

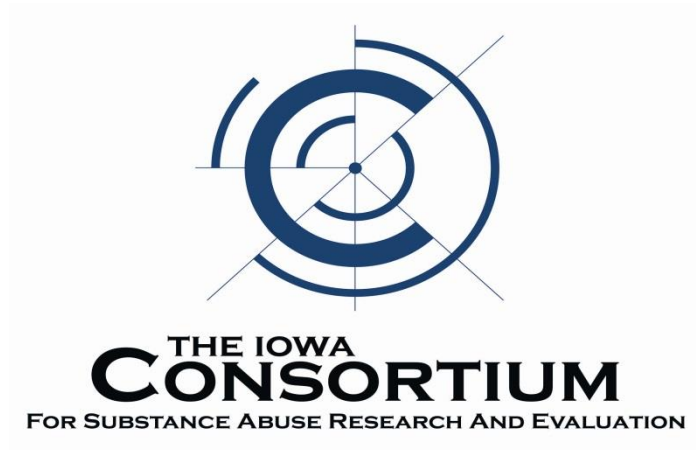


# Youth Development Program

**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,  
Division of Behavioral Health,  
Bureau of Substance Abuse



# **Youth Development Annual Outcome Evaluation Report July 1, 2016- June 30, 2017**

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## BACKGROUND

### Project Overview

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The Iowa Department of Public Health (IDPH) provides funding for prevention services through the project known as Youth Development (YD). The purpose of the YD project is to provide evidence-based substance abuse prevention programming for youth ages five through 18 that includes in- and out-of-school opportunities offering character development and youth leadership. Seven substance abuse prevention organizations participate in this project: Area Substance Abuse Council; Henry County Extension; Garner-Hayfield-Ventura Community School District; Mason City Youth Task Force; Substance Abuse Treatment Unit of Central Iowa; Center for Alcohol and Drug Services; and United Action for Youth. A full listing of organizations and programs can be found in the Appendix A. The Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) conducts the evaluation of the YD project for the IDPH.

### Evaluation Design

The evaluation employs a matched pre-post design, whereby a survey is administered at the beginning of the program (pre-test), then again at the end of the program (post-test). Agency staff collect these data and enter them into an online system called Qualtrics. The Consortium then 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.

A total of 1,067 pre-tests were collected for the YD project in State FY17, which includes the Strategic Prevention Framework Groups (SPF). SPF groups may also be receiving other YD programming. Matching pre-tests and post-tests resulted in 835 survey matches for analysis. All matches were for participants in single-year programs.

The pre-post data were used to help answer the following evaluation questions:

- Has alcohol/cigarette/marijuana usage 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 YD project participants at post-test was 12 years of age. The majority of participants (78.4%) were in seventh, eighth, and ninth grades. The sex of participants was split almost equally (50.8% male, 49.2% female), and 15.5% of participants were Hispanic or Latino. Participant racial groups are delineated below:

- 73.7% White
- 7.6% Black/African American

- 1.4% Asian
- 1.2% American Indian/Alaska Native
- 0.3% Native Hawaiian
- 10.3% More than one race
- 5.5% Some other race

## Changes from Pre-test to Post-test

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### Attrition

The evaluators performed an attrition analysis to identify potential differences between participants who terminated their involvement in the program by not completing a post-test, compared to those who remained in the program and completed a post-test in FY17. More than one-fourth (27.1%) of program participants who completed a pre-test did not complete a post-test. Respondents' race was associated with program completion. Adolescents who indicated their race as White left the program at a higher rate than other races.<sup>1</sup> Thirteen year olds<sup>2</sup> and seventh graders<sup>3</sup> left the program at higher rates than other ages and grade levels. The YD respondents represented by the outcome data in this report differ from those who initiated the program. When interpreting the outcomes, take into consideration the selective attrition discussed.

