Evaluation of the New Mexico Strategic Prevention Framework State Incentive Grant:
Reducing alcohol-related motor vehicle crashes and fatalities

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Contents of This Report

This report was developed by the Chapel Hill and the Behavioral Health Research Centers of the Pacific Institute for Research and Evaluation (PIRE) as the final assessment of the New Mexico Strategic Prevention Framework State Incentive Grant (N.M. SPF SIG). It provides a summary of major project-related activities at the state- and community-levels for the period of October, 2004 through August 30, 2010. The report also provides outcome data on alcohol-related motor vehicle crashes and deaths (2005 – 2009) and factors that contributed to those motor vehicle crashes in communities funded by the N.M. SPF SIG.

The document consists of eight sections. The Executive Summary provides a brief overview of the major findings from the N.M. SPF SIG project. (To aid the reader, we also include a summary of our findings within each section.) The Project Background section provides an overview of the SPF SIG initiative and the elements of the Strategic Prevention Framework (SPF) as a planning and implementation model. The Methods section presents the goals of the evaluation, evaluation questions that were addressed, data sources, and analysis methods.

In the Results section we begin to address the results of the evaluation questions by first examining the implementation of the SPF SIG at the state level and then at the community level. Results from analyzing qualitative data collected during the project will be presented. In the quantitative section, we present results from the community surveys and from analyses of secondary data sources. Quantitative results cover intervening variables, consumption behaviors, and alcohol-related motor vehicle crashes and fatalities (ARMVC&F). Each results section ends with a summary of findings.

Finally, the document concludes with a section about Conclusions and Discussion, where we summary findings, discuss implications of findings and reflect on lessons learned from this project that can be used by the state to help sustain and plan for related prevention efforts.
New Mexico received the Strategic Prevention Framework State Incentive Grant in the fall of 2004. The state quickly conducted a statewide needs assessment that resulted in an Epidemiological Profile for the state and the selection of alcohol-related motor vehicle crashes and fatalities among 15 to 24 year olds as the target outcome to be addressed through the grant. The state then focused on building capacity and strategic planning at the state level before identifying and funding local communities primarily based on high prevalence rates. Funded communities then also proceeded through the SPF process beginning with a community level assessment of intervening variables associated with alcohol-related motor vehicle crashes and fatalities.

Qualitative data collected through interviews, focus groups, and reports indicate that for both state officials and community providers, it took considerable effort to come to terms with the paradigm shift in prevention promoted by the SPF. In particular, communities reported that the first three steps were completed too quickly for them to feel as if they actually understood what to do and how to do it. The state also recognized this challenge, adding that OSAP staff were learning alongside the programs as well. Capacity was built continuously during the 6 years of the grant on both the state and community levels, but considerable capacity was built at the community level, as all involved appeared to increase their understanding of the expectations. Even though the move to intervention quickly was challenging, N.M. communities began implementation of environmental strategies earlier than most other Cohort 1 states, which allowed for more post-intervention data to be collected and analyzed than those in their cohort. While state players gained capacity and understanding especially along the lines of data-driven planning especially through the SEW, the state was still challenged to sustain this capacity by continued state siloing, changes in the statewide entity, a statewide economic crisis and other issues beyond the control of OSAP or the SEW under the grant.

Quantitative data analyses of varying sources all tend to point to decreasing trends in self-reported consumption behaviors associated with alcohol-related motor vehicle crashes and fatalities such as past 30-day use, pass 30-day binge drinking and past-30 day drinking and driving. Although not all decreasing trends were statistically significant, many were. Analyses examining alcohol-related motor vehicle crashes by month found significant decreases among 15-24 year olds in SPF SIG counties, whereas significant increases were found among 15 to 24 year olds in comparison counties. Finally, trends in alcohol-related motor vehicle crash fatalities were also supportive of the hypothesis that environmental level strategies targeting intervening variables were indeed effective in reducing the outcome when compared to a comparison group. Of particular interest is that there were few significant improvements found in targeted intervening variables, which would be expected, although this may have more to do with the fact
that communities targeted different intervening variables (IVs) and conducted different strategies under those IVs. That data were collected on all intervening variables across all communities and analyzed in total may well have diluted any significant differences. While all communities were required to focus upon the intervening variables of enforcement and perception of risk, these IVs were very challenging for most to cover thoroughly by the end of the grant. Reconsideration of N.M.’s logic model for ARMVCF may also be required.
Project Background

In the Fall of 2004, New Mexico was one of 21 states and territories to receive a 5-year Strategic Prevention Framework State Incentive Grant (SPF SIG) in the first round of funding from the Center for Substance Abuse Prevention (CSAP) of the Substance Abuse and Mental Health Services Administration (SAMHSA). The New Mexico Office of Substance Abuse Prevention administered the N.M. SPF SIG project. The official project period was October 2004 through September 2009, with CSAP granting the state a no-cost extension through September 2010.

The national goals of the SPF SIG are the following: (1) prevent the onset and reduce the progression of substance abuse, including childhood and underage drinking; (2) reduce substance abuse-related problems in communities; and (3) build prevention capacity and infrastructure at the state and community levels. The Strategic Prevention Framework itself, depicted below in Figure 1, is a five-step prevention planning model that promotes data driven decision-making, with an emphasis on epidemiological data using a population-based perspective. The five steps of the SPF are as follows:

1. Profile population needs, resources, and readiness to address needs and gaps;
2. Mobilize and/or build capacity to address needs;
3. Develop a comprehensive strategic plan;
4. Implement evidence-based prevention programs, policies, and practices; and
5. Monitor, evaluate, sustain, and improve or replace those that fail.

Figure 1: Strategic Prevention Framework
The SPF also emphasizes the importance of infusing two overarching themes, cultural competence and sustainability, throughout the five steps. The underlying assumption of the SPF SIG is that faithful implementation of the framework, with added attention to cultural competence and sustainability, will build states’ and communities’ substance abuse prevention capacity, and that this increased capacity will result in greater likelihood of reductions in substance use, its consequences and related problems.

Each SPF SIG state was expected to complete the five-step process, with the state-level implementation step (step 4) intended to fund identified communities to go through the same 5-step process. Thus, the SPF is intended to be used by states as well as communities to establish and address their prevention priorities. In order to do so, CSAP requires states to direct 85% of the SPF SIG funds to communities to carry out the five steps. Each state is also required to convene an advisory board to oversee the project—known in New Mexico as the Substance Abuse Subcommittee of the Behavioral Health Planning Council (SASBHPC) as well as a State Epidemiological Workgroup (SEW) to compile and manage population-based data relevant for the project.

Based on a statewide needs assessment which culminated in a state epidemiological profile, New Mexico selected alcohol-related motor vehicle crashes and fatalities (ARMVC&Fs) as the priority issue to be addressed by the funded communities in New Mexico. In New Mexico, a request for proposals (RFP) was solicited and community level prevention providers across the state were eligible to apply for funds. The selection of communities and providers was based primarily on both high need followed by existing prevention capacity. Thus, in New Mexico SPF SIG funds were directed towards reducing ARMVC&Fs in 14 communities throughout the state. SPF SIG communities were funded based primarily on their high prevalence and rates of ARMVC&D although capacity and readiness were also considered. Funds were distributed by OSAP to one prevention provider in each of the 14 communities selected. See Table 1 for a list of all prevention programs.
Table 1: Prevention programs funded by the SPF SIG

<table>
<thead>
<tr>
<th>Prevention Programs</th>
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<tbody>
<tr>
<td>Albuquerque Partnership</td>
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<tr>
<td>Border Area Mental Health Services (BAMHS)</td>
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<tr>
<td>Carlsbad Anti-Drug &amp; Gang Coalition¹</td>
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<tr>
<td>Colfax County Youth Empowerment Systems (Colfax County YES)</td>
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<tr>
<td>Excel Enterprises, Inc.</td>
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<tr>
<td>Hands Across Cultures (HACC)</td>
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<tr>
<td>Laguna Pueblo</td>
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<tr>
<td>McKinley County</td>
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<tr>
<td>Mescalero Prevention Program (MPP)</td>
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<tr>
<td>North Central Community Based Services (NCCBS)</td>
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<tr>
<td>Rocky Mountain Youth Corps (RMYC)</td>
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<tr>
<td>San Juan County Partnership (SJCP)</td>
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<tr>
<td>Santa Fe Underage Drinking Prevention Alliance</td>
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<tr>
<td>U of N.M. Campus Office of Substance Abuse Prevention (UNM COSAP)</td>
</tr>
<tr>
<td>Youth Development, Inc. (YDI)</td>
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</tbody>
</table>

The logic model developed for communities to describe the theoretical links between environmental conditions, substance use, and ARMVC&Fs is shown in Figure 2 below. Funded SPF SIG communities focused their needs assessments on the environmental-level intervening variables identified in the model. Based on their needs assessments, communities selected evidence-based environmental-level prevention strategies to address those intervening variables identified in the needs assessment and as recommended by the state (all programs were required to work on low perception of risk and low enforcement). Additionally, programs had to identify strategies that were practical in their communities, sometimes a challenge for rural, Native American and Hispanic communities that comprised of the majority of the N.M. programs. Appendix A provides a list of all intervening variables and corresponding strategies undertaken by New Mexico SPF SIG communities.

¹ Carlsbad Anti-Drug & Gang Coalition became a SPF SIG community in FY2009. For purposes of this evaluation, in the quantitative analyses it will be treated as a control community rather than an implementation community.
Figure 2: Logic model for preventing alcohol related motor vehicle crashes and fatalities in N.M.
Methods

Both qualitative and quantitative data have been collected at the community and state level to use in the evaluation, although the primary focus of this evaluation report will be at the state level. This evaluation relies on primary data collected through focus groups, interviews, observation, program narrative reports and surveys, as well as secondary data sources to assess changes at each step of the logic model, in addition to substance-use related consequences, consumption patterns, and intervening variables.

It is important to explain at this point our use of the term “community” as there is considerable variation in the way in which “community” was defined in N.M. both with respect to geography and socio-demographics. Prevention agencies contracted by the state as part of their organizational identity may be required to represent a specific community or geographic entity. For example, two communities represent Tribal Lands, one within a county and one crossing county boarders. Another five communities represent sections of only two counties, while yet another community represents four counties. Most secondary data sources available at levels lower than the state can be reduced only to regional or county level. Therefore, in reporting results, we define the unit of measurement for each data source as either county or community level. County-level data will reflect counties in which SPF SIG funds are used to address ARMVC&F even if the funded community is smaller geographically. Community-level data will reflect data collected within the funded community itself. Data are grouped to reflect SPF SIG counties or communities in aggregate and comparison counties or communities in aggregate. See Figure 3 for counties that received SPF SIG funding whether a community or the entire county was targeted.

The sections which follow articulate the evaluation questions, the data sources drawn from to answer those questions, and the analyses conducted in order to answer the questions.

Evaluation Questions

The main focus of this document is to report on findings from the evaluation of the implementation of the SPF SIG in N.M. between 2004 and 2010. The evaluation questions, data sources, and analysis approach are described in this section.

The evaluation of the SPF SIG was designed to answer the following questions at the state and local level:

1. How has New Mexico implemented the SPF SIG?
2. Has readiness to address drinking and driving in New Mexico changed as a result of the SPF SIG?
3. Has capacity to prevent ARMVC&Fs increased as a result of the SPF SIG?
4. Have intervening variables associated with binge drinking and drinking and driving changed as a result of the SPF SIG?

5. Has self-reported binge drinking and drinking and driving been reduced as a result of the SPF SIG?

6. Have ARMVC&Fs been prevented or reduced as a result of the SPF SIG?

**Figure 3:** Counties in New Mexico with a SPF SIG funded community highlighted in salmon²

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² Carlsbad Anti-Gang and Drug Coalition, located Eddy County, was added as a SPF SIG funded community later in the process and did not focus on ARMVC&F initially. Therefore, for all quantitative analyses in this evaluation report, Carlsbad is treated as a comparison community and Eddy County as a comparison county rather than a SPF SIG funded entity.
Primary Data Collection: Qualitative

Fidelity data

Fidelity measurements were collected only once during the final year of the project. Yet, quarterly reporting to the state by the SPF SIG programs and periodic visits to programs by OSAP staff and the technical assistance providers ensured to the extent possible that fidelity to the SPF model was maintained. Fidelity was assessed using the assessment rubrics created by the national workgroup of SPF SIG project directors, evaluators, and cross-site evaluation staff. There were two sections of the fidelity measures. The first assessed fidelity to the SPF model and criteria were established for having completed each step of the five-step process with high fidelity, moderate fidelity, weak fidelity, or missing. The second part of the fidelity assessment measured fidelity to the prevention strategies individually.

Focus group data

Two focus groups took place in 2009, one with the members of the SEW and the other with state-level actors in OSAP (including the statewide entity representative of Value Options). A protocol was developed by the evaluation team that asked participants to reflect upon the successes, challenges, and lessons learned of the SPF-SIG. Each focus group took about 2 hours; they were recorded and a scribe took notes.

Interview data

As lead by Coop Consulting, an interview protocol was developed with input from the evaluation team and OSAP program managers. The protocol focused on issues of local successes, challenges, lessons learned for programs and feedback to the state. During the final SPF SIG TA site visits in 2010, Natalie Skogerboe implemented the interview protocol in SPG SIG communities with core team members, and in some cases, coalition members. This was implemented either as an individual interview or a focus group, depending upon the participants who presented. She then typed up the notes and distributed them to programs and the evaluators.

5-year narrative report data

Each program was required to complete a data-driven final report for the last two quarters of the project, and a 5-year narrative report that summarized the successes of the SPF SIG for each step, and including sustainability and cultural competency. The 5-year report was structured so that programs would respond to questions with their core team and key coalition members in a
focus-group format, and then present those results in narrative form. The final and 5-year reports were used by OSAP program managers and OHNM to monitor programs and by the evaluation team to gain a qualitative assessment of program achievements. As part of the 5-year report, communities were asked to create network models of the organizations working relationships prior to the SPF SIG and after SPF SIG. The “before and after” network maps for each community are in Appendix B. These network maps were analyzed as part of the evaluation process.

Community survey data

The final question on the Community Survey asked participants to provide additional commentary about “the issues we have asked about today.” The intent of this question was to allow participants an opportunity to respond to the survey in their own words, share their perception of the survey topics and methodology, and to elicit ideas on other relevant issues that might impact DWI and underage drinking in their communities but were not queried about in the survey. Finally, the responses can be mined by local programs as means to represent a “local voice” about alcohol-related issues in their communities.

Analysis Approach for Qualitative Data

Qualitative data were used to answer the following evaluation questions:

1. How has New Mexico implemented the SPF SIG?
2. Has readiness to address drinking and driving in New Mexico changed as a result of the SPF SIG?
3. Has capacity to prevent ARMVC&Fs increased as a result of the SPF SIG?

Responses to the five-year reports and open-ended community survey questions were coded using QSR NVivo 8 qualitative analysis software. Using NVIVO, the researcher creates a coding tree that reflects her analytical needs, reads the text, and then codes it according to one or more thematic ‘nodes’ on the tree. Once the coding is completed, the tree structure can then be analyzed by studying relationships among nodes, considering prevalence of responses in a node, and by focusing on outlying nodes as a means to inquire into new hypotheses.

For the community survey, a simple scheme was created for this purpose, with an initial coding tree based upon the 7 intervening variables of the SPF SIG, “survey feedback” (i.e. “it was too long”) and “personal narrative” (responses that were very evocative). As coding proceeded, additional nodes were created as the density of a theme emerged (e.g., the need for treatment). The open-ended question format prohibited a rigorous comparison of qualitative responses.
between the SPF SIG and comparison communities because it could not control for method of implementation.

Five-year reports were first question-level coded along the SPF steps, and each question was then thematically coded. Analysis was conducted on studying nodes as described above for each SPF step, with additional analysis on themes that emerged independently from the questions provided in the report. In addition, final program interview notes were scanned and relevant information or quotes were incorporated into the write-up (although some of these reports were duplicative as some programs integrated their interview results into their 5-year reports). When questions arose about a specific intervention or issue, reference was made back to the program’s final report.

For focus groups a simple coding scheme was developed without the use of qualitative coding software as the sample was so small. Summaries of responses were developed and compared to one another.

**Primary Data Collection: Quantitative**

To compensate for the limitations inherent in most secondary data sources in N.M., community level data were gathered using a community questionnaire. Community-level data were collected over the course of the same two months, February and March, of 2008, 2009, and 2010. Additionally there was an initial phone survey, which was conducted during the late spring and early summer of 2008.

During May of 2007 (FY 07), a statewide telephone survey with 50 questions was conducted using random-digit-dialing (RDD) in order to collect information about attitudes, knowledge, and behaviors of a representative sample of persons 18 to 25 years old in N.M. Unfortunately, a very low response rate to the telephone survey (N= 379) meant that the data were not sufficient to establish community level estimates, yet some state level estimates could be made. Questions on the survey included measures about support for law enforcement efforts and tax increases to increase prevention efforts, awareness of increased prevention efforts, perception of risk, and consumption patterns and behaviors. Some, but not all, of these same measures were also included on subsequent community questionnaires. Those measures that are the same reflect National Outcome Measures (NOMS) associated with drinking and driving and driving behavior and are originally derived from federally-funded national surveys of risk behavior.

During FY 08, the community questionnaire was revised to be conducted as an on-line survey. Participants were recruited through local Motor Vehicle Departments (MVD’s) in an attempt to get a representative sample of adult drivers 18 and older. It was expected that this sample was likely to be skewed to younger respondents because it was administered on-line, but this was acceptable because the target population was also younger. Once individuals were recruited to
be contacted for a survey, they would receive an email invitation or a telephone call to administer the survey. The only communities that did not recruit through local MVDs were those communities with no local MVD office, predominantly Native American and rural communities. In those communities, surveys were administered on paper in strategic locations, such as in mail boxes at tribal offices or at Tribal Feast Days, providing anonymous drop off locations for completed surveys. Over 2,500 (N= 2,662) usable surveys were gathered from 14 SPF SIG communities and 9 comparison communities during this FY. While there was a significant increase in the overall number of responses, there were still insufficient responses in some communities to conduct analyses at a community level.

In FY 09, learning from the previous two data collection experiences, a more systematic and culturally-appropriate approach to data collection took place. Communities were provided with a target number for completed surveys sufficient to measure change in alcohol consumption behaviors with a prevalence of 50%, and a 5% margin of error and 95% confidence intervals. We assumed this rather liberal prevalence rate because most of the measures on the survey assessed intervening variables that are quite common, as opposed to drinking and driving, which is rather rare by comparison. Given that creating changes in ARMVC&F at a state level can take considerable time, we would expect to see the earliest changes occurring in the intervening variables, followed by consumption behaviors, before changes in ARMVC&F. It follows that if communities are able to assess change within the targeted intervening variables and consumption behaviors, the logic model would predict that these early changes will eventually result in decreases in ARMVC&F as well, despite no currently measurable changes at a local or state level.

For FY 09, PIRE elected to work within the strengths of the existing relationships and culture of each community, and in the process, increase the capacity of local prevention programs to collect data as well as sustain the collection of local level data. Each program was guided in the creation of a local-level data collection protocol for the community survey. These protocols required the local programs to plan how they would collect the required number of completed surveys within the two month window of data collection within the unique context and challenges inherent to their community.

Each local SPF SIG program and comparison community data collection entity designed a protocol based upon characteristics of the community. In particular, those programs that established a good working relationship with the local MVD were asked to continue working with the MVD to increase the representativeness of their data. However, all communities were given leeway to collect data at other sites and using different methods. The SEW reviewed each local protocol and required revisions where necessary. Programs were then required to follow this data collection protocol, and if changes were made, they were required to have them approved by the SEW for appropriateness and to document the change in their protocol. This local-level data collection protocol was required of all SPF SIG and comparison communities. The intention was to encourage programs to prepare early for data collection and to create a data collection plan that could be used again in the future for data collection efforts.
Thus, the major change from FY08 to FY09 was that the site of collection was determined individually for each community, and collected almost entirely by the community, rather than using a mandatory recruitment through the MVD for later surveying via telephone or internet. In FY09 communities could collect paper surveys and/or recruit participants for the internet survey. No phone surveys were conducted after FY08. Programs were not allowed to collect data from anyone under age 18. While this new approach was imagined to be more burdensome to programs as they were to collect their own data, rather than just recruit for participants, programs were less frustrated then they were with the low returns from many hours spent recruiting in MVDs. Indeed, they were much more successful: for FY ’09, the number of surveys collected increased significantly with just over 7,000 (N = 7,011) usable surveys collected. Nearly all the communities had sufficient community level survey data with which to work.

During FY 10, the same approach was used that worked so successfully in FY 09. Each community developed a community-specific data collection protocol based on the previous year’s protocol and included all those methods that worked during the previous round of data collection. New protocols could, however, remove or revise approaches to strategies that were not previously successful. They could also include new strategies not previously used. Plans were reviewed again by the SEW and data were collected in the 14 SPF SIG communities and 7 comparison communities across the state. All SPF SIG programs attempted to recruit from their entire targeted area. In FY 10, almost 8,000 (N = 7,897) surveys were included in analyses.

One question was added to the FY10 survey at the request of a program working on the promotion of increasing alcohol excise taxes. This is why results for this question are only available for FY10.

In FY 2008-2010, all surveys were available in Spanish. These surveys were professionally translated into a Northern Mexican dialect in order to meet the linguistic needs of most monolingual Spanish speakers in New Mexico, and minor semantic changes were made each year as based upon input from communities. Programs were encouraged to use bilingual surveyors in communities where many monolingual Spanish speakers were to be recruited. (Only 217 Spanish surveys were collected over the 3 years.) If monolingual speakers of languages other than English or Spanish or individuals who were unable to read the survey wished to take it, programs were encouraged to have someone available who might be able to read or interpret the survey to them.

All data recruitment methods received approval from PIRE’s Institutional Review Board (IRB) and UNM’s data recruitment methods specifically received approval from their IRB.

As a result of community surveying, there are at least 2 years’ worth of strong community-level data for each community, and in some cases, 3 years worth. However, these data do not represent a random sample, but rather a convenience sample. It should be noted that due to the very rural nature of most N.M. communities, a truly random sample (such as what failed to be accomplished in the 2007 RDD) is not possible without expending considerable resources. That said, with some exceptions, the samples from 2008 to 2010 appear relatively representative of
their corresponding communities themselves and are relatively similar in composition across years.

Analysis Approach for Community Questionnaire Data

Data collected from the Community Survey were used to answer the following evaluation questions:

1. Have intervening variables associated with binge drinking and drinking and driving changed as a result of the SPF SIG?
2. Has self-reported binge drinking and drinking and driving been reduced as a result of the SPF SIG?

FY 07 Community Questionnaire data

The data were cleaned by researchers at BAI, the previous state evaluator for New Mexico. Univariate and bivariate analyses were then conducted on data collected during FY 07 stratified by whether respondents lived in a SPF SIG funded community or a comparison community. Chi-square tests of significance were conducted to examine possible differences between the SPF SIG sample and comparison sample on measures of interest.

FY 08 – FY 10 Community Questionnaire Analyses Overview

A systematic approach was taken to cleaning all data files. In particular, one rule was universal across all data files: respondents with missing data on age or ages less than 18 were deleted from the data files each year. Also excluded were respondents who indicated they were not N.M. residents. Weights were created to reflect population distributions in N.M. of age, race/ethnicity, and biological sex. Trend tests were conducted to examine differences between the SPF SIG and comparison groups over time among alcohol consumption measures and intervening variables. Weighted results are presented for sample demographics and descriptive statistics; however, un-weighted results are presented for logistic regressions and GLMs.

Analyses were conducted on aggregated data collected from 2008 to 2010. We began by conducting preliminary analyses to assess the validity and reliability of survey items. Cronbach’s reliability coefficients were calculated for five intervening variable factors. Data were weighted to reflect the age, biological sex, and race/ethnicity distributions in N.M. using 2009 U.S. Census estimates. Univariate and bivariate analyses were then conducted on unweighted and weighted data to examine sociodemographic information across communities and years, and t-tests were run to see if significant differences existed between 2008 versus 2009
and 2008 versus 2010 data in both the Comparison group and the SPF SIG group. Moreover, trend analyses were performed by using the Cochran-Armitage trend test in the SAS FREQ procedure to examine if there was any trend in high risk drinking behavior outcomes from 2008 to 2010 within the Comparison group and the SPF SIG group respectively. Similarly, changes in intervening factors across three years were assessed by comparing means of these three years within each group. In addition, the effect of group membership (SPF SIG communities vs. comparison communities) and year on targeted outcomes were investigated using regression techniques that control for differences in the samples in age, race/ethnicity, biological sex, and other sociodemographic measures. Using SAS, logistic regressions were run for binary outcomes and GLM regressions were run for ordinal outcomes on both unweighted and weighted data. Regression models were run with and without inclusion of an interaction term representing the group by year interaction. The variance in the outcome accounted for in each model, or R-square, is also reported.

Analysis of the Effects of Different Funding Resources

Early during the SPF SIG project in N.M., the National Highway Transportation Safety Administration (NHTSA) funded the “Five County DWI Project” (to become 6 counties) in Bernalillo, San Juan, McKinley, Rio Arriba, Dona Ana, and Santa Fe counties. Funds were used primarily for extra DWI law enforcement officers and media (both statewide and non-traditional local media) on the ground in those counties. Five SPF SIG counties and one comparison county received NHTSA funding. Therefore, we felt that it was imperative to also examine if the two funding sources might have differing effects and possibly work synergistically in those communities that benefited from both sources of funding. To do this, we examined those comparison communities receiving no prevention funding from either SPF SIG or NHTSA, those that received only NHTSA funding, those that received only SPF SIG funding and those that received both SPF SIG and NHTSA funding. To shed light on how these funding sources might have influenced high risk drinking and driving behaviors, we conducted logistic regressions to examine their effect while controlling for the influence of demographic characteristics (i.e., age, race/ethnicity, biological sex, length of time living in N.M., language spoken at home, whether the respondents identified that he/she was a student, and age at first drink of alcohol) on the outcome. In particular, we were interested in the effect of the interaction between the funding sources and year on the outcomes of interest in 2009 and in 2010 as compared to year 2008.

Analysis of Community Level Influences on the Outcome and Intervening Variables

Given that the samples were collected from different communities, it is possible that part of the variation observed in targeted outcomes can be attributed to collective cultural differences and characteristics of individual communities. Therefore, we conducted multilevel analyses within each year to assess between-community difference in order to partial out community-level
influence. Our analyses revealed that between-community difference was not statistically significant. In other words, these communities were not statistically different from each other and community-level influence on the targeted outcomes was negligible. These analyses further indicate that the findings obtained from individual-level analysis (i.e., the regression analyses) are not confounded by community–level influence. Therefore, we do not present any results of our multi-level models.

