About one-third exceeded their target numbers, another third reached about the number planned, and the

other third fell short of anticipated numbers. Of these, there were around five instances where an entire planned program did not take place, for a variety of reasons.

Demographic Breakdown

The demographic figures presented in this section are based on the participants' responses to the demographic items on their pre-test. The same items appeared on their post-tests but were not used.

Chart 1. Matched Participants in Pre-Post Database, FY '06-'08



Age. A majority (86%) of participants were between the ages of 10 and 14, with an average age of 12.4 (FY '07 average was 12.2). This means that middle school students make up a sizable portion of the total population. Table 1 shows the complete breakdown. Compared to FY '07, there were more 13 through 16 year olds and fewer participants between the ages of 10 and 12. The programs delivered to a majority older audience were Leadership and Resiliency Program, Palmetto Youth Leadership, Project TND, Second Step, Street Smart, Strong Sons, Teen Institute, Youth Board, and Project TNT, which is intended for a middle school population.

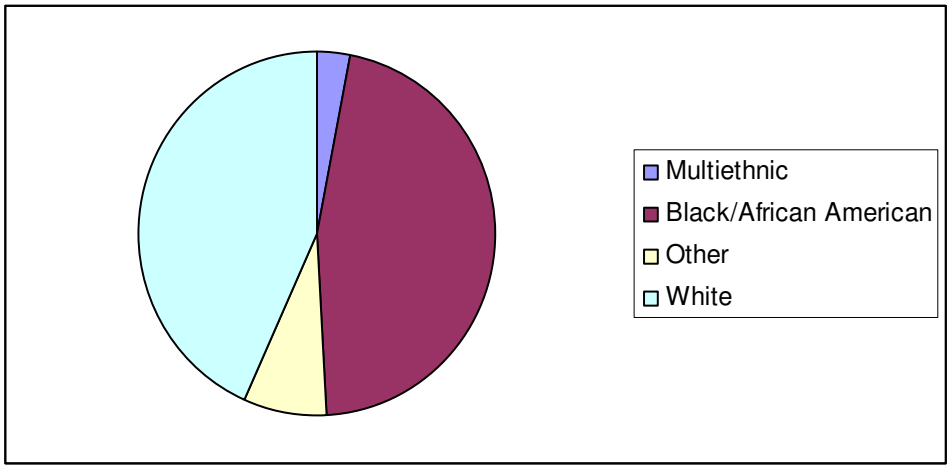
Gender. Females made up a slim majority of the matched participant population (51%). The only programs with an atypical gender breakdown were Wise Guys, Strong Sons, G.I.R.L. Power, and Girls Grapevine, for obvious reasons.

Race/Ethnicity. 46% of the matched participants were Black or African American, 43% were White, 5% were of "Other" race, 1% were American Indian or Alaskan Native, and 3% were in the Multiethnic race category. There were small numbers of participants (0.5% or below) that were Asian, Native Hawaiian, or Other Pacific Islander. Only 6% of matched participants were of Hispanic, Latino, or Spanish origin or descent. These percentages are very similar to FY '07. Some programs had atypical demographic breakdowns, such as Extreme Teen Afterschool Recreation (82% White), Palmetto Youth Leadership (79% White), RISE (100% Black or African American), and Too Good For Drugs (75% White).

Table 1. Age Distribution of County Authority Program Participants

Age	% of Participants	
	FY'08	FY '07
10	**17.3**	19.1
11	**21.4**	24.4
12	**17.9**	21.6
13	**16.3**	15.8
14	**13.0**	9.1
15	**8.2**	4.7
16	**4.2**	3.3
17	**1.2**	1.5
18	**0.2**	0.3
19	**0.0**	0.1

Chart 2. Matched Participants by Race



Risk-Factor Measures

Table 2 shows the results for the five risk factors included on the DAODAS Standard Survey. As shown in the table, there was statistically significant ($p<.05$) positive change from pre- to post-test for four of the five measures and change approaching significance ($p<.10$) for perceived parental attitudes. It should be noted that perceived parental attitudes had the highest relative pre-test score and may have been limited by a "ceiling effect" because the high pre-test score left little room for improvement. For the measures that were consistent with the FY '07 version of the survey, FY '08 had a better improvement in decision-making than FY '07 but smaller improvements for perceived peer norms and perceived parental attitudes.

Table 2. Overall Results, Risk-Factor Measures: County Authorities, FY '08 and '07

Risk-Factor Measure	N	Possible Range of Scores	Pre-Test Average	Post-Test Average	**FY '08 % Change**	FY '07% Change
Perceived Risk	5,567	0-3	1.9	2.2	**13.7****	N/A^
Decision-Making	5,566	0-3	1.8	1.9	**6.3****	3.1**
Favorable Attitudes	5,566	0-2	1.5	1.6	**4.4****	N/A^
Perceived Peer Norms	5,549	0-10	8.2	8.4	**1.9****	3.1**
Perceived Parental Attitudes	5,541	0-3	2.8	2.8	**0.4***	1.1**

* Pre- and post-test averages are approaching a statistically significantly difference (at the p<.10 level but not at the p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

^ Measure changed from FY '07 to FY '08

Demographic Differences in Risk-Factor Measures. Tables A1 through A4 in Appendix A display risk-factor measure and substance use rates results separated by age group (middle school ages and high school ages), gender, race, and ethnicity.

Age. Table A1 shows county authorities' data results separated by age range: middle school age (ages 10 to 13) and high school age (ages 14 to 19). As expected, younger participants had higher pre-test risk-factor scores. Both groups had statistically significant changes on all risk-factor measures, except for perceived parental attitudes for high school students.

Gender. Table A2 shows data results separated by gender. Results for all five risk-factor measures show statistically significant positive change for males and females. It is worth noting that females had better pre-test risk-factor scores than males for four of the five measures, which may be a primary reason that males had more desirable change scores on all five measures—females had less room for improvement.

Race/Ethnicity. Table A3 shows data results separated by race (for those race groups with 40 or more participants), and Table A4 shows the results by ethnicity. White participants had positive, statistically significant change on each of the five risk-factor measures, as opposed to four for Black or African American participants. All race groups had significant positive change for perceived risk. White participants had generally higher pre-test risk factor scores than other groups.

Participants of Hispanic, Latino, or Spanish descent or origin had statistically significant positive change for perceived risk, favorable attitudes, decision-making, and perceived peer norms. They had lower pre-test risk factor scores than participants not of that ethnicity but greater improvements from pre- to post-test. This is likely related to the fact that they had more room for improvement rather than an actual difference in effectiveness based on ethnicity.

Participant Substance Use

The DAODAS Standard Survey asked participants to indicate the extent of their cigarette, other tobacco, alcohol, marijuana, other illegal drug, inhalant, non-medical prescription drug, and non-medical over-the-counter drug use in the past 30 days. In previous years, the survey only inquired about alcohol, marijuana, and cigarette use. Using these responses, the percentage of participants that used each substance at any amount was calculated at pre- and post-test. FY' 08 results for alcohol, marijuana, and cigarette use are shown Table 3, along with the corresponding changes in use from FY '07. The substances measured for the first time in FY'08 are presented separately in Table 4.

Table 3. Overall Results, Substance Use Rates, FY '06-'08

Risk-Factor Measure	N	% Using at Pre-Test	% Using at Post-Test	**FY '08 % Change**	FY '07% Change	FY '06% Change
30-Day Cigarette Use	5,541	8.0	6.7	**-16.5****	-32.1**	-31.1**
30-Day Alcohol Use	5,544	12.4	9.5	**-23.7****	-34.2**	-31.6**
30-Day Marijuana Use	5,541	4.3	3.5	**-19.3****	-23.7**	-23.5**

Negative changes are desired for these items

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level);

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table 4. Overall Results, Substance Use Rates, New Drug Categories for FY '08

Risk-Factor Measure	N	% Using at Pre-Test	% Using at Post-Test	% Change
30-Day Other Tobacco Use	5,546	4.9	4.0	-18.2**
30-Day Other Illegal Drug Use	5,538	2.1	1.6	-23.1**
30-Day Inhalants Use	5,542	5.3	3.1	-41.1**
30-Day Non-Medical Prescription Drug Use	5,539	3.0	2.1	-29.0**
30-Day Non-Medical OTC Drug Use	5,534	2.8	1.8	-34.4**

Negative changes are desired for these items

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level);

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

There were desired statistically significant declines in the number of users for all substances from pre- to post-test. For cigarettes, alcohol, and marijuana, the declines were less favorable as compared to FY '07 and '06.

Maintenance/Reductions. Responses regarding 30-day use were analyzed to determine (1) the percentage of participants who were not using a substance at pre-test that were still not using at post-test and (2) the percentage of participants who were using a

substance at pre-test that were using less (or not at all) by post-test. The former, in particular, may be the most accurate assessment of the "preventive" effect of the programs.

Chart 3. Percent of Pre-Test Non-Users Who Remained Non-Users, FY '08

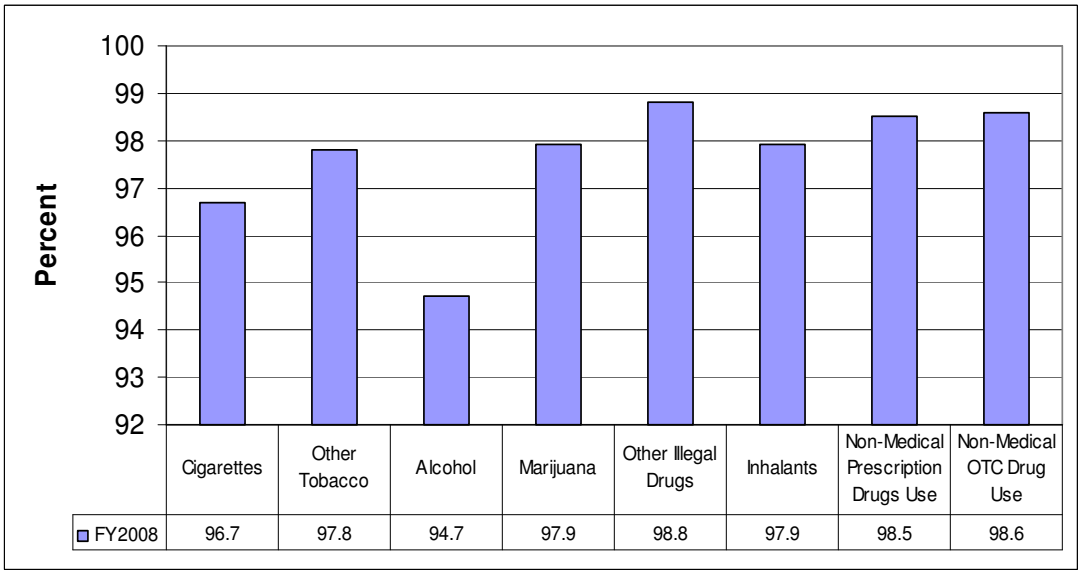
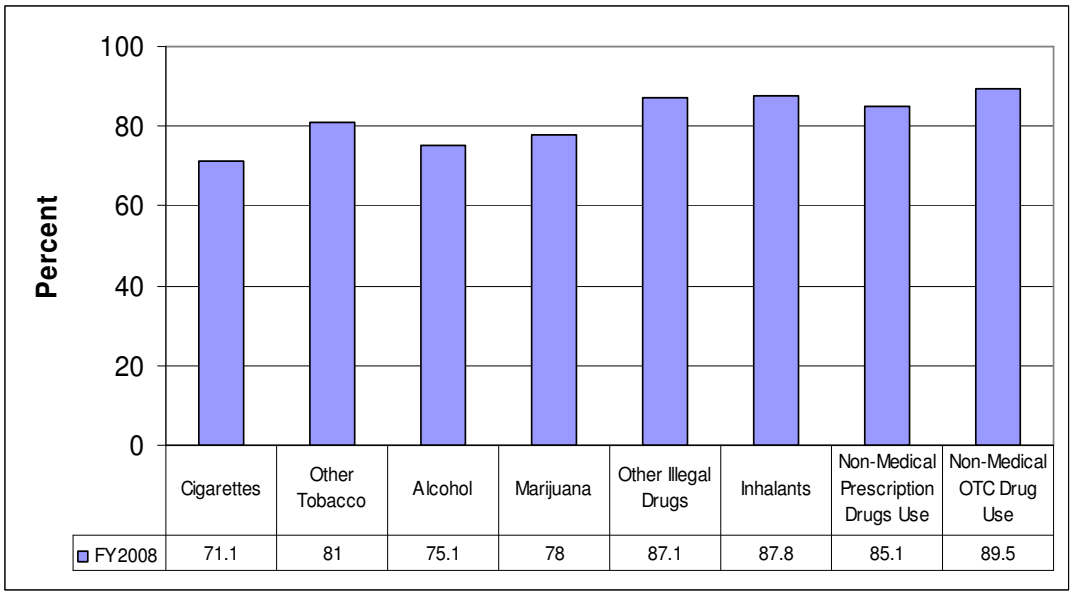


