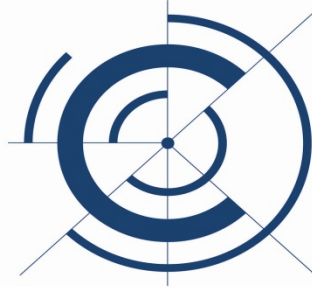


Prevention Through Mentoring

THE IOWA CONSORTIUM FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

**Annual Outcome Evaluation Report
August 1, 2015 – June 30, 2016
Revised**

With Funds Provided By:
Iowa Department of Public Health,
Division of Behavioral Health,
Bureau of Substance Abuse



**THE IOWA
CONSORTIUM**
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

Prevention Through Mentoring Annual Outcome Evaluation Report August 1, 2015 - June 30, 2016

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BACKGROUND

Overview

The purpose of the Prevention Through Mentoring (PTM) project is to promote the creation and support of community youth mentoring programs to achieve Iowa's goal of primary prevention of the use of alcohol, tobacco, and other drugs. The Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) conducts the evaluation of the Prevention Through Mentoring project for the Iowa Department of Public Health (IDPH).

Seven community organizations participate in this project: Big Brothers Big Sisters of Johnson County; Big Brothers Big Sisters of Siouxland; Clinton Community School District; Community Youth Concepts; Helping Services of Northeast Iowa; Youth and Shelter Services; and Mason City Youth Task Force.

These seven agencies implemented mentoring programs that pair a youth with an adult mentor. Some programs use an individual mentoring format (one mentor and one mentee), some use a group mentoring format, and some use a combination of individual and group mentoring.

Evaluation Design

The evaluation employs a matched pre-post design, whereby a survey is administered when a participant enters the mentoring program and at the beginning of each subsequent project year (pre-test), then again at the end of each project year (post-test). Two survey instruments are used: the Prevention Through Mentoring Survey, designed for participants in the sixth grade and above; and the Prevention Through Mentoring K-5 Survey, designed for participants in kindergarten through fifth grade. Agency staff collects the survey data and enters it into an online system called Qualtrics. The Consortium downloads the data for analyses and reporting. This report provides data for State Fiscal Year 2016 (FY16) and includes participants involved in the program between August 2015 and June 2016. Participants who entered the program in April, May, or June are not included in the analysis, as agencies are not required to administer post-tests to participants who took pre-tests less than three months prior to the end of the fiscal year.

Participating agencies entered 444 pre-tests and 336 post-tests into Qualtrics during FY16, yielding 315 matched pre- and post-tests. The pre-post data were used to help answer the following evaluation questions:

- Has alcohol/cigarette/marijuana use changed in the target population?
- Has the percentage of the target population who indicate positive attitudes at baseline (pre-test) maintained or increased after the intervention (post-test)?
- Has perceived risk of harm from alcohol/cigarette/marijuana use maintained a positive response or increased from pre-test to post-test?



OUTCOMES

Demographics

The median age of all PTM participants at post-test was 12 years. The median age of PTM Survey respondents (sixth grade and above) at post-test was 13 years. The median age of K-5 Survey respondents at post-test was 10 years. Across all PTM participants, 53.5% were female, while 46.5% of participants were male. Approximately 19.9% of PTM participants were Hispanic or Latino. Participant racial groups are delineated below:

- 62.3% White
- 11.4% Black/African American
- 1.2% Asian
- 0.9% American Indian/Alaskan Native
- 8.0% Some other race
- 15.1% More than one race

Changes from Pre-Test to Post-Test

The figures included in this section detail results from the standard PTM Survey and the K-5 Survey, showing the change in responses from pre-test to post-test. PTM Survey results include past 30-day substance use, attitudes toward substance use, and perceptions of risk of harm from substance use. K-5 Survey results include attitudes toward substance use and perceptions of risk of harm from substance use. PTM Survey data are provided for all project participants with matching PTM Survey pre- and post-tests. The mentoring programs implemented in the project did not meet the minimum sample size necessary for individual reporting (i.e., 50 matched surveys). However, data for participants in those programs are included in the appropriate survey totals.