### 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.

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 YD program outcomes in Table 1. Iowa Youth Survey (IYS) data are provided as a reference point for interpreting the substance use outcome data in this report. While the time

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<sup>1</sup> Cochran-Mantel-Haenszel test  $\chi^2 = 14.82$ ;  $df = 6$ ;  $p = .022$

<sup>2</sup> Cochran-Mantel-Haenszel test  $\chi^2 = 34.14$ ;  $df = 6$ ;  $p < .0001$

<sup>3</sup> Cochran-Mantel-Haenszel test  $\chi^2 = 49.73$ ;  $df = 6$ ;  $p < .0001$

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 YD programming may also have completed the IYS.

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 YD Survey.

**Table 1. Change in Past 30-Day Use: Youth Development Total and Results by Program**

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test										
Program Participants	N	Median Age	Alcohol		Cigarettes		Marijuana		Binge Drinking	
			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>
Youth Development	835	13	8.71	<b>+1.06</b>	1.98	<b>+0.26</b>	2.64	<b>-0.26</b>	1.19	<b>-0.26</b>
Positive Action	210	13	4.29	<b>-4.76</b>	1.43	<b>0</b>	0.95	<b>-0.95</b>	0.48	<b>-1.44</b>
LifeSkills Training	181	11	6.64	<b>-1.33</b>	0.88	<b>0</b>	1.33	<b>0</b>	0.88	<b>0</b>
Project ALERT	136	12	10.29	<b>+5.15</b>	1.47	<b>0</b>	0.74	<b>0</b>	0.74	<b>0</b>
Too Good for Drugs	136	13	17.42	<b>+9.09</b>	6.02	<b>+1.50</b>	10.53	<b>0</b>	3.82	<b>+0.76</b>
SPF Groups	118	16	5.17	<b>+0.86</b>	0.86	<b>0</b>	0.86	<b>+0.86</b>	0.86	<b>0</b>
All Stars	54	12	9.26	<b>+3.70</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>

Note: 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 IYS was 29,275 and 8<sup>th</sup> graders was 29,135. The median age of 6<sup>th</sup> graders was 11.5 and 8<sup>th</sup> graders was 13. The total YD matched surveys includes SPF groups, however, the percent change totals do not include SPF as there may be double counting due to participants in both SPF groups and other YD programming.

The decrease in alcohol for Positive Action is statistically significant (McNemar test results are: Alcohol,  $p=0.0213$ ). The increase in alcohol for Too Good for Drugs is also statistically significant (McNemar test results are: Alcohol,  $p=0.0042$ ). There is no evidence of change from pre-test to post-test for LifeSkills Training, Project ALERT, SPF Groups, and All Stars. However, this also means that use of those substances showed no evidence of increasing as would be expected due to maturation.

## **Attitudes Toward Substance Abuse**

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Figures 1, 2, and 3 show the percentage point change in individual attitudes from the pre-test to the post-test for alcohol, cigarettes, and marijuana. The change values presented in the figures do not necessarily indicate statistically significant differences from pre-test to post-test.