Chart 4. Percent of Pre-Test Users Who Reduced Their Level of Use, FY '08

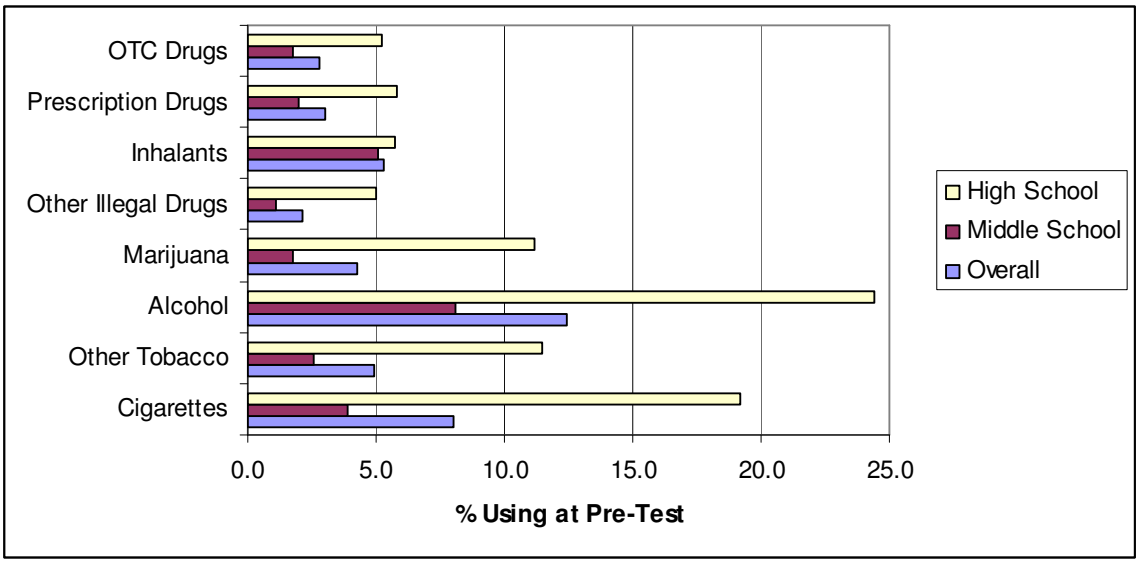


Charts 3 and 4 show that the vast majority of participants who begin programs as non-users remain non-users. More than 98% of other illegal drug, non-medical prescription drug, and over-the-counter drug non-users maintained non-use. Alcohol had the most undesirable results, with about 5% of participants initiating alcohol use during the course of programs. Pre-test cigarette users were least likely to reduce their level of cigarette use over the course of a program, though 71% still represents a strong majority. Several substances had more than 80% of users reducing their use.

Demographic Differences in Substance Use. Tables A1 through A4 in Appendix A also display risk-factor measure and substance use rates results separated by age groups, (middle school ages and high school ages), gender, race, and ethnicity.

Age. Table A1 shows data results separated by middle school (ages 10 to 13) and high school (ages 14 to 19) age ranges. For both age groups, there were decreases in the use of every substance except that middle school students had no change in marijuana use (1.8%) and a 7.6% increase in illegal drug use, which is misleading because it only represents an increase from 1.05% of participants to 1.13%. The decreases for high school students were statistically significant for all eight substances while the decreases were significant for alcohol and inhalants for middle school students. High school students had larger decreases for all substances, but this may be partially explained by the fact that middle school students had so much less pre-test use that it was difficult to achieve large reductions. It should be noted in Chart 5 that while inhalants was the sixth most used drug among high school students, it was second among middle school students. Alcohol was the most commonly used drug for both groups.

Chart 5. Overall Results, Rates of Substance Use at Pre-Test: Overall, Middle School, and High School, FY '08



Gender. Table A2 shows data results separated by gender. Males had statistically significant declines for all substances except other illegal drugs. Females had significant (six of eight) or near significant declines for all substances. Males were more likely to be users at pre-test for all substances yet still had smaller reductions in number of users for all substances except alcohol.

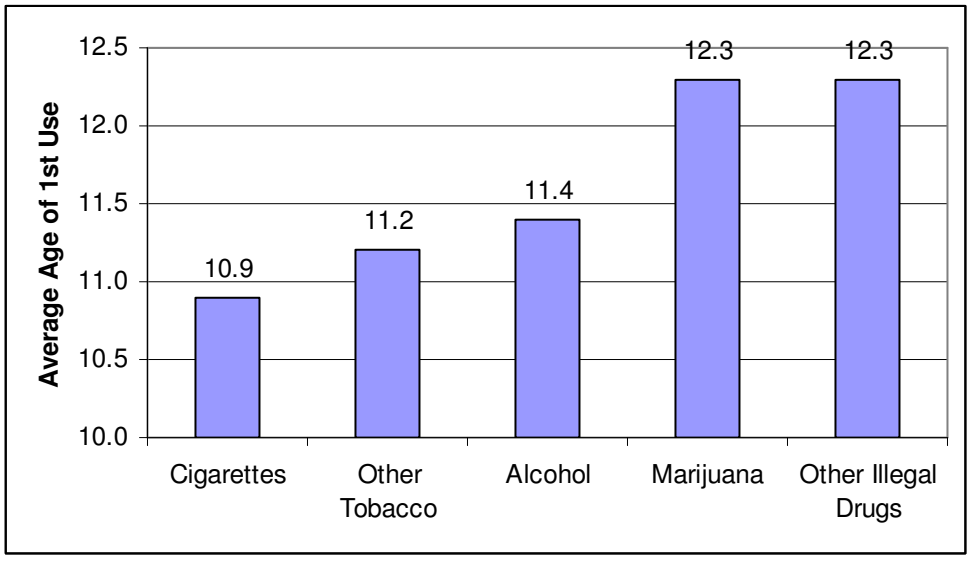
Race/Ethnicity. Table A3 shows data results separated by race (for those race groups with 40 or more participants), and Table A4 shows the results by ethnicity. American Indian participants, the smallest group, generally had the highest rates of substance use at pre-test. White participants had equal or higher rates of pre-test use for all substances compared to Black or African American participants. Both White and Black or African American participant groups had declines in the number of users from pre- to post-test for all substances with the reductions being statistically significant or near significant about half of the time. Declines in the number of users were not as consistently desirable for the "other" race participant group as they were for other groups.

Participants of Hispanic, Latino, or Spanish ethnicity had significant reductions in the number of other tobacco, alcohol, marijuana, and other illegal users. Participants of Hispanic, Latino, or Spanish descent or origin had higher pre-test use rates for all substances as compared to those not of that ethnicity.

Age of First Use

For the first time, the FY '08 DAODAS Standard Survey asked participants at what age they first began using certain substances. As shown in Chart 6, ages of first use for cigarettes, other tobacco products, and alcohol were between 10.5 and 11.5; participants averaged first use of marijuana and other illegal drugs at 12.3.

Chart 6. Overall Results, Average Age of First Use, FY '08



Additional Items

Two additional items were added to the survey in FY '08, but only on the pre-test. First, we learned that exactly two-thirds of students report they had talked to their parents about the dangers of drugs in the past year. Additionally, 79% reported having watched, read, or heard a prevention advertisement in the past year.

Summary of Section II

For the county authorities' multi-session prevention programs for youth 10 to 20 years old, a pre-post design was used with a survey containing five risk factor items and eight 30-day use questions for cigarettes, other tobacco products, alcohol, marijuana, other illegal drugs, inhalant drugs, non-medical use of prescription drugs, and non-medical use of over-the-counter drugs. There were 5,631 matched participants, meaning there was a valid pre- and post-test. This number is a decrease from 6,266 from the year before. A majority of participants were between the ages of 10 and 14. Gender percentages were essentially equal, and the race breakdowns were roughly 46% Black or African American, 43% White, and 5% "Other" race. Only 6% of participants were of Hispanic, Latino, or Spanish descent or origin.

The results showed statistically significant positive changes ($p<.05$) on four of the five risk factor measures: perceived risk (13.7%), favorable attitudes (4.4%), decision-making (6.3%), and perceived peer norms (1.9%). The change for perceived parental attitudes (0.4%) was close to statistical significance ($p<.10$) and had understandably small improvement considering the pre-test average was 2.8 out of 3.0. For substance use, there were statistically significant reductions in the number of users of every substance, ranging from a high reduction of 41% (inhalants) to a low of 17% (cigarettes).

Between 94% and 99% of participants that were non-users at pre-test remained non-users at post-test for each substance. Around 70-90% of substance users at pre-test were using less or not all for that substance by post-test.

Demographic analyses reveal that programs were effective for both middle school and high school age youth. Impact on risk factors was essentially the same when factoring in that younger students begin the programs with more favorable beliefs, as expected. The same effect existed for substance use as older students had larger reductions but also higher rates of use at pre-test.

Similar to the younger students discussed above, females had higher pre-test risk-factor scores and smaller percentages of pre-test substance users. Males generally had greater positive change on risk factor measures, which may be related to their lower pre-test scores (more room for improvement than females had). However, females still generally had larger reductions in the number of users, even with lower rates of pre-test use.

Results were generally positive across all race groups. White participants had higher pre-test risk factor scores but also higher rates of pre-test substance use compared to most other groups except American Indian. "Other" race participants did not have the same consistently favorable reductions in the number of substance users as other races did. Participants of Hispanic, Latino, or Spanish origin or descent had significant positive change on four risk factor measures as well as significant reductions in the number of other tobacco products, alcohol, marijuana, and other illegal drug users. They also began the program with consistently higher pre-test rates of users as compared to those not of that ethnicity.

Ages of first use for cigarettes, other tobacco products, and alcohol were between 10.5 and 11.5; participants averaged first use of marijuana and other illegal drugs at 12.3.

SECTION III: PROGRAM OUTCOMES

Across the provider network, 26 different programs were implemented. In this section, we compare the outcomes for the programs with 40 or more matched participants. The full tables with results by program are found in Appendix A in Table A5. A summary of the statistically significant effects by program are found below in Table 5 and described below.

Table 5. Summary of Statistically Significant Program Effects

Program	# of Sites	Measures with Significant Change
All Interventions	**63**	**Perceived Risk** **Favorable Attitudes** **Decision-Making** **Perceived Peer Norms** Perceived Parental Attitudes **30-Day Cigarette Use** **30-Day Other Tobacco Use** **30-Day Alcohol Use** 30-Day Marijuana Use **30-Day Other Illegal Drugs Use** **30-Day Inhalants Use** **30-Day Non-Medical Presc. Drug Use** **30-Day Non-Medical OTC Drug Use**
All Stars	**13**	**Perceived Risk** **Favorable Attitudes** **Perceived Peer Norms** **30-Day Inhalants Use**
Get Real About Violence	**1**	**Perceived Risk** **Decision-Making Skills** **Favorable Attitudes** **Perceived Peer Norms** **Perceived Parental Attitudes** 30-Day Inhalants Use
Girl's Grapevine	**1**	Perceived Risk *Perceived Peer Norms*
Girl Power	**1**	**Perceived Risk** *Non-Medical Prescription Drug Use*
Keepin' It Real	**3**	**Perceived Risk** **Decision-Making**
Life Skills Training	**6**	**Perceived Risk** **Favorable Attitudes** **Decision-Making** *30-Day Inhalants Use*

Project Alert	**8**	**Perceived Risk** **Favorable Attitudes** **Decision-Making** **Perceived Peer Norms** **30-Day Other Tobacco Use** **30-Day Alcohol Use** **30-Day Marijuana Use** **30-Day Other Illegal Drug Use** 30-Day Inhalants Use
Project Northland	**5**	**Perceived Risk** **Favorable Attitudes** **Decision-Making** **Perceived Peer Norms** 30-Day Cigarette Use **30-Day Other Tobacco Use** **30-Day Alcohol Use** 30-Day Inhalants Use
Project Toward No Drug Abuse (TND)	**5**	**Perceived Risk** ***Perceived Peer Norms*** ***Perceived Parental Attitudes***
Project Toward No Tobacco Use (TNT)	**2**	**Perceived Risk** **Favorable Attitudes** **Decision-Making** **Perceived Peer Norms** Perceived Parental Attitudes **30-Day Cigarette Use** 30-Day Other Tobacco Use **30-Day Alcohol Use** **30-Day Marijuana Use** **30-Day Other Illegal Drugs Use** **30-Day Inhalants Use** **30-Day Non-Medical Presc. Use** **30-Day Non-Medical OTC Drug Use**
Responding in Peaceful and Positive Ways	**1**	**Perceived Risk** **Favorable Attitudes** 30-Day Inhalants Use
RISE	**1**	**Perceived Risk** **Favorable Attitudes** **Perceived Peer Norms** **Perceived Parental Attitudes**
Wise Guys	**1**	none

Italics indicate undesired change.

