

Vermont Partnerships for Success

State Fiscal Years 2013-2016

Final Evaluation Report

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A. Background

Partnerships for Success (PFS) II was a three-year substance use prevention project implemented by the Vermont Department of Health (VDH) Division of Alcohol and Drug Abuse Programs (ADAP). PFS was funded through a grant from the federal government's Substance Abuse and Mental Health Services Administration (SAMHSA). Vermont's PFS adhered to SAMHSA's Strategic Prevention Framework (SPF), which is a five step comprehensive process implemented by states, and selected regions or communities within states, for preventing substance misuse and related behavioral health problems. The SPF process was adopted by ADAP initially through a five-year SAMHSA-funded initiative called the Strategic Prevention Framework State Incentive Grant (SPF-SIG), which Vermont successfully implemented between 2007 and 2011. An evaluation summary from that project, titled "SPF-SIG Evaluation Fact Sheet," can be found here: <http://healthvermont.gov/alcohol-drugs/reports/data-and-reports>.

PFS II funding began in the fall of 2012 and the first nine months were spent planning the state's approach including the development of guidance documents and regional strategic plans. Funding for communities began in July 2013, and continued through June 2016 after VDH obtained a one-year no-cost extension.

PFS project objectives

Vermont's PFS grant was aimed at the following objectives:

- Reduce underage and binge drinking among persons aged 12 to 20,
- Reduce prescription drug misuse and abuse among persons aged 12 to 25, and
- Increase state, regional, and community capacity to prevent underage drinking and prescription drug misuse by implementing a targeted regional approach.

Allocation of grant funds

Previous ADAP initiatives, including the SPF-SIG, have funded organizations that served individual communities or small groups of communities. In order to more efficiently administer the PFS funds, and to be able to more easily expand future funding to all areas of the state, the PFS was designed to build a regional approach to substance abuse prevention. Specifically, ADAP chose to allocate PFS funds to six regions of the state and to utilize the existing infrastructure of the VDH District Offices to coordinate implementation of the project. These regions were defined either as counties or as VDH Health Districts, and included:

- Chittenden County
- Morrisville Health District
- Rutland County
- Washington County
- Windham County
- Windsor County

VDH District Directors (DDs) in the six funded regions took the lead on developing a regional strategic plan and the selection of a community agency to be the fiscal agent and "lead agency" for each region's PFS work. These lead agencies were responsible for all fiscal management and reporting to ADAP for the project and were able to sub-grant to other community agencies as needed to implement portions of the strategic plan. ADAP's regionally assigned Prevention Consultants (PCs) assisted with the development of the regional plans and served as a resource and technical assistance provider to the lead agencies and sub-grantee organizations.

B. Prevention Strategies Implemented

PFS grantees were provided with a guidance document prepared by ADAP that included instructions on following each of the SPF steps, as well as a menu of both required and optional evidence-based interventions and supporting activities to be implemented within their regions. The required interventions were all designed to potentially affect large proportions of the target population. They included community-wide information dissemination and outreach, media advocacy, and other environmentally-focused strategies such as education on policy approaches to prevention and support for enhanced enforcement of alcohol laws. Many of the optional interventions, on the other hand, were educational programs of varying size that focused directly on the provision of information and skills to individual participants.

After completing a needs assessment including a review of local data on underage drinking and prescription drug misuse, each PFS region selected a set of interventions from the menu they intended to implement and then developed a work plan for each. The work plans included key tasks required to implement each intervention with fidelity as well as a timeline for the completion of each task. Interventions and supporting activities implemented by each region are shown in Table A1 (attached).

Education on policy approaches to reduce underage drinking was a required strategy, but there was variation in the types of policy approaches pursued across grantees. The most common type of policy that grantees worked on at the municipal level was restrictions on alcohol use in public places or community events. Though only three new policies were adopted by municipalities during the project (one related to restrictions on alcohol outlets, one zoning regulation that clarifies what qualifies as a restaurant versus a bar, and one open container ordinance), several grantees had some success engaging with their regional planning commissions to find ways to incorporate prevention language into regional and town plans, which could have a long-term impact. The most commonly chosen optional strategies/activities included parent education programs and Sticker Shock. A few grantees selected electronic screening and brief intervention (e.g. Alcohol Edu, eCheckup) and no grantees chose to expand school-based substance abuse prevention services through this project.

