# NEW MEXICO DEPARTMENT OF HEALTH, OFFICE OF SUBSTANCE ABUSE PREVENTION

## EVALUATION OF SUBSTANCE ABUSE PREVENTION PROGRAMMING IN NEW MEXICO: BLOCK GRANT FUNDED DIRECT SERVICES

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PIRE

# *TABLE OF CONTENTS*

# List of Tables

## List of Figures

## *List of Abbreviations*

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

# *Introduction*

In recent years, progress has been made in reducing some alcohol, tobacco, and other drug (ATOD) use and abuse among adolescents in New Mexico (NM), yet for some substances, average use among New Mexico youth is still far higher than the U.S. average.  For example, the 2013 NM Youth Risk and Resiliency Survey (YRRS) revealed that among high school students in 2013, 22.3% of high school students reported having first drunk alcohol (other than just a few sips) prior to age 13, as compared to 18.6% among U.S. high school students as a whole.[1] Marijuana use among NM adolescents is also well above the U.S. average.  In 2013, 17.3% of adolescents reported trying marijuana before the age of 13, while 8.6% across the U.S. had tried it, and 27.8% of high school students in NM reported using marijuana at least once in the past 30 days compared to only 23.4% across the U.S.  On the other hand, NM has made significant progress in reducing current drinking and binge drinking prevalence among high school students. Past 30-day prevalence for both measures in NM has decreased below U.S. averages in 2013.  In NM, 28.9% reported drinking alcohol at least once in the past 30 days and 17.1% reported current binge drinking, compared with 34.9% and 20.8% respectively in the U.S.  In addition, only 14.4% of $9^{th}$-$12^{th}$ graders in NM were current smokers, down from 24% in 2009, and lower than the U.S. rate (15.7%).  Boys and girls did not differ significantly on many of the YRRS ATOD use measures in 2013 meaning that girls reported as much use as boys. Minorities in NM are frequently at greater risk for ATOD use than their non-Hispanic white peers.

Many factors influence whether one engages in high risk behavior such as ATOD use.  Research indicates that an ecological model 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 ATOD initiation and use.  Prevention strategies may focus on parents or youth, and some focus on the family as a whole.  Others focus on changing the school and community environments in which youth live and interact with peers.  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 are also influential in whether an individual is at increased risk for ATOD use and abuse.  Added to those individual characteristics are the influences of the family including those of parents or caregivers who may or may not use substances themselves, and may or may not monitor their child's behavior or set clear boundaries and expectations. Even older siblings may introduce younger siblings, sometimes inadvertently, to ATOD use.  An objective of OSAP for some prevention programs during Fiscal Year 2014-2015 (FY15) was to target prevention programming efforts on these first two levels of influence, where much of the research on the effectiveness of prevention programming has focused by implementing evidence-based curricula. Another OSAP objective for ATOD prevention providers is to implement environmental-level prevention strategies to reduce underage alcohol use. OSAP requires direct service providers to also implement environmental prevention strategies, such as changing and/or enforcing school and/or local substance use policies, discouraging retail access to youth by working with retailers

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[1] NM results were cited from YRRS Connections, retrieved at http://nmhealth.org/publication/view/newsletter/912/ & http://nmhealth.org/publication/view/newsletter/913/ on December 4th 2014, and US results were retrieved from http://nccd.cdc.gov/youthonline/App/Default.aspx on December 4th 2014.

to increase checking of IDs or product placement, helping law enforcement to enforce underage drinking law more strenuously, and decreasing social access by addressing social hosting concerns.

**Figure 1:** The Ecological Model of Substance Use
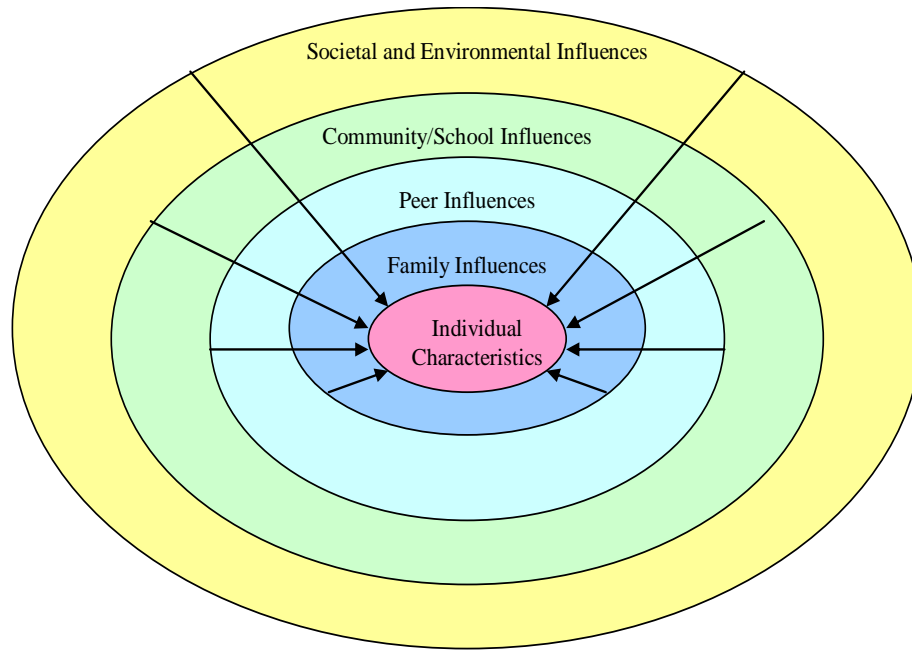


OSAP has designed a comprehensive prevention program to address risk factors and increase protective factors influencing substance use at multiple levels of the model.  In the FY15 this included providing direct service prevention programming targeting 12 to 17 year olds in multiple communities across NM.

OSAP requires local and statewide evaluation be conducted for the purpose of learning about and improving the effectiveness of prevention programming across the state and reducing ATOD initiation and use.  All 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 in ATOD use, 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 to alcohol and tobacco 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.  These environmental-level strategies were assessed through the 2015

New Mexico Community Survey (2015 NMCS) and reported on in the End of Year Community Survey final report.[2]

## State Evaluation Team

The Pacific Institute for Research and Evaluation (PIRE) served as the state level evaluation contractor for FY15. 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

Prevention 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 of participants. The evaluation then examines differences between the two data points. However, in a true experimental design, pre- and posttest data for a comparison group that did not receive prevention programming would also exist. The collection of comparison data is extremely challenging and prohibitively expensive for NM. Furthermore, at this point most youth in the state 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 from the Strategies for Success (SFS) instrument. This is done through graphing pre and posttest 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 methods section of this report.

PIRE continues to explore with OSAP alternatives to improving the current 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 FY15, no new assessment instruments were created, although several additional questions were added to the Core Module to assess progress of local prevention strategies.

During FY15, 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 (SFS) 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 posttest may reflect changes in the comfort levels of the participants. At pretest some respondents may feel less willing to answer

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[2] For a copy of the final report of the Fiscal Year 15 New Mexico Community Survey, please contact Martha Waller at mwaller@pire.org.

truthfully even with the guarantee of confidentiality.  In this case, respondents may report less ATOD use at pretest than has actually taken place.  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 more accurate reporting of ATOD use.  In turn, this would create the perception of increases the in the prevalence of use at posttest.  Alternatively, at posttest 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 posttest 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.

# *Strategies for Success (SFS) 12-17*

## Background

In FY 15, there were 4 prevention programs addressing substance use among 12-17 year olds in New Mexico.  Prevention programs typically seek to build drug resistance skills that 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).  The following programs were implemented during FY15.

*Botvin Life Skills Training*

The Botvin 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 address:

- 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, with "Home Pages" for families with high-school aged students.

*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, leadership/service learning, reconnecting with traditional values 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 ATOD use, 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, meant to help 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.

*Power to Change*

The Power to Change is a science-based prevention program. Power to Change is a National Indian Youth Leadership prevention program designed to prevent, reduce or increase the age of first use of ATODs and reduce the prevalence of past year use among targeted youth. Its focus is to increase pro-social skills, bonding to positive peers and caring adults, increase school attendance, and increase academic achievement among student participants. The program includes challenging course events, anti-bulling strategies, substance abuse prevention, experiential activities, communication skills, conflict resolution, and leadership development. The program is based on three principals; school integration, community reintegration, and cultural connection.

## Methods

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.  In 2014 and 2015, new questions have been added to address local prevention concerns. 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 with permission to measure outcomes around violence perpetration, violence victimization, internal resiliency, and external resiliency from the California Healthy Kids Survey.  Programs that focused particularly on building the resiliency of youth to resist ATOD used the resiliency measures as these were considered more accurate indicators of program 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.

In the FY 15 middle and high school SFS modules, 4 new questions (perception of risk of drinking on campus or in the community) were added to the pretest and posttest.  This version of the ATOD Core survey was administered for middle school students at all sites[3]. One site had surveyed 9th graders using high school SFS module.[4]  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 school.  This was done deliberately so that we could compare the SFS middle school data to YRRS middle school data. The YRRS data provide estimates that reflect New Mexico averages and so serves as good comparison group.

Local evaluators for the 12-17 programs assessed participants at program entry and at program exit. The total sample size from pretest for middle school was 511 and high school was 130.   Separate analyses for middle and high school students were conducted then presented side by side. The 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 SAS 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 outlying values.  Flags were created to identify inconsistent data between pre- 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

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[3] One site had 14 high school students (9th -12th grades) who used the middle school ATOD instrument.
[4] The high school SFS Core ATOD Module is similar to the middle school version with the exception that additional current consumption measures are included as in the NM YRRS and we also included two additional demographic questions not included in the middle school version.

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 in prevalence 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 $2 \times 2$ 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 for continuous outcomes on repeated measures of matched-pair samples.

*Comparing SFS findings with YRRS Comparison Data*

Finally, we graphed the pre and posttest prevalence against the equivalent measures in the YRRS to visually examine how SFS respondents in each grade compared with the average YRRS respondent. The YRRS survey is conducted during the fall of odd years. Data from 2013 were analyzed using SAS controlling for survey design effects. The total N for middle school respondents was 16,390. When weighted to reflect the population, middle school data reflect almost 68,917 middle school respondents. The YRRS data are considered a representative sample of New Mexico students, and weighted results are reported, meaning they are representative of NM students within the grade and racial/ethnic group 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 SFS estimates with the New Mexico estimates 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 SFS students and the New Mexico students generally.

In graphs where 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 boys, the YRRS comparison group includes only Hispanic boys. It is important to note that YRRS data are collected only once per grade level (in this case, Fall 2013) 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 "pre-test" 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). Please note that 8th grade *posttest* data are compared to 9th grade YRRS data respectively on questions available in both SFS and YRRS high school survey. In the body of this report we have chosen to mainly compare *current use* of major substances and include related graphs that are of particular interest.[5]

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[5] If additional analyses and graphs are needed or of interest please contact Martha Waller at mwaller@pire.org.

## Results of SFS Analyses

Data from the 12-17 programs were collected at 4 sites utilizing the Strategies for Success survey instrument. The distribution of SFS participants by site is captured in Table 1 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 1:** Distribution of SFS middle school program participants by site

| Site | Curriculum Provided | Number of Participants[a] | Percent of Total Participants |
|---|---|---|---|
| Boot-heel Youth Association | Project Venture | 75 | 14.7 |
| Five Sandoval Pueblos | Project Venture | 33 | 6.5 |
| North Central Community Based Services | Too Good for Drugs | 63 | 12.3 |
| Sandoval County SAP | Dare to Be You | 340 | 66.5 |
| Total | | 511 | 100.0 |

[a] This is based on the number of participants at pretest only. Some posttest participants have missed the pretest.

The total matched pairs in middle school included in analyses were N=391. The mean age for boys was 12.2 and 12.1 for girls. There were slightly more boys (51.1%) than girls (48.9%). SFS program participants were predominantly Hispanic for both boys (51.0%) and girls (51.9%), followed by Native American and white. Approximately half of boys (52.5%) and girls (57.8%) indicated that at home, they most often spoke a language other than English (see Table 2).

Matched high school students were N=119. High school boys were average 15.1 years old, girls 15.2 years old. The majority of boys were either Hispanic or Native American, girls dominantly Hispanic.

**Table 2:** Demographics for SFS program participants (matched-pairs) by gender

| Demographic | Middle School (N=391)[a] | | High School (N=119)[a] | |
|---|---|---|---|---|
| | **Boys** (n=200) | **Girls** (n=185) | **Boys** (n=56) | **Girls** (n=62) |
| **Grade** | % | | % | |
| 6th grade | 45.0 | 49.2 | -- | -- |
| 7th grade | 26.5 | 19.5 | -- | -- |
| 8th grade | 26.5 | 28.1 | 3.6 | -- |
| 9th grade | 0.5 | 2.2 | 67.9 | 56.5 |
| 10th grade | 0.5 | 0.5 | 1.8 | 4.8 |
| 11th grade | -- | 0.5 | 5.4 | 19.3 |
| 12th grade | 1.0 | -- | 21.4 | 19.4 |
| **Race/Ethnicity** | % | | % | |

| Demographic | Middle School (N=391)[a] | | High School (N=119)[a] | |
|---|---|---|---|---|
| | Boys (n=200) | Girls (n=185) | Boys (n=56) | Girls (n=62) |
| White | 9.5 | 8.1 | 12.5 | 12.9 |
| Hispanic | 51.0 | 51.9 | 44.6 | 72.6 |
| Native American | 38.0 | 37.8 | 41.1 | 14.5 |
| Other | 1.5 | 2.2 | 1.8 | 0.0 |
| **Language Other than English Spoken Most Often**[b] | | | | |
| Yes | 52.5 | 57.8 | 52.7 | 47.5 |

[a] Demographic information is based on the number of pretest participants only. Missing data for gender n=6 & 1 for middle school and high school respectively.
[b] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

Table 3 shows the distribution of parental education level. Note that over a third of the middle school participants did not know their parents' education level. High school students were more knowledgeable of their parents' education level.

**Table 3.** Parent education level of SFS program participants.

| Parent Education Level | Middle School % | | High School % | |
|---|---|---|---|---|
| | Mother | Father | Mother | Father |
| Not sure | 39.5 | 46.0 | 19.3 | 12.9 |
| Some high school or less | 9.8 | 9.9 | 36.0 | 34.5 |
| High school or Some college | 30.5 | 30.3 | 27.2 | 13.8 |
| College and above | 20.2 | 13.8 | 17.5 | 38.8 |

*Prevalence of Substance Use among Program Respondents*

Among male and female students, we find that there are no statistically significant changes in any reported substance use from pre to posttest. There were minor increases or decreases for boys but none large enough to be attributable to anything other than chance (see

**Table 4**). Cigarette use, alcohol use and binge drinking increased slightly among boys from pre- to posttest; while these measures decreased or remained unchanged among girls except for binge drinking. The prevalence rates of marijuana use for boys and girls at pretest were similar and higher than any other types of substances including alcohol use. At posttest girls reported decreased marijuana use while boys remained unchanged. Both boys and girls reported slight decreases in using prescription pain-killers to get high at posttest (see Table 5).

**Table 4:** Past 30-day ATOD use prevalence and Rx painkiller lifetime use to get high, differences from pretest to posttest for *middle school* participants

| Substance[a] Total N=391 | Boys | | | | | Girls | | | | | Desired Outcome |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest | | Posttest | | Mc-Nemar Test | Pretest | | Posttest | | Mc-Nemar Test | |
| | n[b] | % | n | % | | n | % | n | % | | |
| Cigarettes | 10 | 5.0 | 12 | 6.0 | 0.3 | 2 | 1.1 | 2 | 1.1 | 0.0 | ↻ |
| Chewing Tobacco | 8 | 4.0 | 7 | 3.5 | 0.1 | 1 | 0.6 | 1 | 0.6 | 0.0 | ↻ |
| Alcohol | 13 | 6.5 | 15 | 7.5 | 0.2 | 9 | 4.9 | 8 | 4.4 | 0.1 | ↻ |
| Binge Drinking | 7 | 3.6 | 8 | 4.1 | 0.1 | 0 | 0.0 | 3 | 1.7 | NA | ↻ |
| Marijuana | 20 | 10.4 | 20 | 10.4 | 0.0 | 13 | 7.1 | 10 | 5.5 | 0.7 | ↻ |
| Rx Painkiller lifetime use to get high | 6 | 3.1 | 5 | 2.6 | 0.1 | 3 | 1.6 | 2 | 1.1 | 1.0 | ↻ |

[a] Dichotomous substance use variable (yes or no).
[b] n= number of positive responses

As students grow older, high school students show higher substance use prevalence rates than middle school students overall (see Table 5). Changes in substance use varied from pre to posttest among high school boys, slightly increasing in cigarette and marijuana use yet decreasing in chewing tobacco, alcohol use and binge drinking, whereas high school girls consistently decreased their use across these measures. As for personal safety measures (i.e., rode in a car driven by someone who was drinking and driving while drinking), boys and girls generally committed fewer risky behaviors at posttest except for the girls in the measure of driving while drinking (from none to two persons at posttest). As we have seen among middle school participants, these changes were not statistically significant from pre to posttest. The prevalence rates of marijuana use for boys and girls at pretest and posttest were higher than any other types of substances. It also appeared that there were more girls than boys doing marijuana or using prescription painkillers to get high in the past 30 days.

