

## **Background and Objectives**

The Kentucky Department for Juvenile Justice (DJJ) provides youth in various settings with *PRIME* for Life (PFL), a program to help people learn to make low-risk alcohol and drug choices. PFL was developed by Prevention Research Institute, Lexington, Kentucky. DJJ offers special versions of the program designed for people under age 21. Most participants received the 20-hour version of PFL, while some received the 12-hour version.

This report reviews performance of PFL among youth recently under DJJ supervision. In particular, the report:

- Describes the demographic characteristics of the DJJ population,
- Examines drinking- and drug-related problems reported by participants,
- Compares key attitudes toward alcohol and drugs, and the risk perceptions held by these youth prior to receiving the PFL with those they held afterward, and
- Reviews future alcohol and drug use intentions reported by the youth at the end of PFL.

#### Method

Ideally, participants complete a survey questionnaire before beginning PFL (the pre-test), and a similar survey after completing PFL (the post-test). Prevention Research received data for 381 youth, however only 216 (56.7%) completed both surveys, and thus are available for analysis of changes in attitudes and perceptions during the course of the program. While some attrition is routinely expected in these evaluations, these figures pose some challenges to the evaluation.

Since over 85% of participants completed the pre-test survey, a preliminary analysis was conducted of these youth, comparing all pre-test responses of those who also completed the post-test with those who did not. Across the 68 data points, there were statistically significant differences on only seven items; further, only two of these seven occur on items that also appear on the post-test to measure possible change engendered by the PFL experience. Since the differences at pre-test between those who later completed post-tests and those who did not were relatively minor, analyses that involve questionnaire items that only appear on the pre-test will utilize responses from the 333 participants who completed the pre-test, whether or not they also completed the post-test. (Discussion will make note in those cases where there was a difference between these two groups.) Use of this larger number of cases will lend greater stability to the results.

In contrast, those aspects of the analysis which seek to evaluate the impact of the program—such as changes in attitudes and risk perceptions—must necessarily be limited to the 216 respondents for whom both surveys are available.

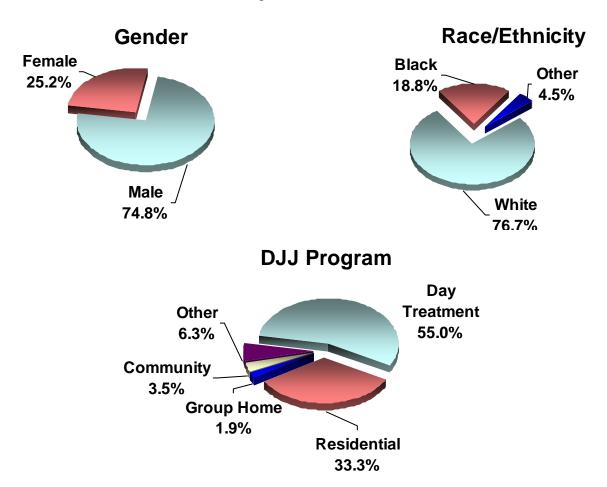
### **About This Report**

In the interest of succinctness and clarity, the analyses are summarized in "key points." These points direct attention to outcomes that are of interest either because a variable exhibits unusual magnitude, or because there is a noteworthy relationship between the variable and a descriptor; "noteworthy" usually means a statistically significant difference, but might occasionally identify the absence of a difference one might otherwise expect to find.

With sample sizes as small as in the present analyses, statistical sensitivity to differences is severely limited. However, discussions may refer to an outcome as "significant" or "statistically significant." Usually, this refers to the results of a t-test (for a comparison of two groups) or an F-ratio (for three or more groups). Superscripts in the text will indicate the probability level associated with such events:

### **PRE-TEST: Group Demography**

The pre-test questionnaire collected data on the participants' age, gender, race, highest grade completed, DJJ program, educational status and parental status. In addition, they were asked to describe themselves as drinkers and drug user.