The evaluators performed a simple attrition analysis to identify potential differences between participants who terminated their involvement in the program, that is, they did not complete a post-test, and those who remained in the program, and completed a post-test in FY16. Nearly one-third (32.8%) of all the Prevention Through Mentoring participants who completed a pre-test did not complete a post-test. PTM survey participants in sixth through 12th grade left at a higher rate (37.7%) than did Younger Youth participants (25.0%) in Kindergarten through fifth grade.¹

For the regular survey group, those participants in sixth through 12th grades, more girls (39.0%) than boys (25.0%) dropped out of the program.² Respondents' race was associated with program completion. Adolescents who indicated African American, American Indian, Native Hawaiian/Other Pacific Islander, or Other left the program at higher rate than other races. Older respondents tended to leave the program more often than younger participants did.³ Additionally, participants in higher grades were more likely to leave the program than the adolescents in lower grades did.⁴ The PTM respondents represented by the

¹ Cochran-Mantel-Haenszel test $\chi^2 = 8.41$; $df = 1$; $p = .004$

² Cochran-Mantel-Haenszel test $\chi^2 = 5.368$; $df = 1$; $p = .021$

³ Cochran-Mantel-Haenszel test $\chi^2 = 20.39$; $df = 7$; $p = .005$

⁴ Cochran-Mantel-Haenszel test $\chi^2 = 21.98$; $df = 6$; $p = .001$

outcome data in this report differ from those who initiated the program. When interpreting outcomes, take into consideration the selective attrition discussed above.

The Younger Youth (YY) respondents, those participants in Kindergarten through fifth grades, who completed a pre-test but not a post-test were similar to the YY that completed the program in terms of gender, race, ethnicity, age, and grade-level. Thus, the younger respondents represented by the outcome data in this report do not differ from the younger children who initiated the program on demographic characteristics.

Past 30-Day Use

Table 1 on page 4 presents data on past 30-day alcohol, binge drinking, tobacco, and marijuana use for matched pre- and post-tests for all participants completing the PTM Survey.

Iowa Youth Survey (IYS) data are provided as a reference point for interpreting the substance use outcome data in this report. The Iowa Youth Survey is a biennial census assessment of Iowa students' attitudes and behaviors, including attitudes toward substance use, and actual use of substances. Students in grades 6, 8 and 11th grades complete the IYS. However, for this comparison we are only looking at grades 6 and 8. The 2014 IYS data included here provide an estimate of the change one might expect to see each year in Iowa's general youth population due to maturation. Thus, IYS data serve as a general point of reference when examining PTM program outcomes (i.e., change from pre-test to post-test, rather than comparing program percentages to zero, or no change). It is important to note youth who participated in PTM programming may also have completed the IYS.

The change figures shown in Table 1 for all PTM groups combined are the percentage point increases or decreases in use from pre-test to post-test. The change figures shown for IYS participants are the estimated percentage point change in use in one year. However, the change values presented in the table do not indicate statistically significant differences from pre-test to post-test. There was no statistical evidence of change from pre-test to post-test for alcohol, binge drinking, cigarette, or marijuana use in the PTM Survey participant group (statistical tests yielded p values greater than 0.05). However, this also means that use of those substances showed no evidence of increasing as would be expected due to maturation.