Implementation and other process measures were collected and monitored through an online reporting tool called the Community Grantee Reporting System (CGRS). Grantees provided narratives described their progress each quarter, and every six months provided progress ratings on each task identified in their work plans for all active interventions. They also reported specific process measures such as number of individuals reached, number and types of media messages distributed, etc. ADAP staff and PIRE reviewed these reports and worked with grantees to address any implementation issues and/or any identified training and technical assistance needs. Although there was no direct onsite assessment of the quality of implementation as part of the evaluation, ADAP, District Office staff, and PIRE reviewed these reports and worked with grantees continuously through regular communication and annual site visits to address any implementation issues, improve implementation fidelity, and identify and address training and technical assistance needs.

Based on CGRS data and additional information obtained through these efforts, grantees were able to either successfully complete or otherwise make significant progress on most of the core activities for the majority of interventions they implemented. Grantees also identified several common implementation challenges encountered with some interventions, most notably:

- overcoming a lack of support from local policymakers for policy change options

- recruiting sufficient numbers of participants (e.g., parents) to educational programs
- obtaining guidance and materials from the state needed to support local outreach and messaging regarding prescription drug misuse

Despite these challenges, noteworthy accomplishments by the six grantees during the three years of implementation include the following:

- An estimated 380,000 Vermonters were potentially exposed to PFS prevention initiatives through population-level interventions including media messages and community outreach related to the prevention of prescription drug misuse and the prevention of underage drinking, and enhanced enforcement of underage drinking and other alcohol laws. This represents approximately 60% of the state's population.
- 3 new community-level policies designed to reduce underage drinking were enacted.
- 154 additional patrols were conducted by local law enforcement agencies, resulting in a total of 184 minor in possession citations.
- 8 new permanent drop-off locations were established for the disposal of unused prescription medications.
- 636 college students participated in an online alcohol screening and education program (Alcohol Edu).
- 194 parents participated in parenting education programs designed to improve family communication and increase parents' skills in helping their adolescents avoid substance use.

C. Findings Regarding Regional Implementation and Capacity Building

A qualitative study was conducted during year three to assess how this project impacted regional and community capacity to implement strategies for preventing underage drinking and prescription drug misuse. Interviews were conducted with all six VDH District Directors (DDs) involved with PFS, and focus groups were held with VDH Prevention Consultants (PCs) and representatives from both lead community agencies and community partner organizations from PFS regions. Overall, despite some substantial challenges with sorting out the roles and responsibilities of the various participants in the PFS-mandated structure, the evidence collected for this study suggests that Vermont's regionally coordinated approach is working reasonably well. The study participants identified increased coordination, networking, and sharing of ideas and expertise across the communities within each region. One strategy that was noted as having successful implementation at the regional level was the coordination of media outreach. Several regions developed very strong relationships with local newspapers and were able to obtain earned media about efforts to prevent underage drinking and/or prescription drug misuse on a regular basis. Outreach to communities, pharmacists and health care providers on the prevention of prescription drug misuse, including the development of permanent drop box locations for unused prescription drugs, also went well across the regions and frequently included the involvement of partners that may not have been involved in prevention prior to this effort. A frequently cited challenge was the strategy of educating municipalities on policy approaches to prevention, though some regions did have success working with their regional planning commission to start to bring substance abuse prevention into the design of regional and town plans. A summary of findings and recommendations from this study, "PFS Summary of Qualitative Assessment of Regional Implementation and Changes in Regional Capacity Executive Summary," can be found here: <http://healthvermont.gov/alcohol-drugs/reports/data-and-reports>.

D. Findings Regarding Outcomes Achieved

Data sources

Data from the Youth Risk Behavior Survey (YRBS) and the Vermont Young Adult Survey (YAS) were used to assess possible effects of the PFS on targeted outcome measures. Vermont's YRBS is conducted early in each odd-numbered year, while the YAS was conducted in the spring of 2014 and repeated in 2016. The first intervention activities supported by the PFS grants began in the fall of 2013, although most were not underway until the spring or summer of 2014. We therefore designated the YRBS data collected in the spring of 2013 as baseline, and examined how prevalence rates for the outcome measures changed between 2013 and 2015. For the YAS data, 2014 served as the baseline year, with 2016 providing the follow-up.