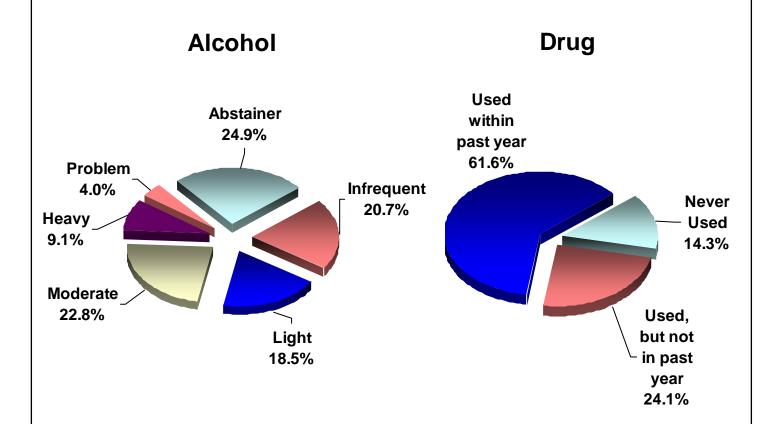
#### **Key Points**

The participants were mostly male and white. The average age was 15.7 years, with those without post-tests being slightly (but not significantly) younger (15.4 vs. 16.2). Females were significantly more prevalent among those who did not provide post-tests than among those who did (32.7% vs. 21.5%).

The average highest grade achieved in school was 9.2. Some 11.4% indicated they had dropped out of school, and 10.4% described themselves as parents. Those who said they were parents were significantly older than non-parent youth (19.7 years vs. 15.6) and reported higher grade achievement (11 vs. 8.9).

More than half the youth receiving the PFL program were in Day Treatment programs, with one-third in Residential Programs.

## PRE-TEST: Self-Described Alcohol & Drug Use Behavior



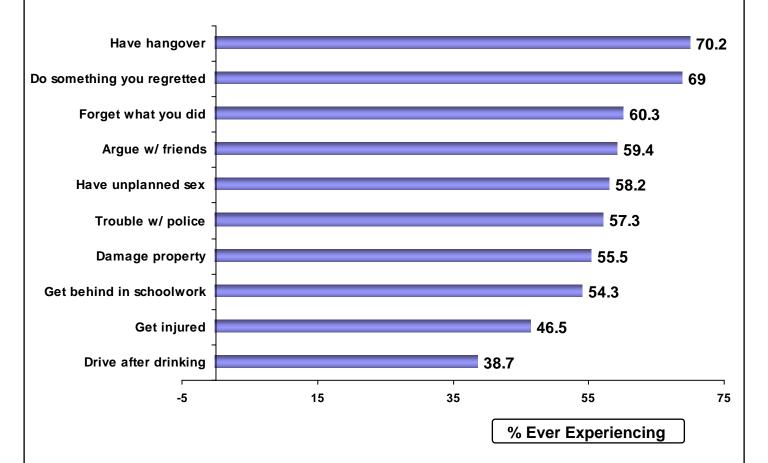
#### **Key Points**

More than three-fifths of the youth indicated they had used drugs within the previous 12 months. Males were slightly (but not significantly) more likely than females to say they had never used drugs (15.3% vs. 10.1%).

Nearly one-fourth reported that they did not drink alcohol; these tended to be younger participants (average age 15.2 years). Females were significantly more likely than males to characterize themselves as Light drinkers (27.5% vs. 15.0%), and less likely to say they were Heavy drinkers (6.3% vs. 10.7%). Similarly, those who did not supply post-test data were more inclined to describe themselves as Light drinkers than those who completed the post-test survey (23.5% vs. 15.9%), and were less inclined to describe themselves as Heavy drinkers (5.2% vs. 11.2%); however; these differences were not statistically significant.