Presented in the results section are summary tables with weighted estimates and estimates from the regression analyses conducted. We also graph the predicted probabilities of outcomes across the three years based on the adjusted models including the interaction terms. Appendix C includes additional tables and graphs of these findings not included in the results section.

**Secondary Data Sources**

Data from multiple sources were analyzed for the evaluation effort. First, secondary data from national surveys were used to examine trends over time across the state as a whole and by intervention and comparison communities when possible. These data sources include the following:

1) New Mexico Youth Risk and Resiliency Survey (YRRS)
2) Behavior Risk Factor Surveillance Survey (BRFSS)
3) New Mexico Department of Transportation (DOT)
4) Fatality Analysis Report System (FARS)

**New Mexico Youth Risk and Resiliency Survey (YRRS)**

The New Mexico Youth Risk and Resiliency Survey (YRRS) is a survey of public high school students (grades 9 - 12) and as of 2005, public middle school students (grades 6 - 8). The survey includes questions about risk behaviors (i.e., behaviors contributing to unintentional injury; behaviors associated with violence; behaviors relating to mental health issues, including suicidal ideation and suicide attempts; alcohol, tobacco, and drug use; sexual activity; and physical activity, nutrition, and body weight) and resiliency (protective) factors. The N.M. YRRS is a part of the national Youth Risk Behavior Surveillance System (YRBSS). The YRRS is conducted in schools that consent to participate during the fall of odd numbered years. Results are available 10-12 months after survey implementation.

**Behavior Risk Factor Surveillance Survey (BRFSS)**

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health
care access primarily related to chronic disease and injury. Data are collected every year, although some questions are asked only every other year. Data are typically available for analysis approximately 24 months after survey implementation.

New Mexico Transportation Safety Board (TSB)

Data provided by N.M.’s Transportation Safety Board included the monthly number of alcohol-related motor vehicle crashes and the number of fatalities by county from January of 2005 through December 2009.

Fatality Analysis Report System (FARS)

FARS includes motor vehicle motor vehicle crashes that result in fatality of a vehicle occupant or non-motorist from injuries resulting from a motor vehicle crash that occur within 30 days of the crash. In addition, there are FARS Alcohol files which contain driver and non-occupant BAC estimates, as well as overall crash alcohol estimates, which are used to supplement the data files when no alcohol information would otherwise be available.

An advantage of utilizing the secondary data sources mentioned above is that these data are collected in such a way as to ensure population representativeness. Either the data are already the entire population (e.g., DOT data) or the data represent a random sample weighted to reflect population level estimates (e.g., YRRS data). However, for the SPF SIG evaluation, one important drawback of using the secondary data sources is that these data cannot be distilled down to the community level of those SPF SIG communities that are smaller than the corresponding county. Therefore, the estimates based on secondary data sources are county level data estimates rather than community level estimates. Additionally, data results are often delayed so that it is impossible to determine the final impact of the SPF SIG, when N.M. community implementation continued through September 2010.

Analysis Approach for Secondary Data Sources

Counties with a SPF SIG-funded community were combined to represent the intervention group, and all other counties were combined to create the comparison group. However, as previously mentioned, not all secondary data can be easily disaggregated to the county level, and not all SPF SIG communities are actually counties. The assumption we made in order to group intervention and comparison groups was that at least some environmental SPF SIG strategies will have spillover effects into the surrounding areas, thereby affecting behaviors and outcomes beyond the borders of the community itself. In addition, since a number of SPF SIG communities do reflect
entire counties, we felt that combining all counties in which a SPF SIG community was located would provide an acceptable measure of “community” in which to observe change. Yet it remains that this grouping strategy used is not an exact reflection of SPF SIG “communities,” therefore, we refer to the SPF SIG group as SPF SIG counties as a means to remind that findings do not exactly reflect SPF SIG communities.

Specifically, we examined trends between the SPF SIG and comparison groups over time in targeted outcomes, consumption measures and intervening variables. Two primary evaluation questions were addressed using secondary data. These include the following:

1. Has self-reported binge drinking and drinking and driving been reduced as a result of the SPF SIG?
2. Have ARMVC&Fs been reduced as a result of the SPF SIG?

Secondary data are extremely useful in allowing us to view trends over an extended period of time. By examining trends among the aggregated SPF SIG counties compared with trends among aggregated comparison counties, we can test whether there are significant trends for each group separately and compare trends between the two groups.

Data were examined and graphed over time, comparing SPF SIG counties to Comparison counties to view long term trends. In addition, we used auto-regressive integrated moving average (ARIMA) modeling techniques to conduct statistical analyses appropriate for investigating repeated observations when there were 50 or more observations. This approach adjusts for the dependencies that typically exist within time series data with many observations; such dependencies break important assumptions about data independence that are central to standard analytic techniques. Thus, ARIMA modeling is an appropriate method for testing an intervention effect with time-series data because it helps to ensure that the assumptions of the statistical test are not broken.⁹

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Results: Qualitative

State-Level Implementation, Readiness, and Capacity Enhancement

Overview

In the spring of 2009, two focus groups were held with state-level stakeholders in the SPF SIG. One focus group was held with OSAP staff and the statewide entity representative, and the second was held during the monthly SEW meeting, which included NM DOH epidemiologists, TA providers, consultants and local evaluators. The same questions were asked of each group. Below are the questions, followed by discussion of how the two groups as a whole responded. As questions were not specifically structured along the SPF process, the write-up is not organized by SPF steps, however they do provide feedback on the state level on each of the five steps in the model: needs assessment, capacity building, strategic planning, implementation, and finally evaluation. Additional input from state-level actors also was provided about how issues as experienced on the state level affected how the SPF process was implemented locally. We conclude with an overall discussion about the SPF process as experienced by state-level actors.

1) What would you say are the general state level successes & accomplishments so far for the SPF SIG? What has it changed for the better?

The SEW stated that for the first time, there was good cooperation and integration around planning and prioritizing with OSAP. The SEW established cooperation with some law enforcement agencies. For example, Traffic Safety Board supported the SEW efforts and the SPF SIG project as did the DWI Czar, and a very successful cooperative agreement with the Epidemiology division of the Department of Health (DOH) was made possible by SPF SIG grant money.

OSAP and the SEW were most articulate about capacity building, especially around data. The SEW believed that the partnership between OSAP and the Epidemiology (Epi) division of DOH with the SEW created a lot of momentum around data and contributed to a shift in how people thought about data. The State Epidemiological Profile was crucial and contributed to a change in thinking about and using data. One example of this shift was that previously indicator and evaluator data were used during programming, but no real assessment was done. With the SPF SIG, data determined the single statewide focus, and it was no small feat to have one single statewide focus that many people and agencies were working to change across the state. The OSAP team agreed about the importance of and innovation in the Epi profile for planning. The profile took their process deeper with data-driven programming, and considering data at the level of the intervening variable.

For OSAP, the data-driven process went beyond influencing the way OSAP or even the communities implemented SPF SIG programming, but it positively influenced how programming occurs with other OSAP funding sources. The SEW supported this idea and explained that the potential for other state groups to use data (e.g., suicide prevention...
coalition) has grown. OSAP further stated that the data-driven process influenced the way that it provided feedback about prevention to other state agencies. While other state agencies may not specifically have used the SPF process, OSAP helped them become more data-driven in the way grantees were selected, for example.

There developed significant collaboration among state agencies in sharing data as a result of the SPF SIG. Working with epidemiologists in DOH allowed for easy access to relevant data, created a sense of familiarity with and ownership over the data, and increased comfort with the data-driven process in general.

Having OSAP housed in DOH was helpful in terms of having access to epidemiologists, relationships with other state agencies, and data sharing. Other states do not seem to have this, and as a result they do not have the same access to the Epi division, or a direct link to data support. Other states had to look for a group to run the SPF SIG, but that was not an issue for OSAP because of being house in the DOH. “We had a natural home that had a lot of linkages to other state agencies. We are so used to that we don’t realize that advantage.”

Encouraging states and local communities to build capacity through collaboration with government and non-government entities was another major shift for prevention in N.M. For example, the need to achieve cross-jurisdictional efforts and interplay had been big issue in N.M.. McKinley County was able to accomplish this in part because data that were never accessible before to prevention were now available.

OSAP also spoke extensively about the improvement of relationships, and spoke concretely about how relationships between state agencies had improved. The state was heavily “siloed” before the SPF SIG, and much of that remained, but the state’s Behavioral Health Collaborative also helped to address the siloing issue.

There were also inter-state collaborations occurring. For example, the SEW described how NM was instrumental in assisting with the development of the DWI prevention logic model and prevention framework by working closely with PIRE leaders, and then sharing that knowledge with other states through a conference that all states attended.

OSAP focus group participants perceived that there was a greater sense of cooperation and collaboration between communities and state-level stakeholders, such that programs had begun to advocate at the state level. The active participation of programs in advocating for legislative bills showed the improvement of communications and relationships. It never had been done with this level and with this intensity in the past. For example, there were six bills that were presented to the state legislature in 2009 about alcohol and with an emphasis on underage drinking. This was accomplished through the support of state-level stakeholders and Enforcement of Underage Drinking Laws (EUDL), but the SPF model really led the work with the Attorney General’s office (AG). Communities had never worked so closely with the AG’s office and the “capacity at the community level to work with state officials blossomed.”
Implementing environmental strategies at the community level and providing a framework for accomplishing this were significant accomplishments and OSAP staff and SEW members were thankful to CSAP for that framework.

The SEW described how work with tribes had improved greatly with the SPF SIG. Working with tribal data was always a delicate issue, and it was an achievement for non-tribal epidemiologists to get to work with tribal entities through the SPF SIG. OSAP also discussed how the creation of the Tribal Epi Data Workgroup was another state-wide accomplishment that emerged as a result of the SPF SIG. This data group had worked to develop a workbook for tribes and non-tribal collaborators to explain the importance of data for tribal communities, and provide guidelines for non-tribal entities interested in working with tribes on their data. Data use in tribes overall had improved as a result of this new workgroup.

An additional success for both capacity and evaluation was the development of the community survey to collect community-level data. Several rounds of trying to collect data contributed to local and state level knowledge and understanding of effective ways to collect data locally and in New Mexico.

2) What are the general successes on the community level? What has it changed for the better?

The successes on the state level were reflected on the local level as well. OSAP thought that in general, new skill sets were being developed in communities and that there was a ‘shift’ in local program capacity. BAMHS for example developed a new court monitoring system in order to collect court data. Additionally, programs were encouraged to work with their Local Collaborative in order to enhance the role of prevention in the Behavioral Health Purchasing Collaborative. Programs were able to bring the data to the table in a convincing manner, becoming local resources themselves, and with that they gained a lot of respect.

Use of the SPF model spread at the state and community levels in N.M. Some of local programs had gone after federal funding using the SPF model, even programs that were not SPF SIGs. Some communities after learning to think along the lines of the SPF model were applying it in other kinds of prevention and substance abuse contexts. For example, Local Collaborative 6 had built upon their experience with SPF SIG and DFC using the SPF model in their prevention to aftercare state program, the Total Community Approach. OSAP further described how communities that had the SPF SIG engaged others in terms of the language of the SPF, data-driven prevention, environmental strategies and intervening variables. Santa Fe County DWI, for example, knew the language, and people were speaking the same language. Another example mentioned by OSAP is that in reviewing DWI grant applications, they saw that one of the DWI programs discussed how they had used the SPF process.

There was strong use of local data for assessment and planning, and communities used local data for other programs as well. This occurred in direct prevention services as well as SPF SIG
programs. Communities had begun to use data from the YRRS and the Strategies for Success (SFS), a data collection instrument implemented with OSAP’s direct service programs.

In general, participants saw **better use of prevention resources in communities**, made possible through the collaboration promoted by the SPF SIG. One example of how local **agencies had begun collaborating together, especially through sharing data** was that local substance abuse prevention programming had begun to be linked to county DWI Councils in ways they were not before.

Focus group participants saw growth in community prevention programs with **building of relationships with key stakeholders**. OSAP gave examples of gains that were seen as a result of the “synergy” created among different community partners: **Laguna closed liquor stores for two weeks** and **SJCP was successful in keeping a liquor license from being transferred** for the first time ever.

OSAP discussed that **native communities were doing the SPF process** and many had success in getting all of the different law enforcement agencies together to address ARMVC&F. Laguna Pueblo, for example, was able to get the tribal government so involved in their efforts that they actually changed tribal policies and procedures, and had made an impact about selling alcohol to minors on tribal lands.

The SEW further described how **two tribes with SPF SIGs were writing their own proposals for the tribal SPF SIG**. In the tribes (and other communities as well) there were strong local collaborations to achieve a single goal. For example, there were amazing levels of **collaboration between groups** within just Mescalero around sobriety check points.

**In terms of implementation, use of environmental strategies was new to most communities,** and their adaptation had not been without struggle. Some good case studies of the issues with implementation of environmental strategies could be taken from Laguna Pueblo and Albuquerque Partnership. In addition to this, it seemed that there was **greater appreciation and understanding of what evidence based strategies** are and what it means to implement them on the local level.

Having a project that is **evaluated at the state and local level, and having evaluation as part of the overall working model** was new and was seen as a real asset. Participants saw that on the local level, evaluation was no longer being perceived as just an “added expense” but there was greater appreciation of data as well as evaluation overall.

**3. What are the major challenges you have faced along the way with the SPF SIG? What have you learned from these experiences that will change how you do things in the future?**

OSAP began by reflecting on the **difficulties with start-up**, beginning with the challenges of a new logic model and shifting approach to thinking of intervening variables:
There was not much clarity in the beginning about what was the best avenue to take for IVs. There was contradictory research presented to the group, and we were unsure which research was right or which was more important.

One challenge was getting communities to think about the linkages between the intervening variables and the things that were happening in the communities. “It took a long time for the light to turn on.” “It was a different logic model” than what communities or the state were used to. And OSAP further explained that they were learning at the same time as the communities were. “We would get a call about a problem and we did not have a solution for the problem: ‘We understand that you are having a problem….. ….. Silence”. The SEW agreed to this assessment and further remarked that learning the new skills has been very challenging for all. At the local level there was and still is some misunderstanding of what a typical data would look like for a preventionist doing environmental strategies, and CSAP could have provided more guidance to communities.

In this way, being a Cohort 1 state was a disadvantage, as NM did not have anyone to seek out TA or guidance. Other states would say, “‘New Mexico knows how to do it.’ That was a huge barrier for us, and we took the brunt of not having more support because we were on the front.” The SEW discussed how it was a paradigm shift and as a result a big challenge, and there was a lack of guidance from CSAP/SAMHSA. It would be important that next time that there is more guidance.

The lack of federal guidance also meant that the state could not offer consistent guidance to the communities. OSAP was very clear about the negative effects that their own learning curve had upon programs: “Our communities had a huge tie to social norms…and we were forcing them to change while we kept changing what our expectations were.” Another participant elaborated upon OSAP’s role in this difficulty in the process:

They finally bought into the model and what the intervening variables were and then we switched it on them again to require that they refocus and they were frustrated. Even the needs assessment said one thing and we said you have to do this (instead).

The SEW commented as well about this switch in approach and the problems with it. They further explained that a social norms focus seemed to be pervasive across the states and there were national organized forces promoting social norms as well as industry-funded social norms research. N.M., however, was assertive in getting information out to communities, the state and even other states by bringing in PIRE’s Harold Holder. Bringing in Holder to emphasize the importance of increasing the perception of risk through very visible enforcement assured a new research-based approach to prevention.

In OSAP there was a discussion about whether the project moved forward to implementation too quickly, before programs really had the capacity. There were two groups of SPF SIGs in the beginning: the fully funded programs and the capacity programs who were funded less. The fully-funded ones “looked like they had it better” but they had “more pressure than the capacity
programs” that had the “luxury of going a lot slower.” This was in contrast to a lot of the other states who took much longer to reach the implementation phase, as was discussed in the SEW. This **accelerated process created some resentment that lingered**, and some OSAP participants still heard a lot of frustrations from programs about limited timelines.

OSAP commented that the accelerated process of moving to implementation and directing programs towards different IVs came with some costs in terms of the communities, OSAP’s leadership of the process, and the provision of culturally appropriate interventions:

> We didn’t really look at historical trauma and how it plays out in Native American and Hispanic communities – only because Harold Holder hasn’t done the work…. Our Native American communities have been telling us about that, but our system has not been looking at that. I think that we have been sorely missing the potential.

**Poverty also was mentioned as an issue that was not addressed in the logic model.** “There’s been a lot of research around that and we haven’t addressed it.”

Discussion about poverty and historical trauma led OSAP also to discuss a **lack of guidance from the CSAP about cultural competency**. “Everywhere we went there was all this theory about cultural competence but nothing about how to be culturally competent.” “We heard just about being PC,” but nothing concrete.

OSAP also discussed some lessons learned in terms of the structure and leadership of programs. Here, problems with programs being successful with the SPF SIG can be attributed to a need for a specific kind of **organizational capacity**. One OSAP participant explained:

> Some programs that have failed, I have seen that it needs to have an executive director who is on board. You have to make sure that the agency is sound financially; that they have good relationships with their community members, because it takes more than the agency for these projects to be successful…There is a strong need for a champion who is committed to this project…. Someone on staff has to be that and if you don’t have that it’s not going to work.”

Capacity issues at the agency level that arose were not just about staffing and leadership. On the one hand, a strength of the SPF SIG was that it led NM to choose **more appropriate direct service programs based on local data**, as **all direct service programs were led through the SPF model** and had to use that information to justify the programs they were using. But some **direct services programs felt that they were forced to go through the SPF process**, especially those that did not apply for the SPF SIG. “The SPF SIG people were used to the pace, but when it got global, that was really frustrating and they probably had lingering resentments about it.” One participant continued, “It was new for everybody, and a lot of people did not choose to sign up for that rigorous a process. Not just for the agency, but the community as a whole.” Another added, “Back in the day when you write a grant, you would gather your data and you would just share the planning with your agency. Now, you wrote the grant, but other
people in the community are required to participate.” In sum, the new process of the SPF SIG for prevention planning and implementation “brought up a lot of issues” with other prevention programs, programs that also provided treatment, and from the state and local silos.

The SEW discussed the ripple effects of SPF SIG in terms of raising awareness of alternative prevention paradigms for direct service programs. At the same time, they also recognized that implementing the SPF SIG had been challenging for those trained to do programming at the individual level. These difficulties applied not only to direct services but also to state-level stakeholders who perceived prevention more in terms of direct services.

OSAP discussed how collecting data remained a challenge for communities. For example, in one community hospital data could be accessible, but in another it was impossible to access. Enforcement data in general was very difficult: for example, some law enforcement agencies—especially tribal ones—weren’t yet using electronic data systems. Data collection was especially hard in Native American communities. IHS data was often unobtainable and “in some cases data is not just inaccessible, but it’s not even there.” The issue of data collection led to commentary about lack of infrastructure with the communities as well.

Both groups agreed that evaluation was the biggest hurdle that they faced. The first couple of years it took them “time to wrap their heads around it” both in terms of the role of the local and state evaluators, as well as trying to gather community-level data. Additionally, the first rounds of gathering data with the phone survey were expensive.

Ultimately, both groups agreed with this SEW statement, that “It’s been both a success and a challenge.”

The following two questions were commented upon together:

4. What are your hopes or goals for the remainder of the SPF SIG project? What will be the most important things that need to happen so that those goals are met?
5. What challenges do you foresee in the remainder of the project? What is being done to make those issues less challenging? What else can be done to address those challenges?

Both the SEW and the state explained that they wished to think through ways to address the tensions with direct services and environmental strategies. There was “needless antagonism” between the two approaches and they had been pulled in multiple directions. People at that point knew what they need to do now, but how to divide the activities appropriately to get everything done remained challenging. OSAP had tried to help with these tensions with differing levels of success with this and still had “a ways to go.” There were still people on either end of the extremes—either direct services or environmental, and there were different skill sets for doing each one. If you felt uncomfortable engaging effectively with police officers, for example, you may not be cut out working to increase enforcement; at the same time some SPF SIG staffers may not be well cut out working with youth, which is what much prevention is oriented towards.
The SEW explained that there had been no plan for how to deliver TA until 2 ½ years before. TA was extremely important to the SPF SIG and prevention in general, and a process had been developed for the delivery of TA. “You have no idea what’s going on until you go out and ask questions, and listen and then figure out where the gaps are.” It was important to note that this process was “…difficult and very labor and time intensive.” But participants observed that TA was having a ripple effect in prevention in general. Program managers were going out more often to visit programs and creating better relationships with them, where they were “supportive of programs and their work, and not just enforcers of the protocols.” The state wanted to see this relationship continue but were unsure if changes coming ahead would allow it to.

OSAP described how especially in the beginning, that conflicting information that would go out. One representative would say one thing to a program and another would go and say something else. They felt they had learned the lesson about being “…more cohesive about when we provide information,” and trying to be more prepared to help communities.

Focus group participants said that they needed to have more realistic expectations of programs, many of whom were “forced into a process they did not apply for, or those that were thrust into a pace that was unrealistic and perhaps inhuman.” OSAP reflected in hindsight that “The timelines were not culturally competent or obtainable.” Some communities had the structure to take the model forward while others clearly did not.

7) What system level changes have you seen occur as result of the grant? How can these changes be made sustainable after the grant ends?

The SPF had been ingrained into the system, even and especially in terms of the job functions of OSAP, where each position was related to the steps in the SPF, and as a team they planned and built capacity. They also adopted the SPF into gambling prevention and used logic models.

However, OSAP expressed a great deal of concern about the future of prevention in the face of a state budget crisis and a new statewide entity that did not appear to have much expertise in prevention. Given the challenges that the state would face in sustaining the positive changes that had occurred with the SPF SIG, OSAP still expressed hope that the political engagement of communities continue even without funding.

Knowing that awareness of the successes of the SPF SIG was important for sustaining it, OSAP expressed frustration with the lack of general state knowledge of the SPF SIG efforts and impact. “We have people…that we work next to that don’t recognize what we’re doing….When the DWI deaths go down statewide, there was no recognition of the SPF SIG.” They commented wryly that Governor Richardson’s “You drink. You drive. You lose” was not the reason that ARMVC deaths have gone down, and it was more likely that the SPF SIG was the driving force behind this change. This discussion led one participant to state that a goal for the remainder of the SPF SIG may be that OSAP get better at articulating their successes to the state and gaining recognition for them.
OSAP also discussed how this lack of recognition might be addressed by working on the continuum of care by integrating prevention into treatment and by the introduction of prevention into the local and state collaborative planning councils. However, in these contexts, OSAP found that its work was overshadowed by the treatment end of the continuum.

Indeed, making the actual transition to the new statewide entity (SE-OptumHealth New Mexico) was predicted to be a challenge. Ultimately, OSAP found itself in a difficult position – between supervision in DOH and the new SE – where the SPF approach to prevention was at risk. OSAP knew it would have to work hard to develop and sustain relationships with these entities that had an impact over the sustainability of their work.

These capacity challenges were also hard on OSAP because program managers could not be accessible to programs as they had become accustomed to. With their change in direct supervision under DOH, “our mental models are not the same as what our jobs are in relation to our new supervisor.” It was going to be important for them to have a lot of support from the SE so they could continue to provide the support programs needed. OSAP described trying to be honest with programs when they don’t have answers, while also not creating panic.

There was a lot of discussion from OSAP about concerns for the future of prevention in the face of the new SE. Even though prevention was clearly a very logical and economical effort, the economic disparity between what is provided to treatment and to prevention led to power differentials in how planning occurred and decisions were made: prevention was only 2% of the SE’s budget. Furthermore, the RFP written by the behavioral health collaborative had no mention of prevention, and the contract for OptumHealth New Mexico only referred to prevention marginally, primarily in relation to relapse or homeless prevention, not substance abuse prevention.

One possible solution to address the challenges facing prevention was to encourage prevention programs to become more embedded in their county health councils, which also made sense for OSAP because the two programs at the time were housed in DOH together. Health Councils were the power holders in terms of what communities needed, and OSAP was the expert of implementing programs to meet those needs, so these relationships should be formalized.

OSAP thought that prevention sustainability could be helped by having the state’s Substance Abuse Subcommittee adopt some language about prevention, even if it was not very strong. Additionally, they also helped make a tie between and Prevention Advocates.

OSAP also recommended for sustainability on a community level that they seek to make more of an impact on tribal government. This was predicted to be very challenging as one can do a lot of work to gain buy-in from one council, and two years later another council is elected, and the work can start all over again.
Participants discussed whether coalitions could continue to be strong. It would be important to think about how to improve community mobilization skills so that coalitions could continue even without funding.

Maintaining capacity in the community also was difficult, as many of the programs and community partners had significant turn-over and OSAP was challenged to meet these community needs. Some of the staff who received training at the initiation of the grant were no longer there, and new staff needed continuous state support and programs had come to expect it. OSAP reflected that with this additional burden on them to be providing TA, and that with being short staffed, in a hiring freeze, with state limitations on travel, and having only an acting director, they could’t do it all. They were even being denied participation in trainings on a federal level, where the expenses were already covered and where not attending could make them non-compliant with federal funding requirements.

Participants saw an impact of the SPF SIG on other community-based programs, which could also be a source for sustainability. DWI programs were thought to be a good way to see the impact of the SPF SIG on community-level systems. Originally, while DWI proposals were supposed to be 60% evidence based, how much they actually followed their own criteria was not known. Participants thought that DWI programs had made huge strides: they were speaking the SPF language, looking at the CSAP 6, and “certifying preventionists like crazy.” Though progress was not as fast as they would have liked to see, “It’s good to see that conversation happening over and over again and it’s important to celebrate their accomplishments.”

Additional challenges for sustainability included the tension between direct services and environmental strategies, and the SEW thought that there was a need to figure out how to do both. Since OSAP stipulated how training monies were spent, they could assure that the proper training for both approaches were being addressed. They could also assure that everything was evidence-based in contracting. The big lesson learned for the SEW was about shifting a system that was just direct services to that of environmental strategies, and the effectiveness of that effort.

OSAP commented that the data piece was very important for sustainability and was also very important to sustain. All participants agreed that the SEW and LEWs would need to keep functioning on some level, even without funding. Sharing and streamlining data for state and local agencies would be ideal to help support sustainability. On a local level, it would be challenging, and for state agencies this meant assuring the presence of relationships and that they continue. There was definitely an interest in data from all levels, and it was considered important to try to maintain the strong position SPF SIG had given OSAP in terms of data. A future goal would be to determine how to streamline data collection at a state and local level: for example all prevention agencies could use the same instrumentation, reporting, and applications.

