New Mexico Department of Health, Office of Substance Abuse prevention

Evaluation of Substance Abuse Prevention Programming in New Mexico: Direct Services & Community Based Processes

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TABLE OF CONTENTS

List of Tables

List of Figures

List of Abbreviations

ATOD	Alcohol, Tobacco, and Other Drugs
LST	Botvin's Life Skills Training
CBP	Community Based Processes
DWI	Driving While Intoxicated
FY	Fiscal Year
IRB	Institutional Review Board
LEA	Law Enforcement Agency
OSAP	Office of Substance Abuse Prevention
PIMS	Periodic Information Management System?
PIRE	Pacific Institute for Research and Evaluation
PVMS	Project Venture Middle School
SAPT	Substance Abuse Prevention and Treatment Block Grant
SEW	State Epidemiological Workgroup
SFS	Strategies for Success
SID	State Investigations Division
SPF SIG	Strategic Prevention Framework State Incentive Grant
TGFD	Too Good for Drugs
UAD	Underage Drinking
YRRS	New Mexico Youth Risk and Resiliency Survey
YRBSS	Youth Risk Behavior Surveillance Survey

Introduction

Substance use and abuse among adolescents in New Mexico is beginning to decrease but is still higher than the U.S. average. For example, among high school students in 2009, 24% of 9th-12th graders in NM were current smokers, which was 19% higher than the U.S. rate (19.5%).[1] Furthermore, 29.4% of high school reported having first drunk alcohol (other than just a few sips) prior to age 13 compared to 21.1% the U.S. average. Alternatively, current drinking and binge drinking prevalence among high school has actually decreased over time to well within the U.S. estimates. In NM, 40.5% reported drinking alcohol at least once in the past 30 days compared with 41.8% in the U.S. as a whole and among current drinkers in NM, 25% also reported recent binge drinking compared with 24.2% for the U.S.[2] Marijuana use among NM adolescents is also well above the U.S. average and may well be increasing. Almost 18.5% of adolescents reported trying marijuana before the age of 13 compared to 7.5% across the U.S.; in 2009, 28% of high school students in NM reported using marijuana at least once in the past 30 days compared to only 20.8% across the U.S. Males and females did not differ significantly on many of the ATOD use measures in 2009 meaning that females reported as much use as males. Minorities in NM are frequently at greater risk for ATOD use than their non-Hispanic white peers.

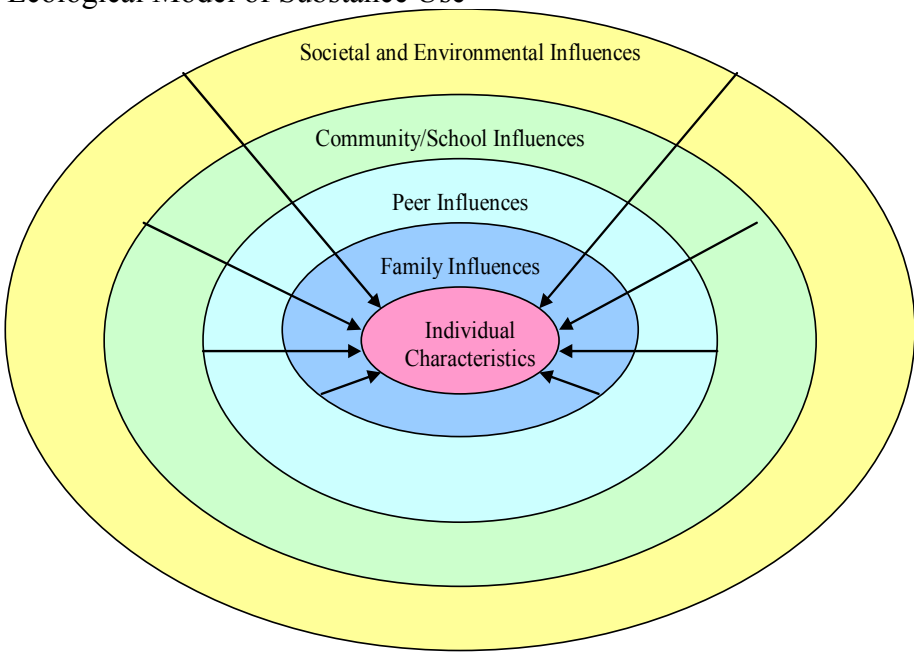
ATOD use among middle students in NM is also increasing rapidly increasing. Results from the 2009 YRRS middle school survey indicate that the smoking among middle school students had increased by 258% from 6th grade to 8th grade whereas between 9th and 12th grade there was only a 53% increase.[3] Binge drinking increased by 286% from 6th grade to 8th grade compared to a 45% increase from 9th to 12th grade. Substance use appears to be starting earlier and increasing rather dramatically in middle school and continuing to increase during high school, although at a slower rate. It is normal for ATOD use to increase by age because of maturation and increased exposure, however, the goal is to reduce the effects of maturation and exposure by reducing access and increasing resiliency. Prevention programming funded by New Mexico's Office of Substance Abuse Prevention (OSAP) through state and federal block grant funding and grants, attempts to do both these things.

Many factors influence whether one engages in high risk behavior such as ATOD use. Research indicates that an ecological model of influence is a comprehensive way to understanding the many levels of influence on an individual. Evidence-based prevention interventions typically target one or more levels of influence in order to reduce the likelihood of use. Some focus on parents, some on the youth, and some on the family as a whole. Others focus on changing the

[1] Green, D. (2010). *Highlights from the 2009 New Mexico High School Youth Risk and Resiliency Survey*, New Mexico Epidemiology. NM Department of Health . Report can be found at: http://nmhealth.org/ERD/healthdata/pdf/ER%20YRRS%20092410.pdf.
[2] CDC Youth Online- High School YRBS. Located at: http://apps.nccd.cdc.gov/youthonline/App/Default.aspx?SID=HS accessed on September 25, 2010.
[3] Green, D. (2010). *Highlights from the 2009 New Mexico High School Youth Risk and Resiliency Survey*, New Mexico Epidemiology. NM Department of Health . Report can be found at: http://nmhealth.org/ERD/healthdata/pdf/ER%20YRRS%20092410.pdf.

school and community environments in which youth live and interact. Figure 1 shows the multiple levels of influence on an individual's behavior. Individual characteristics such as self-esteem, attitudes, perception of risk, and even genetic predisposition all influence whether an individual is at increased likelihood of ATOD use. Added to those individual characteristics are the influences of the family including influences such as parents who may or may not use substances themselves, who may or not monitor their child's behavior and set clear boundaries and expectations, and even older siblings who may introduce younger ones, even inadvertently, to ATOD use. OSAP funded prevention programming during FY11focused on these first two levels of influence and much of the research and evaluation of the effectiveness of prevention focus on these types of programs. More recently, however, prevention providers are becoming trained in the use of environmental prevention strategies as well to enable prevention efforts to be directed a many levels of the model. In FY, OSAP required direct service providers to set aside some funding for prevention to implement an environmental strategy, such as changing school and/or local policies, discouraging retail access to youth by working with retailers, helping law enforcement to enforce underage drinking law more strenuously, and changing the perception of what is normative adolescent behavior.

Figure 1: The Ecological Model of Substance Use



OSAP has designed a comprehensive prevention program to address risk and protective factors influencing substance use at each level of this model. In the Fiscal Year 2010-2011 (FY11) this included a number of initiatives. These initiatives were:

- Kindergarten through 6th grade prevention programs
- 12-17 prevention programs

OSAP requires local and statewide evaluation be conducted with the intent of learning about and improving the effectiveness of prevention programming in the state. Local prevention programs

must have independent evaluators to assist with the design, collection, analysis, and interpretation of data.

Direct Service prevention programming involves implementing evidence-based curricula with target populations. These programs typically focus on increasing knowledge and awareness of the dangers involved, changing social norms around ATOD use, and increasing the ability of participants to resist pressure to engage in harmful behaviors by encouraging pro-social relationships and self-efficacy.

Prevention strategies that directly affect access are often implemented at an environmental level rather than the individual. These types of strategies might include changes in local policies, training retailers on how to check for age identification before selling alcohol or tobacco products, or increasing law enforcement efforts to patrol for parties that may involve underage drinking. Unlike in previous years, in FY11 these types of strategies were funded through direct services funding.

State Evaluation Team

The Pacific Institute for Research and Evaluation (PIRE) has served as the state level evaluation contractor for FY11. The evaluation team includes Martha W. Waller, Ph.D., Elizabeth Lilliott, Ph.D., and Lei Zhang, Ph.D.. The evaluators have been involved with OSAP during the planning process, the design of the evaluation plan and data collection instruments, the State Epidemiological Outcomes Workgroup (SEOW), monitoring and oversight of data collection, and providing training and feedback to OSAP staff, local consultants, and local evaluators and program providers.

State-Level Evaluation Plan

Programs are implemented in school settings, out-of school or after-school settings, and community settings. For direct services prevention programming, programs collect data early on in the program and then again at the end of the program. This is analogous to pre and post-testing. The evaluation then examines differences between the two data points. However, in a true experimental design there would also exist pre and post-test data for a comparison group that did not receive prevention programming. The collection of comparison data is extremely challenging and prohibitively costly for NM T this point and most youth receive some form of prevention programming in school. Therefore, data from the NM middle school and high school Youth Risk and Resiliency Survey (YRRS) (also known as the Youth Risk Behavior Surveillance Survey or YRBSS) are used to compare to middle school and high school youth data. This is done through graphing pre and post-test data against comparable YRRS data. YRRS data are weighted to reflect the NM student population and therefore, are representative of the "typical" or average student in NM. More detail on how this was done is discussed in the Strategies for Success section. Some funding streams do not have any comparison group data and therefore, it is impossible to say whether change from pre to post intervention is the result of the prevention program itself or some other cause external to the program and that might also

have affected youth who were not in the program. PIRE continues to explore alternatives to improving the evaluation design.

PIRE strives to work in collaboration with state and local prevention specialists and evaluators to create data collection instruments that are valid and reliable, while meeting the evaluation needs of all parties involved. In FY11, no new assessments were created.

During FY 11, PIRE focused on several goals related to the evaluation of direct services prevention programming. First was the revision of analysis syntax for the revised Strategies for Success to simplify and streamline the evaluation process for communities. Second was to assist programs in planning and executing the best approach to collecting pre & post intervention data. This is extremely important. Changes from pre to post-test may reflect changes in the comfort levels of the participants. At pre-test some respondents may feel less willing to answer truthfully even with the guarantee of anonymity. In this case, respondents may report less ATOD use at pre-test than is actually occurring. If respondents report more honestly at the end of the intervention because respondents have developed a relationship with the program providers and trust has been established, this in turn could lead to perceived increases the in prevalence of use at post-test. Alternatively, at post-test respondents may have learned the socially desirable response and therefore, may provide the responses that reflect what they think the prevention providers want. Creating a test-taking situation in which respondents feel comfortable answering honestly at both pre and post-test is imperative, yet can be difficult to accomplish. PIRE has discussed with program providers and evaluators ways in which they might improve the test taking environments among their programs.

Kindergarten through 6th grade

Background

The **K-6 Youth Survey** is used with 5th and 6th graders, the **K-6 Teacher Survey** is used for youth served in 4th grade and younger and is completed by the teacher, and the **K-6 Parent Survey** is completed by parents of youth in Grades Pre-K-6. The following programs were implemented during FY11.

Dare to Be You

The Dare to Be You program is a curriculum based project that was founded in 1979 and is designed to reduce poor outcomes among children, especially alcohol, tobacco and other drug use, by increasing resiliency factors and reducing risk factors in families with young children. The target population is 3-5 year old children. Program facilitators encourage parent input, support, and participation. Sessions include Family Management Skills and Attitudes, Communication Skills, Positive Disciplining, Self Concept, Showing Love and Affection, Family Planning, and Social Skills.

Botvin's Life Skills Training

The Life Skills Training universal classroom program is a proven, highly effective substance abuse prevention/competency enhancement program designed to focus primarily on the major social and psychological factors promoting substance use/abuse. It is based on 20 years of research concerning the causes of substance abuse and how best to prevent it. The program includes five major components, each of which consists of two to six lessons that are taught in sequence. The LST program increases student' knowledge of the immediate consequences of substance use while providing them with the necessary skills to resist social (peer) pressures to smoke, drink and use drugs. In addition, it helps student develop greater self-esteem, self-mastery, and self-confidence, enabling them to effectively cope with social anxiety. The key components of the Elementary version of the Life Skills Training Program are Personal Self-Management Skills (provide students with skills for enhancing self-esteem, learning creative problem solving, reducing stress and anxiety, and managing anger), General Social Skills (empower students with skills to meet personal challenges such as overcoming shyness, communicating clearly, building relationships, and avoiding violence), and Drug Resistance Skills (enable students to build defenses against pressures to use tobacco, alcohol, and other drugs). In addition, the key factors addressed by this approach are Cultural Bonding, School Bonding, Perception of Harm, and Social Competence.

Too Good for Drugs

Too Good for Drugs (TGFD) is a school-based prevention program designed to reduce the intention to use alcohol, tobacco, and illegal drugs in middle and high school students. Developed by the Mendez Foundation for use with students in kindergarten through 12th grade

(5 to 18 years old), TGFD has a separate, developmentally appropriate curriculum for each grade level, and is designed to develop:

- Personal and interpersonal skills relating to alcohol, tobacco, and illegal drug use
- Appropriate attitudes toward alcohol, tobacco, and illegal drug use
- Knowledge of the negative consequences of alcohol, tobacco, and illegal drug use and benefits of a drug-free lifestyle
- Positive peer norms

The program's highly interactive teaching methods encourage students to bond with pro-social peers, and engages students through role-play, cooperative learning, games, small group activities and class discussions. Students have many opportunities to participate and receive recognition for involvement. TGFD also impacts students through a family component used in each grade level: "Home Workouts" is available for use with families in kindergarten through 8th grade, and "Home Pages" is used in high school.

Project Venture Middle School (PVMS)

Project Venture Middle School (PVMS) is based on the original Project Venture developed by NIYLP and now a CSAP Model Program. PV employs alternative methods (outdoor/experiential education, servant leadership/service learning, reconnecting with traditional culture and the natural world) to help youth develop in healthy and positive ways, to do better in school, to get along better with family and friends, and to avoid using alcohol, tobacco, and other drugs, in addition to promoting cooperation, communication, trust, and problem-solving skills. PVMS includes activities during the school day in classrooms facilitated by Project Venture staff with the help of teachers. After-school activities occur weekly and are led by Project Venture staff and teacher-facilitators. Participants have the opportunity to attend special activities during the summer, such as NIYLP's Sacred Mountain Learning Center camp, field trips, and extended wilderness excursions. Central to the Project Venture program is the philosophy of Service-learning. Service-learning helps young people to develop ideas and attitudes that allow them to lead by giving back to the community. Young people develop service projects that include community resources and involvement. In addition to community/cultural learning, the projects frequently involve academic and social skills such as math, language arts, research, interpersonal and public communication, and leadership challenges.

Strengthening Families Program

Strengthening Families is a family-focused initiative that increases family management skills, reduces the likelihood for substance abuse and other problems associated with the teen years, and reduces family-related risk factors for adolescent problem behaviors. The curriculum follows an interactive model where parents and youth meet in different sessions for one hour then are united to participate in family activities the second hour. The program is designed to help parents/caregivers learn nurturing skills that support their children. It teaches parents/caregivers how to effectively discipline and guide their youth. The program is also designed to give youth a

healthy future orientation and an increased appreciation of their parents/caregivers. It also teaches youth skills for dealing with stress and peer pressure.

Methods

The pretest, posttest format without control groups was used to assess outcomes for program participants. Three different survey instruments (youth, parent, and teacher) were completed at the discretion of program staff at each site. Program participants from 5th and 6th grade were administered a survey that asked about their perceptions about risk of harm from ATOD use, parental and personal attitudes about ATOD use, ever use of cigarettes, alcohol marijuana and inhalants, intentions to smoke, and past 30-day use of tobacco, alcohol, marijuana and prescription drugs. Parents were asked to rate their children on items that assessed measures for conduct problems, learning problems, psychosomatic symptoms, impulsive-hyperactive behavior, anxiety, and hyperactivity. Similarly, teachers also rated program participants' conduct problems, hyperactivity, inattentiveness and passive behavior.

Youth data were collected from 3 prevention programs. As it has been done in FY10, the FY11 version of the K6 Youth Survey Instrument was the same as the SFS Middle School Module A instrument. Consequently, most of the K-6 data on youth survey participants was submitted along with the middle school SFS data by sites that received funding to provide programming to both populations and K-6 results are intermingled with the middle school analyses. As a result, a distinction was not made between the two funding streams. Data on youth (5th graders and 6th graders) participating in K6 youth programs are included in the analyses of SFS middle school program participants, and data on 4th graders were excluded from the analyses. Teacher survey data came from one program that supplied the youth data as well. This program administered the youth survey to 4th, 5th and 6th graders. Given that the 4th graders were not included in the middle school student analyses, we decided to analyze the teacher survey data that rated on these 4th graders. Finally, parent survey data were from one program and the analysis on the parent data limited to descriptive analysis and paired t-test in that the sample size was very small (n=40).

The data were cleaned prior to running frequencies for pretest and posttest to identify non-matched data and possible outliers. Next, variables were then recoded, including reverse-coded when appropriate, so that sum scales and mean scales could be created for outcome measures. Scale reliability analyses were conducted to examine internal validity before running sample demographics and descriptive statistics. Finally, a series of paired sample t-tests was performed on each construct in order to assess whether the mean scores on the pretests were significantly different from the mean scores on the posttests, and GLM analyses were run to assess whether pretest scores predicted posttest scores. The alpha criterion set was .05 ($\alpha = <.05$).

Results

The results of the parent survey and the teach survey are presented. PIRE estimated the number of K6 program participants by counting the number of unique survey instruments from the pool of submitted youth survey, parent survey and teacher survey instruments. The table below (Table 1) provides the estimated distribution of K-6th youth program participants by site.

Table 1: Distribution of K -6th program participants by site

Site	Curriculum Provided	Number of Participants*
Counseling Associates	Botvin's Life Skills Training	259
San Juan County Partnership	Botvin's Life Skills Training	310
Southern New Mexico Human Development	Strengthening Families Program	54
Youth Development Inc[a].	Dare to Be You	40

*This is the total number of participants at pretest.
[a] Parent survey only at this site.

Parent Survey

Total 40 surveys were completed by the child's parents. Female parents were more likely to complete the Parent Survey (93%) compared to males (7%). Less than half of the respondents were married at the time of pretest (43%), 39% were single, 17% indicated they were either divorced, widowed, or co-habitating. Fifty-three percent of the surveys were completed by respondents not born in the United States, with approximately 28% of respondents reporting that they spoke a language other than English in the home. About 30% of the respondents had full-time employment, while 13% were employed part-time and approximately 38% were unemployed and looking for work, 15% indicated that they were either unemployed/disabled or retired. The average household size reported was 4.7 individuals and the average age of the survey respondent was 35.2 years old. The average number of children in the home was three.

All six scales measuring aspects of the program participant's behavior captured movement in the desired direction between pretest and posttest scores (see Table 2). However, the reliability statistics for most of the measures were below the acceptable level of 0.800; this was especially notable for the baseline reliability statistics for the Impulsive-Hyperactive Scale and the Anxiety Scale which were 0.599 and 0.629 respectively, and for the posttest reliability of the Learning Problem scale ($\alpha = 0.317$) and the Anxiety scale ($\alpha = 0.505$). Less than optimal performance of the scales at measuring associated constructs should be considered when interpreting these findings.

Table 2: K-6th grade program findings- Parent respondents rating on their children's behaviors at pretest and posttest.

Sub-Scale	Range		Cron-bach's α	Base-line Mean	Cron-bach's α	Post-Test Mean	Paired T-Test	Desired Outcome
	Min	Max						
CRS[4]: Conduct Problem (n=36)	0-24		0.844	3.33	0.805	1.69	2.494*	↓ Is better
CRS: Learning Problem (n=36)	0-12		0.715	1.75	0.317	0.44	3.788***	↓ Is better
CRS: Psychosomatic (n=35)	0-12		0.764	0.86	NA[a]	0.11	2.752**	↓ Is better
CRS: Impulsive-Hyperactive (n=36)	0-12		0.599	2.74	0.841	1.29	3.719**	↓ Is better
CRS: Anxiety (n=36)	0-12		0.529	2.14	0.505	0.75	4.821***	↓ Is better
CRS: Hyperactivity Index (n=36)	0-30		0.804	4.97	0.792	1.92	4.428***	↓ Is better

[a]More than 90% of responses selected zero therefore no variance or covariance can be calculated to assess the reliability α.
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$.

Teacher Survey

There were 292 surveys completed by teachers. Of them, 271 surveys had non-missing grade information of youth participants. The survey data reflect 4th (49%), 5th (32%) and 6th (12%) grades. Since 4th graders were excluded from the middle school student analysis, their teachers' ratings on their behaviors were analyzed to examine the effect of prevention programs on youth's behaviors. Among 143 fourth graders, the youngest student was 9 years old and the oldest was 11 years old with a mean age of 9.35 years old. Less than one-third of children lived in homes where a language other than English was spoken.

Teachers rated students on four areas: Conduct Problems, Hyperactivity, Inattentive-Passive Behavior, and a Hyperactivity Index. Reliability statistics for both pretest and posttest measures indicated strong agreement (>0.800) among the scale items used to measure each construct (see Table 3). For the group as a whole, the scores moved in the undesired direction for all four of the measures and the findings for the Conduct Problems scale was statistically significant ($p<.05$). These findings were supported with the conclusions from the unadjusted GLM analyses but the differences were non-significant after the models were adjusted for the influence of child's sex, age, and race (see Table 4).

[4] CRS = Conner's Rating Scales

Table 3: K-6th grade program findings- Teacher survey respondents

Sub-Scale	Range		Cron-bach's α	Base-line Mean	Cron-bach's α	Post-Test Mean	Paired T-Test	Desired Outcome
	Min	Max						
CRS[5]: Conduct Problem (n=143)	0-24		0.879	2.13	0.919	2.79	-1.975*	↓ Is better
CRS: Hyperactivity (n=143)	0-12		0.925	3.21	0.931	3.25	-0.140	↓ Is better
CRS: Inattentive-Passive (n1431)	0-12		0.919	5.93	0.917	6.36	-1.037	↓ Is better
CRS: Hyperactivity Index (n=143)	0-12		0.901	5.18	0.922	5.60	-1.032	↓ Is better

Table 4: Examining the effect of time on teacher's rating posttest CRS scores controlling for pretest scores

	Unadjusted				Adjusted				
Measure	Base-line Mean	Post-Test Mean	F-test & sig.[a]	effect size[b]	Base-line Mean	Post-Test Mean	F-test & sig.[a]	effect size[b]	Desired Outcome
CRS[6]: Conduct Problem (n=136/131)	2.13	2.79	3.902*	0.028	2.21	2.87	0.192	0.002	↓
CRS: Hyperactivity (n=136/131)	3.21	3.25	0.020	0.000	3.22	3.18	0.643	0.005	↓
CRS: Inattentive-Passive (n=136/131)	5.93	6.36	01.076	0.008	6.03	6.37	2.280	0.018	↓
CRS: Hyperactivity Index (n=136/131)	5.18	5.60	1.064	0.008	5.23	5.53	0.744	0.006	↓

[a]Exact statistic provided.
[b]partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*$p \leq .05$.

Discussion

Youth enrolled in prevention programming are generally more at-risk for substance use than their non-participating peers. The findings from the parent survey showed the undesirable behaviors of children decreased over the course of prevention program. However caution should be exercised when interpreting the effectiveness of the particular program due to small sample size. On the other hand, teachers reported more unfavorable behaviors across four behavior

[5] CRS = Conner's Rating Scales
[6] CRS = Conner's Rating Scales

measures though none of the increases were significant in the adjusted GLM model. It is possible that program participation causes teachers to become more aware of a child's deficits as their relationships with the children grow over the course of the program.

Strategies for Success (SFS) 12-17

Background

In FY 11, there were 5 prevention programs addressing substance use among 12-17 year olds in New Mexico. Prevention programs typically seek to build drug resistance skills which enable young people to recognize and challenge common misperceptions about tobacco, alcohol and other drug use. In addition, they try to improve personal self-management skills by teaching students how to examine their self-image and its effects on behavior, set goals and keep track of personal progress, identify everyday decisions and how they may be influenced by others, analyze problem situations, consider the consequences, reduce stress and anxiety, and look at personal challenges in a positive light. General social skills might also be emphasized, and students are taught the necessary skills to overcome shyness, communicate effectively and avoid misunderstandings, initiate and carry out conversations, handle social requests, utilize both verbal and nonverbal assertiveness skills to make or refuse requests, and recognize that they have choices other than aggression or passivity when faced with tough situations. Curriculums target a variety of risk factors for substance initiation and use (inadequate life skills, poor self-management skills, poor social skills including refusal skills, mental health, early age of initiation of ATOD use, perceptions of use by peers, and perception of harm), as well as protective factors (life skills, especially stress and anger management, media literacy and bonding to school and other adults).

A standardized instrument, the Strategies for Success (SFS) survey, which was developed for use with youth in New Mexico, was used to collect self-reported measures of substance use and related behaviors among the 12 to 17 year olds participating in these programs. This questionnaire was revised and piloted in FY 08 and used for the first time across all 12 to 17 prevention programs in FY 09. Slight revisions were made to the 2010 survey instrument based on feedback from local evaluators. The instrument consists of a core survey that asks about ATOD use and was required of all programs receiving funding. Four additional modules were made available to measure outcomes around violence perpetration, violence victimization, internal resiliency, and external resiliency based on the California Healthy Kids Survey. Programs that focused particularly on building the resiliency of youth to resist ATOD used the resiliency measures because it was felt that these were possibly more accurate indicators of the program's objectives. Additional programs also addressed social skills and life skills that would affect dealings with others. These programs used the violence modules as part of their evaluation.

The SFS instruments in FY11 remain the same as in FY 10, and only the version of the ATOD Core survey for middle school students (6^{th} through 8^{th} graders) was administered. The survey measures perceptions of harm around substance use, parent approval of alcohol use, peer approval of alcohol use, and experience with cigarettes, smokeless tobacco, alcohol, binge drinking, marijuana and prescription drug use. It also probes students about their future intentions to smoke cigarettes. The substance use questions are identical to ATOD questions used in the NM Youth Risk and Resiliency Survey (YRRS) survey in middle and high school.

This was done deliberately so that we could compare the SFS data to YRRS data, which reflects the typical New Mexico student and so serves as our comparison group.

Methods

Local evaluators for the 12-17 programs assessed participants at program entry and at program exit. Concerted effort on the part of local program providers and evaluators produced a large sample size of matching pretest and posttest data. The sample size for middle school students from 5th grade to 8th grade was 877, including 5th and 6th grade students from K-6 programs. Among high school students the sample size was 116. The middle school sample consists of adequate subsamples to conduct sub-group analyses by biological sex, Hispanic ethnicity and Native American ethnicity for middle school program participants. Prior to analysis, aggregate datasets were cleaned so that only participants who completed both a pretest and a posttest would be included in the final analyses.

Analyses were conducted in SPSS on youth who have both complete pretest and posttest data except demographic information. Data were cleaned by running frequencies and cross-tabulations to check for missing data and outlier values. Flags were created to identify inconsistent data between pretest and posttest for substance use measures and filters were applied during each step of the analyses to exclude flagged data. The ethnicity data were recoded to ensure consistency across all sites and to correspond to categories used by New Mexico's Department of Health. Other variables were recoded, including reverse-coded when appropriate, so that sum scales and mean scales could be created to measure violence and resiliency constructs. Scale reliability analyses were conducted to examine internal validity before running sample demographics and descriptive statistics. A series of McNemar's tests were conducted on pre and posttest measures to assess significant changes over the course of the program. McNemar's test assesses the significance of the difference between two correlated proportions, such as might be found in the case where the two proportions are based on the same sample of subjects or on matched-pair samples. It is applied to 2 × 2 contingency tables with a dichotomous outcomes (e.g., yes/no, ever/never) with matched pairs of subjects. The alpha criterion set was .05 ($\alpha = <.05$). T-tests were used in lieu of McNemar's tests during cross-tabulations of frequency variables because they were categorical as opposed to measures of proportions. Finally, to confirm the results of the McNemar tests using a more conservative approach, we used the GLM procedure in SPSS. The pretest and posttest means and frequencies were compared through Repeated Measures MANOVA with one within factor of time (pre and post**)**. Separate analyses were conducted to examine the sample by biological sex, Hispanic ethnicity, and Native American ethnicity. The GLM tests were first run without controlling for covariates and then repeated on the sample by biological sex controlling for grade, ethnicity and English as the primary language spoken in the home. Similarly, covariates for biological sex, grade, and English as the primary language spoken in the home were included for the Hispanic and Native American subgroup analyses. To examine the effect size of the program between pre & posttest a partial Eta squared was calculated (η_p^2). The partial Eta squared is the proportion of the effect + error variance that is attributable to the time.