## PRE-TEST RESULTS: Problems and Dependency

Two sets of items on the pre-test survey dealt with problems a person might experience with alcohol or drug use. In the first set, participants were asked whether they have *ever* experienced any of ten problems listed. The second set, designed to mirror the DSM-IV diagnostic standards for dependency, asked whether they had experience any of seven problems in the *past two years*.



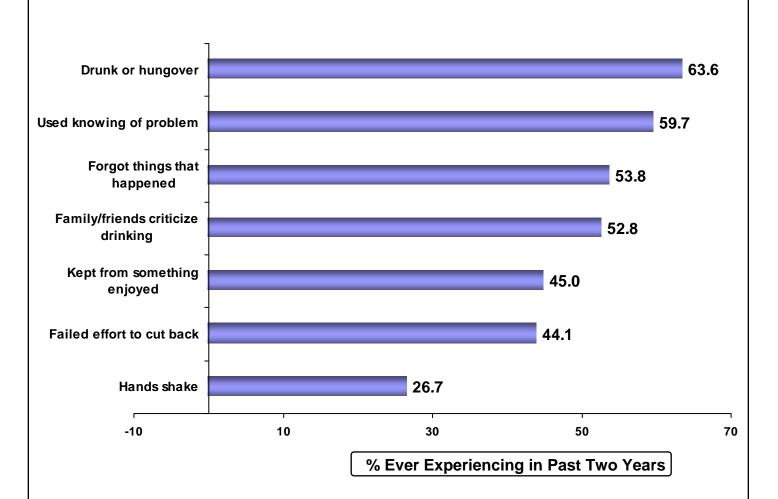
### **Key Points**

Eight of the ten experiences had happened at least once to more than half the youth taking the pretest. Typically, two-thirds of those who reported a problem said they had experienced it more than once.

Those who has dropped out of school were significantly more likely than those who had not to have gotten behind in school work<sup>c</sup>, done something they regretted<sup>b</sup>, damaged property<sup>b</sup>, had unplanned sex<sup>a</sup> and been in trouble with police<sup>a</sup>. Males were more likely than females to report damaging property<sup>c</sup> and getting in trouble with police<sup>a</sup>. Those who said they were parents were more likely than those who weren't to say they had driven after driving<sup>b</sup>. Property damage and trouble with police were less likely<sup>a</sup> to be reported by participants who did not complete post-tests than by those who did.

As expected, most problem experiences were significantly correlated with age.

## PRE-TEST RESULTS: Dependency Indicators



#### **Key Points**

Nearly three-fifths of the youth said they had drunk or used drugs even when they knew it was causing them a problem. More than one-half said they had been unable to remember things that happened while drinking or using drugs, and that family or friends had criticized their use of alcohol or drugs. The least common of the seven dependency indicators—experiencing shaking hands after stopping drinking—was nonetheless reported by more than one-fourth of the youth.

Interestingly, and unlike the problem experiences, none of the dependency indicators appeared to be significantly related to characteristics such as gender or dropout status. However, those who did not provide post-test data were significantly less likely than those who did to report hangovers or forgetfulness.

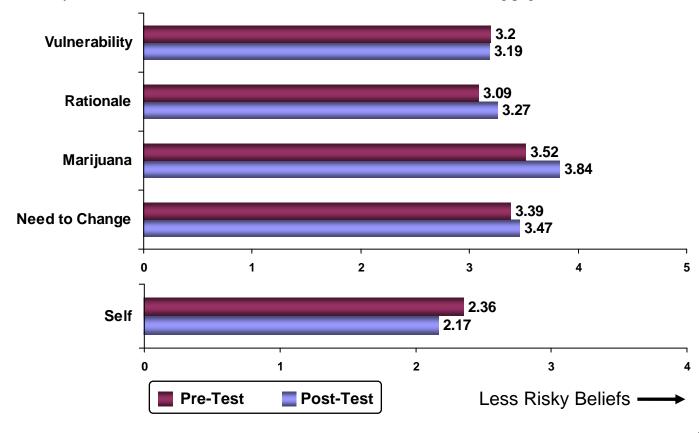
The greater the number of these indicators reported by a person, the more probable is a diagnosis of dependency. While 18% of the youth reported none of these indicators, 17.1% reported one or two of them, and over three-fifths (64.9%) reported three or more of the indicators. The average number of indicators reported was 3.51.

