

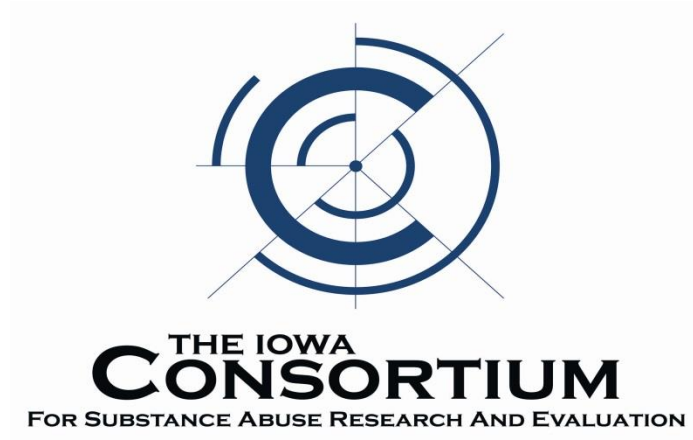


# Prevention Through Mentoring

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

**Annual Outcome Evaluation Report  
July 1, 2016 – June 30, 2017**

**With Funds Provided By:**  
Iowa Department of Public Health,  
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## **Prevention Through Mentoring Annual Outcome Evaluation Report July 1, 2016 - June 30, 2017**

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## BACKGROUND

### Project Overview

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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 PTM 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 implement 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. Programs match mentors and mentees through community, school, and site-based matching. Each program requires that mentors serve a minimum of one year with the same youth and no less than four hours a month with their mentees. Matching is based on age, gender preference, personality, similar interests, and proximity to the youth. Community-based matching happens year round and mentors are adults in the community. School-based matching occurs at the school during the school year and mentors are often high school students or youth who are at least three years older than the mentee, however; depending on the program they can also be members of the community. Site-based matches occur year round and require that the mentor goes to sites within the community (i.e. Big Brothers, Big Sisters, YMCA).

### 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 PTM Survey, designed for participants in the sixth grade and above; and the PTM K-5 Survey, designed for participants in kindergarten through fifth grade. Agency staff collect the survey data and enter it into an online system called Qualtrics. The Consortium downloads the data for analyses and reporting. This report provides data for State Fiscal Year 2017 (FY17) and includes participants involved in the program between July 2016 and June 2017. 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 376 pre-tests and 296 post-tests into Qualtrics during FY17, yielding 268 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

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The median age of all PTM participants at post-test was 12 years. The median age of PTM Survey respondents (6th grade and above) at post-test was 13 years. The median age of K-5 Survey respondents at post-test was 9.5 years. Across all PTM participants, 54.9% were female, while 45.1% were male. Approximately 20.1% of PTM participants were Hispanic or Latino. Participant racial groups are delineated below:

- 57.6% White
- 14.6% Black/African American
- 1.4% Asian
- 1.7% American Indian/Alaskan Native
- 6.6% Some other race
- 17.7% More than one race

## Changes from Pre-Test to Post-Test

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### Attrition

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 FY17. Less than a quarter (21.3%) of all the PTM participants who completed a pre-test did not complete a post-test. PTM survey participants in 6th through 12th grade left at a higher rate (38.7%) than did Younger Youth participants (25.5%) in Kindergarten through 5th grade.<sup>1</sup>

For the regular survey group, those participants in 6th through 12th grades, who completed a pre-test but not a post-test were similar to the older children that completed the program in terms of gender, race, ethnicity, age, and grade-level. Thus, these respondents represented by the outcome data in this report do not differ from the older children who initiated the program on demographic characteristics.

The Younger Youth (YY) respondents, those participants in Kindergarten through 5th grade, 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.

