PRIME For Life®

2006 Youth Program Evaluation Report

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Executive Summary

This report details changes in key beliefs, risk perceptions, and motivation to reduce use that occurred among youth in Iowa who attended PRIME For Life between January and June, 2006. Their future drinking and drug use intentions following the PRIME For Life program are also examined. Results are based on 612 participants who completed pre- and post-test surveys.

Approximately 72% of program participants were male and 92% were Caucasian. Average age was 18.7 years. Seventy-four percent reported completion of high school or earning a GED. Thirty-three percent reported they did not make any high-risk alcohol or drug choices in the thirty days prior to PFL. Forty-nine percent reported experiencing three or more indicators of possible alcohol dependence. Fifty-seven percent of the respondents reported that a parent, grandparent or sibling has or has had serious problems with alcohol. Twenty-four percent had one or more arrests for impaired driving.

At post-test, participants reported somewhat higher past high-risk choices than they were at pre-test. For example, on the post-test the mean most drinks in a day during the 30 days prior to PFL was 9.8 drinks, and for the same time period reported at pre-test the average was 8.7 drinks. Similarly, at post-test 26% of the sample described themselves as ever having an alcohol or drug problem, while 18% indicated this at pre-test.

After the program, 23% indicated they are in Phase 1 (consistently making low-risk choices), 40% classified themselves in Phase 2 (making high-risk choices, but not yet psychologically dependent), 27% reported being in Phase 3 (psychologically dependent), and 6% indicated being in Phase 4 (physically dependent).

Changes in Attitudes, Beliefs, Perceptions of Risk, and Motivation to Reduce Use

High-risk drinking and drug use choices are supported by common attitudes, beliefs, and risk perceptions on several dimensions, as well as low motivation to reduce use. After attending PRIME For Life, participants who were 17 years old and younger and those 18-20 years old each indicated significantly greater:

- agreement with attitudes and beliefs that are supportive of making low-risk choices;
- perception of risk associated with high-risk drinking and drug choices;
- perception of personal risk for developing alcoholism;
- motivation to reduce their use.

The beliefs "If I drink as much as in the past, I could develop alcoholism," and "If I use drugs as much as in the past, I could become addicted," changed significantly more for participants who designated having three or more symptoms of possible dependence than for those who with no symptoms.

Behavioral Intentions and Detailed Plans

Participants were asked on the post-test about the drinking and marijuana or other drug choices they think they would make in the 30 days after the program. Forty-two percent of those who had been making high-risk drinking choices indicated they intend to make low-risk drinking choices in the 30 days following the program—15% intend to abstain and 27% to drink within the low-risk range. Thirty-four percent of those who used marijuana or other drugs in the 30 days before the program indicated intentions to not use in the following month. Nearly 70% of participants also indicated that they had made detailed plans to avoid high-risk drinking and drug use and to substitute other activities.

Course Evaluation and Summary

At the end of the course, most participants agreed that PRIME For Life helped them to decide to abstain, or drink and/or use drugs less, helped them feel confident in being able to abstain, or drink less or use drugs less, and helped them to develop skills to be able to abstain, or drink less or use drugs less. These findings are consistent with the participants' reported intentions to make less risky choices in the future.

Background and Objectives

PRIME For Life (PFL) is used statewide for substance abuse education for impaired drivers in Iowa. The program was developed by Prevention Research Institute (PRI), a non-profit organization based in Lexington, Kentucky. The data in this report highlights participants under age 21 who received PFL between January and June 2006. Most of the participants had been convicted of impaired driving. This report:

- **describes the characteristics of the youth,**
- **assesses change in key perceptions and beliefs about substance use,**
- **examines the level of motivation and intentions of the group with regard to future drinking and drug use behavior.**

Method

The PFL program was delivered by instructors trained by PRI. At the beginning of the program, participants completed a survey (the pre-test) that included demographic information, alcohol consumption, level of motivation to change their choices, beliefs about alcohol and substance use, and perceptions of risk related to marijuana and alcohol use. At the conclusion of the program, a post-test was administered that included alcohol-related beliefs and perceptions of risk, which comprise the primary focus of the PFL program, as well as behavioral intentions.

All completed pre- and post-tests were sent to REACH of Louisville. PRI received the scanned and compiled data from REACH and authored this report in collaboration with REACH.

In the six-month period included in this analysis, 696 participants provided usable data on the pre-test; 612 of these participants completed the post-test survey with usable information.

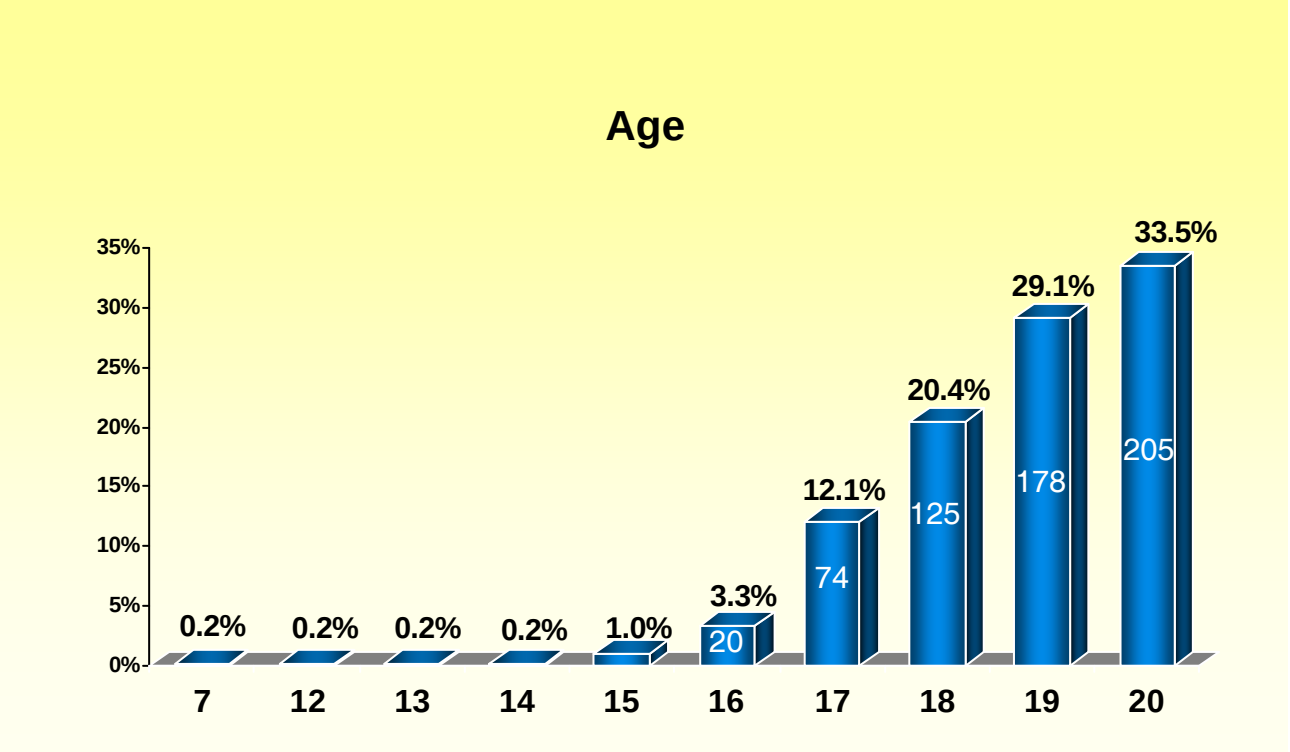
Seventy percent indicated they have had one arrest for impaired driving, 9% percent indicated having had two or more such arrest, and 10% percent reported no arrests. Twelve percent did not answer this question.

Key Points and Levels of Significance

The analyses are summarized and elaborated upon in "Key Points" within each section. These points typically direct attention to outcomes that are of interest because there is a noteworthy relationship between a variable and a descriptor (such as gender or offender status).

Discussion of the analyses will occasionally refer to an outcome as "statistically significant." Unless noted otherwise, this refers to the results of a paired samples t-test where comparison of pre and post measures for each individual with complete data is employed (using the .05 level of significance as the standard).