# POST-TEST RESULTS: Changes in Risky Beliefs

To evaluate the impact of the PFL program, the remaining analyses presented in this report are limited to the 216 youth who completed both pre- and post-tests.\* The PFL program encourages the adoption of a variety of beliefs that support low-risk choices. The pre- and post-test questionnaires include a variety of attitude statements that deal with risky beliefs. For clarity of presentation, these have been combined into the following five types of beliefs:

- Vulnerability Beliefs about who can get alcoholism (e.g., "Only people born with alcoholism can get it.")
- Rationale Beliefs about why people drink (e.g., "Most people drink to get drunk.")
- Marijuana Beliefs about the use of this drug (e.g., "It's okay to drive after smoking marijuana.")
- Need to Change Beliefs that reflect a perceived need for change in drinking behaviors (e.g., "I should drink less.")
- Self Beliefs about the self as a drinker (e.g., "I enjoy getting drunk.")

All of these attitudes are measured on a five-point scale of agreement, except the "Self" attitudes, which are measured on a four-point scale. Responses to all attitudes in each type are summed and averaged, with each item scored such that a high value represents a less risky belief. The results are shown below, and discussed on the following page.



# **POST-TEST RESULTS: Changes in Risky Beliefs**

#### **Key Points**

As the chart shows, there was no change in beliefs about people's vulnerability to develop alcoholism, but the participants' beliefs about reasons for drinking and about use of marijuana became significanty<sup>b,c</sup> less risky after completion of the PFL program.

At the personal level, participants were more inclined<sup>c</sup> to recognize their drinking attitudes as risky at the end of the PFL program. In other words, there was less denial among these youth at the post-test than at the pre-test.

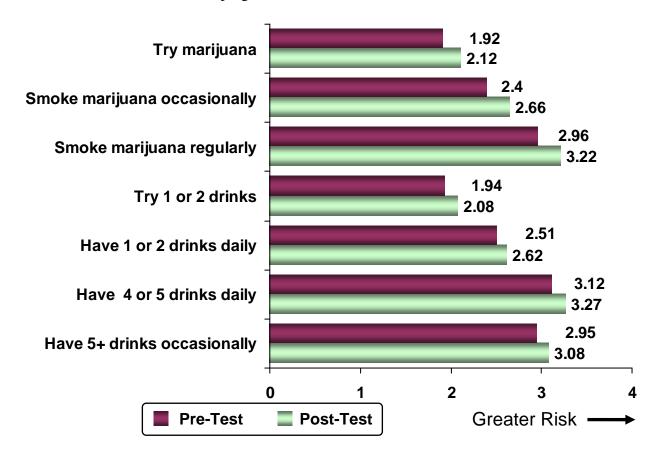
Less denial after participating in PFL is also reflected in a moderate increase in recognition of the need for change in personal behavior. The difference here does not achieve statistical significance, but does indicate trends in the desired direction.

\*Note: Because of the small size of this group, comparisons that might ordinarily be made among subgroups (such as males versus females) will not be attempted since the meaningfulness of statistical analysis of the smaller subgroups is dubious.

# POST-TEST RESULTS: Changes in Risk Perceptions

The PFL program provides participants with guidance in recognizing high-risk behaviors. To evaluate the impact of this information, the pre-test and post-test surveys measure participants' perceptions of risk in three ways. Participants are asked to estimate:

- the degree of risk associated with specific drinking and drug-use choices;
- the number of drinks that would be risky for themselves and others;
- their own risk for developing alcoholism.