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<sup>1</sup> Cochran-Mantel-Haenszel test  $\chi^2 = 7.34$ ;  $df = 1$ ;  $p = .007$

## Past 30-Day Use

Past 30-day use data are provided for youth reporting past 30-day use of alcohol, binge drinking, cigarettes, and marijuana at the pre-test, and the percentage change and direction of change at post-test. A positive (+) percentage point change indicates an increase in use, whereas a negative (-) change indicates a decrease in use. Individual program data are provided for programs where 50 or more participants completed both a pre-test and a post-test. The YY survey does not ask about past 30-day use, therefore participants who completed that survey are not included in the past 30-day use data.

Iowa Youth Survey (IYS) data are provided as a reference point for interpreting the substance use outcome data in this report. The IYS is a biennial census assessment of Iowa students' attitudes and behaviors, including attitudes toward substance use, and actual use of substances. Students in the 6<sup>th</sup>, 8<sup>th</sup>, and 11<sup>th</sup> grades complete the IYS. However, for this comparison we are only looking at grades six and eight. The 2016 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).

The average yearly change was calculated by dividing the difference between grades by the number of years between grades. This was done using 6<sup>th</sup> and 8<sup>th</sup> grade IYS data to provide a reference for PTM outcomes in Table 1. While the time span between pre-test and post-test for some prevention programs presented here is less than one year, the IYS average yearly change serves as a general point of reference when examining the program outcomes rather than comparing to zero, or no change. It is important to note that 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 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.

**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
Iowa Youth Survey	58,410	13	–	<b>+1.00</b>	–	<b>+0.50</b>	–	<b>+0.50</b>	–	<b>+0.50</b>
PTM Total	154	12	1.34	<b>0</b>	0.67	<b>0</b>	0.67	<b>0</b>	2.0	<b>0</b>

*Note: IYS entries indicate the biennial average change in 30-day use between all Iowa students in grades 6 and 8. The median age of 6<sup>th</sup> graders completing the IYS was 11.5 years old; the median age of 8<sup>th</sup> graders was 13 years old. Data are from the 2016 Iowa Youth Survey, State of Iowa report (Alcohol from question B16, Binge Drinking from B17, Cigarettes from B34, and Marijuana from B40).*

*The total number of 6<sup>th</sup> graders completing the 2016 Iowa Youth Survey was 29,275; the total number of 8<sup>th</sup> graders was 29,135.*

*The PTM Total row includes all current year Prevention Through Mentoring project participants who completed the standard PTM Survey pre- and post-tests (K-5 excluded), regardless of their age or the program in which they participated.*



## Attitudes Toward Substance Use

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Figures 1, 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. The change values presented in the figures do not necessarily indicate statistically significant differences from pre-test to post-test. The number in parentheses after each program name in the figures is the number of respondents answering the question on both the pre-test and the post-test.