**Table 5:** Past 30-day ATOD use prevalence, Rx painkiller use to get high and personal safety, differences from pretest to posttest for *high school* participants

| Substance Total N=119 | Boys | | | | | Girls | | | | | Desired Outcome |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest | | Posttest | | Mc-Nemar Test | Pretest | | Posttest | | Mc-Nemar Test | |
| | n[b] | % | n | % | | n | % | n | % | | |
| **Consumption**[a] | | | | | | | | | | | |
| Cigarettes | 9 | 16.1 | 12 | 21.4 | 1.3 | 10 | 16.1 | 9 | 14.5 | 0.3 | ↻ |
| Chewing Tobacco | 5 | 8.9 | 4 | 7.1 | 0.3 | 1 | 1.6 | 2 | 3.2 | 1.0 | ↻ |

| Substance Total N=119 | Boys | | | | | Girls | | | | | Desired Outcome |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest | | Posttest | | Mc-Nemar Test | Pretest | | Posttest | | Mc-Nemar Test | |
| | n[b] | % | n | % | | n | % | n | % | | |
| **Consumption**[a] | | | | | | | | | | | |
| Alcohol | 13 | 23.2 | 10 | 17.9 | 1.0 | 14 | 22.6 | 14 | 22.6 | 0.0 | ↻ |
| Binge Drinking | 6 | 10.9 | 5 | 9.1 | 0.2 | 9 | 14.5 | 8 | 12.9 | 0.1 | ↻ |
| Marijuana | 18 | 32.1 | 19 | 33.9 | 0.2 | 21 | 34.4 | 18 | 29.5 | 0.8 | ↻ |
| Rx Painkiller use to get high | 2 | 3.6 | 1 | 1.8 | 0.3 | 6 | 9.7 | 3 | 4.8 | 1.8 | ↻ |
| **Behavior**[a] | | | | | | | | | | | |
| Rode in a car driven by someone who was drinking | 9 | 16.1 | 6 | 10.7 | 0.8 | 10 | 16.1 | 7 | 11.3 | 1.0 | ↻ |
| Driving while drinking | 1 | 1.8 | 0 | 0.0 | NA | 0 | 0.0 | 2 | 3.2 | NA | ↻ |

[a] Dichotomous substance use variable (yes or no).
[b] n= number of positive responses

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 school year, many adolescents, who at pretest reported no use, may have tried substances by post-test. 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 there is little room, if any, to decrease. Similarly, students may report very strong and positive relationships with their parents, a known protective factor against ATOD use. Since the parent-child relationship is typically very strong at pretest, over the course of the prevention program, there may be a decrease in this level of closeness. This is called a ceiling affect, essentially implying that on average strong parent-child relationships existed at pretest and therefore, the only room for movement is to decrease. When there is little variation in responses and most cluster at one end or the other of a spectrum, it is difficult to judge whether these effects (positive or negative) are an artifact of the program or the result of maturation. The use of a control group is typically the best way to see if these changes occurred because of the intervention or whether these changes would have occurred regardless of the intervention. When participants report very low substance use at pretest, it is difficult to demonstrate reductions in substance use at posttest. Likewise, when respondents report high protective factors at pretest, it is difficult to demonstrate increases in these protective factors at posttest.

Table 6 captures the average number of times/days core drugs were used in the past 30 days at pretest and posttest among only those middle school SFS program participants who reported use in each individual drug category at pretest. Boys who reported use at pretest report marginally significant decreases in cigarette use and chewing tobacco use. Though not statistically significant, the decrease in marijuana use in the past 30 days at posttest was similarly observed in FY14 and in

FY13 as well among boys. Girls who reported marijuana use at pretest reported less use at posttest. Among this particular group, we have seen this declining trend in marijuana use since FY12.

**Table 6:** The average number of days/times in the past 30 days of substance use, at pre and posttest among *middle school* SFS participants reporting use in each individual category at pretest

| Substance | Boys | | | Girls | | | Desired Outcome |
|---|---|---|---|---|---|---|---|
| | Pretest Mean | Posttest Mean | t-test | Pretest Mean | Posttest Mean | t-test | |
| Cigarettes (days) | 7.8 | 0.6 | -2.1† | 15.8 | 0.0 | -1.1 | ↻ |
| Chewing tobacco (days) | 8.7 | 0.2 | -2.0† | 1.5 | 0.0 | NA | ↻ |
| Alcohol (days) | 5.9 | 4.6 | -1.4 | 1.5 | 0.0 | NA | ↻ |
| Binge drinking (days) | 0.7 | 0.2 | -1.2 | 0.0 | 0.0 | NA | ↻ |
| Marijuana (times) | 17.2 | 10.6 | -1.2 | 3.3 | 2.6 | -0.7 | ↻ |

† $p < .10$.

High school SFS program participants who <u>reported use in each individual drug category at pretest</u> generally showed a decreasing trend in use at posttest. As seen in Table 7, high school boys slightly reduced their average number of times/days use in cigarettes, chewing tobacco and prescription painkiller use to get high, yet increased use in marijuana marginally. Girls decreased significantly in cigarette use and prescription painkiller use to get high, and slightly increased in binge drinking and marijuana use.

**Table 7:** The average number of days/times in the past 30 days of substance use, at pre and posttest among *high school* SFS participants reporting use in each individual category at pretest

| Substance | Boys | | | Girls | | | Desired Outcome |
|---|---|---|---|---|---|---|---|
| | Pretest Mean | Posttest Mean | t-test | Pretest Mean | Posttest Mean | t-test | |
| Cigarettes (days) | 11.5 | 11.0 | -0.4 | 17.3 | 10.1 | -2.3* | ↻ |
| Chewing tobacco (days) | 4.4 | 2.6 | -1.0 | 1.5 | 1.5 | NA | ↻ |
| Alcohol (days) | 1.7 | 1.7 | NA | 4.9 | 4.9 | NA | ↻ |
| Binge drinking (days) | 0.5 | 0.6 | 0.0 | 2.3 | 2.5 | 0.1 | ↻ |
| Marijuana (times) | 12.3 | 15.8 | 2.1† | 11.6 | 11.8 | 0.1 | ↻ |
| Rx Painkiller use to get high (times) | 3.8 | 0.0 | -1.7 | 3.0 | 0.5 | -2.7* | ↻ |

† $p < .10$, *$p < .05$.

We also examined the self-reported substance use at posttest among only those middle school program participants reporting *any ATOD use at pretest*. Among middle school boys who reported any ATOD use at pretest, we found decreases in almost every reported substance use at posttest (from 29.9% to 62.6%, see Table 8). Among girls reporting any ATOD use at pretest, we also see declines at posttest among all substances other than binge drinking. These findings suggest that, at least among those respondents reporting ATOD use at pretest, the prevention programming may be encouraging them to decrease their use over time. Figures 2 and 3 graph the changes from pretest to posttest for boys and girls shown in Table 8.

**Table 8:** Past 30-day ATOD use prevalence at posttest among those *middle school* participants reporting any ATOD use at pretest

| Substance[a] | Boys | | | Girls | | |
|---|---|---|---|---|---|---|
| Baseline users: boys=34 girls=21 | % Pretest | % Posttest | %point Change | % Pretest | % Posttest | %point Change |
| Cigarettes | 29.4 | 20.6 | -29.9 | 9.5 | 4.8 | -49.5 |
| Chewing Tobacco | 23.5 | 8.8 | -62.6 | 4.8 | 0.0 | -100.0 |
| Alcohol | 38.2 | 20.6 | -46.1 | 42.9 | 19.1 | -55.5 |
| Binge Drinking | 20.6 | 11.8 | -42.7 | 0.0 | 14.3 | NA |
| Marijuana | 61.8 | 33.3 | -46.1 | 61.9 | 28.6 | -53.8 |

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

**Figure 2:** The percentage of *boys* reporting past 30-day substance use at posttest among *middle school* participants reporting substance use at pretest
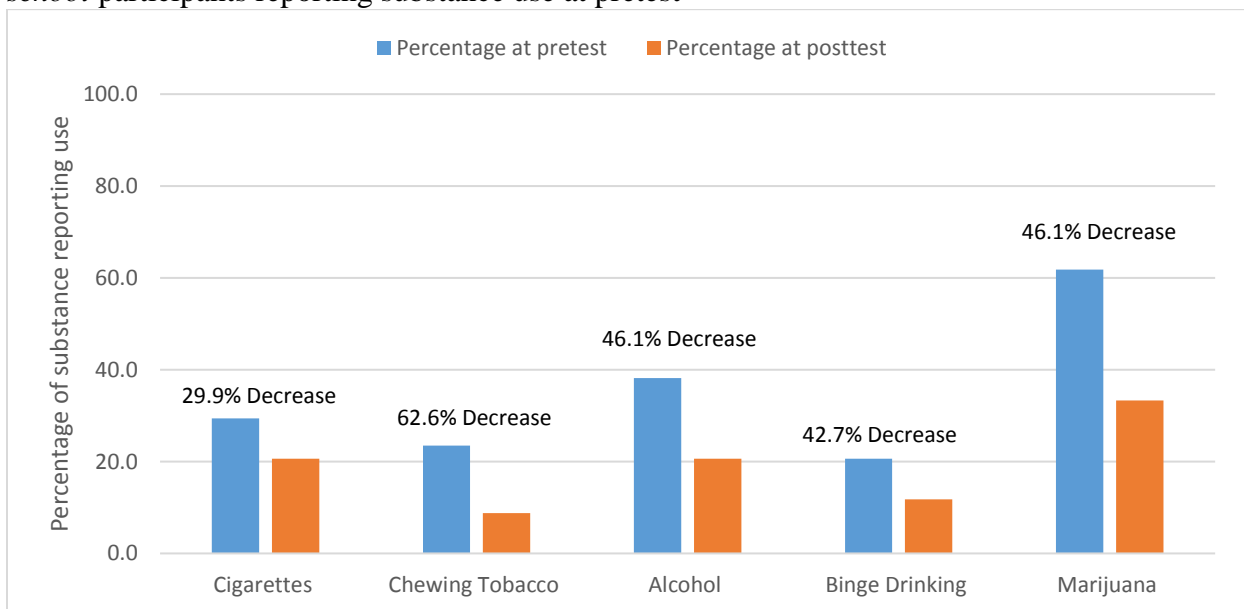
**Figure 3:** The percentage of *girls* reporting past 30-day substance use at posttest among *middle school* participants reporting substance use at pretest.
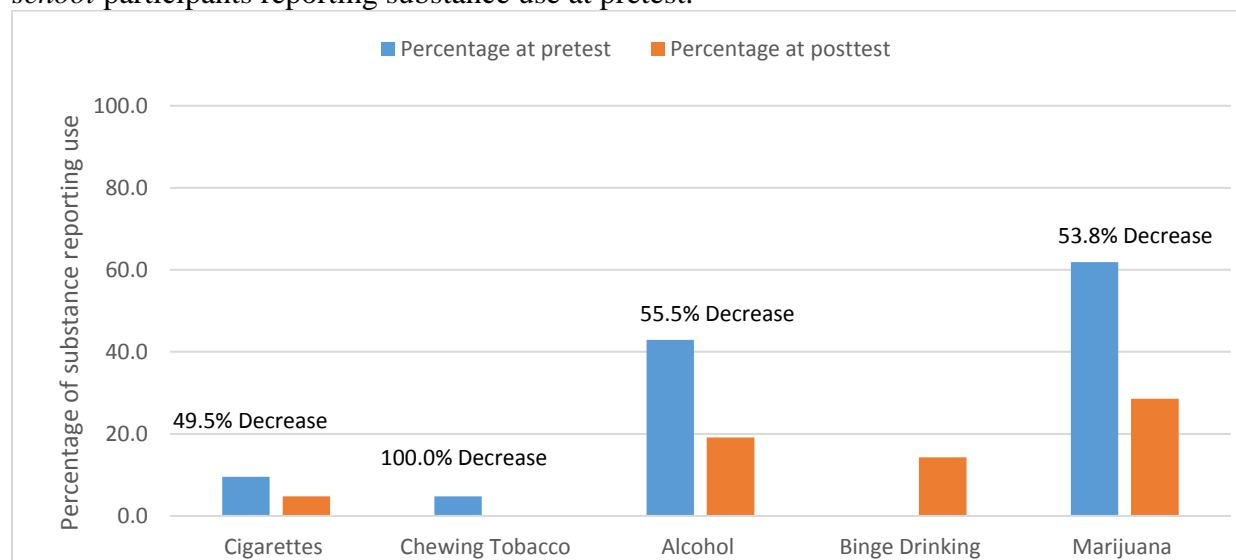


Table 9 compares the self-reported substance use at pretest and posttest among only those high school program participants reporting *any ATOD use at pretest*. High school boys who reported any ATOD use at pretest showed a great decrease in prescription painkiller use to get high but a moderate increase in cigarette use (see Table 9, -49.4%, 22.3% respectively). Among girls, declines at posttest were observed among all substances except chewing tobacco. Figures 4 and 5 graph the changes from pretest to posttest for boys and girls shown in Table 9.

**Table 9:** Past 30-day ATOD use prevalence at posttest among those *high school* participants reporting any ATOD use at pretest

| Substance[a] | Boys | | | Girls | | |
|---|---|---|---|---|---|---|
| Baseline users: boys=23; girls=31 | % Pretest | % Posttest | %point Change | % Pretest | % Posttest | %point Change |
| Cigarettes | 39.1 | 47.8 | 22.3 | 32.3 | 29.0 | -10.2 |
| Chewing tobacco | 21.7 | 17.4 | -19.8 | 3.2 | 6.5 | 103.1 |
| Alcohol | 56.5 | 39.1 | -30.8 | 45.2 | 35.5 | -21.5 |
| Binge drinking | 26.1 | 18.2 | -30.3 | 29.0 | 22.6 | -22.1 |
| Marijuana | 78.3 | 69.6 | -11.1 | 70.0 | 54.8 | -21.7 |
| Rx painkiller use to get high | 8.7 | 4.4 | -49.4 | 19.4 | 9.7 | -50.0 |

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

**Figure 4:** The percentage of *boys* reporting past 30-day substance use at posttest among *high school* participants reporting substance use at pretest.
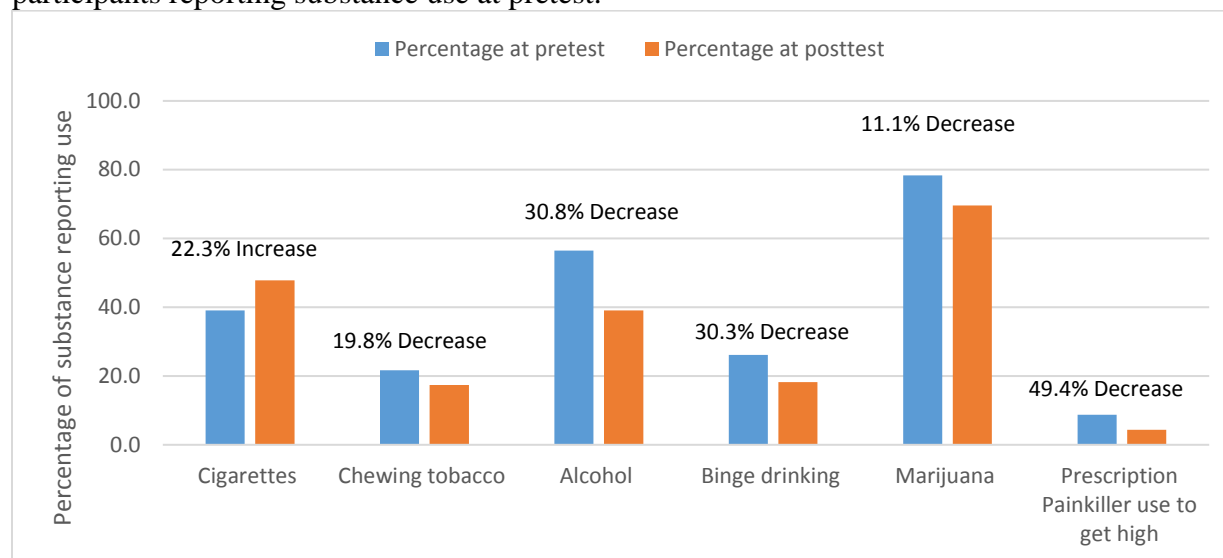


**Figure 5:** The percentage of *girls* reporting past 30-day substance use at posttest among *high school* participants reporting substance use at pretest.
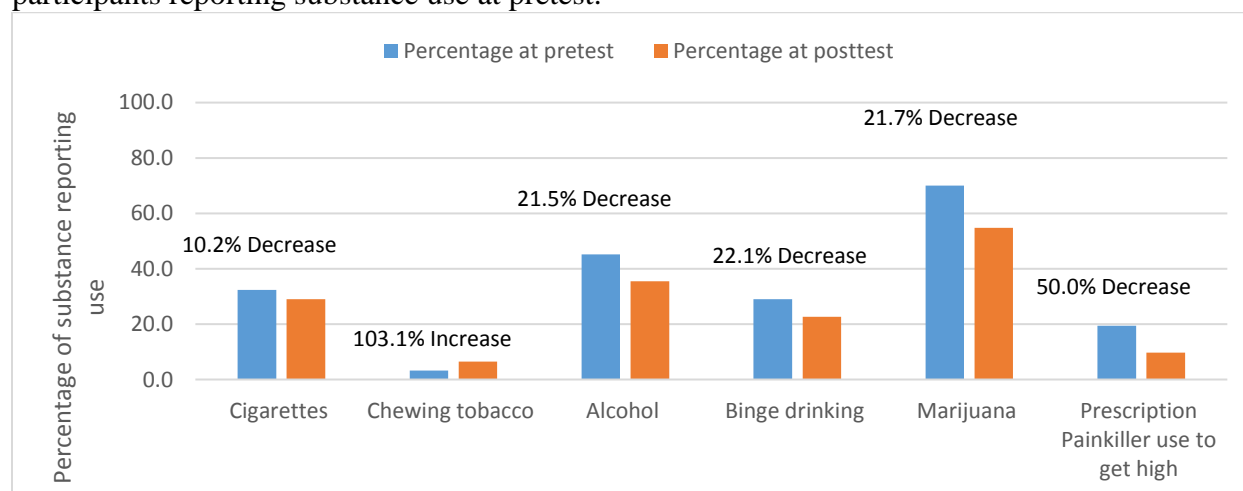


Table 10 summarizes results regarding substance use and availability on school property during this school year. This question is only asked at posttest after students have spent some months back at school and have a sense of use and availability on school property. These data are helpful for informing school administrators what youth are reporting about use and access on school property and whether the school may need to make efforts to increase monitoring of youth and substance use on school property.