The YRBS includes both a high school student survey and a middle school student survey. Data from these two surveys were analyzed separately. Students were assigned to PFS region based on their town code or school code. YAS respondents were assigned based on their zip code or town of residence. The YRBS data were weighted to be representative of the demographic composition of each Supervisory Union with respect to grade level, sex, and racial/ethnic minority status. The YAS data were weighted to be representative of each region with respect to sex and age group (i.e., 18-20 and 21-25).¹

The sample sizes for each data source, by year and condition (i.e., PFS funding status) are provided below. The Ns may be slightly lower for specific outcomes due to missing values.

	PFS Areas		Non-funded Areas	
	2013	2015	2013	2015
YRBS (Middle School)	9,803	9,137	4,836	4,384
YRBS (High School)	13,440	12,666	7,723	7,398
YAS	2,143	2,242	724	820

Analysis approach

To assess possible effects of PFS the data were first examined to see whether, and to what degree, changes in outcome measures from baseline to follow-up among the PFS funded regions, collectively, were in the desired direction. This step in the analysis was conducted without any comparisons to areas of the state not receiving PFS funding. Because the goals of the PFS were to reduce underage drinking and also prescription drug misuse among persons aged 12 to 25, reductions in the rates of these behaviors, and associated risk factors, would by themselves be noteworthy as they would indicate that PFS goals were being achieved.

Whether these desirable changes can be attributed specifically to the PFS-funded activities remains speculative. Confidence in making this attribution, however, is increased when less favorable outcomes are observed in the non-funded areas. The second phase of the analysis, therefore, was to compare changes between baseline and follow-up years in prevalence rates for outcome measures from the two surveys for the PFS-funded regions, collectively, to those experienced in the remainder of the state. Statistical tests were then employed to determine whether the changes over time were significantly different between PFS and non-PFS areas.

¹ More information regarding the Vermont YRBS may be found at <http://healthvermont.gov/health-statistics-vital-records/population-health-surveys-data/youth-risk-behavior-survey-yrebs>. Information regarding the YAS is provided in the 2014 YAS Statewide Summary Report, available at http://www.pire.org/documents/Vermont_PFS_Eval/VT_PFS_YAS2014_Summary_Report.pdf.

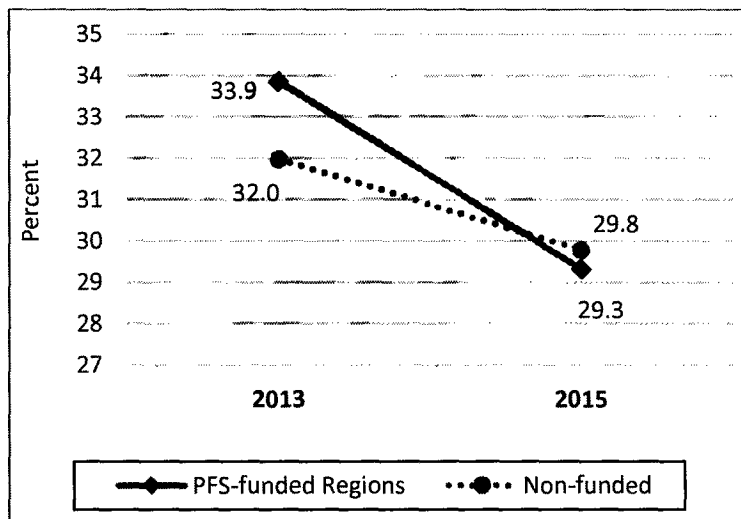
Measures

Outcome measures examined included self-reported substance use behaviors related to the PFS project goals and well-established risk factors associated with these behaviors. For example, low perceived risk of harm from binge drinking is a risk factor for underage drinking. In the results presented here, these measures are summarized in the form of prevalence rates (e.g., the percent of students reporting any alcohol use in the past 30 days; the percent of students perceiving no risk or only slight risk from binge drinking), and further summarized as the percent change in prevalence rates from baseline to follow-up. All risk factor measures were defined such that lower rates indicate lower levels of risk. Reductions in prevalence rates, therefore, were desirable for all substance use behavior and risk factor measures analyzed. Brief definitions for both the substance use measures and the risk factors are provided in Tables 1 and 2 below.