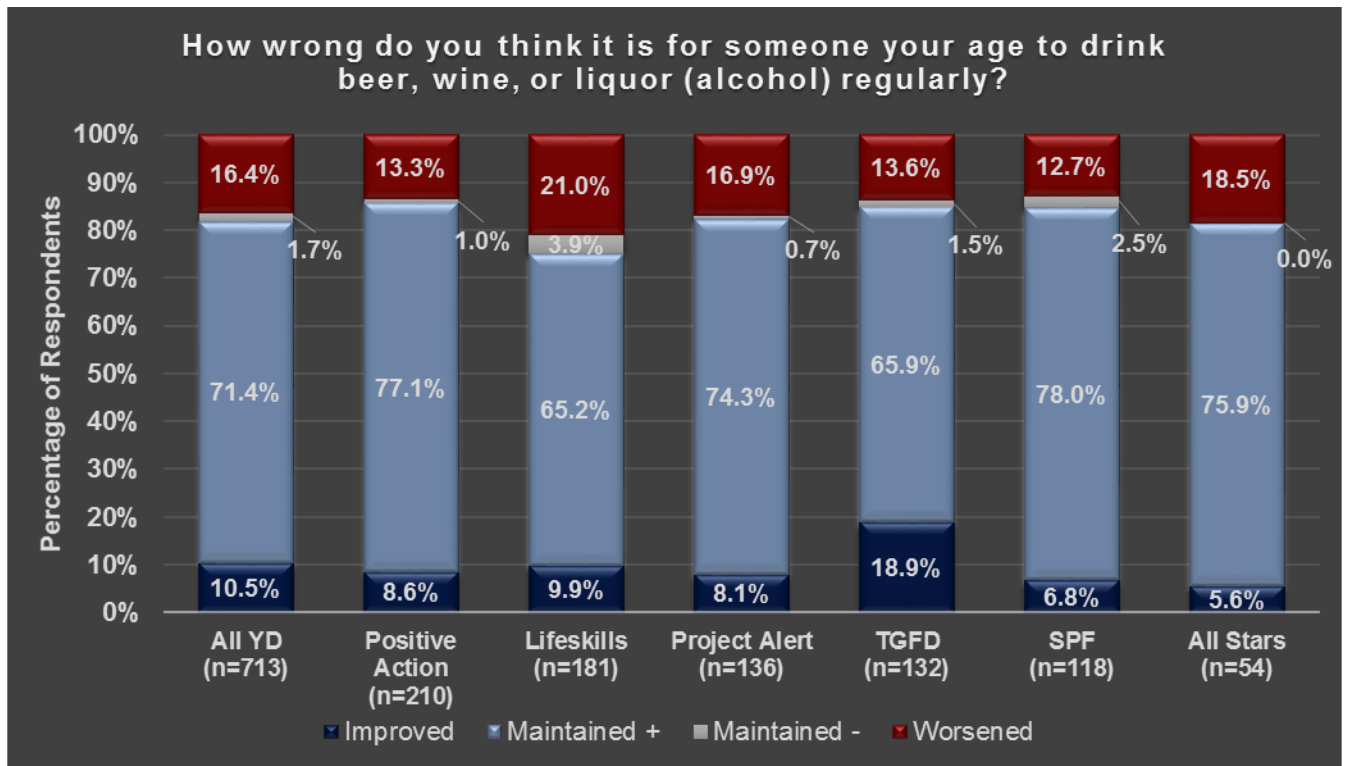
Individual attitudes either:

- 1) “improved,” which means that attitudes grew more unfavorable toward use of alcohol, cigarettes, 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, cigarettes, 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, cigarettes, or marijuana use (a negative outcome);
- 4) “worsened,” meaning that attitudes grew more favorable toward alcohol, cigarettes, 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).