In middle school, the rate of marijuana use on school property was the highest (3.6% overall) among all types of substances; whereas in high school it was cigarette use (8.7% overall). Illegal

16

drugs on campus were more available than prescription drugs in both middle and high school campus. Noticeably, the rates of availability of illegal drug and prescription drug on campus are much higher in high school than in middle school. Also, high school girls had higher rates of illegal and prescription drug use than high school boys (Table 10).

**Table 10:** Substance use and availability of drugs on school property in this school year

| Substance[a] | Middle school | | | High school | | |
|---|---|---|---|---|---|---|
| | Overall | Boys | Girls | Overall | Boys | Girls |
| Use | | | | | | |
| Cigarettes | 0.6 | 0.5 | 0.6 | 8.7 | 13.0 | 4.9 |
| Chewing Tobacco | 0.3 | 0.5 | 0.0 | 2.6 | 5.5 | 0.0 |
| Alcohol | 1.9 | 2.1 | 1.8 | 1.7 | 3.6 | 0.0 |
| Marijuana | 3.6 | 4.2 | 3.0 | 6.9 | 9.1 | 4.9 |
| Prescription drug use to get high | 1.4 | 1.6 | 1.2 | 1.7 | 1.8 | 1.6 |
| Availability on campus | | | | | | |
| Illegal drug | 5.5 | 6.4 | 4.7 | 24.6 | 17.9 | 30.7 |
| Prescription drug | 2.2 | 3.7 | 0.6 | 12.7 | 3.6 | 21.0 |

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

*Perceptions of risk of harm of substance use and Perceptions of legal consequences*

We also assessed perceived risks of harm of various substances use by SFS program participants (Table 11). Statistically speaking there were no differences between pretest and posttest in perceived risks of harm either in middle school or high school. Large proportions of the participants generally agreed that using substances posed great or moderate risks to people's health. However the participants tended to treat smoking marijuana less harmful than using cigarettes or drinking (indicated by fewer participants who perceived risk of harm of using marijuana). This lax attitude towards marijuana is more evident in high school. At posttest, only 28.7% of high schoolers (versus 52.2% of middle schoolers) thought that smoking marijuana once a month is harmful and 39.3% in high school (versus 58.6% in middle school) thought smoking marijuana once a week is harmful.

In addition, perceptions of parental disapproval and personal disapproval of underage drinking remained very high at pretest and posttest in middle school (over 90%, see Table 11). Among non-smokers in middle school, very few of them intended to smoke in the near future and significantly fewer students at posttest indicated they would smoke if their friends offered a cigarette (Table 12). Among high school participants, perception of parental disapproval of drinking significantly decreased from 94% at pretest to 86.3% posttest but personal disapproval remained unchanged (Table 11).

**Table 11:** Perceptions of risk of harm of substance use, parental and personal attitudes toward ATOD use among middle school and high school SFS participants

| Risk of Harm | Moderate or Great Risk (%) | | | | | |
|---|---|---|---|---|---|---|
| | Middle school | | | High school | | |
| | Pretest | Posttest | McNemar Test | Pretest | Posttest | McNemar Test |
| Smoke one or more packs of cigarettes per day | 72.1 | 70.6 | 0.3 | 83.8 | 83.8 | 0.0 |
| Smoke marijuana once a month or more | 56.4 | 52.2 | 1.9 | 23.4 | 28.7 | 1.5 |
| Smoke marijuana once or twice a week | 64.7 | 58.6 | 4.4 | 35.0 | 39.3 | 1.0 |
| Have one or two alcoholic drinks daily | 61.2 | 66.7 | 3.7 | 67.5 | 60.6 | 1.7 |
| Have five or more alcoholic drinks once or twice a week | 67.5 | 70.3 | 1.1 | 73.2 | 75.9 | 0.4 |
| **Attitudes Toward ATOD use** | **Wrong or Very Wrong (%)** | | | | | |
| Parents feel wrong for me to drink alcohol regularly | 95.6 | 96.9 | 1.3 | 94.0 | 86.3 | 6.2* |
| It is wrong for someone my age drink alcohol regularly | 95.9 | 93.8 | 3.2 | 80.5 | 80.5 | 0.0 |

*$p < .05$.

**Table 12:** Intention to smoke among middle school SFS participants (non-smokers only)

| Intentions to Smoke[a] | Yes or Probably yes (%) | | McNemar Test |
|---|---|---|---|
| | Pretest | Posttest | |
| Try smoking a cigarette soon (n=344) | 3.2 | 3.8 | 0.2 |
| Smoke a cigarette at any time during the next year (n=340) | 2.4 | 0.9 | 2.3 |
| Smoke if one of your best friends offered a cigarette (n=341) | 4.4 | 1.2 | 6.4* |

[a] Limit to respondents who haven't tried smoking in pretest and posttest.
* $p < .05$.

With regard to perceived risk of getting caught by teachers or school staff for drinking underage or perceived risk of getting arrested/cited by police for drinking underage, there were no observed changes from pretest to posttest among both middle school and high school respondents (Table 13). In general, middle school and high school participants indicated that the risk of getting caught drinking at school is higher than the risk associated with being caught drinking in the community. High school participants perceived lower risk overall than middle school participants.

**Table 13:** Perceptions of legal consequences of underage drinking at school and in the community among middle school and high school SFS participants

| Perception of Risk/Legal Consequences | Likely or Very Likely (%) | | | | | |
|---|---|---|---|---|---|---|
| | Middle school | | | High school | | |
| | Pre-test | Post test | McNemar Test | Pre-test | Post test | McNemar Test |
| Likelihood of being caught by teachers or staff when drinking alcohol at school | 81.3 | 79.0 | 1.0 | 70.4 | 74.8 | 1.0 |
| Likelihood of getting into trouble with school if got caught drinking at school | 87.5 | 86.5 | 0.3 | 88.9 | 88.0 | 0.1 |
| Likelihood of being caught by police when drinking alcohol in the community | 66.7 | 64.0 | 0.7 | 52.1 | 52.1 | 0.0 |
| Likelihood of getting arrested or cited by police when drinking alcohol in the community | 73.2 | 69.7 | 1.4 | 56.4 | 59.0 | 0.2 |

*Comparing SFS Respondents to YRRS Respondents*

In the next section, we compare trajectories of boys and girls across grades. As previously explained, we plot pre and posttest estimates of the SFS students along with the YRRS estimates by grade. For a detailed explanation for how we arrived at the posttest prevalence among the YRRS sample, please refer back to the methods section of this report.

Tobacco use (all boys and girls, grades 6-8)

In general, the prevalence of tobacco use in the past 30 days among boy and girl 2015 SFS program participants was lower at posttest than the average New Mexico student as reported by the 2013 YRRS. SFS students reported a mixed trend across grades and gender. Among boys, 7th graders reported an increasing trend yet 8th graders decreasing (Figure 6). A similar trend was observed among girls. They showed an increasing trend in 7th grade and dropped in 8th grade (Figure 7).

**Figure 6:** Percent of 6th-8th grade boys who report past 30-day cigarette use



| | Pre 6th grade | Post 6th grade | | Pre 7th grade | Post 7th grade | | Pre 8th grade | Post 8th grade |
|---|---|---|---|---|---|---|---|---|
| SFS | 4.4% | 4.4% | | 3.8% | 7.5% | | 7.5% | 5.7% |
| YRRS | 2.3% | 4.0% | | 4.5% | 5.6% | | 6.0% | 10.3% |
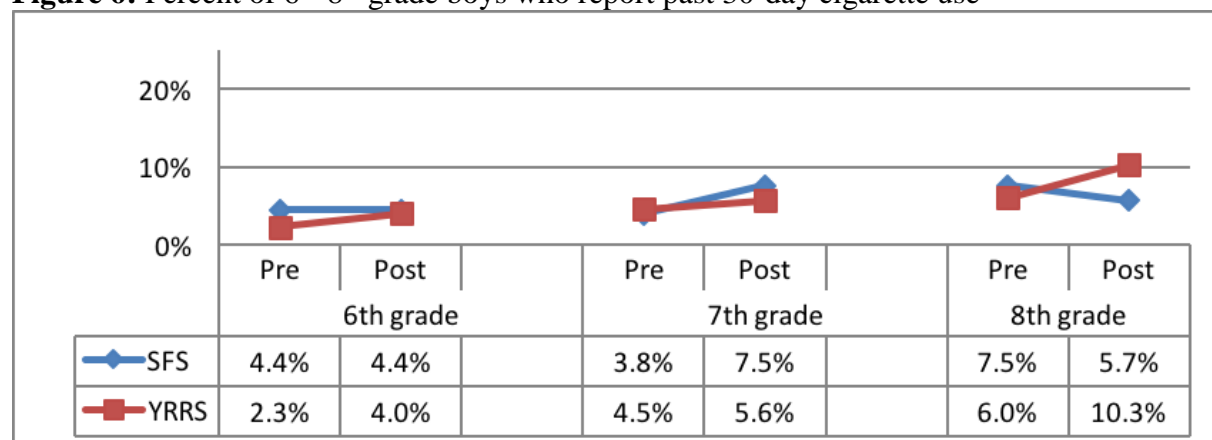
**Figure 7:** Percent of 6th-8th grade girls who report past 30-day cigarette use

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 1.1% | 1.1% | | 0.0% | 2.8% | | 1.9% | 0.0% |
| YRRS | 2.0% | 5.2% | | 6.3% | 7.4% | | 7.8% | 11.3% |
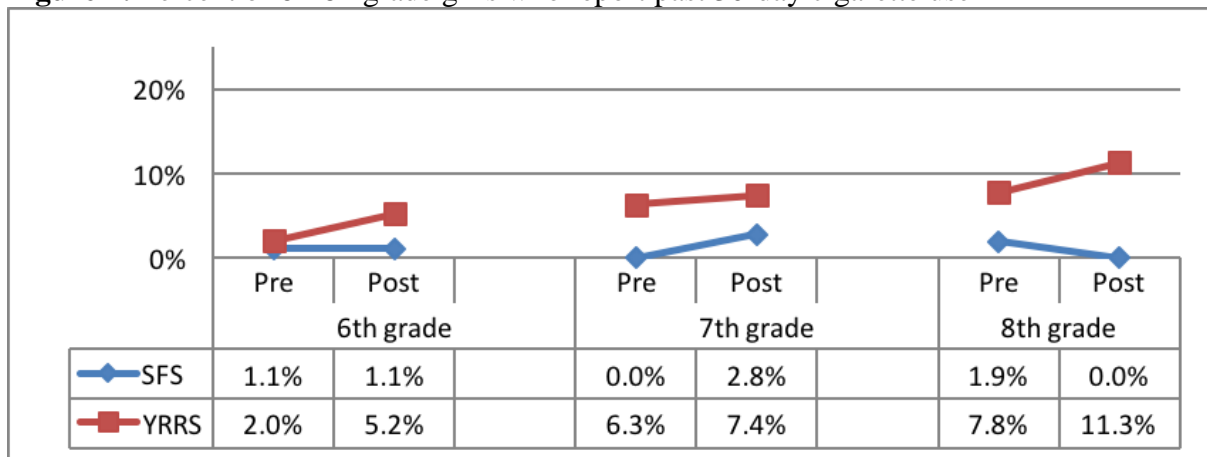
Alcohol use (all boys and girls, grades 6-8)

Again both boys and girls showed similar patterns in past 30-day alcohol use between pretest and posttest across all grades. They increased their alcohol use from 6th to 7th grade then dropped at posttest at 8th grade. None of the changes were statistically significant. Again, the prevalence rates are generally lower among SFS students than YRRS students (see Figure 8 & Figure 9).

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

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 2.2% | 3.3% | | 5.7% | 9.4% | | 13.2% | 11.3% |
| YRRS | 5.2% | 7.8% | | 8.7% | 13.1% | | 14.6% | 18.5% |
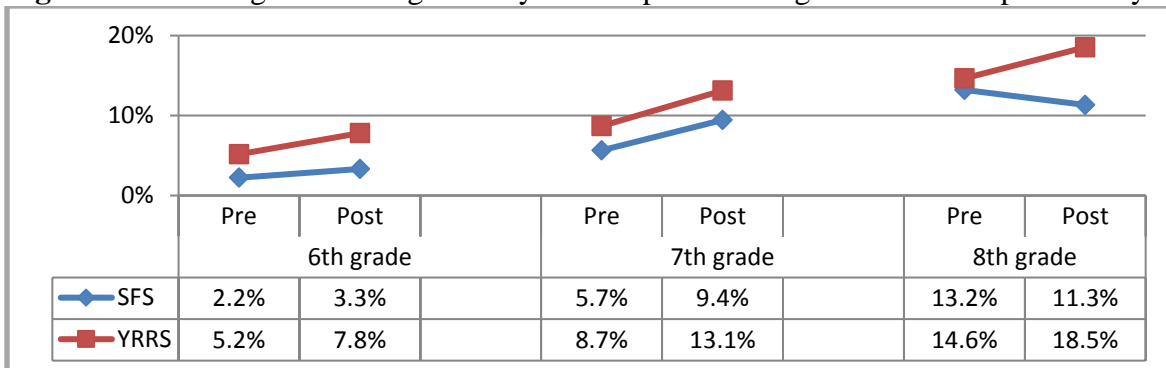
**Figure 9:** Percentage of 6th-8th grade girls who report drinking alcohol in the past 30 days

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 1.1% | | 5.6% | 8.3% | | 13.5% | 5.8% |
| YRRS | 5.4% | 9.7% | | 11.2% | 15.4% | | 16.9% | 25.2% |
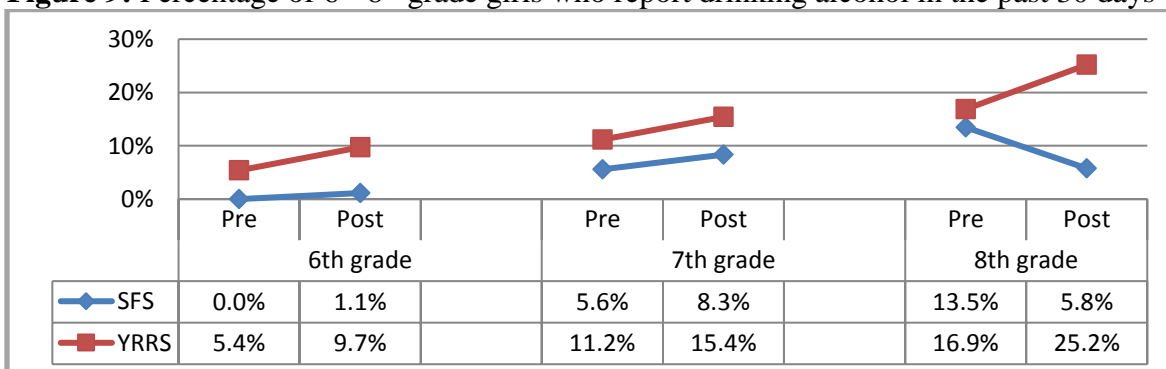
Binge drinking displays inconsistent patterns across grades in boys, such as an increase in 6th and 7th grade, and a decrease in 8th grade. Girls haven't done any binge drinking in 6th grade or at pretest in 7th and 8th grade, yet they started experimenting at posttest in in 7th and 8th grade. Again such changes did not reach statistical significance. Overall, SFS program participants report a lower prevalence rate of binge drinking than YRRS respondents (Figures 10 & 11).

**Figure 10:** Percentage of 6th-8th grade boys who report binge drinking in the past 30 days

|  | Pre | Post |  | Pre | Post |  | Pre | Post |
|---|---|---|---|---|---|---|---|---|
|  | 6th grade | |  | 7th grade | |  | 8th grade | |
| SFS | 1.1% | 2.3% |  | 1.9% | 5.9% |  | 9.6% | 3.8% |
| YRRS | 2.3% | 3.4% |  | 3.8% | 6.8% |  | 7.8% | 10.6% |
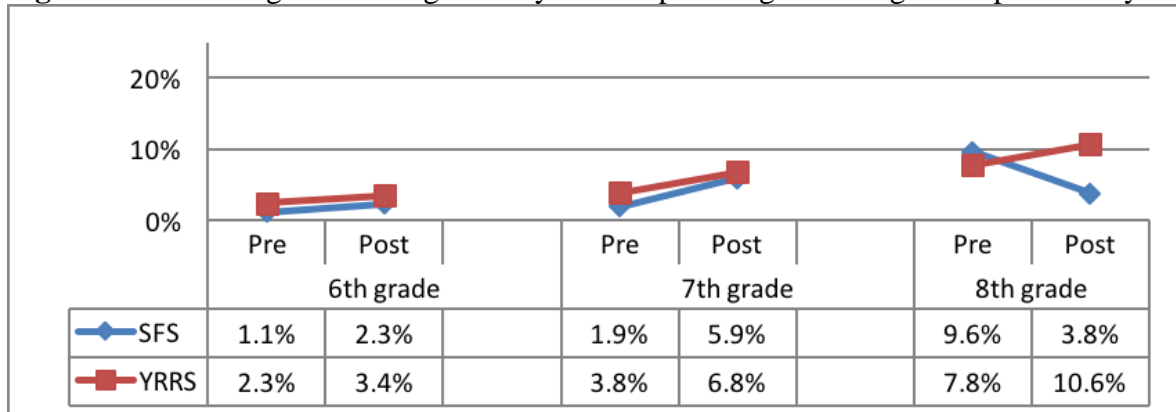
**Figure 11:** Percentage of 6th-8th grade girls who report binge drinking in the past 30 days

|  | Pre | Post |  | Pre | Post |  | Pre | Post |
|---|---|---|---|---|---|---|---|---|
|  | 6th grade | |  | 7th grade | |  | 8th grade | |
| SFS | 0.0% | 0.0% |  | 0.0% | 2.8% |  | 0.0% | 1.9% |
| YRRS | 1.6% | 4.3% |  | 5.3% | 8.0% |  | 8.9% | 15.0% |
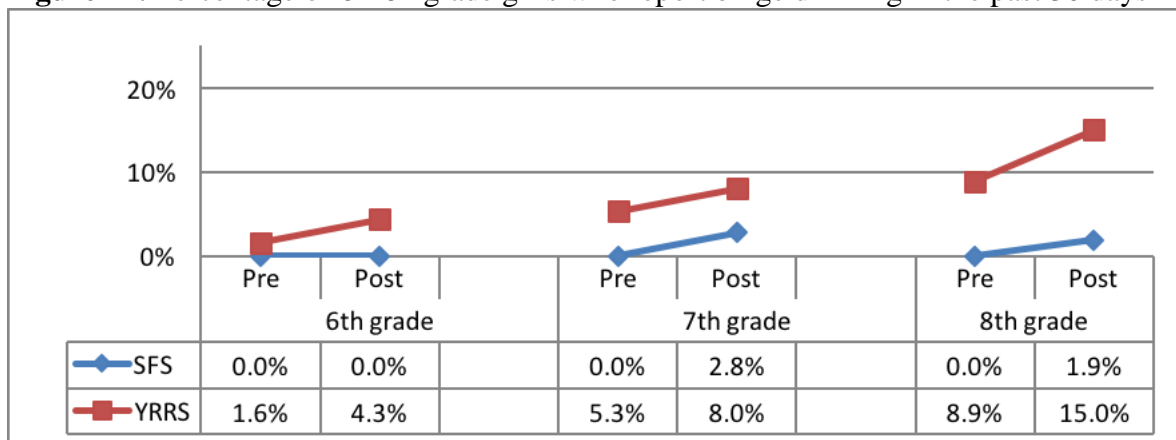
In sum, SFS students generally have less current alcohol use and binge drinking than their YRRS counterparts. There are no consistent trends observed in the SFS sample with the alcohol consumption indicators.