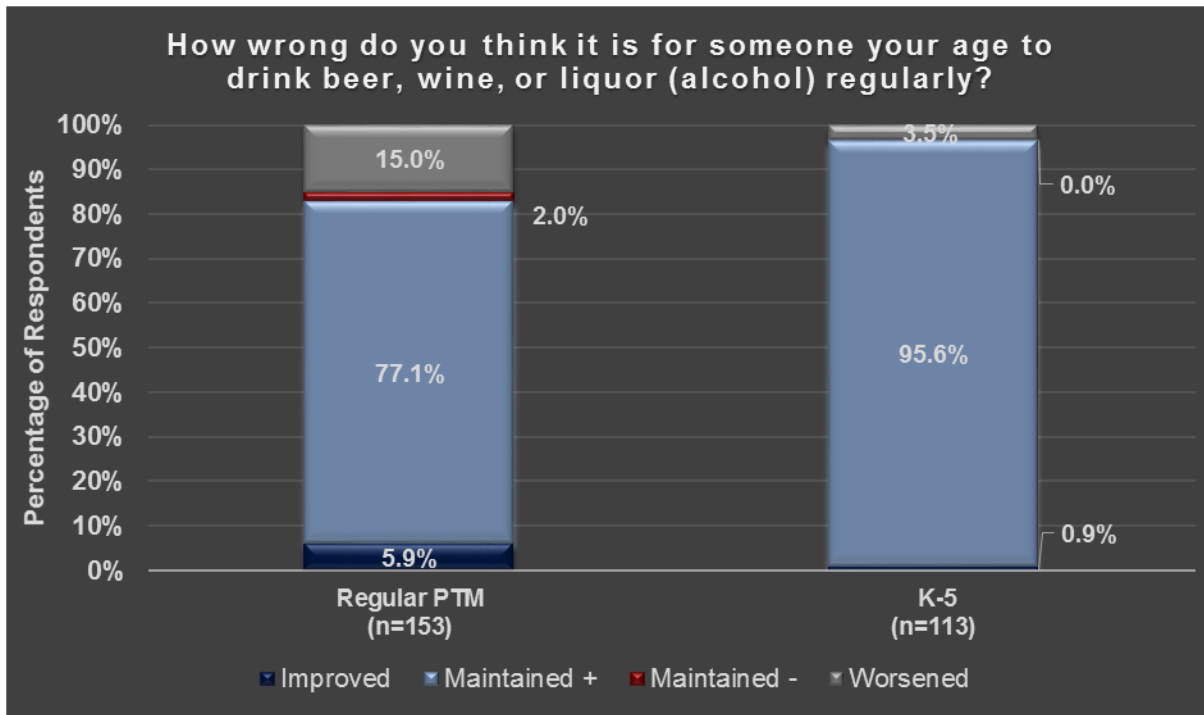
Individual attitudes either:

- 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).

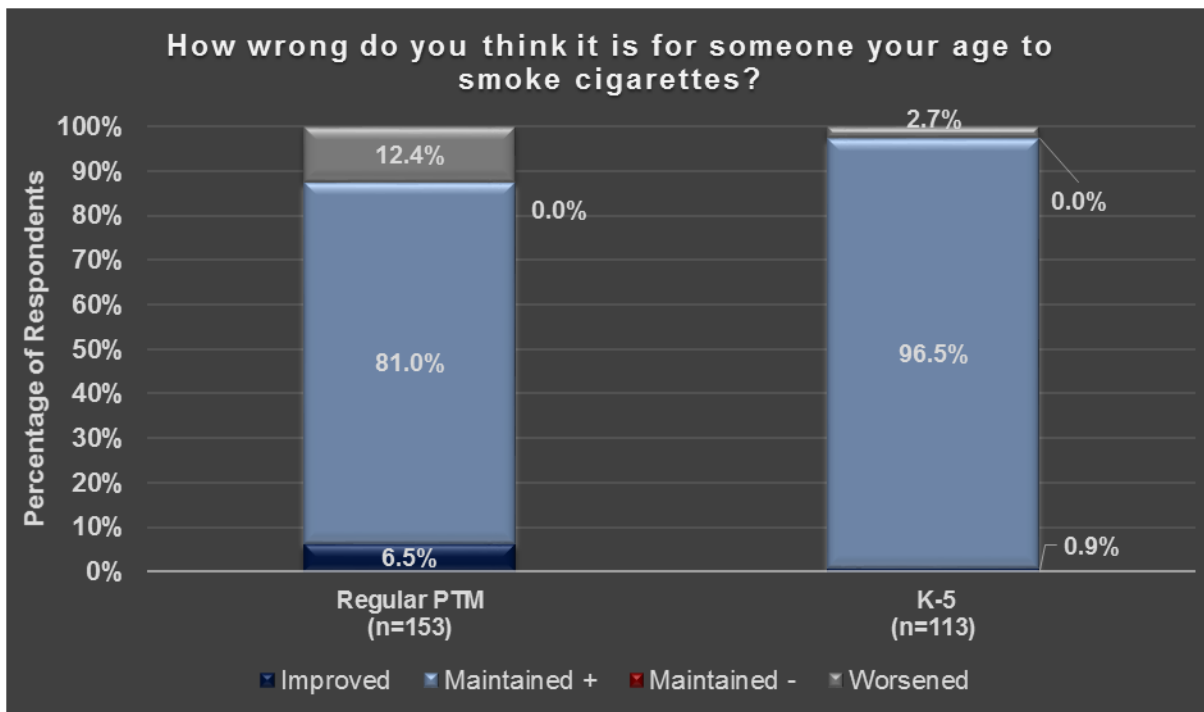
Maintaining a response from pre-test to post-test that use is "wrong" or "very wrong," or moving up the scale towards "very wrong" from any point on the scale is considered a positive outcome. Desired outcomes for these questions are improvement in ("improved") or positive maintenance ("maintained +") of attitudes toward substance use. In Figures 1 through 3, a positive outcome percentage is the percent improved plus the percent maintained +.