Evaluation was also considered important to sustain. One OSAP participant said, “We’ve learned what’s worked and what didn’t work in terms of evaluating the entire process – but
basically, did it work?” Thinking about the evaluation in terms of future prevention efforts, another added: “We also need to know if it worked with the 15-24 year olds, so we could think about integrating the approach to include tobacco, suicide, and poverty.”

For community-level sustainability, the SEW thought about looking less at evaluation (as they had so strongly prior to that moment) and more at where Tierney Murphy of DOH Epidemiology was going with in terms of **tracking community-level indicators**, and **building upon the logic model**. Perhaps a method of continuing would be to simplify the SPF SIG programs by making sure that all projects have highly visible checkpoints once a month and use media regularly. Other thoughts were to look at how to best affect binge drinking and chronic heavy drinking, and focusing more upstream.

**Concluding commentary**

Once the program was rolling each of the SPF steps provided unique challenges and required the constant attention of the state. State actors had to prove themselves adaptable in the face of broader challenges facing them, especially those beyond their immediate control such as state budget cuts and the change in SE. The need to build capacity was continuous, especially when having to adapt to these changes. State level stakeholders in the SPF SIG, however, showed a strong appreciation of the SPF process and what it could offer prevention, and used each of the steps as a means to promote and support evidence-based prevention throughout the state.

It appears that there was a significant shift in state level capacity to support programs. With the support of the the SPF SIG, OSAP staff adapted a more supportive approach towards programs, and found that this shift enhanced more than just working relationships. Focus group participants, however were also concerned about being able to continue with this supportive dynamic with impending state-level changes.

In sum, the state undertook a significant challenge with the SPF SIG. It had to make the shift to environmental strategies, use a different logic model, encourage programs to conduct activities that they were not all prepared for, move forward with considerable speed and with little support from the feds, all while weathering multiple structural challenges with a state financial crisis, the loss of leadership and staff, and changes in the statewide entity. OSAP and its programs had bought strongly into the SPF process, and were making significant gains in capacity, even with other state and local agencies incorporating the SPF. Nonetheless the SPF and prevention itself was still perceived to be under attack from a treatment-heavy and economically-strapped system.

The tone of these responses, collected in the spring of 2009, still sound more hopeful than similar prevention voices in New Mexico a year and half later. It would be most interesting to consider the sustainability of the impact of the SPF SIG by interviewing the same stakeholders a year from now. Which of these changes survived? What aspects of these collaborative relationship and data driven planning have lasted? What factors would be important to make sure that some of these changes last? How important are specific individuals, well placed, in the continuation of successfully implemented programming?
Community-Level Implementation, Readiness, and Capacity Enhancement

Overview

SPF SIG funded communities were required to complete five-year community narrative reports at the conclusion of the grant. In addition, extensive end-of-grant interviews, designed to elicit additional information about the implementation of the SPF SIG at the community-level, were conducted with each prevention program. The 5 year reports and interviews were analyzed with the following evaluation questions in mind:

1. How has New Mexico implemented the SPF SIG (at the local level)?
2. Has readiness to address drinking and driving (at the local level) in New Mexico changed as a result of the SPF SIG?
3. Has capacity to prevent ARMVC&Fs (at the local level) increased as a result of the SPF SIG?

In the five year reports it was very clear that community programs had built capacity to implement evidence-based environmental strategies in their communities. Programs and communities began at different capacity levels, but all, especially those with apparently the least prevention capacity upon initiation of the grant (perhaps because they did not have to break down established prevention habits) were able to build considerable prevention capacity in their communities and in various ways. The bulk of the description which follows reveals how community readiness and capacity have been enhanced in communities in New Mexico (questions 2 and 3 above). In fact, responses to these two questions reflect perhaps the greatest improvements reported in the evaluation report.

Below are the results of the qualitative analysis of the 5-year reports of the N.M. community programs and prevention program interviews. Each step of the SPF model was analyzed, along with the dominant themes of collaboration, coalition building, issues facing rural programs, and lessons learned. While barriers were not specifically requested by OSAP for the 5–year report, some programs integrated a discussion of their barriers into their responses to questions on the report. Furthermore, the interviews specifically asked about barriers and obstacles faced by prevention programs. Therefore, challenges faced are also reported for each SPF step. This overall analysis provides an answer to the community-level response to question 1 above. Through each step, the story of how the SPF SIG was implemented at the community level is revealed.

The SPF Process

The SPF process overall was highly valued by programs. And while it was new for most programs, and learning it and teaching it to others could be a challenge, programs described it as
a welcome and even essential framework for prevention. Programs did not simply use the SPF model to shape their SPF SIG activities; programs discussed how using the SPF model helped them with other prevention activities and even community and coalition-based programming. The SPF process infiltrated prevention planning and implementation in the coalition and community partners as well.

Once programs moved to the implementation phase, they spoke of moving through each step in a constant or ongoing fashion. Especially in the latter part of the funding, programs described always seeking data and reviewing it with coalition and prevention partners in order to enhance planning, capacity and implementation.

Programs often discussed how the greater environment had changed in qualitative terms. Some described changes in community perceptions and behaviors (such as a law enforcement officer commenting that more drivers were using designated drivers), but most of all, they discussed how prevention planning had changed, the involvement of new stakeholders, and how strategies were aligned with what the data indicates as a community need. In the words of Cpl. Baric Crum of the Farmington PD, “The environment really has changed - everyone working on various aspects - it all flows together in the same direction, influencing everything.”

Challenges for adapting SPF Process:

Those that were conducting “direct services” style programming at first had strong preconceived notions to overcome, as the SPF SIG, with data driven planning and environmental strategies represented somewhat of an adjustment for them. However, once they went through the SPF process, using the model became essential to the way they conducted prevention at the local level.

**Staff and coalition membership turn-over** was a challenge for many local programs but especially rural programs. Programs mentioned that it was important to provide continuous training on the SPF model for all of their partners, not just paid staff. This ongoing training most often occurred with the implementation of interventions, through coalition partnerships, or through data sharing.

Most of all, adapting to the **SPF paradigm required an essential change in perspective.** “The SPF has challenged us to do more for our community – it has taken us out of our comfort zones and given us more visibility in the community.” This quote, from a participant in Mescalero Apache Prevention Program, is key. Programs appeared to recognize that success using the SPF model required one to be “taken out of one’s comfort zone”.

**Collaboration**

Collaboration was an important theme that was identified in every step of the SPF process. Especially programs that had developed strong relationships with their coalition found that
collaboration with their coalition enhanced every step of the SPF process. For example, several programs described collaborating with community coalition partners in conducting their assessments. This collaboration set the stage for future partnerships in planning, implementation, and data collection and was essential when working on creating or changing local policies. **By collaborating on the needs assessment, programs were able to gather more (and often better) data, while pulling in more partners to the prevention process.** Planning collaboratively helped decrease duplication of efforts and increased the reach and resources of the program to address prevention in the community. Particularly in rural communities, a coalition-based and collaborative approach to capacity building meant that trainings could be accessible to more people increasing the local capacity further than could have otherwise happened. Implementation of many interventions could only have occurred with a collaborative effort, and the collection of evaluation data (especially the community survey) was often done in partnership with the coalition and other stakeholders. Data and findings were then shared with the prevention partners (especially DWI councils). Many programs discussed how a major success of the SPF SIG was the increase in collaboration within their communities for prevention. In the words of one prevention provider:

> Our community has come to the realization that collaboration is imperative. People understand that they cannot do this (work) on their own – The SPF has set the groundwork to have numerous agencies working together. People see now how NCCBS’ initiatives compliment what they are already doing and aid the overall goal of improving their community.

Some SPF SIG programs talked about collaborating among each other. This was most clearly done among the three Albuquerque sites - UNM COSAP, Albuquerque Partnership and Excel Enterprises. These three prevention programs collaborated to address different geographic areas and target groups in order to increase their exposure while also not duplicating efforts. UNM COSAP also worked with other SPF SIG programs with a college or university in their community. Programs discussed learning from the successes and challenges of other SPF SIG programs and stated a desire to learn more in this fashion.

**Collaboration with law enforcement and the courts through the sharing of data** was another important area that was commonly discussed. The community survey was especially helpful in opening doors to law enforcement and provided ‘teachable moments’ with law enforcement about the importance of increasing the perception of risk. SJCP, for example, explained how even alcohol retailers had begun collaborating with law enforcement in order to ensure the enforcement of DWI and underage drinking (UAD) laws.

The principal challenge to collaborating with local stakeholders was maintaining the relationship over time. More collaboration took place during times of crisis (such as following an alcohol-related crash fatality), and some spoke of soliciting the collaborative effort of others only when they were most needed. BAMHS noted that collaboration was easier when there was funding available, which towards the end of the grant decreased. For all programs, it was essential to **keep the roles in collaboration well-defined.**
Coalitions

Coalitions and coalition building were described as essential to each step of the SPF process. Clearly, they were key to the collaborative process, and they helped programs keep on track and remain accountable to their communities. McKinley County described how coalitions helped individuals to put aside personal agendas and support a common cause that all could participate in. This experience surely rang true for other programs as well.

Coalitions were built in different ways. Some communities relied upon existing coalitions but were able to refocus and strengthened them because of the SPF SIG. Other communities created coalitions very different from expectations. Mescalero Prevention Program (MPP), for example, described creating a coalition that consisted of more participants who were not Native American than those who were. This approach broke with Mescaleros’ historical reticence to participate with non-native peoples, yet they recognized that interethnic collaboration was essential if they were to work on issues of enforcement. This accomplishment should not be minimized as it speaks to the challenges that many tribal prevention programs face, and is a good lesson to non-tribal programs as well about the importance of coalitions including various law enforcement jurisdictions.

Excel mentioned the importance of partnering with a coalition and a core team when dealing with alcohol prevention because of the challenges of dealing with the alcohol industry and social norms. They described the importance of having someone --beyond a core team -- at your side to help you face this powerful industry and its proponents.

Collaboration with coalitions was essential for sustainability. When interventions are organized through a coalition, in the words of Carlsbad’s coalition leader,

“The “services” we provide are part of an organic community process that is not owned by any one person or agency. Thus it has the potential to be sustained over time.”

Coalition Challenges

For some prevention programs, merging the agency’s or coalition’s original orientations to those dictated by the grant was challenging. For example, Carlsbad’s coalition had to shift the composition of the group from its original volunteer base to that of professionals paid by the grant, and BAMHS went from receiving guidance from a treatment-dominated agency leadership to a community-based prevention coalition. Balancing the concerns and interests of other coalition members with the requirements of the SPF SIG could at times be the source of friction with a coalition’s constituency. Some programs mentioned the fatigue felt by coalition members after some time of working with the grant. RMYC explained that pulling in coalition members to participate in specific events or activities, or to attend data presentations, was more effective than expecting ongoing involvement or participation by coalition members.
Some programs described that capacity building for coalition members had to be an ongoing process. Coalitions were very important to the SPF process, and while desirable, it was often a challenge to bring coalition members who were not paid program staff to the SPF SIG meetings. And if they did not come to these meetings, it was often difficult to train those members on emerging SPF SIG concepts, issues and concerns.

**Needs Assessment**

Programs talked about **assessments as a way to build relationships with future prevention partners**. For example, Laguna Pueblo described how conducting bar assessments provided an opportunity to team up with bar owners in the prevention of UAD; this was a common example experienced among those that participated in retail access-directed interventions. Others described requesting data from law enforcement, the courts, schools, and youth, as a means of developing important relationships that continued throughout the SPF SIG. In this way, it is not simply how data are gathered in an assessment that sets the groundwork for a strong program, but the needs assessment process also initiates collaboration that is important for successful implementation. Even potential partners who were reluctant to share data for assessment purposes (for example, a retailer or another provider reluctant to share ‘turf’) can be identified as someone who needs to be targeted for a specific approach.

Almost every program discussed how **conducting the assessment helped them build capacity** in the prevention community to do data-driven planning and identify environmental causes of ARMVC&F. During the initial needs assessment, conducting retail outlet observations helped staff understand more clearly the IVs of retail access and discount pricing. Annual review of community survey data and chosen indicators helped bring home the relationships between implementation and desired outcomes.

Lack of access to local data was considered a very limiting aspect of the needs assessment process at the community level. The absence of local level data was perhaps the biggest challenge for many of the SPF SIG programs, and made **conducting a thorough assessment a daunting challenge**. Those programs that were able to conduct a thorough assessment at the initiation of the grant seemed better prepared for the implementation, as they had identified needs, knew their capacity, had developed a plan for implementation, and were able to established baselines for comparison purposes.

Programs spoke of **updating their assessment data regularly**. Some, like SJCP, conducted a major regional assessment every 4 years as part of their institutional practice. Programs used the **assessment tools initially provided by the state**, and many developed and used their own unique assessment and evaluation tools. For example, UNM COSAP added questions to a campus survey and Santa Fe and BAMHS helped conduct a coalition-based surveys and SJCP surveyed their coalition partners annually to determine ways to improve and direct programming.
Sharing data was new for many prevention programs as well as other community stakeholders, yet it turned out to be perhaps the most important way that collaboration was established and reinforced, and capacity in prevention was built. Communities discussed sharing data with community members, with other prevention partners, with law enforcement, and coalition participants.

Assessment Challenges Faced by Communities

Some programs described that intervening variables targeted in their assessments did not match with later state-mandated prevention activities. In these programs, social norms and/or social access were identified in the needs assessment as the most important intervening variables to target in their communities. However, during the strategic planning phase, the programs were steered away from targeting these IVs in order to focus on increasing highly visible law enforcement and the perception of risk, and to conduct the Responsible Retailer Forum, or RRF. While some programs agreed that the change in focus was useful, these changes were especially difficult to rationalize to stakeholders when the coalition-based assessment and strategic planning already had occurred.

Programs indicated that a longer needs assessment and capacity-building phase would have been helpful for those programs that were new to prevention, environmental strategies, or coalition work (in hindsight, nearly all of the programs). Prevention program staff were trained on the importance of collecting data, but for some there was still very steep learning curve to feel comfortable collecting and using data as well as seeing the connection between data and strategic planning. What communities and coalitions identified as the most critical problem in the community was not always identified in the data. Excel Enterprises gave a strong example of their challenge in this area. In their needs assessment, the program relied heavily on what community and coalition members said about the problem of crack cocaine, rather than focusing on collecting different kinds of data, and looking at the quantitative data. This wrong turn set them back a bit, because they needed more time for conducting a new assessment and time to build capacity in their coalition and community around the alcohol issue.

In some cases, turn-over of staff meant that staff hired later in the process did not benefit from the important TA provided by the state. Staff missing this training did not have the same appreciation of the original needs assessment findings. Those programs with consistent use and updating of assessment data and with strong and consistent leadership did not experience the impact of staff turn-over so strongly.

Capacity Building

The SPF SIG has served as a core means to build prevention capacity in communities through the development of coalitions and increases in collaboration, not to mention the increase in skills around collecting and interpreting community level data, and in using data for strategic planning, as well as an understanding of the importance of evaluation. In particular, those programs with
little environmental prevention experience prior to the SPF SIG required a great deal of training in order to conduct needs assessments and plan, and later to implement prevention strategies at a community level. These same programs described how the community also required capacity building in order to support environmental prevention activities. In the next section, we relate the network mapping exercise conducted by programs as part of their final reporting. This is followed by how capacity building was discussed in the 5 year reports.

Network mapping of working relationships in SPF SIG funded communities

The second step of the SPF model is capacity building. SPF SIG communities were expected to build the capacity and readiness of the prevention provider and the community to prevent ARMVC&F. To achieve this, prevention programs were encouraged to forge new relationships with other organizations both within their community, and at the state, and even national levels, while strengthening any existing stakeholder relationships. This task was viewed very much as an ongoing process, and communities found the experience of creating some relationships more challenging than others. To document increases in capacity and readiness, as part of their final reports, SPF SIG-funded communities were asked to create network maps that illustrated their local, state, and national working relationships. Communities created network maps representing their existing network at the beginning of the SPF SIG and then again at the end of the grant. Appendix B includes the pre and post network maps for each SPF SIG funded community prevention program.

From a very general standpoint, one way to view increased capacity and readiness at the community level is to measure the change in the number of working networks existing in a community. Table 2 shows the number of existing working networks identified by communities prior to SPF SIG and at the end of SPF SIG. What is striking is the considerable increase in working relationships by the end of the SPF SIG, where all programs but one identified new relationships. It is important to point out however, that the number of networks does not in any way indicate the quality and strength of those working relationships. It does, however, say something about the efforts made to engage new stakeholders and increase collaboration between stakeholders. Some communities used techniques to indicate strong relationships versus weaker relationships in their network maps (such as drawing connection lines with thicker or thinner density). This technique provided additional information about the capacity built within the community.

Table 2: Changes in the number of existing working networks within communities to increase readiness, capacity, & sustainability.

<table>
<thead>
<tr>
<th>Prevention Program</th>
<th>Number of Existing Networks</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRE SPF SIG</td>
<td>POST SPF SIG</td>
</tr>
<tr>
<td>Albuquerque Partnership</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Border Area Mental Health Services</td>
<td>11</td>
<td>33</td>
</tr>
<tr>
<td>Colfax County Youth Empowerment Systems</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>
Excel Enterprises, Inc. 11 29 +163.6%
Hands Across Cultures 13 19 +46.2%
Laguna Pueblo 9 17 +88.9%
McKinley County 10 17 +70.0%
Mescalero Prevention Program 8 44 +450.0%
North Central Community Based Services 10 18 +80.0%
Rocky Mountain Youth Corps 8 20 +150.0%
San Juan County Partnership 22 37 +68.2%
Santa Fe Public Schools 9 23 +155.6%
UNM COSAP 9 14 +55.6%
Youth Development, Inc. 8 8 NA

Two programs will be highlighted and discussed in detail in this section. One represents a community that came into the SPF SIG process with strong leadership and community capacity and readiness, San Juan County Partnership (SJCP). This program began with relatively strong working relationships with the local DWI planning council and law enforcement agencies. They conducted prevention programming in the local school system and already participated in community town hall meetings. SJCP also had more tangential relationships with many other stakeholders in the community. (See Figure 4.)

**Figure 4:** The network of working relationships for the San Juan County Partnership prior to receiving SPF SIG funding.
As a SPF SIG community, SJCP was well staged to address ARMVC&F. Yet over the course of the grant, SJCP further strengthened their network and continued to build vital working relationships with stakeholders, acting as the catalyst for other stakeholders to initiate collaboration. (See Figure 5.) A total of 15 new relationships were built over the course of the SPF SIG, while 18 original relationships became stronger. New relationships with alcohol outlets, the local and state-level Motor Vehicles Department (MVD), Native American coalitions and tribal law enforcement, and local media were all created, some becoming quite strong working relationships. Moreover, relationships with the many facets of the school system became stronger and more diverse, as did relationships with Indian Health Services (IHS) local law enforcement. At the end of the SPF SIG grant, the SJCP had increased local capacity such that the system of environmental level prevention of ARMVC&F will continue. The capacity built has strongly influenced the community’s ability to sustain their efforts by sharing the responsibilities and burdens.
Figure 5: The network of working relationships for the San Juan County Partnership at the end of the SPF SIG.³

The second program highlighted here represents a Native American community. Originally, the Mescalero Prevention Program (MPP) worked exclusively with stakeholders within the Native American community. (See Figure 6.) From the viewpoint of maintaining tribal sovereignty and assuring cultural competence this makes perfect sense and likely reflects the working networks of most tribal prevention programs and coalitions. Strong working relationships within the Native American community are essential to move forward with any community-based program, such as the SPF SIG.

³ Yellow = Stronger relationships, Green= New relationships, Blue = Different relationships.
Yet, as the Mescalero coalition members and prevention providers began to think about what needed to happen to decrease ARMVC&F among tribal members, they realized that they would need to reach across the borders of the reservation and engage county and state law enforcement, the faith-based community in Otero County, the Otero County Health Department, and local schools. This meant stretching beyond the typical relationships held by the Mescalero prevention providers within the tribe – principally the Mescalero Tribal Council, its Agencies and Schools. It also meant that the prevention of ARMVC&F on the reservation became a goal in which the entire county would participate. Recognizing that tribal members do not live, interact, and drink and drive exclusively on tribal lands, it made sense for Mescalero to begin to involve non-tribal resources and stakeholders such as agencies in bordering towns, and even the state police. This meant that enforcement efforts could be shared among all local law enforcement agencies and need not burden any single agency. As a result of this realization, over the course of the SPF SIG, the Mescalero Prevention program created a working network that included both on- and off-reservation stakeholders. (See Figure 7.) Strong relationships were created with the Otero County DWI Council, the State Investigative Division (SID), the Bureau of Indian Affairs (BIA) law enforcement, and the State Police. Media outlets beyond the reservation were used to get the message out to tribal members. Especially through the N.M. (tribal) Local Collaborative 12, the Region 6 Native American prevention group, and the statewide SPF SIG, MPP shared their strategies, successes, and challenges with other tribal preventionists. In this way, the Mescalero Prevention program increased the number of tribal stakeholders and managed to create collaboration among multiple tribal and non-tribal entities, which were able to come together around a common cause. This growth in working relationships for a single prevention agency is unprecedented in N.M. and speaks to the power of highly motivated, thoughtful, and energetic community leaders.
**Figure 7:** The network of working relationships for the Mescalero Prevention Program at the end of the SPF SIG.

Summary of Network Mapping

These two very different programs, located in opposite ends of the state, initiating the SPF SIG with different capacity and implementing distinct strategies, both developed their working networks in ways that supported their programming in essential ways. While SJCP principally deepened its existing relationships, MPP broadened it, both apparently successfully “reaching outside of their comfort zones.” Given the 5-year reports’ emphasis on collaboration and coalition-building, it is difficult to imagine how implementation would have been possible without these broadened and deepened working networks. While the development of these working networks is not the only element that guarantees the success of implementation and sustainability of ARMVC&F prevention efforts, they demonstrate a significantly increased capacity for prevention in these communities as a whole. However, without the continued support with proper resources, the ability to sustain that capacity remains unsure.

In sum, communities receiving SPF SIG funding were expected to build their local capacity to prevent ARMVC&F. One way in which this was accomplished was through the establishment of working relationships with other stakeholders in the community, the state, and at the national level. Most SPF SIG-funded communities increased their working networks substantially over
the course of the grant funding. This influenced how well they were able to implement environmental-level prevention strategies during the funding period and the sustainability of their prevention efforts after that funding ended.

**Capacity building** continued throughout the SPF SIG. Prevention programs discussed how many lessons were learned as they worked. Especially for smaller communities with less prevention capacity to begin with, it was very difficult for many to predict how a prevention strategy would really work and what the challenges might be until they were actually implementing one. This was much remarked upon when trying to increase enforcement which frequently results in trial and error attempts at working with local law enforcement. Community members also required continuous capacity building on the SPF model in order increase understanding and support for prevention efforts undertaken.

Programs working on the SPF SIG worked toward a common goal statewide, and biannual state meetings were held to bring the local SPF SIG funded programs together to share stories of their progress. Typically technical assistance was provided at these meetings and data were shared with everyone.

The **TA system provided by the state was applauded overwhelmingly** and was considered essential to program success with the SPF model and reaching their prevention goals. Support provided by OSAP program managers, Coop Consulting, and the state-wide prevention system were all appreciated and desire was expressed to have their benefits expanded as much as possible. Some programs were able to consolidate their efforts by organizing to have trainings in their own communities, which increased the prevention capacity of their community partners and strengthened coalition support.

**Capacity challenges**

A prevention program made the point that **communities with serious alcohol and drug problems to begin with would likely have faced much greater barriers overall**, because the pervasiveness and seriousness of the problem could debilitate the entire community, such that capacity and readiness would need to be built from the ground up. This observation is a compelling one, as the SPF SIG was meant to help communities work on each step in order to implement evidence-based environmental strategies, and barriers at any step along the way can affect the quality and effectiveness of implementation. Since the involvement and support of community institutions, such as health councils, school boards, law enforcement, and courts is essential to the overall success of the SPF, needing to create the readiness and capacity for all these entities to act can be daunting.

Programs often spent much work on building community capacity. The requirement to use environmental prevention strategies was a paradigm shift for many traditional prevention programs and counter to how they had traditionally operated. Therefore, continuous attention to training and capacity building was critical. It was never simple for programs to integrate the grant goals in with those of the community’s goals, but in the end, once partnerships had been
established, the goals of the SPF SIG became the community’s as well. In the words of San Juan County Partnership: “The community has moved from simply having awareness that there is a problem, to knowing more specifically what the issues are, where problems are happening, and that community norms with regard to ATOD are shifting.”

Strategic Planning

Programs wrote about how they used their strategic plans to keep on track with the numerous interventions and goals. Progress in implementing the strategic plan was typically reviewed and updated on a regular basis at coalition meetings. This way, stakeholders could share in the success and challenges and provide assistance when needed.

They also described how data-driven planning became essential to prevention planning in the community. One program described how schools now ask about the most recent assessment data when planning. Now that data have also been collected over multiple years, preventionists are able to examine trends over time to help determine the impact of various community interventions and events.

Data-driven planning also helped programs address the unique aspects of the communities they served. In other words, each SPF SIG community was unique. Using local data for planning purposes meant that intervention phase could be designed to take into consideration those unique characteristics.

Looking at data, especially the community survey data, helped programs plan each year. MPP described how even when indicators did not move in the desired direction, that important information was used in deciding how to adjust their prevention strategies appropriately.

Planning challenges

The most common challenge programs reported about the planning phase of the SPF model were when the state’s priorities did not match with the community’s. Some programs were required to rewrite their strategic plans to address new state priorities. Other health concerns also related to substance abuse and issues such as poverty were not allowed to be emphasized. Some programs spoke of continuing to address their originally targeted intervening variables, like social norms, while also targeting the required intervening variables.