Other Drug use (all boys and girls grades 6-8)

The trend of SFS students reporting past 30-day marijuana use was mixed across grades and gender (Figure 12 & Figure 13). For boys, the prevalence rates of 6th grade were similar to YRRS estimates. In 7th grade, the SFS boys started higher at pretest than YRRS then increased slightly at posttest and reached a similar level as YRRS. In 8th grade, the SFS boys started at a similar level as YRRS but decreased to a much lower level at posttest (Figure 12). SFS girls showed lower

prevalence rates of past 30-day marijuana use than YRRS estimates. And in 7th and 8th grades a decreasing trend was observed in SFS girls as opposite of YRRS (Figure 13). The overall marijuana use of FY15 SFS cohort did not change significantly between pre and post-test.

**Figure 12:** Percentage of 6th-8th grade boys who report past 30-day marijuana use

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 4.5% | 6.8% | | 13.2% | 13.7% | | 15.4% | 11.5% |
| YRRS | 3.6% | 7.5% | | 8.8% | 14.6% | | 16.5% | 21.4% |
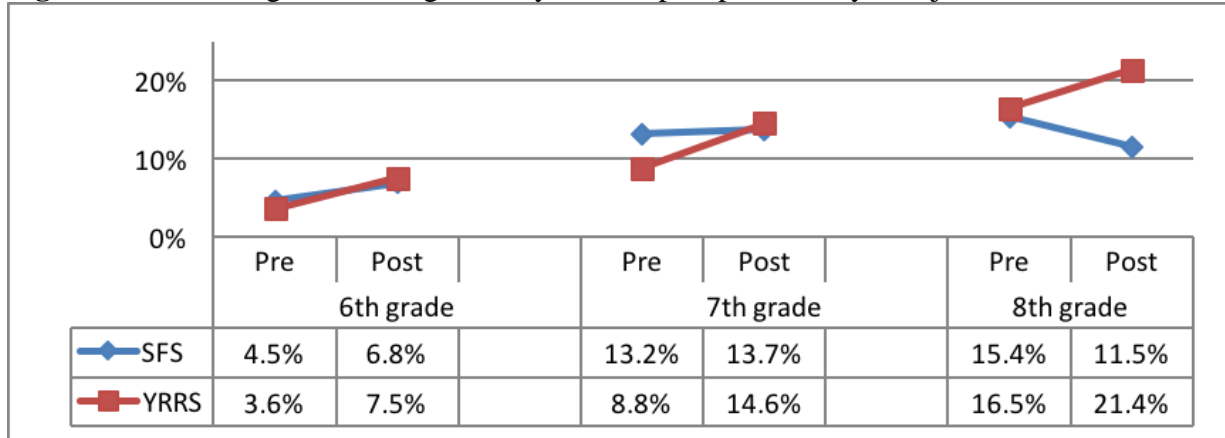
**Figure 13:** Percentage of 6th-8th grade girls who report past 30-day marijuana use

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 1.1% | 2.2% | | 5.6% | 2.8% | | 15.7% | 13.5% |
| YRRS | 2.7% | 7.7% | | 9.4% | 14.7% | | 16.5% | 21.7% |
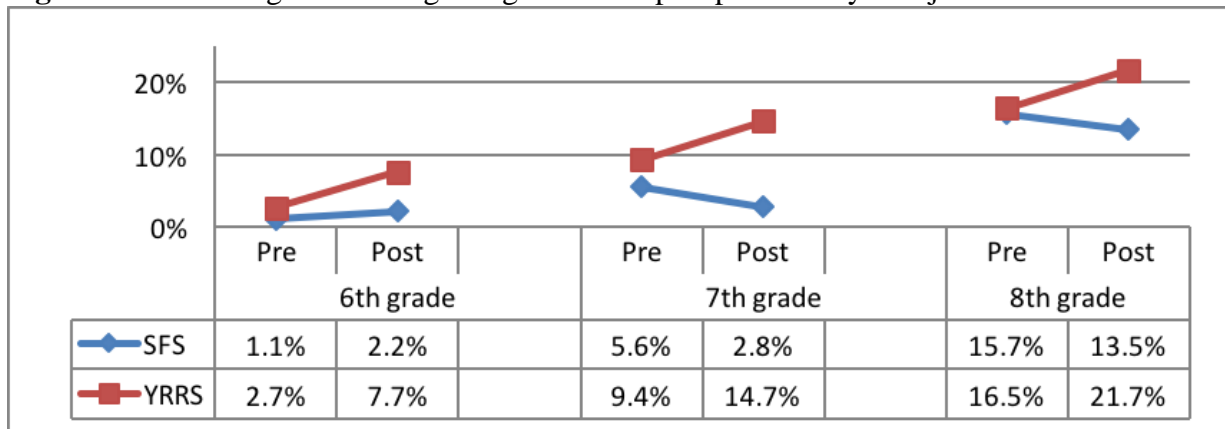
## Summary

In FY15, self-reported ATOD use among all SFS program participants showed few statistically significant changes from pretest to post-test. This was not true among those youth reporting use at pretest. Many youth reporting ATOD use of one kind or another at the beginning of the program frequently reported reducing their use by the end of the program even if the decrease was not statistically significant. Even when increases in self-reported use increased, increases were typically not statistically significant, meaning they could be due merely to chance, nor were they typically to same extent as the increases among youth in the representative YRRS sample. Compared to FY14, the ATOD prevalence rates of middle school in FY15 were slightly lower. This may be due to the inclusion of high school students (9th grade) who completed the middle school SFS instrument in FY14 sample, which might have inflated the rates artificially. In FY15, high school students have higher prevalence rates of substances than middle school students due to

maturation. The rates of past 30-day marijuana use in middle school and high school are the highest among all other substances within respective grade level. Questions about school property substance use and availability show differences in prevalence rates between middle school and high school as well. Measures on perceptions of harm and attitudes associated with ATOD use exhibited very few significant changes from pre to posttest. There are no observed changes from pretest to posttest with regard to perceived risk of getting caught in school for drinking underage or perceived risk of getting arrested/cited by police for drinking underage. It is reported that the perceived risk of underage drinking at school is higher than the perceived risk in the community. And high school participants perceive even lower risk in the community than middle school participants.

When SFS data are compared to YRRS data, SFS respondents tend to exhibit inconsistent use patterns across grades and gender, but in general are reporting lower use overall and better trajectories over time than YRRS respondents. Again, the prevalence rates of past-30 day marijuana use in FY15 SFS sample are closer to YRRS sample for boys but lower for girls. And boys in SFS sample also have higher rates of using prescription painkiller lifetime to get high than YRRS. It requires special attention from local providers to monitor and address the continuing increasing trend of marijuana use and the use of prescription painkiller to get high.

# *Hispanic & Native American SFS Program 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 particular interest in examining the outcomes of two subgroups of the state: 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 SFS middle school 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 for ease of comparison with state data and at a 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, and paired t-test analysis. 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 SFS Program Middle School Participants

Surveys were completed by 201 SFS program participants who self-identified as Hispanic. Of the Hispanic participants, 48.1% were boy and 51.9% were girl, three did not provide information on gender. The average age for boy participants was 12.0 years old and the average age for girl participants was 11.9 years old. About half of both boys (46.5%) and girls (51.0%) lived in homes where a language other than English was spoken. Table 14 provides the breakdown of the sample by demographics and presents parental education level.

**Table 14:** Demographics for middle school Hispanic SFS participants[a]

| **Demographic** (N=201) | **Boys** (n=102) | **Girls** (n=96) |
|---|---|---|
| **Grade** | **%** | |
| 6th grade | 54.9 | 60.4 |
| 7th grade | 26.5 | 17.7 |
| 8th grade | 18.6 | 20.8 |
| 9th grade | -- | 1.0 |
| **Language Other than English Spoken Most Often[b]** | | |
| Yes | 46.5 | 51.0 |

[a] Missing data for gender n=3.
[b] Dichotomous variable (yes or no) capturing the percentage of youth living in homes where English is not the primary language.

**Table 15**: Parental education level of middle school Hispanic SFS participants

| Parent Education Level | % | |
|---|---|---|
| | **Mother** | **Father** |
| Not sure | 36.2 | 43.2 |
| Some high school or less | 12.1 | 11.1 |
| High school or Some college | 30.2 | 29.7 |
| College and above | 36.2 | 16.1 |

In FY 15, Hispanic middle school students participating in direct prevention programming did not report significant changes in their substance use from pre- to posttest, although boys slightly increased their use at posttest in all categories of substances, whereas girls barely changed their use patterns from pretest to posttest (see Table 16). Generally speaking, very few Hispanic middle school youth reported misusing prescription medications though more boys reported lifetime use of prescription pain-killers to get high at posttest (see Table 16).

**Table 16:** Past 30-day ATOD and Rx painkiller lifetime use differences from pretest to posttest for middle school Hispanic SFS participants

| Substance[a] Total N=201 | Boys | | | | | Girls | | | | | Desired Outcome |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest | | Posttest | | Mc-Nemar Test | Pretest | | Posttest | | Mc-Nemar Test | |
| | n[b] | % | n | % | | n | % | n | % | | |
| Cigarettes | 3 | 3.0 | 6 | 5.9 | 1.8 | 1 | 1.1 | 1 | 1.1 | 0.0 | ↻ |
| Chewing Tobacco | 3 | 2.9 | 5 | 4.9 | 0.7 | 0 | 0.0 | 1 | 1.6 | NA | ↻ |
| Alcohol | 5 | 4.9 | 9 | 8.8 | 1.3 | 4 | 4.2 | 4 | 4.2 | 0.0 | ↻ |
| Binge Drinking | 3 | 3.0 | 4 | 4.0 | 0.2 | 0 | 0.0 | 1 | 1.1 | NA | ↻ |
| Marijuana | 5 | 5.2 | 7 | 7.2 | 0.5 | 4 | 4.3 | 5 | 5.3 | 0.2 | ↻ |
| Rx Painkiller lifetime use to get high | 1 | 1.0 | 3 | 3.1 | 2.0 | 1 | 1.1 | 0 | 0.0 | NA | ↻ |

[a] Dichotomous substance use variable (yes or no).
[b] n= number of positive responses

When only those participants who reported baseline substance specific ATOD use were examined, we found some noticeable decreases in the frequency of use mainly among boys. Among Hispanic boys who reported use at baseline, the prevalence of alcohol use decreased marginally. Among Hispanic girls, no one tried chewing tobacco or binge drinking at pretest or posttest. Those who tried cigarettes, alcohol or marijuana at pretest had stopped using or decreased use at posttest (see Table 17 for details).

**Table 17:** The average number of days/times in the past 30 days of substance use[a], at pre and posttest among middle school Hispanic SFS participants who reported substance specific use at pretest

| Substance | Boys | | | Girls | | | Desired Outcome |
|---|---|---|---|---|---|---|---|
| | Pretest Mean | Posttest Mean | t-test | Pretest Mean | Posttest Mean | t-test | |
| Cigarettes (days) | 9.2 | 1.0 | -1.1 | 1.5 | 0.0 | NA | ↻ |
| Chewing tobacco (days) | 3.5 | 0.5 | -2.0 | 0.0 | 0.0 | NA | ↻ |
| Alcohol (days) | 3.6 | 0.4 | -3.0† | 1.5 | 0.0 | NA | ↻ |
| Binge drinking (days) | 0.8 | 0.0 | -1.6 | 0.0 | 0.0 | NA | ↻ |
| Marijuana (times) | 10.8 | 5.3 | -1.2 | 3.0 | 2.5 | -1.0 | ↻ |

† $p < .10$.


Table 18 presents the change in the prevalence of ATOD use among those who reported any ATOD use at pretest (as opposed to substance specific use). Results indicate that Hispanic boys who reported any ATOD use at baseline decreased their prevalence of use in almost every substance except for cigarette use. Girls decreased their prevalence of use at posttest on alcohol and marijuana use, yet engaged in more binge drinking at posttest. Figure 14 and Figure 15 graph the changes from pretest to posttest for boys and girls respectively based on the data in Table 18.

**Table 18:** Past 30-day ATOD use at posttest among those middle school Hispanic SFS participants reporting any ATOD use at pretest

| Substance[a] Baseline users: boys=12 girls=8 | Boys | | | Girls | | |
|---|---|---|---|---|---|---|
| | % Pretest | % Posttest | %point Change | % Pretest | % Posttest | %point Change |
| Cigarettes | 25.0 | 25.0 | 0.0 | 12.5 | 12.5 | 0.0 |
| Chewing Tobacco | 25.0 | 16.7 | -33.2 | 0.0 | 0.0 | 0.0 |
| Alcohol | 41.7 | 16.7 | -60.0 | 50.0 | 12.5 | -75.0 |
| Binge Drinking | 25.0 | 8.3 | -66.8 | 0.0 | 12.5 | NA |
| Marijuana | 41.7 | 16.7 | -60.0 | 50.0 | 25.0 | -50.0 |

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

**Figure 14:** Percent of Hispanic boys reporting substance use at posttest among only program participants reporting substance use at pretest
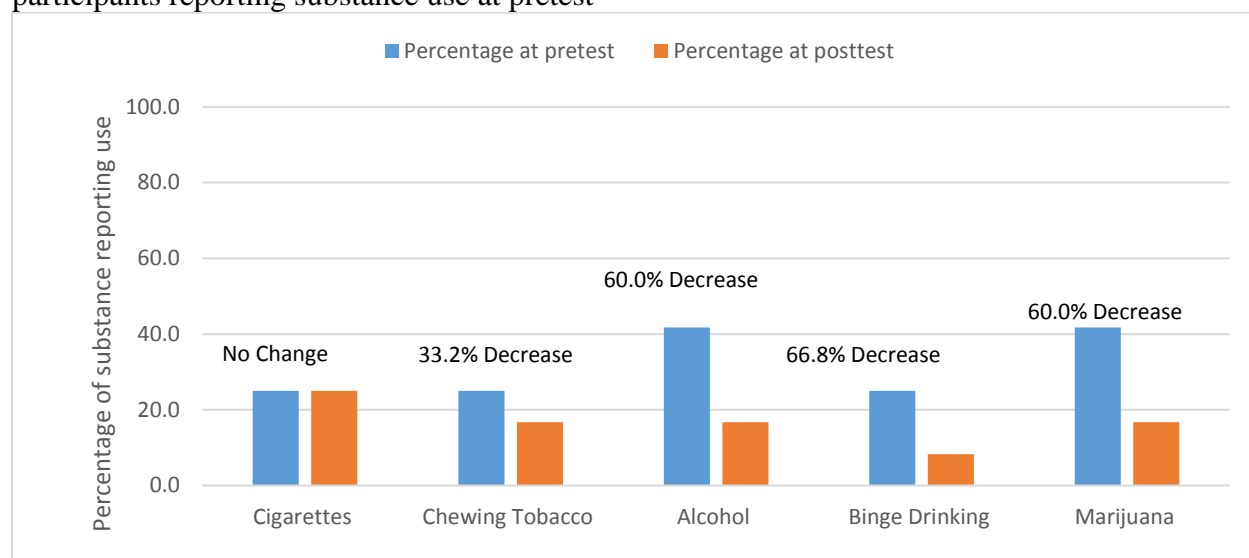


**Figure 15:** Percent of Hispanic girls reporting substance use at posttest among only program participants reporting substance use at pretest
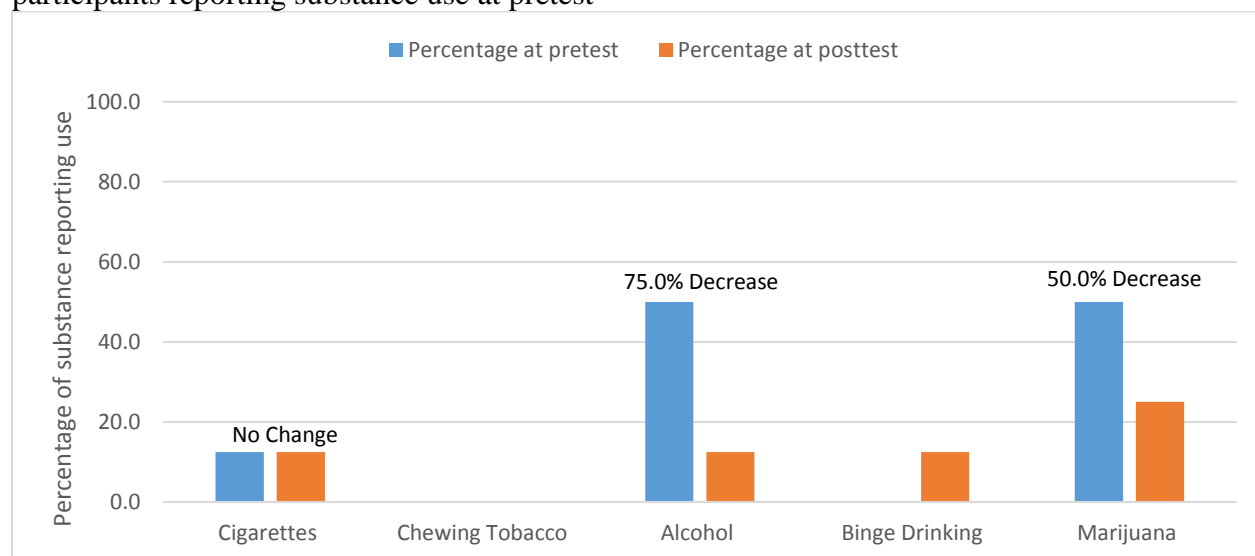


Among Hispanic SFS students, the rates of alcohol and marijuana use on school property were the highest (2.1% overall) among all types of substances. Illegal drugs on campus were more available than prescription drugs on school campus. Noticeably, boys had higher rates of all substance use on school property than girls (Table 19).