Comparing SFS findings with YRRS Comparison Data

Finally, we graphed the pre- and posttest frequencies against the equivalent measures in the YRRS to visually examine how the average SFS respondent in each grade compared with the average YRRS respondent. The YRRS survey is conducted during the fall of odd years. Data from 2009 were analyzed using SAS controlling for survey design effects. The total N for middle school respondents was 23,628. When weighted to reflect the population, middle school data reflects almost 57,822 middle school respondents. The YRRS data is considered a representative sample of New Mexico students, and weighted results are reported, meaning they are representative of NM students within the grade and ethnic culture designated. In other words, results reported for each question on the YRRS can be considered to reflect the average New Mexico student's answer for the question, which provides us the opportunity to compare the average SFS participant with the average New Mexico student for each grade level. Although we did not test for significant differences between the two data sets, the YRRS does provide an excellent comparison group for assessing general differences between an average SFS student and the average New Mexico student not involved in SFS activities.

Where graphs with YRRS and SFS data are compared, the YRRS comparison sample reflects the same demographics as in the SFS sample. For example, when examining SFS Hispanic males, the YRRS comparison group includes only Hispanic males. It is important to note that YRRS data are collected only once per grade level (in this case, Fall 2009) whereas SFS data are collected at the beginning and end of each program, on average a span of 9 months which captures the academic year. Therefore, to create an equivalent time frame estimate, YRRS data from the grade level collected was identified as "pretest" comparison data, and a 9 month posttest comparison estimate was created based on the difference between the current year and the following year prevalence estimates, divided by 12 (for 12 month increments) and multiplied by 9 to represent 9 months. For example, 7th grade *pretest* SFS data are compared to 7th grade YRRS data and 7th grade *posttest* SFS data are compared to 8th grade YRRS data less approximately 3 months of increase). In the body of this report we have chosen to include graphs that show significant differences or are of particular interest, however all graphs are available upon request.

Results of Middle School Analyses

Data from the 12-17 programs were collected at 5 sites utilizing the Strategies for Success survey instrument. Youth data using the SDS was also collected from three K-6 programs working with 5th and 6th graders. The distribution of SFS and K-6 program participants by site is captured in Table 5 below. Programs varied as to the number of participants based on the type of program and how students were identified to participate. Some programs were school-based programs whereas others were after school programs. This section includes all of the findings presented in tabular format and selected findings of the SFS and YRRS comparisons.

Table 5: Distribution of SFS middle school program participants by site

Site	Curriculum Provided	Number of Participants[a]	Percent of Total Participants[b]
Counseling Associates	Botvin's Life Skills Training, Dare to Be You	233	26.6
Five Sandoval Pueblos	Project Venture	41	4.7
North Central Community Based Services	Too Good for Drugs	145	16.5
San Juan County Partnership	Botvin's Life Skills Training	138	15.7
Santa Fe Mountain Center	Project Venture	57	6.5
Southern New Mexico Human Development	Strengthening Families Program	48	5.5
Sandoval County SAP	Dare to Be You	215	24.5
	Total	877	

[a]This is based on the number of pretest participants.

[b]Due to rounding, the percentage total is not exactly 100%

The mean age for males was 11.89 and the mean age for females was 11.58. The sample was almost evenly distribution between males (47.7%) and females (52.2%). SFS program participants were predominantly Hispanic for both males (51.4%) and females (59.4%), followed by Native American (male 28.5% and female 26.2%) and white (male 13.6% and female 10.7%) and. Approximately half of males (47.1%) and females (51.8%) indicated that at home, they most often spoke a language other than English (see Table 6).

Table 6: Demographics for middle school SFS program participants by gender[a] (n=877)

Demographic	% SFS Program Participants Male (n=418)	% SFS Program Participants Female (n=458)
Grade		
5th grade	23.92	30.35
6th grade	31.10	29.69
7th grade	24.40	22.05
8th grade	20.57	17.90
Race/Ethnicity[b]		
White	13.64	10.70
Hispanic	51.44	59.39
Native American	28.47	26.20
Other	4.07	1.09
Language Other than English Spoken Most Often[cd]		
Yes	47.13	51.75

[a]Demographic information is based on the number of pretest participants. Missing data for gender: n=1.

[b]Missing data for race/ethnicity by gender : male=10 and female=12.

[c] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

[d]Missing data for language other than English by gender : male=6 and female=3.

Prevalence of Substance Use among Middle School Respondents

Among male middle schools students, we find that there are no statistically significant changes in any of reported substance use from pre to posttest. The significant changes observed among females are past 30-day use of cigarettes and marijuana, which increased from pre to posttest. It is worth noting that female smokeless tobacco users increased from none at pretest to 0.48 % at posttest even though this increase is rather small. Table 7 captures the reported substance use prevalence at pretest and posttest for males and females. Although prevalence increased from pre- to posttest, when compared to YRRS respondents, the trends for most of reported past 30-day substance use and ever use of inhalants are well below corresponding middle school YRRS respondents. This provides some reassurance that while increases in use are normal, participants in prevention programming ATOD use did not increase as much as the average New Mexico student in the same grade. Furthermore, the slope of increase for SFS program participants was generally less steep than the slope for the average student, indicating that increases were more gradual and of less magnitude among the SFS program participants compared to their peers.

Table 7: Past 30-day ATOD use[a] prevalence, differences from pretest to posttest for middle school SFS program participants

Substance (total sample n)	% Pretest	% Posttest	McNemar Test	% Pretest	% Posttest	McNemar Test	Desired Outcome
	Male			*Female*			
Cigarettes (794)	7.65	8.97	0.68	3.61	6.02	5.00*	↓
Chewing Tobacco (795)	3.44	3.17	0.07	0.00	0.48	NA	↓
Alcohol (794)	8.16	8.95	0.29	6.76	7.00	0.05	↓
Binge Drinking (794)	4.5	6.08	1.50	2.66	3.62	0.89	↓
Marijuana (794)	8.99	10.85	1.96	3.61	6.25	7.12**	↓
Inhalant ever use[b] (795)	6.86	6.07	0.29	7.45	6.49	0.89	↓

[a] Dichotomous substance use variable (yes or no).
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.
*$p \leq .05$, **$p \leq .01$.

Reported prescription drug use decreases or increases depending on the substance; the actual number of respondents reporting use of specific types of prescription drugs at either pretest or posttests tended to be small with the exception of pain pills for males and other medications for females (see Table 8 below). Over 80% of male users of pain pills at posttest were non-users at pretest, and 36% of female users of other medications were those who had not used prescription drugs at pretest. Generally speaking, it appears that prescription drug use declined or remained unchanged from pretest to posttest among females; whereas the same trend was not observed among male respondents.

Table 8: Past 30-day prescription drug use[a] prevalence, differences from pretest to posttest for middle school SFS program participants

Substance (total sample n)	% Pretest	% Posttest	McNemar Test	% Pretest	% Posttest	McNemar Test	Desired Outcome
	Male			*Female*			
Any R_x medication not prescribed (795)	3.17	3.43	0.06	3.13	2.40	0.53	↓
Any R_x pain pills not prescribed (788)	0.80	4.00	10.29**	2.66	1.94	0.53	↓
Any Ritalin, Adderal, or Prozac not prescribed (786)	2.41	2.41	0.00	0.97	0.97	0.00	↓
Any R_x sleep aids or tranquilizers not prescribed (784)	0.80	2.41	3.00	2.93	1.71	0.52	↓
Any other medications not prescribed (785)	3.75	2.41	1.47	5.58	2.67	7.20**	↓

[a] Dichotomous substance use variable (yes or no).
**$p \leq .01$.

As is frequently the case in reporting substance use among adolescents, floor and ceiling effects are observed. For example, among these young adolescents, most do not report past 30 day substance use at pretest. As a result of maturation over the course of the prevention programming, many adolescents, who at pretest reported no use, may have tried substances by posttest. Because at pretest so few report use, it is frequently possible at posttest for more students to report ATOD use. This is referred to as a floor effect, meaning that if most students do not report use at pretest the posttest estimate is more likely to increase because it cannot decrease. Alternatively, students may report very strong and positive relationships with their parents, a known protective factor against ATOD use. Since the relationships are typically very strong at pretest, over the course of the prevention program, there may be an apparent decrease in this level of closeness. This is called a ceiling affect, essentially implying that the highest level has been reached at pretest and the only room for movement is to decrease. Whether these effects are an artifact of the program or the result of maturation is unclear in the cross-tabulations. In addition, the likelihood of increasing or decreasing from pre-to posttest when most responses are at one extreme or the other is greater in general than if responses are evenly distributed and this is referred to as regression to the mean. When participants report very low substance use at pretest, it is difficult to demonstrate reductions in substance use at posttest. Alternatively, when respondents report high protective factors at pretest, it is difficult to demonstrate increases in these protective factors at posttest.

Table 9 captures the average number of times core drugs were used in the past 30 days at pretest and posttest among middle school SFS program participants who **reported use in each individual drug category at pretest.** Both males and females reported statistically significant decreases in ever using inhalants. Caution should be exercised when interpreting the change of inhalant use because the question of inhalant ever used assesses lifetime inhalant use. Estimates of lifetime inhalant use at posttest should either remain the same as at pretest or increase. Decreases in reported inhalant ever use at posttest may indicate data reporting inconsistence between pretest and posttest. Males also decreased cigarette use significantly. The frequency of marijuana use in the past 30 days increased slightly for males and females though not statistically significant, which is similar to FY10. Finally, t-test is not applicable in the case of female smokeless tobacco users. Since there were no female users in the pretest, therefore no observations could be selected at posttest to conduct t-test, even though there were smokeless tobacco users at posttest (see Table 9).

Table 9: Frequency of ATOD use[a], differences from pretest to posttest among middle school SFS program participants reporting use in each individual category at baseline

Substance (Respondents reporting use at baseline, male n & female n)	**Pre-test Mean**	**Post-test Mean**	**t-value**	**Pre-test Mean**	**Post-test Mean**	**t-value**	**Desired Outcome**
	Male			*Female*			
Cigarettes (25/13)	1.84	1.09	-2.49*	1.77	1.55	-0.51	↓
Chewing tobacco (13/0)	1.54	1.08	-0.88	NA	NA	NA	↓
Alcohol (25/31)	1.48	1.04	-0.86	1.48	1.44	0.27	↓
Binge drinking (25/31)	0.92	0.83	0.11	0.58	0.64	1.24	↓
Marijuana (33/16)	1.91	2.00	0.33	1.88	2.33	1.77	↓
Inhalant ever use[b] (26/37)	1.00	0.35	-6.87***	1.00	0.65	-4.06***	↓

[a]0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.
*$p \leq .05$, ***$p \leq .001$.

In order to get around the issue of floor effects, we also examined the self-reported substance use at posttest among *only those program participants reporting any ATOD use at pretest*. Among male program participants who reported any ATOD use at pretest, we found large decreases in every reported substance use at posttest (from 12.1% to 42%) (see Table 10). Figure 2 graphs the changes from pretest to posttest for males. This pattern is mixed for female SFS program participants who reported increases in cigarette and marijuana uses (13.5% to 22.3%) and decreases in alcohol, and binge drinking (9.2% to 19.8%). Again, the change in smokeless tobacco among females is not available considering there were no female users at pretest. Figure 3 graphs the changes from pretest to posttest for females.

Table 10: Past 30-day ATOD use[a] prevalence at posttest among those program participants reporting any ATOD use at pretest

Substance (total respondents reporting any use at baseline, male n & female n)	**% Pretest**	**% Posttest**	**% Change**	**% Pretest**	**% Posttest**	**% Change**
	Male			***Female***		
Cigarettes (84/67)	36.90	28.57	-22.57	25.37	31.03	22.31
Chewing Tobacco (84/67)	15.66	9.09	-42.00	0.00	1.69	NA
Alcohol (84/67)	40.48	31.17	-23.00	50.75	40.68	-19.84
Binge Drinking (84/67)	22.62	18.18	-19.63	22.39	20.34	-9.16
Marijuana (84/67)	45.78	40.26	-12.06	28.36	32.20	13.54
Inhalant ever use[b] (84/167)	30.95	19.48	-37.06	55.22	38.98	-29.41

[a] Dichotomous substance use variable (yes or no).
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.

Figure 2: The percentage of male middle school SFS program participants reporting past 30-day substance use at posttest among only program participants reporting substance use at pretest

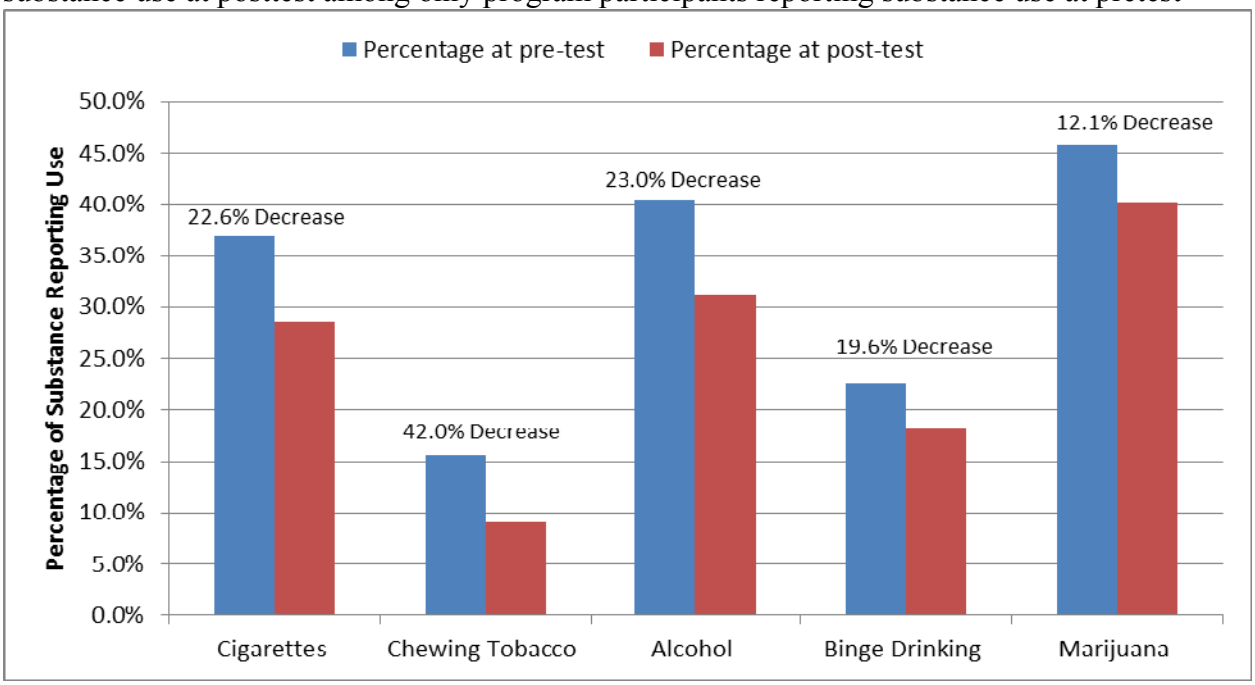
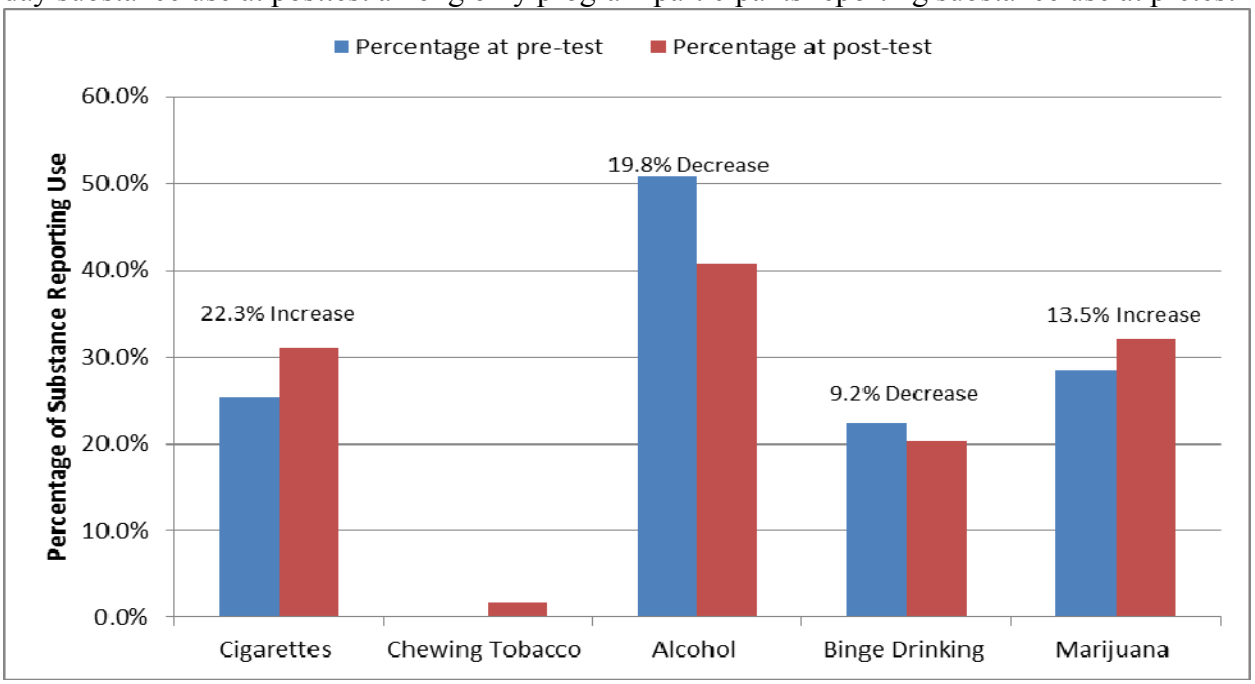


Figure 3: The percentage of female middle school SFS program participants reporting past 30-day substance use at posttest among only program participants reporting substance use at pretest

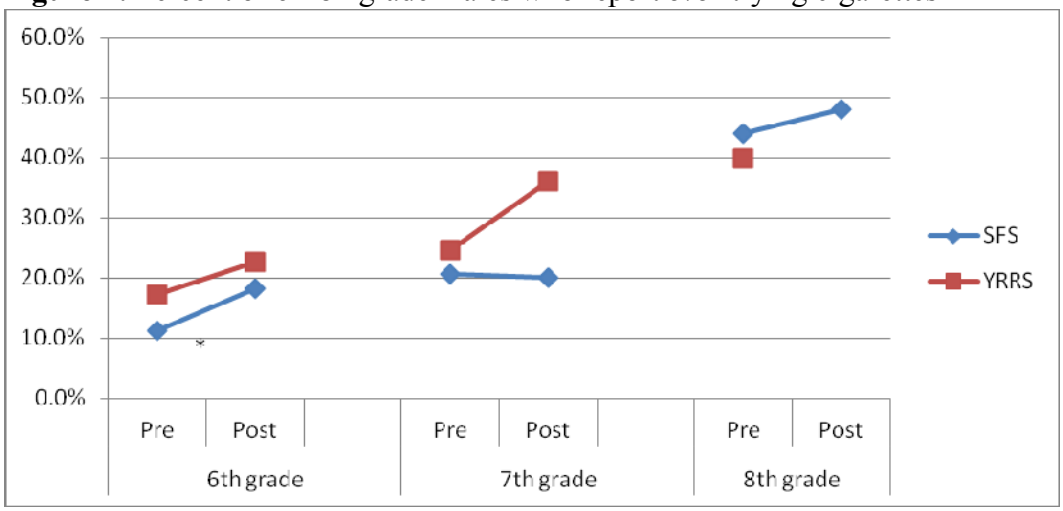


Comparing SFS Respondents to YRRS Respondents[7]

Tobacco use (all male and female students, grades 6-8)

Overall, SFS students reported a mixed trend in lifetime and past 30-day tobacco use across grades. Sixth grade male SFS students and seventh grade female students exhibited significant increase in lifetime tobacco use (see Figure 4 & Figure 5). SFS students from other grades remained the same level of lifetime use from pre to posttest or increased non-significantly. Compared with 2009 YRRS students, the prevalence rates of tobacco use for 6th graders of male and female SFS students in FY11 are lower than YRRS 6th graders. As grades increase, the SFS prevalence rates show less consistent trend across grades and gender (see Figures 6 & 7). By contrast, the prevalence of tobacco use among male and female 2010 SFS program participants was considerably lower than the average New Mexico student as reported by the 2007 YRRS.

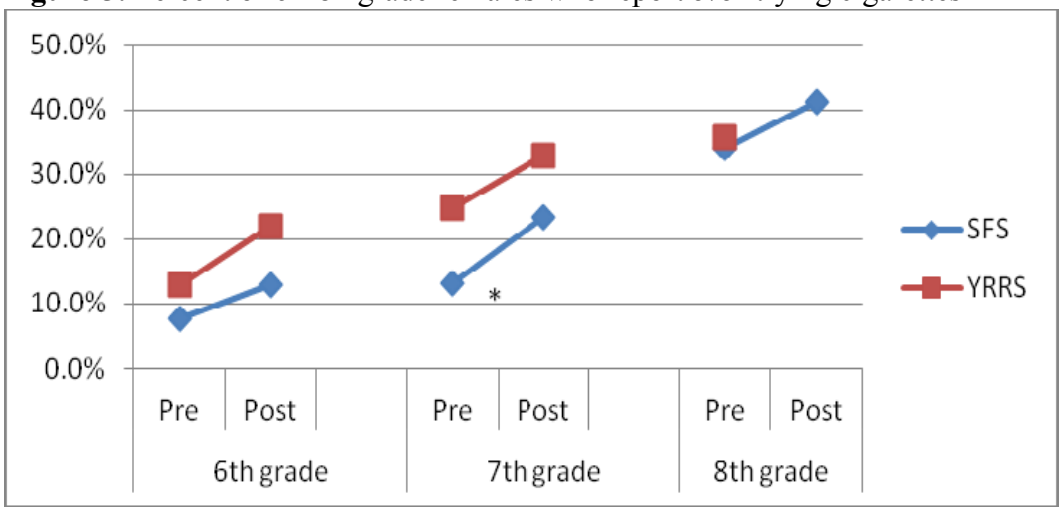
Figure 4: Percent of 6th-8th grade males who report *ever* trying cigarettes



*Change from pre to posttest for SFS is significant ($p < .04$).

[7] Graphs not shown in text are available upon request.

Figure 5: Percent of 6th-8th grade females who report *ever* trying cigarettes



*Change from pre to posttest for SFS is significant ($p < .001$).

Figure 6: Percent of 6th-8th grade males who report past 30-day cigarettes use

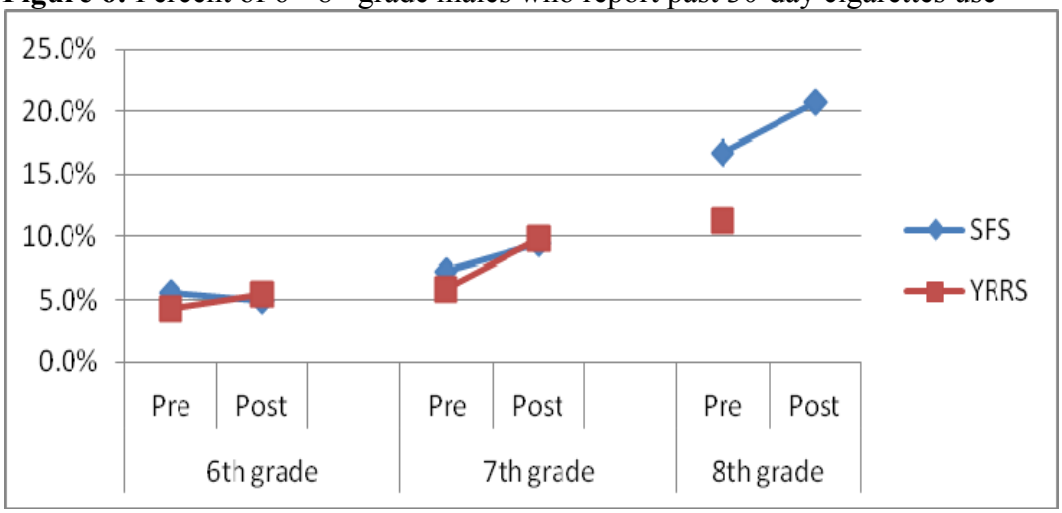
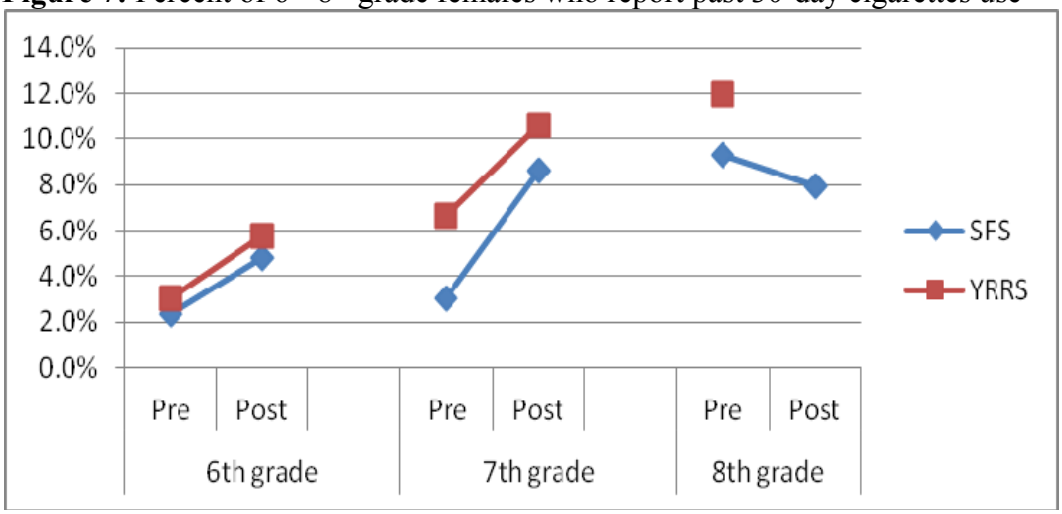


Figure 7: Percent of 6th-8th grade females who report past 30-day cigarettes use



Both male and female SFS program participants reported similar behavior patterns as their YRRS peers in regards to their intentions not to smoke a cigarette "at anytime during the next year," or "if a best friend offered a cigarette". Statistically speaking, SFS program participants' intentions remained unchanged between pretest and posttest in all grades (see Figure 8 to Figure 11).