Group Demographics

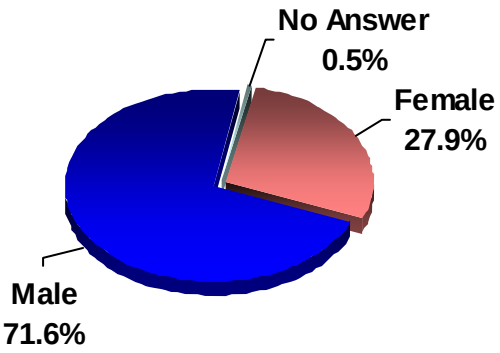


Key Points

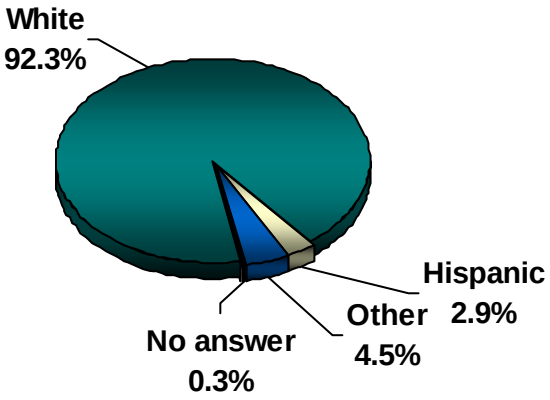
As can be seen in the above chart, the age of most participants was between 17 and 20 years. The average age of participants was 18.7 and the median age (the point that splits the distribution in half) was 19. The most common (modal) age was 20.

Group Demographics

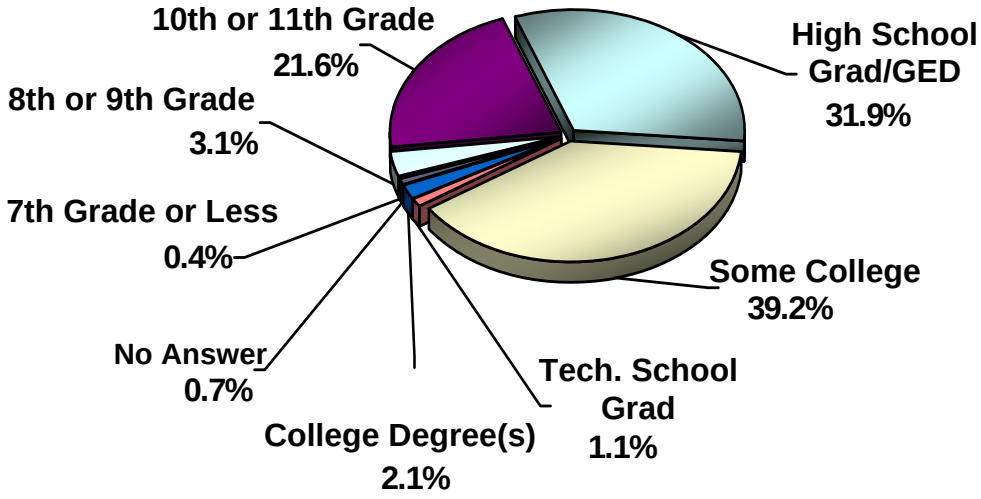
Gender



Race/Ethnicity



Education



Key Points

Over 92% of the participants were Caucasian and 72% were male. Seventy-four percent of the youth indicated they had at least completed high school or earned a GED.

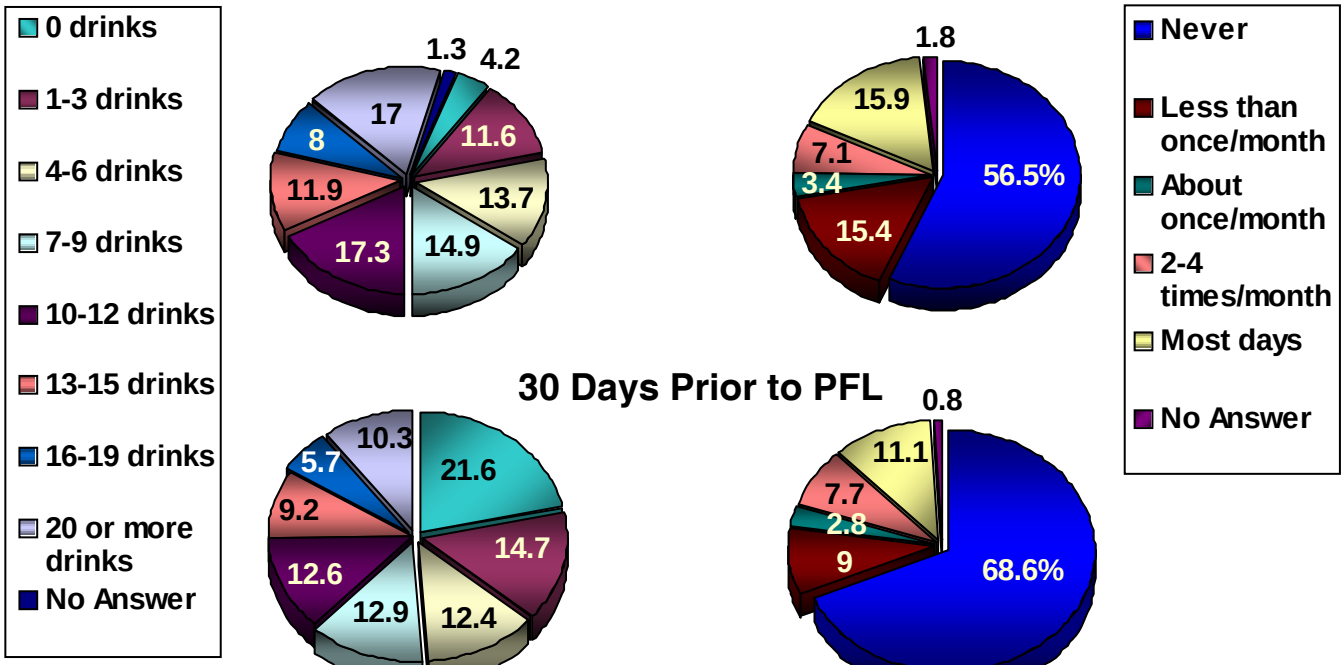
Alcohol and Drug Choices Prior to PRIME For Life

At pre- and post-test, participants were asked to indicate their choices prior to receiving PFL. Below are specifics for past 12 months as reported at pre-test and the 30 days prior to receiving PFL as reported on the post-test:

Drinking Choices

Marijuana and Drug Choices

12 Months Prior to PFL



30 Days Prior to PFL

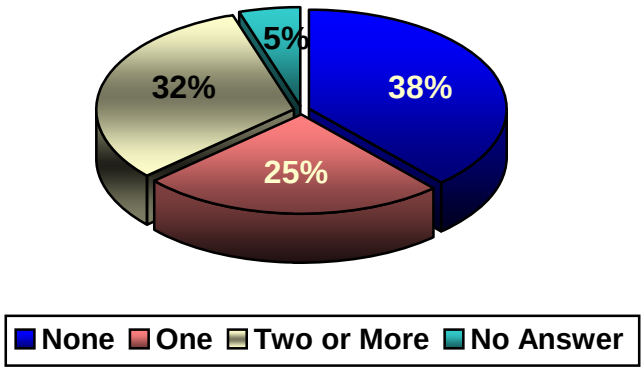
Key Points

At pre-test, 16% of the sample reported making low-risk drinking choices within the 12 months prior to PFL. At post-test, 36% reported making low-risk choices in the 30 days prior to PFL. About 56% indicated they abstained from marijuana and other drugs within the 12 months prior to PFL; 69% indicated they did not smoke marijuana or use drugs during the 30 days prior to PFL. In total, 33% reported they did not make any high-risk alcohol or drug choices in the 30 days prior to PFL.

Family History and Self-Reported Alcoholism or Addiction

Because research indicates that heredity plays a role in the development of alcohol problems, participants were asked on the post-test whether or not they believed that a biological parent, grandparent, or sibling has or has had a serious drinking problem or alcoholism. They were also asked if they personally have alcoholism or drug addiction.