Bold items indicate statistically significant change (p<.05); Non-bold items indicate near significance (p<.10).

All Stars, a comprehensive evidence-based ATOD prevention curriculum, had three positive risk-factor changes (perceived risk, favorable attitudes, and perceived peer norms) and a significant reduction in the number of inhalants users. It was the most commonly implemented program with 13 sites and 1,052 matched participants.

Get Real About Violence, is a national program that addresses a wide range of violent behavior in students from kindergarten through 12th grade—from bullying and verbal aggression at early grades through fighting and social exclusion at middle grades to

relationship abuse and assaults that can occur in later grades—through 12 multimedia lessons. All five risk factors improved significantly along with a significant decrease in the number of inhalant users.

Girls' Grapevine is a single-county program developed to help 6th grade girls address their transition into middle school. The program had a statistically near-significant improvement for perceived risk. However, the perceived peer norms score fell at a statistically near-significant level.

G.I.R.L. Power is a single-county prevention program. G.I.R.L. (Gifted, Intelligent, Responsible Ladies) Power is a seven-session program assisting young girls with development of positive social skills, emphasizing respect for self and others, handling peer pressure, manners, and being comfortable in your own skin. Perceived risk improved significantly for this program; however, the number of non-medical prescription drug users increased at a near-significant level.

Keepin' It Real, an evidence-based, video-enhanced intervention for youth 10 to 17 that uses a culturally-grounded resiliency model that incorporates traditional ethnic values and practices that protect against drug use, was used by two sites. The results show a statistically significant improvement in perceived risk and decision-making.

Life Skills Training, a skill-based, evidence-based ATOD prevention curriculum, was used by six sites for a total of 272 matched students. It demonstrated significant positive change for perceived risk, favorable attitudes, and decision-making. The number of inhalants users increased at a statistically near-significant level.

Project Alert, a comprehensive evidence-based ATOD prevention curriculum, had positive significant effects for perceived risk, favorable attitudes, decision-making, and perceived peer norms, and a significant reduction in the number of users for tobacco, alcohol, marijuana and other illegal drugs. The number of inhalants users increased at a near-significant level.

Project Northland, an evidence-based ATOD prevention curriculum with a strong focus on alcohol and influencing the environment, was used by five sites with a large total of 916 matched participants, making it the second most represented program in our database. The overall results show significant effects for perceived risk, favorable attitudes, decision-making, and perceived peer norms. The number of users for other tobacco products and alcohol decreased significantly, and the number of cigarettes and inhalants users decreased at a statistically near-significant level.

Project Towards No Drug Abuse (TND), an evidence-based general ATOD prevention curriculum for high school youth, was used by five county authority sites and had significant improvement in the perceived risk measure but significant undesired changes in perceived peer norms and perceived parental attitudes.

Project Towards No Tobacco Use (TNT), a comprehensive, evidence-based tobacco prevention program for middle school youth, had significant positive change for all risk factor measures except perceived parental attitudes, which had near-significant positive change. There were decreases in the number of users for all substances, and all those changes were significant, except other tobacco products, which was near-significant.

Responding in Peaceful and Positive Ways, a school-based violence prevention program designed to provide students in middle and junior high schools with conflict resolution strategies and skills, was used by one site and had significant improvements in perceived risk and favorable attitudes. The number of inhalants users decreased at a statistically near-significant level.

RISE, Responsibility Increases Student Excellence, targets the areas of substance abuse, anti-violence, character education, and life skills. It is used in one county only and had statistically significant positive changes for perceived risk, favorable attitudes, perceived peer norms, and perceived parental attitudes.

Wise Guys is a locally designed, 6-7 session program for boys/young men 10-18 years old. It explores the need for rules and consequences, leadership, sportsmanship and team effort. The curriculum correlates these concepts to everyday life situations from those encountered within sports & the law. The program showed statistically significant improvements on all risk factors except perceived parental attitudes.

Evidence-Based vs. Non-Evidence-Based Programs

County authorities are not required to use evidence-based interventions exclusively (though 89% of the matched participants were served in evidence-based programs), which allows for a comparison of outcomes between evidence-based programs and non-evidence-based interventions. These results are displayed in Table A6 in Appendix A.

Every measure had statistically significant change for evidence-based programs, except for perceived parental attitudes, while non-evidence-based programs had significant change for two risk factors (perceived risk and favorable attitudes), near-significant change for two others (perceived peer norms and perceived parental attitudes), and no significant changes on the 30-day use measures. Evidence-based programs had a higher percentage of positive change for four risk factors (perceived risk, favorable attitudes, decision-making, and perceived peer norms) and all substance use measures except cigarettes and other illegal drugs. These contrasts are generally similar to FY ’07 results. It should be noted that non-evidence-based interventions had consistently but slightly higher pre-test risk factor scores and lower pre-test substance use rates.

Safe and Drug-Free Schools

Sixty-four percent of the matched participants in the state database were served by a program funded by Safe and Drug-Free Schools dollars. Table A7 in Appendix A shows results for these participants compared to the rest of the participants (considered to be Block Grant funded as that is the other primary prevention funding source). Block Grant programs had more desirable change scores for all risk factors and seven of eight substances. However, Safe and Drug-Free Schools participants had generally higher pre-test risk factor scores and consistently lower pre-test percentages of substance users. Therefore, Block Grant participants had greater room for improvement, which may explain some of their more desirable changes.

Summary of Section III

There were 63 county authority program implementations of 26 different programs in FY '08. Of the programs with multiple implementations, Project Alert, Project Northland, and Project TNT had some of the most consistently positive results.

The large majority (89%) of participants with matched pre- and post-tests were served in evidence-based programs. Evidence-based programs had generally more positive results, particularly for reducing the number of substance users. Evidence-based programs showed significant declines in users for each of the eight substances, while non-evidence-based programs had none.

Sixty-four percent of the matched participants in the state database were served by a program funded by Safe and Drug-Free Schools dollars. Block Grant programs had more desirable change scores overall though SDFS participants had higher pre-test results, which may explain some of that difference.

SECTION IV: METHODOLOGY AND ANALYSIS ISSUES

In this section, we describe the evaluation design that generated the outcomes from pre- and post-testing of youth curricula participants described in sections II and III. In addition, we discuss the analyses used and cautions in interpreting the results.

Evaluation Design Issues

Evaluation design issues acknowledge possible limitations in the ability to detect positive findings due to the particular evaluation methodology. Several evaluation design issues are relevant for both projects, including floor and ceiling effects, lack of comparison groups, and the short duration between pre- and post-surveys. Unpublished data collected by the developers of Life Skills show that when measured simply with a pre-post survey, there were no apparent effects of the Life Skills intervention. But when measured after booster sessions and at later points in time and with a comparison group, effects of the intervention emerged. Thus, it is possible that seeds of some of these interventions have been planted, but that we are not yet able to measure the intended long-term benefit.

Floor and Ceiling Effects. Floor and ceiling effects refer to circumstances that make it difficult to measure change over time because participants' scores are already as low (or high) as they can be prior to the intervention. Participants generally reported low risk and low rates of substance use. Thus, the potential to show improvement at post-survey was limited. Despite these ceiling and floor effects, positive changes were reported for many of the interventions.

Lack of Comparisons. DAODAS staff and PIRE decided that it would not be appropriate to require collection of data from comparison sites. There were two primary reasons for this. First, the purpose was not to prove that interventions are effective, but to enhance communities' capacity to implement and monitor effective interventions. The PIRE evaluation team views evaluation data as an essential tool to improve future performance more so than a judgment of past efforts. Second, requiring subrecipients to collect comparison data would have been a large administrative burden. Clearly, however, the lack of comparison groups limits our ability to interpret these findings. Given that there is a consistent trend across the country for teens to develop less favorable attitudes and behaviors regarding illegal substance use over time, it is likely that the absence of pre/post changes for participants is indication of favorable effects relative to youth who did not participate in similar prevention interventions.

Attendance Bias. It should be noted that our matched participant databases consist of participants who attended the pre- and post-test sessions for the program. Thus, these groups may not include some higher-risk youth because they may have been more likely to be absent from the program during the pre- or post-test session due to truancy, suspension, or change of schools. The implication of the differences between the

participants in our databases and the full set of participants is that our findings should not be generalized to the whole sets of participants. However, because the bias in our results is largely due to absenteeism, our findings are relevant for those youth who were present for a larger portion of the interventions. Thus, our results should provide a relatively accurate picture of changes experienced by program participants who had a significant opportunity to benefit from the intervention.

Short Duration Between Pre- and Post-Surveys. It is possible that the effects of the prevention interventions will not be realized until a later point in time. The large majority of participants in these databases are in their early teens or younger. The interventions are aimed at preventing or delaying the onset of substance use as the youth get older. Thus, by the time youth reach late high school age, these participants may report lower risk and lower rates of substance use, relative to non-participants. We do not have the data to determine whether there will be long-term positive results for these program participants, but it is the case that each evidence-based program tends to have a base of research support for the long-term impact of the program.

Maturation Effects. Because adolescents in today's society generally become more tolerant of substance use and more likely to engage in some substance use behaviors as they grow older, it may be difficult to achieve positive changes among program participants over the time span between the pre- and post-surveys, especially if the time gap between pre- and post-tests is long. Therefore, even seeing no change on some risk factors and/or substance use behaviors may be viewed as a positive impact of program participation. This is particularly true for these data, where most respondents reported very low levels of risk and very low levels of substance use at the beginning of the programs. Outcomes for programs with longer time gaps between pre- and post-test are difficult to compare to those with shorter time gaps because the maturation effect is more pronounced for the former and may appear to have less positive outcomes.

Program Implementation Issues

Program implementation issues acknowledge possible limitations in program effectiveness due to particular aspects of the way an intervention is implemented. At least three program implementation issues are relevant for these projects: ineffective interventions, inadequate match between interventions and communities, and fidelity.

Ineffective Interventions. The first reaction one might have upon reviewing some of these programs' data is that some interventions are not effective in preventing or reducing substance use or affecting risk factors. This is less likely to actually be the case when evidence-based interventions were used because they have been shown through research to be effective. Thus, we should not conclude that these interventions are, in general, ineffective. Nevertheless, there may be aspects of the way they are implemented that render them less effective. There is a possibility that unfavorable results for a non-evidence-based intervention indicate a lack of program effectiveness, but there are other potential explanations, as well.

Inadequate Match Between Interventions and Communities. It is possible that some interventions do not match the needs of, and/or are not appropriate for, some local target populations. In other words, the research-based interventions may be very effective with the populations in the settings where they were designed and tested, but may not be as appropriate to serve the needs of some of the target populations in South Carolina. There continue to be factors involved in program selection other than proven effectiveness with a particular type of target population, such as implementation time allowed, cost, and convenience (using whatever program that staff currently have training in or can be trained in quickly or inexpensively). In addition, sites are not always aware of the exact needs of their communities, community characteristics can change across time, and intervention developers are not always aware of limitations to the generalizability of the effectiveness of their interventions. It would be wise for all programs to continuously ask themselves whether their interventions are a "good fit" for their target population and setting, and this may have been an important factor in the different levels of success across locations.

Fidelity. Fidelity is the extent to which interventions are delivered as they are intended. Even with well-controlled research studies, the degree of fidelity can vary widely. Life Skills researchers have found limited effects of the program when analyzing data from the full sample of students, but more widespread effects when analyzing data from a high-fidelity sample. Clearly, fidelity is an important factor in determining the effectiveness of interventions, and low fidelity can lead an otherwise effective intervention to appear ineffective. Thus, it is possible that for some implementations where we did not see more positive outcomes it may be because the interventions were not delivered with a high degree of fidelity.

The only fidelity measure used for the county authorities was the recording of participant attendance. However, a large number of sites had attendance results that indicate considerable amounts of missing data, as many participants were listed with zero sessions attended, which would not be possible if they had a matched pre- and post-test. Until the attendance data is better entered, there cannot be analyses of attendance's impact on outcomes. However it may be safe to assume that a lack of fidelity probably had an adverse impact on the findings for at least some of the interventions at some of the sites, and, in many cases, this may be avoided in the future through close monitoring of these issues.