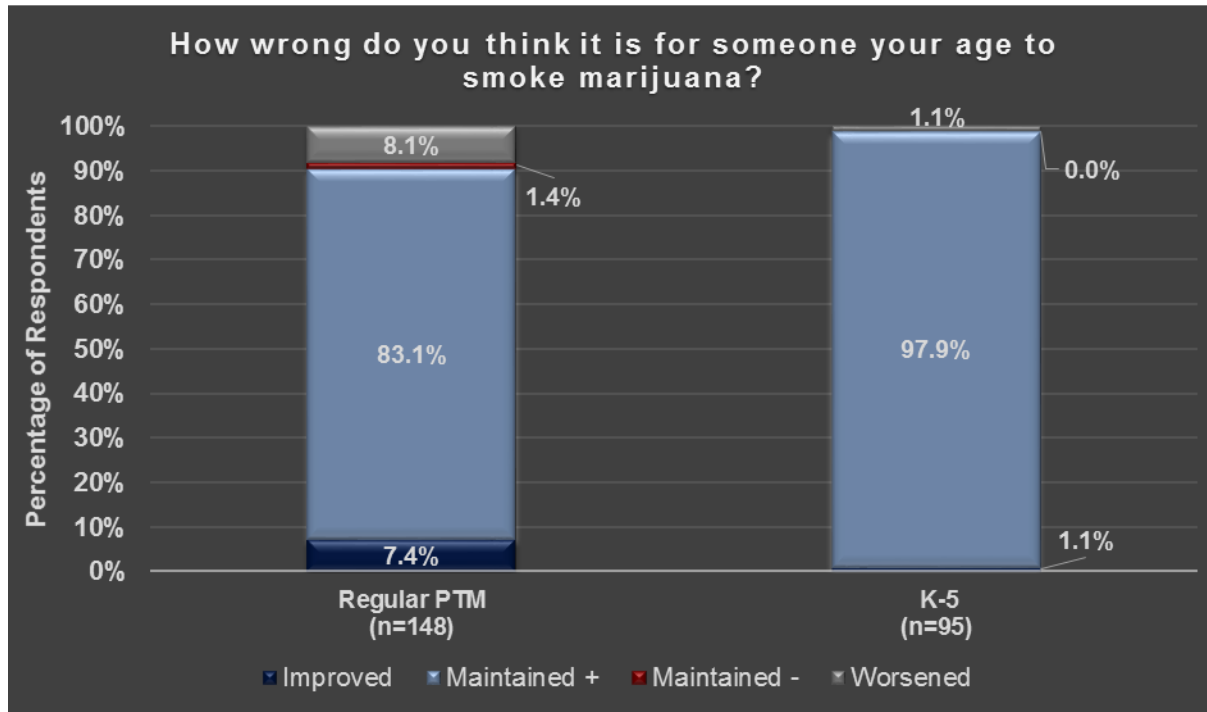
**Figure 1. Change in Attitudes Toward Alcohol Use**



**Figure 2. Change in Attitudes Toward Cigarette Use**



**Figure 3. Change in Attitudes Toward Marijuana Use**



**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. The change values presented in the figures do not necessarily indicate statistically significant differences from pre-test to post-test. The number in parentheses after each program name in the figures is the number of respondents answering the question on both the pre-test and the post-test.