Close Relatives Ever Have a Serious Drinking Problem



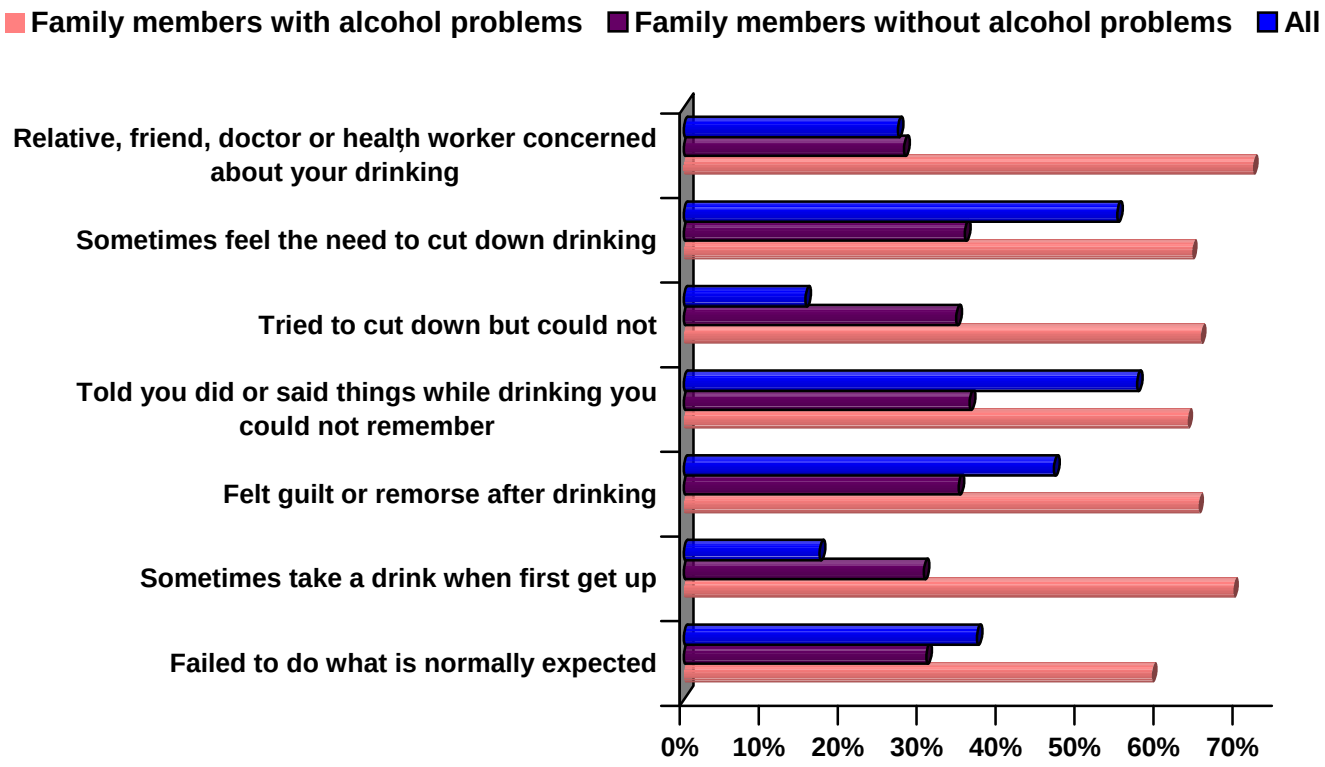
Key Points

Fifty-seven percent of participants reported having at least one sibling, parent, or grandparent who ever had a serious drinking problem or alcoholism (25% reported one and 32% two or more); 38% reported having none; and 5% did not answer this question. Sixty-seven percent of those reporting three or more indicators of potential alcohol dependence reported some family history of serious drinking problems, compared to 51% of those with no indicators.

At post-test, 11% reported having alcoholism or drug addiction, 73% reported not having alcoholism or drug addiction and 9% indicated they were unsure. Seven percent did not answer this question. At pre-test, 83% said they did not have alcoholism or addiction, 7% said they did, 9% were unsure and 1% did not answer. This suggests that more participants were considering the possibility they might have alcoholism or addiction after PFL than they did before the program.

Indicators of Possible Alcohol Dependence

At post-test, participants were asked to indicate if they had seven drinking-related experiences during the previous 12 months. Having one or more of these experiences may indicate a potential for having or developing alcohol dependence.



Key Points

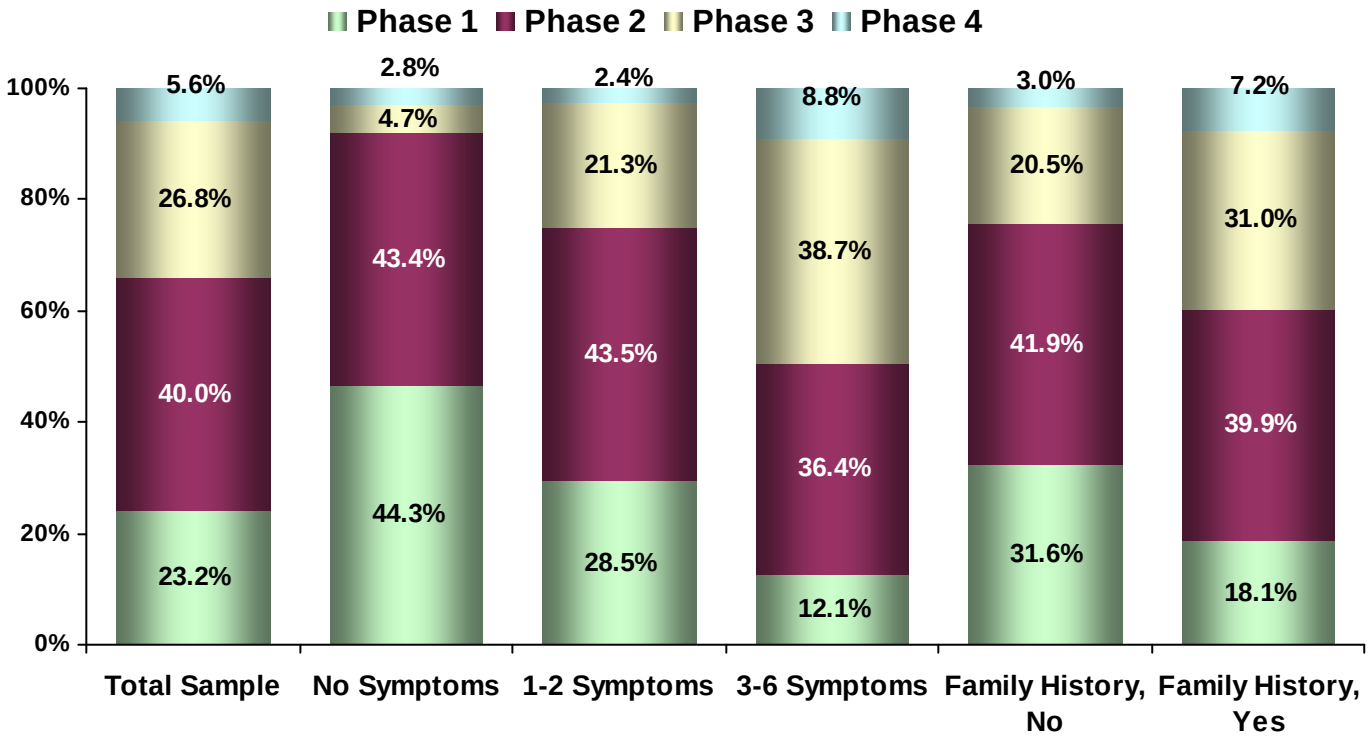
Eighty-two percent experienced at least one of these indicators of potential dependence, 63% at least two of these experiences, 49% three or more, 32% four or more, 18% five or more, 9% six or more, and 3% all seven. The two most common experiences were “told you did or said things while drinking you could not remember” and “sometimes feeling a need to cut down on your drinking” (57% and 55%, respectively). The mean number of symptoms was 2.57. Participants who indicated they are in Phase 3 or Phase 4 averaged significant more symptoms than those reported being in Phase 1 or Phase 2 (3.41 and 4.34 versus 1.58 and 2.3).

As the graph indicates, youth with close blood relatives who have ever had a serious drinking problem were much more likely to report each of these symptoms. In addition, significantly more participants with a family history of serious alcohol problems reported having three or more symptoms, compared to those without such a family history (54% vs. 40%, respectively). Similar differences were found by age group (17 and younger: 41%, versus 18-20 years old: 50%).

While the average number of symptoms by age group did not quite reach statistical significance, those 18-20 years old were significantly more likely to say they had a drink in the morning, felt guilt or remorse, felt a need to cut down and had failed at attempts to cut down.

Self-Assessed Phase: Post-Test

Four phases in the progression of drinking and drug use choices are taught in PFL. The four phases consist of low-risk choices in Phase 1, high-risk choices in Phase 2, psychological dependency in Phase 3, to physical addiction in Phase 4. On the post-test, participants were asked to indicate the Phase they believed applies to them.



Key Points

Twenty-three percent of participants classified themselves as being in Phase 1, 40% as being in Phase 2, 27% as being in Phase 3, and 6% as being in Phase 4.