Data Analysis Methods

Testing Pre- and Post-Survey Differences in Risk-Factor Scores: We used SPSS statistical software for all analyses. We conducted paired-samples t-tests to compare the means of the pre-survey and post-survey scores for each risk-factor measure assessed on the surveys. This test computed the difference (change) between the pre- and post-survey means for each factor and then tested whether the mean difference was "significantly different" from zero. A statistically significant difference means that the observed

difference was too large to occur as a result of chance alone. The treatment (intervention) and/or other factors played a role in helping changes take place in the behaviors and attitudes of the participants. T-tests (as well as all tests of significance) were performed at a significance level of $p < .05$ (two-tailed), though differences of between .05 and .10 were noted for participants and labeled as "approaching" or "near" significant. Appropriate nonparametric tests were used with small group sizes.

Testing Pre- and Post-Survey Differences in Substance Use: Based on students' responses to the substance-specific "Past 30-Day Use" items on the pre- and post-tests, students were coded as being users (if they used a substance at least once during the last 30 days) or non-users. We used the nonparametric McNemar test to detect if the changes in percentages of substance users were statistically significant. Similar to other nonparametric tests, the McNemar uses the chi-square distribution and is used mainly to detect changes in response to a treatment (e.g. a program intervention) in *before and after* designs.

Summary of Section IV

The methods used to generate outcomes for the youth curricula are common and generally accepted. There are aspects of the design, however, that should be taken into account when considering the results. There were numerous instances of ceiling effects where pre-test responses were so close to the ideal that it was difficult to improve on the post-test and limited potential positive changes. Also, there were no comparison groups, so we cannot say with confidence whether the outcomes would have been more or less favorable as compared to a group having no intervention. Negative results for any site or program may not necessarily indicate an ineffective program. Poor fidelity or poor matching of a program with the target population may be more likely to lead to poor outcomes.

SECTION V: ALCOHOL AND TOBACCO ENVIRONMENTAL PREVENTION STRATEGIES

County authorities have been implementing or assisting with the implementation of environmental strategies for many years. These efforts were boosted in FY '07 with the creation of the Synar Tobacco Enforcement Partnerships (STEP) and Alcohol Strategy Incentive Program (ASIP). For FY'08, the ASIP program was ended due to the creation of the state Alcohol Enforcement Teams (AET) program, which now reports on most of the same strategies that had been tracked through ASIP. STEP continued in FY'08 and is most identified with its year-end monetary incentives to local providers based on the amount of tobacco-related environmental strategies implemented. Under STEP, counties could receive points for merchants educated in PREP (Palmetto Retailer Education Program), tobacco compliance checks, serving youth who had been charged with tobacco possession with an approved program, getting a multi-jurisdictional law enforcement agreement around tobacco enforcement signed, and sending in new tobacco outlets. In this section, we document the amount of overall environmental strategy activity generated with a primary emphasis on the outcomes generated from the most common strategy, compliance checks.

Alcohol and Tobacco Compliance Checks

Compliance checks are an environmental strategy to reduce youth access to alcohol or tobacco. Ideally, compliance checks include the following actions:

- Publicity to alcohol and tobacco sales staff that enforcement operations will be increasing,
- Awareness-raising with the community to increase its acceptance of increased compliance operations,
- Law enforcement operations involving the use of underage buyers attempting to purchase alcohol or tobacco with charges being brought against the clerk and establishment license holder if a sale is made, and
- Regularly offered merchant education to help merchants improve their underage sales policies and practices.

Across the county authority system, prevention staff were required to use the DAODAS Compliance Check Form when cooperating with local law enforcement to implement compliance checks. This form was to be used for both alcohol and tobacco compliance checks. The form records details of the compliance checks such as time of check, type of store, information on purchaser and clerk, and whether the clerk asked for ID or age.

In FY '08, there were 5,261 alcohol and 1,599 tobacco compliance check forms returned. This is a major increase from the FY '07 totals of 1,349 and 585, respectively. There were 32 counties that returned tobacco compliance check forms, and 40 counties that

Table 6. FY08 Alcohol Compliance Check Buy Rates

County Name	Total Eligible Purchase Attempts	Buys	Buy Rate
ABBEVILLE	20	10	50.0%
AIKEN	41	7	17.1%
ALLENDALE	52	9	17.3%
ANDERSON	372	88	23.7%
ANDERSON / OCONEE	49	15	30.6%
BAMBERG	17	4	23.5%
BARNWELL	37	3	8.1%
BEAUFORT	0	0	N/A
BERKELEY	126	42	33.3%
CALHOUN	15	2	13.3%
CHARLESTON	347	107	30.8%
CHEROKEE	17	12	70.6%
CHESTER	55	11	20.0%
CHESTERFIELD	29	3	10.3%
CLARENDON	223	14	6.3%
COLLETON	124	17	13.7%
DARLINGTON	22	2	9.1%
DILLON	14	4	28.6%
DORCHESTER	187	34	18.2%
EDGEFIELD	0	0	N/A
FAIRFIELD	75	8	10.7%
FLORENCE	218	38	17.4%
GEORGETOWN	20	1	5.0%
GREENVILLE	436	56	12.8%
GREENVILLE / PICKENS	132	32	24.2%
GREENWOOD	90	23	25.6%
HAMPTON	61	18	29.5%
HORRY	39	4	10.3%
JASPER	118	12	10.2%
KERSHAW	300	46	15.3%
LANCASTER	101	40	39.6%
LAURENS	79	14	17.7%
LEE	8	0	0.0%
LEXINGTON	243	40	16.5%
MCCORMICK	0	0	N/A
MARION	8	3	37.5%
MARLBORO	0	0	N/A
NEWBERRY	57	11	19.3%
OCONEE	168	37	22.0%
ORANGEBURG	83	29	34.9%
PICKENS	190	29	15.3%
RICHLAND	230	34	14.8%
SALUDA	38	10	26.3%
SPARTANBURG	307	59	19.2%
SUMTER	81	25	30.9%
UNION	34	1	2.9%
WILLIAMSBURG	7	2	28.6%
YORK	299	51	17.1%

returned alcohol compliance check forms. These numbers are up substantially from the 23 counties that returned either tobacco or alcohol compliance check forms in FY'07.

The tobacco merchants sold cigarettes 254 times or 15.9%. Alcohol was sold 1,022 times or 19.4%. Table 6 shows the buy rate by county. In two instances, there are entries for two counties combined because the forms submitted were only identified by judicial circuit. The FY '07 tobacco and alcohol sales rates were 17.9% and 20.3%, respectively.

The decrease in the alcohol sale rate is notable in light of the fact that the creation of AETs meant local compliance checks were conducted in a large number of communities for the first time. An analysis of buy rates between these "new" areas and traditionally checked areas shows a statistically significant difference (22.3% vs.18.7%). This is important because it supports the idea that the state rate would have been much lower if it were not for "new" areas, which would be expected to have higher rates. It also supports the idea that compliance rates will likely decrease over time if enforcement is consistent.

Most alcohol compliance checks were done at convenience stores (74%). The next most common type of location was large grocery stores (9%), then liquor stores (7%), bars (4%), and restaurants (3%). In most cases, the youth attempted to buy beer (68%), although a substantial 23% attempted to buy alcopops and 7% attempted to buy liquor. The most common age for the youth volunteers was 18 (29%). There were almost equal percentages of 17- and 19-year-old buyers (24% and 22%). About 15% of buyers were age 20. Most buyers were males (61%) and White (79%).

For tobacco compliance checks, 80% were done at convenience stores, followed by large grocery stores (9%) and drug stores (6%). Buyers almost always attempt to buy cigarettes (95%) with smokeless tobacco being the other product targeted. The sale rate for other tobacco products was 27%. About 84% of buyers were 16 or 17, followed by 15 year olds (14%). In contrast to alcohol compliance checks, buyers were almost evenly split between male and female. Most buyers were White (72%). Another 23% of buyers were Black or African American.

Table 7. Compliance Check Merchant Practices

Compliance Check Feature	% (Alcohol)	% (Tobacco)
Sales Completed	19.4	15.9
Merchant Asked Buyers Age	29.4	28.6
Merchant Asked to See ID	81.5	83.9
Merchant Studied ID	69.1	63.5
Completed Sale When Merchant Studied ID	6.5	5.2
Visible ID-Checking Signage in Store	65.8	71.5
Age-Verification Equipment Used	35.5	35.0

Table 7 above details the frequency of certain merchant conditions and practices at the time of the compliance check. Merchants were much more likely to ask to see an ID than merely ask the buyers' age. However, they only studied the ID 63% to 69% of the time.

Even when the ID was studied, the sale was completed about 5% to 7% of the time. In FY '07, 10% of stores studied the ID and still sold alcohol, so this decrease is encouraging. More than 65% of stores had posted signage stating that they check IDs, but only around 35% had age-verification equipment.

The presence of signage promoting ID-checking had a statistically significant impact for completed sales for both alcohol and tobacco ($p<.001$). Only 16% of stores with signage sold alcohol compared to 33% of stores without signage (25% vs. 13% for tobacco). The use of age verification equipment was also statistically significant for alcohol and tobacco ($p<.001$) as only 6% of stores with equipment sold alcohol compared to 30% of stores without equipment (7% vs. 21% for tobacco). The sale rate for beer (20.4%) was slightly higher than alcopops/alcoholic energy drinks (18.5%) and liquor (19.8%).

Table 8. Percentage of Completed Sales by Type of Business

Type of Business	N (Alcohol Purchase Attempts)	% Sales Completed (Alcohol)	N (Tobacco Purchase Attempts)	% Sales Completed (Tobacco)
Convenience Store/Gas Station	3,539	19.5	1,177	15.8
Bar	202	17.3	94	18.1
Restaurant	150	31.3	--	--
Liquor Store	321	20.9	7	28.6
Small Grocery	103	17.5	20	15.0
Large Grocery	426	20.2	146	16.4
Drug Store	62	17.7	92	14.1

Table 8 above shows that bars, drug stores, and small grocery stores had lower sales rates than other types of businesses for alcohol, and bars and large grocery stores had the highest tobacco sales rates. Restaurants had the highest sales rates for alcohol.

Table 9 below displays the percentages of sales completed based on multiple demographic characteristics of the clerks and buyers. There were no significant differences in sale rates by clerk gender. White and "other" race clerks had the lowest sales rate for alcohol. Hispanic sales clerks had the highest sales rates for both. Black or African American and "other" race clerks had the lowest sales rates for tobacco. The impact of race on sales was statistically significant for tobacco ($p<.001$) and for alcohol ($p<.01$). Neither buyer gender nor buyer race was a significant factor.

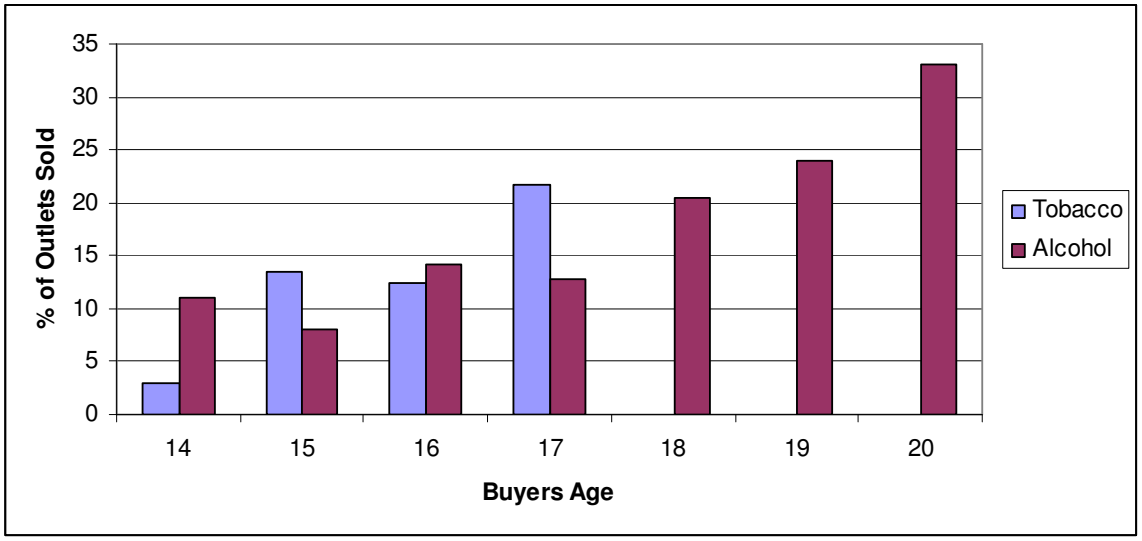
Table 9. Percentage of Retailer Sales by Demographic Characteristics

Compliance Check Characteristic	% Sales Completed (Alcohol)	% Sales Completed (Tobacco)
Clerk: Male	20.3	18.4
Clerk: Female	20.1	15.4
Clerk: Black or African American	21.1	14.5
Clerk: White	20.2	16.9
Clerk: Hispanic	25.8	37.5
Clerk: Other	17.1	14.2
Buyer: Male	21.1	16.1
Buyer: Female	19.9	17.2
Buyer: Black or African American	20.5	16.8
Buyer: White	20.4	17.3
Clerk and Buyer: Same Gender	20.1	17.2
Clerk and Buyer: Different Gender	21.3	16.2
Clerk and Buyer: Same Race	20.5	15.0
Clerk and Buyer: Different Race	21.2	18.3

Chart 7 shows that there is an increasing likelihood that a youth can purchase alcohol as age increases from 17 to 20. Seventeen year olds had the highest sale rates for tobacco, while 15 and 16 year olds had generally similar sale rates. Only 3% of 14 year olds were able to buy.