**Table 19:** Percentages of substance use on school property among middle school Hispanic SFS participants (posttest only)

| Substance[a] | Overall | Boys | Girls |
|---|---|---|---|
| Use | | % | |
|    Cigarettes | 1.0 | 1.0 | 1.1 |
|    Chewing Tobacco | 0.5 | 1.0 | 0.0 |
|    Alcohol | 2.1 | 3.0 | 1.1 |
|    Marijuana | 2.1 | 4.0 | 0.0 |
|    Prescription drug use to get high | 1.0 | 2.0 | 0.0 |
| Availability on campus | | | |
|    Illegal drug | 4.6 | 5.1 | 4.4 |
|    Prescription drug | 2.1 | 4.0 | 0.0 |

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

*Perceptions of risk of harms and parental attitudes towards underage drinking*

Measures of perceptions of risk and attitudes towards substance use in the core module showed little significant change from pretest to posttest (see Table 20). The majority of the participants agreed that using substances posed great or moderate risk to people's health. Smoking marijuana once a month was seen as posting the least harm garnered at posttest (58.6%). Moreover perceptions of parental disapproval and personal disapproval of underage drinking remained very high at pretest and posttest in middle school (well over 90%, see Table 20). Among Hispanic non-smokers in middle school, very few of them intended to smoke in the near future and a significant change occurred when more students declined friends' offer of cigarettes at posttest (Table 21).

**Table 20:** Perceptions of risk of harm of substance use, parental and personal attitudes toward ATOD use among middle school Hispanic SFS participants

| Risk of Harm | Moderate or Great Risk (%) | | |
|---|---|---|---|
| | Pretest | Posttest | McNemar Test |
| Smoke one or more packs of cigarettes per day | 80.8 | 81.3 | 0.0 |
| Smoke marijuana once a month or more | 60.6 | 58.6 | 0.3 |
| Smoke marijuana once or twice a week | 73.9 | 70.3 | 1.1 |
| Have one or two alcoholic drinks nearly daily | 69.0 | 73.6 | 1.7 |
| Have five or more alcoholic drinks once or twice a week | 74.8 | 75.3 | 0.0 |
| **Attitudes Toward ATOD Use** | **Wrong or Very Wrong (%)** | | |
| Parents feel wrong for me to drink alcohol regularly | 95.5 | 97.5 | 1.3 |
| It is wrong for someone my age drink alcohol regularly | 96.5 | 94.0 | 3.6 |

**Table 21:** Intention to smoke among middle school Hispanic SFS participants (non-smokers only)

| Intentions to Smoke[a] | Yes or Probably Yes (%) | | McNemar Test |
|---|---|---|---|
| | Pretest | Posttest | |
| Try smoking a cigarette soon (n=181) | 1.7 | 3.3 | 1.0 |
| Smoke a cigarette at any time during the next year (n=179) | 1.1 | 1.7 | 0.2 |
| Smoke if one of your best friends offered a cigarette (n=180) | 3.9 | 1.7 | 1.6 |

[a] Limited to respondents who haven't tried smoking at pre and posttest.

Regarding perceived risk of getting caught at school or by police for drinking underage or perceived risk of getting arrested/cited by police for drinking underage, there were no observed changes from pretest to posttest except for getting arrested/cited by police when drinking in the community (Table 22). Significantly fewer students agreed that it was likely to be arrested for underage drinking in the community. In general, the perceived risk of getting caught drinking at school was higher than the perceived risk in the community.

**Table 22:** Perceptions of legal consequences of underage drinking at school and in the community among middle school Hispanic SFS participants

| Perception of Risk/Legal Consequences | Likely or Very Likely (%) | | |
|---|---|---|---|
| | Pretest | Posttest | McNemar Test |
| Likelihood of being caught by teachers or staff when drinking alcohol at school | 85.6 | 82.5 | 0.9 |
| Likelihood of getting into trouble with school if got caught drinking at school | 89.6 | 88.0 | 0.3 |
| Likelihood of being caught by police when drinking alcohol in the community | 69.3 | 69.5 | 2.4 |
| Likelihood of getting arrested or cited by police when drinking alcohol in the community | 76.2 | 66.8 | 5.2* |

* $p < .05$.

*SFS Hispanic Subpopulation Compared with YRRS Hispanic Subpopulation*

Tobacco use (Hispanic students, grades 6 - 8)

In this section, we compare the prevalence of ATOD use among Hispanic SFS school participants in OSAP funded prevention programming to Hispanic 6th to 8th grade students in the NM 2013 YRRS sample. As we know from the results presented above, both boys and girls in SFS programs increased their ATOD use slightly over time. Yet, it helps to see if these increases are also occurring among a representative sample of Hispanic 6th to 8th grade students and if the increases are relatively similar in their slope or differ in the extent to which increases occur over time. Students receiving prevention programming ideally will not increase as quickly as the typical student who may not be receiving any prevention programming.

In Figure 16 and Figure 17 below we can see that among Hispanic boys, SFS students in 7th grade increased the prevalence of past 30-day cigarette use considerably. Smoking remained essentially the same among 6th and 8th graders in the male SFS sample, while increasing among the male YRRS sample. Among SFS Hispanic girls in 6th and 8th grades past 30-day cigarette use was the same or lower than the YRRS Hispanic girl sample. Among the general Hispanic female YRRS sample, there were predictable increases over time from 6th grade to 8th grade, in past 30-day cigarette use from pre to posttest but only 7th grade SFS girls report increased in past 30-day cigarette use.

**Figure 16:** Percent of 6th-8th grade Hispanic boys reporting past 30-day cigarette use



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 3.6% | 3.6% | | 0.0% | 11.1% | | 5.3% | 5.3% |
| YRRS | 2.0% | 3.5% | | 4.1% | 5.3% | | 5.7% | 10.7% |
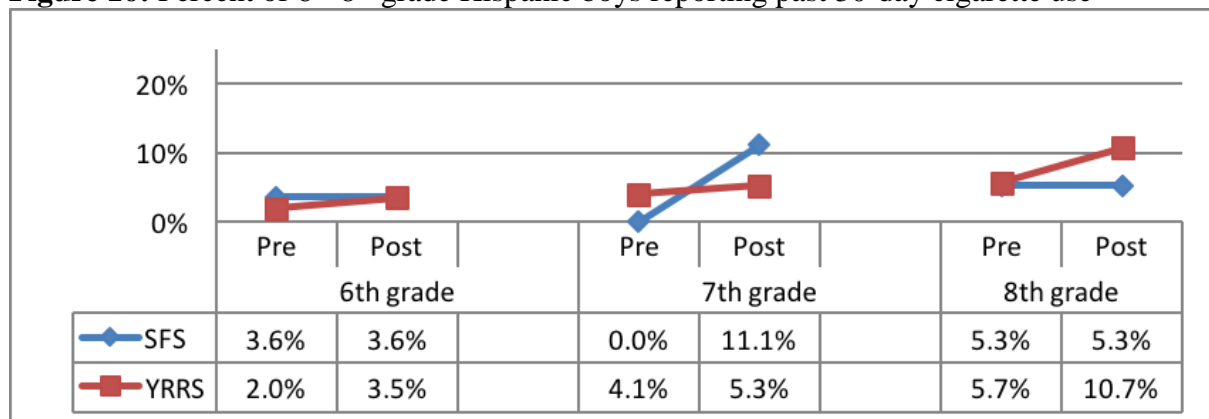
**Figure 17:** Percent of 6th-8th grade Hispanic girls reporting past 30-day cigarette use



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 1.7% | 0.0% | | 0.0% | 5.9% | | 0.0% | 0.0% |
| YRRS | 1.3% | 4.3% | | 5.3% | 7.3% | | 8.0% | 11.5% |
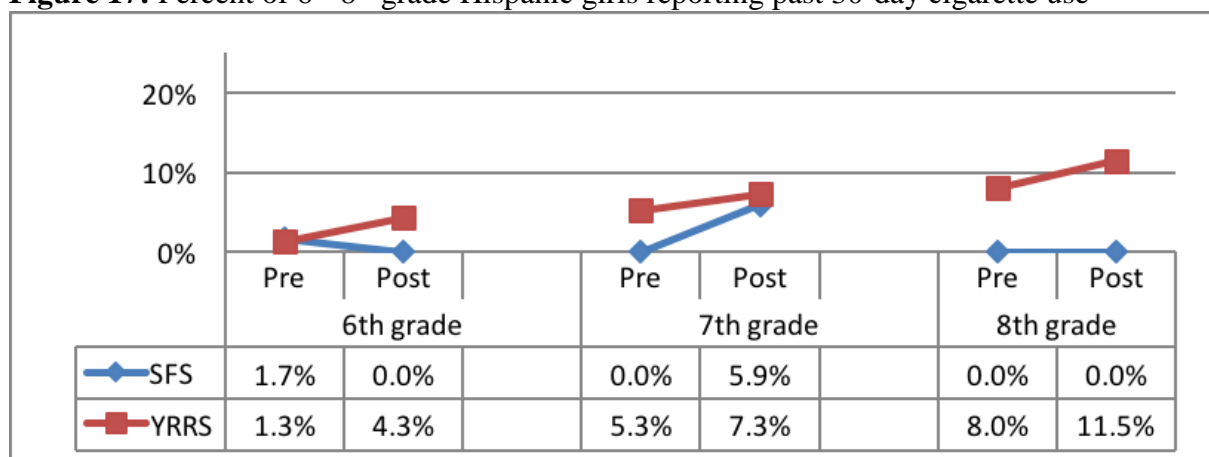
Alcohol use (Hispanic students, grades 6 - 8)

Past 30-day drinking generally increased among males and females in both the SFS and YRRS samples, however, overall use was typically, although not always) lower in the SFS samples. Only 8th grade girls decreased their reported past 30 day alcohol use between pre and posttest (see Figure 18 and Figure 19); no changes were statistically significant.

**Figure 18:** Percentage of 6th-8th grade Hispanic boys who report drinking in the past 30 days



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 3.6% | 3.6% | | 3.7% | 14.8% | | 10.5% | 15.8% |
| YRRS | 4.9% | 7.9% | | 8.9% | 14.3% | | 16.1% | 20.3% |
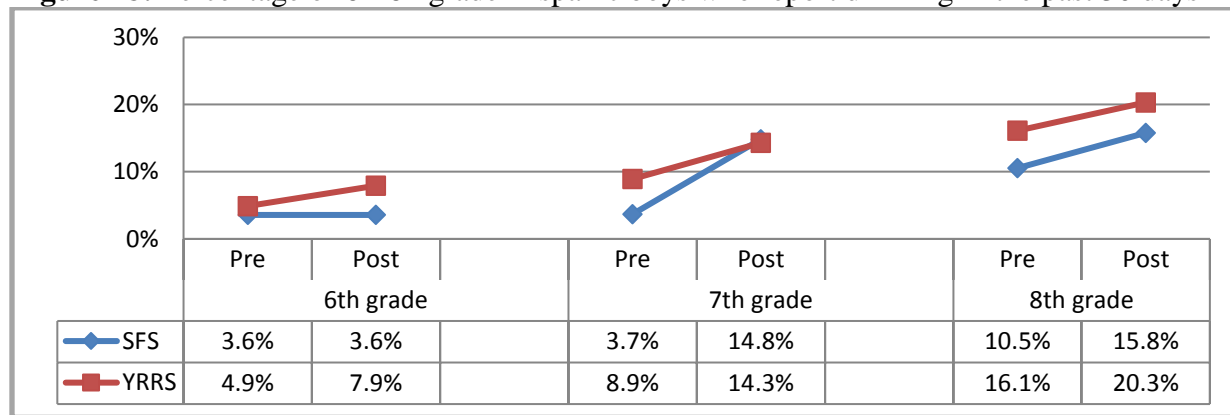
**Figure 19:** Percentage of 6th-8th grade Hispanic girls who report drinking in the past 30 days



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 1.8% | | 5.9% | 11.8% | | 15.0% | 5.0% |
| YRRS | 6.4% | 9.9% | | 11.1% | 17.0% | | 18.9% | 28.7% |
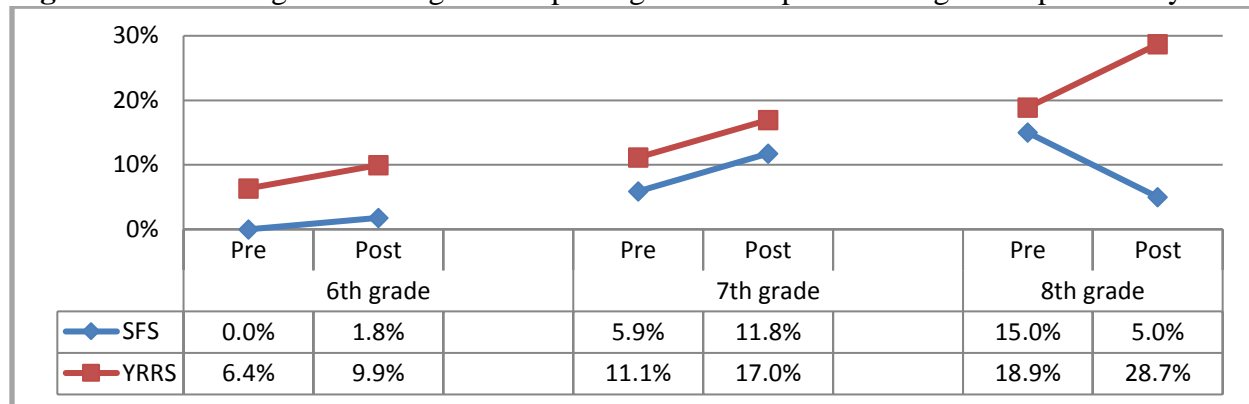
Current binge drinking among SFS Hispanic students varied considerably from grade to grade and between boys and girls. SFS Hispanic boys in 2015 reported comparable levels of binge drinking to the YRRS sample in most grades yet only 8th grade SFS boys reported a decrease between pre and posttest (Figure 20). Hispanic SFS girls remained unchanged from pre to posttest in 6th and 8th grades (Figure 21), yet 7th grade SFS girls reported considerable increases. Among the YRRS girls binge drinking increased at every grade.

**Figure 20:** Percentage of 6th-8th grade Hispanic boys reporting binge drinking in the past 30 days



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 1.8% | 1.8% | | 0.0% | 8.0% | | 10.5% | 5.3% |
| YRRS | 1.6% | 3.3% | | 3.8% | 7.0% | | 8.1% | 11.9% |
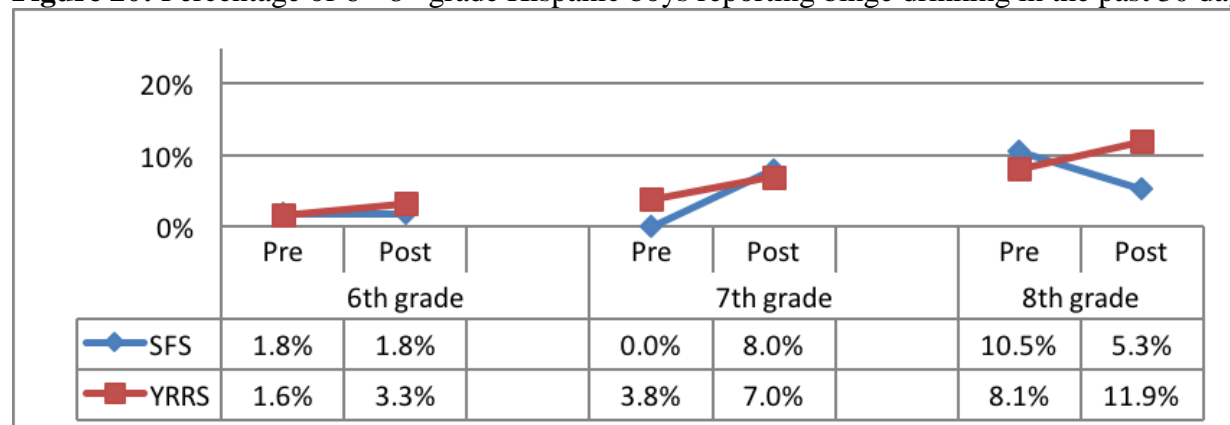
**Figure 21:** Percentage of 6<sup>th</sup>-8<sup>th</sup> grade Hispanic girls reporting binge drinking in the past 30 days

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 0.0% | | 0.0% | 5.9% | | 0.0% | 0.0% |
| YRRS | 1.7% | 3.8% | | 4.6% | 9.0% | | 10.5% | 18.3% |
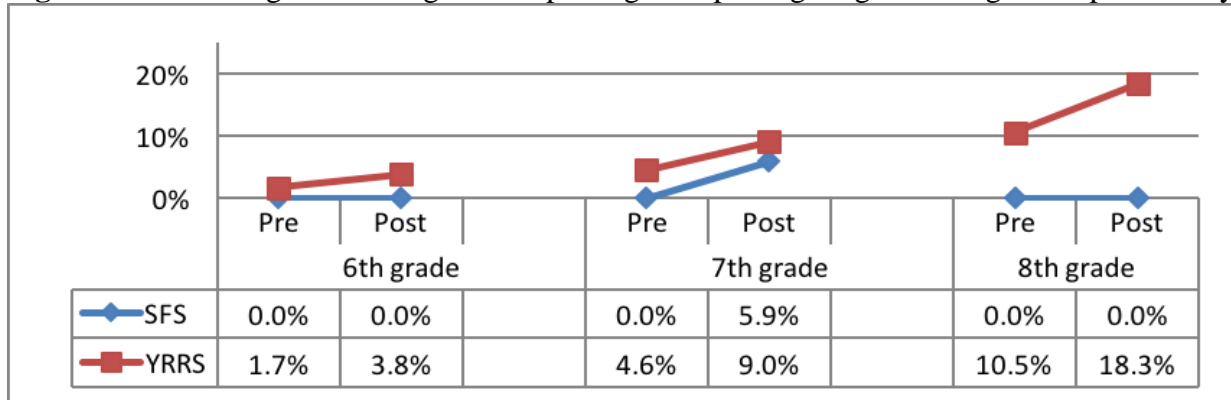
Drug use (Hispanic students, grades 6 - 8)

Similar to current binge drinking, the patterns of current marijuana use remained mixed for the SFS participants. On one hand, 8<sup>th</sup> grade SFS boys and 7<sup>th</sup> grade girls decreased their marijuana use, however, marijuana use increased among boys and girls in other grades (see Figure 22 and Figure 23). When compared to their YRRS counterparts, overall current marijuana use among the SFS respondents is still relatively lower.