Table 1. Change in Past 30-Day Use: PTM Survey Participants

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test										
Group	N	Median Age	Alcohol		Binge Drinking		Cigarettes		Marijuana	
			Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change
<i>Iowa Youth Survey</i> ¹	52,560 ²	12	–	+2.00	–	+1.00	–	+1.00	–	+1.00
<i>PTM Total</i> ³	176	12	1.76	+2.36	0.58	+2.34	2.35	+1.18	1.78	+1.77

¹*IYS entries indicate the biennial average change in 30-day use between all Iowa students in grades 6 and 8. The median age of 6th graders completing the IYS was 11 years old; the median age of 8th graders was 13 years old. Data are from the 2014 Iowa Youth Survey, State of Iowa report (Alcohol from question B16, Binge Drinking from B17, Cigarettes from B34, and Marijuana from B40).*

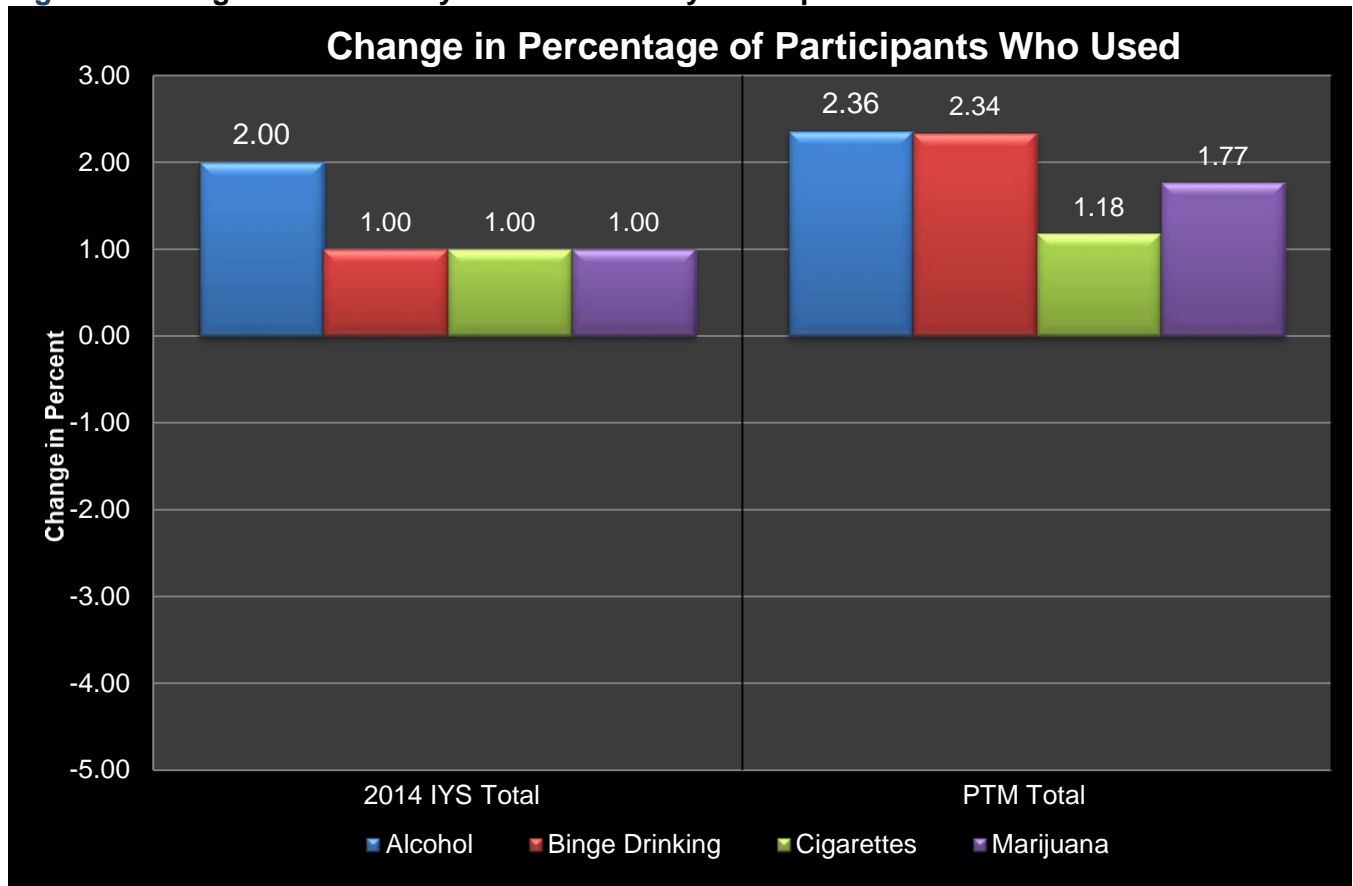
²*The total number of 6th graders completing the 2014 Iowa Youth Survey was 26,117; the total number of 8th graders was 26,443.*