The average clerk fine for an alcohol sale was $559.55, and the median amount was $672.00. The overwhelming majority of the fines issued for tobacco sales violations were for $465.00.

Chart 7. Percentage of Stores Selling by Buyer Age and Substance, FY '08



In a review of year-end objective reports, about three-quarters of counties reported exceeding their expected number of alcohol compliance checks—some by a few and some by more than 100. However, more than half of counties had year-end buy rates higher than they had targeted. In many cases, the actual rate was much higher than expected. It seems some of this may be due to counties doing checks for the first time having what turned out to be unrealistic expectations about a first-year buy rate.

For tobacco compliance checks, a slight majority of counties exceeded their anticipated number of checks, though there were many that fell short or had none done at all. Many of those who exceeded either doubled or tripled their target numbers. Similarly, a slight majority of counties met or stayed below their target buy rates, with the rest having higher sale rates than desired.

Multi-Jurisdictional Law Enforcement Agreements

Counties were able to earn points for providing a copy of a multi-jurisdictional tobacco law enforcement agreement, a document signed by multiple law enforcement agencies that promised a cooperative effort to address underage alcohol and/or tobacco enforcement. These agreements are believed to be important to sustaining consistent enforcement. In FY '08, 16 counties turned in tobacco agreements compared to nine the prior year. There are many multi-jurisdictional alcohol enforcement agreements in place, but DAODAS does not formally collect or count them.

Public Safety Checkpoints

A total of 452 public safety checkpoints, often called sobriety checkpoints, were implemented in FY '08, up from 153 the year before. AET reports show that these checkpoints resulted in 12,703 tickets, including almost 300 underage drinking violations. There were also 278 DUIs, 145 felony arrests, 76 fugitives apprehended, 23 stolen vehicles recovered, 800 drug possession charges, and 767 open container violations. There were 32 different counties with checkpoints in FY '08, compared to eight in '07. The large majority of counties exceeded their anticipated number of checkpoints for the year, some by large margins.

Controlled Party Dispersals/Party Patrols

Controlled party dispersals are a way of addressing underage drinking parties that involve better containment, adequate manpower, more faithful enforcement of underage drinking laws, and safe returns home for underage drinkers. This is in contrast to a manner of breaking up a party that may involve youth scattering and getting into cars intoxicated. Further, some law enforcement agencies or AETs will actually devote manpower to locating parties through patrols or acting on previously gathered information. This enforcement best practice is being utilized much more often due to the presence of AETs.

Eighteen counties turned in AET party dispersal reporting forms in FY '08, totaling 136 parties dispersed with 4,636 attendees. A total of 768 tickets were written during these operations, including 612 for underage drinking violations (62 of those for age 16 or younger), 53 for transfer of alcohol to an underage person, 11 for unlicensed keg possession, and 36 for drug possession.

Merchant Education

Efforts to enforce laws regarding underage purchases of alcohol or tobacco are strengthened by efforts to help educate and train those who sell alcohol or tobacco products with appropriate information and proper techniques. There are a number of these merchant education curricula used nationally and in South Carolina, though the county authorities are now exclusively using the PREP curriculum. County authorities were each required to implement merchant education programming in FY '08 and collectively served 2,067 retail staff between June 1, 2007 and May 30, 2008, more than double the 958 total for FY '07.

Beginning in FY '08, there was a standardized PREP post-test used across the system that allows standardization of outcomes. Primarily, the test is graded for a pass or fail. The current pass rate is 97.2% with the average score being 92. Only about a third of counties met or exceeded their expected number of PREP participants, though some did by substantial margins. It was much more likely that counties fell short, often by a large margin, of the numbers they expected.

Diversionary or Court-mandated Youth Programs

County authorities often play a role in the post-arrest process for youth violators of alcohol or tobacco laws. Related to alcohol, county providers often offer programming as part of their solicitor's Alcohol Education Program (AEP), a program many first-time offenders will be offered in lieu of a conviction. For tobacco, many county authorities offer Alternatives to Suspension, Not On Tobacco, or another DHEC-approved program that a magistrate can send a youth to instead of having them pay a fine when they are guilty. Nineteen counties implemented a tobacco program for offenders, and they served a total of 306 youth; the most from any county was 48. There were 127 students in these programs in FY '07.

In year-end reports, most counties with post-test data from tobacco offenders, typically using the ATS post-test, had results that were at or above their expectations. The content of counties' outcome objectives varied considerably because there is no standardized evaluation for AEP.

Other Alcohol Enforcement Team Activities

In addition to compliance checks, public safety checkpoints, merchant education, and controlled party dispersals, AETs also implement a number of other strategies, though with less frequency, and engage in a wide range of awareness-raising activities. Less common operations include:

- Fake ID Checks/Bar Checks: This is when officers do a sweep of an establishment looking for customers with fake IDs or when they remain undercover in an on-premise establishment and observe possible violations, such as use of fake ID or serving an underage person.
- Shoulder Taps: Shoulder tap operations involve an underage volunteer standing outside of an off-premise establishment and asking adults going in to purchase alcohol for them. Those who do are ticketed.
- Saturation Patrols: This is very concentrated traffic enforcement looking for driving under the influence and other traffic violations.

There were only year-end reports submitted for fake ID/bar checks. Half exceeded their anticipated number of checks for the year, and half did not.

AET awareness activities included holding town hall meetings, doing educational sessions for youth or adults, conducting a local media campaign, and "casual contacts," which are typically law enforcement officers making community contacts with youth or merchants to keep a high visibility presence and warn them of upcoming enforcement efforts. AETs reported more than 400 media placements (articles, TV stories, etc.) during FY '08. Counties consistently exceeded their planned number of events and number of people reached. There were no outcomes gathered from these types of activities, which would be expected as they are essentially information dissemination efforts.

Summary of Section V

The most common environmental strategies implemented were alcohol compliance checks, tobacco compliance checks, and merchant education. County authority prevention staff returned forms on 5,261 alcohol compliance checks and 1,599 tobacco checks. This is a major increase from the FY '07 totals of 1,349 and 585, respectively. Just less than 20% of alcohol purchase attempts were successful compared to about 16% of tobacco attempts. These compliance checks most frequently were done at convenience stores and attempting to purchase either beer or cigarettes.

Most merchants asked to see the buyers' IDs, though about 5-7% of those who studied the ID still sold. Having posted signage about checking IDs or having age verification equipment were both statistically significantly associated with being less likely to sell ($p<.001$).

Other environmental strategies were implemented, typically at much higher levels than the previous year. This can largely be attributed to an increased amount of activity from the Alcohol Enforcement Teams. A total of 452 public safety checkpoints were reported, which is up from last year's 153. More than 12,000 tickets were written during these operations. The counties served 2,697 merchants in the Palmetto Retailers Education Program (PREP) in FY '08, up from 958. AETs dispersed 136 parties, writing 768 tickets (612 for underage drinking) during those dispersals. Other AET operations included fake ID checks, shoulder taps, and saturation patrols. Nineteen counties served 306 youth arrested for underage tobacco violations, up from 127. Counties were able to get a total of 16 multi-jurisdictional tobacco enforcement agreements signed, up from nine the year before.

SECTION VI: YOUTH ACCESS TO TOBACCO STUDY (SYNAR)

Each year, as part of a federal requirement, South Carolina conducts a study to determine the extent to which youth younger than 18 can successfully buy cigarettes from retail outlets. In the 2008 study (FFY 2009), South Carolina continued using a simple random sampling methodology rather than a census design (visiting every store). This strategy began in the 2007 study. Between Jan. 1 and Feb. 29, 2008, 214 youth volunteers ages 15-17, under trained adult supervision, conducted 445 random, unannounced cigarette purchase attempts in all 46 counties. These outlets were randomly sampled from the estimated (there is no official account of tobacco sales outlets in South Carolina) 6,900 outlets in the state.

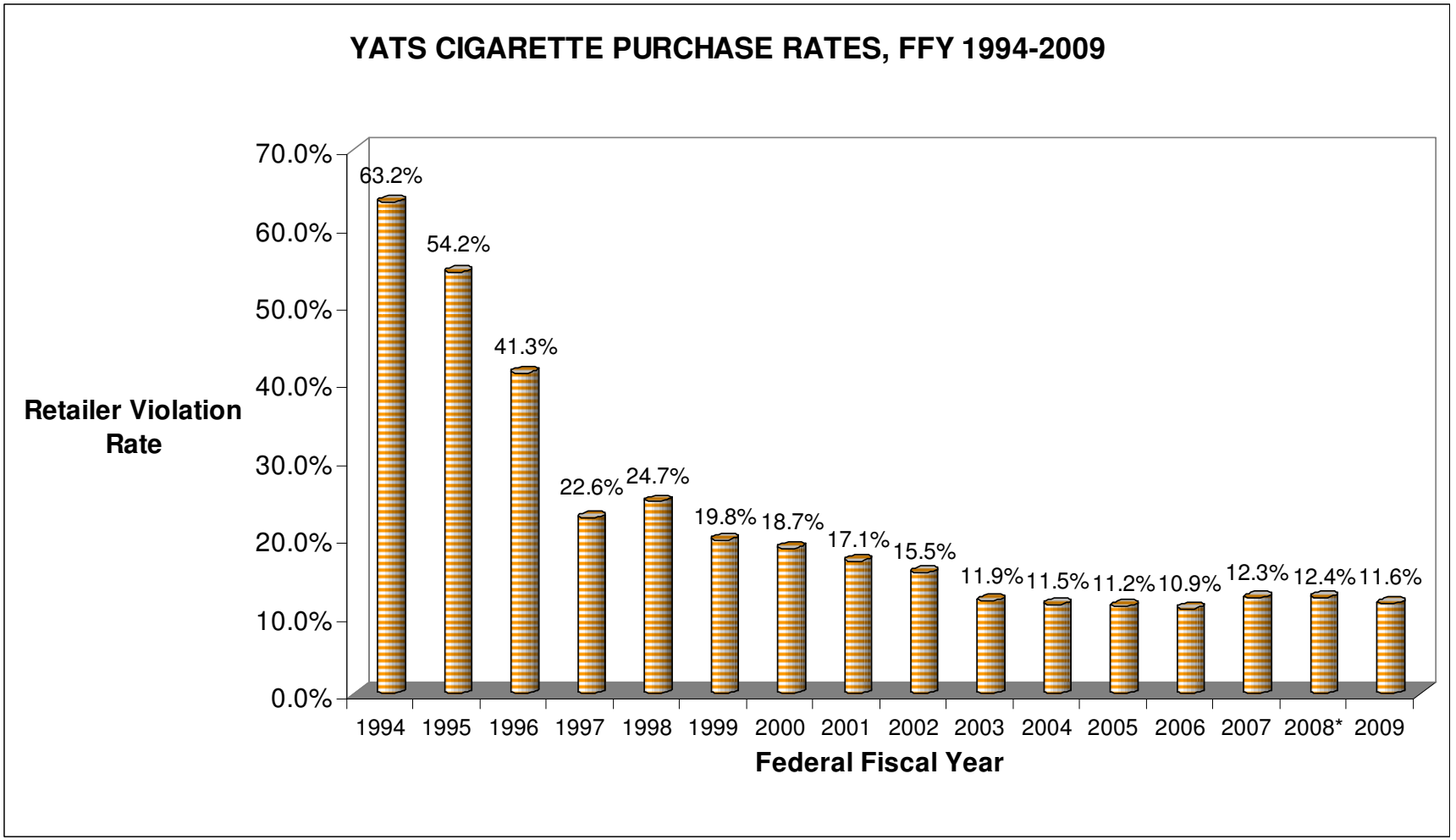
The FFY '09 results indicated an estimated overall sales rate (also known as a Retailer Violation Rate or RVR) of 11.6%.

The 11.6% rate is far below the federal standard of 20.0% and substantially lower than the RVR of 63.2% in FFY 1994, which was the first year of the study. This year's rate is also lower than the FFY 2008 rate of 12.4%, which was the highest rate since 2002.