**Figure 22**: Percentage of 6<sup>th</sup>-8<sup>th</sup> grade Hispanic boys reporting marijuana use in the past 30 days

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 5.6% | 7.3% | | 0.0% | 12.0% | | 10.5% | 0.0% |
| YRRS | 3.1% | 7.2% | | 8.6% | 15.8% | | 18.2% | 22.9% |
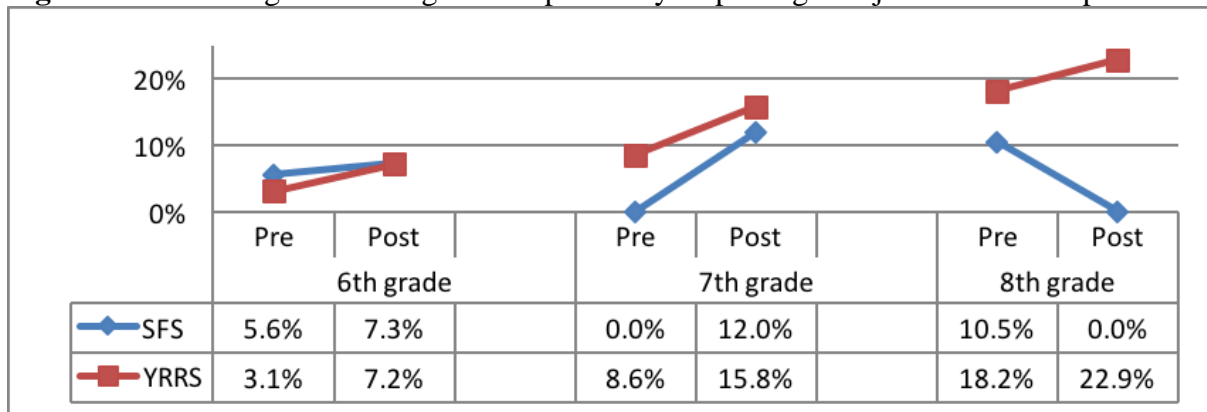
**Figure 23:** Percentage of 6<sup>th</sup>-8<sup>th</sup> grade Hispanic girls reporting marijuana use in the past 30 days

| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 3.5% | | 11.8% | 5.9% | | 5.3% | 10.0% |
| YRRS | 2.7% | 6.8% | | 8.2% | 15.6% | | 18.1% | 23.0% |
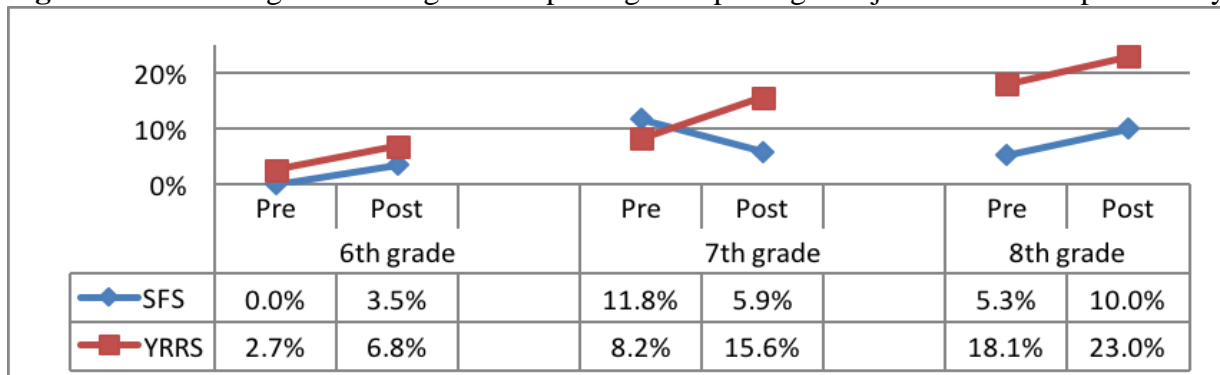
**Summary**

Hispanic middle school and high school students participating in OSAP-funded direct service prevention programming during FY15 saw few significant changes in behavior either negatively or positively. There were few statistically significant increases or decreases in substance use. It is encouraging to continue to observe this pattern now since FY13. In the years prior, there were significant increases found in marijuana and alcohol use as well as misuse of prescription medications. Most students in the Hispanic SFS sample reported using alcohol, tobacco, and marijuana less than the comparable YRRS sample. The low prevalence rates may be in large part due to how data are collected in SFS programs in comparison to the YRRS, and it may also reflect differences in who is selected or self-selects into the prevention program as compared to the general middle school and high school population of YRRS. An additional positive finding is that the increases in prevalence over time are generally lower in the SFS sample than among the YRRS sample. While comparisons between the SFS and YRRS samples should be viewed cautiously, the results would suggest that SFS participants are using fewer substances over time than students in the general population, and are less influenced by changes that occur as a result of maturation. These data do not provide information on the context in which the children are first exposed to drugs and alcohol, although local providers in all likelihood have a sense of it, which helps them in interpreting their own local data.

**Results for Native American Middle School SFS Program Participants**

Surveys were completed by 148 Native American program participants. There were slightly more boys (51.4 %) than girls (49.6%) and the average age was 12.5 years old for boys and 12.2 years old for girls. Most students were in the 6th and 8th grades. Unlike their Hispanic peers, more than 70% of Native American students (71% of boys and 76% of girls) lived in homes where a language other than English was spoken (see Table 23). It should be pointed out that when looking at the results of the analysis of this subgroup, the small number of respondents in some analyses makes the estimates very unstable and not reliable. Table 24 summarizes parental education level of the participants. Many youth did not know their parents' education level.

**Table 23**: Demographics for middle school Native American SFS participants[a]

| Demographic (N=148) | Boys (n=76) | Girls (n=70) |
|---|---|---|
| Grade | % | |
| 6th grade | 30.3 | 38.6 |
| 7th grade | 29.0 | 24.3 |
| 8th grade | 35.5 | 30.0 |
| 9th grade | 1.3 | 4.3 |
| 10th grade | 1.3 | 1.4 |
| 11th grade | -- | 1.4 |
| 12th grade | 2.6 | -- |

| Demographic (N=148) | Boys (n=76) | Girls (n=70) |
|---|---|---|
| **Language Other than English Spoken Most Often**[b] | | |
| Yes | 70.7 | 75.7 |

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

**Table 24:** Parent education level of middle school Native American SFS participants

| Parent Education Level | % | |
|---|---|---|
| | Mother | Father |
| Not sure | 41.2 | 49.0 |
| Some high school or less | 6.8 | 8.3 |
| High school or Some college | 33.8 | 33.1 |
| College and above | 18.2 | 9.7 |

Table 25 presents prevalence rates of substance use among Native American SFS program participants. There were no statistically significant changes from pre to posttest among Native American boys or girls for any of substances. Past 30 day marijuana use was reported most frequently among both boys and girls. Reported use in most of substance categories increased in almost all substances for boys. Girls initiated cigarette use and binge drinking at posttest. However, self-reported use is generally low among most substances with the exception of marijuana which is markedly greater than all over substances.

**Table 25:** Past 30-day ATOD and Rx painkiller lifetime use differences from pretest to posttest for middle school Native American SFS participants

| Substance[a] Total N=148 | Boys | | | | | Girls | | | | | Desired Outcome |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pretest | | Posttest | | Mc-Nemar Test | Pretest | | Posttest | | Mc-Nemar Test | |
| | n[b] | % | n | % | | n | % | n | % | | |
| Cigarettes | 4 | 5.3 | 6 | 7.9 | 0.7 | 0 | 0.0 | 1 | 1.4 | NA | ↻ |
| Chewing Tobacco | 1 | 1.3 | 2 | 2.6 | 0.3 | 1 | 1.4 | 0 | 0.0 | NA | ↻ |
| Alcohol | 5 | 6.6 | 4 | 5.3 | 0.3 | 4 | 5.7 | 3 | 4.3 | 0.2 | ↻ |
| Binge Drinking | 1 | 1.4 | 3 | 4.1 | 1.0 | 0 | 0.0 | 2 | 2.9 | NA | ↻ |
| Marijuana | 13 | 17.6 | 12 | 16.2 | 0.1 | 9 | 12.9 | 5 | 7.1 | 2.0 | ↻ |
| Rx Painkiller lifetime use to get high | 4 | 5.6 | 2 | 7.8 | 1.0 | 2 | 2.9 | 2 | 2.9 | NA | ↻ |

[a] Dichotomous substance use variable (yes or no).
[b] n= number of positive responses

When only those participants who report baseline substance specific ATOD use are examined, we find posttest substance use decreased on most of measures for Native American boys except for alcohol and that girls stopped using most substances at posttest (see
Table 27).  Since the prevalence of use was so low to begin with these changes were not statistically significant.

**Table 26:** The average number of days/times in the past 30 days of substance use[a], at pretest and posttest among middle school Native American SFS participants who reported substance specific use at baseline.

| Substance | Boys | | | Girls | | | Desired Outcome |
|---|---|---|---|---|---|---|---|
| | Pretest Mean | Posttest Mean | t-test | Pretest Mean | Posttest Mean | t-test | |
| Cigarettes (days) | 2.8 | 0.8 | -2.4† | 0.0 | 0.0 | NA | ↻ |
| Chewing tobacco (days) | 30.0 | 0.0 | NA | 1.5 | 0.0 | NA | ↻ |
| Alcohol (days) | 1.5 | 3.2 | 2.0 | 1.5 | 0.0 | NA | ↻ |
| Binge drinking (days) | 0.0 | 0.6 | 2.0 | 0.0 | 0.0 | NA | ↻ |
| Marijuana (times) | 18.2 | 12.1 | -1.2 | 3.4 | 2.6 | -0.5 | ↻ |

†$p < .10$.

Table 27 presents the change in the prevalence of ATOD use among those who report any ATOD use at pretest.  Native American boys who reported any ATOD use at baseline decreased self-reported use in most categories except binge drinking which almost doubled. A similar pattern was observed among girl ATOD users. Girls reported less use at posttest with the exception of binge drinking.  Increases in binge drinking is very problematic among this age group. Note that pretest prevalence rates of marijuana use were very high among this small group of boys and girls, who reported use a pretest. It would appear that of those youth using substances, the most common substance used is marijuana. Figure 24 and Figure 25 graph the changes from pretest to posttest for boys and girls respectively.

**Table 27:** Past 30-day ATOD use at posttest among middle school Native American SFS participants reporting any ATOD use at pretest

| Substance[a] Baseline users: boys=15; girls=11 | Boys | | | Girls | | |
|---|---|---|---|---|---|---|
| | % Pretest | % Posttest | %point Change | % Pretest | % Posttest | %point Change |
| Cigarettes | 26.7 | 26.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chewing Tobacco | 6.7 | 6.7 | 0.0 | 9.1 | 0.0 | -100.0 |
| Alcohol | 33.3 | 20.0 | -39.9 | 36.4 | 18.2 | -50.0 |
| Binge Drinking | 6.7 | 13.3 | 98.5 | 0.0 | 18.2 | NA |
| Marijuana | 86.7 | 53.3 | -38.5 | 81.8 | 36.5 | -55.4 |

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

**Figure 24:** Percent of Native American boys reporting substance use at posttest among program participants that report substance use at pretest



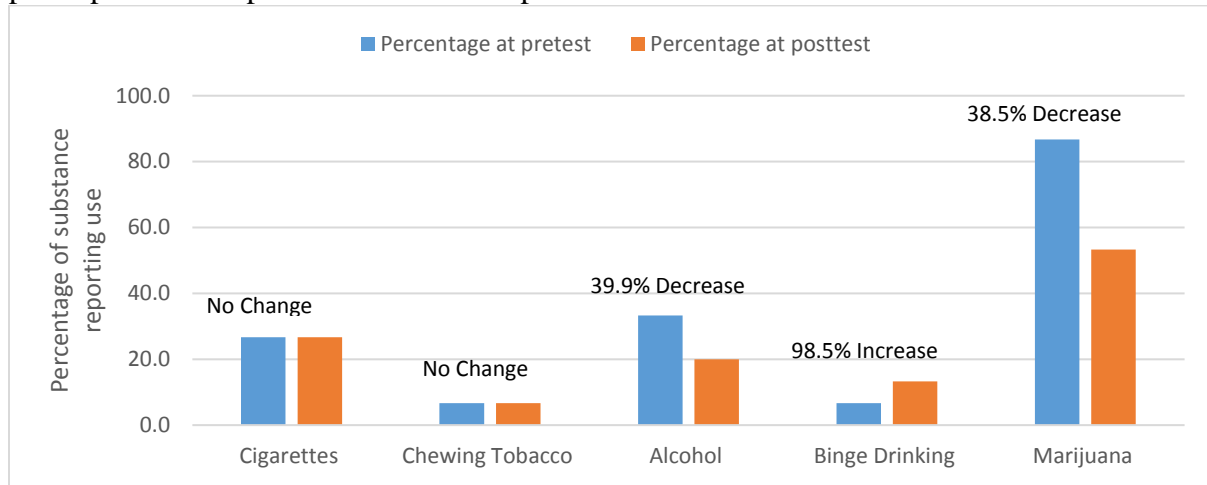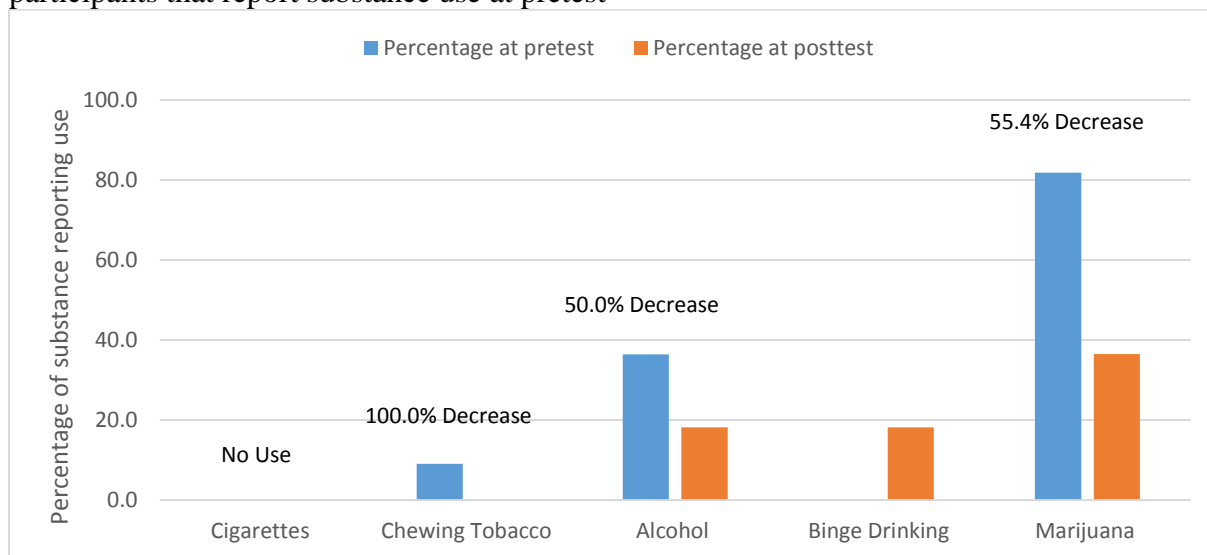**Figure 25:** Percent of Native American girls reporting substance use at posttest among program participants that report substance use at pretest



With regard to substance use on school property, the rate of marijuana use was the highest (6.9% overall) among all types of substances. Girls had higher rate of marijuana use in campus than boys. Illegal drugs on campus were more available than prescription drugs (Table 28).