Implementation

Programs reported many successes implementing strategies, however since none of the required program reports requested an exhaustive list of implementation activities, a complete representation of what strategies each program implemented was not collected. Below, however, in Table 3, we report some of the more outstanding accomplishments that programs discussed in their 5-year reports and in their program interviews.
### Table 3: List of accomplishments and achievements mentioned by programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Accomplishments</th>
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| **Albuquerque Partnership**                  | Organized and trained neighborhood associations on crime reduction  
Successively blocked the expansion of convenience store selling liquor  
Successfully blocked a liquor license (CVS pharmacy) from moving into their neighborhood  
One coalition member has worked with the County to grant leave for employees volunteering as mentors |
| **Border Area Mental Health Services**       | Increased awareness of 4<sup>th</sup> degree felony for providing alcohol to a minor  
Drug Free Communities, Total Community Approach, and 4 DWI councils all work on aligned goals with BAMHS serving as the leader in data collection for planning  
Judges and DA supportive of prevention goals (one judge pledged to make the prosecution of DWI his #1 priority)  
Media and perception of risk have increased (law enforcement advertises checkpoints and arrests and newspapers cover alcohol-related topics more often)  
Responsible Beverage Service – Retailer Training & its promotion – now fully run by another agency |
| **Carlsbad Anti-Drug & Gang Coalition**      | Initiated a *Friday Focus* which brought together business owners to discuss current trends and issues. It eventually led to increased support of prevention initiatives from the business community and more interest in drug prevention in the workplace  
Worked with Keeping Carlsbad Beautiful to map and identify graffiti hot spots. Their work and advocacy led to the City of Carlsbad establishing a graffiti hotline and also hiring a graffiti ranger to respond to every call and clean the graffiti immediately  
Their National Night Out campaign has led to more neighborhoods and residents participating and getting to know their neighbors. They have been recognize two years in a row for the NNO campaign and it has helped establish safety initiatives such as slower speeds or stop sign in neighborhoods with children and at least one arrest for dealing drugs and one women being saved from a fire by her neighbors!  
Their prescription drug initiative has led to safe disposal sites and the drug task force director for the region believe this has played a big role in the reduction of prescription drug seizures (for illegal sales) in the area  
The Carlsbad Anti Drug and Gang Coalition has more ‘muscle’ now because people know they have the data to back up their concerns and strategies. It has led to increased support of the city and other diverse groups. |
Table 3 (con’t.): List of accomplishments and achievements mentioned by programs

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<tr>
<th>Program</th>
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| Colfax County YES                | Have increased capacity to implement community-wide prevention initiatives  
Have gained the support of the media to provide coverage. Media now covers things CCYES does but also covers things related to substance abuse and enforcement and their coverage of enforcement is no longer negative, but supportive of their efforts. This has been an important shift for their community.  
Diverse youth involvement  
Increased SID checks – there had been NO checks done in Raton until CCYES met with SID and showed them the data. Now, regular checks are taking place.  
Increased community perception of risk of arrest for DWI and of prevention activities. Increase in awareness of 4th degree felony law for providing alcohol to minors.  
Law enforcement is much more focused on alcohol related problems than they were before the SPF. |
| Excel Enterprises                | Trained community members on strategies for advocating for policy change with county and city officials.  
Established peer to peer youth education on risks of alcohol consumption through innovative means such as poetry slams.  
Successfully encouraged community, youth and law enforcement officials to build positive relationships and partner to impact the communities.  
Became a community leader for the culturally appropriate dissemination of information about the risks of youth alcohol use through media saturation and community events that brought parents and youth together in an alcohol-free environment.  
Supported a community partner in convincing UNM athletics to ban alcohol advertising at the Pit (the UNM basketball stadium). |
| Hands Across Cultures Corporation| Multi-agency jurisdictional commissioned officers conduct joint DWI checkpoints and patrols (such as the Espanola lock down). These Multi-agency, multi-jurisdictional activities have increased enforcement and have increased the perception of risk of getting arrested for DWI.  
The “Take It Back Now” radio will show incorporates a youth segment into the broadcasting schedule. Youth groups now design, produce and implement a youth-driven radio show once a month or as needed. These youth interview community leaders, educate listeners and advocate for prevention funding.  
The youth radio show serves as platform and assists in building a foundation for youth groups to go out into the community and present at city council meetings county commission meetings, during legislative sessions and at future community forums.  
Coalition conducts a community forum to help build capacity and increase sustainability for evidence based environmental prevention strategies by leveraging resources from within the community. These community forums are held annually to coalesce community leaders and stakeholders and strategize on effective community wide environmental prevention strategies. |
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| **Laguna Pueblo**                      | Walk Down the Line – Locally developed annual event to shift social norms about drinking.  
                                         | Tribal Governor and Council ceased sales of alcohol 2 weeks prior to prom and graduation (has become an expectation)  
                                         | Competed for highway safety money allowing them to conduct hundreds of saturation patrols  
                                         | Working on allocating liquor tax revenue toward prevention and treatment programs |
| **Mescalero Prevention Coalition**      | Regional Law Enforcement Meetings (10 jurisdictions) with tribal prevention coalition that includes non-tribal participants  
                                         | Compliance Checks are now happening on the reservation  
                                         | Retailer Training with all employees at the Inn of the Mountain Gods  
                                         | Recognition in the region that they are prevention experts |
| **North Central Community Based Services** | Successfully worked with the Bureau of Land Management to pass an ordinance making Abiquiu Lake an alcohol free lake (in campgrounds and on boats)  
                                         | Increased involvement of law enforcement in their coalition and community events and increased the presence of law in the rural areas of the county to do saturation patrols and checkpoints where they had never been done before.  
                                         | NCCCBS has worked to mobilize and engage youth so that the youth now chair and facilitate coalition meetings, develop agendas, plan and facilitate town halls and other events. |
| **San Juan County Partnership**        | Implemented a positive social norms campaign as based upon the Montana Meth program, adapting it to address the Native American youth community. The positive approach has influenced all that they do.  
                                         | Convinced law enforcement to conduct daytime DWI checkpoints, in order to increase visibility  
                                         | Community capacity to prevention has strongly increased. The community came out against granting a liquor license in Zia. Community now knows what the issues are and where problems are happening.  
                                         | Evaluators used GIS mapping and taught high school students about data.  
                                         | DWI has decreased dramatically, enforcement has increased and crashes have decreased. |

**Table 3 (con’t.):** List of accomplishments and achievements mentioned by programs
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<th>Organization</th>
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<tr>
<td>UNM COSAP</td>
<td>Trained a consortium of five other schools and have now established prevention in areas it did not exist before (SJC, NMSU, ENMU, NMHU, SIPI), adding two more schools since beginning of grant (WNMU, SFCC). Annual LifeStyles surveys take place on multiple campuses. Surveys reveal reductions in binge drinking and drinking + driving. Systems are in place to inform the student body of upcoming checkpoints and other data.</td>
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<tr>
<td>Santa Fe Underage Drinking Prevention Alliance</td>
<td>City of Santa Fe passed an ordinance banning the sale of alcohol on city property. Annual LifeStyles surveys take place on multiple campuses. Surveys reveal reductions in binge drinking and drinking + driving. Systems are in place to inform the student body of upcoming checkpoints and other data.</td>
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<tr>
<td>Youth Development, Inc. Valencia County</td>
<td>Developed Youth Coalition, who implements many activities including a DWI and Underage Drinking PSA that has helped increase awareness in the community around alcohol issues. Youth also helped develop a short video on YDI that YDI staff have been able to use to highlight their work and gain support from local businesses. Increase in enforcement: increased DWI checkpoints. Reduction in youth driving with a drinking driver. YDI has become a community resource for prevention. Helped initiate a juvenile Justice Board with a Teen Court and Juvenile Probation Officer that focuses only on teen drinking.</td>
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<tr>
<td>Santa Fe Underage Drinking Prevention Alliance</td>
<td>Implementing the Responsible Retailer Forum has increased awareness of retailers and the community around issues of serving to drunk customers. Worked with the City and Mayor, David Coss, to agree on stricter limitations of the sale of alcohol at Santa Fe’s 400th celebrations. City of Santa Fe passed an ordinance banning the sale of alcohol on city property. Dashboard – internet and newspaper real-time data shared with the public (DWI arrests, MIP). Attorney General Gary King’s Office supported and partnered with them on statewide initiatives to prevent/reduce underage drinking. Increases in awareness about DWI and UAD. Decreases in DWI fatalities and crashes. Law Enforcement played a big role – enforcement and Special Investigations checks have increased in the county.</td>
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<td>Lead the SPF-SIG statewide initiative to increase the county alcohol excise tax. Implementing the Responsible Retailer Forum has increased awareness of retailers and the community around issues of serving to drunk customers. Worked with the City and Mayor, David Coss, to agree on stricter limitations of the sale of alcohol at Santa Fe’s 400th celebrations. City of Santa Fe passed an ordinance banning the sale of alcohol on city property. Dashboard – internet and newspaper real-time data shared with the public (DWI arrests, MIP). Attorney General Gary King’s Office supported and partnered with them on statewide initiatives to prevent/reduce underage drinking. Increases in awareness about DWI and UAD. Decreases in DWI fatalities and crashes. Law Enforcement played a big role – enforcement and Special Investigations checks have increased in the county.</td>
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Many prevention programs found they needed to **adapt interventions** or **develop community specific interventions** to meet the needs of their communities, especially in rural and Native American communities. Laguna Pueblo, for example, mobilized in response to a local custom to ‘walk up the line’ of bars, to ask people to ‘walk down the line’ in order to ask community members to question this debilitating social norm. Another innovation was that law enforcement in SJCP started conducting DWI checks in the daytime, in order to increase the perception of risk. Additionally, SJCP was very successful in encouraging retailers to partner with law enforcement in the prevention of sales to intoxicated patrons and DWI. Law enforcement officer (LEO) Baric Crum affirmed that the climate in San Juan County with regard to sales to intoxicated and overconsumption was changing. In his words, “Establishments had the expectation that they could just sell [to intoxicated patrons], and people used to think they could just go out and get drunk. Now it really has changed.”

Some programs were able to **work with local colleges and schools**, enabling them to reach out to young adults more. UNM COSAP used SPF SIG funds to support prevention efforts in a New Mexico consortium of colleges and universities. Other programs worked with their local community colleges and universities as well in order to support UNM COSAP’s work, gather data, and implement their own prevention strategies, namely using media to increase the perception of risk and changing policy.

Programs explained that when **interventions were data driven, the quality of the interventions improved with time.** This was because they could review data from multiple sources and consider the broader impact of their interventions community survey data with other data in order to consider the broader impact on the community. Data-driven interventions also improved as the capacity to understand the relationship between the data and the intervention increase.

Many programs **implemented strategies in conjunction with coalition members.** According to MPP, an outcome of this was more buy-in from very different agencies and organizations across cultures and communities.

**Implementation challenges**

Programs reported many challenges with the implementation phase. Some programs explained that **the initiation of implementation was too rapid for them.** Assessment, capacity building and planning took place too quickly for them to feel comfortable with the strategies they were implementing. Moreover, some strategies took considerable time and effort to get to implementation because in some cases it took the entire grant period to be able to develop the relationships to change policies, increase law enforcement, or increase convictions, etc. The abbreviated period in which to conduct the needs assessment, build capacity, and plan strategically, before implementation assured that some programs were pressured to implement before all stakeholders could be approached, and good baseline data could be gathered.
There were numerous barriers reported with law enforcement, especially in working with the Special Investigations Division (SID) and gaining buy-in with local law enforcement (especially in rural areas.) SID are part of the Department of Public Safety and are tasked with enforcing the provisions of N.M.’s Liquor Control Act. Some programs eventually were able establish a good working relationship with their regional SID officer and as result, compliance checks increased. When programs were able to engage SID, the positive effects on enforcement were very strong. SPF SIG programs could increase perception of risk among retailers when SID citations occurred, thus increasing compliance by retailers. SID could also increase the perception of risk of arrest for underage sales in the community. Yet many programs struggled to establish relationships with SID, and SID’s commitment to collaboration in all parts of the state appeared inconsistent at best.

Barriers with law enforcement revealed the importance of continuously developing positive relationships and building capacity with local law enforcement agencies (LEAs) in large part because in some areas of the state there are high LEO turnover rates. BAMHS, because they worked with multiple LEAs in 4 counties, observed how there was no single strategy to work with LEAs, and that each one provided different strengths and challenges. Those programs that initiated their SPF SIG with existing partnerships with law enforcement had fewer troubles in collaborating with enforcement in other areas. It appears that having LEAs participate directly in the coalition or the local epidemiology workgroup (LEW) was a good way to assure that communication with LEAs was continual and consistent, and capacity with the LEAs remained high.

Some programs had more difficulty than others due to prevailing community politics and value systems about alcohol. Some reported that it was very challenging to work in certain communities that were very strongly impacted by economic marginalization and interrelated strong substance abuse problems. Alcohol sales could be perceived as a significant source of income for some communities (and even the very leaders programs were trying to convince), and the SPF SIG a threat to that income. Some had difficulty of creating buy in with community leadership because of concerns that the prevention strategies might restrict local economic development. In Taos, for example, there was reluctance among community leaders to restrict access to alcohol. They argued that restrictions in alcohol access could lead lower earnings from tourism-related alcohol consumption or possibly even reduced tourism affecting all areas of the local economy. Other communities resisted involvement because alcohol prevention was not perceived as important given the other graver economic problems facing their communities. The N.M. Department of Health’s Substance Abuse Epidemiology Division’s recent report The Human and Economic Cost of Alcohol Abuse in N.M., 2006, provided a strong response to these protests as it clearly demonstrated that alcohol abuse comes at great economic cost to the community.

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Many programs discussed the problems of staffing and staff turnover for maintaining consistent and high quality prevention implementation. One program described the challenges of having just one program manager to monitor the strategic plan, because of the many steps involved. Another program discussed the challenges of losing a competent program manager and with staff changeover, and the difficulty of having smooth implementation as a result.

**Economic constraints and cuts across the state affected programs in many ways**, especially at the conclusion of the grant when the effects of the recession were most felt in N.M. Over the course of the SPF SIG, OSAP’s long-term director retired, key management staff resigned, office funding was cut, and staff positions were lost. This lack of constant leadership and trained staff to help manage programs rendered OSAP less able to provide the much appreciated and needed oversight, support, and TA that it had previously. Of course, economic issues also were confronted by other community stakeholders and collaborators, including law enforcement, substance abuse treatment services and health centers, supporting prevention programs and activities, health councils, city and county budgets, and schools.

**Evaluation**

Programs spoke of the importance of a **strong relationship between the local evaluator and the program**, and in particular the program coordinator. This strong relationship and participatory approach of the evaluator set the groundwork for creating a sense of ownership over the data in program and even in the community.

Local evaluators not only guided data collection and evaluated the effectiveness of prevention efforts, they also helped assure fidelity to the strategic plan, and provided feedback along the way so programs could adjust their activities if needed in order to make the greatest impact. Laguna Pueblo listed the numerous ways that a **local evaluator was essential to the local community prevention process**:

Coalition and community members have a better understanding and appreciation for the need to have a local level evaluator. The SPF has made Laguna more strategic and everything starts with data driven planning. The state evaluation is important but distant from the program’s everyday needs and the needs of our tribal government who constantly request data specific to Laguna. Local level evaluators serve as additional technical support and ensure that the programs achieve what is in their scope of work. The relationship between the Program Coordinator and the Evaluator needs to be strong as they communicate often around various process and outcome level evaluation needs and the overall program performance. The level of trust in each other and the data is vital especially during assessment of program effectiveness. Sometimes modifications need to be made and sometimes the evaluation shows that activities are not effective or worse yet damaging to the community and those need to be addressed in a timely manner- a local level evaluator will be able to detect those activities and present the information to the Program Coordinator.
After some stumbling blocks during the first few years of the grant, the **community survey became an element of the evaluation process that programs considered essential.** It helped programs track their progress, reach out to stakeholders, educate partners and community members, and increase their capacity to collect and interpret data. In addition, by communities being involved in the data collection process, a sense of responsibility to and ownership of the data was felt. This involvement helped programs recognize the utility of creating sound data collection protocols and following those protocols to ensure good data. One program explained that this survey even allowed community members a stronger sense of participation as they had a venue to voice their concerns.

**Challenges with evaluation**

The SPF model’s inclusion of a strong evaluation component meant a shift for many in traditional evaluator/program relationships. The change to a more participatory and TA-style relationship could have meant problems for a community, like CCYES, who from lack of experience, was unable to identify the problem with an evaluator who was not as involved.

The **setbacks in gathering good community survey** began with its absence during the needs assessment process meaning communities did not have good baseline data. This was most true with respect to the intervening variables for which no measures were included in any of the standardized surveys conducted in N.M. The first community survey used a Random Digit Dialing (RDD) approach and the overall sample size was quite small. In addition, the sample did not represent all the SPF SIG communities, rather only the most populated. The following year, recruitment for an on-line survey at the MVDs was too complicated and proved too cumbersome for most programs, and programs expressed appreciation for changing the MVD recruitment methodology. Some found the survey too long, with one program suggesting that programs be allowed to choose which questions they could eliminate from the survey in order to make it more pertinent to the communities and less challenging to implement. Changing state evaluators midstream was a challenge for all involved, but reports in interviews with Coop Consulting were very positive about the responsiveness and participation of PIRE.

Programs also relied principally upon the community survey for local evaluation purposes because other secondary data sources tend to be quite delayed in the release of data and time sensitive decisions cannot be made with data that are 2 years old. Though some programs developed their own community surveys and evaluation tools, programs might have been reluctant to implement their own evaluation measures when waiting for the state to develop its survey.

**Sustainability**

Some programs discussed having access to and using grant writers. The importance of contracting with effective grant writers was not often discussed in state-supported TA, but it appears that **those programs that have been able to sustain their efforts have had solid and**
stable leadership, evaluation, and good grant writing abilities. No matter how well programs implemented their interventions, if those successes could not be adequately communicated to others, continued funding was and is unlikely.

Collaboration was perceived as essential for the sustainability of community interventions. Even without continued funding, if the prevention efforts were collaborative throughout, there was capacity built in the community and roles assumed such that these efforts could continue at least to some degree after the grant ended. For example, BAMHS was able to assure that a letter campaign for high school students’ parents was continued in all 4 counties targeted because it was implemented through the schools themselves, the DWI council, or the local health council in each county and each entity chose to continue this strategy.

Programs discussed developing sustainability plans, sustaining the LEW meetings, and the importance of always seeking other funding.

Additionally, along the theme of sustainability, the SPF SIG was important for the sustainability for UAD and DWI prevention activities in communities. As described by RMYC, the challenges of turnover in staffing in the local LEA’s and schools were mitigated by the sustained (non-financial) support received through the SPF SIG. BAMHS discussed this as well with DWI council coordinators. Three new DWI council coordinators in three different counties came on board over the course of the grant. Yet, because of the SPF SIG, BAMHS was able to quickly and efficiently provide training to these new coordinators on the SPF model, prevention as a data-driven process, and evidence-based prevention (EBP) programming.

Sustainability challenges

The principal barriers to sustainability were the effects of the recession and the cutting of services in the state. Programs that relied upon collaboration with partners had to cope with the defunding of their own agencies and/or these same partners that were going to sustain the intervention. RMYC, for example, while they won a Drug Free Community (DFC) grant to continue to implement alcohol and other substance abuse prevention services through the coalition, were concerned about their ability to do so effectively because of the cutting of funding to essential prevention partners like the health council.

With these economic difficulties, it was harder to increase law enforcement activities, argue for the proposed alcohol excise tax that many community members viewed as a general “tax increase”, and gather partners to volunteer with the coalition or give of their own time when they were also struggling to assure their own sustainability. At this time, DOH budget cuts affected direct service programs and those transitioning from the SPF SIG. Some programs complained of the labor-intensiveness of the RFA for continuing prevention funds put out by OSAP and OHNM, right when programs were struggling so in this context of economic crisis.
Rural Communities

Coding and analysis of the 5-year reports and the global view that this process imparted also revealed a dominant theme of the unique challenges facing rural communities. Rural programs overall reported many more challenges for each step of the SPF process, and because N.M. is principally a rural state, these challenges should be noted for future efforts in the state and for other rural states implementing SPF SIG or similar grants. Overall, the limited resources in rural areas, which are also typically impoverished areas of the state, affected rural programs in numerous ways.

The difficulties began with a lack of access to community-level data when conducting community assessments. For example, quantitative LEA data were missing until the end of the grant, but conducting focus groups with LE and DWI councils helped RMYC identify important issues even without the quantitative LEA data. This is an important issue to be aware of. In rural communities in particular, it was often very difficult for programs to gather measureable and reliable ‘indicators’ for tracking. Encouraging programs that are having such issues obtaining quantitative data to use other data collection strategies such as focus groups, for example, would still provide communities with important information for implementation, especially when there are no quantitative indicators to track.

Rural communities often discussed facing very low community readiness.

The rural nature of communities was also very difficult for implementing prevention strategies focused on increasing law enforcement efforts. Increasing it was challenging for rural communities as law enforcement often had very limited funding and staffing, and large geographic areas to cover in their enforcement activities. From the beginning SJCP had strong support from law enforcement so identifying new strategies for law enforcement was not a challenge. However, a teen party busters strategy had to be abandoned because of the difficulty in locating teen parties in this very rural area. Santa Fe and Albuquerque had a much easier time engaging law enforcement.

Being New Mexico’s capital, the Santa Fe program had a much easier time engaging with state politicians for larger policy change. Programs in rural communities may be more closely embroiled in local politics. It might be much more challenging for a rural program to gain the support needed to introduce policy changes, particularly when board members are also local politicians, or the tribal council must approve of every measure.

McKinley County also discussed the problem of using DWI crash deaths as an outcome measure of SPF SIG success in rural programs. Sparse populations meant that one death “throws off numbers”. Additionally, if a crash occurs in a rural area, it is more likely to end up a fatal one because emergency assistance takes longer to arrive.

Challenges in planning in coalitions was especially felt by rural communities. To begin with, programs had to locate a time and place to meet, accommodating large distances among coalition
partners. Meeting on the phone was commonly practiced by some but not having face to face meetings seemed to lead to inertia. Some areas of extreme economic need had a hard time finding partnerships to work with on these issues, because other concerns took higher priority.

Rural programs especially reported issues with hiring and keeping qualified staff. It makes sense that programs in rural areas have a smaller professional pool to draw from, and the need for professional development for these providers was important. Yet, this training could be very hard to access when it was far from home.

Programs that appeared most successful in establishing sustainability for their efforts were most often urban ones, simply because there were more resources in the community to draw upon. Rural programs had to address sustainability while at the same time attempt to stay afloat economically.

Planning in a coalition was difficult also in rural communities with few resources. Coalition members were subject to scheduling issues (for community participation, the meetings should he held at night for example). Alternately, some discussed or referred to issues of burn out with coalition members.

With fewer resources overall, it was often challenging for rural programs to be effective at every step, and often spent a great deal of energy in particular steps. This suggests that success in the SPF SIG should not be measured simply by implementation outcomes, but also by successes in the SPF process. BAMHS, in a rural and frontier area on the southern border, spent a great deal of time and effort in gathering community surveys and working with a survey monkey database in order to track conviction rates. This considerable effort helped them develop leadership in data gathering that they could offer to other programs who did not have the same resources for local data collection for their own assessment and planning. Laguna Pueblo discussed the ongoing need to build capacity and coalition in tribal lands, and how they developed local experts who were able to inform prevention activities in other Tribal communities.

An easy solution to the problem of fewer resources in rural programs is not obvious, given the impact poverty has on an entire community. Simply providing more money to programs will not solve the problem. Therefore, challenges faced by rural communities should be planned for in program monitoring, selection of strategies, developing benchmarks, and setting of expectations for programs.

Lessons Learned

Additionally, programs reported some insights overall that helped them with their success and that merited mention.
HACC and NCCBS discussed the importance of being proactive rather than reactive with prevention. “Come to the table with your issue and advocate for it.” The most successful programs seemed to ‘get’ this issue. There were others that simply followed a scope of work.

Programs that actively engaged youth in their planning and implementation spoke of the importance of scheduling and structuring events in order to make sure to accommodate this important community resource. However, it may have taken longer to fully implement programming because of youth participation.

“How much better to leave a town hall which has reflected on all the positives in the community than all the tragedies!” This quote is from SJCP in relation to their town hall meetings that emphasize the positive in the community. SJCP took this method (as based upon the Montana Meth marketing campaign) to heart as the organizing principal of their approach. It should be taken into consideration for other programs struggling to gain community support for their prevention activities. It also might assure a better work environment for preventionists who are overwhelmed with the doom and gloom of much epidemiological data.

Program feedback to state

A few programs gave feedback to the state about its management of the SPF SIG. Some of these concerns may be a result of extra-state processes, and not under direct state staff control. The principal theme to these recommendations is communications. As mentioned above, OSAP staff were perceived as supportive of programs, and it was recognized that staffing and financial barriers were affecting OSAP. Programs applauded OSAP in particular for making extra efforts when they could on behalf of programs that had unique barriers to face.

One program recommended providing a venue for communications among programs so they can discuss implementation issues and share ideas. Many programs agreed that recipient meetings should have included greater opportunities to share challenges, successes, strategies among programs.

A desire for enhanced communication between the SEW and local programs appeared to be a common issue. When the SEW chose to change community data collection approaches from the MVD to convenience sampling the strategy shift was seen as a sign that the SEW and the state were really listening to programs. One program recommended that the SEW share more information about what strategies worked and which did not.

Programs both asked for clarity in expectations and a chance to be listened to. For future endeavors, it appears that establishing a balance between listening to community knowledge and know-how, and offering structured and clear expectations, should be sought. Articulating certain requirements from the beginning, such as for reporting, data collection, implementation, or participation in LEWs, or the constitution of the coalition would have helped programs have a clear understanding of state expectations. Mid-course changes and mandates were not taken well. Clearly, the SPF SIG was designed to build capacity in the state for
prevention, and state and other staff were learning while the grant was being implemented. For future grants using the SPF structure, communities and the state will be better prepared, though the danger exists that with lack of funding, that staff turnover will occur both at the state and local levels such that capacity and memory of lessons learned will be lost.

**Recommended areas for improved TA and local evaluation in future such projects**

Invest significant resources in the provision of TA for programs and state staff, and try to have local trainings as much as possible. TA was overwhelmingly appreciated and having it conducted locally enhances your prevention base and therefore capacity in rural communities. It also helps keep lines of communication open between stakeholders on different levels of the management and implementation of the project.

Increase TA with evaluators and program coordinators about the relationship between community survey and other indicators and interventions. Some programs did not demonstrate a clear understanding of the relationship, drawing connections between community survey results and intervention activities that were not linked in the logic model. This can in part be supported by assuring that a program-specific and data driven logic model is developed for each year of implementation; assuring that strategic plans are data-driven and identify indicators that can be measured and tracked for progress; working directly with programs and evaluators during reporting periods to assure that there is an understanding of the relationships.