The RVR for over-the-counter transactions was 11.6%, and the RVR for vending machines was 14.3%, though there were only 14 machines (all the ones in the state accessible to those under age 18 that we are aware of) in the study.

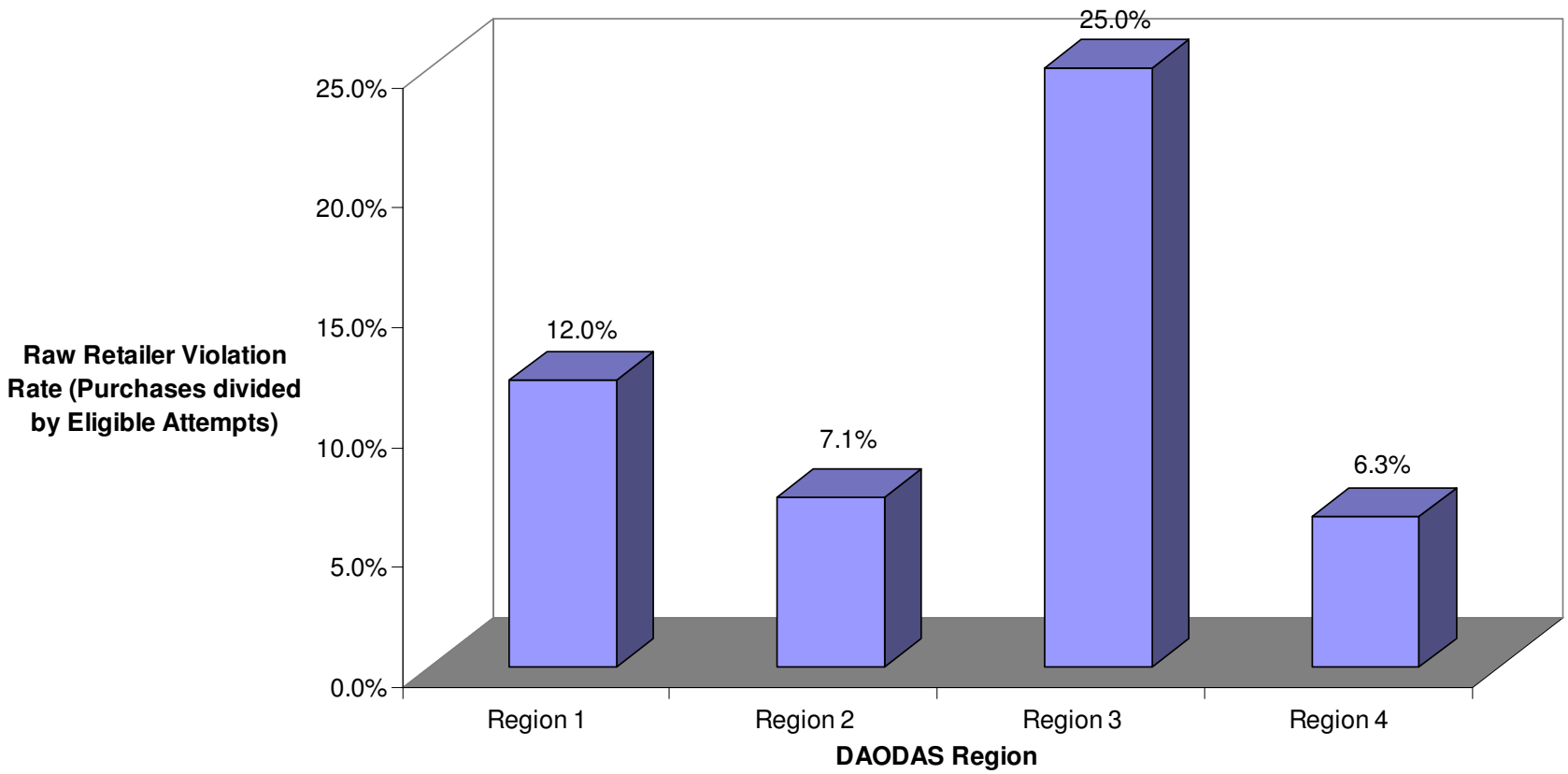
Regions ranged in retailer violation rates from 6.3% to 25.0%, though these region rates have proven to be unstable under our sampling design. Region 2 had the highest sales rate in 2007 but was the lowest in 2006 and second lowest in 2008. Region 3 had the highest rate in 2008.

The age of the youth volunteer was a statistically significant factor ($p=.017$) as the sales rate increased with each year of age, from 6% to 16%. Sales rates varied by gender (15% for males; 9% for females), which is not statistically significant, but is very close ($p<.10$). White youth were sold to less often than other races (11% vs. 21%). White clerks had the highest sale rate at 15%; there was no substantial difference by clerk gender.



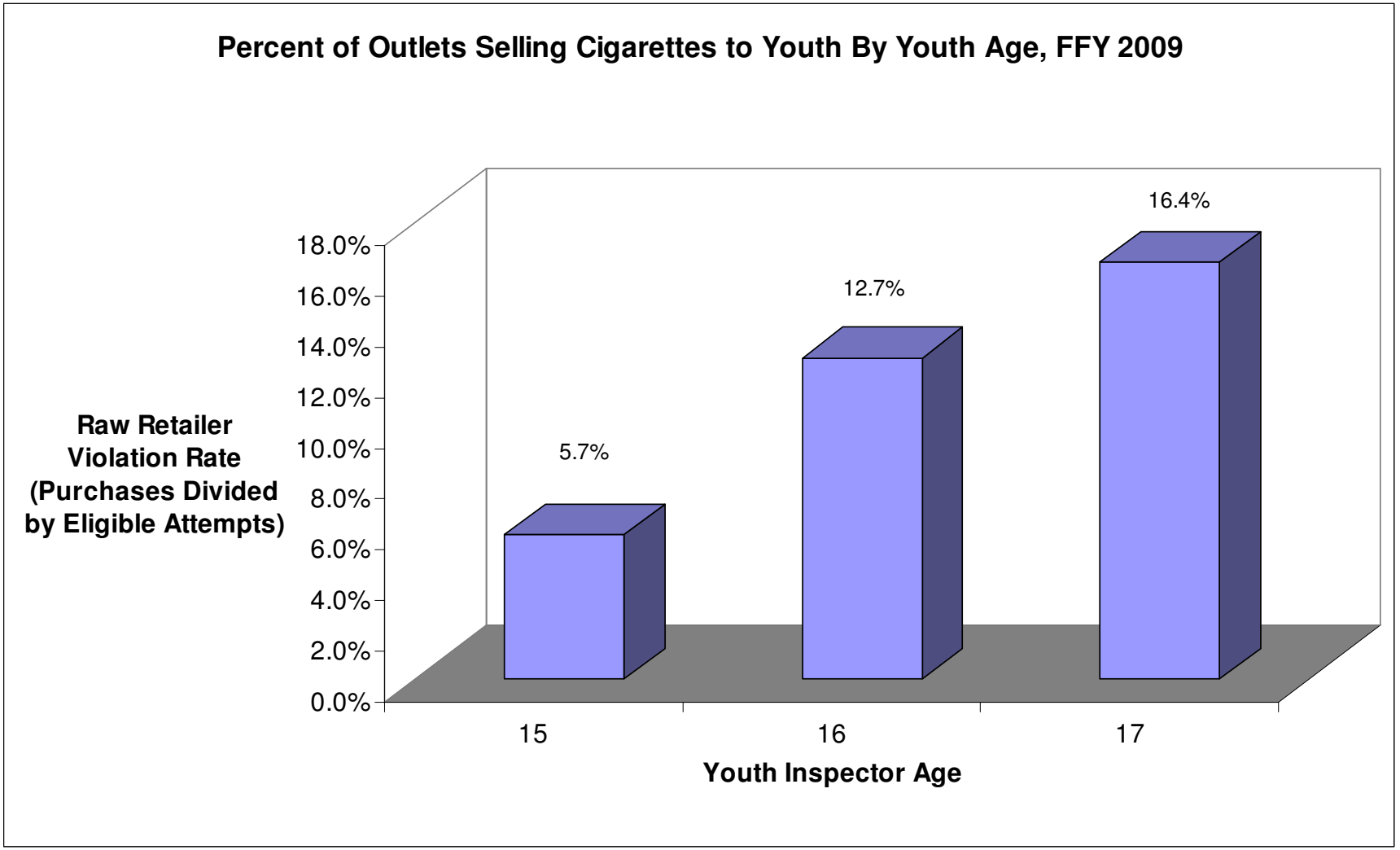
*The FFY 2008 study was the first that did not allow 14-year-old inspectors, which consistently were sold to less often than the 15- to 17-year-old inspectors. Barring this change in methods, the RVR would reasonably have been lower in 2008 than in 2007.

Percentage of Outlets Selling Cigarettes by DAODAS Region, FFY 2009

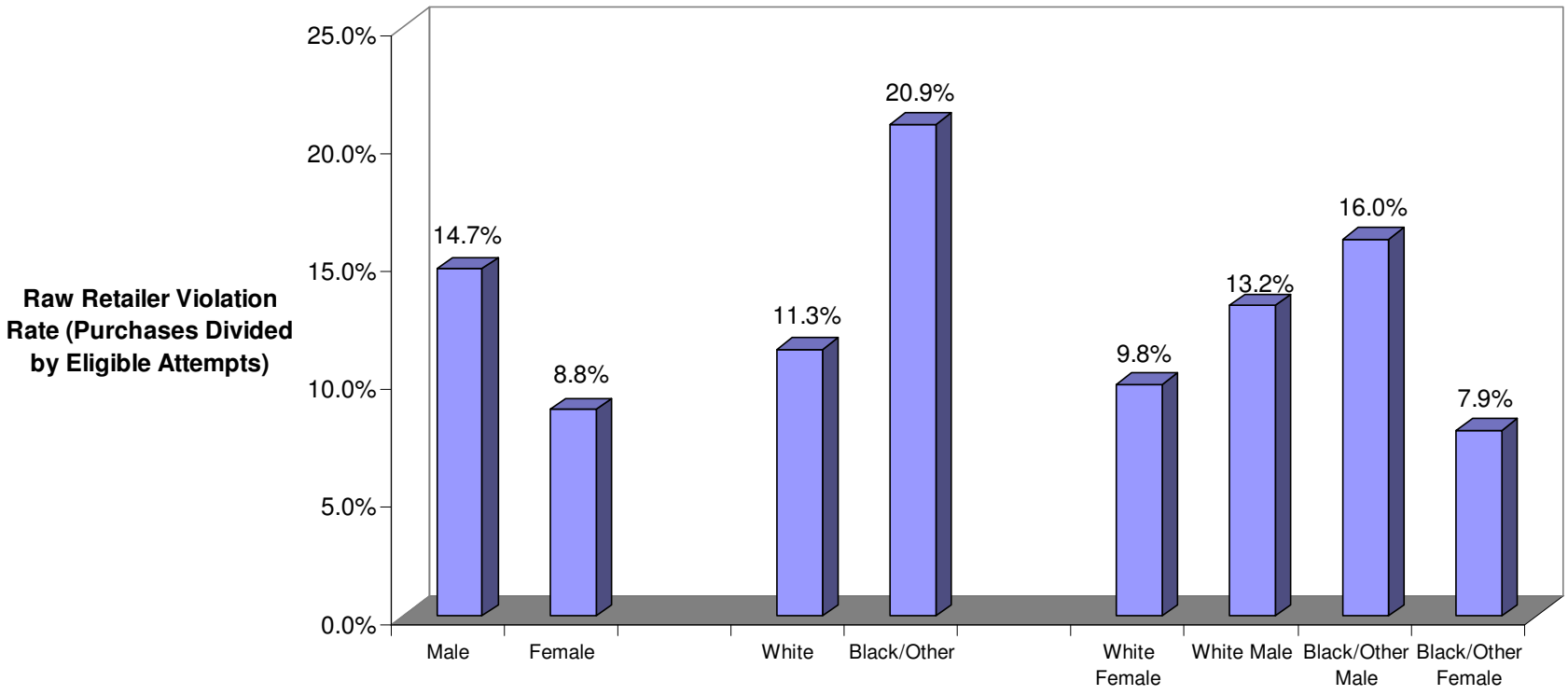


FFY2009 Youth Access to Tobacco Raw Buy Rates

County Name	Total Eligible Purchase Attempts	No Buy	Buy	Buy Rate
ABBEVILLE	1	1	0	0.0%
AIKEN	15	13	2	13.3%
ALLENDALE	2	2	0	0.0%
ANDERSON	14	12	2	14.3%
BAMBERG	2	2	0	0.0%
BARNWELL	4	4	0	0.0%
BEAUFORT	13	13	0	0.0%
BERKELEY	12	11	1	8.3%
CALHOUN	3	3	0	0.0%
CHARLESTON	33	32	1	3.0%
CHEROKEE	7	5	2	28.6%
CHESTER	7	6	1	14.3%
CHESTERFIELD	5	2	3	60.0%
CLARENDON	6	6	0	0.0%
COLLETON	8	8	0	0.0%
DARLINGTON	8	8	0	0.0%
DILLON	5	5	0	0.0%
DORCHESTER	9	8	1	11.1%
EDGEFIELD	2	2	0	0.0%
FAIRFIELD	5	5	0	0.0%
FLORENCE	16	12	4	25.0%
GEORGETOWN	7	5	2	28.6%
GREENVILLE	35	26	9	25.7%
GREENWOOD	6	6	0	0.0%
HAMPTON	5	5	0	0.0%
HORRY	28	17	11	39.3%
JASPER	7	7	0	0.0%
KERSHAW	8	8	0	0.0%
LANCASTER	9	9	0	0.0%
LAURENS	8	8	0	0.0%
LEE	3	3	0	0.0%
LEXINGTON	21	20	1	4.8%
MCCORMICK	2	2	0	0.0%
MARION	6	6	0	0.0%
MARLBORO	7	5	2	28.6%
NEWBERRY	4	4	0	0.0%
OCONEE	5	5	0	0.0%
ORANGEBURG	14	11	3	21.4%
PICKENS	9	9	0	0.0%
RICHLAND	31	30	1	3.2%
SALUDA	0	0	0	N/A
SPARTANBURG	21	20	1	4.8%
SUMTER	8	7	1	12.5%
UNION	3	3	0	0.0%
WILLIAMSBURG	5	3	2	40.0%
YORK	16	14	2	12.5%