Figure 8: Percent of 6th-8th grade males who report that they will probably not or definitely not smoke a cigarette at any time during the next year

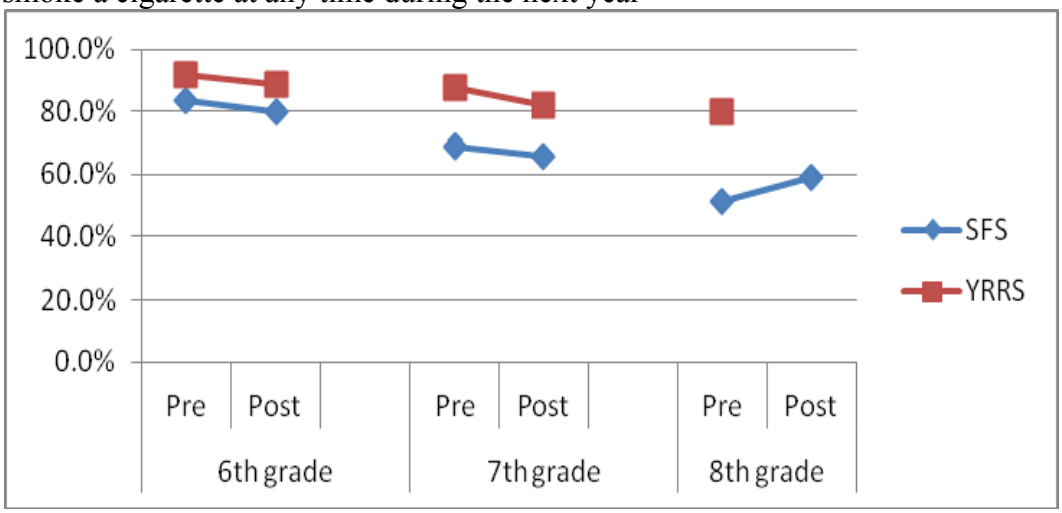


Figure 9: Percent of 6th-8th grade females who report that they will probably not or definitely not smoke a cigarette at any time during the next year

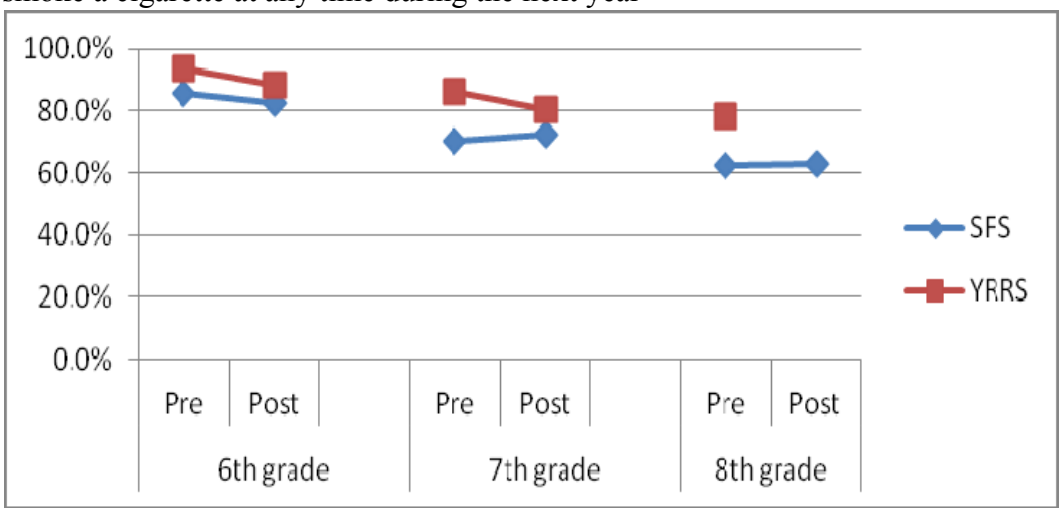


Figure 10: Percent of 6th-8th grade males who report that they would probably not or definitely not smoke a cigarette if one of their best friends offered it

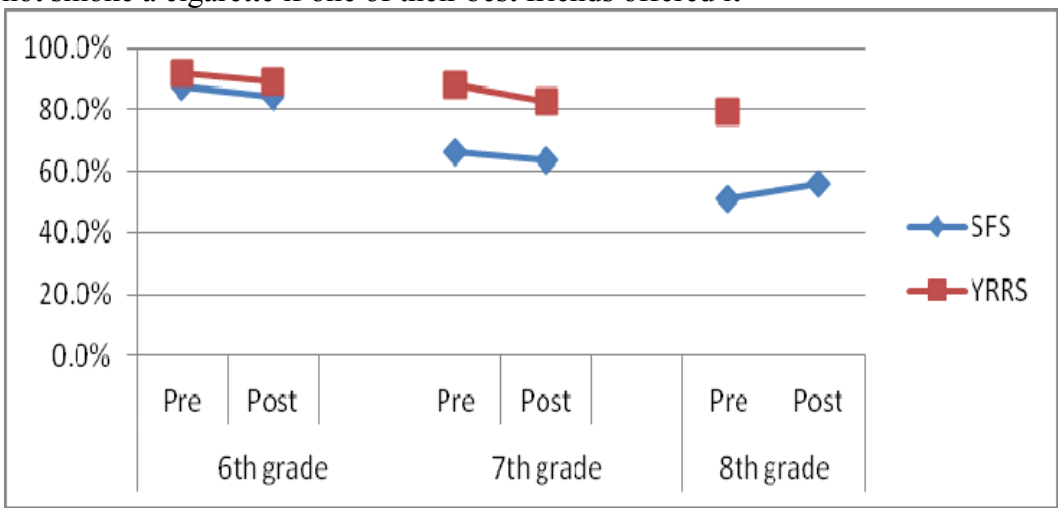
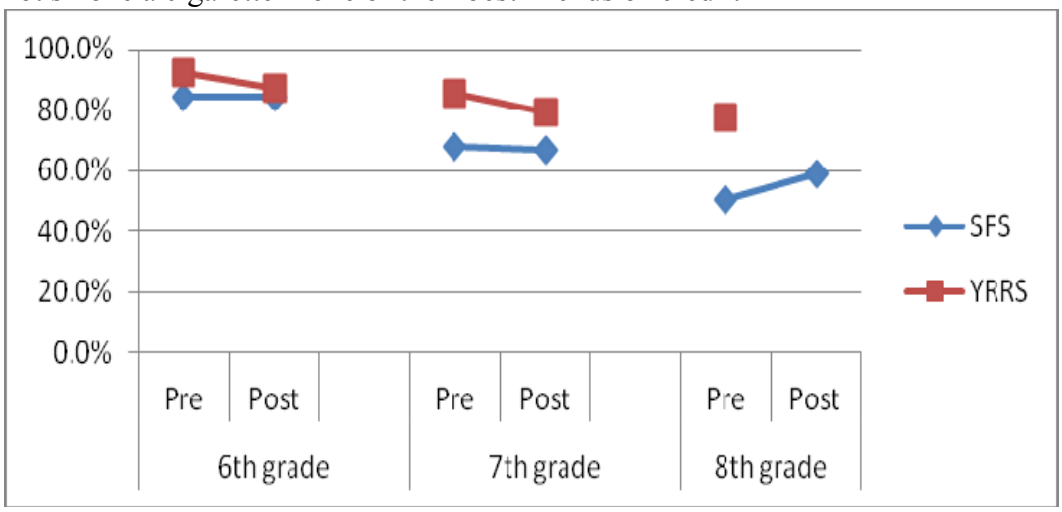


Figure 11: Percent of 6th-8th grade females who report that they would probably not or definitely not smoke a cigarette if one of their best friends offered it



Alcohol use (all male and female students, grades 6-8)

The data show that the only significant increase was 7th grade SFS female students' reports of *ever* drinking alcohol (see Figures 12 & 13). Generally, SFS students appear to report lower prevalence of alcohol ever use compared to YRRS students.

Figure 12: Percentage of 6th-8th grade males who report *ever* drinking alcohol

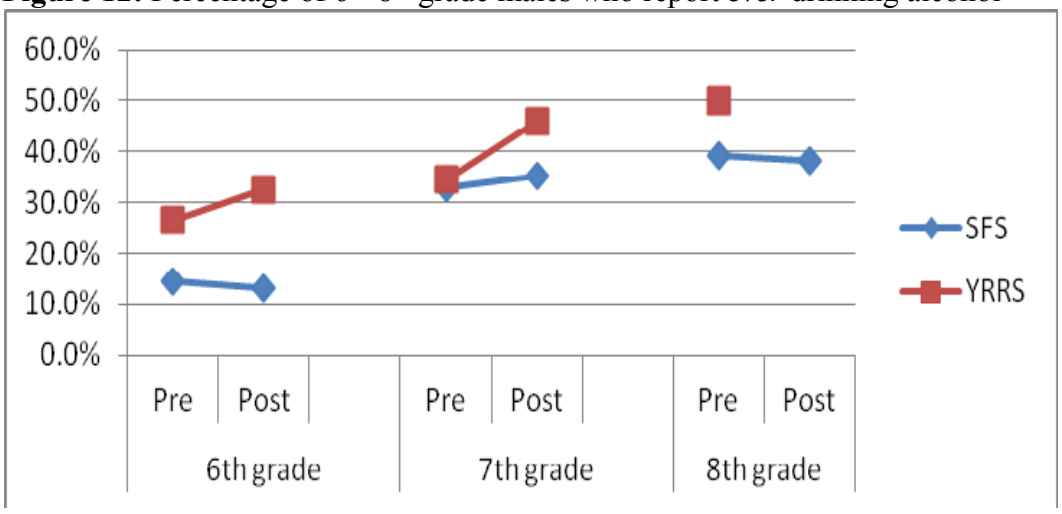
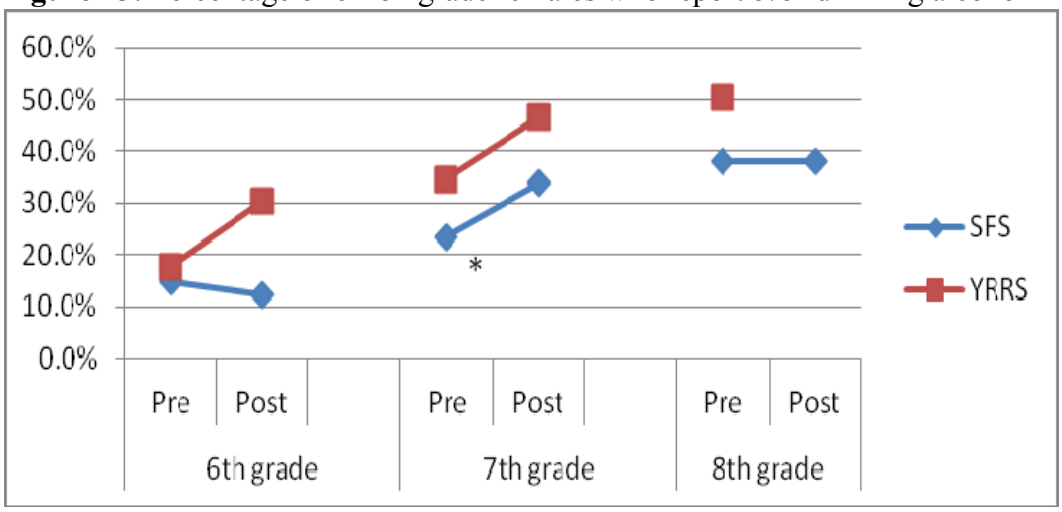


Figure 13: Percentage of 6th-8th grade females who report *ever* drinking alcohol



*Change from pre to posttest for SFS is significant ($p < .01$).

Both males and females reported a consistent decrease in past 30-day alcohol use between pretest and post-test across all grades, and the prevalence rates are also lower than YRRS students (see Figures 14 & 15). Although the decrease was not statistically significant, yet it was moving towards the desirable direction. This is particularly encouraging given that among 2010 SFS participants the trend in past 30-day alcohol use was increasing across genders and grades.

Figure 14: Percentage of 6th-8th grade males who report drinking alcohol in the past 30 days

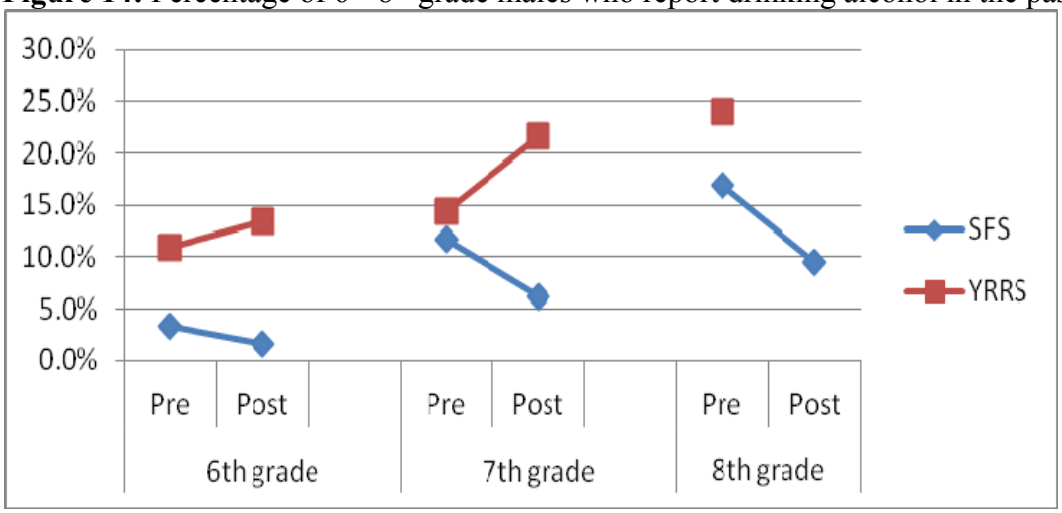
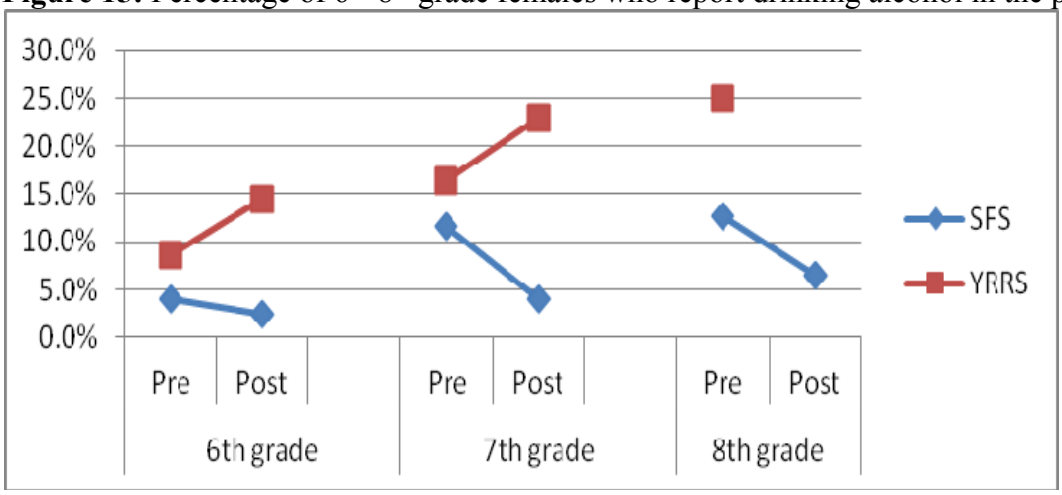


Figure 15: Percentage of 6th-8th grade females who report drinking alcohol in the past 30 days



Binge drinking also increases gradually for both males and females in seventh and eighth grades yet has not reached a significant level. Overall, SFS program participants report lower prevalence rate of binge drinking than YRRS respondents

In sum, SFS students have less current alcohol use than their YRRS counterparts. Depending on which alcohol consumption behavior is in question, the trends are not consistent in the SFS sample.

Other Drug use (all male and female students, grades 6-8)

The number of SFS students reporting *ever* using marijuana increased significantly only for female seventh graders (Figures 16 & 17). And SFS male 7th and 8th grade students reported higher rates for past 30-day marijuana use than the reported rates for YRRS students, yet this was not observed among female SFS students. Again, similar to the trend of alcohol use between SFS and YRRS students, depending upon which drug consumption behavior is discussed, the behavior patterns are not consistent across grades and genders in the SFS students.

Figure 16: Percentage of 6th-8th grade males who reported *ever* using marijuana

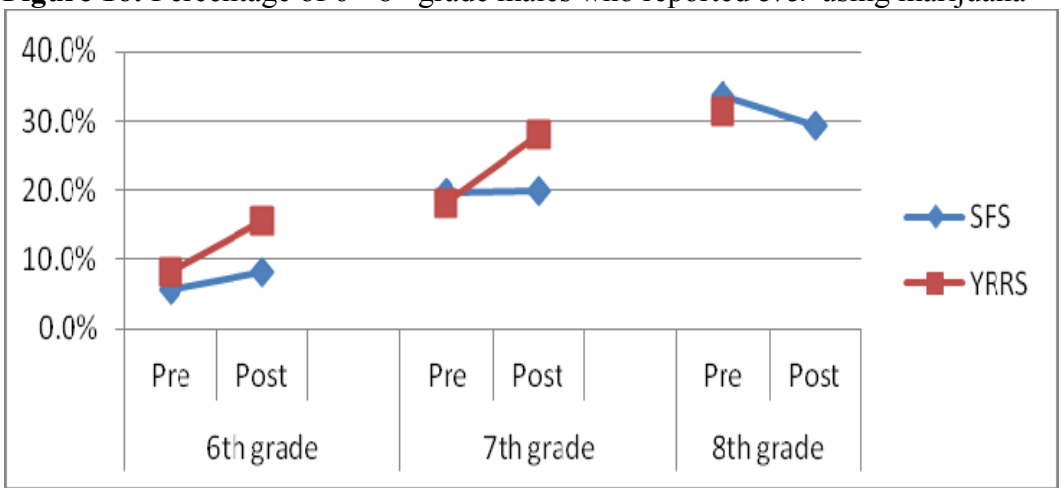
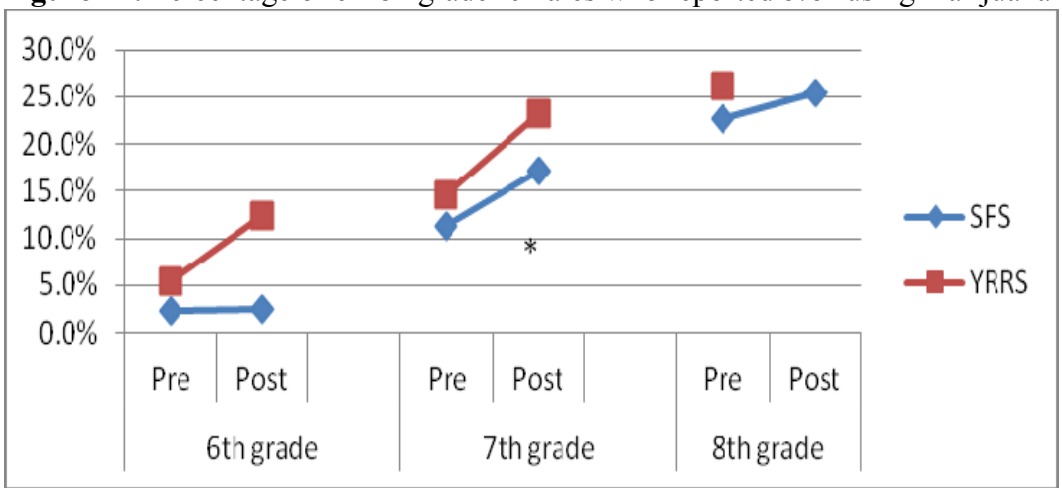


Figure 17: Percentage of 6th-8th grade females who reported *ever* using marijuana



*Change from pre to posttest for SFS is significant ($p < .04$).

Compared to YRRS students, inhalant use is relatively lower for males and females across all grades. And both males and females showed a decreasing trend in 8th grade.

Results from General Linear Models

The GLM analyses assess the effect of prevention programs over the course of the program between pretest and posttest. Findings from the GLM analyses generally support the results obtained from the McNemar tests for both males and females. Among males, only marijuana achieved statistical significance but then subsequently disappeared when the model was adjusted to control for grade, ethnicity, and primary language spoken at home (see Table 11). For females, binge drinking and marijuana use were statistically significant with an unadjusted model. After adjusting the model to control for covariates, binge drinking was the only measure that continued to achieve statistical significance (see Table 12). However, these significances among males and females are towards undesirable directions, that is, marijuana use (males) and binge drinking (females) appeared to increase from pretest to posttest.

Table 11: Examining the effect of time from pretest substance use to the posttest substance use for middle school males, unadjusted and adjusted[a] model results

	Unadjusted				**Adjusted**				
Substance (unadjusted n /adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.[b]	effect size[c]	Desired Outcome
Cigarettes (363/349)	0.12	0.18	2.671	0.007	0.12	0.18	0.114	0.000	↓
Chewing Tobacco (362/348)	0.05	0.06	0.285	0.001	0.05	0.06	1.234	0.004	↓
Alcohol (348/335)	0.09	0.13	1.693	0.005	0.09	0.13	0.561	0.002	↓
Binge Drinking (347/334)	0.06	0.10	1.776	0.005	0.05	0.10	0.003	0.000	↓

	Unadjusted				Adjusted				
Substance (unadjusted n /adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.[b]	effect size[c]	Desired Outcome
Marijuana (363/347)	0.15	0.25	6.671**	0.018	0.16	0.26	0.009	0.000	↓
Any Prescription Medication Not Prescribed (364/348)	0.03	0.03	0.000	0.000	0.03	0.03	0.764	0.002	↓

[a]Model adjusted for grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
**$p \leq .01$.

Table 12: Examining the effect of time from pretest substance use to the posttest substance use for middle school females, unadjusted and adjusted[a] model results

	Unadjusted				Adjusted				
Substance (unadjusted n /adjusted n)	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Desired Outcome
Cigarettes (402/388)	0.05	0.09	2.722	0.007	0.05	0.09	0.182	0.000	↓
Chewing Tobacco (406/391)	0.00	0.01	1.472	0.004	0.00	0.01	0.13	0.000	↓
Alcohol (396/381)	0.09	0.13	3.341	0.008	0.09	0.12	0.779	0.002	↓
Binge Drinking (396/381)	0.04	0.08	3.881*	0.010	0.04	0.08	6.628**	0.017	↓
Marijuana(410/396)	0.06	0.13	14.732***	0.035	0.06	0.13	2.267	0.006	↓
Any Prescription Medication Not Prescribed (388/374)	0.03	0.02	1.000	0.003	0.03	0.02	0.379	0.001	↓

[a]Model adjusted for grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$.

There were slight decreases in perceptions of risk, parental attitudes and respondents' attitudes about substance use and increases in intentions to smoke between pretest and posttest for both males and females, which shows undesirable directions although these changes have not achieved statistical significance in the adjusted models. Such undesired changes might be contributing to the observed increase in substance use among program participants. There were small program effect sizes on parental and respondents' attitudes towards alcohol use for males, but these effect sizes disappeared with the adjusted model (see Tables 13 and 14). Similarly, a small program effect size was observed among female respondents' disapproval of alcohol use, but the effect again disappeared under the adjusted model.

Table 13: Examining the effect of time from pretest scores for perception of harm, parental approval, respondent approval and intentions to smoke to posttest scores for middle school males, unadjusted and adjusted[a] model results

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[b]	Desired Outcome
Risk of Harm Scale (371/356)	2.06	1.99	2.441	0.007	2.06	1.98	0.828	0.002	↑
Parental Attitudes toward Alcohol Use (378/362)	2.79	2.70	8.700**	0.023	2.80	2.70	0.73	0.002	↑
Respondent Attitudes toward Alcohol Use (378/362)	2.68	2.56	9.634**	0.025	2.69	2.57	0.417	0.001	↑
Intention to smoke a cigarette soon (284/272)	0.03	0.02	0.333	0.001	0.03	0.02	0.000	0.000	↓
Intention to smoke a cigarette during the next year (329/315)	0.23	0.26	1.223	0.004	0.23	0.26	1.723	0.006	↓
Intention to smoke a cigarette if offered by best friend (328/314)	0.22	0.26	1.760	0.005	0.21	0.26	3.152	0.100	↓

[a]Model adjusted for grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
**$p \leq .01$.

Table 14: Examining the effect of time from pretest scores for perception of harm, parental approval, respondent approval and intentions to smoke to posttest scores for middle school females, unadjusted and adjusted[a] model results

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Desired Outcome
Risk of Harm Scale (412/397)	2.17	2.18	0.035	0.000	2.16	2.17	2.323	0.006	↑
Parental Attitudes toward Alcohol Use (415/400)	2.82	2.77	0.098	0.007	2.81	2.77	1.750	0.004	↑
Respondent Attitudes toward Alcohol Use (416/401)	2.79	2.70	13.033***	0.030	2.78	2.69	0.864	0.002	↑
Intention to smoke a cigarette soon (339/326)	0.02	0.02	0.399	0.001	0.02	0.02	0.392	0.001	↓

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Desired Outcome
Intention to smoke a cigarette during the next year (379/366)	0.20	0.23	1.242	0.003	0.20	0.24	0.005	0.000	↓
Intention to smoke a cigarette if offered by best friend (378/365)	0.22	0.26	2.176	0.006	0.23	0.27	0.009	0.000	↓

[a]Model adjusted for grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
***$p \leq .001$.

Discussion

In the middle school sample, students were in 5th, 6th, 7th, or 8th grade. Over 50% identified as Hispanic. Among middle school males there were non-significant increases in prevalence for past 30 day cigarette, alcohol, binge drinking and marijuana. Among middle school females there were significant increases in past 30 day cigarette and marijuana use. Prescription drug use was relatively minimal for males and females despite slight increases, however, middle school students are most often reporting prescription medications that are not identifiable, as they did in FY10. It would make sense for prevention programs to collect information from participants about what "other" prescription drugs they may be taking. When looking only at respondents who reported each ATOD use at pretest (Table 9), there were some significant decreases for both males and females. Overall those who reported ATOD use at pretest do appear to be decreasing the frequency of their use at posttest (Table 9). On the other hand, the overall prevalence of use among girls who reported any ATOD use at pretest increased for cigarette and marijuana use. The increase in cigarette use among girls may indicate a need to revisit anti-smoking prevention programming as well as school policies on campus tobacco use. Decreases in smoking have been occurring for years across the country in large part to environmental prevention efforts taking place. If young, middle school girls are increasing their smoking, it is worrisome and would indicate that the normative behavior of not smoking is lapsing and need reinvigorating. The increasing use of marijuana is also quite concerning and may represent a subgroup of youth who are exposed to older youth using marijuana. Programs should share these findings with the participating schools and consider whether there might be environmental changes that could be made to decrease exposure and/or if additional attention needs to be given to addressing cigarette and marijuana use.

GLM adjusted model results showed there were no significant changes in substance use from pre to posttest among male students, which may signal that the prevention programs had delayed the generally observed trend of increasing substance use over time among middle school students. It is alarming that female students significantly increased their binge drinking and that his finding remained in the adjusted models. Underage binge drinking has been one of the main focuses of OSAP prevention programs. Programs may need to identify potential factors that specifically affect the drinking behaviors of middle school girls. In addition, perceptions of risks about substance use, parental and respondents' attitudes towards substance use remained similar,

although slightly lower from pretest to posttest. Although the direction was undesirable, these decreases were not significant once sex, age, and race/ethnicity were controlled in the models. Prevention strategies to influence people's perceptions and attitudes toward substance may need to be reinforced in the programs.

Although SFS respondents generally report less use ATOD use than YRRS youth, it is the comparison of slopes between the two samples that is most important to compare. Comparison with YRRS data indicates relatively similar patterns of increases across grades between the two different samples. This implies that these increases are developmentally normal for middle school youth in N.M. More often the slopes are less steep for the SFS sample indicating that they are increasing at a slower rate that the average N.M. student.

It appears that middle school is a prime time for youth to begin experimenting in ATOD use. There are likely many reasons for this only some of which can be addressed through a prevention program. However, delaying the age of onset leads to long term benefits, such as lower lifetime use and lower likelihood of addiction. As previously mentioned, it makes a lot of sense for local prevention providers to begin to examine the environment in which middle school students live, work and play. Access to substances at this age indicates that there are either people selling or giving youth (intentionally or unintentionally) cigarettes, alcohol, and marijuana. Even with prevention programming, if there is relatively widespread use and easy access, it becomes difficult to say no over time. Social access remains an intervening variable that communities need to target, despite recognizing that this is one factor for where there are few evidence based strategies to address. NM can play an important role in finding effective strategies to reduce social access to alcohol, tobacco, and other drugs.

Results of High School Analyses

Three prevention programs across the state provided ATOD prevention programming to 116 youth in grades 9 through 12. A total of 3 different prevention programs were used. The number of participants varied depending on whether the programs were school based or indicated, as well as the type of program[8] (see Table 15 below). This section includes all of the findings presented in tabular format and selected findings of the SFS and YRRS comparisons. Given the small sample size of the high school data, GLM analyses were not conducted.

Table 15: Distribution of high school SFS program participants by site[a]

Site	Curriculum Provided	Number of Participants	Percent of Total Participants*
Five Sandoval Pueblos	Project Venture	23	19.8
Southern New Mexico Human Development	Strengthening Families Program, Reconnecting Youth	3	2.6
Sandoval County SAP	Dare to Be You, Reconnecting Youth	90	77.6
	Total	116	100

[a]This is based on the number of pretest participants.

There were almost equal numbers of males (49.1%) and females (50%) in the total sample (see Table 16). The mean age was slightly higher for males (14.61 years) than females (14.32 years). The majority of respondents were in 9th grade (82.46% of males and 89.66% of females), followed by 11th grade (8.77% of males and 8.62% of females). High school SFS program participants were predominantly Hispanic (64.7% for males and 71.8% for females) and Native American (males 42.11% and females 44.83%). Almost half of males (47.37%) and females (55.17%) reported speaking a language other than English at home most of the time.