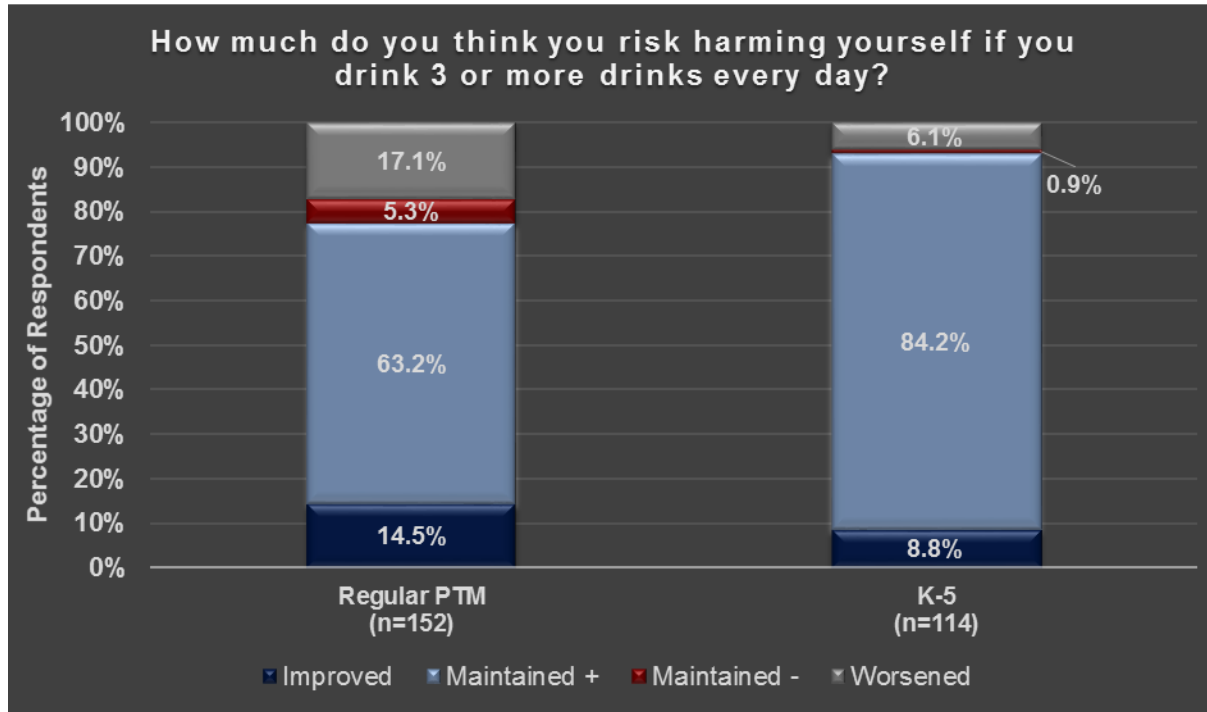
Perceptions of risk either:

- 1) “improved,” 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) “worsened,” 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).