As expected, the more symptoms of possible dependency reported, the greater the likelihood participants classified themselves as being in Phase 2, 3, or 4. Compared to those with no reported symptoms, six times as many of those who reported 3-6 symptoms classified themselves as being in Phase 3 or 4 (8% and 48%, respectively).

Youth with relatives who have ever had a serious drinking problem or alcoholism were significantly more likely to report being in Phase 3 or Phase 4 and significantly less likely to indicate being in Phase 1, compared to those with a family history of a drinking problem.

Youth ages 17 and younger were more likely to have reported being in Phase 1, and participants 18-20 years were more likely to have indicated being in Phase 4 (34% versus 21% and 6% versus 2%, respectively). The older youth were also more likely than those younger to have reported being in Phase 3 (28% versus 20%, respectively)

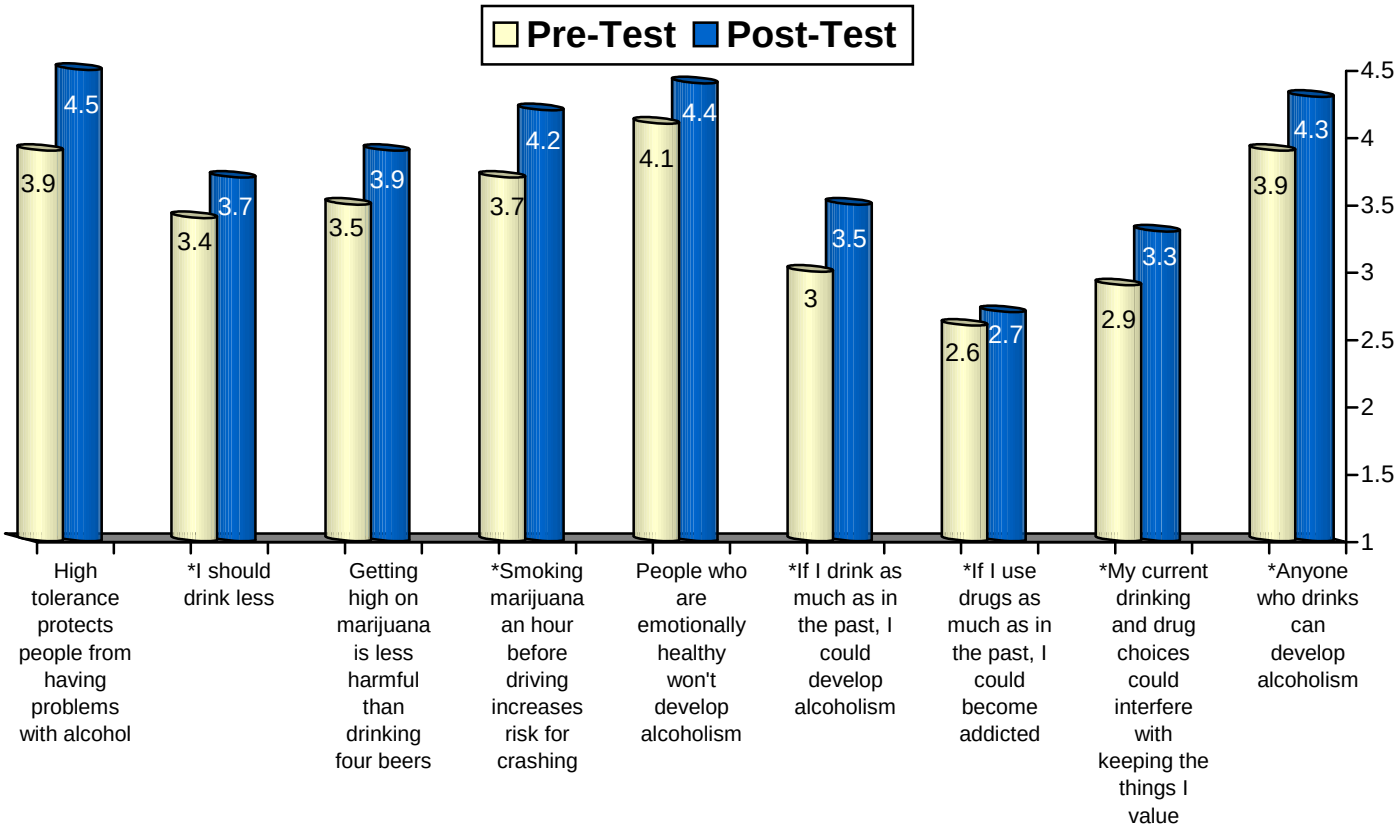
Immediate Impact of PRIME For Life: Post-Test

By providing participants with information on risk factors associated with alcohol use, PFL is designed to guide individuals toward making low-risk drinking decisions and adopting more accurate, i.e., less risky, beliefs that will support those decisions. The post-test examines the immediate impact of and reactions to the program in the following areas:

- beliefs about drinking and marijuana use
- perceptions of risk associated with specific drinking and marijuana decisions
- accuracy of self-reporting
- perceptions of personal risk for developing alcoholism
- motivation to change
- behavioral intentions
- detailed planning for change
- reactions to the course

Attitudes and Beliefs: Comparisons Pre- to Post-Test

The pre- and post-tests contained the same set of nine attitudes and beliefs concerning drinking or marijuana use. In each survey, participants were asked to indicate their degree of agreement or disagreement, using a five-point scale, with (1) being strongly agree and (5) being strongly disagree. The six starred items (*) are reverse scored so that a higher score indicates the desired response.



Key Points

The above graphic portrays the extent to which participants in PFL evidenced meaningful gains in beliefs and attitudes about alcohol and drug use from the beginning to the end of the program. The nine items above are derived from the curriculum and indicative of key learning that is expected.

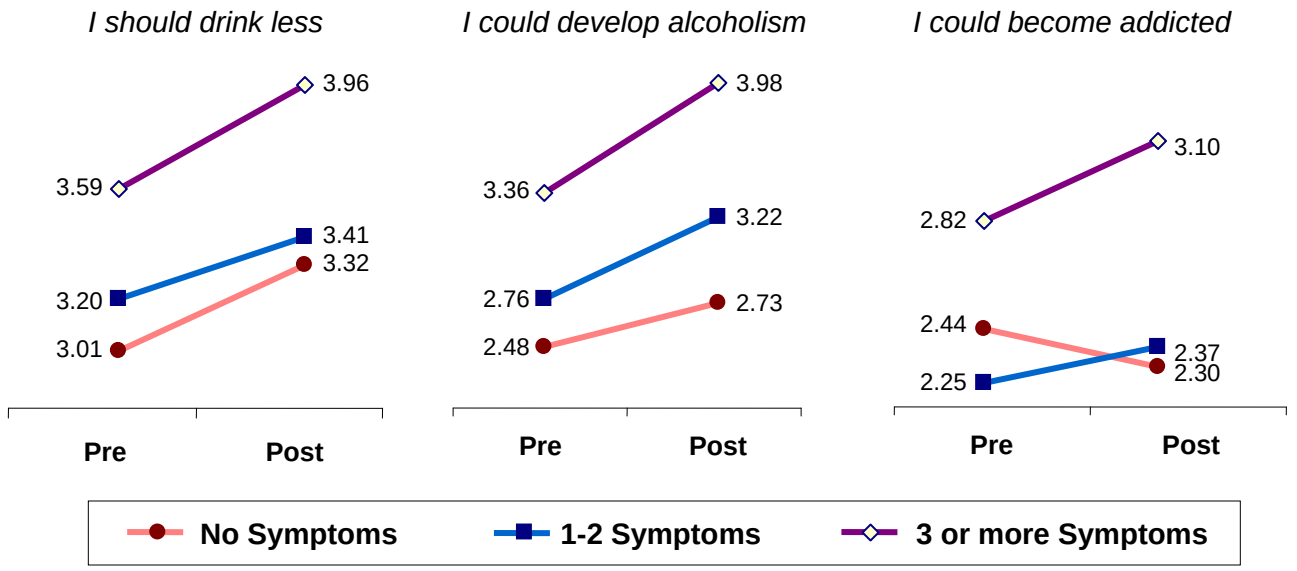
Based on a paired samples t-test, changes from pre- to post-test all nine of the attitudes and beliefs were highly statistically significant in the desired direction for the full sample ($p=0.003$ or better). For youth ages 17 years and younger, all were statistically significant except the attitude about smoking marijuana causing impaired driving—this approached significance ($p=0.09$).