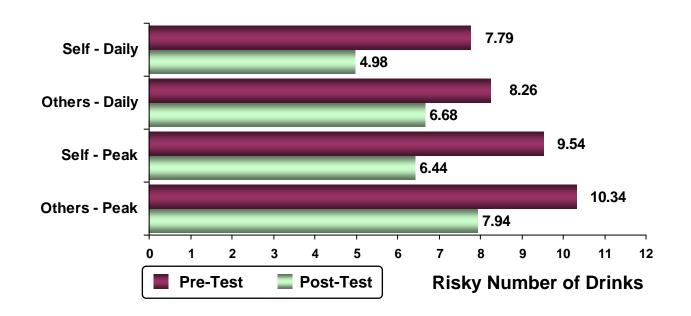


#### **Key Points**

Using a 4-point scale, participants rated all seven of the behaviors (shown in the chart) as greater in risk on the post-test than reported on the pre-test.

The increases in average perceived risk were statistically significant for all three marijuana behaviors<sup>b,c,c</sup>, for trying one or two drinks<sup>a</sup>, and for consuming four or five drinks daily<sup>a</sup>. Increases on the other two behaviors approached significance (at the 0.10 probability level).

# POST-TEST RESULTS: Changes in Risk Perceptions



### **Key Points**

Participants were asked to estimate the number of drinks that would create risk for themselves and for most people, when that consumption level was daily and when it was a one-day peak.

As the chart shows, these estimates declined sharply after the youth had received the PFL program. Both estimates for themselves declined significantly<sup>b,b</sup>, as did the estimate for peak consumption by others<sup>a</sup>. The decline in estimate for daily consumption by others approaches significance.

### **Personal Risk for Developing Alcoholism**

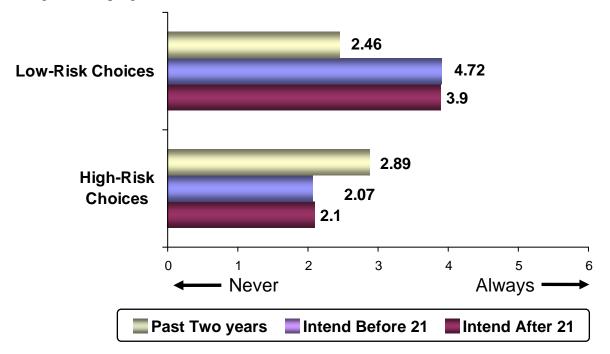
Finally, participants were asked to rate their personal risk for developing alcoholism on a 10-point scale.

At the outset of the program, the average risk rating was 3.85. At the end of the PFL program, the youth recognized a significantly higher risk, with an average of 4.22.

### **POST TEST RESULTS: Behavioral Intentions**

At the conclusion of the PFL program, participants were asked a series of questions about their past drinking and drug use choices, and their intentions for future behaviors.

With regard to drinking, participants were asked to indicate on a 6-point scale how often they made low-risk and high-risk drinking choices in the past two years, how often they intended to make low-risk and high-risk choices in the near future (before they would reach age 21), and how often they intended to make each of these choices when they became adults. A formal definition of low-risk and high-risk choices is taught and personally applied during the PFL program.



### **Key Points**

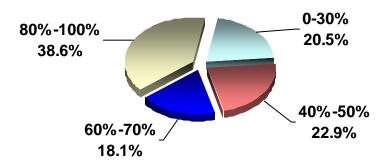
The intention to make high-risk choices significantly declined and the intention to make low-risk choices significantly increased, as compared with reported past behavior. Reaching age 21 only slightly (and non-significantly) moved these intentions in a more risky direction.

Note: Since these data are gathered only on the post-test, it was initially thought to add responses from the 48 youth who provided only post-tests to those who gave both pre- and post-test responses. However, preliminary analyses showed that these 48 tended to be less likely to be drinkers or drug users than the larger group; they also appeared to give some inconsistent responses with regard to drug use. Because of these factors, the analyses reported here continue to be confined to the 216 who gave responses to both surveys.