**Table 28:** Percentages of school property substance use among middle school Native American SFS participants (posttest only)

| Substance[a] | Overall | Boys | Girls |
|---|---|---|---|
| Use | | % | |
| Cigarettes | 0.0 | 0.0 | 0.0 |
| Chewing Tobacco | 0.0 | 0.0 | 0.0 |
| Alcohol | 2.3 | 1.5 | 3.3 |
| Marijuana | 6.9 | 5.9 | 8.3 |
| Prescription drug use to get high | 2.3 | 1.5 | 3.3 |
| Availability on campus | | | |
| Illegal drug | 6.9 | 8.8 | 4.9 |
| Prescription drug | 2.3 | 2.9 | 1.6 |

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

*Perceptions of risk of harms and parental attitudes towards underage drinking*

Measures of perceptions of risk and attitudes towards substance use showed little significant change from pretest to posttest (see Table 29). On measures of cigarette, alcohol and binge drinking, a little over 50% of the participants agreed that using substances posed great or moderate risk to people's health. That smoking marijuana once a month or once a week poses great harm barely had 50% of endorsement even at pretest. Fewer than half of the Native American participants did not think smoking marijuana causes great harm. This is a very low percentage. Indeed, across all substances, Native American youth perceived considerably less harm than Hispanic youth and it mostly decreased at post-test rather than increase as we would hope, with the exception of the alcohol indicators. In contrast, perceptions of parental disapproval and personal disapproval of underage drinking remained very high at pretest and posttest, well over 90%. Among Native American non-smokers in middle school, very few of them intended to smoke in the near future and a marginally significant change occurred when fewer students declined friends' offer of cigarettes at posttest (Table 30)

**Table 29:** Perceptions of risk of harm of substance use, parental and personal attitudes toward ATOD use among middle school Native American SFS participants

| Risk of Harm | Moderate or great risk (%) | | |
|---|---|---|---|
| | Pretest | Posttest | McNemar Test |
| Smoke one or more packs of cigarettes per day | 58.2 | 54.1 | 0.7 |
| Smoke marijuana once a month or more | 46.6 | 44.5 | 0.2 |
| Smoke marijuana once or twice a week | 50.7 | 44.5 | 1.3 |
| Have one or two alcoholic drinks daily | 53.4 | 56.9 | 0.5 |
| Have five or more alcoholic drinks of once/twice a week | 55.9 | 62.1 | 1.7 |

| Risk of Harm | Moderate or great risk (%) | | |
|---|---|---|---|
| | Pretest | Posttest | McNemar Test |
| **Attitudes Toward ATOD use** | **Wrong or Very Wrong (%)** | | |
| Parents feel wrong for me to drink alcohol regularly | 98.0 | 98.0 | 0.0 |
| It is wrong for someone my age drink alcohol regularly | 96.7 | 95.2 | 0.4 |

**Table 30:** Intention to smoke among middle school Native American SFS participants (non-smokers only)

| Intentions to Smoke[a] | Yes or Probably Yes (%) | | McNemar Test |
|---|---|---|---|
| | Pretest | Posttest | |
| Try smoking a cigarette soon (n=127) | 3.9 | 3.2 | 0.1 |
| Smoke a cigarette at any time during the next year (n=126) | 6.1 | 0.0 | NA |
| Smoke if one of your best friends offered a cigarette (n=125) | 5.6 | 0.8 | 4.5† |

[a] Limit to middle school respondents who haven't tried smoking at pretest and posttest.
† $p < .10$

With respect to the perceived risk of getting caught by school staff or police for drinking underage or perceived risk of getting arrested/cited by police for drinking underage, there were no observed significant changes from pretest to posttest (Table 31). The perceived risk of getting caught and consequently getting in trouble for drinking at school was higher than the perceived risk in the community.

**Table 31:** Perceptions of legal consequences of underage drinking at school and in the community among middle school Native American SFS participants

| Perception of Risk/Legal Consequences | Likely or Very Likely (%) | | |
|---|---|---|---|
| | Pretest | Posttest | McNemar Test |
| Likelihood of being caught by teachers or staff when drinking alcohol at school | 74.5 | 74.5 | 0.0 |
| Likelihood of getting into trouble with school if got caught drinking at school | 83.5 | 84.1 | 0.0 |
| Likelihood of being caught by police when drinking alcohol in the community | 62.1 | 66.9 | 0.9 |
| Likelihood of getting arrested or cited by police when drinking alcohol in the community | 68.5 | 73.3 | 1.0 |

*SFS Native American Subpopulation Compared with YRRS Native American Subpopulation*

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

The baseline prevalence rates of past 30-day cigarette use were generally lower for SFS students compared to their counterparts in 2013 YRRS sample. Past 30-day cigarette use reflects current use and can be expected to change over the course of a prevention program. Among Native American boys, current cigarette use increased among 6th and 8th graders and decreased among 7th graders (Figure 26).  On the other hand Native American girls reported increases in 6th grade and no use among 7th and 8th graders (Figure 27).  These changes in boys and girls appeared random. Additional information is needed to understand these changes across grades.

**Figure 26:** Percent of 6th-8th grade Native American boys reporting cigarette smoking, last 30 days



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | | 6th grade | | | 7th grade | | | 8th grade |
| SFS | 4.3% | 8.7% | | 9.1% | 4.5% | | 3.7% | 7.4% |
| YRRS | 4.8% | 7.6% | | 8.6% | 13.6% | | 15.2% | 17.0% |
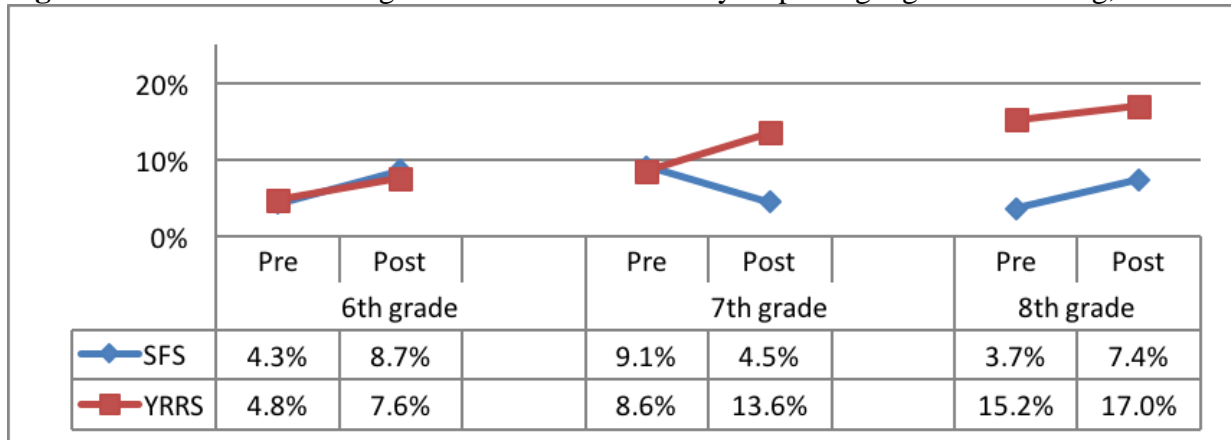
**Figure 27:** Percent of 6th-8th grade Native American girls reporting cigarette smoking, last 30 days



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | | 6th grade | | | 7th grade | | | 8th grade |
| SFS | 0.0% | 3.7% | | 0.0% | 0.0% | | 0.0% | 0.0% |
| YRRS | 4.4% | 5.0% | | 5.2% | 10.7% | | 12.6% | 11.5% |
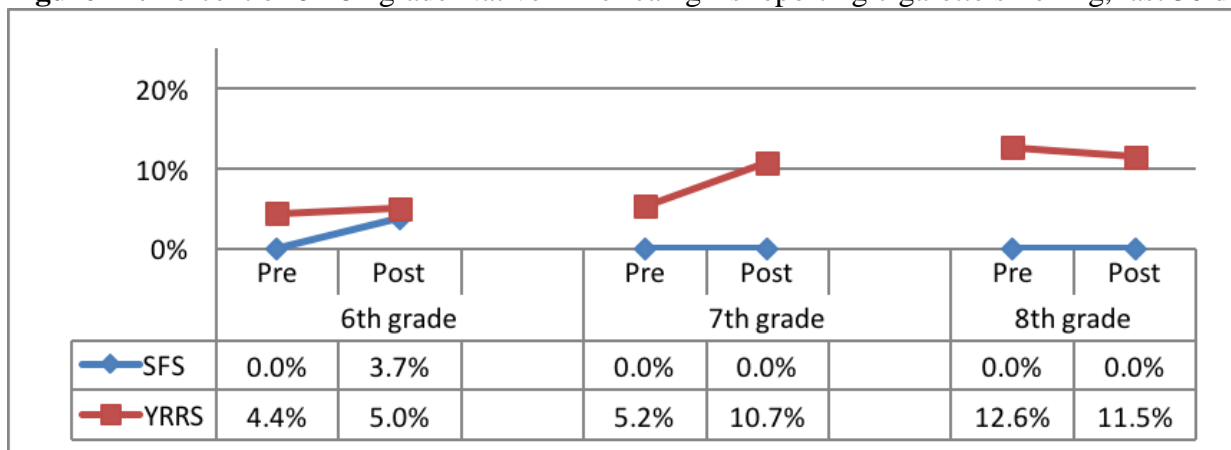
Alcohol use (Native American students, grades 6 - 8)

SFS Native American boys reported no current alcohol use in 6th grade and remained unchanged from pre- to posttest in 8th grade. Seventh grade boys reported the same level of use as YRRS counterparts at pretest and dropped to a lower level than YRRS at posttest (see Figure 28). SFS Native American girls reported no current alcohol use in 6th and 7th grades from pre- to posttest. Eighth grade girls reported a higher level of use than YRRS counterparts at pretest yet at posttest dropped to a much lower level than YRRS (see Figure 29).

**Figure 28:** Percentage of 6th-8th grade Native American boys reporting past 30-day alcohol consumption



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 0.0% | | 9.1% | 4.5% | | 7.4% | 7.4% |
| YRRS | 3.1% | 7.3% | | 8.7% | 10.0% | | 10.5% | 17.6% |

**Figure 29:** Percentage of 6th-8th grade Native American girls reporting past 30-day alcohol consumption



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 0.0% | | 0.0% | 0.0% | | 19.0% | 9.5% |
| YRRS | 3.1% | 4.8% | | 5.4% | 12.1% | | 14.3% | 17.3% |

SFS Native American boys reported no binge drinking among 6th graders. Seventh grade SFS boys reported the same level of binge drinking at pre and posttest and the use was comparable to t7th grade boys in the YRRS sample. Among 8th grade boys binge drinking was reported only at posttest (Figure 30). Similarly, the SFS girls only reported binge drinking at posttest in 8th grade, and no binge drinking at all in 6th and 7th grades (Figure 31).

**Figure 30:** Percentage of 6<sup>th</sup>-8<sup>th</sup> grade Native American boys reporting binge drinking in the past 30 days



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 0.0% | | 4.5% | 4.5% | | 0.0% | 3.7% |
| YRRS | 1.9% | 4.4% | | 5.3% | 7.2% | | 7.9% | 13.0% |
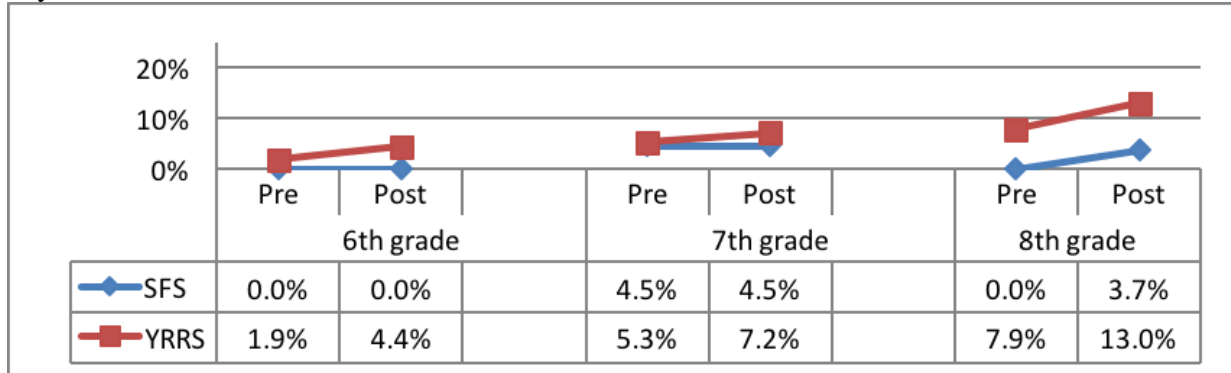
**Figure 31:** Percentage of 6<sup>th</sup>-8<sup>th</sup> grade Native American girls reporting binge drinking in the past 30 days



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 0.0% | | 0.0% | 0.0% | | 0.0% | 4.8% |
| YRRS | 1.2% | 2.2% | | 2.6% | 6.2% | | 7.5% | 7.6% |
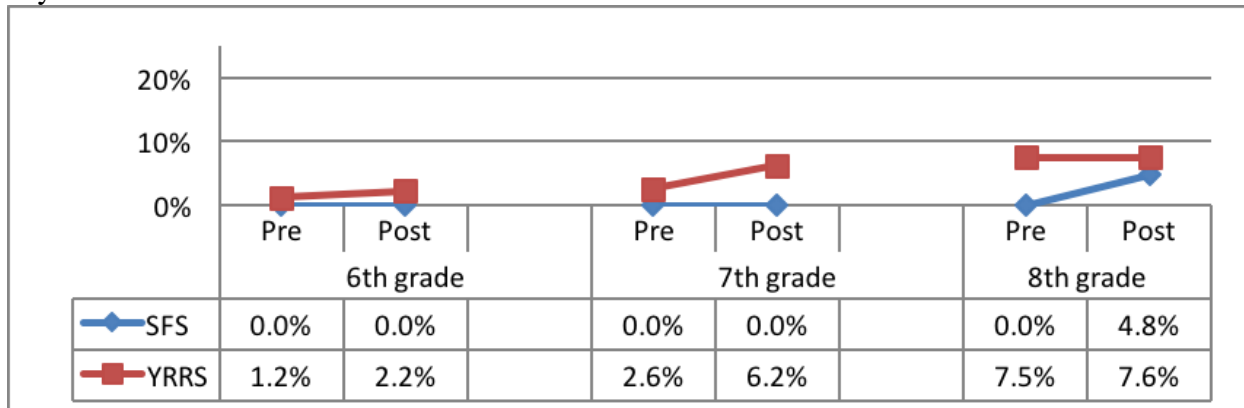
Drug use (Native American students, grades 6 - 8)

When looking at past 30 day marijuana use, the patterns from pretest to posttest in the SFS sample seem inconsistent across grades and gender. Unlike the increasing pattern across grades observed in YRRS boys, the SFS boys showed a rising trend only in 6<sup>th</sup> and 8<sup>th</sup> grades, which started and ended at the lower level than YRRS. On the other hand the SFS 7<sup>th</sup> grade boys started higher than YRRS and decreased to a lower level than YRRS at posttest (Figure 32). Compared to their YRRS counterparts, the SFS girls were also inconsistent in their current marijuana use. At 7<sup>th</sup> grade, the SFS girls reported no use; while at pretest in 6<sup>th</sup> grade and 8<sup>th</sup> grades, they started at almost the same level of marijuana use as the YRRS sample then dropped at posttest to a lower level than YRRS (Figure 33).

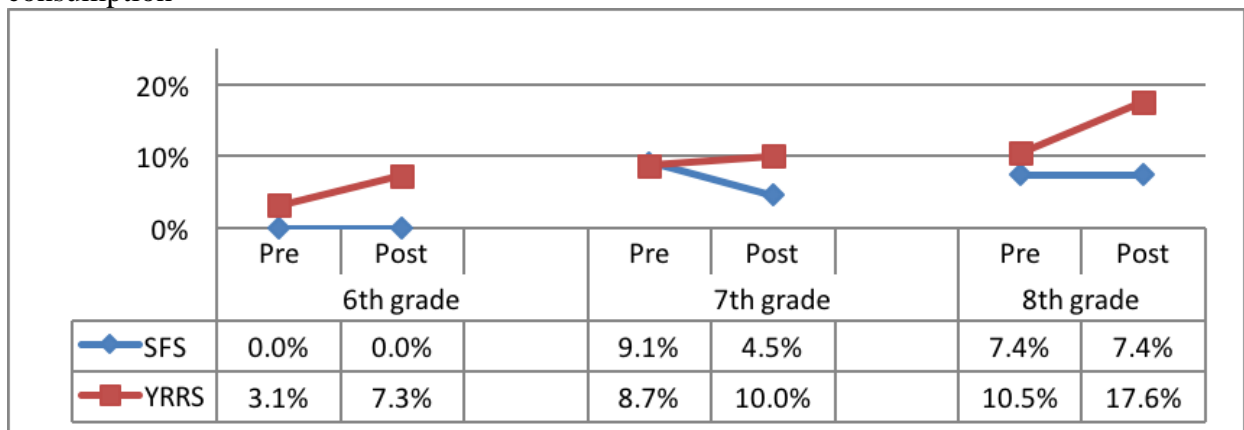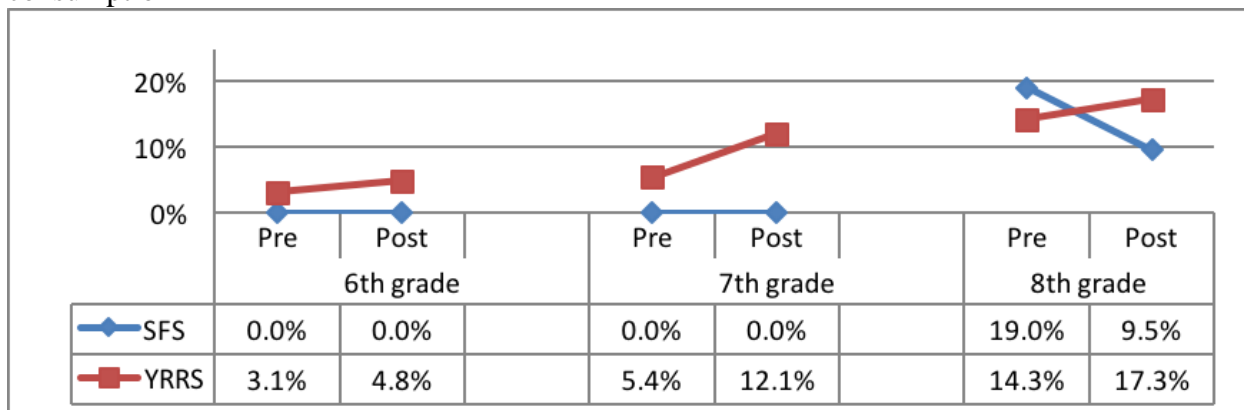**Figure 32:** Percentage of 6th-8th grade Native American boys reporting past 30-day marijuana use