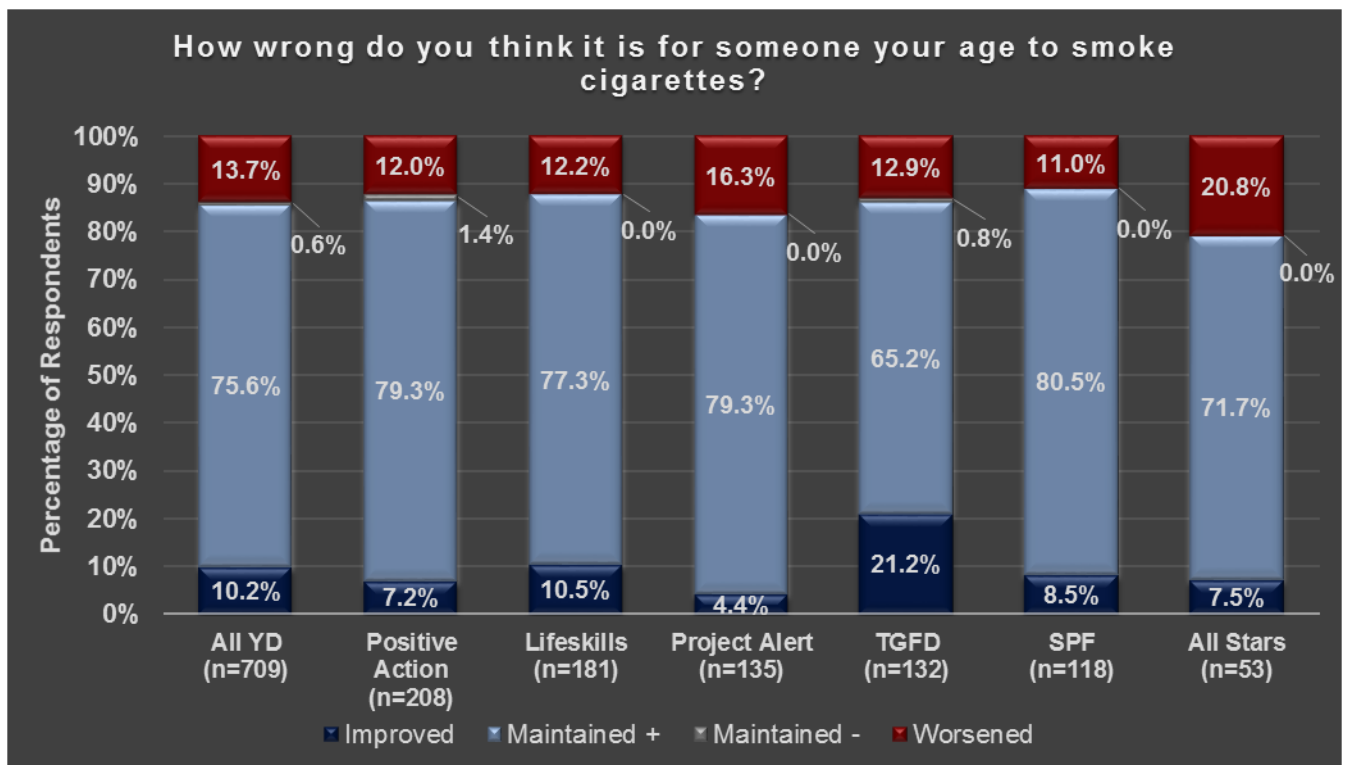
Maintaining a response from pre-test to post-test that use is “wrong” or “very wrong,” or moving up the scale towards “very wrong” from any point on the scale is considered a positive outcome. Desired outcomes for these questions are improvement in (“improved”) or positive maintenance (“maintained +”)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