³*The PTM Total row includes all current year Prevention Through Mentoring project participants who completed the standard PTM Survey pre- and post-tests, regardless of their age or the program in which they participated.*



Figure 1 provides the percentage point change in use as reported by participants in all PTM programs.

Figure 1. Change in Past 30-Day Use: PTM Survey Participants



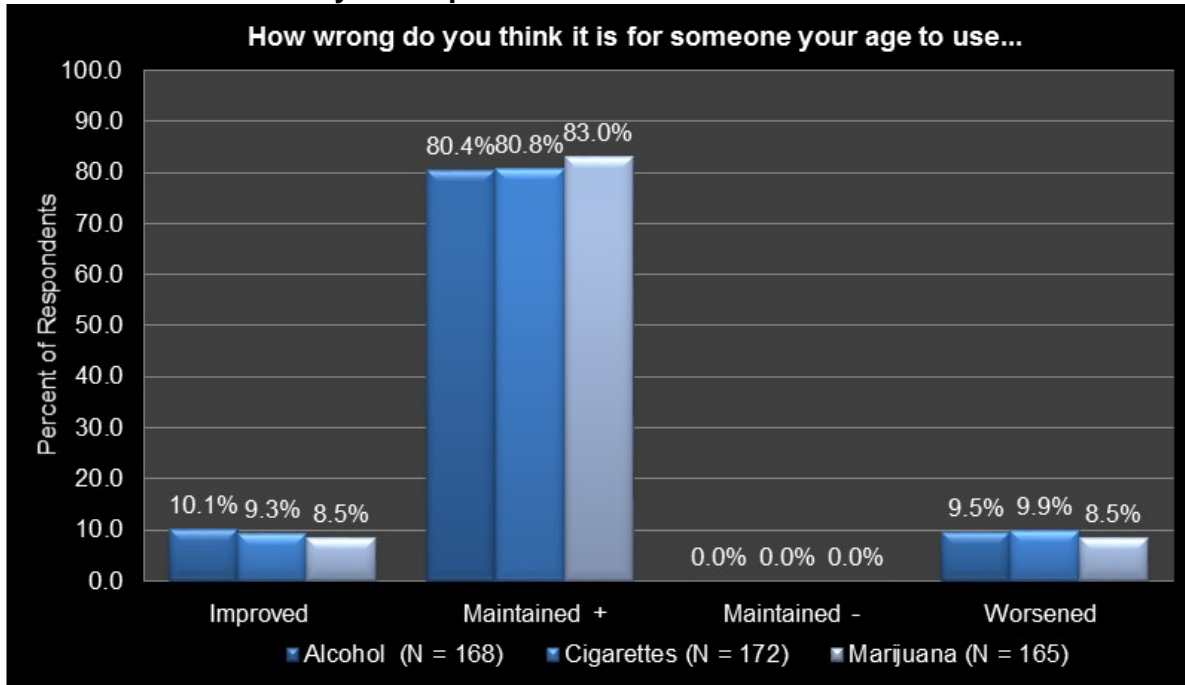
Attitudes Toward Substance Use

Figures 2 and 3 on the following pages show change in participants’ attitudes from pre- to post-test toward the use of alcohol, cigarettes, and marijuana. Individual attitudes either:

- 1) “improved,” which means that attitudes grew more unfavorable toward use of alcohol, tobacco, or marijuana (e.g., respondent felt alcohol use was wrong at pre-test and very wrong at post-test);
- 2) “maintained +,” which means that the pre- and post-test responses remained the same and were unfavorable toward alcohol, tobacco, or marijuana use (a positive outcome);
- 3) “maintained –,” which means that the pre- and post-test responses remained the same and were favorable toward alcohol, tobacco, or marijuana use (a negative outcome); or
- 4) “worsened,” meaning that attitudes grew more favorable toward alcohol, tobacco, or marijuana use from pre-test to post-test (e.g., respondent felt marijuana use was very wrong at pre-test and a little bit wrong at post-test).

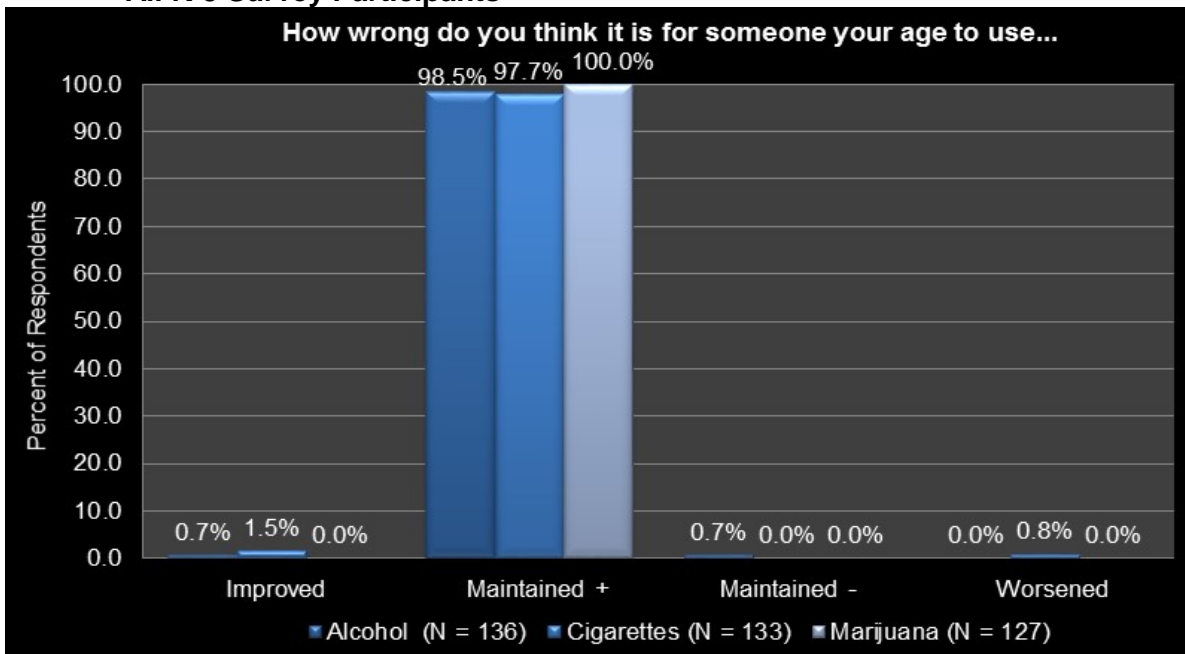
Desired outcomes for these questions are improvement in (“improved”) or positive maintenance (“maintained +”) of attitudes toward substance use. The positive attitude outcome percentages provided below each figure represent participants in the “improved” and “maintained +” categories for that survey or program group. The number of matched pre- and post-tests containing a response to the question is shown in parentheses at the bottom of the data table following each substance.

**Figure 2. Change in Attitudes Toward Alcohol, Cigarette, Marijuana Use:
All PTM Survey Participants**



In summary, PTM Survey respondents had overall positive attitude outcomes: Alcohol – 90.5%; Cigarettes – 90.1%; and Marijuana – 91.5%.