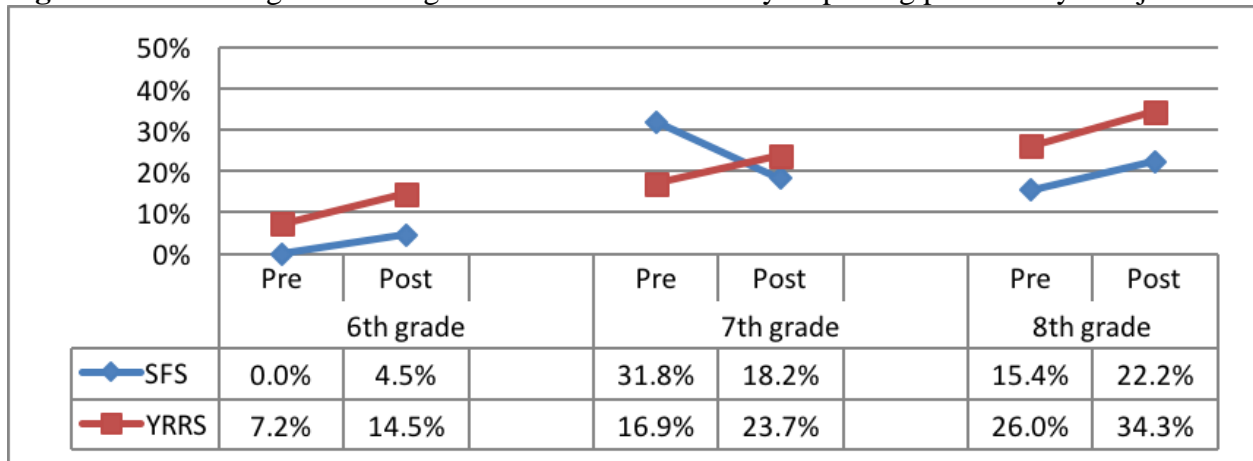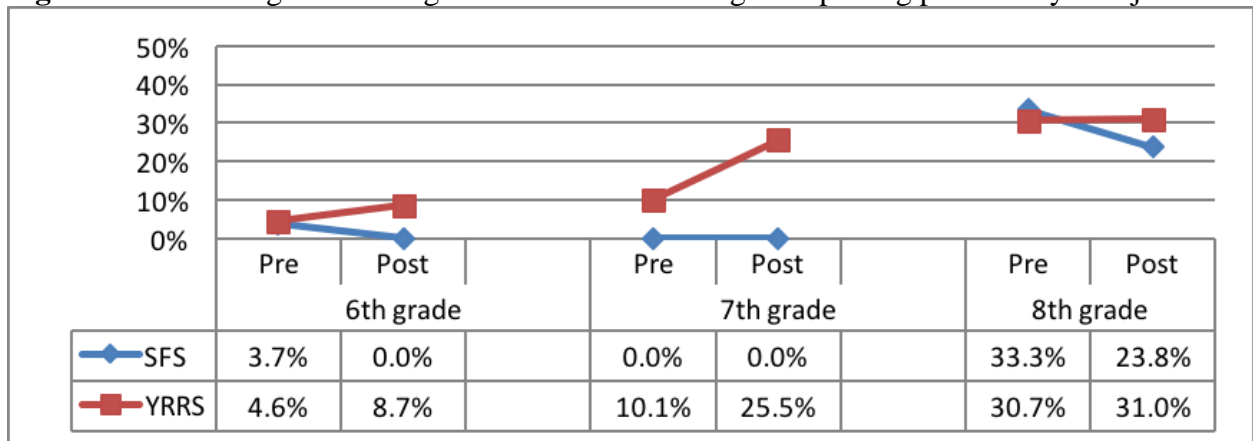| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 0.0% | 4.5% | | 31.8% | 18.2% | | 15.4% | 22.2% |
| YRRS | 7.2% | 14.5% | | 16.9% | 23.7% | | 26.0% | 34.3% |

**Figure 33:** Percentage of 6th-8th grade Native American girls reporting past 30 day marijuana use



| | Pre | Post | | Pre | Post | | Pre | Post |
|---|---|---|---|---|---|---|---|---|
| | 6th grade | | | 7th grade | | | 8th grade | |
| SFS | 3.7% | 0.0% | | 0.0% | 0.0% | | 33.3% | 23.8% |
| YRRS | 4.6% | 8.7% | | 10.1% | 25.5% | | 30.7% | 31.0% |

## Summary

The sample size for Native American respondents is relatively small, which means that estimates are likely not as precise as we might like and we need to be careful not to over-interpret or attribute changes in response rates without consideration of caveats. Overall, Native American use of alcohol, tobacco, and other drugs is consistently low, which is a positive finding. The exception would be marijuana use, where both boys and girls report levels of use similar to the YRRS sample, which generally reports higher prevalence rates than the SFS sample. The high use of marijuana among this sample is indicative of the very low perception of risk associated with regular marijuana use among the sample. This is very problematic and something that programs working with Native American youth, and youth in NM in general, will need to address more diligently with recreational marijuana becoming legal in neighboring states. Despite this, no statistically significant changes were found in ATOD use among Native American students regardless of gender, including decreases and increases in reported use. If we just examine trends, we find that Native Americans in the SFS sample tend to have lower or equal prevalence rates as the YRRS sample and increase

their use at a far lower rate. Marijuana use among this sample remains a considerable cause for concern.

# SFS Supplemental Modules

Modules B through E of the SFS are optional measurements that programs can choose to use if the constructs measured in the modules are relevant to the objectives in the prevention program. Although optional, many programs choose to administer them because the additional modules measure important changes occurring that are not measured in the Core Module. The measures in modules B-E are from the California Health Kids Survey (CHKS)[6] and have moderate to high reliability and validity among the SFS sample. The analyses on the supplemental modules were only performed on the whole sample and not stratified by gender or race/ethnicity subgroups. Permission to use these supplemental models was granted from the CHKS developers.

### Findings for the SFS Supplemental Modules

Cronbach alphas at pre and posttest for participating students are provided for each subscale in Table 32. All scales at pre and posttest show adequate to good reliability with the exception of Meaning Participation in the Community and High Expectations among Pro-social Peers.

**Table 32:** Reliability statistics for scales in the SFS supplemental modules

| Scale/measure | Pretest Cronbach's α | Posttest Cronbach's α |
|---|---|---|
| Violence Perpetration | 0.80 | 0.84 |
| Violence Victimization | 0.79 | 0.82 |
| Cooperation and Communication | 0.62 | 0.69 |
| Self-efficacy | 0.69 | 0.68 |
| Empathy | 0.79 | 0.80 |
| Problem solving | 0.68 | 0.71 |
| Self-awareness | 0.74 | 0.74 |
| Goals and Aspirations | 0.70 | 0.73 |
| Caring Relationships: Adults in School | 0.78 | 0.86 |
| High Expectations: Adults in School | 0.80 | 0.84 |
| Meaningful Participation: In the School | 0.80 | 0.77 |
| Caring Relationships: Adults in Home | 0.82 | 0.85 |
| High Expectations: Adults in Home | 0.75 | 0.84 |
| Meaningful Participation: In the Home | 0.77 | 0.83 |
| Caring Relationships: Adults in Community | 0.69 | 0.83 |
| High Expectations: Adults in Community | 0.81 | 0.95 |
| Meaningful Participation: In the Community | 0.29 | 0.42 |
| Caring Relationships: Peers | 0.86 | 0.84 |
| High Expectations: Pro-social peers | 0.40 | 0.58 |

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

Not all sites chose to use violence modules B & C but for those that did, the breakdown of their contribution to the overall sample can be found in Table 33.

**Table 33:** Data for Modules B and C by site

| Site | Percent |
|---|---|
| Boot-heel Youth Association | 34.7 |
| Five Sandoval Indian Pueblos Council | 14.5 |
| North Central Community Based Services | 50.8 |
| Total | 100.0 |

Modules B and C measure a student's perpetration of violence and their experiences with being victimized by others. The t-test results table presents the average scores from the perpetration scale and the victimization scale (Table 34). The range for responses was 0 to 4, where 4 equaled high frequency, i.e., "almost every day", and 0 equaled "never". There were no significant changes from pre- to posttest in both perpetration and victimization. Note that the averages reported at baseline and posttest are all below 1.

**Table 34:** Examining the effect of Module B and Module C Pretest scores on posttest scores for selected SFS program participants, unadjusted and adjusted model results

| Measures | Pretest Mean | Posttest Mean | t-test | Desired Outcome |
|---|---|---|---|---|
| Violence Perpetration (n=123) | 0.31 | 0.39 | -1.42 | ⍩ |
| Violence Victimization (n=123) | 0.45 | 0.51 | -0.84 | ⍩ |
| Felt unsafe at or on way to school (n=116) | 0.16 | 0.14 | 0.34 | ⍩ |

One additional measure from the NM YRRS is included in module C (see Table 35). It asks about the number of days absent from school in the past 30 days because of feeling unsafe. There are essentially no differences from pre to post-test. Over 92% of students at pre and posttest indicated they did not miss school because they felt unsafe. Essentially no change occurred between pre and posttest on this indicator.

**Table 35:** 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 SFS program middle school participants

| Did not go to school because of feeling unsafe | 0 days | 1 day | 2 or 3 days | 4 or 5 days | 6 or more days |
|---|---|---|---|---|---|
| Baseline (%) (n=121) | 92.6 | 1.7 | 3.3 | 2.5 | 0.0 |
| Posttest (%) (n=119) | 92.4 | 2.5 | 4.2 | 0.8 | 0.0 |

Modules D & E measure internal and external resiliency respectively. Resiliency is a construct consisting of many factors that have been shown to be correlated negatively with ATOD use. In

other words, as resiliency increases, ATOD use decreases. Increased resiliency, measured as a whole or as subscales, decreases the likelihood of substance use among youth. Many prevention programs focus effort on increasing resiliency among youth to resist drugs and alcohol and peer pressure, as well as to build support systems among young and family to reduce the attraction of substance use. 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 36 and a breakdown of the contribution to the entire sample is provided.

**Table 36:** Data for Module D by site

| Site | Percent |
|---|---|
| Boot-heel Youth Association | 10.8 |
| Five Sandoval Pueblos | 4.6 |
| North Central Community Based Services | 16.2 |
| Sandoval County SAP | 68.8 |
| 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. T-tests showed a significant increase in self-efficacy at posttest (see Table 37). Most measures indicated a slight increase in the desired direction (i.e., greater resiliency) at posttest, although not significant.

**Table 37:** Comparing the effect of Module D pretest scores on posttest scores for selected SFS program middle school participants

| Measures | Pretest Mean | Posttest Mean | t-test | Desired Outcome |
|---|---|---|---|---|
| Cooperation & Communication (n=373) | 2.04 | 2.06 | -0.33 | ⋂ |
| Self-efficacy (n=374) | 2.21 | 2.28 | -1.94* | ⋂ |
| Empathy (n=373) | 2.06 | 2.04 | 0.43 | ⋂ |
| Problem solving (n=374) | 1.99 | 1.92 | 1.41 | ⋂ |
| Self-awareness (n=373) | 2.34 | 2.36 | -0.57 | ⋂ |
| Goals & Aspirations (n=374) | 2.69 | 2.72 | -1.04 | ⋂ |

*$p \leq .05$

Those programs that chose to use Module E are listed in Table 38 and a breakdown of each program's contribution to the overall sample is provided.

**Table 38:** Data for module E by site

| Site | Percent |
|---|---|
| Boot-heel Youth Association | 34.7 |
| Five Sandoval Indian Pueblos Council | 14.5 |
| North Central Community Based Services | 50.8 |
| Total | 100.0 |

The measures of external resiliency in Module E reflect changes in relationships and expectations from caring peers and adults and meaningful participation in the community. There were no significant differences between pre and posttest on any of the indicators (see Table 39).

The scales for items on both resiliency modules were from 0 to 3 where 3 indicates having high resiliency and 0 indicating having very little. Examination of pretest and posttest means of these measures indicates that most, but not all, of the mean scores are greater than 2 at pretest, which leaves less room for improvement. This may explain, in part, why little improvement is observed in the average scores for these scales.

**Table 39:** Comparing the effect of Module E pretest scores on posttest scores for selected SFS program middle school participants

| Measures | Pretest Mean | Posttest Mean | t-test | Desired Outcome |
|---|---|---|---|---|
| Caring Relationships: Adults in School (n=122) | 2.15 | 2.21 | -0.62 | ∩ |
| High Expectations: Adults in School (n=122) | 2.48 | 2.48 | -0.11 | ∩ |
| Meaningful Participation: In the School (n=121) | 1.92 | 1.85 | 0.71 | ∩ |
| Caring Relationships: Adults in Home (n=120) | 2.28 | 2.25 | 0.33 | ∩ |
| High Expectations: Adults in Home (n=120) | 2.76 | 2.69 | 1.30 | ∩ |
| Meaningful Participation: In the Home (n=119) | 2.16 | 2.19 | -0.40 | ∩ |
| Caring Relationships: Adults in Community (n=121) | 2.36 | 2.38 | -0.30 | ∩ |
| High Expectations: Adults in Community (n=120) | 2.47 | 2.48 | -0.12 | ∩ |
| Meaningful Participation: In the Community (n=120) | 1.88 | 1.82 | 0.75 | ∩ |
| Caring Relationships: Peers (n=121) | 2.21 | 2.14 | 0.73 | ∩ |
| High Expectations: Pro-social peers ( n=120) | 2.15 | 2.12 | 0.36 | ∩ |

## *Summary of SFS Survey Findings*

In FY15, the findings suggest there were no significant changes in overall ATOD use across genders and grades in middle school and high school. In middle school, there were slight increasing trends in self-reported use of cigarette, alcohol and binge drinking among the male students. The prevalence rates of current marijuana use at pretest or posttest were higher than any other types of substance in middle school and boys had higher rates than girls. At posttest marijuana use among boys remained unchanged and the girls decreased slightly though non-significantly. The prevalence rates of substance use reported among high school students were much higher than among middle school students likely due to maturation. Yet, similarly to middle school students, the rates of current marijuana use at pretest and posttest were higher than any other types of substance in high school and the next highest was alcohol use. Surprisingly high school boys and girls differed little in alcohol and marijuana use. Reported prescription drug misuse was generally low among both boys and girls in middle and high school.

As we have observed in previous years, alcohol use among middle school Hispanic students tended to be higher than other substances while marijuana use stood out as the most prevalent substance of use among Native Americans. When we compared SFS pre and posttest trajectories in substance use with YRRS estimates, overall SFS respondents reported less use than their YRRS counterparts and their use appeared to be inconsistent across grades and gender as opposed to YRRS' general increasing trend from $6^{th}$ grade through $8^{th}$ grade. It remains unclear if the prevention programs may be helping to delay initiation of use however, there is support for prevention programming have an ameliorative effect on those reporting ATOD use at pretest. Among those reporting use at pretest there are decreases in self-reported use at post-test across most substances and gender. How3ver, the number of middle school students reporting use at pretest is small and therefore statistical significance is not often achieved.

No significant changes in measures of perceived risk of harm or attitudes associated with ATOD use over time in middle school and high school established. The only exception to this was that high school students were significantly less likely to perceive that their parents felt it was wrong for them drink alcohol regularly, which was not a change in the intended direction. Regardless of race/ethnicity, respondents' attitudes toward alcohol use generally became more accepting over time. These changes were relatively small overall and not significant. Also there were no observed changes from pretest to posttest with regard to perceived risk of getting caught in school for drinking underage or perceived risk of getting arrested/cited by police for drinking underage. But the perceived risk of getting caught drinking and in trouble at school was higher than the perceived risk of the same in the community at large.

Questions regarding substance use and availability on school property during this school year show differences in prevalence rates between middle school and high school as well. The rate of marijuana use on school property was the highest among all types of substances. Illegal drugs on campus were more available than prescription drugs as well.

When SFS data are compared to YRRS data, we continue to see that SFS respondents are reporting lower use overall and in general, have better trajectories over time than YRRS respondents. Again, the prevalence rates of past-30 day marijuana use in FY15 SFS sample were

closer to the YRRS sample for boys but lower for girls. Boys in the SFS sample also had slightly higher lifetime rates of using prescription painkiller to get high than YRRS student sample in 7th and 8th grades, although this is not a common practice among middle or high school students in general. It requires special attention from local providers to monitor and address the continuing increasing trend of marijuana use and the use of prescription painkillers to get high.

Across the board, when we examined only those SFS students who reported ATOD use at pretest, we found that their reported use at posttest decreased. This at least suggests that the prevention programs implemented may be helpful in reducing current use. However, without a strong comparison group, we are unable to say that it was solely the effect of the program. As with most surveys of this nature, there is a strong tendency for respondents to give the socially desirable response. This tendency may be even stronger among youth in prevention programs. Attachment to the prevention providers at posttest may well influence how students respond at posttest in particular causing them to be both more or less honest in their responses.

The use of the YRRS data is helpful in seeing how a convenience sample of SFS students compares to a representative sample of their peers. That said, it does not allow for pre- and post-intervention comparisons in the same way a true control group might. We have attempted to replicate the equivalent of a pre- & post-intervention scenario with the YRRS data but it is only a proxy and therefore should be considered with care.