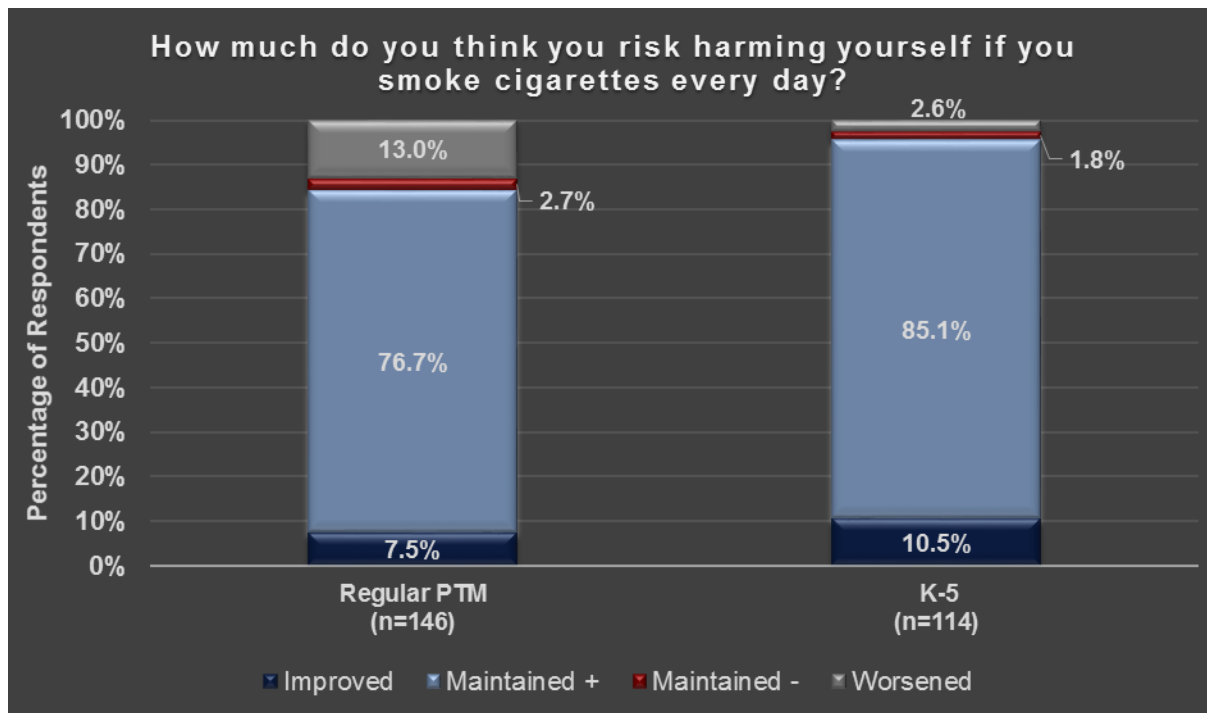
Maintaining a response from pre-test to post-test that use is “wrong” or “very wrong,” or moving up the scale towards “very wrong” from any point on the scale is considered a positive outcome. Desired outcomes for these questions are improvement in (“improved”) or positive maintenance (“maintained +”) of perceived risk toward substance use. In Figures 4 through 6, a positive outcome is the percent

improved plus the percent maintained +. Desired outcomes for these questions are improvement in (“improved”) or positive maintenance (“maintained +”) of perceived risk toward substance use