Findings from the YRBS data

Findings regarding past 30-day use of alcohol by high school students are shown in Figure 1. Incorporated into the figure are the 2013 and 2015 prevalence rates for past 30-day use (also referred to as "current use") for the PFS-funded regions collectively as compared to the remainder of the state. The figure indicates that while the prevalence rate for current alcohol use among high school students decreased in both the PFS and non-PFS areas, the decrease was more pronounced in the PFS areas. Specifically, the difference between 2013 and 2015 in the PFS areas represents an 13.6 percent decrease, from 33.9% in 2013 to 29.3% in 2015, whereas current alcohol use in the non-funded areas decreased by only 6.9 percent. For this outcome measure, the difference in the percent change over time between the PFS-funded and unfunded areas was statistically significant at the $p < .05$ level.

Figure 1. Percent of high school students reporting past 30-day alcohol use, by year and PFS status



The prevalence rates reported in Figure 1 were obtained using a statistical procedure² that adjusted the rates for differences between years and between the funded and unfunded areas in underlying demographic characteristics of the respondents. The same procedure also provided the test of statistical significance for the differences between PFS and non-PFS

² SAS SURVEYLOGISTIC

regions with respect to the percent change experienced between 2013 and 2015. All prevalence rates shown in this report, as well as the percent change in the rates between baseline and follow-up, were generated by this procedure. These rates are similar to, but not exactly the same as, rates that could be obtained directly from the weighted data, and are preferable for comparison purposes because they reduce the influence of demographic differences among the groups being compared.

Rather than provide the baseline and follow-up rates for every outcome measure examined and for both PFS and non-PFS areas, the findings have been consolidated into tables that show just the PFS baseline rates along with the percent change³ values between the baseline and follow-up year for each of the two groups being compared. The summary for all outcome measures from the YRBS is provided in Table 1.

For each outcome measure, the table shows the percent change from 2013 to 2015 for the PFS-funded regions collectively, and also for the remainder (i.e. non-funded areas) of the state. The change scores were calculated as the relative percent difference from the baseline, so negative values represent decreases in the prevalence rates. To highlight desirable patterns of change among the PFS funded regions, cells containing negative percent change values (i.e., decreases) are shaded with green. For measures in which the change experienced by the PFS regions (whether a decrease or an increase) was favorable for the PFS regions relative to the change observed for the non-PFS regions (e.g., a larger drop in the prevalence was observed for the PFS grantees compared to the non-funded areas of the state), a green checkmark is shown in the "Favorable Difference" column. A similar comparison was made between each of the six PFS-funded regions and the non-funded areas. The right-most column of the table shows the number of grantees (out of the six total) for which the percent change experienced by each grantee was favorable relative to that experienced in the non-funded areas.⁴

Three overall patterns in the YRBS findings (Table 1) are evident. First, almost all prevalence rates for both behaviors and risk factors, and for both middle school and high school students, decreased between 2013 and 2015. The percent declines in some of these measures were substantial.⁵ Second, although most rates also declined in the non-funded regions of the state as well, the declines in the PFS-funded areas were generally more pronounced. In fact, among high school students, the percent changes were more favorable to the PFS-funded regions for every outcome measure examined. Many of the differences in percent change from 2013 between funded and non-funded regions were relatively small. The reduction in past 30-day use of alcohol among high school students, however, was significantly greater in the PFS regions ($p < .05$) and the difference was also marginally significant ($p < .10$) for current alcohol use among middle school students. Third, the favorable differences observed for the PFS regions collectively also were found for the majority of individual PFS regions. Specifically, for the 16 measures for which there was an overall favorable difference, a minimum of three out of the six PFS regions also experienced a more favorable change than the change experienced in the non-funded areas, and for some measures all six PFS regions did so. Across all 16 of these measures, the mean number of regions that experienced a favorable difference relative to the non-funded areas was 4.25.

³ Percent change values were calculated as the difference between 2013 and 2015 prevalence rates, expressed as a percent of the baseline (i.e., 2013) rate.

⁴ These comparisons, however, were made on prevalence rates derived directly from the weighted data files, rather than rates that had been statistically adjusted for demographic differences.

⁵ Note that even small percentage point differences may yield relatively large percent change values. This is especially true for measures that have relatively small prevalence rates.