Changes in cognitive attitudes and beliefs are important precursors to behavior change, although in and of themselves, these changed cognitions are insufficient as they must be coupled with changes in risk perception, intention, and behavioral planning (see following sections).

Differences in change on the four beliefs related to their own behavior by other characteristics are described on the next page.

Attitudes and Beliefs, Continued

The graphs below shows pre- and post-test scores on the items, "I should drink less," "If I drink as much as in the past, I could develop alcoholism," and "If I use drugs as much as in the past, I could become addicted" by number of self-reported symptoms of possible dependence. Higher scores indicate the desired responses.



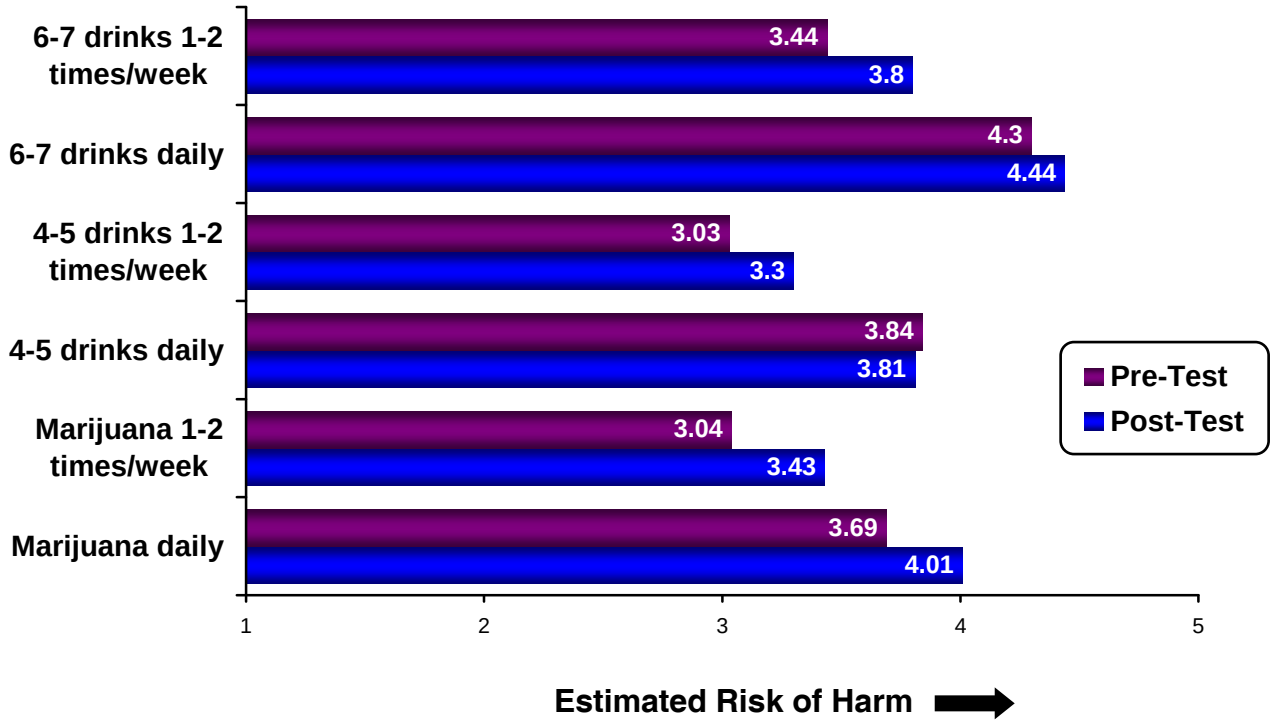
Key Points

For those with three or more self-reported symptoms, increases in agreement to the beliefs "I should drink less," "If I drink as much as in the past, I could develop alcoholism," and "If I use drugs as much as in the past, I could become addicted," from pre- to post-test were highly statistically significant, as was "My current drinking and drug choices could interfere with protecting the things I value," not shown (p=0.000). The increases from pre- to post-test for the beliefs "I should drink less" and "If I drink as much as in the past…" were statistically significant for those with 1-2 symptoms (p=0.008 and 0.000). Increases in agreement to three of the beliefs for those with no symptoms were also statistically significant (p=0.028 or better). The exception was for the belief "If I use drugs as much as in the past…."

As can be seen by examining the slopes of the lines in the above graphs, the increases were greater for those with 3 or more symptoms compared to those with no symptoms. For the beliefs "If I drink as much as in the past …" and "If I use drugs as much as in the past…," these differences were statistically significant (0.005). The increases were also greater for those with 3 or more symptoms compared to those with 1-2 symptoms. For "My current drinking and drug choices…," this difference was statistically significant (p=0.02). These findings suggest that PFL generally impacted these attitudes among people with 3 or more symptoms of possible dependence more positively than those with no symptoms and those with 1-2 symptoms.

Perception of Risk: Comparisons Pre- to Post-Test

On the pre- and pos-tests, participants were asked to rate, on a five-point scale, the degree of their risk if they made specific drinking and drug choices. No risk is indicated by (1) and great risk by (5).

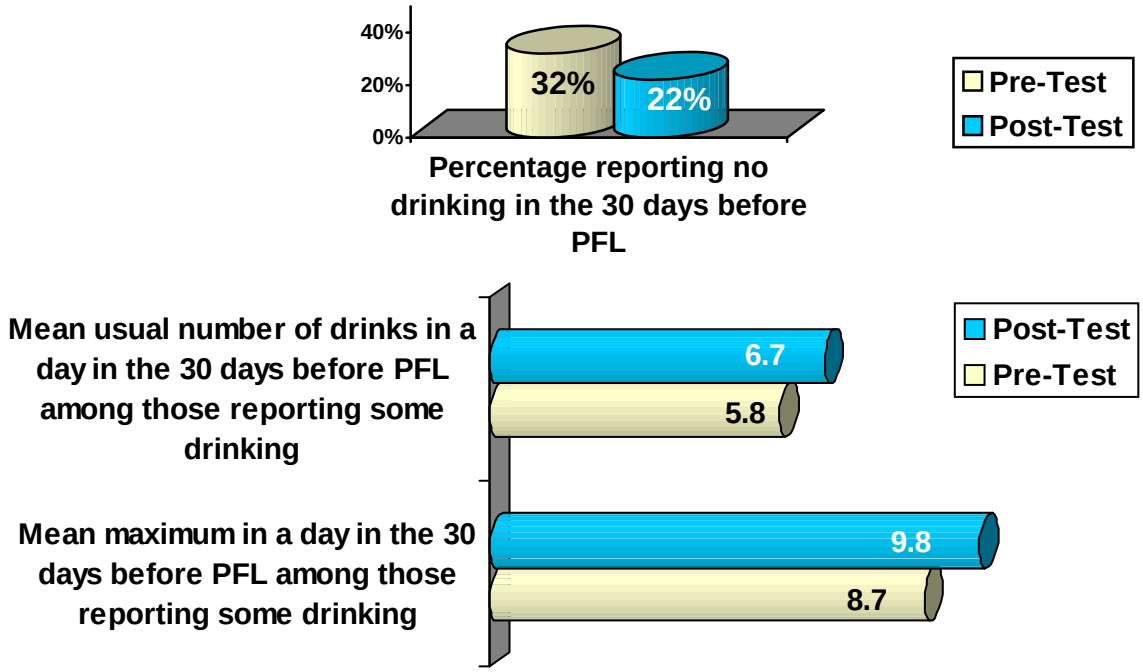


Key Points

The above graphic portrays changes from pre- to post-test in the perception of risk associated with certain behaviors. Consistent with program content, participants rated 1-3 drinks daily and 1-2 times per week (not shown) as less risky on post-test than at pre-test.

With the exception 4-5 drinks daily, comparisons from pre-test to post-test were highly statistically significant. (p=0.002 or better). Results were similar for the two age groups (17 years and younger and 18-20 years old).

Self-Reports: Comparisons Pre- to Post-Test



Key Points

On both the pre- and post-test, participants were asked to report on their alcohol use within the 30 days before PFL. As can be seen, participants evidenced higher *reporting* of past drinking (over this same 30-day time period) at post-test than at pre-test. The greater the prior use designated on the post-test, the greater this difference, with those who reported on the post-test having had 16-19 drinks indicating on the pre-test nearly seven drinks less. [Note: the average number of drinks only includes those who reported some drinking. When those who did not drink are included, the means are lower, but large differences between pre- and post-tests still exist.]