**Figure 3. Change in Attitudes Toward Alcohol, Cigarette, Marijuana Use:
All K-5 Survey Participants**



In summary, K-5 Survey respondents had positive attitude outcomes as follows: Alcohol – 99.2%, Cigarettes – 99.2%; and Marijuana – 100.0%.

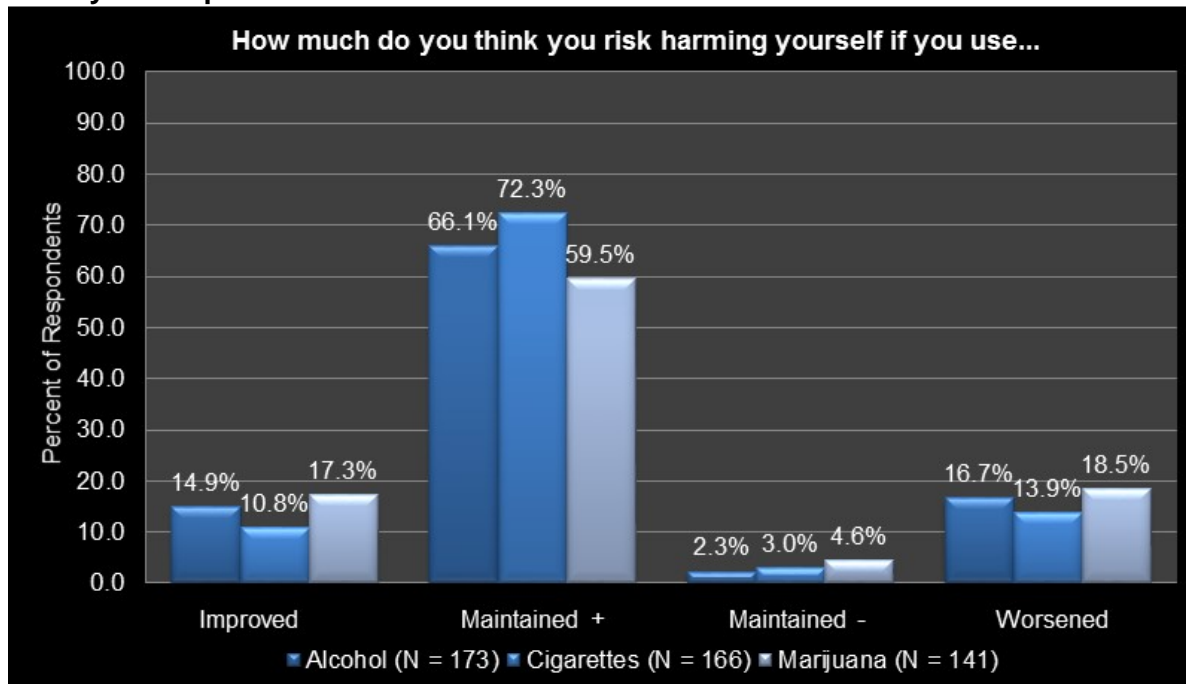
Perceived Risk of Harm from Substance Use

Figures 4 and 5 illustrate the change in participants' perceived risk of harm from using alcohol, cigarettes, and marijuana. Perceptions of risk either:

- 1) "increased," which means that their reported perceived risk regarding alcohol, tobacco, or marijuana use increased from pre-test to post-test (e.g., Respondent felt alcohol use was a moderate risk at pre-test and a great risk at post-test);
- 2) "maintained +," which means that the pre- and post-test responses remained the same and were unfavorable toward alcohol, tobacco, or marijuana use (a positive outcome);
- 3) "maintained -," which means that the pre- and post-test responses remained the same and were favorable toward alcohol, tobacco, or marijuana use (a negative outcome); or
- 4) "decreased," meaning that their reported perception of risk of harm decreased from pre-test to post-test (e.g., respondent reported that marijuana use posed a moderate risk of harm at pre-test and no risk at post-test).