Table 16: Demographics for high school SFS program participants at pretest (N=116)[a]

Demographic	% SFS Program Participants Male (n=57)	% SFS Program Participants Female (n=58)
Grade		
9th grade	82.46	89.66
10th grade	5.26	0.00
11th grade	8.77	8.62
12th grade	3.51	1.72
Race/Ethnicity[b]		
White	10.52	5.17
Hispanic	45.61	48.28
Native American	42.11	44.83
Other	1.75	1.72

[8] Please note that these high school students took the SFS middle school ATOD core survey at pre and posttest rather than the SFS high school ATOD core survey.

Demographic	% SFS Program Participants Male (n=57)	% SFS Program Participants Female (n=58)
Language Other than English Spoken Most Often[cd]		
Yes	47.37	55.17

[a]This is based on the number of pretest participants. Missing data for gender : n=1.

[b]Missing data for race/ethnicity by gender : male=6 and female=3.

[c] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

[d]Missing data for language other than English by gender : female=1.

Prevalence of Substance Use

Among high school males, increases in substance use prevalence between pretest and posttest were observed for chewing tobacco, alcohol, and marijuana although not statistically significant (see Table 17). Male past 30 day cigarette, binge drinking and inhalant use all decreases slightly. Similar non-significant increases among females were found on past 30-day chewing tobacco, marijuana use and inhalant use, while cigarette, alcohol, and binge drinking either decreased slightly or remained the same.

Table 17: Past 30-day ATOD use differences from pretest to posttest for high school SFS program participants

Substances (total sample n)	**% Pretest**	**% Posttest**	**McNemar Test**	**% Pretest**	**% Posttest**	**McNemar Test**
	Male			*Female*		
Cigarettes (95)	23.91	17.39	0.82	28.57	26.53	0.14
Chewing Tobacco (94)	6.67	15.56	2.67	2.04	4.08	0.33
Alcohol (94)	40.00	46.67	0.60	44.90	42.86	0.11
Binge Drinking (94)	17.39	15.22	0.09	30.61	30.61	0.00
Marijuana (95)	36.96	39.13	0.11	40.82	48.98	1.60
Inhalants[b] (95)	4.35	2.17	0.33	12.24	20.41	4.00

[a]Dichotomous substance use variable (yes or no).

[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.

Reported prescription drug use increases between pretest and posttest for males and females overall, although none of them achieved statistical significance (see Table 18 below). Compared to the middle school students, the number of respondents reporting use of specific types of prescription drugs was fewer at pretest, for example, there were no males using Ritalin or sleep aids at pretest, and no females students used Ritalin at pretest either. It is likely that the low prevalence of prescription drug use reported at baseline contributes to the fluctuations observed between pretest and posttest. The increases in prescription drug use prevalence were not statistically significant.

Table 18: Past 30-day prescription drug-use, differences from pretest to posttest for high school SFS program participants

Substances (total sample n)	**% Pretest**	**% Posttest**	**McNemar Test**	**% Pretest**	**% Posttest**	**McNemar Test**
	Male			*Female*		
Any R_x medication not prescribed (95)	6.52	10.87	0.67	6.12	10.20	0.67
Any R_x pain pills not prescribed (94)	4.35	8.70	0.67	4.17	10.42	1.80
Any Ritalin, Adderal, or Prozac not prescribed (94)	0.00	4.35	NA	0.00	2.08	NA
Any R_x sleep aids or tranquilizers not prescribed (94)	0.00	6.52	NA	2.08	8.33	1.80
Any other medications not prescribed (94)	4.35	6.52	0.33	8.33	12.50	0.67

[a] Dichotomous substance use variable (yes or no).

Table 19 captures the average number of times the core substances were used in the past 30 days by high school SFS program participants who reported substance specific use at baseline. Cigarettes, alcohol, binge drinking and marijuana were the most commonly reported drugs for males and females. Reported use of chewing tobacco and inhalants was not as widespread among males or females. There is a significant decreasing trend from pretest to posttest in most of drug categories for females who had used ATOD at baseline. Although not significant, the pattern among high school males is not consistent and the frequency of past 30 day chewing tobacco and marijuana use increased at posttest. By comparison, depending on which drug category is in question, the trend observed among all of the participants regardless of their ATOD use at baseline can be decreasing or increasing (see Table 19).

Table 19: The average number of times in the past 30 days of substance use[a], at pretest and posttest among high school SFS program participants reporting use in each individual category at baseline

Substance (baseline, male n & female n)	**Pretest Mean**	**Posttest Mean**	**t-value**	**Pretest Mean**	**Posttest Mean**	**t-value**
	Male			*Female*		
Cigarettes (9/17)	1.56	1.00	-1.49	2.12	1.29	-2.31*
Chewing tobacco (3/1)	1.67	1.97	0.00	1.00	0.00	NA[b]
Alcohol (15/25)	1.20	1.00	-1.39	1.96	1.23	-2.88**
Binge drinking (15/25)	0.87	0.46	-1.00	1.60	0.82	-2.34*
Marijuana (16/20)	1.69	2.77	2.07	2.65	2.28	-1.14
Inhalant ever use[c] (2/7)	1.00	0.00	NA[b]	1.00	1.00	NA[b]

[a] 0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.

[b] T-test was not conducted because the standard error of the mean difference is zero.

[c] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.

*$p \leq .05$, **$p \leq .01$.

Floor effects are a common issue for most substance use prevention programs and have been described previously. In order to account for their impact, we again examined self-reported substance use at posttest among only those program participants reporting any ATOD use at pretest. For both males and females, the percentage of program participants reporting substance use at posttest decreased for cigarettes, alcohol and binge drinking (see Table 20 and Figures 17 and 18). While fewer males were using marijuana at posttest, yet they did it more frequently from 1.69 times in the past 30 days at pretest to 2.77 times at posttest (see Table 20). The percentage reporting chewing tobacco use at posttest doubled for males (113.2%) and females (148.2%), however the extremely low prevalence of chewing tobacco reported at pretest should be considered when interpreting the results. And an increase for marijuana and inhalant use was noted for females (18.5% and 77.4% respectively).

Table 20: Past 30-day ATOD use[a] prevalence at posttest among high school SFS program participants reporting any ATOD use at pretest

Substance (total respondents reporting any use at baseline, male n & female n)	**% Pretest**	**% Posttest**	**% Change**	**% Pretest**	**% Posttest**	**% Change**
	Male			***Female***		
Cigarettes (33/36)	36.36	20.00	-44.99	47.22	37.93	-19.67
Chewing Tobacco (33/36)	9.38	20.00	113.22	2.78	6.90	148.20
Alcohol (33/36)	62.50	56.67	-9.33	69.44	65.52	-5.65
Binge Drinking (33/36)	30.30	23.33	-23.00	47.22	44.83	-5.06
Marijuana (33/36)	60.61	50.00	-17.51	61.11	72.41	18.49
Inhalant ever use[b] (33/36)	6.06	3.33	-45.05	19.44	34.48	77.37

[a] Dichotomous substance use variable (yes or no).
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.

Figure 17: The percentage of male high school SFS program participants reporting substance use at posttest among only program participants reporting substance use at pretest

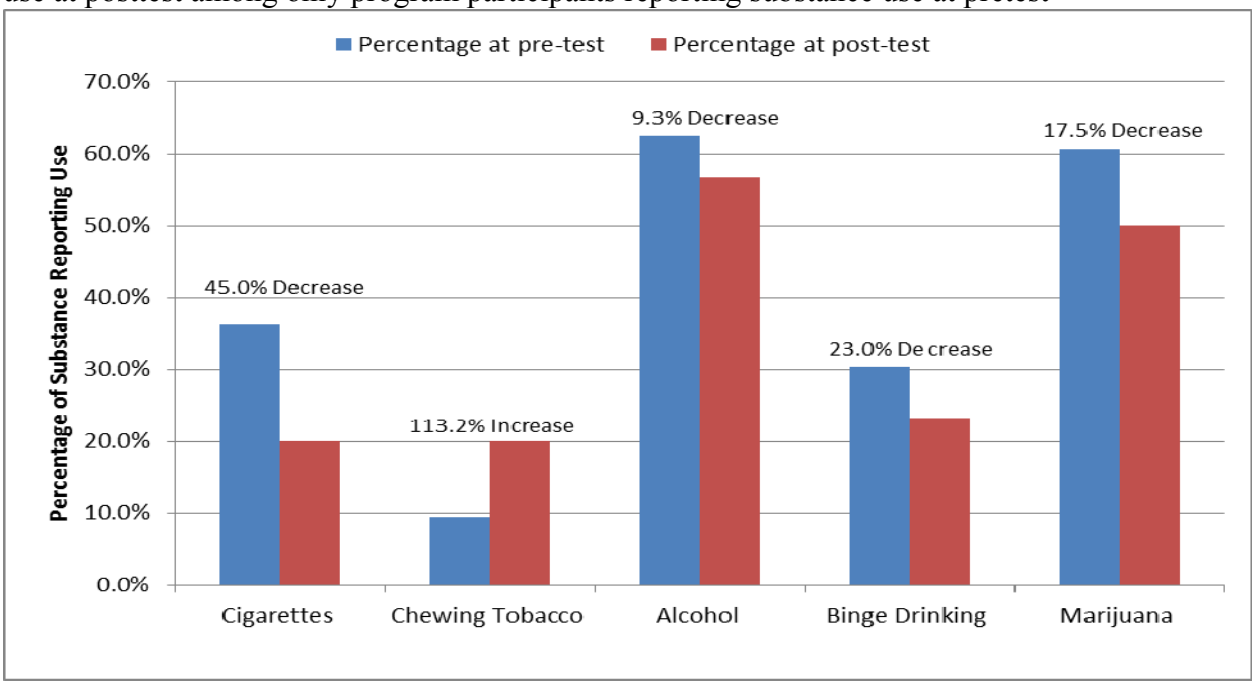
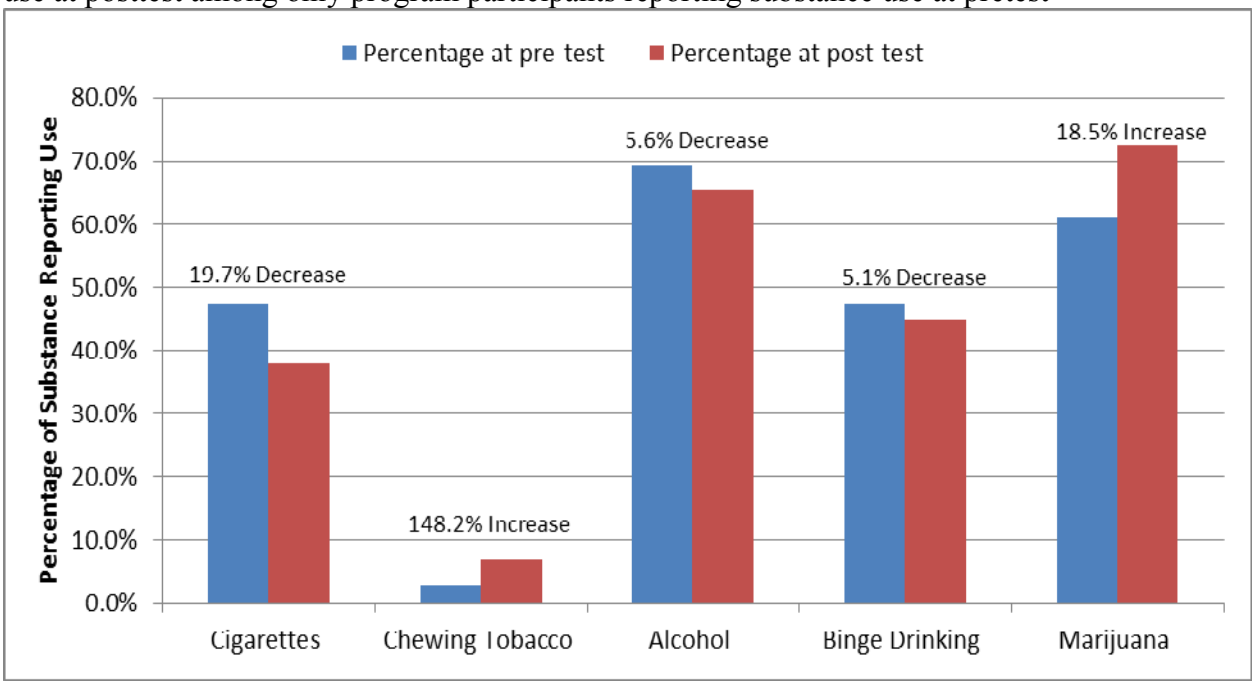


Figure 18: The percentage of female high school SFS program participants reporting substance use at posttest among only program participants reporting substance use at pretest



Discussion

During FY11, changes in ATOD use among high school students were similar to what we have found in middle school students. Findings among high school male participants were similar to patterns observed among middle school male participants for three of the six core substance use measures (non-significant increases in alcohol, and marijuana, and decrease in inhalant use). Compared to middle school girls, high school females decreased cigarette use prevalence at posttest, yet the prevalence among high school girls is much higher than among middle school girls. Middle school girls significantly increased marijuana use and high school girls showed a similar increasing trend in both chewing tobacco and marijuana use though neither reaches the significance level yet. When examining these results, it is important to keep in mind that the overall actual number of respondents in 10^{th}, 11^{th} and 12 grades was very small, which means that findings are less representative of high school students and should be considered with some caution.

Reported prevalence of ATOD use among high school students was at least twice the prevalence reported for middle school students among both males and females for the six core substance use measures at both pretest and posttest.

Hispanic & Native American Middle School Participants

Background

The diverse population of New Mexico is reflected in the demographics of the SFS program participants. At the local level, there is a particular interest in examining the outcomes of two subgroups: Native American and Hispanic adolescents. These separate analyses are important since there are few studies focusing on drug prevention for minority and rural youth.

Methods

The middle school SFS dataset was sufficiently large enough to examine unique differences in two subgroups: Hispanic and Native American youth. Demographic information was collected as part of the SFS survey instrument; respondents were allowed to choose more than one race/ethnicity when completing the survey, although PIRE ultimately developed a hierarchy to code the race/ethnicity data so that it would be meaningful at the state and local level. First, a filter was applied to the dataset to pull out all respondents coded as Hispanic (subcategories included Mexican/Mexican American/Chicano, Spanish, Central American, South American, Puerto Rican, Cuban, and Other) and analyses were run on that subgroup. The analyses were analogous to the total sample analyses and included univariate statistics, demographic frequencies, descriptive statistics, paired t-test analysis, and GLM. Similarly, a filter was applied to pull out all respondents coded as Native American (subcategories included Pueblo, Navajo, Apache, and Other) and the analyses were replicated.

Results for Hispanic Middle School Students

Surveys were completed by 487 middle school program participants who self-identified as Hispanic, including the subcategories of Mexican/Mexican American/Chicano, Spanish, Central American, South American, Puerto Rican, Cuban, and Other. Of the Hispanic participants, 44.1% were male and 55.9% were female. The average age for male participants was 11.9 years old and the average age for female participants was 11.6 years old. More than half of both males (53.0%) and females (57.7%) lived in homes where a language other than English was spoken. Table 21 provides the breakdown of the sample by demographics.

Table 21: Demographics for middle school Hispanic SFS program participants (n=487)[a]

Demographic	% SFS Program Participants Male (n=215)	% SFS Program Participants Female (n=272)
Grade		
5th grade	18.60	24.63
6th grade	33.95	31.25
7th grade	29.77	24.63
8th grade	17.67	19.49
Language Other than English Spoken Most Often[bc]	53.02	57.72

[a]Missing data for gender : n=1.
[b] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.
[c]Missing data for language other than English by gender : male=5 and female=3.

Overall, substance use among both male and female Middle School Hispanic SFS Program participants increased from pretest to posttest. The largest increases were observed among females. Past 30 day cigarette use increased from 2.01% to 5.22%, and past 30 day marijuana use increased from 3.19% to 6.77%, both prevalence rates doubled at posttest and the increases have reached statistical significance. For males, a trend of non-significant increase was found for every substance category. (See Table 22 for details.) Generally very few Hispanic middle school youth reported abusing prescription medications and the only significant increase in use were found prescribed medication for males at posttest (see Table 23).

Table 22: Past 30-day ATOD use[a] differences from pretest to posttest for middle school Hispanic SFS program participants

Substance (total sample n)	**% Pretest**	**% Posttest**	**McNemar Test**	**% Pretest**	**% Posttest**	**McNemar Test**
	Male			***Female***		
Cigarettes (442)	4.66	7.77	3.00	2.01	5.22	6.40*
Chewing Tobacco (443)	1.56	3.13	1.29	NA	0.40	NA
Alcohol (444)	8.25	9.79	0.43	7.20	6.80	0.08
Binge Drinking (444)	5.18	8.81	2.88	2.81	3.21	0.08
Marijuana (443)	8.33	10.42	1.14	3.19	6.77	7.36**
Inhalant ever use[b] (444)	5.70	6.22	0.05	7.57	7.17	0.11

[a] Dichotomous substance use variable (yes or no).
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.
*$p \leq .05$, **$p \leq .01$.

Table 23: Past 30-day prescription drug use[a], differences from pretest to posttest for middle school Hispanic SFS program participants

Substance (total sample n)	% Pretest	% Posttest	McNemar Test	% Pretest	% Posttest	McNemar Test
	Male			*Female*		
Any prescription medication not prescribed (443)	1.55	4.66	4.50*	2.80	4.00	0.82
Any prescription pain pills not prescribed (438)	NA	5.24	NA	3.64	3.24	0.07
Any Ritalin, Adderal, or Prozac not prescribed (437)	2.63	3.16	0.11	1.21	1.62	0.14
Any pres sleep aids or tranquilizers not prescribed (435)	0.53	2.63	2.67	4.08	2.45	2.67
Any other medications not prescribed (437)	2.63	2.63	0.00	5.67	3.64	1.92

[a] Dichotomous substance use variable (yes or no).
*$p \leq .05$.

When only those participants who report baseline substance specific ATOD use are examined, we find some significant decreases in the frequency of use. Among middle school Hispanic males who reported use at baseline, the frequency of ever using inhalants decreased significantly. Among females, the reported frequency of inhalant ever use decreased significantly, yet marijuana use increased significantly. Again care should be taken about these changes in inhalant ever use. Non-significant decreases were found for males in the frequency of alcohol and binge drinking, and there was a non-significant increase in the frequency of past 30 day marijuana use. Among females, there were non-significant decreases in the frequency of past 30 day smoking, drinking, and a non-significant increase in the frequency of past 30 day binge drinking. (see Table 24 for details.)

Table 24: The average number of times in the past 30 days of substance use[a], at pretest and posttest among middle school Hispanic SFS program participants who reported substance specific use at baseline

Substance (Respondents reporting use at baseline, male n & female n)	**Pre-test Mean**	**Post-test Mean**	**t-value**	**Pre-test Mean**	**Post-test Mean**	**t-value**	**Desired Outcome**
	Male			*Female*			
Cigarettes (8/6)	1.75	2.13	1.16	2.00	1.40	-0.69	⇩
Chewing tobacco (3/0)	1.00	2.00	0.50	NA	NA	NA	⇩
Alcohol (14/20)	1.50	1.08	-0.28	1.45	1.44	-0.14	⇩
Binge drinking (14/20)	1.07	0.92	0.25	0.35	0.56	1.10	⇩
Marijuana (17/10)	2.06	2.36	0.72	2.30	3.13	2.83*	⇩
Inhalant ever use [b] (11/23)	1.00	0.18	-6.71***	1.00	0.74	-2.54*	⇔

[a]0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.
*$p \leq .05$, ***$p \leq .001$.

Table 25 presents the change in the prevalence of ATOD use among those who report any ATOD use at pretest. We find that Hispanic males in middle school who reported any ATOD use a baseline decrease their prevalence of use in almost every substance except for past 30 day cigarette use. In addition, female ATOD users at pretest increase their past 30 day cigarette and marijuana use, but decrease alcohol use, and binge drinking. Figures 19 and 20 below visually represent the data in Table 25.

Table 25: Past 30-day ATOD use[a] at posttest among those middle school Hispanic SFS program participants reporting any ATOD use at pretest

Substance (total respondents reporting any use at baseline, male n & female n)	**% Pretest**	**% Posttest**	**% Change**	**% Pretest**	**% Posttest**	**% Change**
	Male			***Female***		
Cigarettes (37/37)	27.03	32.35	19.68	16.22	31.25	92.66
Chewing Tobacco (37/37)	8.11	5.88	-27.50	0.00	0.00	0.00
Alcohol (37/37)	45.95	35.29	-23.20	59.46	42.42	-28.66
Binge Drinking (37/37)	32.43	26.47	-18.38	24.32	21.21	-12.79
Marijuana (37/37)	52.78	44.12	-16.41	29.73	36.36	22.30
Inhalant lifetime use[b] (37/37)	29.73	20.59	-30.74	62.16	48.48	-22.01

[a] Dichotomous substance use variable (yes or no).
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.

Figure 19: Percent of male middle school Hispanic SFS program participants reporting substance use at posttest among only program participants reporting substance use at pretest

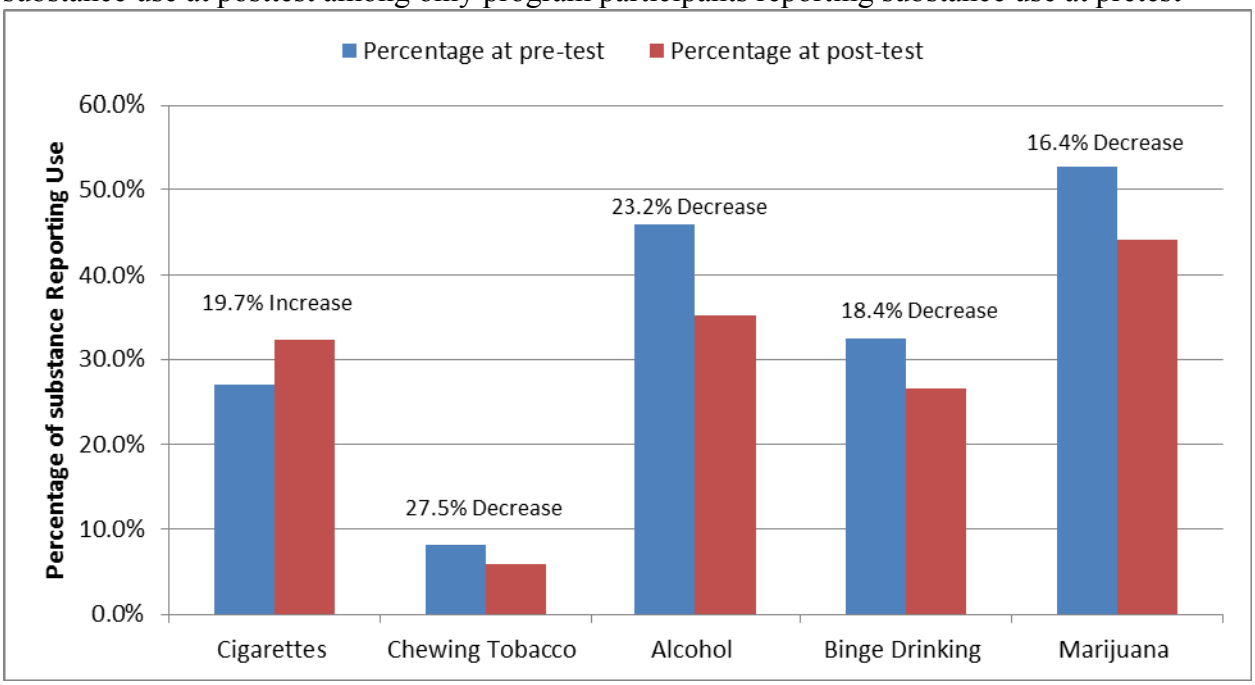
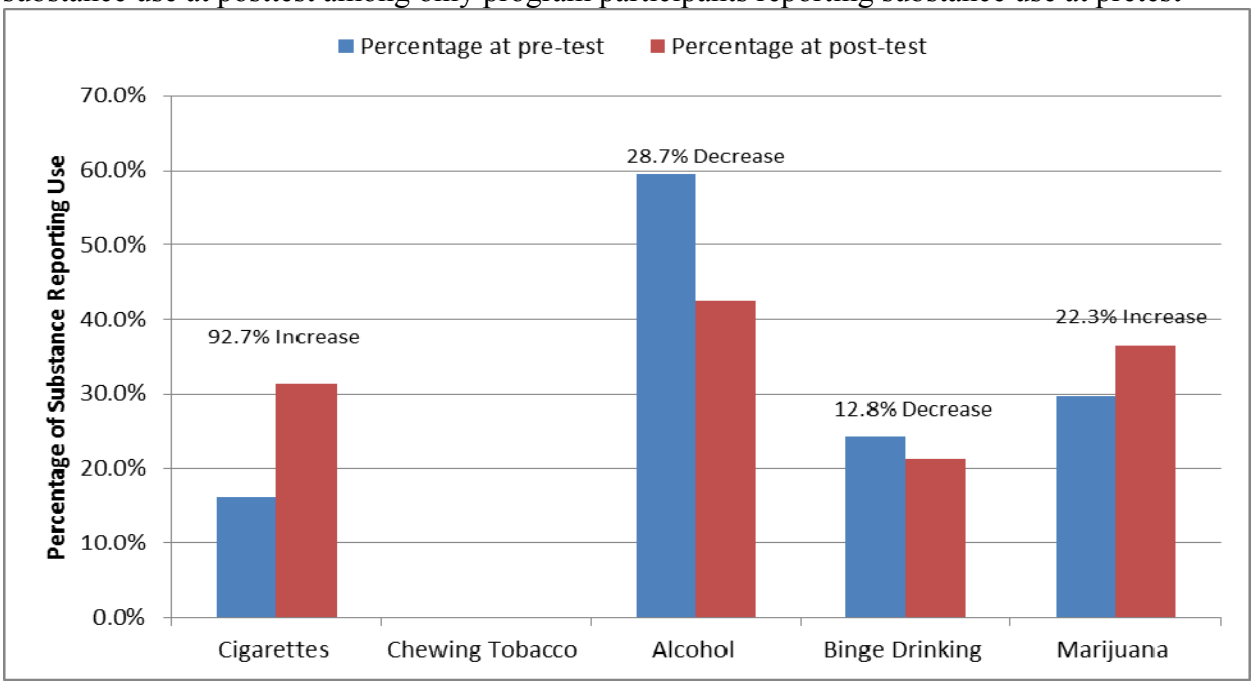


Figure 20: Percent of female middle school Hispanic SFS program participants reporting substance use at posttest among only program participants reporting substance use at pretest



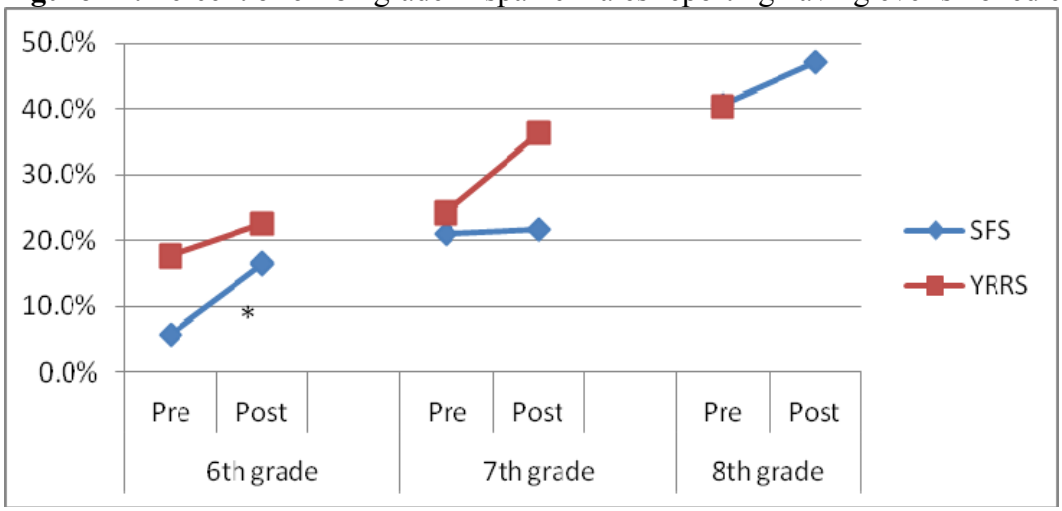
Middle School SFS Hispanic Subpopulation Compared with Middle School YRRS Hispanic Subpopulation

Tobacco use (Hispanic students, grades 6th-8th)

In this section, we compare the prevalence of ATOD use among male and female Hispanic Middle school students in OSAP funded prevention programming and male and female Hispanic middle school students in the NM YRRS sample, which is weighted to reflect the typical student Hispanic middle school student. As we know from the results presented above, both males and females generally increased their ATOD use. Yet, it helps to see if these increases are also occurring among a representative sample of Hispanic middle school students and if the increases are relatively similar or differ in how steep the increase is.[9]

In Figure 21 and 22 below we can see that males in sixth grade and females in seventh grade reported a significant increase in having ever smoked from pre to posttest. Compared to the YRRS sample, it appears that the prevalence rates for SFS sixth graders (males and females) are lower. And SFS seventh and eighth graders followed a different path in life time cigarette use across genders, that is, boys remained almost unchanged at seventh grade then increased at eighth grade, and girls continued to increase from seventh to eighth grade (Figure 21 & 22). The patterns in past 30-day cigarette use are similar to life time cigarette use in the SFS and YRRS samples increasing across grades.