Consider developing a specific protocol for reporting periods that designates evaluator input and program coordinator input. There are programs where capacity for reporting needs to be built with program coordinators, and at the same time, an objective space where evaluators can report specifically on interventions and their needed improvements. When programs are not asked to specifically represent areas for improvement, they will not. Programs may need to be reassured that areas for improvement will not reflect negatively upon program funding, unless actions show that no efforts have been made to address them.
Results: Quantitative

FY 07 Community Survey

The sample for the first community survey conducted by phone was predominantly from SPF SIG counties (n= 269, 67.8%). Approximately a third of the sample represents comparison counties (n= 128, 32.2%). The total sample size was N= 397, 58% female and 42% male. Forty-one percent indicated they were Hispanic or Latino.

Table 4 below provides the breakdown of demographic variables by intervention group. Note that there are reporting discrepancies between the prevalence of students as reported within the context of the employment question versus the college student questions. More respondents identified as college students when asked specifically about attending community college or university, than those who identified as students when asked if they were a student. Given that the initial student response is within the context of a question about employment, it is likely that working or part-time students chose to identify themselves as employed for wages rather than as a student, yet when asked directly about being a college student responded positively.

There are surprisingly few significant differences between participants in the survey from SPF SIG counties and comparison counties in their responses to most indicators. Although we are unable to say for certain, this may indicate that by May 2007, many SPF SIG communities had not fully implemented their strategies, even though most communities would have been exposed to at least some prevention activities by early in 2007. On the other hand, the small sample size particularly in the control group may indicate a lack of sufficient power to detect differences. Responses are also generally favorable. For example, in Table 5 one can see that young adults are surprisingly supportive of stiffer penalties, increased law enforcement efforts, and increased taxes on alcohol, particularly if the taxes were to reduce other taxes or support treatment and prevention efforts. Over half thought sobriety checkpoints should be conducted more often.

This same sample also perceived considerable risk of physical harm in frequent binge drinking and risk of being caught by law enforcement if drinking and driving (see Table 6). Yet surprisingly few thought that it was somewhat or very likely a driver under 21 who was caught with any alcohol in their system would face any consequences despite that it would be illegal.

Over half of the entire sample reported having seen a sobriety checkpoint in the past 12 months and of those, respondents on average indicated having gone through 2 or 3 checkpoints. The only statistically significant difference between the Comparison and SPF SIG samples was that more SPF SIG respondents had seen servers refuse to serve alcohol to already intoxicated patrons (see Table 7).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Comparison</th>
<th>SPF SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Biological sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>58</td>
<td>45.3%</td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>54.7%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 20</td>
<td>61</td>
<td>47.7%</td>
</tr>
<tr>
<td>21 to 24</td>
<td>67</td>
<td>52.3%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>58</td>
<td>45.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>52</td>
<td>40.6%</td>
</tr>
<tr>
<td>Native American</td>
<td>6</td>
<td>4.7%</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>9.4%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduate or less</td>
<td>60</td>
<td>46.9%</td>
</tr>
<tr>
<td>Post high school education</td>
<td>68</td>
<td>53.1%</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>60</td>
<td>46.9%</td>
</tr>
<tr>
<td>Not employed outside the home</td>
<td>25</td>
<td>19.5%</td>
</tr>
<tr>
<td>Student</td>
<td>40</td>
<td>31.3%</td>
</tr>
<tr>
<td>College Student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>59</td>
<td>46.1%</td>
</tr>
<tr>
<td>No</td>
<td>69</td>
<td>53.9%</td>
</tr>
<tr>
<td>Totals:</td>
<td>128</td>
<td>32.3%</td>
</tr>
</tbody>
</table>
Table 5: Support for increased alcohol taxes and law enforcement efforts among 18 to 24 year olds, FY07

<table>
<thead>
<tr>
<th>Variable</th>
<th>Response</th>
<th>Comparison</th>
<th>SPF SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Stiffer punishments will discourage teen drinking</td>
<td>Agree</td>
<td>80</td>
<td>67.2%</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>39</td>
<td>32.8%</td>
</tr>
<tr>
<td>Favor or oppose law to punish teen drinking</td>
<td>Favor</td>
<td>79</td>
<td>64.8%</td>
</tr>
<tr>
<td></td>
<td>Oppose</td>
<td>43</td>
<td>35.2%</td>
</tr>
<tr>
<td>Favor or oppose 5 cent tax per drink to support prevention</td>
<td>Favor</td>
<td>93</td>
<td>74.4%</td>
</tr>
<tr>
<td></td>
<td>Oppose</td>
<td>32</td>
<td>25.6%</td>
</tr>
<tr>
<td>Favor or oppose using alcohol tax increases to lower other taxes</td>
<td>Favor</td>
<td>81</td>
<td>68.1%</td>
</tr>
<tr>
<td></td>
<td>Oppose</td>
<td>38</td>
<td>31.9%</td>
</tr>
<tr>
<td>Sobriety check points should be conducted:</td>
<td>More frequently</td>
<td>69</td>
<td>56.6%</td>
</tr>
<tr>
<td></td>
<td>About the same</td>
<td>44</td>
<td>36.1%</td>
</tr>
<tr>
<td></td>
<td>Less frequently</td>
<td>9</td>
<td>7.4%</td>
</tr>
<tr>
<td>Police should conduct regular sobriety checkpoints</td>
<td>Agree</td>
<td>115</td>
<td>91.3%</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>11</td>
<td>8.7%</td>
</tr>
<tr>
<td>People who drink should pay higher taxes to help pay for drinking related problems</td>
<td>Agree</td>
<td>68</td>
<td>56.7%</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>52</td>
<td>43.3%</td>
</tr>
</tbody>
</table>
Table 6: Perception of risk associated with alcohol among 18 to 24 year olds, FY07

<table>
<thead>
<tr>
<th>Variable</th>
<th>Response</th>
<th>Comparison</th>
<th>SPF SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>The likelihood of arrest if...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...someone sold alcohol to a minor</td>
<td>Somewhat /Very likely</td>
<td>73</td>
<td>60.3%</td>
</tr>
<tr>
<td></td>
<td>Somewhat/ Very Unlikely</td>
<td>48</td>
<td>39.7%</td>
</tr>
<tr>
<td>...an adult provided alcohol to a minor</td>
<td>Somewhat /Very likely</td>
<td>62</td>
<td>49.6%</td>
</tr>
<tr>
<td></td>
<td>Somewhat/ Very Unlikely</td>
<td>63</td>
<td>50.4%</td>
</tr>
<tr>
<td>...someone was caught having sold alcohol to an intoxicated person</td>
<td>Somewhat /Very likely</td>
<td>59</td>
<td>49.2%</td>
</tr>
<tr>
<td></td>
<td>Somewhat/ Very Unlikely</td>
<td>61</td>
<td>50.8%</td>
</tr>
<tr>
<td>If driving with BAC over legal limit, how likely is it that police would stop you?</td>
<td>Somewhat / Very likely</td>
<td>95</td>
<td>79.8%</td>
</tr>
<tr>
<td></td>
<td>Somewhat/ Very Unlikely</td>
<td>24</td>
<td>20.2%</td>
</tr>
<tr>
<td>If stopped by police for DWI, how likely is it you would be arrested?</td>
<td>Somewhat /Very likely</td>
<td>114</td>
<td>91.2%</td>
</tr>
<tr>
<td></td>
<td>Somewhat/ Very Unlikely</td>
<td>11</td>
<td>8.8%</td>
</tr>
<tr>
<td>If charged with DWI, how likely is it you would be convicted?</td>
<td>Somewhat /Very likely</td>
<td>117</td>
<td>93.6%</td>
</tr>
<tr>
<td></td>
<td>Somewhat/ Very Unlikely</td>
<td>8</td>
<td>6.4%</td>
</tr>
<tr>
<td>If you were under 21 and caught driving with any alcohol in your system, how likely is it nothing would happen?</td>
<td>Somewhat /Very likely</td>
<td>45</td>
<td>36.3%</td>
</tr>
<tr>
<td></td>
<td>Somewhat/ Very Unlikely</td>
<td>79</td>
<td>63.7%</td>
</tr>
<tr>
<td>Risk of physical harm with drinking 5+ drinks once or twice a week</td>
<td>Risky</td>
<td>115</td>
<td>96.6%</td>
</tr>
<tr>
<td></td>
<td>Not risky</td>
<td>4</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

Table 7: Awareness of prevention efforts among 18 to 24 year olds, FY07

<table>
<thead>
<tr>
<th>Variable</th>
<th>Response</th>
<th>Comparison</th>
<th>SPF SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past 12 months...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...have you seen a sobriety checkpoint?</td>
<td>Yes</td>
<td>72</td>
<td>57.1%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>54</td>
<td>42.9%</td>
</tr>
<tr>
<td>In the past 30 days...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...have you seen intoxicated people served more alcohol?</td>
<td>Yes</td>
<td>47</td>
<td>37.9%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>77</td>
<td>62.1%</td>
</tr>
<tr>
<td>...have you seen servers refuse to sell alcohol to someone who had too much to drink?***</td>
<td>Yes</td>
<td>21</td>
<td>16.8%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>104</td>
<td>83.2%</td>
</tr>
</tbody>
</table>

** p< .01
Whether the sample collected reflects a representative sample of young adults in N.M. is not entirely clear. Many young adults in N.M. no longer use landlines, and are highly effective at screening calls, not to mention being in general less willing to participate in surveys. As a result, this sample may reflect a subgroup of young adults who are generally more likely to provide socially desirable responses and are potentially less technologically savvy. Yet, whether in the control group or the SPF SIG group, both samples report rather typical alcohol use patterns for this age range. Over half reported binge drinking in the past 30 days at least once, and of those, on average, 3 to 4 times (see Table 8). In addition, 10.6% of SPF SIG respondents and 5.3% of control group respondents reported driving after having “perhaps had too much to drink” in the past 30 days, this despite having been through or seen at least one sobriety checkpoint in the past 12 months.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Response</th>
<th>Comparison</th>
<th>Mean # of times</th>
<th>SPF SIG</th>
<th>Mean # of times</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the past 12 months...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>…have you driven while you were under the influence of alcohol only?</td>
<td>Yes</td>
<td>13</td>
<td>10.2%</td>
<td>NA</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>114</td>
<td>89.8%</td>
<td>242</td>
<td>90.3%</td>
</tr>
<tr>
<td>In the past 30 days...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>…did you ride in a car with a driver who had been drinking?</td>
<td>Yes</td>
<td>26</td>
<td>20.5%</td>
<td>58</td>
<td>22.2%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>101</td>
<td>79.5%</td>
<td>203</td>
<td>77.8%</td>
</tr>
<tr>
<td>…did you drink a least one alcoholic beverage?</td>
<td>Yes</td>
<td>76</td>
<td>59.4%</td>
<td>143</td>
<td>53.4%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>52</td>
<td>40.6%</td>
<td>125</td>
<td>46.6%</td>
</tr>
<tr>
<td>…did you drink 4 or more drinks on an occasion?</td>
<td>Yes</td>
<td>39</td>
<td>52.7%</td>
<td>80</td>
<td>58.4%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>35</td>
<td>47.3%</td>
<td>57</td>
<td>41.6%</td>
</tr>
<tr>
<td>…did you drink 5 or more drinks on an occasion?</td>
<td>Yes</td>
<td>35</td>
<td>46.1%</td>
<td>80</td>
<td>57.1%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>41</td>
<td>54.0%</td>
<td>60</td>
<td>42.9%</td>
</tr>
<tr>
<td>…did you drive when you had been drinking?</td>
<td>Yes</td>
<td>12</td>
<td>9.5%</td>
<td>24</td>
<td>9.3%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>115</td>
<td>90.6%</td>
<td>234</td>
<td>90.7%</td>
</tr>
<tr>
<td>…did you drive after you perhaps had too much to drink?</td>
<td>Yes</td>
<td>4</td>
<td>5.3%</td>
<td>15</td>
<td>10.6%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>71</td>
<td>94.7%</td>
<td>126</td>
<td>89.4%</td>
</tr>
</tbody>
</table>

† To conserve space, questions are rephrased in table yet reflect the original intent.
§ Question asked only of respondents who reported drinking any alcohol in past 30 days, therefore, n is reduced.
Furthermore, the average number of drinks consumed at any given time is between 4 and 5, which constitutes binge drinking for females and males respectively. Moreover, respondents reported drinking on average two and half times a week (see Table 9). If the average respondent drinking 4 to 5 drinks 2 to 3 times per week, these young adults are regularly engaging in very high risk behavior. This again is in contrast to their also reporting that there is considerable risk of physical harm in this type of behavior.

**Table 9:** The average frequency of drinking and average number of beverages consumed when drinking, FY07

<table>
<thead>
<tr>
<th>Variable</th>
<th>Comparison</th>
<th>SPF SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Average number of drinks</td>
<td>4.9</td>
<td>(2.9-6.9)</td>
</tr>
<tr>
<td>Average number days per week drank in past 30 days</td>
<td>2.4</td>
<td>(1.9-2.8)</td>
</tr>
<tr>
<td>Average number of days per month drank in past 30 days</td>
<td>3.5</td>
<td>(2.3-4.6)</td>
</tr>
</tbody>
</table>

The original community survey asked young adult respondents where they typically drank their alcohol. Not unexpectedly, the vast majority said they drank at their own home or someone else’s home (see Figure 8). This is almost exclusively true for respondents under 21. At age 21, the prevalence of drinking occurring at bars or restaurants increases.
Most respondents indicated that someone else bought or gave them the alcohol they drank or they purchased it themselves. Typically, if someone else bought it for them, this was a friend who was 21 or older, but not necessarily someone they were related to. That said, almost one-quarter indicated that a parent or other family member purchased or gave them the alcohol (please note that these two figures include those of legal drinking age) (see Figures 9 & 10).
Figure 9: During the past 30 days, how did you usually get your alcohol? (FY07)

- Someone else bought it for me or gave it to me: 35.2%
- I bought it at a store such as a liquor store or convenience store: 41.6%
- I bought it at a restaurant, bar, or public place: 18.7%
- Other: 3.7%

Figure 10: During the past 30 days, who usually bought the alcohol for you? (FY07)

- Someone gave me the alcohol or I got it some other way: 34.5%
- My parent or guardian bought it for me: 27.6%
- Another family member who is 21 or older bought for me: 13.8%
- A stranger bought it for me: 10.3%
- Someone under 21 bought it for me: 9.2%
- Someone I know who is 21 or older bought it for me: 4.6%
When we looked only at respondents under 21, the patterns were very similar. By far, most reported drinking at their home or someone else’s home (>80%) and most indicated that someone else bought the alcohol (87.5%), followed distantly by purchasing it themselves from a grocery, liquor, or convenience store (5.4%). Another small percentage indicated getting it some other undefined way (7.1%). Additionally, 35.9% of underage youth indicated that someone over 21 purchased the alcohol for them, followed closely by someone having given them the alcohol (32.1%). Only a small percentage indicated that their parents bought it for them (3.8%) although more indicated that another family member over 21 purchased the alcohol for them (9.4%). Finally, 5.7% indicated that a stranger bought it for them and another 5.7% indicated that someone under 21 purchased it for them. There were no significant differences between the intervention and control group in any of these measures.

Surprisingly, despite the young age of this sample, almost 67% indicated they had not been asked to show proof of age when they tried to purchase alcohol in the previous month (see Table 11).

**Figure 11:** When you bought or tried to buy alcohol in a store during the past 30 days, were you ever asked to show proof of age? (FY07)
Summary of 1st Community Survey Findings: FY 2007

The first community survey focused on 18 to 24 year olds and was conducted using a RDD technique to assure representativeness of the sample. It selected from SPF SIG counties as well as comparison counties. The entire sample was small overall, which made stratifying by sociodemographic measures difficult. Sociodemographic comparisons between SPF SIG respondents and comparison respondents in this sample indicate that the two samples are relatively similar. Surprisingly, a majority of young people sampled supported external environmental changes to decrease drinking and driving, including increased taxes on alcohol, more sobriety checkpoints and stiffer punishments. Ironically, over 20% indicated having been a passenger in a car with a driver who had been drinking, and approximately 9% to 10% indicated having driven after having had too much to drink. If their views on prevention strategies are accurate, it would appear as if young adults are acknowledging that environmental restrictions would be most effective in reducing their binge drinking and drinking and driving.

As expected, this age group engages in binge drinking frequently. Over half indicated drinking 4 or more or 5 or more drinks at one time on average once a week or more in the past 30 days; this, despite over 96% indicating that it is risky or very risky to drink 5 or more drinks at a time once or twice a week. This indicates that young people are not unaware of the potential for harm involved in binge drinking and yet it had little effect on their drinking behavior.

Most respondents indicate they typically drink at home, so we might assume that driving after drinking is less likely to occur among this age group. This pattern begins to change, however, when the person turns 21, and drinking in restaurants and bars becomes more frequent. Shockingly, a vast majority of this sample of young adults reported that they were not asked to show proof of age when they tried to purchase alcohol in the previous month.

One strategy of SPF SIG funded communities was to increase the prevalence of servers and retailers checking identification to reduce underage drinking. For this early part of SPF SIG funding, these results show that this was a critical area to target.

FY 08 – FY10 Community Surveys

In 2010 a total of 8,188 completed surveys were collected from communities. For purposes of the evaluation analyses, we eliminated all respondents with no age reported (n= 228) and any respondents who were younger than 18 (n= 63) since this survey was written specifically for N.M. residents 18 and over. In total, approximately 4% of the sample was dropped. That left us with a sample size of n= 7,897. It is important to note that not all questions were answered by all
respondents; this means that the total number of respondents in any given analysis may vary because of missing responses being dropped from analyses.

Univariate and Bivariate Results of SPF SIG & Comparison Communities

Table 10 presents the breakdown of the weighted survey sample for both SPF SIG communities and comparison communities from 2008 to 2010. Consistent with the results from 2008 and 2009, females are more likely to complete the survey than males in the 2010 survey. This was true in both SPF SIG and comparison communities. When we examine differences between the groups within a FY, we find that the race/ethnicity distribution differed significantly in 2008 and 2009 between the SPF SIG communities and comparison communities (t= 3.39, df= 2852, p< .001; 2009, t= 3.51, df= 7009, p<.001), where Native Americans were over-represented in the comparison communities as compared to the SPF SIG communities. Within 2009 and 2010 respectively, both the SPF SIG and comparison groups differed significantly in whether a language other than English was spoken at home\(^5\), where more respondents in SPF SIG communities reported speaking a language other than English at home while growing up. In addition, both groups also differed significantly in age in 2008 and 2010\(^6\). In the 2008 sample, there was a significantly larger percentage of 18 to 20 year olds in the SPF SIG sample than in the control sample, while in 2010, the control sample was slightly older than the SPF SIG sample. Finally, in 2009 and 2010, both groups differed by biological sex (2009, t= 2.68, df= 2817, p<.01; 2010, t= 4.26, df= 7859, p<.0001), and length of time living in N.M. (2009, t= -4.19, df= 6891, p<.0001; 2010, t= -2.19, df= 7766, p<.02). Males made up a larger percentage of the SPF SIG sample than comparison in 2009, while in 2010, more males comprised the comparison sample than the SPF SIG sample.

Examining the differences in demographics across the fiscal years within a group, we see that among the comparison group samples, there were significant differences in male/female participation in the survey (F= 16.63, p<.0001), race/ethnicity (F= 3.39, p<.03) and a language other than English spoken at home (F= 11.48, p<.0001). A larger proportion of respondents in 2008 indicated they were non-Hispanic Native American compared to in 2009 and in 2010. Among the SPF SIG samples, the average length of time respondents lived in N.M. was different across three years (F= 3.29, p< .04). In 2008, respondents having lived in N.M. for less than a year made up a larger proportion of the sample than in the following years. The average age of respondents was lower (\(\mu= 35.7\)) in 2008 than in 2009 (\(\mu= 38.8\)) and in 2010 (\(\mu= 37.8\)) (F= 30.82, p< .0001). The differences in age are due in large part to a large student sample from the University of New Mexico (UNM) in 2008 that made up a larger percentage of the SPF SIG sample than in the following years. Hispanic/Latinos were more represented in 2009 and 2010 as compared to 2008, whereas White non-Hispanics were less represented in 2009 and 2010 as compared to 2008 (F=22.77, p < .0001). Finally, there were more respondents who spoke a

\(^{5}\) In 2009, t= 6.61, df= 6835, p<.0001; in 2010, t=5.26, df= 7635, p <.0001.

\(^{6}\) In 2008, t= 3.94, df= 2852, p<.0001; in 2010, t=6.79, df= 7895, p <.0001.
language other than English at home in 2008 than in 2009 and 2010 (F= 28.94, p<.0001). Overall, only a small percentage of respondents were missing values on the demographic variables in any year of data collection.
Table 10: Weighted demographics of SPF SIG and comparison communities from 2008 to 2010

<table>
<thead>
<tr>
<th></th>
<th>2008 SPF SIG Communities</th>
<th>2008 Comparison Communities</th>
<th>2009 SPF SIG Communities</th>
<th>2009 Comparison Communities</th>
<th>2010 SPF SIG Communities</th>
<th>2010 Comparison Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biological Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>95147 48.9%</td>
<td>18404 48.2%</td>
<td>221387 48.8%</td>
<td>62430 44.7%</td>
<td>225053 48.6%</td>
<td>106532 53.9%</td>
</tr>
<tr>
<td>Female</td>
<td>99454 51.1%</td>
<td>19788 51.8%</td>
<td>232554 51.2%</td>
<td>77259 55.3%</td>
<td>237893 51.4%</td>
<td>91290 46.1%</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>109508 55.0%</td>
<td>19286 49.4%</td>
<td>208729 45.7%</td>
<td>53133 37.8%</td>
<td>200885 43.2%</td>
<td>83351 41.9%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>65753 33.0%</td>
<td>11318 29.0%</td>
<td>187853 41.1%</td>
<td>70638 50.2%</td>
<td>203578 43.8%</td>
<td>93528 47.0%</td>
</tr>
<tr>
<td>Native American/Alaskan</td>
<td>15253 7.7%</td>
<td>7156 18.3%</td>
<td>39011 8.5%</td>
<td>8625 6.1%</td>
<td>37670 8.1%</td>
<td>13497 6.8%</td>
</tr>
<tr>
<td>Other*</td>
<td>8732 4.4%</td>
<td>1277 3.3%</td>
<td>21134 4.6%</td>
<td>8221 5.8%</td>
<td>22755 4.9%</td>
<td>8544 4.3%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-20</td>
<td>14938 7.5%</td>
<td>730 1.9%</td>
<td>21559 4.7%</td>
<td>7281 5.2%</td>
<td>30725 6.6%</td>
<td>12331 6.2%</td>
</tr>
<tr>
<td>21-24</td>
<td>20729 10.4%</td>
<td>1739 4.5%</td>
<td>34135 7.5%</td>
<td>10225 7.3%</td>
<td>36385 7.8%</td>
<td>12467 6.3%</td>
</tr>
<tr>
<td>25-34</td>
<td>37959 19.1%</td>
<td>6873 17.6%</td>
<td>78826 17.3%</td>
<td>26894 19.1%</td>
<td>93577 20.1%</td>
<td>34116 17.2%</td>
</tr>
<tr>
<td>35-44</td>
<td>33091 16.6%</td>
<td>8996 23.0%</td>
<td>77601 17.0%</td>
<td>21091 15.0%</td>
<td>73631 15.8%</td>
<td>30692 15.4%</td>
</tr>
<tr>
<td>45 and over</td>
<td>92527 46.4%</td>
<td>20699 53.0%</td>
<td>244606 53.6%</td>
<td>75126 53.4%</td>
<td>230569 49.6%</td>
<td>109316 55.0%</td>
</tr>
<tr>
<td><strong>Length of time lived in N.M.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>13309 6.8%</td>
<td>1686 4.4%</td>
<td>20226 4.5%</td>
<td>8838 6.4%</td>
<td>21194 4.6%</td>
<td>13848 7.1%</td>
</tr>
<tr>
<td>1 to 5 years</td>
<td>22628 11.6%</td>
<td>5831 15.3%</td>
<td>58587 13.0%</td>
<td>22994 16.6%</td>
<td>61482 13.4%</td>
<td>22435 11.4%</td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td>158622 81.5%</td>
<td>30544 80.3%</td>
<td>371663 82.5%</td>
<td>106782 77.0%</td>
<td>375671 82.0%</td>
<td>159758 81.5%</td>
</tr>
<tr>
<td><strong>Language other than English spoken at home</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>130841 67.6%</td>
<td>24086 63.6%</td>
<td>268260 59.9%</td>
<td>71106 51.3%</td>
<td>264754 58.5%</td>
<td>100687 52.0%</td>
</tr>
<tr>
<td>No</td>
<td>62800 32.4%</td>
<td>13800 36.4%</td>
<td>179451 40.1%</td>
<td>67535 48.7%</td>
<td>188093 41.5%</td>
<td>93100 48.0%</td>
</tr>
</tbody>
</table>

* Other category includes non-Hispanic African Americans/Blacks, Asian/Pacific Islanders, and other un-specified race/ethnicities.
Table 11 below compares the prevalence of high risk drinking and drinking and driving behaviors among respondents of the SPF SIG and non-SPF SIG communities from 2008 to 2010 on the weighted data. When we look within each FY, we can see that in 2008, the SPF SIG community sample was proportionally higher than the Comparison community sample for most of the risk behaviors reported on in Table 11. This finding was not unexpected because the SPF SIG communities were largely selected based on the high rates of ARMVC&F as well as the consumption patterns leading to ARMVC&F in their communities. However, by 2010, this pattern changed dramatically so that the SPF SIG sample had decreased to levels similar to, or even lower, than the comparison communities.

Table 11: Weighted reported prevalence of high risk drinking behaviors between SPF SIG and comparison communities from 2008 to 2010

<table>
<thead>
<tr>
<th>High Risk Drinking Behavior</th>
<th>Comparison Communities</th>
<th>SPF SIG Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
<td>2009</td>
</tr>
<tr>
<td>Rode in a car at least once in the past 30 days with someone who had been drinking</td>
<td>9.1%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Drank alcohol at least once in the past 30 days</td>
<td>46.1%</td>
<td>41.9%</td>
</tr>
<tr>
<td>Drank 5 or more drinks in one sitting at least once in the past 30 days</td>
<td>14.4%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Drove at least once in the past 30 days when they had perhaps too much to drink</td>
<td>2.2%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Drove at least once in the past 30 days after drinking 5 or more drinks</td>
<td>2.6%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Drove under the influence of alcohol only at least once in the past 12 months</td>
<td>9.6%</td>
<td>17.3%</td>
</tr>
</tbody>
</table>

Note. $^a$. there was a increasing trend from 2008 to 2010 ($p = .05$).
$^b$. there was a decreasing trend from 2008 to 2010 ($p < .003$).
$^c$. there was a decreasing trend from 2008 to 2010 ($p < .0001$).
$^d$. there was a decreasing trend from 2008 to 2010 ($p < .01$).
$^e$. there was a decreasing trend from 2008 to 2010 ($p < .01$).
$^f$. there was a decreasing trend from 2008 to 2010 ($p < .02$).