Table 1. Summary of PFS effects on middle and high school students (from YRBS)

	Baseline Rate (PFS)	Pct Change ¹ (PFS)	Pct Change ² (Non-PFS)	Overall Favorable Difference? ^{3,4}	Number of PFS regions that had favorable difference
Middle School Students					
Substance Use Behaviors⁵					
Lifetime alcohol use	16.6	-10.1	-7.5	✓	4
Current alcohol use	6.2		7.1	✓*	6
Current binge drinking	2.1		-5.9	✓	4
Lifetime Rx drug misuse	2.7	11.50	13.7	✓	4
Risk Factors					
Obtaining alcohol perceived to be sort of easy or very easy	39.0	-6.5	-2.5	✓	5
Drinking alcohol perceived to be a little bit wrong or not at all wrong	10.9	-4.5	3.5	✓	4
Perception that parents feel alcohol use by child is a little bit wrong or not at all wrong ⁶	8.3	-4.0	-6.0		2
Risk of harm from binge drinking perceived to be none or slight	16.5	0.5	-1.1		3
High School Students					
Substance Use Behaviors⁵					
Current alcohol use	33.9	-13.4	-6.8	✓**	6
Current binge drinking	20.0	-21.4	-18.6	✓	4
Lifetime Rx pain reliever misuse	11.4	-26.8	-24.8	✓	3
Lifetime Rx stimulant misuse	7.8		-11.5	✓	3
Current Rx pain reliever misuse	5.6		-30.5	✓*	4
Current Rx stimulant misuse	4.0		-27.9	✓	3
Risk Factors					
Obtaining alcohol perceived to be sort of easy or very easy	72.7	-4.4	-2.0	✓*	6
Drinking alcohol perceived to be a little bit wrong or not at all wrong	50.5	-9.8	-6.6	✓	6
Perception that parents feel alcohol use by child is a little bit wrong or not at all wrong ⁶	25.2	5.1	6.2	✓	3
Risk of harm from binge drinking perceived to be none or slight	25.1	-5.8	-3.4	✓	3

¹Percent difference between 2013 and 2015 prevalence rates; cells showing decreases are shaded with green.

²Percent difference between 2013 and 2015 prevalence rates.

³Checked if a greater decrease (or less of an increase) was observed for PFS compared to non-funded areas.

⁴Statistical significance of difference in percent change was denoted as * if p<.10, ** if p<.05.

⁵Current use refers to use within the past 30 days. Binge drinking is defined as having 5 or more drinks on one occasion within the past 30 days.

⁶Or respondent was not sure about how parents felt.

Findings from the YAS data

A summary of the findings from the YAS data, using the same format as used for the YRBS summary above, is provided in Table 2. Remarkably, the patterns observed in the YAS data closely resemble those seen in the YRBS data. Again, most prevalence rates in the PFS-funded regions declined between the baseline and the follow-up years. Prominent exceptions,

however, were seen for past year prescription sedative misuse and prescription stimulant misuse, for which the prevalence rates in the PFS-funded areas actually increased by 23% and 11%, respectively. The percent changes in the outcome measures were also consistently more favorable in the PFS regions with the exception of stimulant misuse, which increased in the PFS regions and decreased elsewhere. Additional analysis indicated that this contrary pattern reflects a decline in stimulant use among young adults who are not full-time students that occurred only in the non-funded areas. All other comparisons, except for perceived ease of obtaining alcohol from bars and restaurants, showed more favorable degrees of change in the PFS-funded areas, although none of these differences was statistically significant. As was the case with the YRBS data, the favorable differences observed for the PFS regions collectively were also experienced by the majority of individual grantee regions. Across the 10 measures for which there was a favorable difference for PFS regions collectively, the mean number of PFS regions that also experienced a favorable difference was 4.2.

Table 2. Summary of PFS effects on young adults (from YAS)

	Baseline Rate (PFS)	Pct Change ¹ (PFS)	Pct Change ² (Non-PFS)	Favorable Difference? ³	Number of PFS regions that had favorable difference
Substance Use Behaviors⁴					
Current alcohol use	77.6	-4.0	-2.6	✓	4
Current binge drinking	59.7	-10.1	-9.2	✓	5
Current underage alcohol use	66.6	-7.4	2.0	✓	5
Past year Rx pain reliever misuse	8.1	-26.3	-10.7	✓	5
Past year Rx sedative misuse	5.7	23.3	73.1	✓	4
Past year Rx stimulant misuse	12.4	11.2	-15.7		1
Risk Factors					
Obtaining alcohol from friends or family by persons 18-20 perceived to be very easy	57.6	-3.9	-2.3	✓	3
Obtaining alcohol from stores by persons 18-20 perceived to be somewhat easy or very easy	27.0	4.0	9.9	✓	5
Obtaining alcohol in bars and restaurants by persons 18-20 perceived to be somewhat easy or very easy	16.5	-9.5	-11.1		3
Obtaining Rx pain relievers without a prescription perceived to be somewhat easy or very easy	37.2	-7.5	-4.6	✓	3
Risk of harm from binge drinking perceived to be no risk or slight risk	27.9	-15.2	-7.2	✓	4
Risk of harm from using Rx pain relievers not prescribed perceived to be no risk or slight risk ⁵	23.4	-1.9	-0.5	✓	4