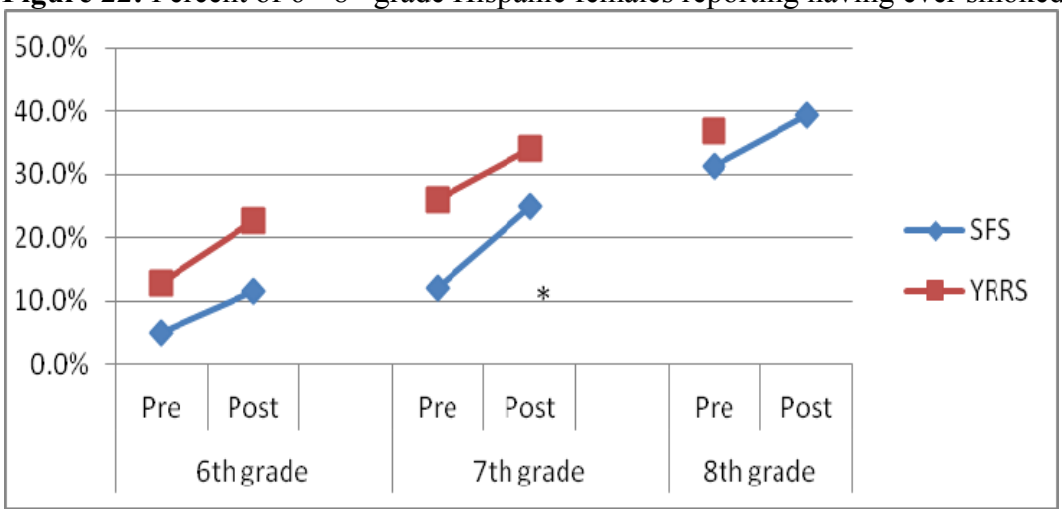
Figure 21: Percent of 6th-8th grade Hispanic males reporting having ever smoked cigarettes



*Change from pre to posttest for SFS is significant ($p < .02$).

[9] Graphs not shown in text are available upon request.

Figure 22: Percent of 6th-8th grade Hispanic females reporting having ever smoked cigarettes



*Change from pre to posttest for SFS is significant ($p < .02$).

Alcohol use (Hispanic students, grades 6th-8th)

When we compare the SFS sample to the YRRS sample on ever having drunk alcohol, we can easily see that the prevalence of ever having drunk alcohol increases rapidly among the female Hispanic SFS samples at seventh grade (see Figures 23 & 24).

Figure 23: Percentage of 6th-8th grade Hispanic males who report ever drinking alcohol

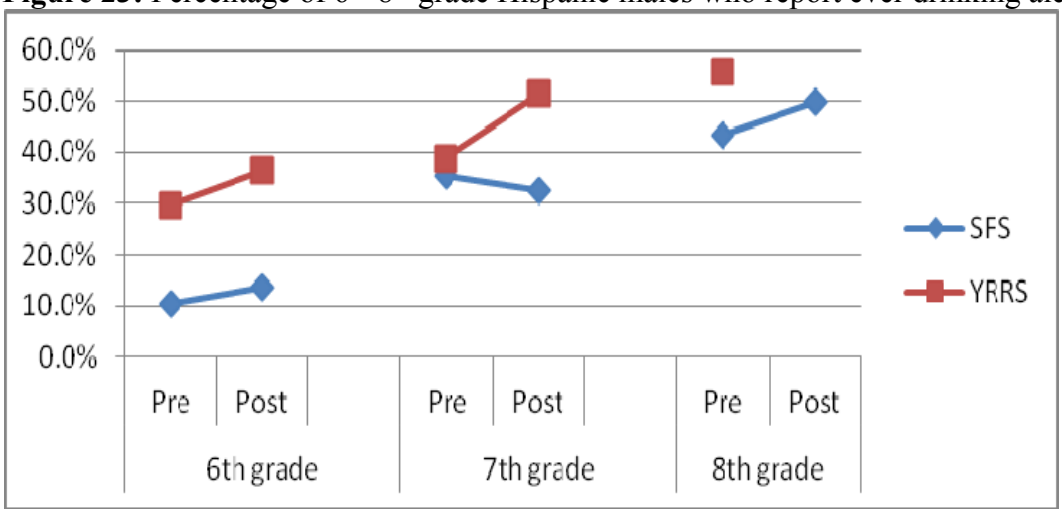
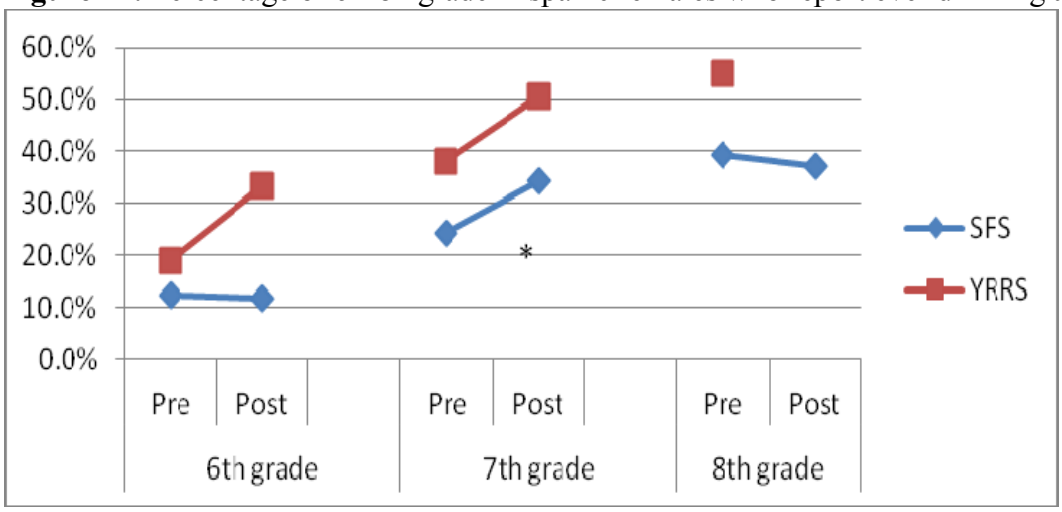


Figure 24: Percentage of 6th-8th grade Hispanic females who report ever drinking alcohol



*Change from pre to posttest for SFS is significant ($p < .04$).

The patterns for past 30-day drinking and binge drinking are different for SFS Hispanic males and females. Among females, there are slight increase from pre to posttest within each grade for past 30 day drinking, and slight decreases in past 30 day binge drinking (Figures 25 & 26), but none of changes are significant, whereas males tended to increase in both measures. It is observed that the YRRS sample of Hispanic Middle School females increased faster in both measures.

Figure 25: Percentage of 6th-8th grade Hispanic females who report drinking alcohol in the past 30 days

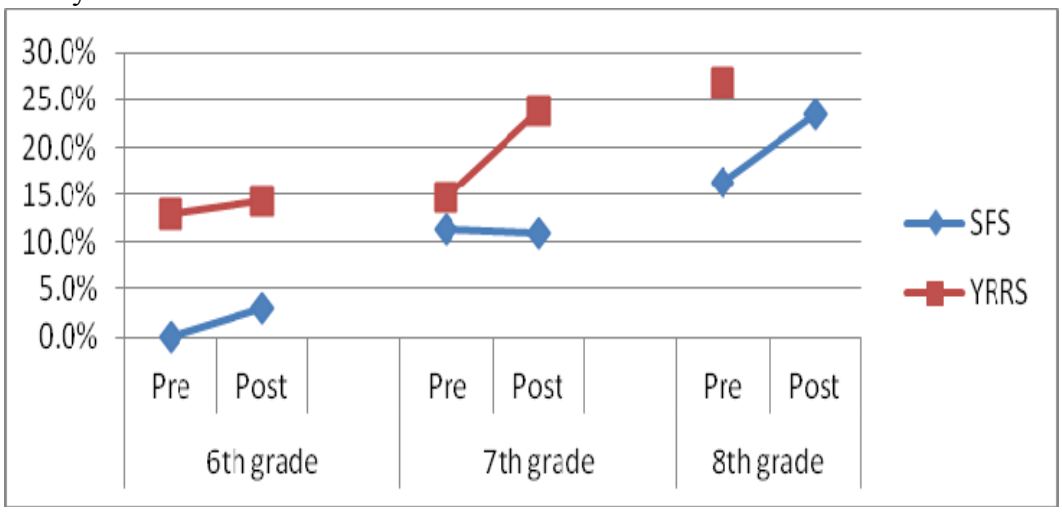
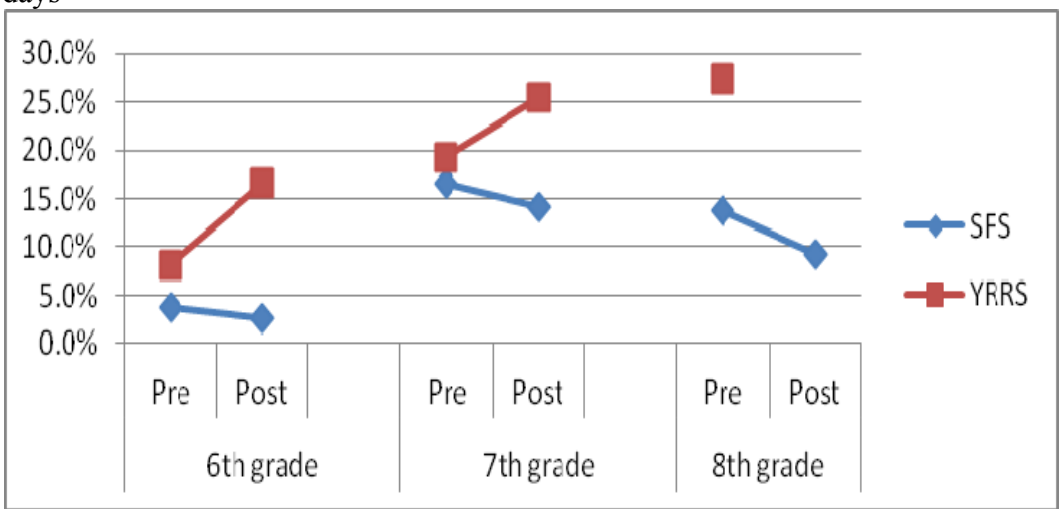


Figure 26: Percentage of 6th-8th grade Hispanic females who report binge drinking in the past 30 days



Drug use (Hispanic students, grades 6th-8th)

Among Hispanic Middle School females there is a sharp increase among 7th graders in self-reporting lifetime marijuana use. It is equally steep as the YRRS sample (Figure 28). The prevalence rate of lifetime marijuana use in the Hispanic SFS males appeared to be stable across grades, whereas the YRRS sample increases over time (Figure 27).

Figure 27: Percentage of 6th-8th grade Hispanic males who report ever using marijuana

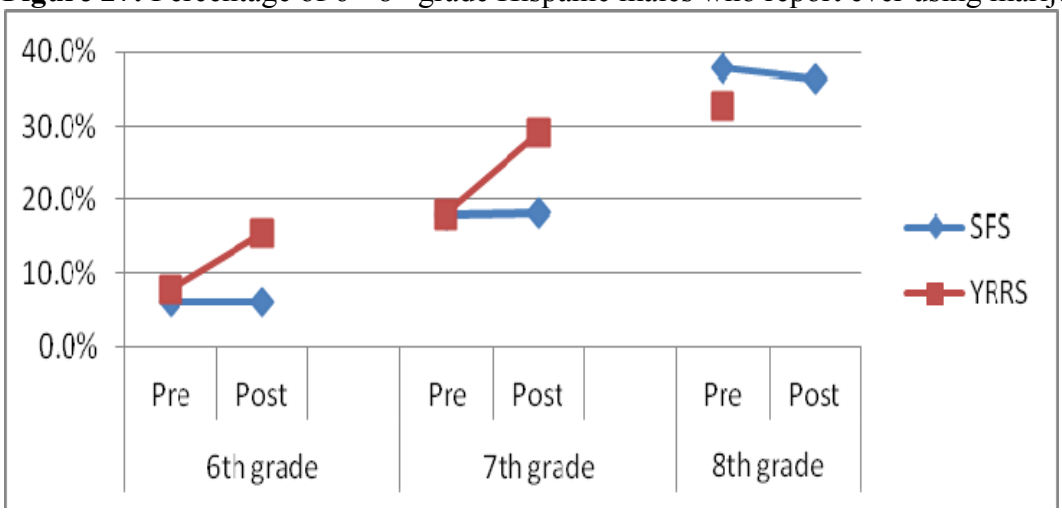
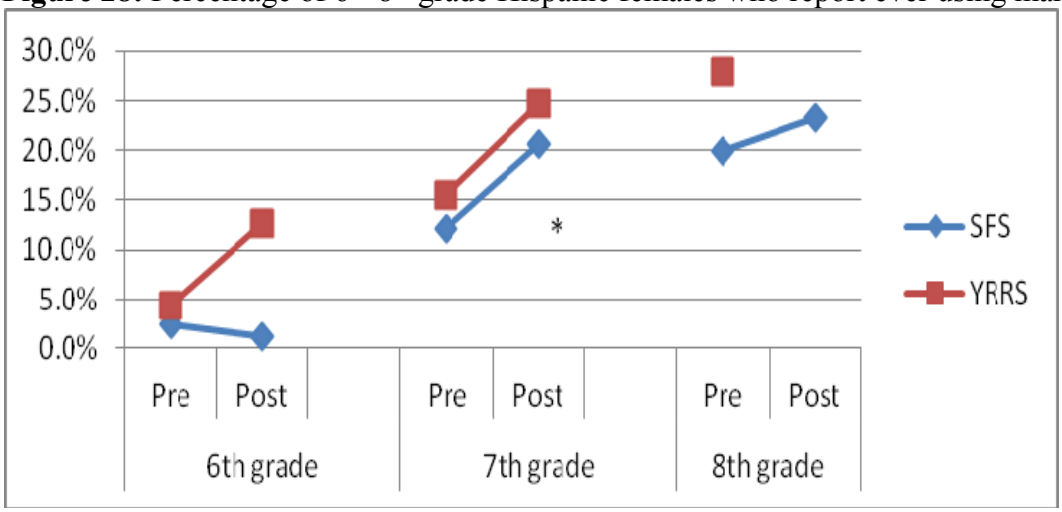


Figure 28: Percentage of 6th-8th grade Hispanic females who report ever using marijuana



*Change from pre to posttest for SFS is significant ($p < .03$).

There are again increases in self-reported past 30 day marijuana use in 7th grade for males (Figure 29) and in 6th and 7th grades for females (Figure 30). However, not all these increases are statistically significant nor are they generally as steep as increases among the YRRS sample. The significant increase in marijuana use was found among female 7th grade students.

Figure 29: Percentage of 6th-8th grade Hispanic males who report using marijuana in the past 30 days

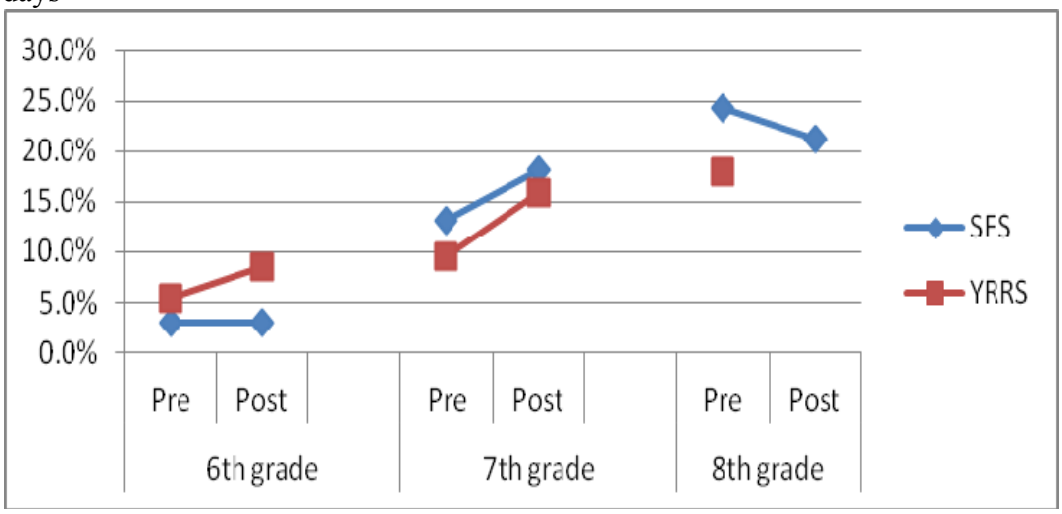
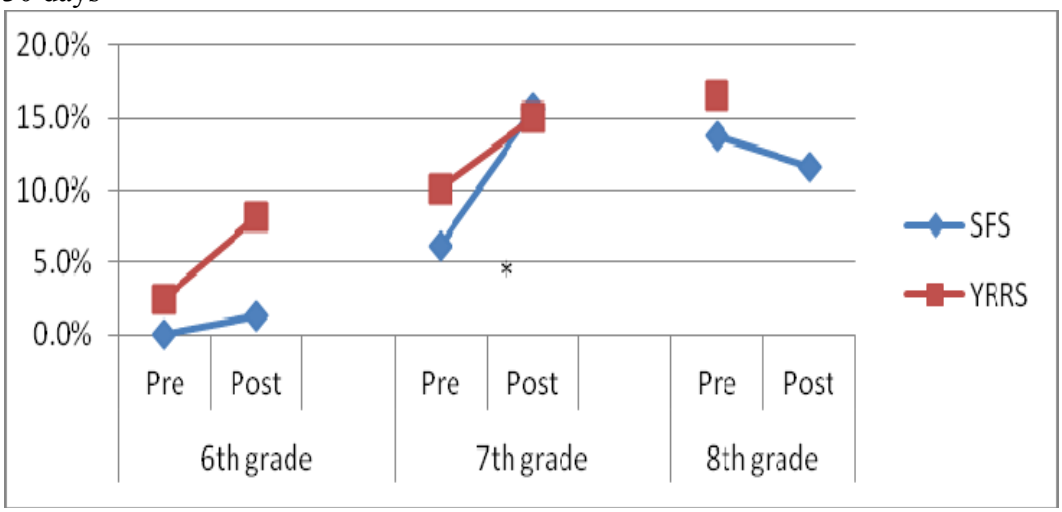


Figure 30: Percentage of 6th-8th grade Hispanic females who report using marijuana in the past 30 days



*Change from pre to posttest for SFS is significant ($p < .03$).

General Linear Models

The unadjusted GLMs on Hispanic males support results obtained from the McNemar tests and the paired t-test analysis. Significant changes were found in the unadjusted model for past 30 day cigarette use and marijuana use. However, in the model adjusted for the influences of grade and language spoken at home, these changes lost their significance (See Table 26.)

Table 26: Examining the effect of time from pretest substance use to the posttest substance use for male middle school Hispanic students, unadjusted and adjusted§ model results

	Unadjusted				**Adjusted**				
Substance (unadjusted n /adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.[b]	effect size[c]	Base-line Mean	Post-test Mean	F-test & sig.[b]	effect size[c]	Desired Outcome
Cigarettes (188/184)	0.06	0.02	6.440*	0.012	0.07	0.20	0.984	0.005	↓
Chewing Tobacco (187/183)	0.01	0.06	2.474	0.013	0.01	0.06	0.060	0	↓
Alcohol (179/174)	0.09	0.17	2.144	0.012	0.09	0.17	1.708	0.01	↓
Binge Drinking (179/174)	0.06	0.15	2.482	0.014	0.05	0.16	0.001	0	↓
Marijuana (184/179)	0.15	0.30	5.799*	0.031	0.16	0.31	0.266	0.002	↓
Any Prescription Medication Not Prescribed(186/181)	0.02	0.04	3.622	0.019	0.02	0.04	2.284	0.013	↓

§ Adjusted for grade and language spoken at home.

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.

*$p \leq .05$.

Among Hispanic females in middle school, in the unadjusted model a significant increase was seen for past 30 day marijuana use. After adjusting for the effects of grade and language spoken at home, there was a significant increase in binge drinking from to post-test (see Table 27).

Table 27: Examining the effect of time from pretest substance use to the posttest substance use for female middle school Hispanic students, unadjusted and adjusted[§] model results

	Unadjusted				Adjusted				
Substance (unadjusted n /adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.[b]	effect size[c]	Base-line Mean	Post-test Mean	F-test & sig.[b]	effect size[c]	Desired Outcome
Cigarettes (245/244)	0.04	0.09	1.575	0.006	0.05	0.09	0.045	0.000	↓
Chewing Tobacco (248/247)	0.00	0.02	1.000	0.004	0	0.02	0.057	0.000	↓
Alcohol (236/235)	0.1	0.14	1.110	0.005	0.1	0.14	0.232	0.001	↓
Binge Drinking (235/234)	0.03	0.08	1.729	0.007	0.03	0.08	5.242*	0.022	↓
Marijuana (249/248)	0.07	0.16	11.462***	0.044	0.07	0.16	2.971	0.012	↓
Any Prescription Medication Not Prescribed (230/239)	0.03	0.04	0.399	0.002	0.03	0.04	0.091	0.000	↓

§ Adjusted for grade and language spoken at home.

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.

*$p \leq .05$, ***$p \leq .001$.

Among Hispanic males, most of the measures of perceptions of risk and attitudes towards substance in the core module showed little significant change from pretest to posttest. In the unadjusted model, two measures worsened over time. Male respondents' attitudes and their parental attitudes toward alcohol use became more tolerant over time. The parental attitudes stayed significantly worse after adjusting for the influence of grade and language spoken at home (see Table 28).

Table 28: : Examining the effect of time from pretest scores for perception of harm, parental approval, respondent approval and intentions to smoke to posttest scores for male middle school Hispanic students, unadjusted and adjusted[§] model results

	Unadjusted				**Adjusted**				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Desired Outcome
Risk of Harm Scale (188/184)	1.98	1.88	2.741	0.014	1.99	1.89	0.402	0.002	↑
Parental Attitudes toward Alcohol Use (192/187)	2.76	2.63	7.432**	0.037	2.76	2.64	3.836*	0.020	↑

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Desired Outcome
Respondent Attitudes toward Alcohol Use (192/187)	2.65	2.45	11.181**	0.055	2.65	2.48	1.536	0.008	↑
Intention to smoke a cigarette soon(146/143)	0.03	0.02	0.665	0.005	0.04	0.02	0.422	0.003	↓
Intention to smoke a cigarette during the next year (175/171)	0.29	0.3	0.055	0.000	0.29	0.3	5.781*	0.033	↓
Intention to smoke a cigarette if offered by best friend (175/171)	0.25	0.28	0.489	0.003	0.25	0.27	0.632	0.004	↓

[§] Adjusted for grade and language spoken at home.

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.

*$p \leq .05$, **$p \leq .01$.

Alternatively, the unadjusted model with Hispanic middle school females showed significant changes in undesired directions for their perception of parental attitudes towards alcohol use. In the GLM model adjusting for the effects of grade and language spoken at home on the measures, the parental attitudes to alcohol lost significance (see Table 29).

Table 29: Examining the effect of time from pretest scores for perception of harm, parental approval, respondent approval and intentions to smoke to posttest scores for female middle school Hispanic students, unadjusted and adjusted[§] model results

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Desired Outcome
Risk of Harm Scale (248/247)	2.16	2.14	0.173	0.001	2.16	2.14	1.055	0.004	↑
Parental Attitudes toward Alcohol Use (251/250)	2.78	2.72	2.153	0.009	2.78	2.72	2.615	0.010	↑
Respondent Attitudes toward Alcohol Use (250/249)	2.75	2.64	9.657**	0.037	2.75	2.63	0.062	0.000	↑
Intention to smoke a cigarette soon (213/212)	0.02	0.02	0.499	0.002	0.02	0.03	0.064	0.000	↓
Intention to smoke a cigarette during the next year (232/231)	0.22	0.23	0.012	0.000	0.23	0.23	0.011	0.000	↓

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[c]	Desired Outcome
Intention to smoke a cigarette if offered by best friend (231/230)	0.23	0.26	0.619	0.003	0.23	0.27	0.084	0.000	↓

[§] Adjusted for grade and language spoken at home.

[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.

**$p \leq .01$.

Discussion

In FY11, there were some significant increases for sixth grade male students in lifetime cigarette use and for 7th grade female students in lifetime cigarette/alcohol/marijuana use. There appears to be some experimentation in the middle school Hispanic subsamples, while in FY 10 such experimentation was more commonly indicated by the sharp increases in the prevalence of having ever used alcohol, tobacco and other drugs among boys and girls.. When examining bivariate analyses, females in particular seem to be at considerable risk, as they were in FY10. But Hispanic SFS middle school students, regardless of gender, generally reported lower prevalence rates of ATOD use than their counterparts in the YRRS sample, and the slope of the increases of SFS students seems less steep.

While these results are rather alarming when taken at face value, it is very important to keep in mind that ATOD use still occurs only among a minority of students. Furthermore, when examining the GLM results for past 30 day ATOD use, keep in mind that the means should range only between 0 and 1, 0 representing those who did not report use, and 1 for those who did. A value of .5 would indicate half of the sample responded positively to using the substance. Most means however, fall well below .5 and none are greater than .2. For the models examining the protective factors, average responses also fall very near to the most desired response. Although it has been discussed before in this report, it is important to acknowledge once again that we are most likely seeing the result of floor and ceiling effects. Certainly that is not always the case, but it should be kept in mind.

Thought should be given as to why the females are continuing to show such strong increases in the prevalence of marijuana use, and for this year particularly, cigarette use. Examining what is going on in these girls lives and who they are spending time with will be important in attempting to understand what is influencing their behavior. We would recommend that if local evaluators have the time and/or inclination, conducting focus groups with the young women might yield some important insights as to why we are seeing these increases and could inform prevention efforts.

Results for Native American Middle School Participants

Surveys were completed by 259 middle school Native American program participants. Slightly more of the respondents were female (54.1%) than male (45.9%) and the average age was 11.7 years old for males and 11.4 years old for females. Most of students are in 5th and 6th grades (63.0% of males and 75.8% of females). Similar to their Hispanic peers, more than half of Native American students (56.3% of males and 60.0% of females) lived in homes where a language other than English was spoken (see Table 30.)

Table 30: Demographics for Native American middle school SFS program participants (n=259)

Demographic	% SFS Program Participants Male (n=119)	% SFS Program Participants Female (n=140)
Grade		
5th grade	37.82	43.33
6th grade	25.21	32.50
7th grade	11.76	9.17
8th grade	25.21	15.00
Language Other than English Spoken Most Often[ab]		
	56.30	60.00

[a] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.
[b]Missing data for language other than English by gender: female=2.

Among Native American middle school males there was one statistically significant pre- to posttest decrease for past 30 day chewing tobacco use and favorable trends were observed for cigarette, alcohol, binge drinking and inhalant ever use (see Table 31). Among Native American females, substance use prevalence remained unchanged between pretest and posttest for alcohol use and binge drinking. Like Hispanic girls, Native American girls increased their cigarette use and marijuana use, although the findings were not statistically significant (see Table 31).

Table 31: Past 30-day ATOD use[a] differences[b] from pretest to posttest for middle school Native American SFS program participants

Substance (Total sample n)	% Pretest	% Posttest	McNemar Test	% Pretest	% Posttest	McNemar Test
	Male			*Female*		
Cigarettes (214)	15.45	12.73	0.47	6.73	8.65	0.50
Chewing Tobacco (214)	5.45	1.82	4.00*	0.00	0.96	NA
Alcohol (214)	9.09	6.36	1.29	6.80	6.80	0.00
Binge Drinking (214)	4.59	2.75	0.67	1.92	1.92	0.00
Marijuana (214)	14.55	15.45	0.11	3.85	4.81	0.33
Inhalant ever use[b] (213)	10.00	7.27	1.80	6.80	4.85	0.67

[a] Dichotomous substance use variable (yes or no).
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.
*$p \leq .05$.