Percent of Outlets Selling Cigarettes to Youth By Youth Age, FFY 2009
Raw Retailer Violation Rate (Purchases Divided by Eligible Attempts)
18.0%
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
5.7%
12.7%
16.4%
15
16
17
Youth Inspector Age

Percent of Outlets Selling Cigarettes to Youth By Youth Gender & Race, FFY 2009



SECTION VII: OTHER PREVENTION INTERVENTIONS

In the previous chapters, we have described the cumulative outcomes, to the extent possible, of youth curricula, some environmental approaches with a focus on compliance checks, and the Youth Access to Tobacco Study. Prevention professionals frequently deliver an even wider range of services than this list, however. In this section, we address some of the other types of prevention interventions that are sometimes delivered by the county agencies.

Parenting Programs

Only a few counties had a year-end report for a prevention parenting program. Parenting programs typically focus on enhancing adults' skills in areas such as communication, rule-setting, appropriate discipline, and positive interaction. Some agencies had different types of adult programs such as working with divorcing parents or anger management.

There is no standard evaluation tool in the state for parenting programs. Reviewing counties' outcome objectives and results revealed variation in targeted outcomes, ranging from decreased exposure on children's behalf to parents arguing to improved communication skills between parents and children. In cases where outcomes were presented, they were often positive in comparison to the initial expectations. From reviewing process objective data, projected numbers of participants were often not met, and two programs never even took place.

Working with Coalitions

A large number of prevention professionals in the county system work with one or more coalitions to strengthen collaborative efforts and best utilize scarce resources, though many did not dedicate a management plan to those efforts. Of those who did, relatively few had measurable outcome objectives, which is understandable for this type of work. Those who wrote outcome objectives wanted to see either an increase in coalition or board membership or to see a certain number of activities or initiatives implemented by their coalition(s). Both process and outcome objectives were generally met. There were too few reports to summarize the impact of working with coalitions; this is the type of activity that is generally agreed to be very important but does not produce easily assessable outcomes.

Youth Leadership Groups

Youth leadership programs are when the direct service population is viewed more as an extension of staff efforts, or as volunteers, than service targets. For example, a Teen Institute youth group can receive a great deal of staff service focus, but they are not program participants in the traditional sense because their main purpose is to reach their

peers, not necessarily be reached themselves. With this different perspective, an evaluation design like that used with curriculum programs is often not employed because we expect them to stay and be maintained as very high functioning, though some agencies still prefer to use the DAODAS Standard Survey with these groups. In FY '08, there was an increase over past years in the number of youth leadership programs reported, ranging from Teen Institute teams and youth boards to weekend Teen Leadership Connection events for middle school youth. Outcomes were rarely reported, which is understandable because their impact is not easily assessed.

Information Dissemination

Information dissemination is a considerable portion of the activities of a prevention specialist. Information dissemination includes all presentations, health fairs, and one-time activities focused on providing information and raising awareness. By nature, one-time activities are difficult to prove as generating change because pre- and post-tests typically are not feasible when contact is brief. In terms of numbers reached, number of informational activities, or amount of information distributed, most counties reported exceeding their targets, some by very large numbers. It is unclear whether they set targets far lower than what was reasonable or if they were able to reach far more than expected. As encouraged by DAODAS, most agencies said that outcomes could not accurately be assessed for their information dissemination plans. For those that did provide outcomes, a small number of sites did so by brief pre- and post-testing before and after a presentation. In these instances, agencies consistently reported meeting their outcome objectives. Like coalition work, information dissemination is considered an important part of prevention but not one that can easily produce documented outcomes.

Alternative Activities

Alternatives typically are activities for youth that encourage positive youth development and/or occupy young peoples' time so that they are involved in constructive activities. Counties implemented a range of programming under this heading, including large drug-free community events, ropes course team-building activities, after-school programs and events, and drug-free outings for specific youth groups. Few counties attempted to evaluate their alternatives activities in terms of impact on behavior or attitudes. Most considered the attendance counts as their primary measure of success, which is appropriate. Results were mixed for reaching the targeted amount of people.

HIV/AIDS Programming

The purpose of HIV/AIDS programming is to provide education to the general public in order to reduce HIV infections and high risk behaviors that lead to infection, as these relate to ATOD use. Primary methods include community-based educational programs, presentations, and information dissemination, as well as direct training for prevention

professionals. Another goal of these programs is to directly provide awareness, outreach, and testing to high-risk populations.

A total of seven HIV/AIDS programs submitted goals in FY '08. Objectives were measured by number of participants reached, number of residents tested, number of events, number of presentations, or amount of training. Generally, counties exceeded their targets for number of attendees for events or educational sessions but often did not meet targets for numbers tested. Outcome objectives were too varied to generalize success across sites.

Faith-based Programming

Another area of programming takes place within faith-based communities. In some instances, county agencies partner with faith-based organizations to provide resources and implement programs for youth. Other faith-based programs involve community support, promotional workshops, sermon series, support groups, and traditional curricula such as All Stars that are implemented in conjunction with faith-based curricula. Programs may focus on prevention, skill building, and peer leadership, while others may utilize both a faith-based community support program for individuals in recovery and a prevention component for youth.

In FY'08, there was only one county authority with year-end reports describing faith-based activities, compared to three last year, although that one county was extremely active in this area.

Summary of Section VII

Many of the prevention activities described in this section (coalition work, youth leadership development programs, information dissemination, alternative activities, faith-based programming) are not well suited to generating valid outcomes. Therefore, there is little information from which to formulate conclusions, though there are instances of both successes and shortcomings in the reports county prevention professionals provided.

APPENDIX A: ADDITIONAL DATA TABLES

Table A1. Overall Results by Age

	Middle School (n=4,058)			High School (n=1,490)		
Measure	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	2.0	2.2	13.7**	1.8	2.1	13.1**
Favorable Attitudes	1.8	1.9	5.8**	1.7	1.8	7.8**
Decision-Making	1.6	1.7	4.1**	1.2	1.3	6.5**
Perceived Peer Norms	8.6	8.8	1.5**	7.1	7.4	3.8**
Perceived Parental Attitudes	2.9	2.9	0.5**	2.6	2.7	0.4
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	3.9	3.6	-7.4	19.2	15.1	-21.5**
Other Tobacco	2.6	2.0	-21.0*	11.5	8.9	-22.8**
Alcohol	8.1	6.3	-21.3**	24.4	17.9	-26.6**
Marijuana	1.8	1.8	0	11.2	8.1	-28.3**
Other Illegal Drugs	1.1	1.1	7.6	5.0	2.6	-46.7**
Inhalants	5.1	3.1	-39.0**	5.7	2.9	-49.0**
Non-Medical Prescription Drug Use	2.0	1.5	-21.5	5.8	3.6	-38.0**
Non-Medical Over-The-Counter Drug Use	1.8	1.4	-25.7*	5.2	2.9	-43.5**

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A2. Overall Results by Gender

Measure	Males (n=2,703)			Females (n=2,864)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.9	2.1	14.2**	2.0	2.3	12.9**
Favorable Attitudes	1.7	1.9	7.8**	1.8	1.9	4.9**
Decision-Making	1.4	1.5	6.4**	1.6	1.7	3.1**
Perceived Peer Norms	8.0	8.2	2.6**	8.4	8.6	1.5**
Perceived Parental Attitudes	2.8	2.8	0.5**	2.8	2.8	0.4**
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	9.5	7.9	-16.2**	6.6	5.5	-16.3**
Other Tobacco	8.0	6.6	-18.4**	2.0	1.4	-30.5*
Alcohol	13.5	10.3	-24.2**	11.3	8.8	-22.7**
Marijuana	5.2	4.4	-14.9**	3.4	2.6	-23.0**
Other Illegal Drugs	2.7	2.1	-24.9	1.5	1.1	-30.1*
Inhalants	5.3	3.5	-33.5**	5.3	2.7	-49.2**
Non-Medical Prescription Drug Use	3.4	2.5	-27.0**	2.6	1.8	-33.0**
Non-Medical Over-The-Counter Drug Use	3.2	2.2	-30.0**	2.4	1.4	-39.7**

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A3. Overall Results by Race Group

Measure	American Indian or Alaska Native participants (n=79)			"Other" race participants (n=300)		
	Pre-Test Avg.	Pre-Test Avg.	Pre-Test Avg.	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.9	2.2	16.4**	1.9	2.3	6.4
Favorable Attitudes	1.8	2.0	9.3**	1.7	1.9	-0.1
Decision-Making	1.5	1.6	6.9*	1.4	1.7	2.8
Perceived Peer Norms	8.1	8.3	1.8*	7.9	8.5	0.5
Perceived Parental Attitudes	2.8	2.7	-3.6	2.7	2.9	1.6
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	12.2	11.0	-9.9	8.3	8.8	6.8
Other Tobacco	9.5	4.1	-57.2	4.8	4.1	-15.0
Alcohol	18.9	16.2	-14.3	14.1	12.5	-11.0
Marijuana	6.8	2.7	-60.1	7.2	5.8	-20.2
Other Illegal Drugs	8.1	2.7	-66.7	3.8	4.1	7.4
Inhalants	9.7	5.4	-44.3	6.9	3.7	-45.9**
Non-Medical Prescription Drug Use	5.4	0	-100	2.8	4.1	47.5
Non-Medical Over-The-Counter Drug Use	6.8	4.1	-39.2	2.4	2.7	12.8

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A3. Overall Results by Race Group (continued)

Measure	Black/African American participants (n=2,586)			Multiethnic (n=164)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.9	2.1	12.9**	1.9	2.2	14.0**
Favorable Attitudes	1.8	1.9	5.5**	1.7	1.8	3.3
Decision-Making	1.5	1.5	5.0**	1.5	1.5	4.0
Perceived Peer Norms	8.1	8.3	1.9**	7.9	8.2	3.7**
Perceived Parental Attitudes	2.8	2.8	0.3	2.8	2.7	-1.2
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	6.1	5.3	-13.9*	9.3	4.3	-53.3**
Other Tobacco	3.1	1.7	-46.1**	3.7	1.9	-50.0
Alcohol	10.5	8.2	-21.9**	14.2	12.4	-13.0
Marijuana	4.1	3.5	-14.4	3.1	4.4	40.8
Other Illegal Drugs	1.7	1.3	-24.9	1.9	1.2	-33.5
Inhalants	5.0	2.7	-46.9**	8.0	6.2	-23.1
Non-Medical Prescription Drug Use	2.1	1.5	-30.0	4.3	1.9	-57.2
Non-Medical Over-The-Counter Drug Use	2.5	1.5	-39.2**	1.9	1.2	-33.5

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A3. Overall Results by Race Group (continued)