¹Percent difference between 2014 and 2016 prevalence rates; cells showing decreases are shaded with green

²Percent difference between 2014 and 2016 prevalence rates

³Checked if a greater decrease (or less of an increase) was observed for PFS compared to non-funded areas. None of the differences were statistically significant.

⁴Current use refers to use within the past 30 days. Binge drinking is defined as having 5 or more drinks (if male) or 4 or more drinks (if female) on one occasion within the past 30 days.

⁵Or respondent reported that they did not know the risk.

E. Discussion and Implications

Unique features of Vermont's PFS

The design and execution of Vermont's PFS II grant was groundbreaking in two important ways. First, it shifted the organization and focus of the substance abuse prevention services it funded from the community-specific approach traditionally used in Vermont to a regional approach. Second, more so than previous SAMHSA-funded prevention initiatives in the state, there was a strong and explicit emphasis on the use of environmental strategies.

In past years, substance use prevention funds from the state's SAPT Block Grant and various discretionary grants have been allocated primarily to community-based organizations serving individual communities or small groups of communities, sometimes as defined by Supervisory Union service areas. Although this approach recognized and to at least some degree was able to accommodate the unique needs, preferences, and contexts of individual communities, the funding per community was modest given the large numbers of eligible communities throughout the state. The approach adopted by the PFS II grant recognized that certain efficiencies could be gained by consolidating funding at a higher geographic level, rather than having multiple community-based organizations within the same regions each developing and implementing their own community-specific interventions with very limited resources. The PFS approach was also well suited to the heightened emphasis on environmental strategies, of which at least some may be more efficiently and effectively implemented at a regional level.

Findings from this evaluation suggest that although the transition to a regional structure encountered some challenges in the early stages, it has nevertheless gone reasonably well. It appears to have enhanced coordination and sharing of expertise across organizations within each region and also facilitated more efficient implementation of certain activities that transcend community boundaries (e.g., communications campaigns and media advocacy). Although still to be determined, it would seem that this regional approach will be more stable and sustainable into the future as compared to funding individual communities. This expectation is based on the recognition that structural elements that can help support regional prevention efforts, such as the Health District Offices and Regional Prevention Consultants, will remain in place over time even as grant funding levels fluctuate. Additionally, lead agencies operating at a regional level may be better able to weather temporary reductions and lapses in funding than smaller community-based organizations.

It was also noted by some grantees that the regional approach adopted by Vermont's PFS led to increased services to communities that had limited capacity and participation by community partners that had not previously been engaged in substance use prevention efforts. Even so, it was still the case that many interventions were implemented only in a single community or a subset of communities throughout each grantee's service area. An important continuing challenge in Vermont's regional approach will be that of serving to the extent possible all communities within each funded region in the selected interventions.

Regarding the second distinctive feature of Vermont's PFS II, the requirement that grantees implement certain types of environmental strategies whereas educational strategies were optional, continued a trend away from prevention programs targeted primarily to small groups of individuals. This shift recognizes that such programs are most likely insufficient to influence population-level change in substance use behaviors, especially those that are widely prevalent such as underage drinking. In order to make population-level changes attainable, it is important that educational programs, when implemented, reach sizeable proportions of the target population. Although some PFS grantees elected to implement one or more educational strategies that served small numbers of participants (e.g., parent education programs), there was also movement towards adopting interventions that can more realistically reach larger numbers of the target population, such as Alcohol Edu and eCheckup.

An important goal for primary prevention efforts will be to continue to select and implement educational programs that reach larger numbers of individuals. In this regard, it is somewhat surprising that no grantees opted to use a portion of their PFS funds to support enhanced school-based prevention services, including evidence-based school curricular programs, which can be efficiently implemented at a population level. Of course, it could be that most or all of the schools in their service area were already implementing such programs with funding from other sources. Given that a number of school-based programs have been shown to be effective in reducing and preventing substance use behaviors among adolescents, it seems prudent that such programs continue to be part of a comprehensive substance abuse prevention strategy.