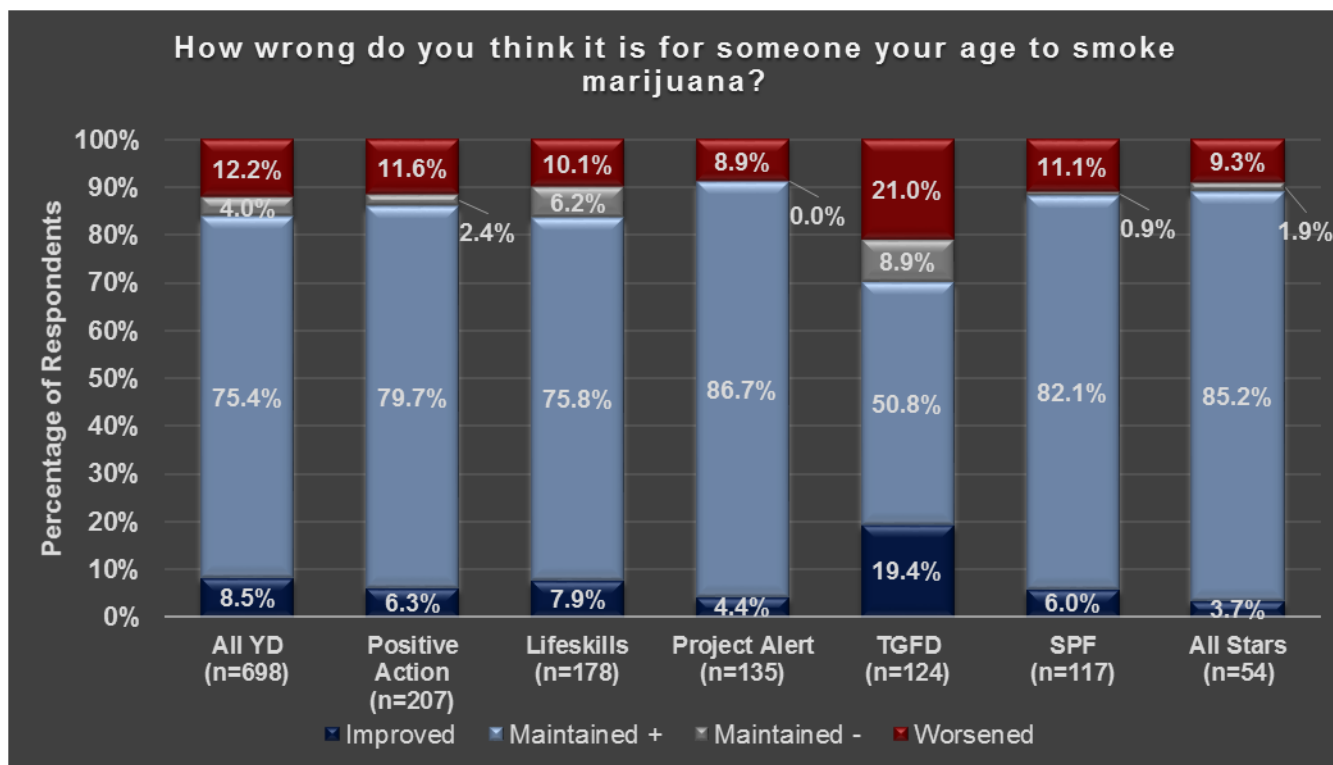
**Figure 1. Change in Attitudes Toward Alcohol**



**Figure 2. Change in Attitudes Toward Cigarettes**



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



### Perceived Risk of Harm from Substance Use

Figures 4, 5, and 6 show the percentage point change from pre- to post-test in individuals' perceptions of risk of harm from 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.

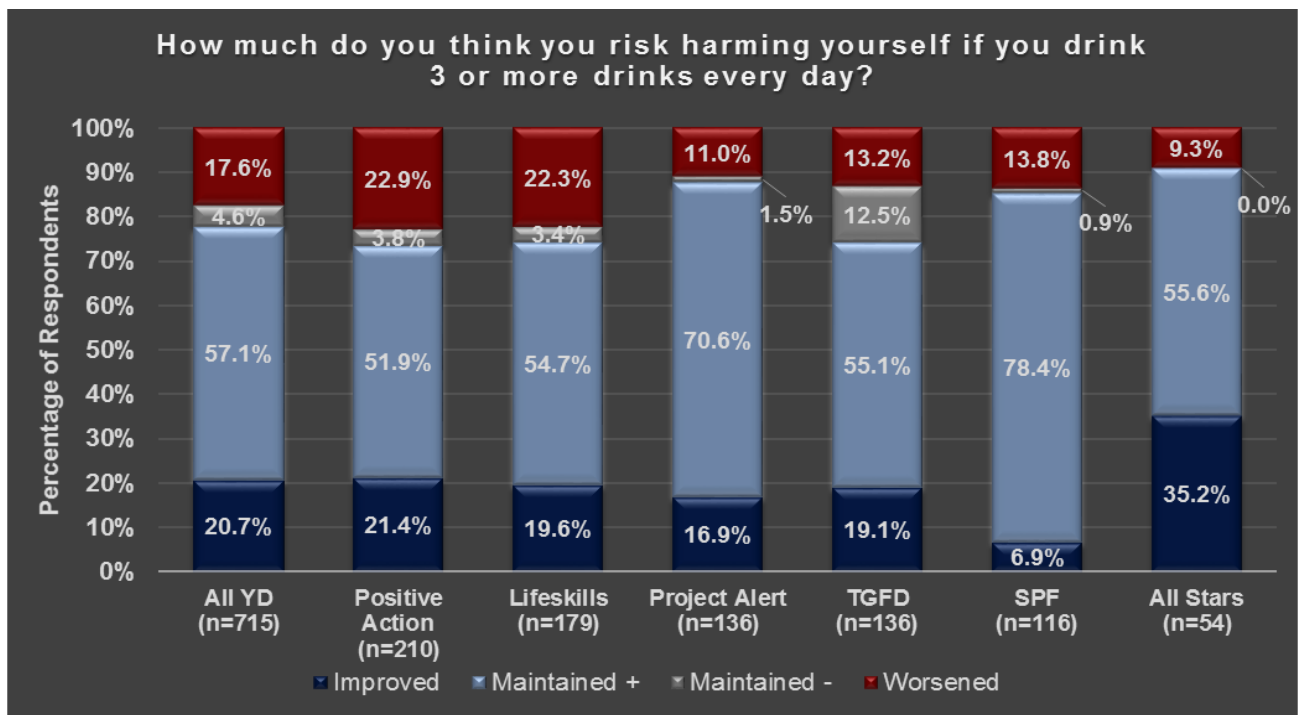
Perceptions of risk either:

- 1) "improved," which means that their reported perceived risk regarding alcohol, cigarettes, 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, cigarettes, 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, cigarettes, 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).

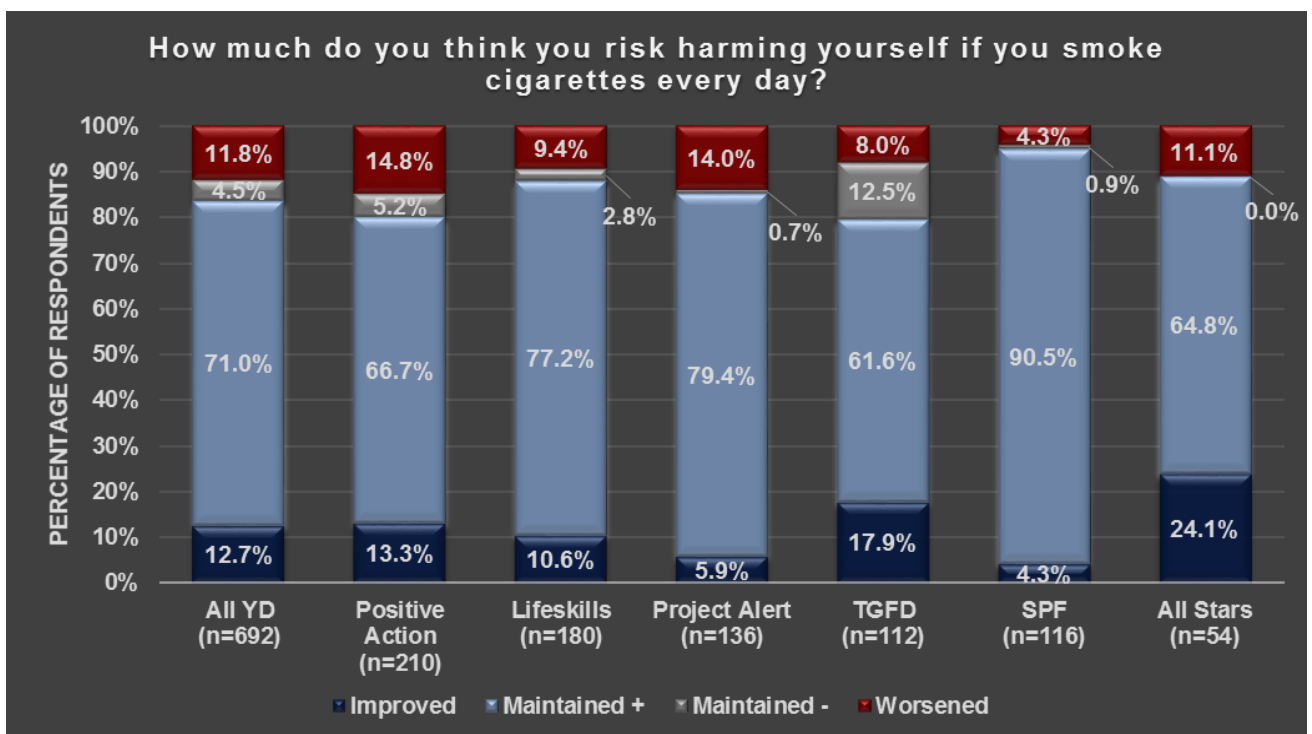
Maintaining a response from pre-test to post-test that use is "wrong" or "very wrong," or moving up the scale towards "very wrong" from any point on the scale is considered a positive outcome. Desired outcomes for these questions are improvement in ("improved") or positive maintenance ("maintained +") 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.