Native American males significantly reduced prescribe medication use at posttest and favorable trends were observed on other prescription drug use measures although none of the pre- to posttest differences were statistically significant (see Table 32). Among females, there was no reported use of Ritalin, Adderal or Prozac or sleep aids at pre and posttest. Females stopped using any type of not prescribed medication at posttest as well.

Table 32: Past 30-day prescription drug use[a], differences[b] from pretest to posttest for middle school Native American SFS program participants

Substance (total sample n)	% Pretest	% Posttest	McNemar Test	% Pretest	% Posttest	McNemar Test
	Male			*Female*		
Any prescription medication not prescribed (214)	5.45	0.91	5.00*	2.88	0.00	NA
Any prescription pain pills not prescribed (212)	2.78	1.85	1.00	0.96	0.00	NA
Any Ritalin, Adderal, or Prozac not prescribed (212)	0.93	0.00	NA	0.00	0.00	NA
Any pres sleep aids or tranquilizers not prescribed (211)	1.85	0.00	NA	0.00	0.00	NA
Any other medications not prescribed (211)	6.48	2.78	2.00	3.88	0.00	NA

[a] Dichotomous substance use variable (yes or no).
*$p \leq .05$.

The frequency of self-reported ATOD use in the past 30 days generally decreased among Native American males and females who reported substance specific use at baseline. Significant

decreases were seen for males for past 30 day cigarette use and lifetime inhalant use, and for females in lifetime inhalant use (see Table 33.)

Table 33: The average number of times in the past 30 days of substance use[a], at pretest and posttest among middle school Native American SFS program participants who reported substance specific use at baseline

Substance (Respondents reporting use at baseline, male n & female n)	**Pre-test Mean**	**Post-test Mean**	**t-value**	**Pre-test Mean**	**Post-test Mean**	**t-value**	**Desired Outcome**
	Male			*Female*			
Cigarettes(15/4)	1.93	0.57	-3.80**	2.00	2.33	NA[b]	↓
Chewing tobacco (6/0)	2.00	1.00	-1.94	NA	NA	NA	↓
Alcohol (6/7)	1.50	0.67	-1.27	1.00	1.17	0.54	↓
Binge drinking (6/7)	0.33	0.17	-0.54	0.57	0.33	0.00	↓
Marijuana (14/4)	1.57	1.64	0.19	1.25	1.33	0.00	↓
Inhalant ever use[c] (11/8)	1.00	0.64	-2.39*	1.00	0.43	-2.83*	↓

[a]0=0 times, 1=1 or 2 times, 2=3 to 9 times, 3=10 to 19 times, 4=20 to 39 times, 5=40 or more times.
[b]Unable to perform t-test due to zero standard error.
[c] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.
*$p \leq .05$, **$p \leq .01$.

Trends for substance use among youth reporting any current use at baseline were positive for both Native American males and females with relatively sharp decreases in the prevalence of almost every core substance (see Table 34). One exception is that females indicated chewing tobacco use at posttest, whereas they did not try it at pretest.

Table 34: Past 30-day ATOD use[a] at posttest among middle school Native American SFS program participants reporting ATOD use at pretest

Substance (total respondents reporting any use at baseline, male n & female n)	**% Pretest**	**% Posttest**	**% Change**	**% Pretest**	**% Posttest**	**% Change**
	Male			Female		
Cigarettes (34/19)	52.94	25.00	-52.78	42.11	35.29	-16.20
Chewing Tobacco (34/19)	17.65	6.25	-65.59	0.00	5.88	NA
Alcohol (34/19)	29.41	18.75	-36.25	42.11	29.41	-30.16
Binge Drinking (34/19)	14.71	6.25	-57.51	15.79	5.88	-62.76
Marijuana (34/19)	47.06	40.63	-13.66	26.32	23.53	-10.60
Inhalant ever use[b] (34/19)	32.35	21.88	-32.37	42.11	17.65	-58.09

[a] Dichotomous substance use variable (yes or no).
[b] Decreases at posttest may indicate inconsistent reporting from pretest to posttest.

Figures 31 & 32 that follow, graphically display the changes in prevalence from pretest to posttest for males and then females. As previously mentioned, males who reported any ATOD

use at baseline decreased in their self-reported use, whereas Native American females displayed the similar trend except for chewing tobacco.

Figure 31: Percent of male middle school Native American SFS program participants reporting substance use at posttest among only program participants reporting substance use at pretest

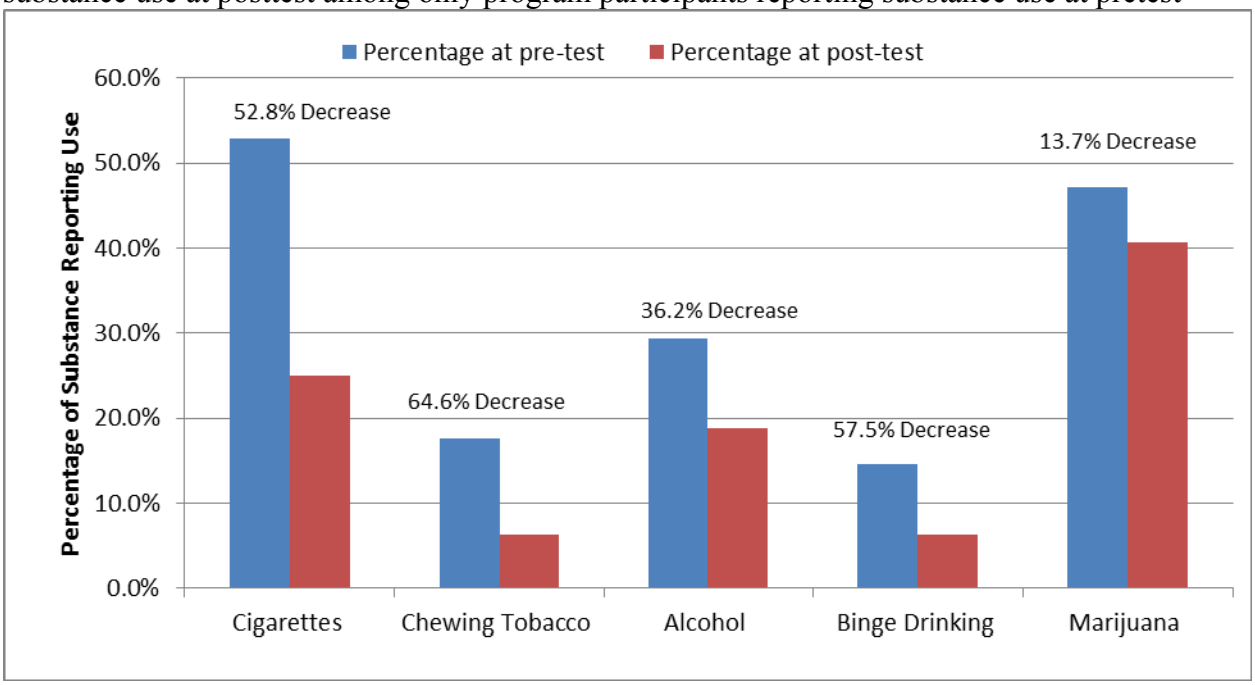
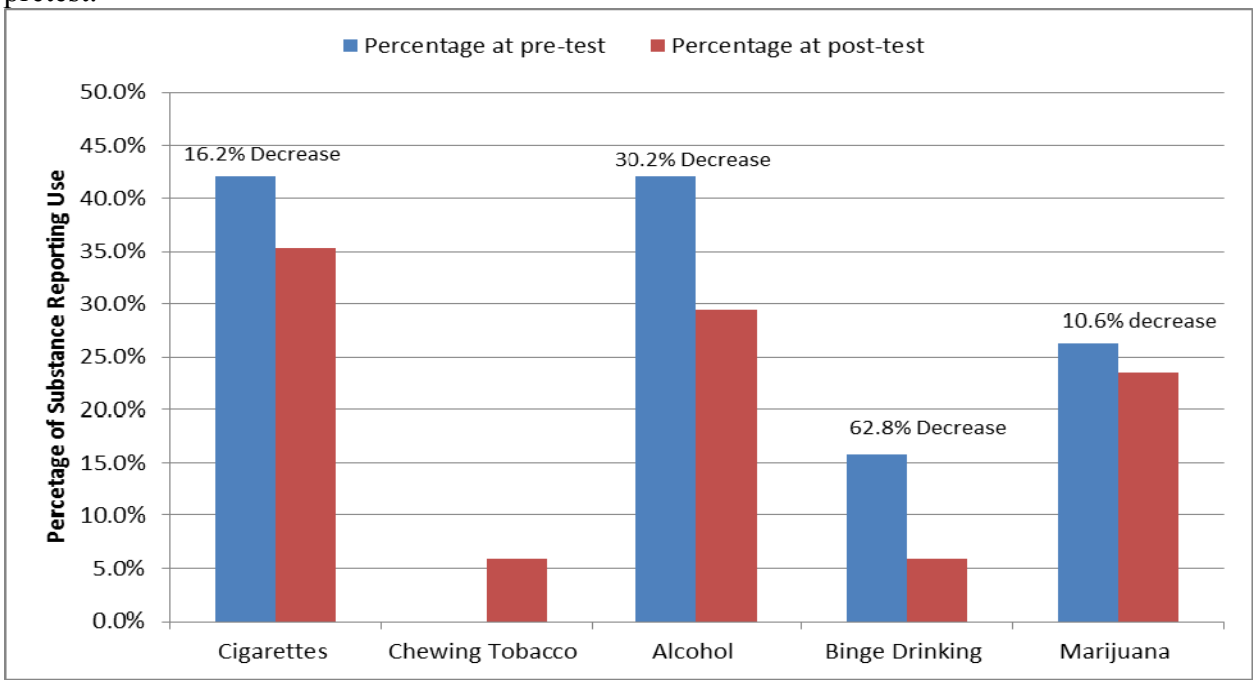


Figure 32: Percent of female middle school Native American SFS program participants reporting substance use at posttest among only program participants reporting substance use at pretest.



Middle School SFS Native American Subpopulation Compared with Middle School YRRS Native American Subpopulation

Given the very small sample size of Native American female middle school students, in this section, we only compare the prevalence of ATOD use among male Native American middle school students in OSAP funded prevention programming and male Native American middle school students in the NM YRRS sample.

Tobacco use (Native American students, grades 6th-8th)

Native American sixth and seventh grade students showed a slower increase in lifetime cigarette use and past 30-day cigarette use, when the baseline prevalence of the two measures were equal or greater for SFS students compared to their counterparts in YRRS sample. And the sixth and seventh graders in the YRRS sample increased their use faster in both measures (see Figure 33 and Figure 34).

Figure 33: Percent of 6th-8th grade Native American males reporting having ever smoked cigarettes

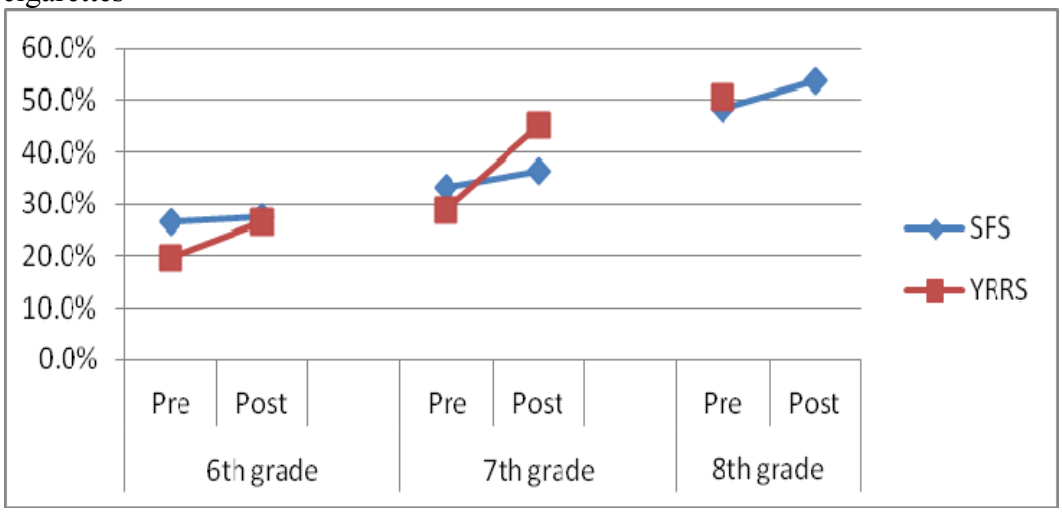
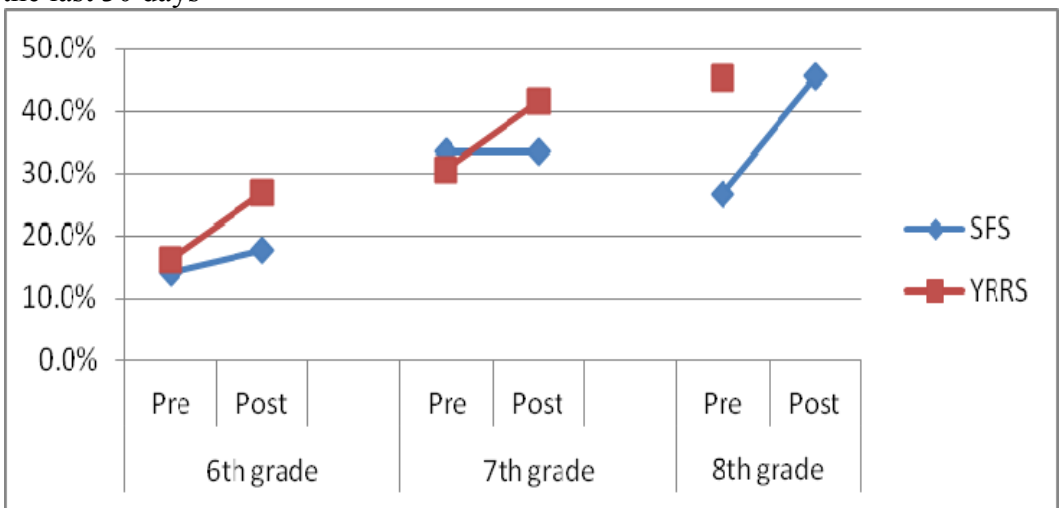


Figure 34: Percent of 6th-8th grade Native American males reporting having smoked cigarettes in the last 30 days



Alcohol use (Native American students, grades 6th-8th)

SFS Native American males reported a faster increase in the prevalence of lifetime alcohol use in 7th grade. Yet SFS 6th and 7th graders reported no binge drinking at posttest even though some of them did at pretest. By contrast, the YRRS Native American male sample steadily increased binge drinking from 6th grade through 8th grade. (see Figure 35 & 36)

Figure 35: Percentage of 6th-8th grade Native American males who report ever drinking alcohol

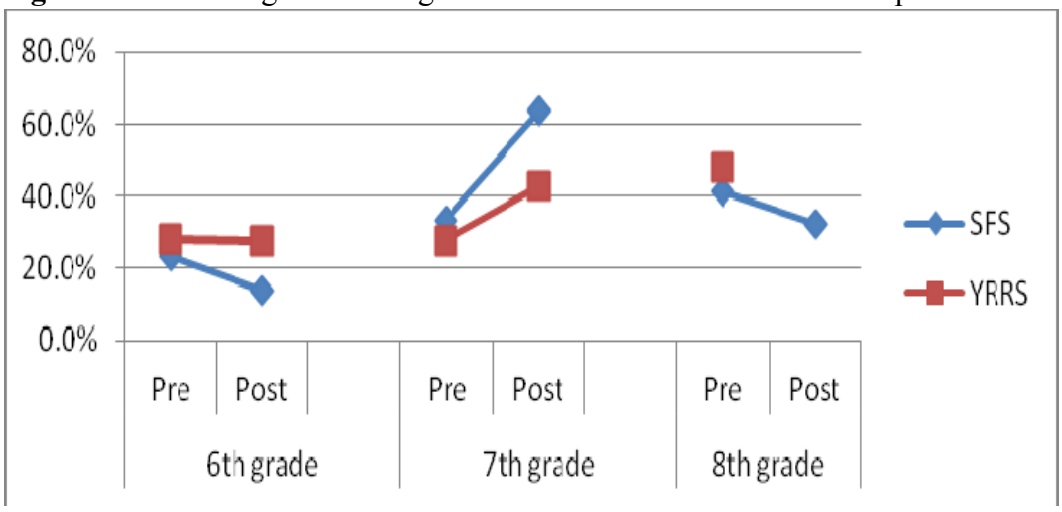
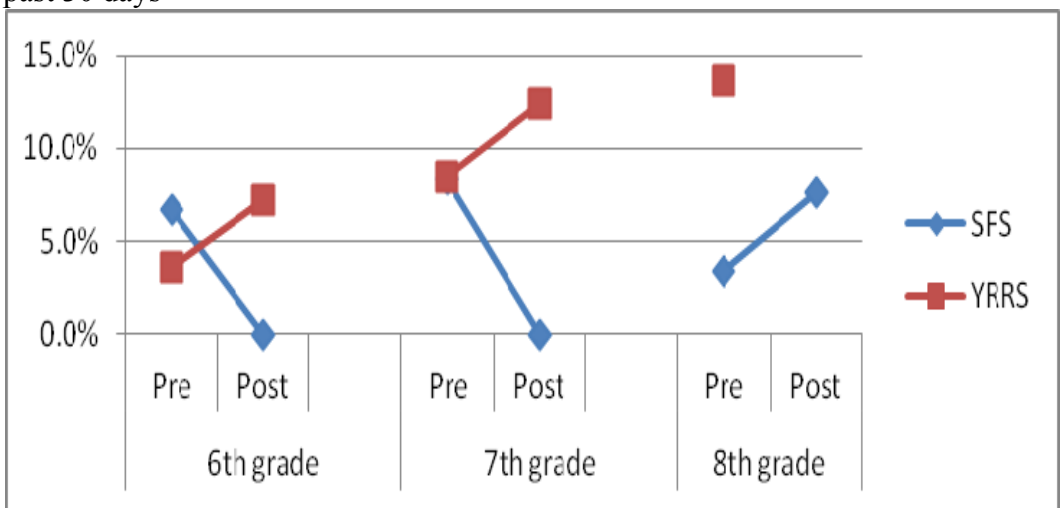


Figure 36: Percentage of 6th-8th grade Native American males who report binge drinking in the past 30 days



Drug use (Native American students, grades 6th-8th)

Lifetime marijuana use among the SFS 7th grade Native American males is much higher than the YRRS sample. (see Figure 37) When looking at past 30 day marijuana use among the SFS sample, it is worth noting that 7th and 8th graders tended to decrease their use while 6th graders were increasing their use. The YRRS sample increased past 30 day marijuana use across all grades. (see Figure 38)

Figure 37: Percentage of 6th-8th grade Native American males who report ever using marijuana

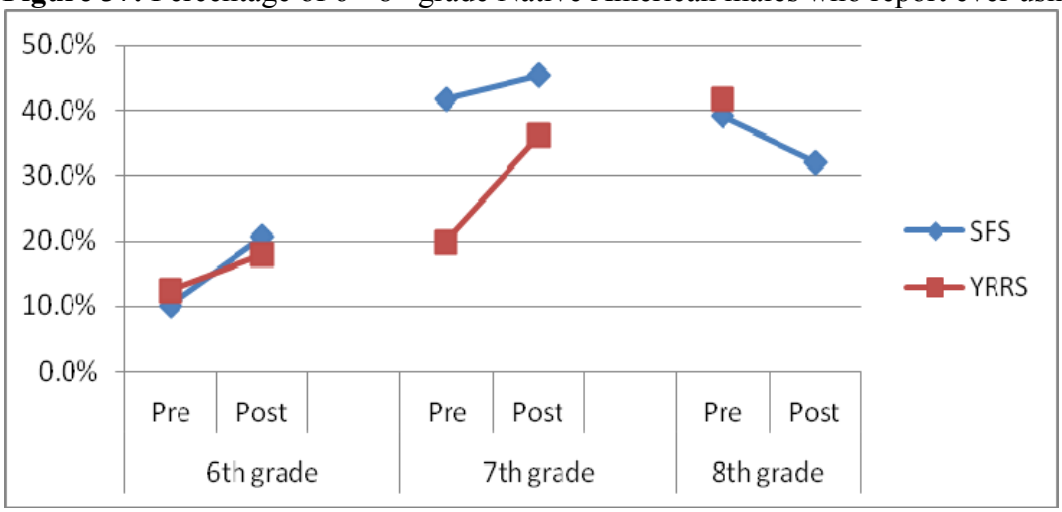
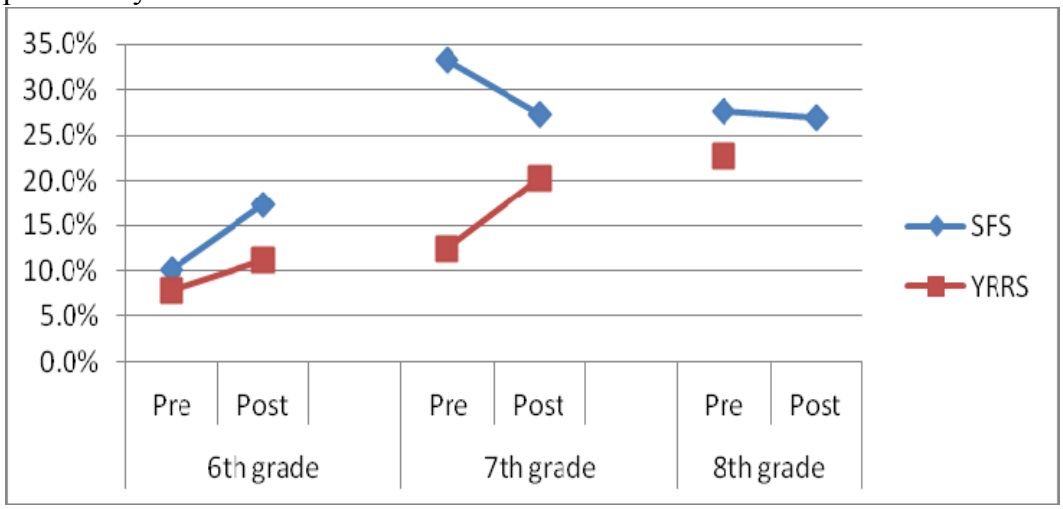


Figure 38: Percentage of 6th-8th grade Native American males who report using marijuana in the past 30 days



General Linear Models

The GLM Models were run to examine the effect of prevention programs between pre and posttest on the outcome. We controlled for pretest estimates on the outcome because we assumed that use at pretest will predict at least in part use at posttest. In the adjusted models, we also controlled for the grade in which a student is and the language spoken at home. Among the Native American middle school male SFS sample, there was a significant decrease in inhalant use from pre to posttest in the unadjusted models, but it disappeared after taking grade and language spoken at home into consideration (see Table 35). In addition, parental attitudes towards substance use showed an undesirable decrease in the unadjusted model, and intentions to smoke during the next year increased unfavorably in the adjusted model (see Table 36).

Table 35: Examining the effect of pretest substance use on the posttest substance use for middle school Native American male students, unadjusted and adjusted§ model results

	Unadjusted				**Adjusted**				
Substance (unadjusted n/adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[a]	Desired Outcome
Cigarettes (102/102)	0.26	0.19	0.888	0.009	0.26	0.19	0.030	0.000	↓
Chewing Tobacco (102/102)	0.11	0.06	1.941	0.019	0.11	0.06	0.820	0.008	↓
Alcohol (99/99)	0.09	0.06	0.471	0.005	0.09	0.06	0.820	0.008	↓
Binge Drinking (98/98)	0.03	0.02	0.198	0.002	0.03	0.02	0.290	0.003	↓

	Unadjusted				Adjusted				
Substance (unadjusted n/adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[a]	Desired Outcome
Marijuana (104/104)	0.21	0.28	1.492	0.014	0.21	0.28	0.008	0.000	↓
Inhalant ever use (106/106)	0.06	0.01	5.198*	0.047	0.06	0.01	1.467	0.014	↓

[§]Adjusted for grade and language spoken at home.
[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*$p \leq .05$.

Table 36: Examining the effect of pretest scores for perception of harm, parental approval, respondent approval and intentions to smoke on posttest scores for middle school male Native American students, unadjusted and adjusted model results

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Desired Outcome
Risk of Harm Scale (109/109)	2.13	2.07	0.433	0.004	2.13	2.07	0.076	0.001	↑
Parental Attitudes toward Alcohol Use (110/110)	2.92	2.79	6.883**	0.059	2.92	2.79	0.000	0.000	↑
Respondent Attitudes toward Alcohol Use (110/110)	2.77	2.67	2.862	0.026	2.77	2.67	1.010	0.009	↑
Intention to smoke a cigarette soon (77/77)	0.01	0.04	1.000	0.013	0.01	0.04	1.400	0.019	↓
Intention to smoke a cigarette during the next year (85/85)	0.15	0.22	2.620	0.03	0.15	0.22	5.313*	0.061	↓
Intention to smoke a cigarette if offered by best friend (84/84)	0.17	0.24	2.284	0.027	0.17	0.24	0.273	0.003	↓

[§]Adjusted for grade and language spoken at home.
[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*$p \leq .05$, **$p \leq .01$.

Among the female Native American middle school sample, we find that in the unadjusted model there was a significant effect of time on past 30 day cigarette use, however, once the model

adjusted for grade and language spoken at home, the effect of time was no longer significant (see Table 37). When examining the middle school Native American females on measures associated with ATOD use, in the unadjusted and adjusted models we find no significant effects of time on perceptions of harm, attitudes towards alcohol use, and intentions to smoke over time (see Table 38).

Table 37: Examining the effect of pretest substance use on the posttest substance use for middle school Native American female students, unadjusted and adjusted model results

	Unadjusted				**Adjusted**				
Substance (unadjusted n /adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[a]	Desired Outcome
Cigarettes (97/96)	0.07	0.11	4.129*	0.041	0.07	0.11	3.326	0.035	↓
Chewing Tobacco (98/96)	0.00	0.01	1.000	0.010	0.00	0.01	0.073	0.001	↓
Alcohol (99/97)	0.06	0.09	1.815	0.018	0.06	0.09	0.990	0.010	↓
Binge Drinking (100/98)	0.02	0.03	0.331	0.003	0.02	0.03	0.516	0.005	↓
Marijuana (101/99)	0.04	0.07	1.289	0.013	0.04	0.07	0.060	0.001	↓
Inhalant ever use (102/100)	0.03	0.00	3.061	0.029	0.03	0.00	0.600	0.006	↓

[§]Adjusted for grade and language spoken at home.
[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*$p \leq .05$.

Table 38: Examining the effect of pretest scores for perception of harm, parental approval, respondent approval and intentions to smoke on posttest scores for middle school female Native American students, unadjusted and adjusted model results

	Unadjusted				**Adjusted**				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Desired Outcome
Risk of Harm Scale (103/101)	2.14	2.27	2.404	0.023	2.14	2.3	0.095	0.001	↑
Parental Attitudes toward Alcohol Use (103/101)	2.88	2.88	0.000	0.000	2.88	2.88	0.252	0.003	↑
Respondent Attitudes toward Alcohol Use (104/102)	2.87	2.82	1.193	0.011	2.86	2.81	1.776	0.018	↑
Intention to smoke a cigarette soon (77/76)	0.01	0.01	0.000	0.000	0.01	0.01	0.615	0.008	↓

	Unadjusted				Adjusted				
Measure (unadjusted n/ adjusted n)	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Base-line Mean	Post-Test Mean	F-test & sig.	effect size[a]	Desired Outcome
Intention to smoke a cigarette during the next year (90/89)	0.18	0.29	3.678	0.040	0.18	0.29	1.103	0.013	↓
Intention to smoke a cigarette if offered by best friend (90/89)	0.19	0.28	2.319	0.025	0.19	0.28	0.034	0.000	↓

[§]Adjusted for grade and language spoken at home.
[a] partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.

Discussion

Unlike the male Hispanic middle school students, Native American male students reduced most of their ATOD use over the course of the school year with the exception of marijuana. Similar to female Hispanic middle school students, Native American middle school girls increased their cigarette and marijuana use, yet their alcohol use and binge drinking remained the same from pretest to posttest. The difference in the prevalence of ATOD use between the Hispanic and the Native American middle school samples may be attributed to student grade distribution. The majority of the Native American sample is 5th and 6th graders, whereas 6th and 7th graders make up the majority of the Hispanic sample. Given that substance use typically increases with age, youth in higher grades are most likely to report ATOD use than youth in younger grades.