PFS implementation

Implementation issues regarding the transition to a regional prevention system and the increased emphasis on environmental strategies are discussed in the preceding section. Information related to the quality (or fidelity) of implementation for specific interventions was limited largely to the progress ratings provided through CGRS along with narrative reports and other communications from the grantees. Based on this information, grantees were able to implement most of the core activities associated with most of the interventions they conducted, thereby meeting at least one criterion for fidelity of implementation. Other aspects of implementation, however, could not be readily assessed. These include the quality of implementation (i.e., how well core activities were done), the intensity of implementation, and the reach of each intervention. Even though some intensity and reach measures were collected (e.g., numbers of enhanced law enforcement operations conducted; number of participants in a parent education program), there are no well-developed standards for determining what is satisfactory or sufficient, other than more is probably better than less. In that respect, it is possible that all the interventions implemented may have contributed in small ways to the favorable patterns observed in the outcome data. To the extent that the PFS-funded activities were responsible for the outcomes observed, however, the interventions that at least potentially may have reached the entire target population would seem most likely to have made the largest contributions to the overall success of PFS.

PFS outcomes

When interpreting the findings from the outcome evaluation, it is important to keep in mind that that Vermont's PFS II was not conducted as an experiment designed to prove that the PFS funding results in better outcomes for those areas that receive it. More specifically, the funded and non-funded areas may have differed in various ways other than simply whether they received PFS funding that could have affected the outcome measures examined. Although the influence of differences in basic demographic characteristics was controlled, many other

attributes of the regions being compared may have affected the outcome measures. These differences could work to either exaggerate or suppress differences between PFS and non-PFS areas in the outcomes assessed. The evaluation was also not designed to separate out the contributions of individual interventions to any outcomes observed. Rather, they were assessed as a single package consisting of multiple components.

With these important caveats in mind, the overall patterns in the finding are consistent with each other and with the conjecture that activities sponsored by PFS funding contributed to positive changes in the PFS-funded regions of the state. Not only were changes during the PFS implementation in the desired direction for almost all outcome measures examined (both substance use behaviors and associated risk factors), but these desirable changes were generally more pronounced in the PFS funded areas relative to the remainder of the state. Furthermore, for each outcome measure examined, the favorable pattern observed for the PFS regions collectively was also found to apply to most of the six individual grantee areas as well, rather than being concentrated in only one or two grantees. Taken together, the consistency with which these various approaches to summarizing the data point in the same direction is remarkable.

Even though only a few of the differences between PFS and non-funded areas were statistically significant, those that were significant (or approached statistical significance) are particularly noteworthy. For example, the measure that best reflects what is probably the most important and heavily targeted goal of the PFS, underage drinking, is current alcohol use among high school students. For this measure, the greater reduction observed for PFS regions compared to non-funded areas of the state was statistically significant at the $p < .05$ level. In addition, differences in other outcome measures of particular importance, such as current alcohol use among middle school students and current pain reliever use among high school students, were marginally significant ($p < .10$).

The ability of the analysis procedures used to detect differences as statistically significant was likely constrained by the relatively small number of regions assigned to either PFS or non-PFS status. Furthermore, the smaller respondent sample sizes provided by the YAS, relative to those for the YRBS, was likely a limiting factor for finding significant differences for the YAS measures. The more important comparison to be made between the YRBS and YAS findings is the overall similarity in the patterns observed with respect to changes over time in the outcomes and the more favorable levels of change generally occurring in the PFS-funded regions.

Another important feature of the findings reported here is the fact that reductions between baseline and follow-up in substance use behaviors and risk factors were generally experienced in both the PFS areas and the non-funded areas of the state. The declines in the non-funded areas makes it more difficult for the reductions in the PFS areas to stand out, and therefore more difficult to detect statistically significant differences for PFS versus non-funded areas. This does not necessarily detract from or refute the contributions of PFS-funded activities to these welcome trends, as many substance use prevention activities were being implemented in non-PFS areas during the same time that PFS was underway. A reasonable interpretation of the data is that the collective impacts of multiple prevention initiatives across the State of Vermont, including PFS, are at least partly responsible for the positive statewide trends, but the effects of any one initiative cannot be easily distinguished.