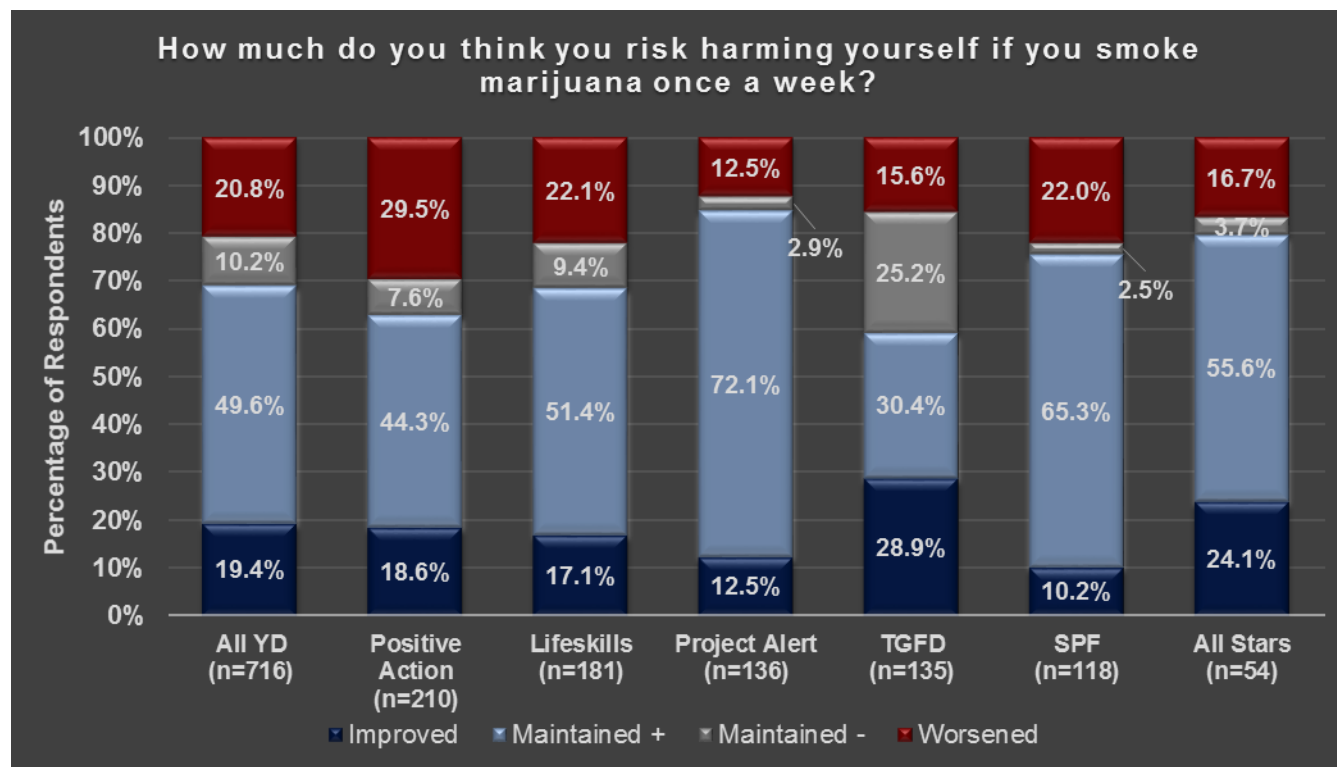
**Figure 4. Change in Perceived Risk of Harm from Alcohol**