When trend analysis was conducted to examine the data within each group across the years, we see that from 2008 to 2010, some of key alcohol consumption measures show an overall significantly decreasing trend in SPF SIG communities, for riding with a driver who had been drinking ($Z= 2.94, p<.003$), past 30-day drinking ($Z= 9.58, p<.0001$), binge drinking ($Z= 2.81$, ...
p<.01), drinking and driving (Z= 2.46, p<.01), and drinking and driving in the past 30 days (Z= 2.46, p<.02). Yet there is a slight increase from 2009 to 2010 for self-reported binge drinking among the SPF SIG sample. On the other hand, no decreasing pattern from 2008 to 2010 was observed in comparison communities. There was however, a significant decreases between 2009 and 2010 in past 12-month driving under the influence (Z= 3.59, p < .0001). On the other hand, a significant increase of binge drinking from 2008 to 2010 was found for the Comparison sample.

Table 12 captures the weighted average number of times respondents indicate engaging in high risk behaviors and the age of respondents’ first drink of alcohol. The SPF SIG sample reported slightly more drinking in the past 30 days from 2008 to 2010 as compared to the Comparison community sample. Examination of the average number of times engaging in the high risk behaviors revealed that among the SPF SIG samples, the average number of times respondents reported drinking alcohol in the past 30 days and binge drinking decreased significantly over years.

These same analyses stratified by biological sex are reported in Table 5 and Table 5a, Appendix C. One very important caveat to keep in mind when examining the bivariate analyses in Table 11 and Table 12 is that these analyses do not control for the differences between the samples with respect to age, race/ethnicity, sex, and other sociodemographic factors known to be associated with drinking and driving related behaviors.
Table 12: Weighted mean frequency of high risk drinking behavior and average age at first drink for SPF SIG and comparison communities

<table>
<thead>
<tr>
<th>High Risk Drinking Behavior</th>
<th>Comparison Communities</th>
<th>SPF SIG Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>95% CI</td>
</tr>
<tr>
<td>The average number of times in the past 30 days that the respondent rode in a car with someone who had been drinking</td>
<td>0.4 0.39-0.83</td>
<td>0.4 0.26-0.59</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The average number of times in the past 30 days that the respondent consumed 1 or more alcoholic drinks</td>
<td>2.7 2.16-2.73</td>
<td>2.7 2.40-3.09</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The average number of times in the past 30 days that the respondent drank 5 or more drinks on one occasion</td>
<td>0.5 0.53-0.81</td>
<td>0.8 0.60-0.93</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The average number of times in the past 30 days that the respondent drove when he/she had too much to drink</td>
<td>0.1 0.09-0.23</td>
<td>0.10 0.06-0.14</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Age at First Drink of Alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The average age in years of the respondent at his/her first drink of alcohol</td>
<td>16.4 16.28-16.81</td>
<td>16.7 16.35-17.10</td>
</tr>
<tr>
<td>Range</td>
<td>5-45 years</td>
<td>0-89 years</td>
</tr>
</tbody>
</table>

Note. Means that share the same superscript letter are significantly different from each other. All ps < .05.
Factor Analysis and Reliability of Scales

The focus of the SPF SIG community survey is to collect data on consumption measures associated with ARMVC&F as well as information around targeted intervening variables. SPF SIG communities implemented activities to increase the perception of risk and consequences around drinking in regards to individual health risks and the legal ramifications of drinking and driving. As a result, many of the questions on the survey focused on how likely it was that someone would be caught by law enforcement for serving alcohol to minors or intoxicated patrons, or getting caught drinking and driving. Other questions focused on the awareness of media in the community about drinking and driving and community norms around underage drinking and driving.

Previous factor analyses of the 2008 and 2009 survey items revealed 5 factors: 1) Risk of Arrest for Underage Drinking and Over-Consumption, 2) Risk of Being Caught, Arrested and Convicted for Drinking and Driving, 3) Support for Prevention Efforts, 4) Awareness of Prevention Efforts, and 5) Community Drinking Norms. Then five scales incorporating the corresponding measures for each factor were constructed to assess the perception of risk and consequences around drinking (see Appendix A for details about factor analysis and associated items of each scale). These scales were also employed in the 2010 survey. Table 13 provides the standardized Cronbach’s alpha for each factor from 2008 to 2010. The five factors had consistent reliability over three years. A mean score was constructed for each of the factors to use in the analysis.

Table 13: Reliability Coefficients for the Five Intervening Variable Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Underage Drinking and Over-consumption (UDOC)</td>
<td>0.73 0.69 0.76</td>
</tr>
<tr>
<td>Factor 2: Perceived Risk of Getting Caught Drinking and Driving</td>
<td>0.70 0.71 0.73</td>
</tr>
<tr>
<td>Factor 3: Support for Community Prevention Efforts</td>
<td>0.80 0.78 0.77</td>
</tr>
<tr>
<td>Factor 4: Awareness of Prevention Efforts</td>
<td>0.66 0.65 0.68</td>
</tr>
<tr>
<td>Factor 5: Community Alcohol Norms</td>
<td>0.61 0.66 0.63</td>
</tr>
</tbody>
</table>
Average Scores on Intervening Variable Factors

Table 14 below reports the weighted mean score on each of the scales by group and year. SPF SIG communities significantly increased in perception of risk associated with underage drinking and over-consumption of alcohol, and in perception of risk associated with drinking and driving. Yet, these same communities decreased in awareness of local prevention activities, and in drinking and drinking & driving norms although the decreases overall were relatively minimal. As mentioned previously, when examining the bivariate analyses we must remember that these analyses do not control for the differences between the samples with respect to age, race/ethnicity, sex, and other sociodemographic factors known to be associated with drinking and driving related behaviors. Therefore, these bivariate results are very likely confounded due to these existing individual differences among the samples. For this reason, we also conducted regression analyses controlling for key individual-level socio-demographic measures. Regression results are presented next in this section.
Table 14: Weighted mean score on intervening variable scales by group and year; higher scores are better

<table>
<thead>
<tr>
<th>Intervening Variable</th>
<th>Comparison Communities</th>
<th></th>
<th>SPF SIG Communities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of risk associated with underage drinking and over-consumption of alcohol (Range = 1 - 4)</td>
<td>Mean</td>
<td>95% CI</td>
<td>Mean</td>
<td>95% CI</td>
</tr>
<tr>
<td></td>
<td>2.94</td>
<td>2.85-3.03</td>
<td>2.87</td>
<td>2.83-2.92</td>
</tr>
<tr>
<td>Perception of risk associated with drinking and driving (Range = 1 - 4)</td>
<td>Mean</td>
<td>95% CI</td>
<td>Mean</td>
<td>95% CI</td>
</tr>
<tr>
<td>Support of local ATOD prevention efforts (Range = 0 - 2)</td>
<td>Mean</td>
<td>95% CI</td>
<td>Mean</td>
<td>95% CI</td>
</tr>
<tr>
<td></td>
<td>1.46</td>
<td>1.38-1.53</td>
<td>1.41</td>
<td>1.37-1.45</td>
</tr>
<tr>
<td>Awareness of local prevention activities (Range = 0 - 2)</td>
<td>Mean</td>
<td>95% CI</td>
<td>Mean</td>
<td>95% CI</td>
</tr>
<tr>
<td></td>
<td>0.94</td>
<td>0.88-1.00</td>
<td>0.89d</td>
<td>0.86-0.92</td>
</tr>
<tr>
<td>Drinking norms and drinking and driving norms (Range = 1 - 5)</td>
<td>Mean</td>
<td>95% CI</td>
<td>Mean</td>
<td>95% CI</td>
</tr>
<tr>
<td></td>
<td>3.91g</td>
<td>3.82-3.99</td>
<td>3.72f</td>
<td>3.67-3.78</td>
</tr>
</tbody>
</table>

Note. Means that share the same superscript letter are significantly different from each other. All ps < .05.
Logistic Regression Analyses Comparing SPF SIG and Comparison Communities from 2008 to 2010

Proc logistic and proc surveylogistic in SAS were used on the unweighted and weighted data respectively to model the probability of the binary behavioral outcomes controlling for the influence of demographic characteristics on the outcome. Specifically, we were interested in any statistically significant differences on the outcomes of interest between the SPF SIG communities and comparison communities and among respondents in 2008, in 2009, and in 2010.

We first examined the data for possible community-level effects given that the communities differ geographically and demographically. In addition, the implementation timing and fidelity differed across SPF SIG communities. A multilevel analysis was conducted and indicated that community-level influence was insignificant on the effects of SPF SIG programs. Based on this discovery, we proceeded then to conduct all regression analyses controlling only for key individual-level socio-demographic measures.

The probability analyses controlled for the influences of the respondents’ sociodemographic background on the outcome, including the respondents’ age, race/ethnicity, biological sex, length of time living in N.M., language spoken at home, whether the respondent identified that he/she was a student, and age at first drink of alcohol. In the first set of models, the main variables of interest are the FY (2009 compared to 2008, 2010 compared to 2008) and grouping measure (SPF SIG compared to Comparison). In the second set, an interaction term (group by year) was included to examine whether the outcome for each group varied by year depending on the group, after controlling for differences between the samples. Given little difference between unweighted results and weighted results, we present only summaries of the unweighted results for each outcome. Results of the basic model with no interaction term are presented first, followed by results of the interaction model. Tables with results for all models are in Appendix C. All graphs in the text are plotted based on the interaction model of the unweighted data.

**Behavioral Outcome 1:** Ever rode in a car driven by someone who had been drinking during the past 30 days. (Responses: 0 = no, 1 = yes)

In the first model, after controlling for the sociodemographic measures, when compared to year 2008, year 2010 had a significant effect on the outcome. Group membership appeared to have no influence on the outcome. As for sociodemographic measures, biological sex was highly associated with having ridden in a car with someone who had been drinking. Compared to females, males had a significantly higher probability of ever having ridden in a car with someone who had been drinking. Age was also significantly associated with the outcome. Respondents under 45 were more likely to have ridden with someone who had been drinking in past 30 days. Being a student was associated with a higher likelihood of having ridden in a car with someone
who had been drinking. And for each year increase in the age at which one’s first drink occurred, the likelihood of the outcome decreased by 5%. (See Table 7 in Appendix C.)

When the interaction term was included, odds ratio of the demographic measures were almost identical to the first model; yet a significant interaction between FY and group membership was revealed for this outcome. Given SPF SIG communities, in year 2010 this outcome was less likely to occur compared to year 2008 (See Table 8 in Appendix C.) Figure 12 below plots the predicted probability of the outcome (based on the interaction model) by year contingent on group membership while holding the sociodemographic variables constant. We can see that the predicted probability of having ridden in a car with someone who had been drinking steadily decreases among the SPF SIG sample.

Figure 12: The predicted probability of riding in a car in the past 30 days with someone who had been drinking by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink.

Behavioral Outcome 2: Drank one or more drinks during the past 30 days (Responses: 0 = no, 1 = yes)

In the first model, respondents in 2009 and 2010 had a lower likelihood of drinking in the past 30 days than respondents in 2008. There was no association of group membership with the outcome. As seen with outcome 1, males were more likely to have drunk alcohol at least once in the prior 30 days when compared to females. Compared to non-Hispanic whites, Hispanics, Native Americans, and Others were less likely to have drunk alcohol in the past 30 days. Respondents under 45 or students were more likely to have drunk in the past 30 days. Those who often spoke a language other than English at home, and those who were older when they had their first drink of alcohol had a lower likelihood of having drunk alcohol in the past 30 days. (See Table 9 in Appendix C.)
A similar pattern showed in the interaction model; the estimates of biological sex, race/ethnicity, age, student status, living in N.M. more than 5 years, speaking a language other than English at home, and age of first alcoholic drink remain almost unchanged. After controlling for the sociodemographic differences among the samples, the interactions between group and year were significant. FY 2009 and 2010 appeared to negatively affect the outcome in SPF SIG communities. SPF SIG communities steadily decreased from 2008 to 2010 with regard to drinking in the past 30 days. (See Table 10 in Appendix C.) The interaction relationship is evident in Figure 13 that graphs the predicted probability by year and group. This would indicate that the SPF SIG funded prevention efforts may be having a significant positive impact on past 30-day drinking in those communities.

**Figure 13:** The predicted probability of having drunk alcohol in the past 30 days by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink.

<table>
<thead>
<tr>
<th>Year of Data Collection</th>
<th>Comparison</th>
<th>SPF SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>45.8%</td>
<td>54.1%</td>
</tr>
<tr>
<td>2009</td>
<td>48.4%</td>
<td>47.3%</td>
</tr>
<tr>
<td>2010</td>
<td>45.0%</td>
<td>44.9%</td>
</tr>
</tbody>
</table>

**Behavioral Outcome 3:** Drank 5 or more drinks on an occasion during the past 30 days (Responses: 0 = no, 1 = yes)

In both models, demographic measures significantly associated with binge drinking include biological sex, race/ethnicity, age, student status, and language spoken at home. Males, Hispanics/Latinos and Native Americans, respondents under 45, and students reported significantly more binge drinking; those who grew up in a home that often spoke a language other than English, binge drank significantly less and those who had their first drink of alcohol at an older age had a lower likelihood of binge drinking. In the model without the interaction term, respondents in 2009 and in 2010 tended to have less binge drinking compared to respondents in 2008. However, this was true only in SPF SIG Communities in the interaction model meaning
the SPF SIG communities reduced their binge drinking over time more than comparison communities. (See Tables 11 & 12 in Appendix C.) Figure 14 below plots the predicted probability of the outcome based on the interaction model by year contingent on group membership after controlling for the sociodemographic variables.

**Figure 14:** The predicted probability of having drunk 5 or more alcoholic beverages in the past 30 days by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink

**Behavioral Outcome 4:** Drove after having too much to drink during the past 30 days (Responses: 0 = no, 1 = yes)

Demographic measures significantly associated with greater likelihood of having driven in the past 30 days after having too much to drink include age, biological sex, student status, and age at first drink. Males, respondents under 45, and students were significantly more likely to report binge drinking and driving; and those who were older when they had their first drink of alcohol were less likely to report binge drinking and driving. There was no influence of the group or FY on the outcome in the model with or without the interaction term. (See Tables 13 & 14 in Appendix A.) Figure 15 below plots the predicted probability of the outcome by year contingent on group membership after controlling for the sociodemographic variables. Although the interaction was not statistically significant, the graph indicates that the category of driving after having too much to drink in past 30 days was decreasing in the SPF SIG communities as opposed to the comparison communities.
Figure 15: The average predicted probability of having driven a car in the past 30 days after perhaps having too much to drink by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink.

Behavioral Outcome 5: Ever drove after drinking 5 or more alcoholic drinks during the past 30 days (Responses: 0 = no, 1 = yes)

As with the previous outcomes, biological sex, race/ethnicity, and age were all significantly associated with greater likelihood of having driven after consuming 5 or more alcoholic beverages in both models. Males, Hispanic/Latinos, non-Hispanic Native Americans, those who reported a race/ethnicity as Other, and those under age 45 had a higher likelihood of driving after consuming 5 or more alcoholic drinks. Those who were older when they had their first drink of alcohol were less likely to report binge drinking and driving. Group membership, FY or the interaction between them appeared to have no effect on having driven after consuming 5 or more drinks in the models with and without the interaction term (See Tables 15 & 16 in Appendix C.). Figure 16 below plots the average predicted probability of the outcome by year contingent on group membership after controlling for the sociodemographic variables. Although the interaction was not statistically significant, the graph indicates that binge drinking and driving in the past 30 day decreased from 2008 to 2010 in the SPF SIG Communities as opposed to the comparison communities.
**Figure 16:** The average predicted probability of having driven a car in the past 30 days after drinking 5 or more alcoholic beverages by year and group membership, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink

**Behavioral Outcome 6:** Ever drove under the influence of alcohol in past 12 months
(Responses: 0 = no, 1 = yes)

In both models males and those under age 45 had a higher likelihood of driving under the influence of alcohol in the past 12 months. Those who lived in N.M. more than five years or those who were older when they had their first drink of alcohol were less likely to have driven under the influence of alcohol in the past 12 months. Group membership was a significant predictor in the model without the interaction term; **SPF SIG community respondents had a significantly lower probability of reporting this behavior than those in comparison communities.** Its significance disappeared after the inclusion of the interaction terms. Finally the interaction term appeared to have no effect on the outcome in the interaction model. (See Table 17 and Table 18 in Appendix C.)

Figure 17 below plots the predicted probability of the outcome based on the interaction model by year contingent on group membership after controlling for the sociodemographic variables. In the SPF SIG communities there was a slight decrease over the three years whereas in the comparison communities there was a sharp increase and then a decrease. Even though statistically speaking the changes observed in the Comparison community sample are not significant, they may necessitate further thought on what might be occurring in those communities that would account for this sharp increase.
**General Linear Modeling Comparing SPF SIG and Comparison Communities from 2008 to 2010 for Intervening Variables**

Proc GLM in SAS was used to model change in the ordinal outcomes controlling for the influence of demographic characteristics on the outcome. Specifically, we were interested in any statistically significant differences on the intervening variables between the SPF SIG communities and comparison communities and among respondents in 2008, in 2009, and in 2010.

The analyses controlled for the influences of the respondents’ sociodemographic background on the outcome, including the respondents’ age, race/ethnicity, biological sex, length of time living in N.M., language spoken at home, whether the respondent identified that he/she was a student, and age at first drink of alcohol. In the first set of models, the main variables of interest are the FY (2009 compared to 2008, 2010 compared to 2008) and grouping measure (SPF SIG compared to Comparison). In the second set, an interaction term (group by year) was included to examine whether the outcome for each group varied by year depending on the group, after controlling for differences between the samples. Analyses were done on both the unweighted and weighted data. Overall there was little difference between unweighted results and weighted results except for one intervening variable (i.e., perceived risk of arrest associated with underage drinking and over-consumption of alcohol). Therefore, both the unweighted and weighted results were presented for this variable, but only the unweighted results are shown for the rest of the intervening variables. We present results of the basic model with no interaction term first,
followed by results of the interaction model. Tables with results for all models are in Appendix A. All graphs are plotted based on the interaction model of the unweighted data.

**Intervening Variable 1:** Perceived risk of arrest associated with underage drinking and over-consumption of alcohol (UDOC mean scale score range 1-4)

The range for the UDOC scale is from 1 to 4 where 1 equals not at all likely and 4 equals very likely. Higher scores indicate greater perception of risk. The two models (with no interaction and with interaction) reveal that males, Hispanics, respondents who reported their race as Other, those who grew up in a home that often spoke a language other than English and those who were older when they had their first drink of alcohol perceived significantly higher risk with getting caught for underage drinking and over-consumption of alcohol. In the model with no interaction, both group and year were significant. Those in the SPF SIG perceived greater risk than the comparison group, and 2009 and 2010 respondents perceived greater risk than 2008 respondents. While in the interaction model, only one interaction is significant, that is, given SPF SIG communities, year 2009 had a positive effect on the outcome. (See Table 19 and Table 20 in Appendix C.) Our weighted data analysis further revealed both interaction terms were significant in the interaction model. That is to say, after weighting, **in SPF SIG communities, both year 2009 and 2010 had a positive effect on the outcome.** (See Table 20a in Appendix C).

Figure 18 graphs the average predicted scores by group and year using values based on the model with the interaction term. The average scale scores for the SPF SIG sample are moderate and increased from 2008 to 2009 then slightly decreased in 2010; while the scores decreased for comparison communities in 2009 then increased in 2010.
Figure 18: The effect of group membership and year on the perception of risk of underage drinking and over-consumption of alcohol, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink. (Range 1-4, where 1 = not at all likely and 4 = very likely)

Intervening Variable 2: Perception of risk associated with drinking and driving (Perceived risk mean scale score range 1-4)

The range for the perception of risk scale is from 1 to 4 where 1 equals not at all likely and 4 equals very likely. Higher scores are indicative of a greater perception of risk. First, those in the SPF SIG group perceived greater risk than those in the comparison group. Additionally, many demographic measures are associated with the perception of risk of being caught, arrested, and convicted of drinking and driving. In particular, being male, Hispanic, or Native American are all associated with an increase in perceived risk. Compared to those 45 years old and older, respondents under 21 years of age as well as between 25 and 34 perceive a significantly lower risk of drinking and driving consequences. Students, those who grew up in a home that often spoke a language other than English, and those who had their first drink of alcohol at older age perceived greater risk. (See Table 21 in Appendix C.)

In the interaction model, there is a significant interaction between group membership and year 2009 of data collection. Among the SPF SIG communities, year 2009 had a positive influence on perceiving a greater risk of consequences for drinking and driving. Similarly, biological sex, race/ethnicity, age, student status, language spoken at home, and age at first drink were all associated with the perceived risk. (See Table 22 in Appendix C.) Figure 19 below graphs the predicted mean score using values based on the model with the interaction term. After controlling for the sociodemographic variables, the SPF SIG sample changed slightly across three years and stayed rather high regarding the predicted mean score (about 3.30 out of 4). The
Comparison sample begins relatively lower than the SPF SIG then decreases in 2009 before increasing back to the same level of the SPF SIG sample in 2010. Overall, since these two groups already perceived risk to be rather high in 2008 (around 3.25), it was unlikely to increase as dramatically on a 4 point scale from 2008 to 2010. These data suggest that programs should continue their work keeping of the perception of risk high.

**Figure 19:** The effect of group membership and year on the perception of risk of being caught, arrested, and convicted of DWI, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink. (Range 1-4, where 1 = not at all likely and 4 = very likely)

<table>
<thead>
<tr>
<th>Year of Data Collection</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison</td>
<td>3.25</td>
<td>3.14</td>
<td>3.30</td>
</tr>
<tr>
<td>SPF SIG</td>
<td>3.28</td>
<td>3.31</td>
<td>3.30</td>
</tr>
</tbody>
</table>

**Intervening Variable 3:** Support of local ATOD prevention efforts (Prevention Support mean scale score range 0-2)

The range for the Prevention Support scale is from 0 to 2 where 0 equals no support and 2 equals a lot of support. Higher scores are indicative of more support. The basic model and the interaction model were almost identical; males, those under age 45, and students were less supportive of prevention efforts. Those who spoke a language other than English at home and those who were older when they first drank alcohol were more supportive of prevention efforts. And though respondents in the SPF SIG group were more supportive of prevention efforts, such effects disappeared after including the interaction term. Those participating in the survey in 2009 were generally less supportive of efforts to prevent drinking and driving as well as underage drinking in both models. Finally, there was no significant interaction between year and group membership. (See Table 23 and Table 24 in Appendix C.)
Figure 20 graphs the predicted mean score on the prevention support scale using values based on the model with the interaction term. As is the case in the model without the interaction term, we can see that overall, the SPF SIG communities are slightly more supportive of prevention efforts than the comparison communities across all three time points. Despite the relatively high levels of support for prevention, New Mexico may want to continue to focus on strategies that will build community support for prevention efforts in order to increase the sustainability of prevention efforts over time as well as to use the community support to influence the work of local and state law enforcement agencies and create policies that are also supportive of prevention.

**Figure 20**: The effect of group membership dependent on year on support for prevention efforts in the community, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink. (Range 0-2, where 0 = none and 2 = a lot)

<table>
<thead>
<tr>
<th>Year of Data Collection</th>
<th>SPF SIG</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1.47</td>
<td>1.46</td>
</tr>
<tr>
<td>2009</td>
<td>1.44</td>
<td>1.36</td>
</tr>
<tr>
<td>2010</td>
<td>1.44</td>
<td>1.41</td>
</tr>
</tbody>
</table>

**Intervening variable 4**: Awareness of local prevention activities (Prevention Awareness mean scale score range 0-2)

The range for the Prevention Awareness scale is from 0 to 2 where 0 equals no awareness and 2 equals a lot of awareness. Higher scores are indicative of more awareness. Sociodemographic measures were generally not related to one’s awareness of local prevention activities in both the basic model and the interaction model. Males were more likely than females to be aware of prevention messages and efforts in their community as were those who spoke a language other than English at home or were older when they first drank alcohol. Additionally those in the SPF SIG group were more aware of prevention activities than the comparison community respondents in both models. Respondents in 2009 and in 2010 had lower awareness of local prevention.
activities; in the interaction model they were no longer different compared to 2008 respondents. Finally, the interaction between group and year was not significant. (See Table 25 and Table 26 in Appendix C.)

Figure 21 graphs the predicted average values on the prevention awareness scale by year and group based on the values in the interaction model. As already mentioned, we can see that the SPF SIG communities are slightly more aware of the prevention efforts going on in their communities in contrast to the comparison communities, but the level of awareness does not change noticeably over time. This would indicate that SPF SIG communities need to enhance their use of local media and increase their coverage of prevention efforts.

**Figure 21:** The effect of group membership dependent on year on awareness of prevention efforts in the community, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink. (Range 0-2, where 0 = none and 2 = a lot)

Intervening Variable 5: Drinking norms and drinking and driving norms (Alcohol Norms mean scale score range 1-5)

The range for the Alcohol Norms scale is from 1 to 5 where 1 equals the least restrictive normative beliefs and 5 equals the most restrictive normative beliefs. Higher scores are desired on this scale. The social norms surrounding alcohol consumption and driving are strongly influenced by sociodemographic characteristics including biological sex, race/ethnicity, and age. Males reported more lenient, less restrictive norms toward alcohol consumption and driving after drinking when compared to females, as did respondents under age 45. Hispanics and Native
Americans reported more disapproval of alcohol consumption and drinking and driving compared to non-Hispanic whites. Those having lived in N.M. for more than one year were more disapproving as were those who grew up speaking a language other than English at home and those who were older when they had their first drink of alcohol. Finally participants in 2009 and 2010 indicated greater disapproval of drinking as well as drinking and driving than participants in 2008. (See Table 27 in Appendix C.)

The results from the interaction model were almost identical to those found in the first model, and the interaction term between SPF SIG group and year 2009 was significant. (See Table 28 in Appendix C.) Figure 22 graphs the average score on the Social Norms scale by year and group based on values from the interaction model. We can see that the restrictiveness of values and norms held about drinking and drinking and driving are very similar between SPF SIG and comparison communities from 2008 to 2010. SPF SIG communities should consider ways to create more restrictive social norms particularly for underage drinking, binge drinking and drinking and driving.