# **POST TEST RESULTS: Behavioral Intentions**

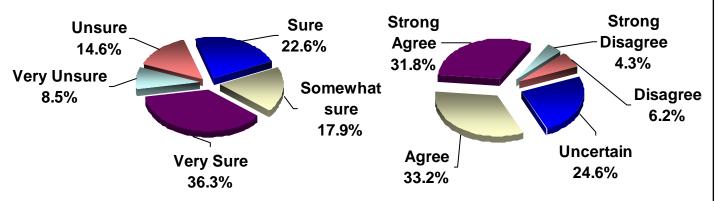
Participants were asked a series of questions to probe the seriousness with which they viewed these behavioral intentions: How committed they felt to following their low-risk guidelines (expressed as a percentage—e.g., 50% committed, 100% committed), how sure they were that they would follow these guidelines, and the degree to which they believed the guidelines would work in the real world.

#### **Percent Commitment**



#### **Sureness to Follow**

#### **Guidelines Will Work**



### **Key Points**

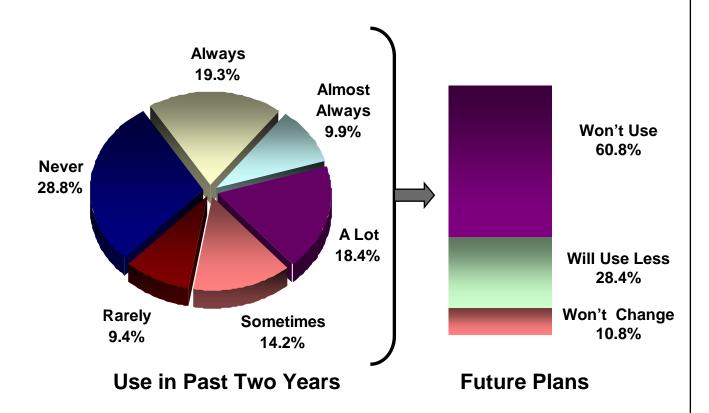
Excluding the 4-6 youth who did not respond to these questions, nearly two-fifths felt at least 80% committed to their guidelines (average: approximately 60%)

Nearly three-fifths were very sure or somewhat sure they would follow their guidelines (average 3.6 on the 5-point scale)

Nearly two-thirds agreed that the guidelines will work in the real world (average 3.8 on the 5-point scale).

# **POST TEST RESULTS: Behavioral Intentions**

With regard to drug use, participants were asked to indicate on a six-point scale how often they had made high-risk drug choices in the past two years. They were then asked about their future drug use plans.



#### **Key Points**

Although over 28% said they had not used drugs in the past two years, nearly 50% reported using drugs "a lot," "almost always," or "always."

Among the 71.2% who reported using drugs in the past two years, more than three-fifths said they planned not to use drugs in the future, after completing the PFL program. Less than 11% indicated they did not plan to change their drug use behavior.

### Commentary

From the descriptive data of the DJJ population, there is clear evidence that prior to receiving the PFL program, many were heavy users of alcohol and/or drugs. It appears likely that a significant proportion would be considered clinically dependent.

Complete data for the analysis of the performance of PFL among the DJJ youth was available for less than 60% of those providing at least one survey, and the resulting small sample size demands fairly large differences for statistical significance. The small sample size also disallowed probing the data for impact at the subgroup level, such as male and female.

Nonetheless, in broad terms, the findings indicate that participation in PFL made positive immediate impact on the DJJ population as a whole:

- Some key beliefs became less risky;
- participants appeared to reduce denial;
- perceptions of risk generally became more realistic (consequently, lowering likelihood of risky behavior); and
- behavioral intentions became less risky (as compared to reported past behavior ).

These results occur with respect to both alcohol and drug use. If participants sustain their behavioral intentions, as reported at the end of the PFL program, many will experience reduced risk for future alcohol- and drug-related problems.

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