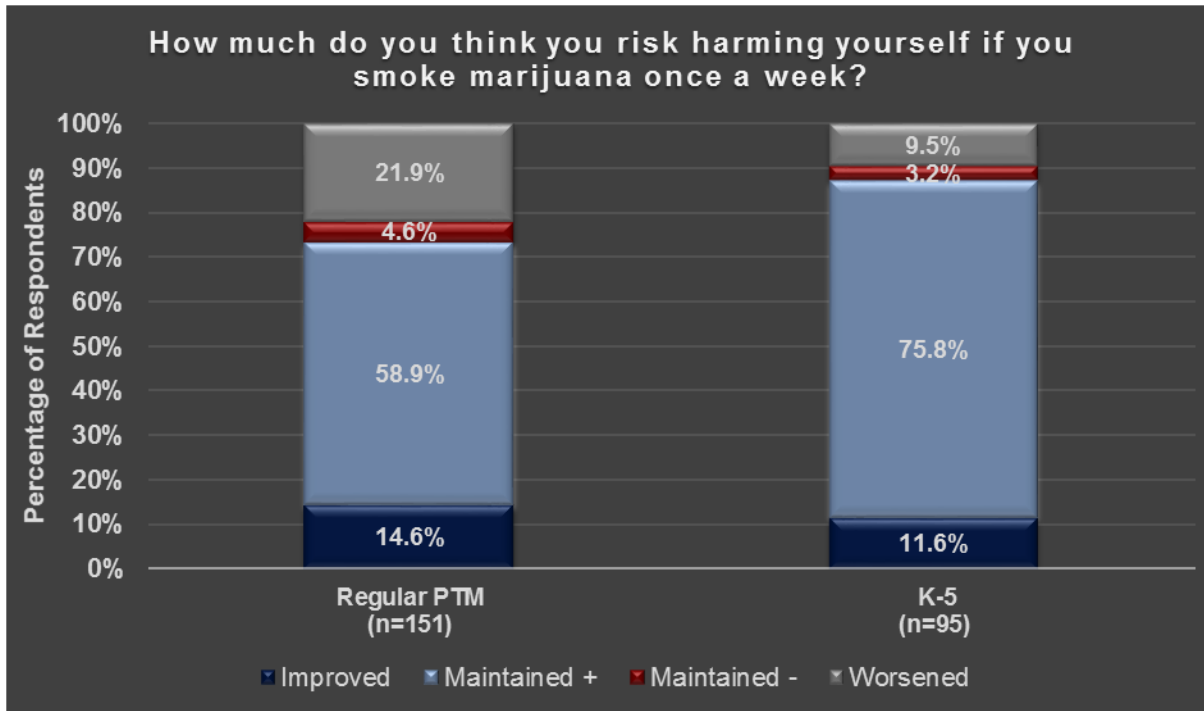
**Figure 4. Change in Perceived Risk of Harm from Alcohol Use**



**Figure 5. Change in Perceived Risk of Harm from Cigarette Use**



**Figure 6. Change in Perceived Risk of Harm from Marijuana Use**



***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 360 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 6,207. The median number of total meetings for each mentor and mentee pair or group was 16 (Minimum = 1; Maximum = 48). The median duration of individual meetings between pairs or groups was 2.05 hours (Minimum = 30 minutes; Maximum = 300 minutes, or 5 hours). The median number of meetings per month was 3 (Minimum = 1; Maximum = 5).



## CONCLUSION

### Project Evaluation 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 PTM 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, 83% or more in all PTM and 95.6% or more 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 83% 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 (95.6% or more) showed positive attitude outcomes for all three substances. The percentage of PTM participants who believe that marijuana is more wrong for someone their age to use is higher 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)	83.0%	87.5%	90.5%
All K-5 Survey Participants	95.6%	97.4%	99.0%

- **Has perceived risk of alcohol/cigarette/marijuana use maintained a positive response or increased from pre-test to post-test?**
- **Answer: Yes, 73.5% or more for all PTM and 87.4% or more for K-5 only**

Table 3 below presents positive outcome percentages for perceived risk of harm from alcohol, tobacco, and marijuana use for all PTM Survey participants. At least 73.5% of all participants maintained or increased their perception that using alcohol, cigarettes, or marijuana posed moderate to great risk of harm. The percentage of PTM participants who perceive marijuana as being risky is less than the percentage of participants who perceive alcohol and tobacco as risky.

At least 87.4% 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)	77.7%	84.2%	73.5%
All K-5 Survey Participants	93.0%	95.6%	87.4%

## APPENDIX A

### Evidence Based Programs by Organization

The following figure breaks down the Evidence Based Practice used by each organization.

AGENCY	PROGRAM
Big Brothers, Big Sisters of Johnson County	Big Brothers, Big Sisters of Johnson County
Big Brothers, Big Sisters of Siouxland	One on One Mentoring Woodbury County
City of Mason City/Youth Task Force	One on One Mentoring Cerro Gordo
Clinton Community School District	Choices
	Campus Pals
Community Youth Concepts	Mentoring Advantage
Helping Services for Youth & Families	Allamakee-Howard-Winneshiek Mentoring
	Mentoring Connection for Delaware County
Youth and Shelter Services	Great Relationships in Pairs