**Figure 22:** The effect of group membership dependent on year on social norms around alcohol consumption and drinking and driving, controlling for biological sex, age, race/ethnicity, student status, length of time living in N.M., language spoken at home, and age at first drink. (Range 1-5, where 1 = least restrictive and 5 = most restrictive)
As discussed in Methods section, over the course of the SPF SIG, communities also received funding from NHTSA to address ARMVC&F. Many SPF SIG funded communities also received NHTSA funding because both funding sources were allocated based on the high prevalence of ARMVC&F. Table 15 below provides the sample distribution across the four types of funding from 2008 to 2010. Of importance to note is that in 2008, the sample size receiving NHTSA funding only was quite small, which has implications for the specificity of estimates across time. Specifically we were interested in the effect of the interaction between the funding sources and year on drinking and driving behaviors. To do so, we compared 2009 estimates to 2008 and 2010 estimates to 2008.

### Table 15: Sample distribution among funding groups from 2008 to 2009

<table>
<thead>
<tr>
<th>Funding Group</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>No Funding</td>
<td>419</td>
<td>14.7</td>
<td>1244</td>
<td>17.7</td>
</tr>
<tr>
<td>NHTSA Funding Only</td>
<td>75</td>
<td>2.6</td>
<td>428</td>
<td>6.1</td>
</tr>
<tr>
<td>SPF SIG Funding Only</td>
<td>921</td>
<td>32.3</td>
<td>2102</td>
<td>30.0</td>
</tr>
<tr>
<td>SPF SIG &amp; NHTSA Funding</td>
<td>1439</td>
<td>50.4</td>
<td>3237</td>
<td>46.2</td>
</tr>
<tr>
<td>Total</td>
<td>2854</td>
<td>16.1</td>
<td>7011</td>
<td>39.5</td>
</tr>
</tbody>
</table>

Table 16 shows adjusted ORs for 2009 compared to 2008, and 2010 compared to 2008 for each source of funding. These results are obtained from the unweighted data. The findings in Table 16 indicate that the combination of NHTSA and SPF SIG funding produced a statistically significant effect on most of high risk drinking behavior measures. **Communities receiving NHTSA funding early during the SPF SIG grant in addition to receiving SPF SIG funds appeared to do better overall than communities receiving just NHTSA funding or just SPF SIG funding.** This would support the overall theoretical model that suggests that multiple prevention strategies in combination with each other are better than just increasing law enforcement efforts alone, or only implementing strategies focusing on intervening variables other than law enforcement. The one outcome where there was not a significant improvement was self-reported driving after having perhaps had too much to drink in the past 30 days. While
the OR is in the desired direction, the 95% confidence intervals cross one, indicating that this result could be due to chance.

**Table 16:** Effects of funding sources on high risk drinking behaviors

<table>
<thead>
<tr>
<th>Outcome</th>
<th>2009 vs. 2008 (referent)</th>
<th>2010 vs. 2008 (referent)</th>
<th>2010 vs. 2008 (referent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adjusted OR</td>
<td>95% CI</td>
<td>Adjusted OR</td>
</tr>
<tr>
<td>Ride in car with driver who had been drinking in past 30 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No funding</td>
<td>1.06</td>
<td>0.718 - 1.573</td>
<td>0.92</td>
</tr>
<tr>
<td>NHTSA only</td>
<td>1.71</td>
<td>0.732 - 4.005</td>
<td>1.86</td>
</tr>
<tr>
<td>SPF SIG only</td>
<td>1.08</td>
<td>0.841 - 1.384</td>
<td>0.90</td>
</tr>
<tr>
<td>NHTSA + SPF SIG</td>
<td>0.79</td>
<td>0.644 - 0.962</td>
<td>0.79</td>
</tr>
<tr>
<td>Drank any alcohol in the past 30 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No funding</td>
<td>1.31</td>
<td>0.998 - 1.709</td>
<td>1.00</td>
</tr>
<tr>
<td>NHTSA only</td>
<td>0.58</td>
<td>0.335 - 1.013</td>
<td>0.87</td>
</tr>
<tr>
<td>SPF SIG only</td>
<td>1.01</td>
<td>0.840 - 1.220</td>
<td>0.81</td>
</tr>
<tr>
<td>NHTSA + SPF SIG</td>
<td>0.63</td>
<td>0.544 - 0.737</td>
<td>0.63</td>
</tr>
<tr>
<td>Drank 5 or more drinks in one sitting in past 30 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No funding</td>
<td>1.237</td>
<td>0.884 - 1.731</td>
<td>0.93</td>
</tr>
<tr>
<td>NHTSA only</td>
<td>0.617</td>
<td>0.321 - 1.186</td>
<td>0.74</td>
</tr>
<tr>
<td>SPF SIG only</td>
<td>0.928</td>
<td>0.741 - 1.163</td>
<td>0.82</td>
</tr>
<tr>
<td>NHTSA + SPF SIG</td>
<td>0.707</td>
<td>0.591 - 0.846</td>
<td>0.83</td>
</tr>
<tr>
<td>Drove in past 30 days after having perhaps had too much to drink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No funding</td>
<td>0.97</td>
<td>0.522 - 1.816</td>
<td>0.83</td>
</tr>
<tr>
<td>NHTSA only</td>
<td>2.28</td>
<td>0.518 - 10.080</td>
<td>2.67</td>
</tr>
<tr>
<td>SPF SIG only</td>
<td>1.15</td>
<td>0.785 - 1.697</td>
<td>1.13</td>
</tr>
<tr>
<td>NHTSA + SPF SIG</td>
<td>1.02</td>
<td>0.744 - 1.404</td>
<td>0.75</td>
</tr>
<tr>
<td>Drove in past 30 days after having 5 or more drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No funding</td>
<td>1.01</td>
<td>0.543 - 1.890</td>
<td>0.72</td>
</tr>
<tr>
<td>NHTSA only</td>
<td>3.77</td>
<td>0.491 - 28.972</td>
<td>4.04</td>
</tr>
<tr>
<td>SPF SIG only</td>
<td>1.31</td>
<td>0.854 - 2.020</td>
<td>1.39</td>
</tr>
<tr>
<td>NHTSA + SPF SIG</td>
<td>0.67</td>
<td>0.469 - 0.967</td>
<td>0.54</td>
</tr>
<tr>
<td>Drove in the past 12 months while under the influence of alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No funding</td>
<td>2.27</td>
<td>1.555 - 3.310</td>
<td>1.31</td>
</tr>
<tr>
<td>NHTSA only</td>
<td>1.21</td>
<td>0.553 - 2.637</td>
<td>1.42</td>
</tr>
<tr>
<td>SPF SIG only</td>
<td>1.08</td>
<td>0.851 - 1.371</td>
<td>1.02</td>
</tr>
<tr>
<td>NHTSA + SPF SIG</td>
<td>0.92</td>
<td>0.749 - 1.123</td>
<td>0.77</td>
</tr>
</tbody>
</table>
Results from 2010 are first discussed, with a comparative analysis in the conclusion of this section. Survey respondents in FY10, as in FY08 and FY09, were allowed to give their own voice to the community survey by responding in their own words to the last question about anything else they would like to share. Respondents frequently used this as an opportunity to clarify answers to survey questions and to further emphasize points they felt to be of especial significance.

Responses to both comparison and SPF SIG communities were coded using QSR NVivo 8, using the same intervening variable-based codes that were derived the previous two years. Based upon the coded responses, the following summaries were derived of the dominant themes that emerged. Overall in FY10, respondents continued to demonstrate considerable concern about DWI and UAD, and support for increasing efforts to reduce these problems.

Several major themes emerged from the responses of study participants. First, participants discussed their concerns about the widespread acceptability of drinking, drunk driving, and underage drinking in their communities. Second, they urged creation of stricter DWI laws, more enforcement of current laws, and more diligent prosecution of DWI offenders. Third, participants suggested that prevention was needed, especially for youth but also involving all community members. Fourth, they commented on possible prevention solutions, especially those involving raising taxes on alcohol.

Norms and Acceptability of Drinking and Drunk Driving

The majority of respondents lamented the widespread acceptance of drinking, drunk driving, and underage drinking in their communities and in the state as a whole. Participants considered alcohol-related issues to be “a huge issue,” “a big concern,” or “a major problem.” Alcohol and drinking, respondents indicated, are ever-present in New Mexico: drinking alcohol is the “norm,” or “the culture around here,” and getting a DWI is often seen as “a badge of honor, bragging rights.” In spite of the heightened status for some who are caught with a DWI arrest, also mentioned was morbid prevalence of DWI-related deaths: “Almost everyone I know under the age of 30 knows or knew of someone that died [while] involved in a drinking and driving accident.” Another respondent shared, “Every Friday night I drive with my family past drunk drivers. If I called [the DWI hotline] for every drunk driver I saw, I would be on the phone the whole time.” Drinking alcohol, participants noted, was accepted on city curbs, at children’s birthday parties, at high schoolers’ graduation celebrations, and all family gatherings. Several respondents called for the need to shift cultural norms. One stated, “Unless the overall culture of New Mexico were somehow re-cast, I don’t see how drunk driving will ever cease to be a problem in the state.” Another respondent concurred about the power of these social norms: “Addressing cultural/societal norms/values around drinking would definitely be beneficial.”
Underage drinking, too, was seen as extremely prevalent throughout all communities surveyed. One respondent commented that it “really got out of hand this generation,” while another stated, “Underage drinking is at an all-time high. There seems to be no end.” Participants reported that it was “very easy” for underage individuals to access alcohol at parties, at retail establishments, or in their own home. Many respondents noted that parents were often involved in providing alcohol to their teenagers. One participant shared, “Teens have a very easy way of getting alcohol in this community. It is almost impossible not to be around it on a regular basis.” Several respondents also reported having heard students in middle or high schools “talk about drinking alcohol in a casual way” on a regular basis.

**Need for Stricter Laws, More Enforcement, and More Diligent Prosecution**

A large number of survey respondents expressed the opinion that the current state efforts to address DWI were not succeeding in reducing drunk driving in New Mexico. One major perceived indicator of this failure was the number of repeat offenders with “up to 22 DWIs.” Survey participants located reasons for this lack of success first in state DWI laws. **Participants called for “stricter,” “tougher,” or “stronger laws,” and one opined, “New Mexico drinking laws are a joke…What is the point of the law if there is no real fines or little time in jail?”** Respondents also suggested a source of this problem was a lack of law enforcement efforts. Finally, participants found that more judicial enforcement of laws and stricter sentencing was needed. Participants suggested a wide range of judicial enforcement, from impounding a convicted individual’s car, “mandatory rehab,” or even “stiffer penalties like the death sentence.” Survey respondents also supported stricter prosecution of underage drinkers and adults (especially parents) who sold or provided alcohol to underage individuals.

One widely perceived hindrance to effective law enforcement and judicial sentencing was what one respondent termed “good ol’ boy attitudes and corruption.” Several survey participants related personal accounts of police officers failing to arrest offenders with whom they were personally acquainted or socially connected. One respondent stated, “It is not what you know but who you know that gets you out of trouble.” Another participant echoed this sentiment: “It depends who you are, to get away with drinking or not. I have seen it with my own eyes. It is not fair or consistent.” Many respondents suggested that racial profiling, especially as directed against Native Americans, was an ongoing problem. Additionally, participants suggested that judges were more likely to give “a slap on the wrist” to socially prominent individuals.

**Many survey respondents, however, praised the efforts of their local community law enforcement**, though in the same breath they often urged that these efforts be redoubled. While one respondent reported that calling the DWI hotline led to the stopping of a drunk driver (although after considerable difficulty in reaching the appropriate department), many more stated that police did not respond quickly or at all. One participant related the following: “On several occasions I have phoned in a possible drunk driver. However, the response is always the same:
‘No officers available,’ or ‘No one in the area,’ or ‘They are all busy on a call.’ Response time is always very slow. There doesn't seem to be a standard protocol for drunk drivers in regards to response. They should be a priority; otherwise people will become hesitant in reporting them while out on the road.”

Several respondents felt that police were actually overzealous in enforcing alcohol-related laws, to the point that personal freedoms were infringed upon. However, many more urged an increase in DWI checkpoints, party patrols, and policing of bars and retail establishments selling alcohol.

**Need for Prevention, Especially Youth-Focused**

A great number of survey respondents urged for the creation of more activities, more programs, and in general more “things for young people to do.” “There is nothing here to do but drink!”

One participant noted. While many suggested the creation of specifically anti-alcohol or alcohol-free support groups, dances, clubs, and programs, others proposed the creation of activities of which alcohol would not be a part, but which also would not specifically contain anti-alcohol messages (e.g., after-school sports, drama clubs, church groups).

Participants also highlighted the need for education about the health effects and dangers of alcohol abuse. In light of the extreme prevalence of alcohol and its easy availability to teens, “Something needs to scare the heck out of our teenagers so that they get the message across,” one participant stated. Many survey respondents suggested that such education should be school-based, beginning in the elementary or middle schools. However, a large number also suggested that education was needed for adults as well, as the responsibility for young people lay with parents, families, and the community as a whole. The indication seemed to be that as societal norms were leading young people to drink and to drive drunk, and these norms needed to be addressed on a community-wide basis for change to happen. Additionally, support for youth located in family or home situations that involved alcohol or drug use/abuse was suggested.

Many individuals discussed the need for more public transportation, safe ride programs, and rewards for designated drivers, as a further form of prevention. Some survey respondents suggested that safe ride programs be open to underage drinkers as well, in order to reduce underage drunk driving.

**Taxation and Alcohol Pricing**

A large number of responses to this question touched upon the issue of raising taxes on alcohol (and thereby raising the price). While the majority supported such a tax increase, a good number of respondents were opposed. Those in favor of a tax increase both supported giving such funds to treatment or prevention programs, and also felt that higher prices on alcohol
would prevent many individuals from drinking to excess. Those opposed to a tax increase generally either were opposed to tax increases in general, did not feel that higher prices would make a difference, or felt that higher prices unfairly penalized the poor or those who enjoyed occasional alcoholic drinks responsibly.

Changes over Past 3 Years

Responses from survey participants to the qualitative question remained notably constant from FY08 through FY10. The themes which arose through analysis of FY10 data correlated very strongly with those of the past two years. Three strains of response, however, were either new or emerged more strongly in the FY10 data: first, concerns about how economic realities were affecting alcohol consumption; second, a pronounced increase in responses emphasizing societal issues rather than peer pressure as a factor in underage drinking; and third, prevention suggestions centering on taxation.

More respondents in FY10 than in previous years suggested that the economic problems facing the nation as a whole were causing increased consumption of alcohol in their communities. One participant explained, “People tend to escape from problems like family troubles, losing jobs, high interest on credit cards, losing homes. I'm surprised we ain't all drunks.” Another respondent echoed this sentiment: “Alcohol is also a problem because the economy is low around here and there is a limitation on job opportunities.” These responses may illustrate some of the less desirable shifts that occurred at the end of the SPF SIG implementation in New Mexico.

While as in past years several respondents indicated that peer pressure contributed greatly to underage alcohol consumption, in FY10 there seems to be a shift towards locating more responsibility towards larger community norms. Many survey respondents commented on the need for parents, families, and the community at large to address deep-rooted issues related to alcohol in order for youth to learn different possible ways of living their lives. This was especially visible in the many comments that emphasized a need for community-wide education on the detrimental effects (both health-related and social) of excessive alcohol consumption.

Finally, mostly likely in response to the newly introduced question on the possibility of increased taxation of alcoholic beverages, many respondents, as indicated above, chose to answer the qualitative question by enlarging on their views on taxation.

These responses overall show the relevance especially of social norms, social access, and low enforcement in New Mexico in relation to underage drinking and drinking and driving. They show in general a very strong support for the kinds of interventions that SPF SIG communities are implementing, and seem to show a shift over three years in support of prevention overall. Programs should be encouraged to continue to gather data such as these in order to convince law
enforcement and policy makers about the community’s awareness of the problems of alcohol abuse and their support of DWI and UAD prevention.

Summary of Findings from Community Survey from 2008 to 2010

Bivariate analyses indicated that SPF SIG communities showed a decreasing trend from 2008 to 2010 on three behavioral outcome measures associated with increased risk of ARMVC&F. These included reductions in reported riding in a car with a driver who had been drinking, reported past 30 day alcohol use, and perhaps most importantly, reported past 30 day binge drinking. A similar decreasing pattern was not observed in comparison communities. Findings for the intervening variable were mixed. SPF SIG communities improved on some measures, such as perceiving more risks associated with underage drinking, and drinking and driving; but less desirable results occurred in terms of being aware of local prevention efforts and drinking and driving norms. Comparison communities only showed a slight change on two intervening variables.

Because the samples were so varied both between years and between groups, multilevel analyses were conducted to assess the potential community-level influence on the outcomes of interest. The findings revealed little community-level influence on the outcomes, thus it was reasonable to control for only individual-level sociodemographic differences in the regression analyses examining the effect of group membership and year on the outcomes.

In logistic regressions examining the interaction between group membership and year while controlling for the influences of sociodemographic measures, statistically significant decreases from 2008 to 2010 were seen among respondents in SPF SIG communities, for self-reported drinking and driving, past 30 day alcohol use, and past 30 day binge drinking.

In the intervening variables regression analyses examining the interaction between group and year while controlling for sociodemographic measures, there was a slightly significant increase from 2008 to 2009 among SPF SIG respondents in the perception of risk associated with underage drinking and over-consumption of alcohol and the perception of risk associated with drinking and driving. In addition, there was also change in alcohol social norms becoming slightly more lenient, although remaining more restrictive than norms held in comparison communities.

Analyses were conducted to disentangle the influence of SPF SIG versus NHTSA funding, both of which were intended to reduce ARMVC&F. The results indicated that the combination of NHTSA and SPF SIG funding had a greater impact on the outcomes than other types of funding (i.e., no funding, NHTSA only and SPF SIG only). Specifically, the NHTSA and SPF SIG
funding was significantly associated with decreasing reports of five out six high risk drinking behaviors.

**Overall, these findings indicate that the environmental prevention strategies conducted within the SPF SIG communities are likely creating positive changes in drinking and driving behavior in those communities.** However, those communities that also received NHTSA funds to specifically increase high visibility law enforcement efforts saw significantly greater reductions than those communities with only SPF SIG or NHTSA funding. The findings support the logic model which indicates that a comprehensive environmental approach using multiple strategies and targeting multiple intervening variables is the most effective at reducing those behaviors most linked to ARMVC&F.

It should be noted that programs were unable to fund additional enforcement with SPF SIG monies, and therefore were only able to encourage the increase of enforcement. Given the challenges that some programs had with increasing enforcement because of this lack of resources, this suggests that future such efforts should include support for this important component along with the other prevention activities.

On the other hand, **there was little evidence that there were meaningful changes in the targeted intervening variable measures** which logically lead to changes in behavior. There may be several explanations for this lack of significant changes in the intervening variables. First, it may be that the targeted intervening variables are not as strongly associated with drinking behaviors as assumed in the logic model. On the other hand, it may mean that the measures used to assess the intervening variables were inadequate and therefore were not successful in really measuring the true essence of the intervening variable. In other words, our measures for the intervening variables may not have been valid measures. Finally, for several of the intervening variables, respondents on average scored at the upper end of the continuum and therefore, ceiling effects possibly could have occurred.

**Qualitative data analyses revealed that New Mexicans are very eager to reduce underage drinking and drinking and driving.** This includes a willingness to increase alcohol taxes to support prevention efforts and encouraging law enforcement and the judicial system to enforce the laws more stringently. Yet there is also a sense among New Mexicans that ultimately the problem results from an acceptance of underage drinking and drinking and driving. Moreover, these behaviors cannot be reduced while there are social norms and attitudes that cultivate an environment encouraging or at the very least tacitly accepting underage drinking and drinking and driving. Adding to this general perception that most people are complacent about drinking and driving, is the very real concern that the economic downturn that began to be felt in New Mexico during FY10 is increasing problem behaviors due to loss of employment and related depression and/or anxiety. Although money is tight, people will often find a way of finding some pleasure in an otherwise unpleasant situation. For many, one easy and relatively inexpensive way to do this is to drink.
Results: Secondary Data

Youth Risk and Resiliency Survey Data Findings (YRRS)

Data from N.M.’s YRRS survey of high school students across N.M. show relatively little difference between SPF SIG counties and comparison counties on alcohol consumption and risk behaviors.

Since 2007 when local communities began to be exposed to environmental prevention strategies, the percent of high school students who report riding with a driver who had been drinking has decreased slightly in both groups. (See Figure 23.) Although comparison counties show a slightly higher prevalence, confidence intervals for both estimates overlap at every time point and trends in both groups appear to mirror each other. Since 2005, the prevalence of students in SPF SIG counties who reporting riding with a driver who has been drinking decreased by 13.4% and in comparison counties, the prevalence decreased by 11.0%

Figure 23: Percent of high school respondents who reported riding with a drinking driver in the past 30 days

<table>
<thead>
<tr>
<th>Year</th>
<th>Comparison</th>
<th>SPF SIG</th>
<th>New Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>35.2</td>
<td>32.5</td>
<td>31.5</td>
</tr>
<tr>
<td>2003</td>
<td>36.8</td>
<td>33.9</td>
<td>31.2</td>
</tr>
<tr>
<td>2005</td>
<td>35.1</td>
<td>32.0</td>
<td>31.1</td>
</tr>
<tr>
<td>2007</td>
<td>34.7</td>
<td>31.1</td>
<td>27.7</td>
</tr>
<tr>
<td>2009</td>
<td>31.2</td>
<td>27.7</td>
<td>26.4</td>
</tr>
</tbody>
</table>

Source: NM YRRS
Past 30 day drinking and driving prevalence has also decreased slightly since 2001. (See Figure 24.) Indeed after an increase in 2003, 2009 estimates are less than 2001 prevalence estimates and since 2005 decreasing trend is seen. Across the board, youth in SPF SIG counties report slightly less drinking and driving than their peers in comparison counties. This difference may reflect the more urban environments in some SPF SIG counties that may reduce the need to drive and correspond to more visible law enforcement which may reduce drinking and driving slightly. Since 2005, self-reported reported drinking and driving among high school students decreased by 19.4% in SPF SIG counties and 15.5% in comparison counties.

**Figure 24:** Percent of high school respondents who reported drinking and driving in the last 30 days

<table>
<thead>
<tr>
<th>Year</th>
<th>Comparison</th>
<th>SPF SIG</th>
<th>New Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>15.8</td>
<td>12.0</td>
<td>12.0</td>
</tr>
<tr>
<td>2003</td>
<td>19.3</td>
<td>19.0</td>
<td>12.5</td>
</tr>
<tr>
<td>2005</td>
<td>14.2</td>
<td>13.9</td>
<td>12.5</td>
</tr>
<tr>
<td>2007</td>
<td>13.1</td>
<td>12.1</td>
<td>9.7</td>
</tr>
<tr>
<td>2009</td>
<td>12.0</td>
<td>11.2</td>
<td></td>
</tr>
</tbody>
</table>

Source: NM YRRS

Current drinking among high school students has also decreased since 2001. (See Figure 25.) In 2005, 46.6% of students in SPF SIG counties reported drinking in the past 30 days. This decreased 11.6% to 41.2% in 2009. In the same time period, in comparison counties past 30-day drinking decreased 15.5%, from 44.5% to 41.2%. Although in 2001, both SPF SIG & comparison counties reported the exact same prevalence of current drinking, prevalence in SPF SIG counties increased to above estimates in comparison counties in 2003 and 2005. By fall of 2007, however, prevalence in SPF SIG counties dropped below comparison counties and remained lower in 2009.
Finally, data from the N.M. YRRS survey indicates that self-reported binge drinking has also decreased since 2001. Since 2005, self-reported binge drinking prevalence among high school students in SPF SIG counties decreased by 16.9% and comparison counties saw a decrease of 13%. (See Figure 26.)
Summary of YRRS Findings

The YRRS measures presented are considered important alcohol consumption behaviors that are directly related to ARMVC&F among young people. Therefore, if SPF SIG communities effectively implemented environmental prevention strategies these consumption behaviors should decrease prior to seeing decreases in the targeted outcome of ARMVC&F. YRRS data are collected in the fall of odd years. If we use January of 2007 as the starting point at which we can assume all SPF SIG funded communities have been exposed, we could reasonably expect to see decreases by the fall of 2007. Indeed, this pattern is seen for both SPF SIG funded and non-SPF SIG funded counties, although it would appear that SPF SIG funded counties which were initially higher, or as high, as comparison counties decreased slightly more than comparison counties. Unfortunately, we are unable to determine if these declines are the result of SPF SIG funding of community interventions or other environmental changes occurring across all of N.M. since the differences between the two groups are minimal and not statistically significant. We can conclude, however, that declines in these consumption behaviors are occurring among high school students in N.M., which would speak to the effectiveness of all prevention efforts including universal, selective, and indicated approaches.

Behavioral Risk Factor Surveillance Survey Data Findings (BRFSS)

BRFSS data are collected on a yearly basis and provide ongoing estimates of self-reported alcohol consumption behaviors among adults 18 and over. With the exception of questions about drinking and driving, all other alcohol consumption questions are asked every year. Below we present age-adjusted rates from 2004 to 2008 of key consumption behaviors directly associated with increased ARMVC&F.

Past 30-day drinking among adults is common and represents a legal behavior. Nevertheless, current drinking has been steadily decreasing in N.M. since 2004. Differences between 2004 and 2008 for all three trend lines are statistically significant. However, current drinking in SPF SIG counties is decreasing more rapidly (57.4 to 47.0) than in comparison counties (52.9 to 47.8). Trends for N.M. as a whole appear to mirror SIG counties. (See Figure 27.)

Binge drinking prior to 2006 was defined similarly for males and females as having consumed 5 or more drinks on one occasion at least once in the past 30 days. This measure changed in 2006 to reflect changes in the understanding of how binge drinking affects females differently than males. For that reason, the definition of binge drinking changed for females from 5 to 4 or more drinks on one occasion while males stayed at 5 or more.
Self-reported past 30 day binge drinking decreased slightly since 2004, although estimates are not overly stable over time. Increases in 2006 reflect the changes in the definition of binge drinking so as to include more women. Interestingly, SPF SIG and comparison county trends appear to mirror each other fairly closely until 2008, when the rate in SPF SIG counties decreases while the rate in comparison counties increases. (See Figure 28.) Decreases between 2004 and 2008 are not statistically significant for either group nor are decreases between 2006 and 2008.