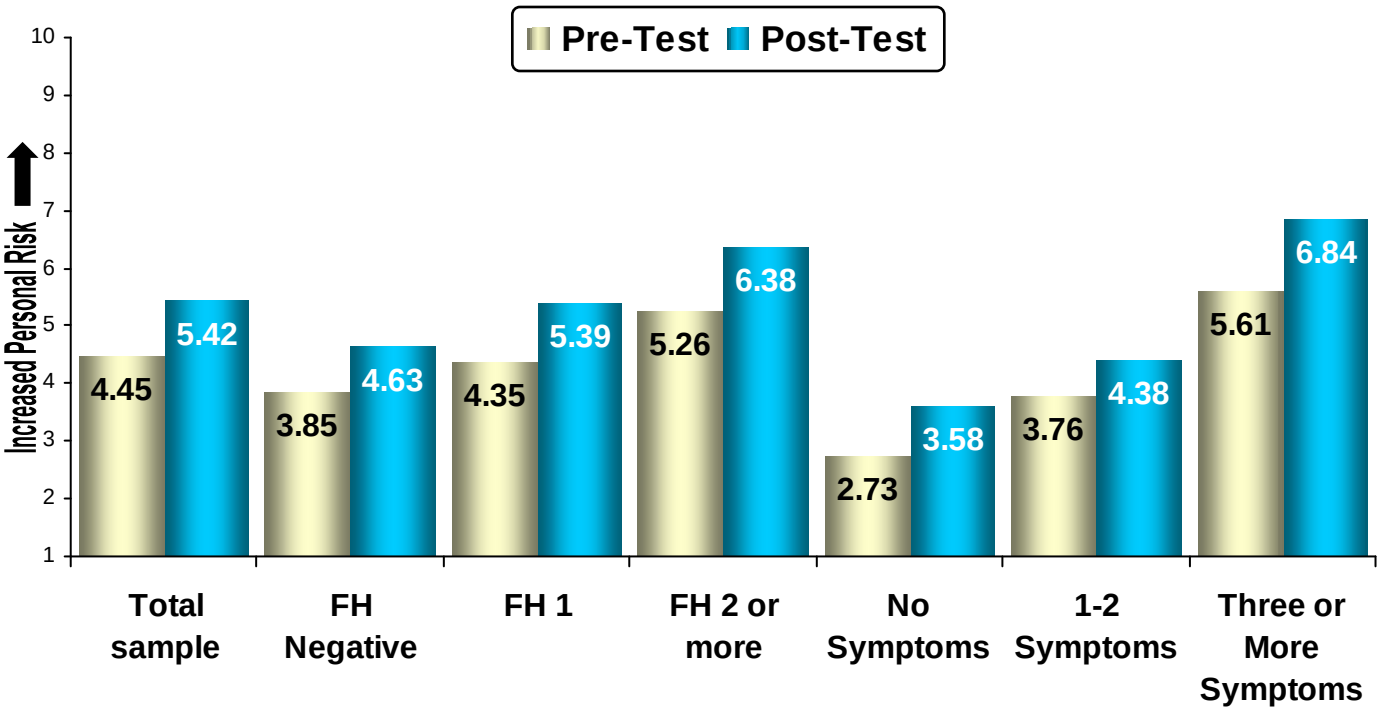
At post-test more participants also reported any marijuana or drug use in the 30 days prior to the program than did at pre-test (31% and 24%, respectively). Also, about 33% more participants reported near daily use on the post-test than on did on the pre-test (11.1% versus 8.5%).

While there are several possible explanations for these findings, two seem the most probable. First, it is likely that people are more comfortable sharing personal information after getting to know their instructor and experiencing PFL. Second, they might also have been more accurate about their number of drinks. That is, while participants were provided with the definition of a drink at pre-test, after learning this definition in the program they might have utilized it more accurately on the post-test. For these reasons, most analyses utilize post-test reports of use 30 days prior to the program instead of such use as reported on the pre-test.

Also, nearly 50% more participants indicated at post-test ever having had a problem with alcohol or drugs than at did pre-test (26% and 18%, respectively). This finding is consistent with the first explanation (above).

Perception of Alcoholism Risk: Comparisons Pre- to Post-Test

Becoming aware of one's own vulnerability for developing alcoholism can be one factor in motivating a person to reduce personal risk by adopting low-risk drinking behaviors. To determine whether or not PFL affected this awareness, participants were asked on both surveys to rate their own risk for developing alcoholism on a 10-point scale.



Key Points

After participation in PFL, the full sample and various subgroups indicate an increased understanding of the personal risks involved in their past drinking.

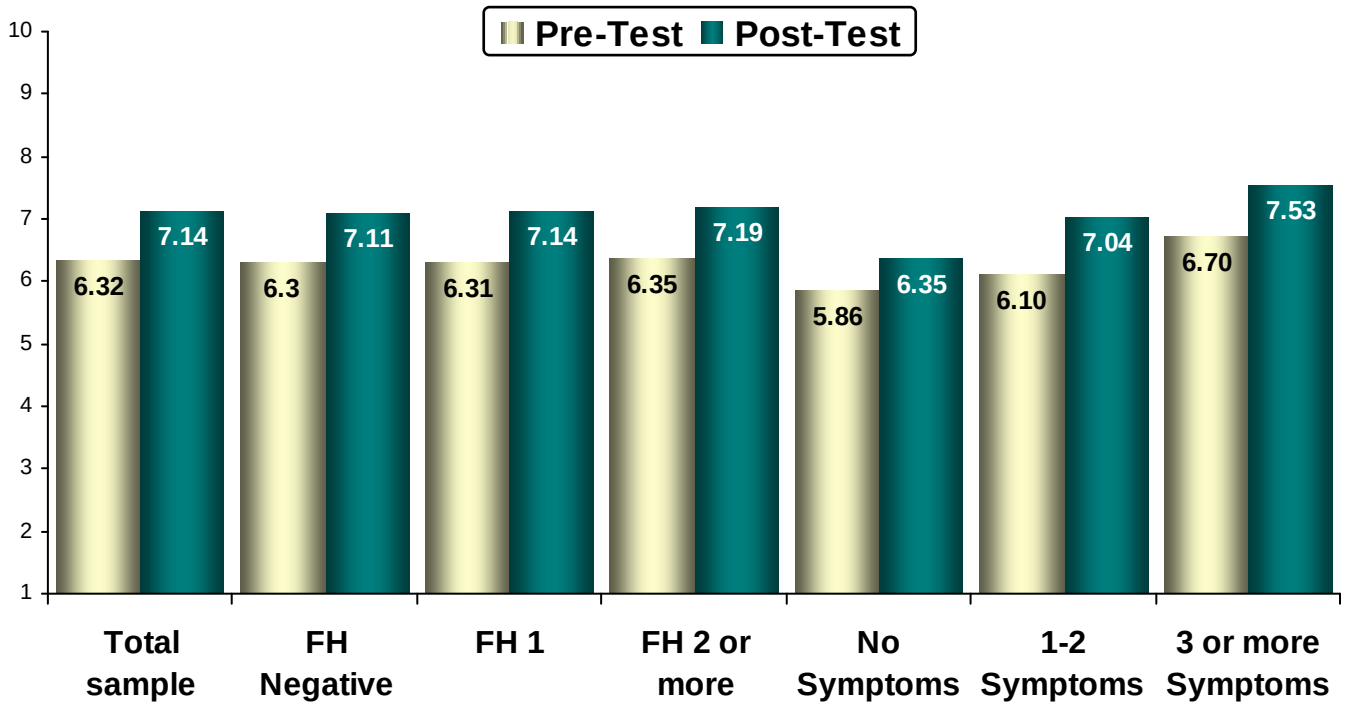
The greater the number of close blood relatives with a serious alcohol problem (FH), the greater the perceived risk for developing alcoholism. Similar changes were found based on the number of reported symptoms of possible dependence, with those who reported three or more symptoms having the highest perception of risk for alcoholism at pre- and post-test. When looking at the most drinks reported in one day in the 30 days before the program, those who reported having had 20 or more drinks had the highest perception of risk and the greatest increase in perception of personal risk for developing alcoholism.

The subgroups portrayed above begin at different points on the pretest, but appear to evidence gains of a similar magnitude over time—with the exception of those with three or more symptoms having a greater increase than other groups. Perception of personal risk for developing alcoholism also increased more for youth ages 18-20 than for those 17 and under.

Research has shown that appreciation of the personal risks associated with high-risk drinking is a crucial component of sustained behavioral change.

Motivation to Change: Comparisons Pre- to Post-Test

Participants were asked on both surveys to rate their level of motivation for reducing their alcohol or drug use on a 10-point scale, with "1" indicating low motivation and "10" indicating high motivation.