Due to the small sample size of female Native American students, we were only able to compare male students to the middle school male Native American students in the YRRS sample. SFS male students had a similar pattern of ATOD use as their corresponding fellows in the YRRS. For most of reported ATOD use, gradual increases were seen across grades in the SFS sample, yet not statistically significant. In some cases, the 6th and 7th SFS sample decreased their use from pretest to posttest such as past 30-day binge drinking

SFS Supplemental Modules

Modules B though E of the SFS are optional measurements that programs can choose to use if they feel that the constructs measured in the modules are relevant to the objectives in prevention program. Although optional, many programs choose to administer them because it is felt they measure important changes occurring that are not measures in the CORE module. The measures in modules B-E are from the California Health Kids Survey (CHKS)[10] and have moderate to high reliability and validity. The analyses on the supplemental modules were only performed on the middle school samples.

Middle School Findings for the SFS Supplemental Modules

Cronbach alphas at pre and posttest for middle school students are provided for each subscale in Table 39. All scales at pre and posttest show adequate to good reliability.

Table 39: Reliability statistics for scales in the middle school SFS supplemental modules

Scale/measure	Pretest Cronbach's α	Posttest Cronbach's α
Violence Perpetration	0.801	0.875
Violence Victimization	0.789	0.741
Cooperation and Communication	0.670	0.684
Self-efficacy	0.708	0.755
Empathy	0.806	0.826
Problem solving	0.687	0.749
Self-awareness	0.751	0.791
Goals and Aspirations	0.757	0.843
Caring Relationships: Adults in School	0.826	0.861
High Expectations: Adults in School	0.866	0.895
Meaningful Participation: In the School	0.793	0.832
Caring Relationships: Adults in Home	0.843	0.868
High Expectations: Adults in Home	0.877	0.918
Meaningful Participation: In the Home	0.760	0.850
Caring Relationships: Adults in Community	0.801	0.875
High Expectations: Adults in Community	0.894	0.910
Meaningful Participation: In the Community	0.633	0.710
Caring Relationships: Peers	0.884	0.880
High Expectations: Pro-social peers	0.604	0.512

[10] Permission to use measures was obtained from WestEd prior to administering them.

Not all sites chose to use modules B & C but for those that did, the breakdown of their contribution to the overall sample can be found in Table 40.

Table 40: Data for Modules B and C by site

Site	Percent
Counseling Associates	56.0
Five Sandoval Indian Pueblos Council	9.4
North Central Community Based Services	34.6
Total	100.0

Modules B and C measure a student's perpetration of violence and their experiences with being victimized by others. The GLM results table (Table 42) presents the average scores from the perpetration scale and the victimization scale. The range for responses was 0 to 4, where 4 equaled high frequency, i.e., "almost every day", and 0 equaled "never". The perpetration of violence increased from pre to post-test among middle school students in the unadjusted model, yet not in the adjusted model. The statistically significant increase is alarming, but keeping in mind that the mean for both is below .50 so closer to 0, or "never", than 1, which is "once in a while." This would indicate that while there was indeed a highly significant increase, the actual magnitude of the increase is small.

Table 41: Examining the effect of Module B and Module C pretest scores on posttest scores for selected middle school SFS program participants, unadjusted and adjusted[a] model results

	Unadjusted				Adjusted				
Measure (unadjusted n/adjusted n)	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Desired Outcome
Violence Perpetration (334/322)	0.36	0.48	10.800***	0.031	0.37	0.48	1.362	0.004	↓
Violence Victimization (335/323)	0.38	0.44	3.480	0.063	0.39	0.44	0.270	0.001	↓
Felt unsafe at or on way to school (307/297)	0.16	0.18	0.283	0.001	0.16	0.19	0.434	0.001	↓

[a]Model adjusted for biological sex, grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
***$p \leq .001$.

Two additional measures from the NM YRRS are included in module C (see Tables 41 & 42). These ask about feeling unsafe at or on the way to school and the number of days absent from school in the past 30 days because of feeling unsafe. For these measures, there are essentially no

differences from pre to posttest. And 91% of students did not miss school because they felt unsafe.

Table 42: The percentage of respondents who did not go to school at least once during the past 30 days because they felt unsafe at or on their way to school by frequency category, selected middle school SFS program participants

	0 days	1 day	2 or 3 days	4 or 5 days	6 or more days
Baseline (%) (n=373)	91.4	3.2	3.2	1.9	0.3
Posttest (%) (n=312)	91.3	3.2	2.9	1.3	1.3

Modules D & E measure internal and external resiliency respectively. Resiliency is a factor made up of many facets that have been shown to be associated with ATOD use. Increased resiliency, measured as a whole or as subscales, decreases the likelihood of use. Many prevention programs focus a lot of time and effort on increasing resiliency among youth to resist drugs and alcohol and peer pressure, etc. This is often particularly true of programs working with younger children who may not yet be using drugs.

Again, not all sites chose to use modules D & E. Those programs that used Module D are listed in Table 43 and a breakdown of the contribution to the entire sample is provided.

Table 43: Data for Module D by site

Site	Percent
Counseling Associates	34.2
Five Sandoval Indian Pueblo	6.0
North Central Community Based Services	21.3
Sandoval County SAP	31.5
Southern New Mexico Human Development	7.0
Total	100.0

Internal resiliency is measured in Module D. Internal resiliency includes concepts such as self-efficacy, problem solving skills, self-awareness, having goals and aspirations and the ability to communicate and work with others productively. In the unadjusted GLM, significant improvements from pre to posttest were found for the problem solving scale. It remained significant after adjusting for the influences of biological sex, grade, race/ethnicity, and language spoken at home (see Table 44).

Table 44: Examining the effect of Module D pretest scores on posttest scores for selected middle school SFS program participants, unadjusted and adjusted[a] model results

	Unadjusted				Adjusted				
Measure (unadjusted n/adjusted n)	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Desired Outcome
Cooperation and Communication (566/551)	2.06	2.08	0.392	0.001	2.07	2.09	1.438	0.003	↑
Self-efficacy (566/551)	2.21	2.24	1.144	0.002	2.22	2.25	2.745	0.005	↑
Empathy (566/551)	2.00	2.02	0.263	0.000	2.01	2.02	0.055	0.000	↑
Problem solving (566/551)	1.85	1.92	3.793*	0.007	1.86	1.93	3.746*	0.007	↑
Self-awareness (560/545)	2.28	2.34	3.692	0.007	2.28	2.34	1.951	0.004	↑
Goals and Aspirations (566/551)	2.62	2.64	0.345	0.001	2.64	2.65	2.319	0.004	↑

[a]Model adjusted for biological sex, grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*$p \leq .05$.

Those programs that chose to use Module E are listed in Table 45 and a breakdown of each program's contribution to the overall sample is provided.

Table 45: Data for module E by site

Site	Percent
Counseling Associates	48.9
Five Sandoval Indian Pueblo	8.6
North Central Community Based Services	30.5
Santa Fe Mountain Center	12.0
Total	100.0

The measures of external resiliency in Module E reflect changes in relationships and expectations from other adults and meaningful participation in the community. Among the middle school respondents, there were no significant changes on all of measures in both the unadjusted model and adjusted model (See Table 46.)

The scales for items on the resiliency measures were from 0 to 3 where 3 indicates having a lot of external support in one's life and 0 indicating having very little. Examination of pretest and posttest means of these measures indicates that most of the mean scores are above 2 at pretest, which leaves a little room for improvement. This may attribute to few variations observed in the average scores for these scales and signal high ceiling effects on these measures.

Table 46: Examining the effect of Module E pretest scores on posttest scores for selected middle school SFS program participants, unadjusted and adjusted[a] model results

	Unadjusted				Adjusted				
Measure (unadjusted n/adjusted n)	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Desired Outcome
Caring Relationships: Adults in School (380/367)	2.08	2.06	0.106	0.000	2.08	2.06	0.977	0.003	↑
High Expectations: Adults in School (380/367)	2.46	2.41	1.640	0.004	2.47	2.41	0.182	0.001	↑
Meaningful Participation: In the School (380/367)	1.78	1.79	0.113	0.000	1.78	1.8	0.214	0.001	↑
Caring Relationships: Adults in Home (384/371)	2.33	2.32	0.016	0.000	2.34	2.31	0.015	0.000	↑
High Expectations: Adults in Home (384/371)	2.68	2.63	2.417	0.006	2.69	2.63	2.582	0.007	↑
Meaningful Participation: In the Home (330/318)	2.08	2.12	0.615	0.002	2.08	2.12	0.001	0.000	↑
Caring Relationships: Adults in Community (383/370)	2.38	2.36	0.315	0.001	2.39	2.39	0.235	0.001	↑
High Expectations: Adults in Community (383/370)	2.47	2.47	0.014	0.000	2.47	2.48	0.396	0.001	↑
Meaningful Participation: In the Community (383/370)	1.79	1.87	3.648	0.009	1.81	1.88	0.883	0.002	↑
Caring Relationships: Peers (383/370)	2.11	2.16	1.202	0.003	2.12	2.16	0.048	0.000	↑
High Expectations: Pro-social peers (382/369)	2.1	2.04	2.478	0.006	2.11	2.04	0.017	0.000	↑

[a]Model adjusted for biological sex, grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.

High School Findings for the SFS Supplemental Modules

The high school sample comes from 3 sites. The common module that all sites chose to implement is Module D, or the internal resiliency scale. Table 47 presents the distribution of samples by sites.

Table 47: Data for Module D by site

Site	Percent
Five Sandoval Indian Pueblo	19.8
Sandoval County SAP	2.6
Southern New Mexico Human Development	77.6
Total	100.0

Cronbach alpha at pre and posttest for high school students are provided for each subscale in Module D in Table 48. All scales at pre and posttest show adequate to good reliability.

Table 48: Reliability statistics for scales in the high school SFS supplemental modules

Scale/measure	Pretest Cronbach's α	Posttest Cronbach's α
Cooperation and Communication	0.721	0.633
Self-efficacy	0.760	0.767
Empathy	0.838	0.822
Problem solving	0.737	0.695
Self-awareness	0.823	0.841
Goals and Aspirations	0.816	0.846

Internal resiliency is measured in Module D. Internal resiliency includes concepts such as self-efficacy, problem solving skills, self-awareness, having goals and aspirations and the ability to communicate and work with others productively. Most of measures essentially remained unchanged from pretest to posttest. In the unadjusted GLM, significant improvements from pre to posttest were found for the goals and aspiration scale. It did not maintain its significance after adjusting for the influences of biological sex, grade, race/ethnicity, and language spoken at home (see Table 49).

Table 49: Examining the effect of Module D pretest scores on posttest scores for selected high school SFS program participants, unadjusted and adjusted[a] model results

	Unadjusted				Adjusted				
Measure (unadjusted n/adjusted n)	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Base-line Mean	Post-test Mean	F-test & sig.	effect size[b]	Desired Outcome
Cooperation and Communication (91/90)	1.98	1.88	2.305	0.025	1.98	1.89	0.135	0.002	↑
Self-efficacy (91/90)	2.07	2.07	0.000	0.000	2.07	2.08	0.003	0.000	↑
Empathy (91/90)	1.91	1.89	0.127	0.001	1.91	1.89	2.263	0.026	↑
Problem solving (91/90)	1.77	1.85	0.958	0.011	1.76	1.85	0.172	0.002	↑
Self-awareness (91/90)	2.12	2.07	0.406	0.004	2.11	2.07	0.860	0.010	↑
Goals and Aspirations (91/90)	2.65	2.47	10.915***	0.108	2.65	2.46	0.741	0.009	↑

[a]Model adjusted for biological sex, grade, ethnicity, and English as a primary language at home.
[b]Partial eta squared where effects are: small = .01, medium = .06, large = .14 or larger.
*$p \leq .05$.

Summary of Findings

This FY, the middle school students fared slightly better on measures of violence perpetration and victimization and safe school than middle school students in FY10. The FY11 middle school students remained virtually the same in undesired behaviors at pre and posttest, whereas in FY10 students increased their perpetration of violence and reported increases in victimization. In FY11, there are no improvements among measures of external resiliency as there were in FY10. One of possible explanations is due to high ceiling effects of these measures at pretest. Additionally, given that Module D was the only supplemental module administered to high school students in FY11, the high school finding showed that the high school students maintained a relatively high level of internal resiliency at both pretest and posttest.

This FY, the middle school findings indicate an emerging new trend of cigarette use, particularly among female students. The findings suggest that 7th grade female students are at greater risk considering most of significant changes revealed in the analyses were from 7th grade female students. Greater thought needs to be given as to what is happening in the middle school setting Consideration must be given not only to environmental conditions that may be leading to increases in ATOD use and increases in violence but also to whether current prevention curricula being used are still appropriate. We would recommend that prevention programmers not only talk amongst themselves but also talk candidly with students and staff within the school systems to get a broader perspective of what is happening.

Community Based Processes

Qualitative Data Analysis

Background:
Community-Based Processes (CBP) programs were informed in November 2010 that there would be a qualitative evaluation process for FY11. PIRE recommended this approach for several reasons. First, there were insufficient resources to conduct and analyze a full community survey as had been done in previous years when the state had the SPF State Incentive Grant. In addition, programs were reporting that community survey respondents were experiencing survey fatigue. Conducting focus groups with key CBP stakeholders meant that programs would be able to assess each intervening variable as they were experienced in their communities. Programs would be able to gain immediate feedback from diverse perspectives that would enable them to troubleshoot problems and identify new solutions. The interactive aspect of conducting qualitative data collection meant that community preventionists could "touch base" with some of their key stakeholders and perhaps generate some more support for their prevention goals. And finally, OSAP could have a common format from which to assess the progress of CBP programs amidst the many structural chances experienced in the last year.

PIRE developed focus group protocols and scripts for the following community stakeholder groups that could provide the most significant insight into progress towards addressing underage drinking (UAD) and DWI: alcohol retailers, law enforcement, parents of adolescents, young adults, and Spanish speakers. Collecting data directly with youth was not encouraged because it would require parental consent. Questions and probes addressed the major intervening variables and contributing factors identified with these outcomes. These targeted intervening variables were previously used as part of OSAP's SPF-SIG, which focused on alcohol-related motor vehicle crashes and fatalities: low enforcement, low perception of risk, retail access, and social access to alcohol. Questions about social norms were also provided in order to flesh out more completely the unique aspects of each community. In this way, culturally competent implementation could continue to be supported in FY12.

OSAP did not require programs to collect qualitative data. Programs that chose to participate, selected three groups from which to gather data, as based upon their particular scope of work and relevant factors in their community settings. As previously mentioned, these groups were law enforcement, parents of youth, school personnel, alcohol retailers, and Spanish speakers, principally Latino immigrants. If a program concluded that another group would be better for their purposes, then they could also select and choose that group (for example, youth, school staff, or the coalition). CPBs that did not gather qualitative data were asked to provide other evidence in their final report of their FY11 progress.

In two webinar-based PowerPoint presentations, program staff and evaluators were trained on qualitative methods, key informant interviews and focus groups. Slides were also disseminated

via email. PIRE recommended that the local evaluator conduct the focus group(s) and complete the write-up. PIRE also provided a sample write-up and TA upon request from the programs.

Report categories and participants in qualitative evaluation

Nine programs submitted qualitative reports: Partnership for Community Action in Albuquerque, Carlsbad Coalition, Laguna Pueblo, Hands Across Cultures (HACC) in Española, San Juan county Partnership (SJCP), Youth Development Incorporated (YDI) in Valencia County, CC-YES (Colfax County Empowerment Services), Santa Fe Public Schools (SFPS), and North Central Community Based Services (NCCBS) Inc. of Northern Rio Arriba. 223 people participated in one of 22 focus groups or were one of 17 who participated in an interview.

Three reports were submitted for **retailers** with a total of 15 individuals participating in interviews. SJCP submitted written survey results for 8 people in lieu of interview or focus group write-up. Programs reported that conducing focus groups with retailers was quite challenging and as a result, they either did not gather data with them or conducted individual interviews (phone or in person). These reports were especially helpful in outlining some of the continued challenges that programs still have with retailers, especially in terms of gaining 'buy-in' from retailers for their role in prevention DWI and UAD.

Seven reports were presented about **law enforcement** with a total of 55 individuals participating in 7 focus groups and 2 interviews. This group could also prove challenging to gather in one room at the same time. These focus groups generally reflected strong collaborative relationships between LEAs (law enforcement agents/agencies) and CBPs and in general, buy-in for the idea that enforcement is preventative. These reports provided good information about the challenges faced by enforcement, and some insight about the world views of law enforcement towards prevention.

Two reports were submitted from **Spanish speakers** (principally Latino[11] immigrants) with a total of 23 participants in 2 focus groups. A special protocol was developed as a means to help providers address how this specific population experiences and understands the IVs around UAD and DWI. The protocol especially focused on perception of risk and social norms. These focus groups appeared to help programs shape their interventions in relation to Latino immigrants; and provided some unique insights about how Latinos experience enforcement disparities.

Three reports were submitted that were conducted with **parents of adolescents** with a total of 46 participants in 4 different focus groups. These questions emphasized underage drinking issues, and appeared to be helpful to provide insights into ways to gain community support around UAD

[11] While we recognize that there are many ways to use this terminology, for the sake of clarity in this report, "Latino" here signifies especially immigrant peoples who are Spanish-language dominant. "Hispanic" refers to US-born people of Hispanic or Latino heritage that may or may not speak Spanish. While we know that there are places, especially in Northern New Mexico, where Spanish is the principal language in the home and in the community, we instructed programs to conduct the groups with those who were primarily immigrants, as a means to try to understand some of the special circumstances they faced. We also are aware that as a result of English language public schooling, most Spanish speakers educated here also read and speak English, often reading English better than Spanish.

prevention. In addition, NCCBS submitted results of **a coalition focus group** that included 9 adult participants, using as the base a protocol PIRE originally drafted and then decided with OSAP input not to implement. These questions also covered the basic IVs, as well as about coalition building itself.

Five reports were submitted for **young adults**, with 45 participating. Young adults were chosen as a category for two main reasons: 18-25 year olds are a particularly difficult group to reach with survey methods, but they represent an important target demographic as both providers of alcohol for minors, as risky drinkers. Because we did not wish to burden programs with gaining parental consent to do research, we chose this subject group as a means to provide some insight into younger people's behavior. Some programs chose to conduct focus groups with youth anyway, and included these results in 3 reports with a total of 30 youth participants. These programs should be commended for going the extra mile as these data help flesh out an area of direct data collection that has been missing, as community surveys must be done with adults (again, for reasons of consent). Focus groups with youth and young adults were very important to draw out the issues with 'perception of risk' as written up in this report.

All were asked to adapt the protocols to meet their needs, but to attempt to capture the essence of the stem questions. Each focus group was to have an additional question related to data coming from their specific communities so that focus group participants could assist in interpreting that. These responses are incorporated into overall analysis.

Coding and analysis:

A protocol for focus group write-up was provided by PIRE. Program responses to the annual report were coded using QSR NVIVO 9™ qualitative analysis software. Using NVIVO, the researcher creates a coding tree that reflects analytical needs, and then codes the texts according to one or more thematic 'nodes' on the tree. Once the coding is completed, the tree structure can then be analyzed by studying relationships among nodes, considering prevalence of responses in a node, and by focusing on outlying nodes as a means to inquire into new hypotheses.
A simple scheme was created for the purpose of analyzing focus group reports, with an initial coding tree based upon the 5 significant intervening variables of the CBP programs, and additional codes for specific questions in the report write-up protocol (e.g., how the state can support). As coding proceeded, additional nodes were created as the density of a theme emerged (e.g., "disparities").

What follows below are the dominant themes that emerged through the coding of the reports organized by intervening variable and separated broadly into outcomes UAD and DWI. Issues of concern are discussed and recommendations are made based upon these concerns. Please see the individual reports for CBP specific data and conclusions as reported by the local evaluator. We would recommend that OSAP review the write-up of these reports. Especially meaningful and reflective summary write-ups came from HACC's evaluator is Paul Cardenas, SFPS's evaluator Shelly Meuller, and evaluator Sindy Sacoman's for Laguna Pueblo.

While these focus groups could not provide information on quantitative progress on outcomes, they did provide strong evidence for areas in need of continued capacity building, training, and coordination both among programs and their collaborators. It is important to recognize this when

reading the report. Even through these focus groups and interviews revealed many difficulties in reaching program goals, these challenges also are areas for continuous program improvement. We know from social marketing research that people tend to over-report the bad behaviors of others, or over-report their own positive behavior in order to please the researcher. How much enforcement or use has been perceived to have changed is not the concern of this evaluation: it's how these changes are understood to have occurred. The environment is always changing, and assessing this change must be a constant in successful implementation of environmental strategies.

Outcome: Underage Drinking

Underage drinking and drug use among youth were the strongest concerns among focus group participants**. Inadequate and inconsistent enforcement and consequences, low perception of risk of getting caught, highly prevalent social norms supportive of youth drinking,** including **parental attitudes accommodating of underage substance use**, combined with poor parental supervision and even parents providing alcohol to youth, were the main culprits of UAD mentioned. Of special note is how "perception of risk" was viewed less in terms of "swift and severe/consistent consequences" and more in terms of "eventual harm," which has important implications when addressing this intervening variable.

IV: Low Enforcement of UAD laws

All groups agreed that there was **insufficient enforcement of underage drinking laws.** There was much discussion among all groups about laws and policies being **inconsistently enforced**; these inconsistencies directly affect the perception of risk of getting caught. Explanations for uneven enforcement by non-law enforcement participants included corrupt cops, local social norms accepting of youth drinking, and preferential treatment provided to some perpetrators over others. Law enforcement also recognized this limitation, but were more likely to place blame for insufficient enforcement on "the system" including the lack of resources to enforce the law, too much time spent in making arrests, and lack of appropriate places to send underage drinkers (besides to their homes). In some places, law enforcement also spoke of a lack of community support for enforcement of underage drinking laws because of strong social norms tolerating and even accepting of alcohol use in general.

In nearly every report, **inconsistencies within the courts** were described. The reasons mentioned for irregular court consequences were almost identical to that of DWI: social status of the individual, DA and or judge's lack of skills; and talented lawyers. In small rural communities, personal connections and family status were emphasized, while in Albuquerque's south valley racism was suggested to be involved. JPPOs were also often considered inconsistent in providing consequences; that is if there was one available to provide them.

In Laguna, law enforcement officers commented that it was **helpful having clear policies and protocols in place for enforcing UAD**. This idea was reinforced in several other focus groups where LEAs especially expressed frustration with the lack of clarity about 'what to do' with underage drinkers, as well as the issue of procedural problems with DWI (too much paperwork, takes too long for consequences, etc.).

Participants spent time discussing who was more likely to be arrested for breaking underage drinking laws, with many younger ones describing the **preferential treatment that athletes received** as compared to other youth. It was suggested that law enforcement in small communities, school personnel and coaches looked the other way, slapped a wrist, or merely turned in the offending youth to their parents' when an athlete other high status youth was caught drinking. (In a couple of reports, though, it was noted that being an athlete suggested that you were not using alcohol or drugs, as the coach was enforcing sobriety.)

Beliefs that youth alcohol use is a lesser harm than drug use or other criminal activity often lay behind the inadequate enforcement. High status youth were often viewed as 'just alcohol drinkers' and therefore relatively harmless.

The following discussion among LEAs in one focus group was especially telling about the public safety vision of LEAs, which can stand in contrast to the public health vision of preventionists. Here, the LEAs explore the idea of 'protecting the community':

> "If all kids drank at home and not out on the street I'd be ok with that….No, I'm not condoning it, but it would make my job much easier. And we would see less problems in public. I know that goes against the grain and I don't want to ruffle any feathers. But that's how I feel. … Other officers feel this way too. I know this for a fact."
>
> "We're not social workers, we're cops. Our first duty of to protect the population from harm. Kids staying home when they drink protects the community. So if I have to make a call, just saying…."

LEAs are highlighting the fact that they are more likely to seek out those who are threatening the community's safety. In some cases, that may not include high status youth, or those who choose to drink at home.

In contrast to the idea that certain youth (like athletes) or certain youth practices (like drinking at home) were treated preferentially, Spanish speakers participating in focus groups were clear that **enforcement was unfairly enacted upon the Latino immigrant community**. Indeed, participants offered many examples of preferential treatment given to those who held more power than they. Interestingly, Spanish speaking participants in Valencia County indicated that they perceived UAD and DWI a greater problem among acculturated Hispanics than among recent Latino immigrants. (This insight is supported by research demonstrating a decline in protective factors through generations residing in the US).

It was a generally perceived that many youth were not caught to start out with, especially in schools. Among most groups interviewed, even if youth were getting caught, that the **consequences for UAD and substance use were inadequate.**

There was a variety of perspectives about enforcement at schools, which was nonetheless perceived to be inadequate and irregular. In Laguna, youth discussed at length a couple of enforcement figures in the school: one was irregular and inattentive to issues of substance use,

and the other was 'tougher', but would also engage with youth strictly and directly about their use. School consequences also varied from little or nothing to suspension and expulsion.

Insufficient enforcement in general was also linked to the lack of staffing resources, loss of grants and budget cuts. While some coalitions gathered forces in order to fill in enforcement gas, there were strong concerns expressed about the threat of weak enforcement to the perception of risk and therefore the eventual impact upon UAD and DWI.

IV: Perception of risk of getting caught for UAD

Partnering with the conclusions that enforcement of UAD was largely inadequate, many participants, especially young adults and youth commented on the **savviness of youth to detect irregular enforcement**; if enforcement was inadequate, they knew about it. Therefore, from the start any UAD enforcement intervention should be integrated with efforts to increase the perception of risk of getting caught. Even when there was strong public media campaigns about UAD and DWI, inconsistent enforcement coupled with inadequate enforcement were central reasons as to why participants reported that youth perceive much risk of getting caught.

Some participants **questioned notions that increasing the perception of risk actually led to reduced DWI and UAD**. Especially for communities where underage drinking was a deep-rooted community norm, knowing the *potential* risk to health or *possible* arrest was not a strong deterrent. Paul Cardenas, evaluator for HACC, drew out the problem with how 'consequences' appear to be perceived by youth:

> Thus, it is clear that participants wish to see youth develop a deeper sense of the consequences, as opposed to simply "you can go to jail" or "you can get busted." In this regard participants expressed some degree of failure, of themselves and of "programs" to teach at this deeper level. Exploring consequences and the numerous trajectories they may take, and the extended reach they may have appears an important additional step preventionists might take here in our community.

In many reports, discussion about risk as being caught and experiencing swift and consistent consequences was absent. "Consequences" as discussed in the focus groups revolved around the more common health-related or "you *can* go to jail" examples discussed above. Even when the harms to one's health were known and discussed in focus groups, there was little linking of this knowledge to the deterrence of youth drinking. This idea reinforces OSAP's goal for programs to **emphasize increasing swift and consistent legal consequences in their communities**, rather than merely focusing on disseminating information about DWI and UAD as problems in the community and the health or injury risks of problem drinking. *This clearly remains an area for continued focus for programs.* The only exception was that Spanish speakers had very clear understandings of what the consequences were for getting caught with UAD or DWI: the consequences for them were depicted as quite severe for the entire family, especially if it involved deportation. As explained in the Spanish language focus group in Valencia County by evaluator Concha Montaño, immigrant women and families bear a heavy burden of enforcement:

> Parents agreed that Latinos are victims of unbalanced laws. When there is domestic abuse related to alcohol, women are afraid to call for fear that their support will be deported and/or jailed. Women are forced to drive when their husbands lose their driving privileges. Latinos are deported and families are left without a mother and/or father. Children can be left in custody of (an) abusive husband. "Women in the US can receive child support, not in Mexico," said one person. "Women are often left destitute to fend for themselves in a foreign country which is very threatening," said another. Parents agreed that often Latinos are being targeted and are being profiled as a way to deport illegal immigrants. They indicated that strict laws are not equally enforced. "Latino families may call for help and are often ignored...."

In general, **perception of risk was discussed in terms of youth, but rarely in terms of the adults that provided alcohol to them.** Few could think of anyone who had been convicted on charges of providing alcohol to a minor (even if they were aware of the law, which most reportedly were). Most retailers explained that they were not too concerned about doing anything to limit access through retail outlets, especially if it involved a legal retail sale. One retailer in Santa Fe expressed genuine concern for stopping the sale to adults who provide to minors, while also explaining how difficult this really is to achieve.