**Figure 5. Change in Perceived Risk of Harm from Cigarettes**



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



## CONCLUSION

### Project evaluation questions

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

There was no statistically significant change in past 30-day use for YD participants as a whole. 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. However, there was a significant decrease in alcohol for Positive Action participants and a statically significant increase in alcohol use for Too Good for Drugs participants.

- ***Has the percentage of the target population who indicate positive attitudes at baseline (pre-test) maintained or increased after the intervention (post-test)?***
- ***Answer: Yes, in 70.2% or more of all participants.***

Table 2 below presents positive outcome percentages for attitudes toward alcohol, cigarettes, and marijuana use for all YD participants and participants in LifeSkills Training, Positive Action, Project ALERT, Strategic Prevention Framework Groups, Too Good for Drugs, and All Stars programs. At least 70.2% of participants across all programs maintained or increased positive attitudes regarding substance use (i.e., that alcohol, cigarette, and marijuana use is wrong or

very wrong) from pre-test to post-test. In all groups except Too Good for Drugs and Project ALERT the percentage of students who believe regular cigarette use is wrong is higher than the percentage of students who believe regular alcohol and marijuana use is wrong.

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

Positive Outcome Percentages for Attitudes Toward Substance Use			
Participant Group	Alcohol	Cigarettes	Marijuana
All Youth Development Participants	81.9%	85.8%	83.9%
LifeSkills Training	75.1%	87.8%	83.7%
Project ALERT	82.4%	83.7%	91.1%
All Stars	81.5%	79.2%	88.9%
Too Good for Drugs	84.8%	86.4%	70.2%
Positive Action	85.7%	86.5%	86.0%
SPF Groups	84.8%	89.0%	88.1%

- ***Has perceived risk of harm from alcohol/cigarettes/marijuana use maintained a positive response or increased from pre-test to post-test?***
- ***Answer: Yes, 59.3% or more of all participants.***

Table 3 below presents positive outcome percentages for perceived risk of harm from use of alcohol, cigarettes, and marijuana for all YD participants and participants in LifeSkills Training, Positive Action, Project ALERT, State Prevention Framework, Too Good for Drugs, and All Stars programs. More than 59.3% of participants in all groups maintained or increased positive responses regarding perception of risk of harm from substance use (i.e., that using alcohol, cigarettes, or marijuana posed moderate to great risk of harm). In all groups, the percentage of students who believe that marijuana use is less risky than alcohol or cigarette use is lower.

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

<b>Positive Outcome Percentages for Perceived Risk Towards Substance Use</b>			
<b>Participant Group</b>	<b>Alcohol</b>	<b>Cigarettes</b>	<b>Marijuana</b>
All Youth Development Participants	77.8%	83.7%	69.0%
LifeSkills Training	74.3%	87.8%	68.5%
Project ALERT	87.5%	85.3%	84.6%
All Stars	90.8%	88.9%	79.7%
Too Good for Drugs	74.2%	79.5%	59.3%
Positive Action	73.3%	80.0%	62.9%
SPF Groups	85.3%	84.8%	75.5%

## APPENDIX A

### Evidence Based Programs by Organization

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

AGENCY	PROGRAM
Area Substance Abuse Council, Area 10	All Stars
	SPF
Center for Alcohol and Drug Services	Too Good for Drugs
	SPF
Garner-Hayfield-Ventura Community School District	Project ALERT
	SPF
Henry County Extension	LifeSkills Training
	Project ALERT
	SPF
Mason City Youth Task Force	Positive Action
	SPF
Substance Abuse Treatment Unit of Central Iowa	LifeSkills Training
	SPF
United Action for Youth	LifeSkills Training
	SPF