Key Points

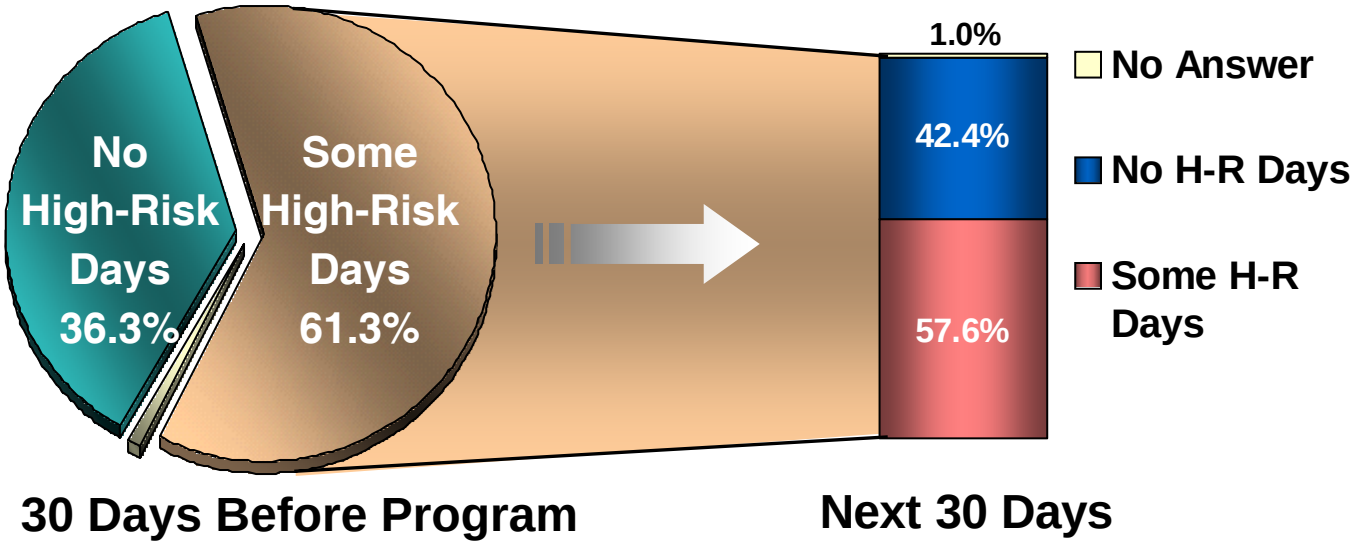
Even at pre-test, motivation to drink or use drugs less was high. The increase in motivation to change from pre- to post-test was highly statistically significant (p=0.000). For the subgroups shown above, increases from pre- to post-test in motivation to change occurred to a similar degree.

As with perception of risk for alcoholism, the increase in motivation to reduce drinking or drug use was greatest for youth who reported drinking a maximum of 20 drinks per day.

Though motivation to reduce drinking and drug use increased more for youth ages 18-20 than for those 17 and under, this difference was not statistically significant.

Behavioral Intentions: Alcohol

On the post-test participants were asked the maximum drinks they had in a day in the 30 days before the program and the most drinks they think they would have in a day in the next 30 days. The chart below shows how the participants who indicated they made high-risk choices in the 30 days before the program answered the question about their intentions in the next 30 days.



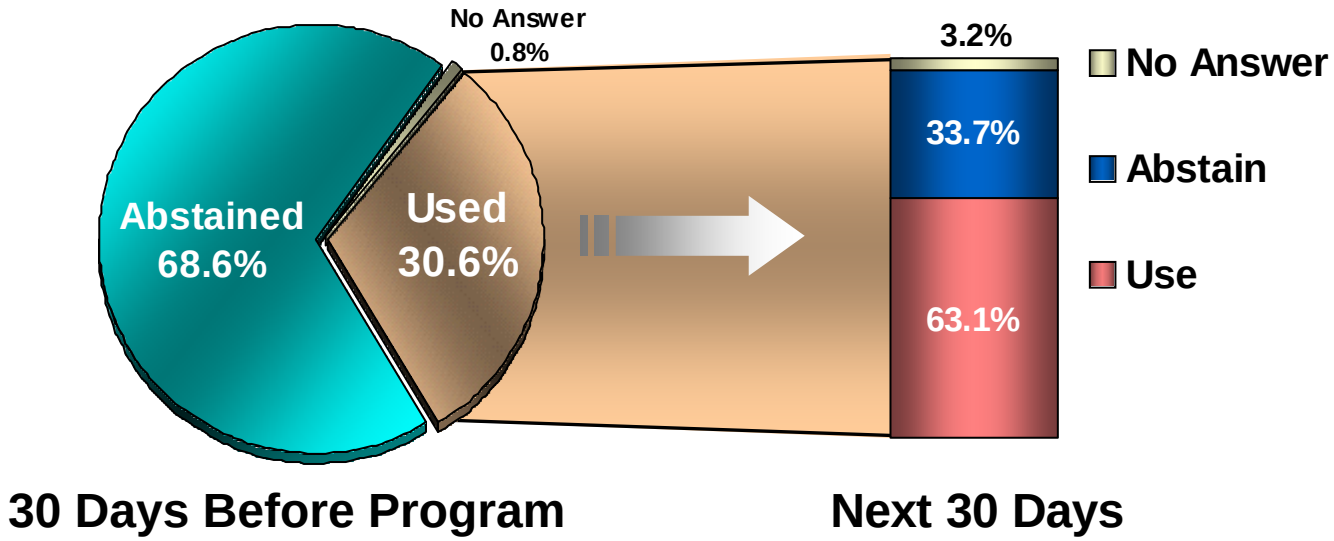
Key Points

Nearly two-thirds of the sample indicated that they made high-risk drinking choices on at least one day in the 30 days before the program. Fifteen percent of the participants who made high-risk drinking choices in the 30 days before the program indicated the intention to abstain in the next 30 days (after the program). Another 27% reported they intend to drink within the low-risk range, thus, in total, 42% expressed intentions to not make any high-risk choices in the next 30 days. A higher percentage of youth ages seventeen years and younger who had been making high-risk drinking choices prior to PFL indicated they would make low-risk drinking choices following PFL than did those who were 18-20 years old (59% versus 39%, respectively).

The average maximum number of drinks for the next 30 days among those who reported the intention to drink was 6.2 drinks, which is about a third less than what was reported for the 30 days prior to the program (9.8 drinks). The average usual number of drinks in the next 30 days among the intended drinkers was 4.5 drinks, as compared to 5.8 drinks prior to PFL.

Behavioral Intentions: Marijuana and Other Drugs

The chart below shows how the participants who indicated they smoked marijuana or used other drugs in the 30-day period before the program answered the question about intentions to make smoke marijuana or use drugs in the next 30 days.