Implications and next steps

Based on the findings reported here and the preceding discussion, there is good evidence that all three goals of the PFS as stated on page 1 have been realized. One notable exception is the goal of reducing prescription drug misuse among young adults, for which reductions were observed for prescription pain relievers but not for sedatives and stimulants. Given the high level of attention and focus on prevention of opioid misuse, specifically, both in Vermont and across the nation, this is not a surprising development. But it does suggest carefully monitoring of misuse for these other prescription drug classes and their inclusion in prevention messaging and other prevention strategies aimed at reducing prescription drug misuse.

The findings from the qualitative study on the transition to a regional substance abuse prevention system were generally positive with respect to the capacity-building goal of the PFS. Even so, further development and maintenance of a regional system presents a number of ongoing challenges to ADAP and its grantees. Chief among these are:

- Continued clarification of, and adherence to, roles, responsibilities, and decision making authority of the various stakeholders participating in the regional structures
- Determining the best and most cost effective levels (state, regional, or community) at which to coordinate and implement various prevention strategies
- Extending services to more (or all) communities within each region
- Supporting the continued involvement and contributions of effective community-based organizations within the region, even as coordination of some activities is shifted to the regional or statewide level
- Provision of needed training and technical assistance to lead agencies and community partners (e.g., on community education for policy-based approaches)
- Facilitation of networking and peer learning across grantees and their community partners

Additional recommendations for regional capacity building are provided in the previously identified report from the year 3 qualitative study.

Two additional challenges of continued importance specifically for grantees are also recognized:

- When educational strategies are selected, those strategies should reach relatively large numbers of eligible residents (including evidence-based curricular programs in schools if not already in place), and grantees should consider the cost benefit of any such interventions that will likely involve only small groups of participants
- Continue to develop and pursue strategies to provide education on a range of local, regional, and state-level policy options for reducing underage drinking and prescription drug misuse

The continued funding of the majority of PFS II grantees through Vermont's PFS 2015 grant (known in Vermont as Regional Prevention Partnerships, or RPP) provides these grantees the opportunity to continue their efforts and further refine them as needed. Funding for these grantees is currently planned to extend through June of 2018. The extension also adds another substance use prevention goal to their efforts: the reduction of marijuana use by persons aged 12 through 25. From an evaluation perspective, the extension of the funding provides the opportunity to track regional capacity building and intervention implementation over an additional two years and also examine another round of outcome data (i.e., 2017 YRBS data

and 2018 YAS data). Although RPP grant will provide funding to additional regions throughout the state, these new grantees will likely not begin implementing interventions until sometime during 2017. If so, the 2017 YRBS will provide another year of follow-up data that will allow for a longer term comparison between PFS-funded and non-funded areas.

Appendix

Table A1. Interventions implemented by each PFS grantee

Intervention/Activity		Grantee					
		1 (Chittenden)	2 (Lamoille)	3 (Rutland)	4 (Washington)	5 (Windham)	6 (Windsor)
Education on Policy Approaches to Reduce Underage Drinking (required to work on at least one type of policy)	Restricting Alcohol Outlet Density	✓					✓+
	Restrictions on Alcohol in Public Places and/or at Community Events	✓	✓+		✓	✓	✓
	Enhancements to Social Host Liability			✓			
	Enhancements to Open Container Regulations			✓+			
Enhanced law enforcement Saturation/Party Patrols		✓	✓	✓	✓	✓	✓
Community mobilization		✓	✓	✓	✓	✓	✓
Media advocacy		✓	✓	✓	✓	✓	✓
Education and outreach to community on proper storage and safe disposal of unused prescription drugs		✓	✓	✓	✓	✓	✓
Outreach to pharmacists and prescribers on providing education to patients on prescription drug misuse, safe storage and disposal		✓	✓	✓	✓	✓	✓
Support DLC's Responsible Beverage Service Training		✓	✓	✓	✓	✓	✓
Retailer Recognition for Passing Compliance Checks		✓	✓	✓	✓	✓	✓
Alcohol Edu			✓				
eCheckup			✓		✓		
Guiding Good Choices		✓			✓	✓	
Nurturing Parenting Program			✓			✓	
Active Parenting for Teens						✓	
Parenting Wisely						✓	
Sticker Shock		✓		✓		✓	✓

Note: a plus sign (+) next to the checkmark for policy approaches indicates that a policy was enacted.