Measure	White participants (n=2,416)		
	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	2.0	2.3	13.8**
Favorable Attitudes	1.8	1.9	6.8**
Decision-Making	1.6	1.7	4.3**
Perceived Peer Norms	8.4	8.6	2.0**
Perceived Parental Attitudes	2.8	2.8	0.7**
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	9.7	7.9	-18.2**
Other Tobacco	6.9	6.4	-6.8
Alcohol	13.9	10.2	-26.7**
Marijuana	4.1	3.1	-25.7**
Other Illegal Drugs	2.1	1.5	-30.0*
Inhalants	5.0	3.1	-38.0**
Non-Medical Prescription Drug Use	3.7	2.6	-29.9**
Non-Medical Over-The-Counter Drug Use	3.0	2.0	-33.7**

^ Negative change scores are desired for these items

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A4. Overall Results by Ethnicity

Measure	Participants of Hispanic, Latino, or Spanish Descent or Origin (n=316)			Participants Not of Hispanic, Latino, or Spanish Descent or Origin (n=5,166)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.8	2.1	16.3**	1.9	2.2	13.3**
Favorable Attitudes	1.8	1.4	8.9**	1.8	1.9	6.1**
Decision-Making	1.4	1.8	6.3**	1.5	1.6	4.5**
Perceived Peer Norms	7.8	8.1	3.5**	8.3	8.4	2.0**
Perceived Parental Attitudes	2.7	2.7	0.9	2.8	2.8	0.4
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	11.7	9.6	-17.8	7.8	6.6	-15.6**
Other Tobacco	7.4	3.2	-57.1**	4.8	4.0	-16.4**
Alcohol	17.3	12.5	-27.8**	12.3	9.4	-23.7**
Marijuana	10.4	5.1	-50.6**	4.0	3.4	-14.5**
Other Illegal Drugs	6.5	2.9	-55.6**	1.9	1.5	-21.4
Inhalants	8.5	5.1	-39.7*	5.2	3.0	-42.0**
Non-Medical Prescription Drug Use	3.9	3.5	-10.2	3.0	2.1	-30.2**
Non-Medical Over-The-Counter Drug Use	3.3	2.6	-21.2	2.7	1.8	-34.7**

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A5. Overall Results by Program

Risk Factor Scores, Range (positive score is favorable)	All Programs (n=5,631)			All Stars (n=1,052)			Get Real About Violence (n=52)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.9	2.2	13.7**	1.9	2.1	11.4**	1.7	2.5	44.6**
Favorable Attitudes	1.8	1.9	6.3**	1.8	1.8	3.3**	1.5	2.0	33.1**
Decision-Making	1.5	1.6	4.4**	1.5	1.5	0.9	1.3	1.7	36.3**
Perceived Peer Norms	8.2	8.4	1.9**	8.2	8.4	2.8**	7.7	9.0	17.4**
Perceived Parental Attitudes	2.8	2.8	0.4*	2.8	2.8	0.6	2.6	2.9	11.7**
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	7.9	6.8	-14.0**	7.7	7.8	1.3	5.8	0	-100
Other Tobacco	4.9	4.0	-18.2**	4.9	4.3	-11.9	0	0	NA
Alcohol	12.4	9.7	-21.7**	10.0	9.2	-8.6	11.5	1.9	-83.4
Marijuana	4.3	3.8	-11.9*	4.2	4.8	14.3	1.9	0	-100
Other Illegal Drugs	2.1	1.6	-23.1**	1.7	1.6	-5.2	1.9	0	-100
Inhalants	5.3	3.1	-41.1**	4.8	2.8	-42.0**	15.4	3.9	-75.0*
Non-Medical Prescription Drug Use	3.0	2.1	-29.0**	3.0	2.3	-22.6	5.8	0	-100
Non-Medical Over-The-Counter Drug Use	2.8	1.8	-34.4**	2.6	1.7	-32.9	5.8	0	-100

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A5. Overall Results by Program (continued)

Risk Factor Scores, Range (positive score is favorable)	Girl's Grapevine (n=145)			Girl Power (n=104)			Keepin' It Real (n=285)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	2.5	2.6	4.7*	2.0	2.2	8.2**	1.7	2.0	18.8**
Favorable Attitudes	2.0	2.0	0.1	1.8	1.8	-0.8	1.9	1.9	1.5
Decision-Making	1.9	1.9	-1.7	1.7	1.7	-1.0	1.5	1.7	9.3**
Perceived Peer Norms	9.3	9.1	-2.0*	8.7	8.8	0.9	8.6	8.7	1.1
Perceived Parental Attitudes	2.9	2.9	0.5	2.9	2.9	0.5	2.9	2.9	1.1
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	1.1	2.3	108	3.9	2.9	-24.4	3.9	4.2	8.8
Other Tobacco	0	0	NA	0	1.9	NA	5.6	4.9	-12.5
Alcohol	4.3	3.4	-21.6	11.5	9.7	-15.9	9.1	8.8	-3.8
Marijuana	1.1	0	-100	1.9	1.9	0	2.1	1.8	-17.1
Other Illegal Drugs	0	0	NA	0	2.9	NA	2.5	1.4	-43.1
Inhalants	3.2	0	-100	1.9	1.0	-49.5	7.4	5.3	-28.6
Non-Medical Prescription Drug Use	0	1.1	NA	1.9	6.8	251*	2.5	1.4	-43.1
Non-Medical Over-The-Counter Drug Use	2.2	1.1	-47.9	1.0	2.9	200	2.8	1.1	-62.3

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A5. Overall Results by Program (continued)

Risk Factor Scores, Range (positive score is favorable)	Life Skills Training (n=272)			Project Alert (n=516)			Project Northland (n=916)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	2.0	2.2	7.1**	1.9	2.1	11.1**	1.9	2.1	12.4**
Favorable Attitudes	1.9	2.0	4.4**	1.8	1.9	7.4**	1.7	1.9	11.0**
Decision-Making	1.6	1.7	5.6**	1.5	1.6	4.3**	1.4	1.5	6.9**
Perceived Peer Norms	8.7	8.7	0.2	8.3	8.5	2.7**	7.8	8.1	3.6**
Perceived Parental Attitudes	2.8	2.8	1.1	2.8	2.8	0.9	2.8	2.8	0.4
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	3.7	3.3	-10.5	8.3	7.0	-15.4	10.3	8.6	-16.8*
Other Tobacco	1.5	2.2	49.3	6.9	4.5	-35.3**	5.8	4.0	-31.9**
Alcohol	5.5	4.8	-13.7	14.6	10.3	-29.4**	17.3	13.6	-21.5**
Marijuana	2.2	2.2	0	5.5	3.3	-40.4**	5.7	5.4	-5.6
Other Illegal Drugs	0.4	0.7	100	3.4	1.2	-65.1**	2.4	2.3	-4.1
Inhalants	3.0	0	-100**	6.7	4.3	-36.3*	5.2	3.5	-31.8*
Non-Medical Prescription Drug Use	1.1	0	-100	3.4	2.1	-36.1	3.3	2.9	-13.4
Non-Medical Over-The-Counter Drug Use	0.8	0.4	-50.7	3.0	1.7	-41.4	2.4	2.0	-18.9

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A5. Overall Results by Program (continued)

Risk Factor Scores, Range (positive score is favorable)	Project TND (n=633)			Project TNT (n=215)			RIPP (n=264)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.8	1.9	8.7**	1.9	2.5	26.2**	2.0	2.1	5.2**
Favorable Attitudes	1.7	1.7	-0.2	1.7	2.1	24.0**	1.8	2.0	9.7**
Decision-Making	1.3	1.2	-2.3	1.3	1.6	22.1**	1.6	1.7	3.3
Perceived Peer Norms	7.3	7.1	-2.8**	7.2	7.6	6.1**	8.9	8.9	0.7
Perceived Parental Attitudes	2.7	2.6	-3.6**	2.5	2.6	4.8*	2.9	2.9	-0.7
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	14.0	16.1	15.2	30.0	14.4	-51.9**	3.8	1.5	-59.9
Other Tobacco	7.7	8.5	10.7	14.8	9.6	-35.5*	1.5	1.5	0
Alcohol	19.4	20.0	3.1	28.2	13.4	-52.5**	5.7	5.7	0
Marijuana	8.7	9.0	2.9	12.0	3.4	-71.8**	1.5	0.8	-50.0
Other Illegal Drugs	3.3	3.7	10.5	8.2	1.0	-88.2**	1.1	0	-100
Inhalants	4.7	4.8	2.6	8.7	1.0	-88.9**	2.7	0.4	-85.7*
Non-Medical Prescription Drug Use	3.7	4.0	8.7	9.6	1.0	-90.0**	0.8	0	-100
Non-Medical Over-The-Counter Drug Use	3.2	4.2	30.8	11.1	2.9	-74.0**	1.2	0.4	-67.0

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A5. Overall Results by Program (continued)

Risk Factor Scores, Range (positive score is favorable)	RISE (n=52)			Wise Guys (n=95)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.9	2.5	29.2**	1.9	1.9	1.9
Favorable Attitudes	2.0	2.4	16.8**	1.8	1.8	1.9
Decision-Making	1.7	1.8	4.8	1.5	1.5	-2.3
Perceived Peer Norms	8.6	9.2	6.7**	8.2	8.4	1.6
Perceived Parental Attitudes	2.9	3.0	1.5**	2.9	2.9	0
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	0	3.9	N/A	4.3	2.1	-50.0
Other Tobacco	0	0	N/A	4.2	2.1	-49.4
Alcohol	0	1.9	N/A	3.2	5.3	68.4
Marijuana	0	0	N/A	2.2	1.1	-50.7
Other Illegal Drugs	0	1.9	N/A	1.1	0	-100
Inhalants	0	0	N/A	0	4.3	NA
Non-Medical Prescription Drug Use	0	1.9	N/A	0	0	NA
Non-Medical Over-The-Counter Drug Use	0	0	N/A	0	2.1	NA

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A6. Overall Results for Evidence-Based Vs. Non-Evidence-Based Programs

Measure	Evidence-Based (n=5,033)			Non-Evidence-Based (n=596)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	1.9	2.2	14.1**	2.1	2.3	10.0**
Favorable Attitudes	1.8	1.9	6.4**	1.8	2.0	5.9**
Decision-Making	1.5	1.6	5.1**	1.7	1.7	1.8
Perceived Peer Norms	8.2	8.4	2.1**	8.6	8.7	1.4*
Perceived Parental Attitudes	2.8	2.8	0.4*	2.9	2.9	0.9*
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	8.4	7.1	-16.1**	4.3	3.2	-25.6
Other Tobacco	5.2	4.1	-21.8**	2.6	2.4	-6.2
Alcohol	12.9	9.8	-24.3**	8.1	6.9	-15.1
Marijuana	4.5	3.6	-20.4**	2.4	2.4	0.4
Other Illegal Drugs	2.2	1.5	-31.2**	1.1	1.7	51.8
Inhalants	5.5	3.2	-42.2**	3.5	2.2	-36.5
Non-Medical Prescription Drug Use	3.0	2.0	-33.1**	2.6	2.8	7.7
Non-Medical Over-The-Counter Drug Use	2.8	1.8	-36.4**	2.1	1.9	-9.3

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

Table A7. Overall Results for Safe and Drug-Free School Programs vs. Block Grant-Funded Programs

Measure	SDFS (n=3,602)			Block Grant (n=2,027)		
	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Perceived Risk	2.0	2.2	13.5**	1.9	2.2	13.9**
Favorable Attitudes	1.8	1.9	5.5**	1.8	1.9	7.8**
Decision-Making	1.6	1.6	4.0**	1.5	1.5	5.9**
Perceived Peer Norms	8.4	8.5	1.5**	8.0	8.3	2.9**
Perceived Parental Attitudes	2.8	2.8	0	2.7	2.8	1.3**
Substance Use, % Users in Past 30 Days (Negative change is favorable)	Pre-Test Avg.	Post-Test Avg.	% Change	Pre-Test Avg.	Post-Test Avg.	% Change
Cigarettes	6.3	5.9	-5.6	11.1	8.0	-27.3**
Other Tobacco	3.7	3.2	-13.2	7.2	5.2	-28.0**
Alcohol	11.1	8.9	-19.9**	14.8	10.6	-28.6**
Marijuana	3.3	3.0	-7.4	6.1	4.3	-30.2**
Other Illegal Drugs	1.4	1.5	11.7	3.4	1.5	-54.4**
Inhalants	5.1	3.0	-42.0**	5.6	3.3	-41.5**
Non-Medical Prescription Drug Use	2.2	2.0	-7.4	4.4	2.2	-49.0**
Non-Medical Over-The-Counter Drug Use	2.2	1.7	-23.3	3.8	2.1	-45.0**

* Pre- and post-test averages are approaching being statistically significantly different (significant at the p<.10 level, but not p<.05 level)

** Pre- and post-test averages are statistically significantly different (significant at p<.05 level)

APPENDIX B: EVALUATION INSTRUMENTS