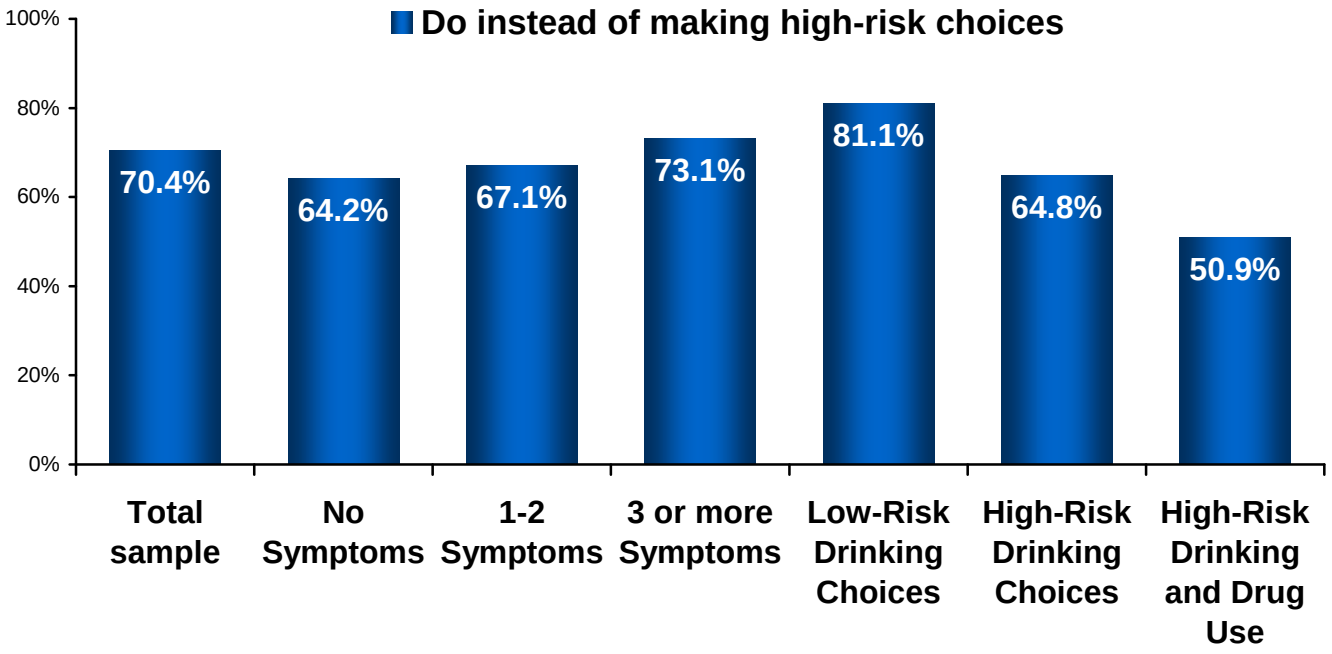


Key Points

Thirty-one percent of the sample indicated that they smoked marijuana or used other drugs on at least one day in the 30 days before the program. Of these, 34% expressed intentions to not smoke marijuana or use other drugs in the next 30 days (after the program). The percentages of those who had been using drugs before PFL who planned abstain from drugs after PFL did not differ between those who were younger than 18 and those who were 18-20 years old.

Detailed Planning

The chart below provides perspective on the extent to which program participants engaged in detailed planning about reducing high-risk use. Two questions that appeared on the post-test asked (1) whether the individual had made detailed plans to avoid high-risk drinking or drug choices, and (2) whether the individual had made detailed plans to establish substitute behaviors to high-risk drinking and drug choices.



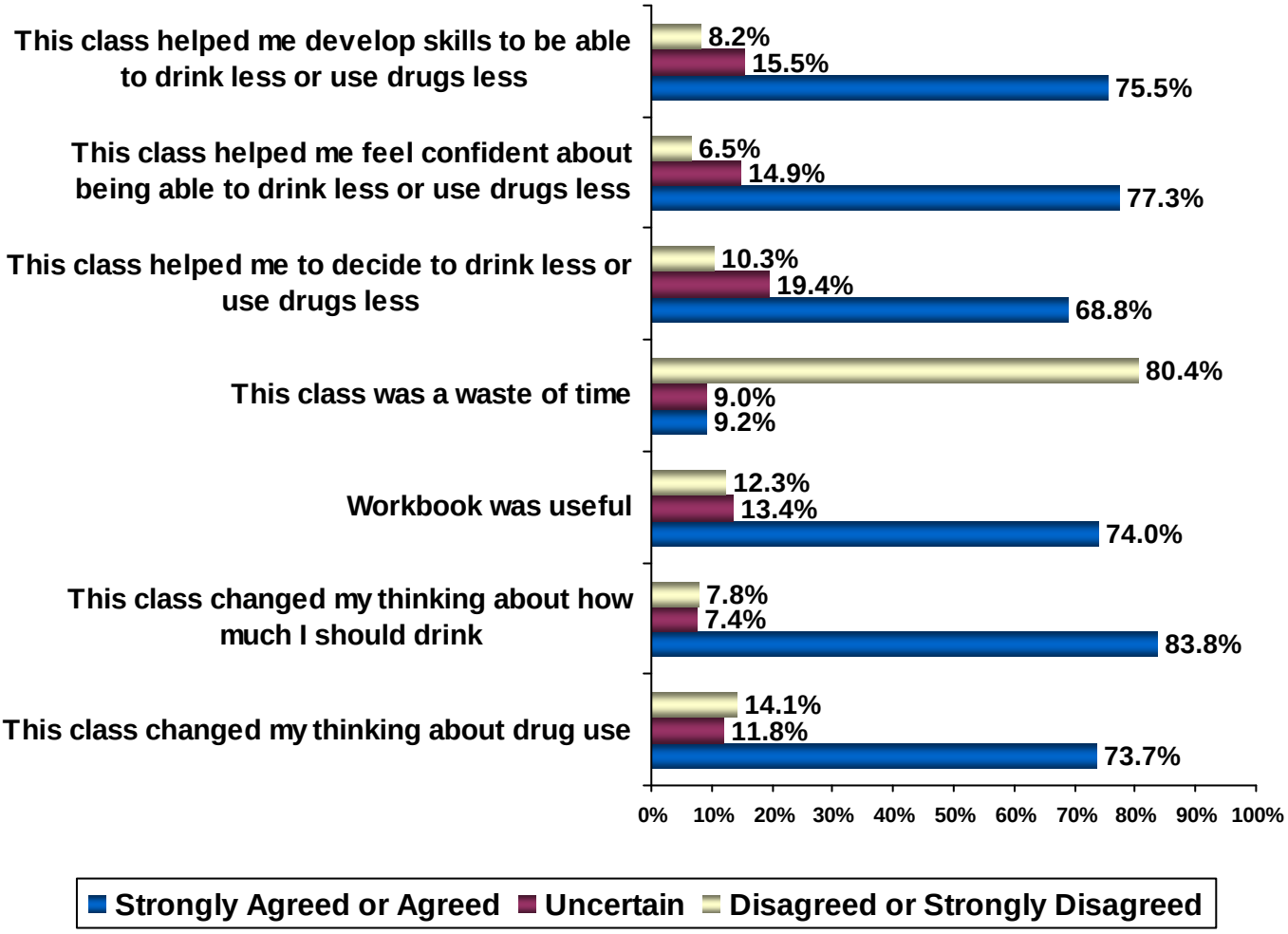
Key Points

The percentages of participants reporting they made plans to do something else instead of making high-risk choices and the percentages indicating the they had made plans to avoid high-risk situations were nearly identical. For simplicity's sake, only the percentages for plans to do something else instead of making high-risk choices are shown above.

Sixty-nine to seventy percent of the participants reported that they had made plans in the areas covered by both of these questions. There were some variations in the findings for some subgroups, particularly by whether the youth had made low-risk or high-risk drinking choices prior to PFL. Those who engaged in high-risk drinking and drug use prior to PFL were the least likely to have made plans. The greater the number of symptoms of potential dependence, the greater the percentage of youth who indicated they made plans. There was virtually no difference by number of blood relatives with a serious alcohol problem or by age group (17 and under versus 18-20).

Responses to the Program

Participants were asked on the post-test to rate seven statements evaluating PFL, using a five-point scale, with (1) being strongly agree and (5) being strongly disagree. Results below show percentages combined for agree and strongly agree, as were those for disagree and strongly disagree.



Key Points

Most participants agreed that PFL influenced their thinking about drinking and drug use, helped them to decide to drink and/or use drugs less, helped them feel confident in being able to drink less or use drugs less, helped them to develop skills to be able to drink less or use drugs less, did not consider the program to be a waste of time, and thought the workbook was useful. There were no meaningful differences by age group (17 and under versus 18-20).

Prevention Research Institute

Prevention Research Institute is a private not-for-profit organization that pioneered the Risk Reduction approach to alcohol and drug problems in 1983. Ray Daugherty and Terry O'Bryan, co-founders of Prevention Research Institute and co-authors of the Risk Reduction series, bring years of experience and strong commitment to their work of reducing the incidence of alcohol- and drug-related problems. Additionally, the professional staff has extensive experience in the prevention, early intervention, and treatment of alcohol and drug problems. The Prevention Research Institute regularly provides workshops in the Lifestyle Risk Reduction programs throughout the country.

PRI's curriculum is primarily used for people convicted of driving under the influence of alcohol, although many populations can benefit from its lifestyle risk reduction message**.** The curriculum does more than simply give information about alcohol and drugs. It has been carefully designed to function as "therapeutic education" for people who make high-risk drinking and drug-using choices. The program does not moralize or dictate, but instead uses its unique content and process in a delivery that avoids the emotional land mines and defense mechanisms so often utilized by participants in impaired driving programs. The program serves people who do not have alcoholism through its prevention message, while still reaching participants with alcoholism with its non-threatening pretreatment content.

Prevention Research Institute's impaired driving curriculum is used statewide in Georgia, Hawaii, Indiana, Iowa, Maine, North Dakota, Rhode Island, South Carolina, and Utah, and is one of two programs mandated in Kentucky. The program is used in a number of communities throughout the country including Nashville, Tennessee.

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