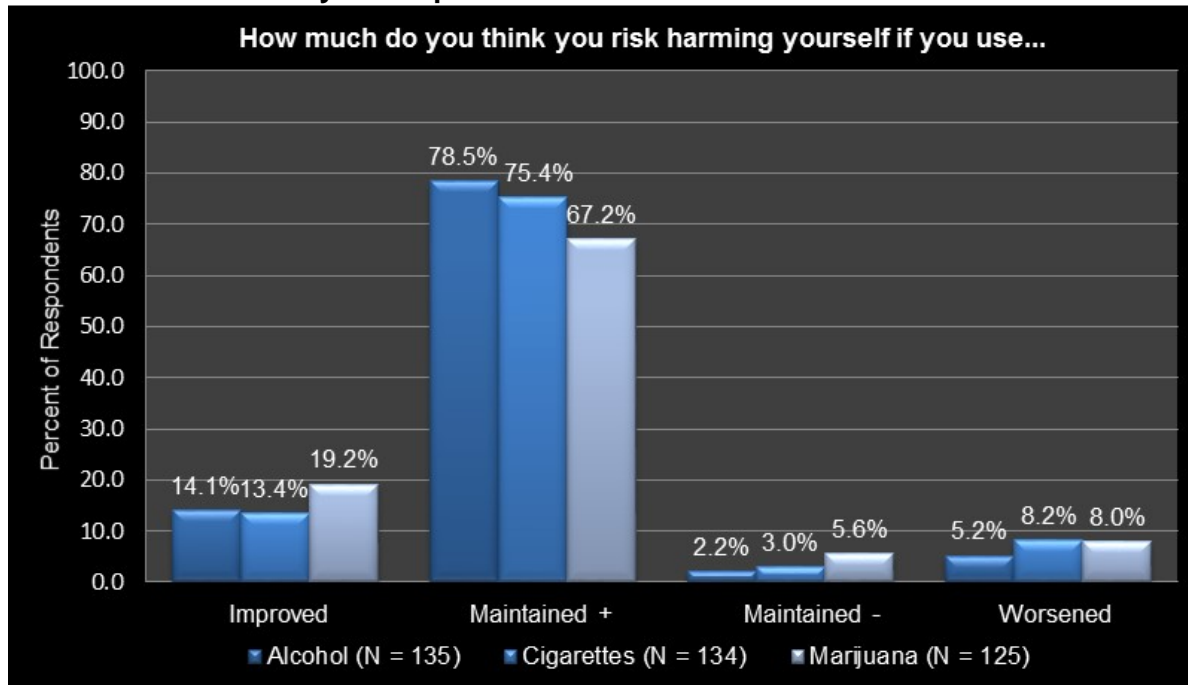
Desired outcomes for these questions are an increase in or positive maintenance ("maintained +") of change in perceived risk. The positive attitude outcome percentages provided below each figure represent participants in the "improved" and "maintained +" categories for that survey or program group. The number of matched pre- and post-tests containing a response to the question is shown at the bottom of the data table, in parentheses, following each substance.

Figure 4. Change in Perceived Risk of Harm from Alcohol, Cigarette, Marijuana Use: All PTM Survey Participants



In summary, PTM Survey respondents had positive attitude outcomes as follows: Alcohol – 81.0%; Cigarettes – 83.1%; and Marijuana – 76.8%.

Figure 5. Change in Perceived Risk of Harm from Alcohol, Cigarette, Marijuana Use: All K-5 Survey Participants



Overall, all K-5 Survey respondents showed a positive attitude outcomes as follows: Alcohol – 92.6%; Cigarettes – 88.8%; and Marijuana – 86.4%.