Figure 27: Age adjusted rates of current drinking among N.M. adults 18 and older

![Figure 27: Age adjusted rates of current drinking among N.M. adults 18 and older](image)

<table>
<thead>
<tr>
<th></th>
<th>SPF-SIG Counties</th>
<th>Comparison Counties</th>
<th>New Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>57.4</td>
<td>52.9</td>
<td>55.8</td>
</tr>
<tr>
<td>2005</td>
<td>52.6</td>
<td>49.9</td>
<td>51.6</td>
</tr>
<tr>
<td>2006</td>
<td>50.7</td>
<td>48.9</td>
<td>50.0</td>
</tr>
<tr>
<td>2007</td>
<td>52.6</td>
<td>48.2</td>
<td>51.0</td>
</tr>
<tr>
<td>2008</td>
<td>47.0</td>
<td>47.8</td>
<td>47.2</td>
</tr>
</tbody>
</table>

Sources: BRFSS; NMDOH SAEP

Figure 28: Age-adjusted rates of current binge drinking among N.M. adults 18 and older

![Figure 28: Age-adjusted rates of current binge drinking among N.M. adults 18 and older](image)

<table>
<thead>
<tr>
<th></th>
<th>SPF-SIG Counties</th>
<th>Comparison Counties</th>
<th>New Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>12.6</td>
<td>14.2</td>
<td>13.1</td>
</tr>
<tr>
<td>2005</td>
<td>10.0</td>
<td>11.9</td>
<td>10.7</td>
</tr>
<tr>
<td>2006</td>
<td>13.2</td>
<td>13.6</td>
<td>13.3</td>
</tr>
<tr>
<td>2007</td>
<td>12.5</td>
<td>12.6</td>
<td>12.6</td>
</tr>
<tr>
<td>2008</td>
<td>10.7</td>
<td>13.2</td>
<td>11.6</td>
</tr>
</tbody>
</table>

Sources: BRFSS; NMDOH SAEP
Heavy drinking is defined as having consumed more than 2 drinks per day on average (for men) or more than 1 drink per day on average (for women) in the past 30 days. This behavior has remained relatively constant over the past 4 years, decreasing slightly in SPF SIG counties and increasing slightly in comparison counties. There are no significant differences between 2004 and 2008. In 2007 we see the largest divergence between SPF SIG and comparison counties, but this difference was not statistically significant. By 2008, SPF SIG counties had increased to essentially the same rate as comparison counties. It would appear that drinking and driving prevention efforts have had little effect on heavy drinking among adults in N.M. (See Figure 29.) Heavy drinking may reflect a pattern of behavior that is not easily modified by a prevention intervention, whereas binge drinking may be more episodic and therefore, slightly more amenable to change because it is less routine.

**Figure 29:** Age-adjusted rates of heavy drinking among N.M. adults 18 and older

<table>
<thead>
<tr>
<th>Year</th>
<th>SPF-SIG Counties</th>
<th>Comparison Counties</th>
<th>New Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>4.6</td>
<td>4.4</td>
<td>4.5</td>
</tr>
<tr>
<td>2005</td>
<td>3.9</td>
<td>4.3</td>
<td>4.1</td>
</tr>
<tr>
<td>2006</td>
<td>4.5</td>
<td>4.1</td>
<td>4.4</td>
</tr>
<tr>
<td>2007</td>
<td>3.6</td>
<td>4.7</td>
<td>4.0</td>
</tr>
<tr>
<td>2008</td>
<td>4.3</td>
<td>4.5</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Sources: BRFSS; NMDOH SAEP

Finally, drinking and driving is defined as, “Drove after having perhaps too much to drink at least once in the past 30 days.” In Figure 30 below, we can see that in 2004, SPF SIG counties had a higher rate than comparison counties. By 2006, comparison counties had increased such that their rate was essentially equal with SPF SIG counties. By 2008, there was a decrease in both groups, yet the rate in SPF SIG counties reduced to a greater extent and is now lower than the 2004 rate. On the other hand the rate in 2008 for comparison counties is slightly higher than in 2004. The difference between 2004 and 2008 in SPF SIG counties is marginally significant (p<.1).
Summary of BRFSS Findings

BRFSS data allow us to look at alcohol consumption behaviors of adults 18 and over. In general there are decreasing trends in all alcohol consumption behaviors, in SPF SIG counties. Most trends, however, were not statistically significant.

Three of the questions from the BRFSS were also included in the community survey and we can compare weighted estimates from the community survey to BRFSS age adjusted estimates. The duplicate questions are the current drinking, binge drinking, and drinking and driving questions. The Community Survey data collection first began in 2008 and went through 2010 whereas BRFSS data is currently reported only through 2008.

Comparing BRFSS and Community Survey 2008 estimates of current drinking, binge drinking, and drinking and driving, we find that Community Survey estimates tend to be higher than BRFSS estimates. That said comparison community estimates are reasonably in-line with comparison county estimates. However, SPF SIG community estimates are considerably higher than BRFSS SPF SIG county estimates. This may reflect the differences in the manner in which surveys were administered between the two surveys or it may reflect the much younger and more

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7 2008 Community Survey data were weighted to reflect 2008 age, sex, and race/ethnicity distributions in the corresponding counties.
Native American sample that was collected from SPF SIG communities in 2008. Even though the Community Survey data are weighted to reflect population estimates, discrepancy in the SPF SIG county estimate and the SPF SIG community estimate likely reflects at least in part the much larger sample of young adults in the 2008 Community Survey who are more likely to binge drink. Furthermore, the Community Survey estimates reflect community level data rather than county level data. Table 17 compares 2008 estimates between the surveys.

Table 17: Comparing 2008 BRFSS age adjusted rates to 2008 Community Survey weighted estimates

<table>
<thead>
<tr>
<th></th>
<th>Comparison Counties/Communities</th>
<th>SPF SIG Counties/Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BRFSS</td>
<td>Community Survey</td>
</tr>
<tr>
<td>Current Drinker</td>
<td>47.8</td>
<td>54.8</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>13.2</td>
<td>14.4</td>
</tr>
<tr>
<td>Drinking &amp; Driving</td>
<td>1.5</td>
<td>2.2</td>
</tr>
</tbody>
</table>

In sum, BRFSS data reflect decreases over time in SPF SIG counties that, while not always significant, do appear greater than those in comparison counties. These decreasing trends are continued in the Community Survey weighted estimates. When viewed together, it appears that there continue to be decreasing trends on alcohol consumption behaviors that lead to ARMVC&F. The one exception is heavy drinking, which has changed only slightly between 2004 and 2008.

**New Mexico Transportation Safety Board Data Findings: Results of Monthly Alcohol-Related Motor Vehicle Crashes Outcome Analyses**

In this section we take a more refined look at crash trends by analyzing monthly data alcohol-related crash data provided by the N.M. Transportation Safety Board. We performed statistical analyses to investigate whether beginning to implement environmental prevention strategies in the funded communities was associated with changes in targeted alcohol-related crash indicators. Investigating monthly data provided more data points for the analyses and allowed us to specify the period of strategy implementation with more accuracy than would be possible if we analyzed annual data. Alcohol-related crashes were not analyzed for each SPF SIG county individually.
because the number of ARMVCs per month was low and unstable. Therefore, we as in previous analyses we compared counties in which SPF SIG prevention strategies were being implemented to all other counties serving as the control group.

**Alcohol-Related Motor Vehicle Crash Outcome Analytic Approach**

Reduction of alcohol-related motor vehicle crash deaths was the primary outcome target for the project. Data were provided to us by the Division of Government Research at the University of New Mexico with permission from the N.M. Department of Transportation. With the data provided, we ran two separate time series analyses examining the following:

Model 1: The number of all ARMVCs (fatal and non-fatal combined) controlling for intervention group (control vs. SPF SIG), the timing of the intervention, and the interaction between the two measures.

Model 2: The number of ARMVCs (fatal and non-fatal combined) for drivers 15 to 24 years old who had been drinking, controlling for intervention group (control vs. SPF SIG), the timing of the intervention, and the interaction between the two measures.

For each ARIMA analysis, we generated a model based on the data with appropriate fit characteristics for the strategy implementation time period, the intervention group, and the interaction between the two, predicting to the outcome variable (ARMVC&F). We coded the strategy implementation time period variable as ‘0’ for the months prior to the start of strategy implementation and as ‘1’ for the months from initial strategy implementation through the end of 2009. We assigned January 2007 as the point at which all SPF SIG communities would have fully implemented at least one prevention strategy and communities should have been exposed to the strategy. SPF SIG communities varied as to when exposure to prevention strategies began but because we collapsed across communities to increase the likelihood of an event occurring each month and thereby increase the stability of the data, we chose one time period after which all SPF SIG communities should begin to see effects of their prevention efforts.

The four key statistics of interest for each analysis were: 1) the parameter estimate (the estimated effect size) of the interaction between the strategy implementation time period and the intervention group; 2) the standard error of this parameter estimate (the precision of the estimated effect size); and 3) the result of the t-test for this model parameter estimate (the inferential statistical test of whether the outcome variable changed during the strategy implementation time period, using the criterion of \( p < .05 \);
Changes in Alcohol Related Crashes Following SPF SIG implementation

To help provide a sense of the detected regional crash data changes, the graphs below (Figures 31 & 32) display the monthly total number of crashes that were alcohol-related in SPF SIG counties and comparison counties. These graphs include a horizontal line indicating the mean, or average, of the monthly data series and a vertical line indicating the month of strategy implementation start-up. Thus, data to the left of the vertical line are those from the pre-implementation period and those to the right of the line are during the strategy implementation period. Data above the horizontal line are higher than the average number of ARMVCs and those below the line are lower than the mean number of ARMVCs. The ARIMA modeling accounts for consistent important relationships between the data points that are due to factors such as time-period trends and seasonal differences, but, in general, where there is a significant effect one would expect to see a greater proportion of the data trend line in the lower right quadrant compared with the upper left quadrant.

Among SPF SIG counties, beginning in 2007, there is considerable decline in ARMVCs and this pattern held until 2009, when the total number of ARMVCs began to increase again. Taken overall, there is a decrease of approximately 2 ARMVCs per month since baseline in 2005, which is not a statistically significant decline. Comparatively, one can see in Figure 32 the increasing trend since January 2007 among comparison counties. There is increase of approximately 6 ARMVCs per month at the end of 2009 compared to baseline, but also is not statistically significant.
**Figure 31:** The total number of ARMVC&Fs (both fatal & non-fatal) by month for SPF SIG counties with the beginning of the intervention delineated.

![Graph 1](image1)

**Figure 32:** The total number of ARMVC&Fs (both fatal & non-fatal) by month for comparison counties with the beginning of the intervention delineated.

![Graph 2](image2)
Another way to compare these two groups is by graphing the data in Excel inserting trend lines for the data. If we examine the horizontal trend lines in Figure 33, we can see that both the intervention and control group are increasing. However, the increasing trend among comparison counties more rapid than the trend line among SPF SIG counties. The increasing trend beginning in 2009 among SPF SIG counties likely accounts for the increasing trend line among the SPF SIG sample.

**Figure 33:** The total number of ARMVC&Fs (both fatal & non-fatal) by month for SPF SIG and comparison counties with linear trend lines added.

Although we anticipated that prevention strategies would affect older drivers as well, the target age range for SPF SIG interventions in N.M. was 15 to 24 year olds. Therefore, we next examined trends among SPF SIG and comparison counties, among only alcohol-involved crashes occurring among drivers who were 15 to 24 and had been drinking. Figures 34 and 35 below graph first the SPF SIG county sample followed by the comparison county sample. The trends for ARMVCs among 15 to 24 years are similar to those found among the entire sample, however in the case of 15 to 24 year olds, the trends were statistically significant (p< .05 for both). Specifically, in SPF SIG counties the approximate decrease in the number of events from baseline is 4 whereas in the comparison counties, the approximate increase since baseline in the number of ARMVCs is 13. We again see that among SPF SIG counties there are decreases beginning at the time of intervention but by 2009, there are again increases, although not to the same extent as was seen in 2005. Comparison counties on the other hand have similar patterns as seen in SPF SIG counties until 2008, when they also saw increases which remained through 2009.
Figure 33: The total number of ARMVC&Fs (both fatal & non-fatal) among 15 to 24 year olds by month in SPF SIG counties with the beginning of the intervention delineated.

Figure 35: The total number of ARMVC&Fs (both fatal & non-fatal) among 15 to 24 year olds by month in comparison counties with the beginning of the intervention delineated.
Figure 36 also plots the absolute number of crashes for drivers of ARMVCs who were between 15 and 24 years old and had consumed alcohol. In this case, the two groups can be compared side by side and a trend line can be observed. In Figure 36, SPF SIG counties have a higher prevalence of ARMVCs among 15 to 24 year old drivers, yet the linear trend over the past 5 years is decreasing, whereas the trend among comparison communities is increasing. As previously mentioned these were statistically significant trends.

**Figure 36:** The total number of ARMVCs (both fatal & non-fatal) by month for 15 to 24 year olds in SPF SIG and comparison counties with linear trend lines added.

Unfortunately we are unable to graph rates into 2010 to see if the final 6 months showed additional changes, either increases or decreases. However, with the time series analyses we were able to test whether there were significant interactions between group membership and intervention timing. In other words, we tested whether there were significant changes in ARMVCs since the SPF SIG was implemented, depending on group membership, i.e., SPF SIG vs. comparison counties. In Table 18 below, the parameter estimates, standard errors, and significance testing are presented for the interaction term in each model (intervention group by intervention timing) in the first model including all ARMVCs and the second including only 15 to 24 year old drivers in ARMVCs.
Table 18: Results of ARIMA models testing the interaction examining the changes over time differences in alcohol-related motor vehicle crashes (both fatal and non-fatal) before vs. after implementation of SPF SIG project strategies, by intervention group.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Interaction Parameter Estimate</th>
<th>Standard Error</th>
<th>p-value for interaction term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1: ARMVC&amp;F- All</td>
<td>-.112</td>
<td>.036</td>
<td>.002</td>
</tr>
<tr>
<td>Model 2: ARMVC&amp;F- 15 to 24 year old drivers</td>
<td>-.163</td>
<td>.06</td>
<td>.007</td>
</tr>
</tbody>
</table>

Results of Model 1- Outcome: All ARMVCs (fatal & non-fatal combined)

In Model 1 the effect of the SPF SIG intervention on all alcohol-related crashes was estimated over time. The interaction term was highly significant and negative. This means that since implementation at the community level, there are significant differences by group membership. In other words, the prevalence of ARMVCs in SPF SIG counties has decreased slightly while in comparison counties it has increased. In other words if nothing changed and the current trajectories continued into the future, at some future point the trend line for comparison counties would eventually be above the trend line for SPF SIG counties. Comparison counties are increasing significantly faster than the SPF SIG counties. While the prevalence among these two groups is considerably different at this time, eventually, if current trends continued this would no longer be the case.

Results of Model 2- Outcome: ARMVCs (fatal & non-fatal combined) among 15 to 24 year old drivers

In Model 2 the effect of the SPF SIG intervention on alcohol-related crashes among 15 to 24 year old drivers was estimated over time. As expected based on the graphs above, the interaction term was highly significant and negative, indicating that since the SPF SIG was implemented at the community level, there are significant ameliorating effects of being in the SPF SIG group. In other words, the prevalence of ARMVC among 15 to 24 year old drivers in SPF SIG counties is converging on the prevalence in the comparison counties and their trend lines will at some point in the future cross if similar SPF SIG prevention efforts were to continue.
Summary of ARIMA models

Time series analyses comparing trends in the absolute numbers of ARMVCs among SPF SIG and comparison counties indicate that in SPF SIG counties, there are decreasing trends over time, whereas in comparison counties the trends are increasing. It is interesting to note that there are impressive decreases in SPF SIG communities beginning in January of 2007 in SPF SIG counties. Furthermore, one can also see the effects of the increases law enforcement efforts took place beginning in 2005 and early 2006 in both comparison and SPF SIG counties. However, SPF SIG counties tended to increase again after the “Super Blitzes” that took place were no longer as prevalent.

Fatality Analysis Reporting System (FARS) Data Findings

Alcohol-related motor vehicle crash fatalities (ARMVCF) is one of two outcomes N.M. chose to focus on during the SPF SIG. The FARS allows us to view motor vehicle fatality trends over time and compare N.M. with trends in the U.S. as a whole. In 2008, 37% of all persons killed in motor-vehicle crashes in the U.S. were killed in accidents that involved alcohol (BAC ≥ .01). Of all U.S. drivers involved in a fatal crash, 26% had a BAC ≥ .01 while 22% of drivers in fatal motor vehicle crashes had a BAC ≥ .08. In N.M. in 2008, 32% of all persons killed in motor-vehicle crashes were killed in accidents that involved alcohol; 24% of drivers in fatal crashes had a BAC ≥ .01, and 21% had a BAC ≥ .08. That these N.M. 2008 prevalence estimates are lower than the U.S. overall is a testament to the tremendous work that has been done to reduce drinking and driving in N.M.

Since 2005, N.M. has used funding received from NHTSA to implement a number of enhanced prevention activities including more frequent and visible law enforcement efforts such as sobriety checkpoints and saturation patrols. Beginning in March of 2005, 5 counties in N.M. conducted six to seven Superblitzes, during which law enforcement agencies engaged in sobriety checkpoints and child restraint and seatbelt enforcement. In addition, attached to these enforcement operations were both earned and paid media campaigns. In 2007, an additional county was included. Of the six counties, five of them also received SPF SIG funding beginning in 2006. In the graphs below, we identify when the NHTSA-funded Superblitzes began and when counties/communities receiving SPF SIG funding would have been exposed to prevention strategies funded by the SPF SIG.

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8 Data reported here are from FARS website: http://www-fars.nhtsa.dot.gov/States/StatesAlcohol.aspx
Figure 37 below shows the percentage of all motor vehicle crash fatalities in N.M. that involved alcohol (BAC $\geq 0.01$) since 2000. Estimates are stratified by whether the crash occurred in a SPF SIG county or not and vertical lines indicate when the SPF SIG in N.M., the NHTSA study, and the implementation of local strategies began. It is clear that since 2000 ARMVCF have decreased slightly. Between 2006 and 2007, the general decreasing trend faltered but after 2007, when all locally funded SPF SIG communities had been exposed to environmental strategies, there was a decrease in 2008 among SPF SIG counties from 41% to 36% followed by a considerable increase in 2009 to levels higher than in 2005 but lower than 2006 and 2007 levels. It is possible that 2008 is an outlier and that in 2009 we see a regression to the mean but we cannot know for certain until further data are gathered. Alternatively, in 2009, the effects of the economic recession were initially felt in N.M. The increases in unemployment and fear associated with financial insecurity may have well have influenced the increases seen in 2009.

**Figure 37:** Percentage of all motor-vehicle crash fatalities that involved (BAC $\geq 0.01$) alcohol for SPF SIG, comparison counties, and N.M.

Table 19 below shows the percentage change between 1990 and 2009 and 2005 and 2009. Since 1990, there have been considerable decreases in the percentage of fatal crashes that are alcohol-related for both SPF SIG and Comparison counties. Yet when we compare 2005 to 2009 data, we see only a slight decrease among SPF SIG counties (2.2%) whereas comparison counties experienced a slight increase (5.3%).
Table 19: The percentage change in alcohol-involved (BAC ≥ .01) fatal ARMVC in N.M.

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2009</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF SIG</td>
<td>60.1%</td>
<td>34.8%</td>
<td>42.1% decrease</td>
</tr>
<tr>
<td>Comparison</td>
<td>55.4%</td>
<td>35.5%</td>
<td>35.9% decrease</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2009</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF SIG</td>
<td>35.6%</td>
<td>34.8%</td>
<td>2.2% decrease</td>
</tr>
<tr>
<td>Comparison</td>
<td>33.7%</td>
<td>35.5%</td>
<td>5.3% increase</td>
</tr>
<tr>
<td>New Mexico</td>
<td>34.0%</td>
<td>35.1%</td>
<td>3.2% increase</td>
</tr>
</tbody>
</table>

Next are graphed the percentage of ARMVC fatalities that were defined as alcohol-impaired (meaning a driver had a BAC ≥ .08). Again, there is a general decreasing trend particularly among comparison counties until 2009 when the percentage of fatal crashes that were alcohol impaired increased from their lowest levels in 2006. SPF SIG counties on whole do not appear to have changed drastically since 2000. This may indicate that prevention strategies are keeping the percentage of alcohol impaired fatal crashes from increasing too dramatically while comparison communities show greater increase since 2006. (See Figure 38.)

Figure 38: Percentage of all motor-vehicle crash fatalities that were alcohol impaired (BAC ≥ .08) for SPF SIG, comparison counties, and N.M.
Table 20 documents the percent change in the prevalence of alcohol impaired fatal crashes among all fatal crashes. Here you can see that the increase seen among SPF SIG counties amounts to a 12.2% increase in 2005. Yet, comparison counties increased by 41.5%.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2009</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF SIG</td>
<td>33.5</td>
<td>37.6</td>
<td>12.2% increase</td>
</tr>
<tr>
<td>Comparison</td>
<td>24.6</td>
<td>34.8</td>
<td>41.5% increase</td>
</tr>
<tr>
<td>New Mexico</td>
<td>30.5</td>
<td>36.4</td>
<td>19.3% increase</td>
</tr>
</tbody>
</table>

We also examined fatality rates over time. Rates per 100,000 population of fatalities from alcohol-involved and alcohol-impaired crashes were graphed. In Figure 39 below, the rate over time of fatalities from alcohol involved (BAC ≥ .01) motor vehicle crashes in N.M. is graphed for SPF SIG counties and comparison counties. Since 2000, the rate of alcohol involved fatalities per 100,000 has decreased from 10.3 to 7.2 per 100,000 among SPF SIG counties, whereas the rates have increased since 2000 from 9.8 to 10.8 per 100,000 in comparison counties. Furthermore, while SPF SIG counties appear to be generally on a downward trend, rates in comparison counties vary more. From 2005 through 2008, the rate in comparison counties was quite low, but in 2009 there is a sharp increase. This was true among SPF SIG counties as well, although not quite to the same extent. This may be the beginning of an increasing trend associated with increasing trends in unemployment due to the economic downturn.
Figure 39: The rate of fatalities from alcohol-involved (BAC ≥ .01) motor vehicle crashes per 100,000 population\(^9\) in N.M.

![Graph showing rate of fatalities from alcohol-involved crashes per 100,000 population.](image)

Source: FARS; NMDOT; NMDOH SAEP

In Figure 40 below, the rate of fatalities per 100,000 population from alcohol impaired (BAC ≥ .08) crashes over time is graphed. Again, we see decreases over time in SPF SIG counties (8.6 in 2000 vs. 5.4 in 2009). Rates in comparison counties initially increased rather sharply but by 2003 began a steady decline though 2008 but sharply increase again in 2009 (7.3 in 2000 to 8.5 in 2009). The rates in SPF SIG counties show a decreasing trend overall and the increase between 2008 and 2009 is very slight.

Figure 40: The rate of fatalities from alcohol-impaired (BAC≥ .08) motor vehicle crashes in N.M. per 100,000 population\(^{10}\)

![Graph showing rate of fatalities from alcohol-impaired crashes per 100,000 population.](image)

Source: FARS; NMDOT; NMDOH SAEP

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\(^9\) U.S. Census data 2000 through 2009 were used to calculate the population denominator for each year.

\(^{10}\) Ibid.
Summary of FARS Data Findings

Beginning in 2005, the NHTSA project increased high visibility law enforcement efforts to reduce drinking and driving in five of the SPF SIG counties with high prevalence rates. It’s interesting to note that across the whole sample, decreases first occurred between 2004 and 2005, although among the SPF SIG counties, the decreases did not generally occur until the 2005-2006 FY. Yet, even after the NHTSA funded prevention strategies were completed, these declines were relatively stable, which would seem to indicate that the SPF SIG prevention interventions were able to continue what was started through the NHTSA project. Furthermore, the declines between 2007 and 2008 are also very apparent, even among the SPF SIG counties. As mentioned previously, in 2009 there was an increase in the rate of ARMVCF across the state. Whether this will become an increasing trend or whether it will decline again as the economy recovers remains to be seen.
Conclusions and Discussion

As a result of early community-level implementation of environmental prevention strategies, New Mexico was able to analyze 3 to 4 years post intervention data to assess changes over time. Results from qualitative analyses indicate that communities strongly feel that tremendous capacity has been built around the use of the SPF model. In particular, they are much better prepared to address environmental conditions because of increased collaborations with other entities and report an increased ability to collect and analyze local level data to use for needs assessment and evaluation of efforts. The mapping of community-level networks prior to and after the SPF SIG indicates tremendous increases in collaborative efforts and capacity among almost all grantees. Successful collection of local-level data allowed programs to have current data to monitor progress and inform planning. There was even a growth in the appreciation of the usefulness of data and in the use of data. Future similar endeavors should maintain and enhance to the highest degree possible what was a strong asset to the SPF SIG: the technical assistance and training system. This TA and Training support system should be developed closely with state leadership and expand to prevention stakeholders on all levels of communities and the state, including local agency leadership as well as staff, program partners, partnering state level agencies, and the statewide entity.

Evaluation of the targeted outcome indicates that there are indeed decreases in ARMVC&Fs among funded SPF SIG counties, while alternatively, there are increases seen among comparison counties. However, these decreases are not as steep as expected. It appears that beginning in 2009, there was a statewide increase in ARMVC&Fs and this increase was seen very slightly among SPF SIG funded counties and more so among comparison counties. We hypothesize that this increase coincides with the effects of the current economic recession reaching New Mexico in earnest. Unfortunately, we are not yet able to examine 2009 data on other outcomes possibly associated with the downturn such as intimate partner violence, muggings, robberies, and other violent crimes, so confirmation of at least a correlation between the economic downturn and increasing ARMVC&Fs is not possible. Because ARMVC&Fs are a consequence that is very far downstream for measuring the effectiveness of community prevention activities, an outcome that is closer to the prevention activities, and not subject to so many other variables (like the economic downturn) we also examined changes in intervening variables and contributing factors. There were few changes seen over time among the contributing factors measures, which may indicate floor or ceiling efforts since there was very little variation between comparison & SPF SIG funded communities. Alternatively, our measures of contributing factors may have been inadequate to assess slight changes, or most likely, is that there was too much variance with the measures among the SPF SIG communities, which varied in the contributing factors targeted for prevention efforts. By combining across all SPF SIG communities, we combined all SPF SIG communities we could well have negated the ability to see changes in the contributing factor measures. On the other hand, the intervening
variable measures assessing self-reported drinking and driving after drinking did show significant decreases among SPF SIG communities. In sum, there is sufficient evidence to show decreased drinking and driving and driving in SPF SIG communities and decreased ARMVC&F in SPF SIG funded counties.