IV: Youth social access to alcohol

A commonly discussed practice was of **adults providing alcohol (as well as "pills" and "weed") to their children and other minors**. Parents talked about hosting youth drinking as a means to make sure that the inevitable (youth drinking) was at least supervised. Drinking alcohol was certainly preferable to youth using other "more harmful" substances. Participants explained that the community norms of not "getting into others' businesses" inhibited community members from getting involved and/or reporting these activities.

Parents, older siblings and young adults were most commonly assumed to be providing alcohol to minors. Other forms of social access seemed to vary in each community, but the range of practices was not surprising. In some cases, older adolescents or young adults recruited younger children to serve as 'drinking partners.' Very common as well was for youth to access alcohol at both youth and adult parties. In Colfax County, it was mentioned that youth drinking parties were getting smaller, and more difficult to detect. Less often, minors would approach adults outside of stores to provide alcohol, a practice that some retailers did not seem to feel responsibility for inhibiting. Youth were also known to steal alcohol from homes and retailers. In Laguna girls were known to steal 'minis' from corner stores that were easily accessible: strangely these were not locked up when videos were. Use in school appeared to be common where youth were allowed to have drinks in classrooms, or at lunch.

Participants acknowledged that in those contexts **where the caretaker(s) work away from the home** make it easy for youth to drink due to the combination of easy access to alcohol in the home or the absence of adult supervision. This was noted to be especially true among Spanish speaking participants because they were in precarious economic circumstances that often required the labor of both parents.

IV: Youth and intoxicated retail access

No CBPs were able to conduct focus groups with alcohol retailers, so those that chose to focus on retail access conducted individual interviews. Since retailers may not feel comfortable discussing these issues in a group, especially managers and employees together, conducting interviews was a good approach to collect these valuable data. Interview responses appeared to be most frank.

The perspectives of retailers in Española were especially sobering. It is clear that this is an area in need of action. While this case appears extreme, there are likely other commonalities with retailers in other parts of the state. These retailers reported that they did the best they could under the circumstances and appeared to have a very ambivalent relationship with law enforcement. **Many retailers expressed an absence of responsibility in providing alcohol to minors or intoxicated customers**. Enforcement was the "cops' job," and up to the individual to control his or her own use. At the same time, little confidence was expressed about law enforcements' ability to enforce the law. The strongly entrenched social norms around underage drinking and drinking in general justified retailers' argument of not feeling obligated to assume responsibility. Most retailers claimed that they asked for an ID for anyone who looked under 25, but said that many times when they were very busy they 'just guessed', fearing that the time it took to ask for and verify an ID could negatively impact customer satisfaction and therefore the bottom line. One retailer expressed concern for his personal safety in the face of community retaliation against his enforcing liquor laws: an angry customer could break in his car windows. While this fear may or may not be realistic, it reflects a belief among retailers that customers may be angered by retailers following procedures to deter UAD and sales to the intoxicated. (Similar fears were expressed in another site for the consequences of reporting underage drinking).

While there was less concern over losing income generated from sales to minors, the idea that **retailers could lose business by carding too many people or refusing to serve someone they suspected was intoxicated,** was more noteworthy. One retailer frankly mentioned that the income generated from these sales was greater than whatever sanctions were given to them for breaking the law.

Retailers commented on **the difficulty of identifying heavy drinkers who were intoxicated**. For some, this meant that they made sales anyway, especially if the individual was of high social status. One Santa Fe retailer did mention designating a manager who would refuse any sale, however this retail outlet likely was a larger one that would have several servers on staff at any one time.

There were also issues reported with **detecting fake IDs: in particular faked or altered passports and green card**s (as reported in Santa Fe) and using older sibling's licenses. Youth could travel to another town or across the border to Colorado to use relatives' licenses in places where they were not known.

Another common issue mentioned was how **employees were often held accountable for both upholding the law and also for keeping up sales**. The tension between these two commitments should be taken into consideration when conducting interventions with retailers. Working

directly with retail owners may help address this issue. In relation to this issue, one retailer in Santa Fe mentioned that it was inherently unfair to expect that the least paid and often least educated – clerks- be the ones expected to uphold the law. This may be yet another issue to be addressed separately with retail owners, to encourage them to reward their staff who demonstrate diligence in preventing UAD and sales to intoxicated.

Retailers interviewed in Santa Fe demonstrated much greater 'buy in' for not only upholding the law, but also a greater sense of responsibility for stemming underage drinking. The contrast that Santa Fe retailers posed to the rest of the reports suggests **that strong SID enforcement and retailer education may play a role in this greater 'buy in'**. In other sites there was an absence of SID enforcement mentioned; especially in Colfax and Río Arriba Counties personal relationships could 'trump' retail access laws.

IV: Social norms supporting UAD

UAD was generally agreed to be *the* norm in most communities, rather than the exception. All youth were assumed to have at least tried it before graduating from high school and most use began in middle school. While most youth or young adults in focus groups reported that UAD was rampant, NCCBS was sure to point out, that youth are prone to over-reporting when talking about others' use, citing 2009 direct service evaluation data about a decrease in alcohol use among youth.

While social norm interventions are difficult to prove effective in preventing underage drug and alcohol use, these norms are essential to keep in mind in order to assure the cultural competence and therefore the effectiveness of other kinds of interventions. Essentially, knowing your social norms helps assure the cultural competency of your programming.
Some of the attitudes and norms use to rationalize underage drinking included:

- Drinking is a rite of passage and "a normal part of growing up".
- "Everyone in this community drinks"; "Drinking is a way of life".
- "It's better to drink alcohol than to use illegal or hard drugs". The idea that alcohol is "legal" often came into discussion, especially among retailers.
- Among parents, alcohol is perceived as less problematic than other more 'dangerous' drugs.
- Alcohol is preferred by youth with limited economic resources as it is 'cheaper' than other drugs.
- "There is nothing else to do" even in urban areas like Albuquerque.
- "It's not my problem/job/role/place to get involved."

Retailers were "not cops," and LEAs "were not social workers." Here and elsewhere, other community members reported feeling that they could not intervene. In a few focus groups, however, there seemed to be a spirit of community cooperation that was galvanized through the discussion, whose momentum could be tapped by programs for future action.

Many participants **discussed the permissiveness of parents and other adult figures, including adult drug and alcohol use**. They felt it was difficult to ask drug and alcohol users to take a stance against substance use for their children, especially if they were providing these substances.

There was some variation among groups about perceptions of **youth who drink and who drink and drive**. Most youth tended to say that there were few differences between those who drank and those who did not, except for who had access to money and transportation (a vehicle allows one to obtain alcohol and consume it with others). In Española, dark tinted windows were clear markers of illicit behavior inside – windows which at the same time prohibited law enforcement from being able to search vehicles as they could not establish probable cause. The most important differences among underage drinkers described were between those who got caught (generally low social status) and those who didn't (generally high social status).

Youth were described as very skilled at identifying others to drink with and communicating with one another about enforcement activities in order to escape detection. Texting and Twitter were most commonly mentioned here.

Outcome: Driving While Intoxicated

IVs: Low Enforcement of DWI Laws and Perception of Risk of Getting Caught for DWI

LEAs participating generally showed strong support for DWI prevention goals and often demonstrated awareness of the important role highly visible enforcement plays in prevention. This suggests that CBPs have made progress in helping law enforcement understand their important role in prevention.

In some communities there seems to be a very strong sense of collaboration for enforcement efforts. As one Española LEA stated: "We have so many more people working together on this than in the past. I'd say over the past year we are all singing from the same song sheet." Here, this collaboration seemed to help assure that LEAs understood that that highly visible enforcement was good prevention:

> Visibility makes a huge difference – it puts people on notice. This is perhaps the single most powerful deterrent to DWI that we have available. More than anything else, seeing black and whites on the streets keep people from driving drunk. Even a guy who is drinking will park his car if he sees an officer patrolling"…"I would say both the lock down and the saturation patrols are most effective. These work together. The community knows we are watching out. If they don't see you, most people I think, they ignore the laws.

Some programs noted a **decrease in DWI arrests as a result of increased enforcement and arrests**. Laguna noted that that after some initial social turmoil in response to increased enforcement of DWI laws and subsequent arrests, there did appear to be a stronger perception of risk for swift consequences in terms of arrest. In Upper Río Arriba, groups conferred that the decrease in DWI arrests was a result of the increased perception of risk of getting caught from

the increased enforcement. In earlier years of the SPF SIG, there had been more arrests, and they now have declined.

However, a significant barrier affecting LEAs' ability to increase enforcement and in turn help increase the perception of risk is **that CBPs are limited from materially increasing enforcement.** CBPs cannot fund LEAs, although they can encourage them and provide staffing assistance if needed. In addition, the CBPs can assist in ensuring that the LEA efforts are "highly visible," and provide refreshments and other kinds of encouragement to LEAs on checkpoint or patrol.

Reports made clear that **without strong enforcement, communities – especially rural ones where word-of-mouth can work against you as well as with you – perceive little of risk of being caught.** Much like UAD, if one individual slides through the checkpoint or gets let off with a slap on the wrist, the whole community learns about it, hampering progress made in terms of perception of risk. LEAs also commented on the lack of economic resources to enforce the law. Indeed, it takes a great deal of time to arrest and later prosecute someone for DWI, time and resources that could be spent on other crimes that LEAs may as posing greater risk to public safety.

The **most commonly reported barrier to consistent enforcement and perception of risk of legal consequences was that of the courts**. LEAs expressed frustration when courts were not able or willing to follow through with enforcement. Issues that inhibited enforcement on the court level were paperwork (too much, requirements for accuracy), the ability to plea to lesser offenses, talented defense lawyers that knew every loophole in the legal system, and ineffective DAs and judges. LEAs had to be sure to be very rigorous in their documentation in order to assure that an arrest could get successfully convicted. In upper Río Arriba, LEAs are now penalized if they do not show up to a court date. In spite of these efforts on LEAs behalf, they still saw serious difficulties with courts following through.

In some reports, **trapster.com and similar smartphone apps could also alert others about the presence of enforcement.** LEAs seemed to think that these real time applications and texting were good for abating DWI. However, especially in a rural community or in other places that lack safe rides, someone who was already drunk and knew the back roads could quickly identify an alternative route around a checkpoint. In Laguna, that community members had police radios meant that youth and adults could know an LEA's activities, often providing enough time to escape arrest. In one site retailers reported that when texts came in on clients' cell phones that they would just hang out in the establishment until the 'coast was clear'. These kinds of real time applications may limit the numbers of some drinking and driving by encouraging them to find a safe ride but only where they are accessible. At the same time, they likely do not keep people from risky drinking in the first place, and in some cases, even allow for easy escape of detection.

IV: Social norms around DWI

In some places like Albuquerque, the **norms around DWI were perceived to be changing so that more people are using safe rides, designated drivers, or choosing to drink at home**. In other places, responses were more contradictory: while enforcement was up and very visible,

those participating in focus groups claimed that DWI and heavy drinking continued. A retailer in Santa Fe noticed an interesting change: people in the past would purchase a 6-pack, drive around and then come back for another. Now, for fear of arrest for DWI, people are purchasing larger amounts and not returning. This gradual change suggests that DWI prevention activities are working to change social norms: people are not drinking and driving as much, and are likely not returning to purchase more alcohol once they have drunk too much.

Participants in focus groups had varying thoughts **about how the current economic conditions affect drinking and drinking and driving among adults**. Some groups felt that the poor financial situation many are facing was a deterrent to heavy drinking because of the cost involved. More often, the loss of income and job insecurity was thought to increase heavy drinking as a means of self-medicating. One interesting observation from the focus groups was that drinking and drugging were 'inexpensive' social activities, especially in places where 'there's nothing to do'.

Social status and one's social relationships especially in rural communities were thought to help some continue to purchase alcohol when drunk (a vendor may be reluctant to turn down an important person in town or a friend), or escape consequences for DWI because of their connections with LEAs, DAs or judges.

In one focus group Latino men were thought to drink more because they had more access to cash, and that Latino's worries about deportation and economic problems might also contribute to problem drinking. While such a functionalist interpretation of 'immigration makes people drink more' needs some unpacking, it is a useful observation to keep in mind in terms of how the immigrant community perceives the factors related to their drinking behaviors.

Other substances

Marijuana, prescription drugs, and tobacco were the other substances most commonly mentioned. Each program seemed to highlight some over the others, where marijuana use was reported to be very normalized, especially among youth and in some cases parents. In Upper Rio Arriba, the legalization of medical marijuana was perceived to have helped people accept the idea that it was harmless. Some programs devoted some time to discussing especially the rising problems of prescription drugs abuse by youth in their communities. Issues of access are very similar, where youth can take pills from parents or especially unsuspecting grandparents when parents are absent. Enforcement of prescription drug abuse is a considerable problem, and seems to only be addressed in schools when a student is caught selling, if at all. In general participants recommended greater education for parents and caretakers about ways they can prevent access. The creative (and startling) ways that youth were reported to misuse medications suggests that programs should continue to communicate with area youth about the latest trends.

Recommended areas for support, technical assistance and intervention

Programs concluded that there were many areas for program enhancement, capacity building and for further state support. Building upon the focus group write-up and concluding responses to the

report questions, we have identified the following recommended areas for support, technical assistance and intervention.

Support multi-level interventions with courts, DAs and in closing legal loopholes that allow for inconsistent consequences for UAD and DWI. Much work of the SPF SIG has been on increasing enforcement on the level of law enforcement itself. While there remain barriers in this effort, especially in the face of budget cuts that affect enforcement, there is also an overwhelming response that courts are not holding up their end for enforcement and perception of risk. Investigate what kinds of policy, legislative and practical initiatives from the state to local level can impact this problem.

Discrepancies in enforcement need to be addressed. It is perceived to be large social inequities when it comes to enforcement of DWI and UAD laws. Those of lower social status with less influence are perceived to be targeted more often than others for enforcement. This is a delicate issue to address and we would encourage any CBP to proceed with caution and awareness when promoting increased enforcement in particular communities and to work closely with LEAs to assure that barriers can be broken down. If greater community support for prevention efforts is sought, and greater partnership among the different stakeholders, the perception of inequitable enforcement undermines the support needed to shift the social norms around risky drinking.

Build capacity on the perception of risk: This is an intervening variable that still requires considerable work on the part of CBPs. In one example, the writer concluded "Risk perception: While youth know the potential consequences, they also know how to avoid getting prosecuted and in some instances, know the officers." This would indicate that the perception of risk of getting caught remains very low, at least among youth and work continues to need to be done with LEAs and CBPs need to explore new and creative ways to make law enforcement efforts "highly visible". It is also plausible that for some subpopulations in New Mexico that the perception of risk of getting caught may not have much of an impact. This may be particularly true for those for whom problems with the law are a more normal part of life. It is, however, important to point out that most discussions of perceived risk among participants focused on "knowing the consequences" in terms of the cost, the legal consequences, and/or seeing your picture in the paper, but there was little discussion of conviction rates, arrests, etc. This may indicate that consideration should be given to how to increase the perception of risk of being arrested *and* convicted in addition to the other risks.

The state should **provide an in depth training with several programs about their media messaging** including ways to share information about enforcement and the potential iatrogenic effects of approaching prevention messaging using scare tactics or implying the problem of DWI or UAD is normative. For example, it was mentioned in Española that there was a lot of awareness in the community about the problem of DWI. Promoting greater awareness about the problem of DWI coupled with the evaluator's mention of 'fatalismo' could have deleterious effects by reinforcing a shared idea in the community that it is normal/inevitable to drink, drive, and have terrible things happen as a result. Insights about 'fatalismo' need to be taken in to consideration very seriously, by making sure that programs NOT imply that DWI is a common problem through media awareness campaigns that inevitably normalize the problem.

CBPs should continue to work on social hosting ordinances, their enforcement and educating adults about how to prevent UAD. CBPs need to educate parents how to reduce access to alcohol in the home (liquor locks, eliminating alcohol) and about the effects of alcohol on the developing adolescent brain (with care to avoid scare tactics). They should consider mobilizing parent groups to help with party patrolling so that there is stronger social pressure in the community to sharer the responsibilities of UAD prevention. CBPs need to make sure also that all enforcement is well publicized and that those caught providing alcohol to minors experience swift consequences. Not having consequences risks quickly undermining new social hosting policies.

This would include **greater support for enforcement of UAD laws.** While people seem to have a good understanding of the value of DWI enforcement, the same understanding does not carry over so well for underage drinking. Social hosting laws should be partnered with strong educational campaigns about teen drinking regardless of where it occurs- at home or in public. Additional education needs to take place with LEAs to convince them of why this is an important problem for them to address. Follow up on HACC's idea about alternative sentencing for youth caught drinking. Arrests would not be made but there would be mandatory consequences. In this way, a youth may not have a record that would disable him or her from getting a job. More adults and LEAs may be in support of this approach.

Especially in light of reduced funding for direct-service prevention programming, CBPs and direct service prevention programs using more environmental strategies should take a lesson from programs such as NCCBS by **integrating environmental strategies with their youth activities**. Youth can become a strong voice for policy change, and their work to create it can also serve as a positive youth activity.

Related to this issue, recognize that the prevalence of justifications of 'youth boredom' for substance use does not mean that they should be ignored. **Support preventionists' creative thinking about ways to address youth boredom**. Community-based actions around teen drinking can lead to more than simply a new social hosting ordinance or a parent-lead party patrol (which can be perceived as yet another hostile injunction on youth 'fun' or seeing youth as the problem). Partner these efforts with organizing for safe spaces for youth to play sports, socialize, be creative, and make a positive impact upon their community.

R**emain aware of disparities based upon immigration status and how they impact all intervening variables**, especially enforcement. Among Spanish speakers, discrimination and disparities were discussed at length. There was the belief that more enforcement and rougher consequences occur in the South Valley of Albuquerque and with Latinos in Valencia County than wealthier, predominantly white areas of Albuquerque. At the same time these participants discussed the need for having safer and healthier communities and the need for better enforcement. More research needs to be done to understand this relationship and the efficacy of increased enforcement in bringing down alcohol-related problems in immigrant communities (and not creating others, such as abandoned families when an adult breadwinner is deported).

The following is a list of insights relevant for different intervention populations:

For parents (and other caretakers, especially grandparents) social norms that should be address include:

- "Parents don't care." Mobilizing parents to address lawmakers and law enforcement on the problems of DUI & UAD could be very empowering and can go far in addressing the perceptions that 'parents don't care' or 'don't get involved' when it's not your children.
- "Alcohol isn't as bad as other drugs." CBPs need to address that alcohol is not only a drug, but it is also more harmful than most other drugs.
- "My child wouldn't drink." CBPs need to educate parents or caretakers that when children are left alone in the home for whatever reason, this is a wonderful opportunity for youth to access and consume alcohol. Locking up or removing alcohol from home entirely are good ways to prevent youth from drinking in your home.
- "If you're on the football team, then nothing is going to happen to you if you're caught." Be aware of social inequities and how they are perceived by community, eg.,It's 'not fair' that rich kids/white kids/jocks/those with connections, etc. get away with it. CBPs need to work with school administrators, faculty and staff, and with LEAs to instill the understanding that consistency is the only way in which enforcement will be effective.
- "No one else really cares so we can't do anything." CBPs need to strive create a united front towards prevention by mobilizing all stakeholders in the community and changing the norm.

For working with youth:

- Consider using new media/communications as much as possible. Few youth read the local paper, but many look online, tweet, etc. Train preventionists on new social media, in ways that can also include the pitfalls of their use for enforcement.
- Use positive messaging when at all possible rather than scare tactics.
- Integrate efforts with low/no cost drug and alcohol free social activities. NCCBS plans to integrate legislative advocacy training with youth as also a positive drug and alcohol free activity.
- Be prepared to handle "there's nothing else to do here."
- Consider taking Laguna's approach and engaging students in a discussion about how youth respond to different authority figures, what 'works' for them and what doesn't can be key for identifying effective enforcement that also links youth to help. A coach or security guard can be a strong deterrent or an incentive, depending upon that individual's characteristics. Consider training teachers about these qualities as well.

When working with schools:

- Youth commonly report that there are inconsistencies in how youth are treated by authorities. Popular youth are less likely to receive punishment than "non-popular" or labeled youth. Youth commonly cite school authority figures as the main perpetrators of labeling and stigma.

- Youth will quickly learn when consequences are not given and more importantly when consequences are not meted out consistently.
- Inconsistent enforcement not only undermines the enforcer's status in the community as providing safety for the entire community, but also negatively affects youth perception of risk in getting caught (this also applies to LEAs).
- Assure that consequences also allow for access to appropriate help. Expulsion or suspension may only exacerbate substance use problems.

In working with Law Enforcement:

- Law enforcement officers are likely to believe that UAD is the lesser evil to drug use, especially if supervised in the home. Keep in mind that LEAs are trained to think of themselves as protectors of the community and that prevention of UAD may not be included in this vision. Work on changing that.
- Some LEAs found that having clear protocols and policies in place was helpful. Support trainings for LEAs on procedures to follow for enforcing UAD and DWI, and support the development of clear policies to help them enforce.
- Consider conducting interviews with DAs and judges. Overwhelming complaints that the court system is to blame is also a product of the bias of many of the focus group respondents. Taking an interview approach, presenting court authorities with data (including from this report), may be a setting that will put them less on the defensive and help identify solutions.
- In this vein, consider a more collaborative approach between LEAs and courts, so that the problem can be addressed together, rather than simply contributing to mutual blame.
- Trapster.com and other similar real-time means to detect enforcement should be explored further. LEAs have expressed support for these apps because they keep down drunk driving, under the understanding that those who are drunk and detect a checkpoint will find a safe ride home. In spite of LEA support, trapster.com recently stopped providing real time DWI checkpoint information (at the request of federal lawmakers, including NM's Senator Udall). Upon cessation of its real time DWI check point information, it began to provide links to local taxi companies. However, further investigation is necessary to determine these and other real time applications' prevention effectiveness. Programs staff who encounter LEAs supporting these ideas should engage them in similar discussion about the real prevention effectiveness of these apps. It appears that local norms and practices could either make real time reporting a strength or weakness in prevention and should therefore be strongly considered.
- Provide training opportunities with law enforcement officers to enhance their ability to arrest and document properly for DWI and do more than send children home who are caught for UAD. Indeed, there needs to be a norm created among LEAs that enforcing UAD is a priority.

In working with retailers:

- Encourage CBPs working with retailers to conduct interactive qualitative research with them (if they have not already). Not only will they identify key areas for building capacity with area retailers (more than simply providing training), but retailers represent a sector of the community that supports, even encourages, alcohol use; they have an economic stake in selling alcohol and spend a great deal of time among those who consume it. They can serve as a valuable barometer for how your interventions are being perceived by your target audience. These views need to be understood in order to implement culturally competent and effective prevention strategies.
- Paul Cardenas observed that much retailer training appears to focus on rules and regulations, but there is little mentioned about the responsibility of the retailer in an emotionally impactful way. It may be alienating to employees at the register to receive merely legal content. Especially among rural communities, it may be more effective to approach prevention among retailers from an interpersonal relationship perspective (e.g., what if this were your sister, mother, brother) which may have a greater impact than approaching them from a legal perspective (e.g., fines and sanctions if caught by SID).
- Work closely with owners to encourage buy-in for their responsibility in upholding the laws, ways to support their staff, and rewarding staff who uphold the law. Address the potential conflict of employees having to keep up sales while also working to keep down UAD and sales to intoxicated.
- In order to address the perceived lack of responsibility as expressed by these retailers, high quality server training with a strong local component appears to be in order. Preventionists could be incorporated into part of the training, by helping trainees think through the particular issues that they are likely to face in their particular communities.
- Provide specific training to prevention staff and retailers about detection of fake IDs. While passports from other countries are likely to be difficult to detect, there are likely some key things that can tip off someone that the passport has been altered or is faked. (That altering a passport is a federal crime and altering your own passport from another country may inhibit your ability to access that county may make these notions not as common as imagined). In addition, green cards, like a NM license, are a consistent document that should not vary much in form (as passports would). Assistance and training should be given not only to retailers but also to prevention staff so that they can help support retailers with these issues.
- Trust needs to be built between law enforcement and retailers if retailers are to partner with LEAs to prevent UAD and DWI.
- The apparent age that retailers reported that they carded varied, but it was as low as 25. That age makes it quite easy for someone to slip by, so appropriate training and advocacy to change retailers' internal policies is necessary.
- Work to increase sanctions on retailers caught breaking the law. Currently, if the economic benefits of selling to underage and intoxicated patrons outweigh the sanctions, as was indicated by retailers, then there is no incentive to stop.

- Continue to support SID enforcement especially in rural areas. It is clear that the absence of SID enforcement has an impact upon whether or not retailers comply with liquor laws.
- Overall, support of the laws must occur across the alcohol retailer community in any given area. If one retailer begins to increase their vigilance, then they will surely lose business to others less so. This is quite a challenge. If not already in place, CBPs should consider implementing an alcohol retailers' forum for the community in order to present on these issues.

For everyone:

- While it is important to keep in mind the unique nature of challenges and successes that tribal communities can experience in terms of DWI and UAD, these can also provide keen insights into how to address other programs' circumstances. For example, providers often focus on 'cultural competency' when focusing on tribal or Spanish- speaking communities. Cultural competency is essential in all programming, regardless of the background of the target population. Working with non-dominant may highlight this importance, but it should not be lost when working with others.
- Laguna has been successful in achieving strong policies in collaboration with the tribal government. Their work can be seen as a model for other CBPs to work with local authorities to build good policies.
- It is very important to make distinctions between US-national Hispanic and Latino immigrant communities when shaping an intervention, in particular for enforcement and perception of risk. Common language and heritage does not necessarily mean common experiences.
- Some participants mobilized notions of individual responsibility: the idea that it was up to the individual to decide whether or not to drink or drink and drive. This idea is in in direct conflict with the intention behind implementing environmental –level prevention strategies and can reinforce fatalistic views that UAD and DWI will happen no matter what other environmental pieces are in place. Therefore, CBPs should be aware of this mindset when working with communities and their leaders and determine whether additional education needs to occur to move community members beyond the individual responsibility focus.

Conclusions

One strength of qualitative research is its ability to represent unique contexts and cultural differences. Some CBP reports were very strong in this aspect and provided insights and recommendations that were relevant to the specific circumstances a community experienced. Through the SPF SIG, NM OSAP prevention providers have learned how to adopt approaches that respond to the qualities of their communities. This requires the ability to deeply understand environmental strategies as well as think beyond the frontiers of traditional prevention approaches. They continue to learn to shape their work in relation to predominantly Hispanic or Native American communities, very rural or frontier communities, extreme poverty, lack of transportation, lack of enforcement resources, the loss of prevention resources, and the list goes on.

These data support the prevention areas OSAP has chosen to focus on for FY 12. In particular, CBPs are to focus on school policies and enforcement, and school-based problem ID and referral. Therefore, there is good evidence for continuing to support this approach in all prevention programs, as schools are one key area where enforcement of UAD is generally lacking.

Program strengths remain in their ability to garner community support for their work. Simply the ability to gather these data from busy law enforcement officers and retailers suggests that there is a level of trust with CBP programs. Especially encouraging is that law enforcement appears to understand their role in the prevention of DWI far more than when the NM SPF SIG began. Programs were also able to identify areas for additional support. For example in Carlsbad, a focus group with teachers has likely facilitated the development of a prevention relationship between the school system and the Coalition, which has been a particular challenge for them. Likewise, YDI has begun to develop a plan to work with the Latino immigrant community because of the understanding gained in the focus group about the disparities experienced by these residents, as well as this community's willingness to mobilize for change.

In spite of significant financial challenges experienced by CBPs and their partners, CBPs have garnered their strengths in the coalitions that they developed or enhanced in the SPF SIG. These community bases appear to remain strong and CBPs generally appeared satisfied with this opportunity to regroup through the focus group approach. This is not to suggest, however, that CBPs can continue to impact the community at the same level in the future, especially if smaller budgets for community partners like law enforcement also continue. Overall, these data underscore the importance of community-based approaches to prevention. Interventions along each intervening variable require community support in order to achieve greatest effectiveness. Finally, this opportunity to implement qualitative research was in part intended to assist programs in their ability to sustain their goals through continuous assessment. By evaluating programs through the perspective of their stakeholders, this approach enabled programs to take a different view of their strategies. CBPs can continue to adapt to their community's changing needs by implementing qualitative research such as this in a targeted fashion. These data can be used to enhance programming, share with stakeholders, and provide capacity assessments to compliment other kinds of data.