Mentor-Mentee Match Data

Agencies submitted tracking forms to the Consortium containing information about meetings between mentors and mentees. This information included: 1) the total number of meetings between each pair; 2) the average length of meetings between each pair; and 3) the average number of meetings per month for each pair. All participating agencies submitted match data for this project year.

The match data analysis included 422 mentor-mentee pairs. All other pairs are not included due to incomplete reporting or the matches had occurred less than three months before the end of the reporting period (agencies were not required to report match meeting data for those participants).

The total number of reported mentor-mentee meetings for the year was 6,098. The median number of meetings for each mentor and mentee pair or group was 14 (Minimum = 2; Maximum = 51). The median duration of individual meetings between pairs or groups was 1.5 hours (Minimum = 30 minutes; Maximum = 360 minutes, or 6 hours). The median number of meetings per month was 3 (Minimum = 1; Maximum = 23).

CONCLUSION

The following outcomes should be examined in light of the selective attrition identified in the attrition analysis discussion on page 2. Given that girls, racial minorities, and older students were more likely to not complete the program, mentors may want to investigate this, such as a focus group at the beginning of the program. Alternatively, program providers could ask respondents about why they completed the program with a special focus on participants with demographics most likely to not complete the program.

This evaluation of the Prevention Through Mentoring project answers the following questions:

- ***Has alcohol/cigarette/marijuana usage changed in the target population?***
- ***Answer: No***

There were no statistically significant changes in past 30-day use in Prevention Through Mentoring participants as a whole. However, this means that use of alcohol, cigarettes, and marijuana showed no evidence of increasing as would be expected due to maturation. This suggests that there could be some benefit derived from the programs in deflecting the increases normally seen in adolescents.

- ***Has the percentage of the target population who indicate positive attitudes (believing substance use in someone their age is wrong or very wrong) at baseline (pre-test) maintained or increased after the intervention (post-test)?***
- ***Answer: Yes, 90.1% in all PTM and 99.2% in K-5 only.***

Table 2 below presents positive outcome percentages for attitudes toward alcohol, tobacco, and marijuana use for all PTM Survey participants. More than 90.1% of all PTM Survey participants maintained or increased their belief from pre-test to post-test that alcohol, tobacco, and marijuana use are wrong.

Nearly all K-5 Survey respondents (99.2% or more) showed positive attitude outcomes for all three substances. All PTM participants believe that marijuana is more wrong for someone their age to use than alcohol or tobacco.

Table 2. Positive Outcome Percentages for Attitudes Toward Substance Use by Participant Group

Positive Outcome Percentages for Attitudes Toward Substance Use			
Participant Group	Alcohol	Tobacco	Marijuana
All PTM Survey Participants (Includes K-5)	90.5%	90.1%	91.5%
All K-5 Survey Participants	99.2%	99.2%	100%

- ***Has perceived risk of alcohol/cigarette/marijuana use maintained a positive response or increased from pre-test to post-test?***
- ***Answer: Yes, 76.8% for all PTM and K-5 only***

Table 3 presents positive outcome percentages for perceived risk of harm from alcohol, tobacco, and marijuana use for all PTM Survey participants. At least 76.8% of all participants maintained or increased their perception that using alcohol, cigarettes, or marijuana posed moderate to great risk of harm. In addition, all PTM Survey participants perceive marijuana as being less risky than alcohol and tobacco.

At least 86.4% of K-5 participants maintained or increased their perception that using alcohol, cigarettes, or marijuana posed a moderate to great risk of harm.

Table 3. Positive Outcome Percentages for Perceived Risk of Harm of Substance Use by Participant Group

Positive Outcome Percentages for Perceived Risk of Harm from Substance Use			
Participant Group	Alcohol	Tobacco	Marijuana
All PTM Survey Participants (Includes K-5)	81.0%	83.1%	76.8%
All K-5 Survey Participants	92.6%	88.8%	86.4%