THE IOWA
CONSORTIUM
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

Comprehensive Substance Abuse Prevention Program Evaluation

Report

Prepared By:
Iowa Consortium for Substance Abuse Research and Evaluation
University of Iowa, Iowa City, Iowa 52242-5000

With Funds Provided By:
U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention, Iowa Department of Public Health, Bureau of Substance Abuse Prevention and Treatment

Citation of references related to this report is appreciated. Suggested citation:

White, K., Guard, M., & Arndt, S. (2010). Comprehensive substance abuse prevention Program evaluation report. (Iowa Department of Public Health contract #5881UI01). Iowa City, IA: Iowa Consortium for Substance Abuse Research and Evaluation. http://iconsortium.subst-abuse.uiowa.edu/

THE IOWA
CONSORTIUM
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

Comprehensive Substance Abuse Prevention Program Evaluation

Report

July 2005 – June 2010

Prepared By:

Kristin L. White, MA
Evaluation Coordinator

Molly Guard, MA
Associate Director

Stephan Arndt, PhD
Director

Executive Summary

The Comprehensive Substance Abuse Prevention Project provides substance abuse prevention services to youth in each county in Iowa. Agencies administered twenty-two different prevention programs in elementary, middle, and high schools, and in the community, and submitted 20,784 matched participant pre-test and post-test surveys to the evaluator between July, 2005 and June, 2010. This yielded sufficient numbers of matched surveys to report data for fourteen of the programs:

- Elementary and Middle School Single Year Programs: Girls Circle; Girl Power; Reach for the Stars Project Drug Free; Project Towards No Tobacco Use
- Elementary and Middle School Multi-Year Programs: All Stars; Project ALERT; Too Good for Drugs
- Programs Spanning Multiple School Levels: LifeSkills Training
- High School Programs: Diversion; Juvenile Alcohol and Drug Education (JADE); Juvenile Education Groups; Peer Helping; Prime for Life Under 21; Project Northland Class Action; Project Towards No Drug Abuse

The median age (at post-test) of participants included in this evaluation was 13. Nearly half (47.2%) of the participants were 7th and 8th grade students. Females comprised 50.3% of respondents; 7.3% of respondents were Hispanic or Latino ethnicity, and 83.31% were White. Attrition analysis results indicate that minority participants were more likely to not complete a post-test than were Whites. Participants ages nine and ten, and age fifteen and older were more likely to not complete a post-test, as were those who did not think substance use is very wrong, and those who did not think substance use poses great risk of harm. Therefore, participants represented in this evaluation differ in some ways from the total pool of participants who began programming.

Many of the programs evaluated here varied in performance for substance use versus attitude and perception of risk. Programs that performed relatively well overall (substance use, attitude, and perception of risk) with the populations they served in this project include All Stars (1 Year), LifeSkills Training (1 Year) and Girls Circle, although All Stars and Girls Circle showed increases in use of some substances. Additionally, the All Stars and LifeSkills Training groups represent only one year of those multi-year programs and it is not known how the full program curriculum would have performed.

Programs that performed best of those evaluated here in affecting substance use include Reach for the Stars Project Drug Free (primarily elementary school), LifeSkills Training – 1 Year (primarily middle school), Girl Power (middle school), Project Towards No Drug Abuse, Prime for Life Under 21, and Juvenile Education Groups (the last three served primarily high school youth). It should be noted that the LifeSkills Training – 1 Year group represents participants completing only one year of the multi-year program, and that information regarding the curriculum level presented to these students is unavailable (e.g., Elementary Level 3/Grade 5 or 6; Middle School Level 1/Grade 6 or 7, etc.).

Programs that performed the best in affecting attitude and perceived risk are Girls Circle (primarily middle school), All Stars – 1 Year (primarily middle school), Too Good for Drugs – 2 Years (primarily middle school), LifeSkills Training – 1 Year (primarily middle school), and

Peer Helping (primarily high school). Again, All Stars and LifeSkills Training represent only one year of those multi-year programs. It also should be noted, as mentioned previously, that Peer Helping participants were primarily youth in training to become peer helpers and may have been selected partly on their desirable beliefs and attitudes. Juvenile Education Groups, Diversion, and Project Towards No Drug Abuse also performed well.

These outcomes for Juvenile Education Groups, Diversion, and Prime for Life Under 21 are particularly notable because those programs serve indicated populations – youth who have already experienced consequences from their substance use.

Agencies and schools are encouraged to consider their priorities in terms of affecting change in substance use versus change in attitudes and perceptions when selecting programs.

Table of Contents

Introduction

The Comprehensive Substance Abuse Prevention Project provides primary alcohol, tobacco, and other drug (ATOD) prevention services to all counties in Iowa. The project is funded through Substance Abuse Prevention and Treatment (SAPT) Block Grant from the federal Substance Abuse and Mental Health Services Administration (SAMHSA). The Iowa Department of Public Health (IDPH) administers the prevention portion of the Block Grant funds through a competitive process to provide funding for each county in the state. Twenty-two providers covering twenty three service areas were awarded contracts to implement a variety of evidence-based prevention programming for the funding cycle that ran from July 1, 2005 to June 30, 2010.

The Iowa Consortium for Substance Abuse Research and Evaluation ("Consortium") was awarded a contract to evaluate the project and to provide training and technical assistance to the providers on data collection and data entry. The evaluation of the Comprehensive Substance Abuse Prevention Project ("Comprehensive Project") discussed in this report covers the five-year funding period mentioned above and includes only recurring educational programs for youth. Other services provided under the Comprehensive Project were monitored outside of this evaluation. A list of recurring programs implemented by each agency and the Institute of Medicine (IOM) category of populations served appears in Appendix A.

Process Overview

The Consortium developed a survey instrument under the direction of the Iowa Department of Public Health, which incorporated questions from the instrument used in the State Incentive Grant (SIG) project and the Government Performance and Results Act (GPRA) instrument, as well as incorporating requirements of the Comprehensive Prevention project. In addition, IDPH and the Consortium responded to contractor requests to include the LifeSkills Training program survey instrument, the JADE survey instrument (developed by agency contractors), and an instrument for students in the fourth and fifth grades as alternatives to the Comprehensive survey instrument.

The Iowa Department of Public Health selected the online Database Builder (DbB) system for data collection and management. Security of data in Database Builder is overseen by SAMHSA. This system has been managed by three federal government contractors over the course of the project, and at the time of this report was being managed by KIT Solutions. In 2009, SAMHSA initiated the creation of a web portal through which to access the Database Builder and Minimum Data Set systems. SAMHSA also increased security procedures, and user account creation rights were switched from evaluators to KIT Solutions staff. These changes presented challenges and created delays in accessing data and providing new users with quick access to the system. However, KIT Solutions also implemented system enhancements that reduced download time, ending a long-standing timing out problem and eliminating the need for DbB managers to create a special file of the Comprehensive Project data for annual reports.

During the first year of the project, contractors entered survey data into the online system and the Consortium downloaded the data at the end of the fiscal year for annual report analyses. Consortium staff discovered pervasive data errors during year-end data analyses, and instituted a system for periodic data checks during the year. The evaluator created a survey tracking form on which contractors recorded administrative data, including the numbers and dates of pre-tests and post-tests administered, the name of the prevention program, the location of program implementation, and the specific survey instrument used. Contractors were asked to submit tracking forms each time a group of surveys was administered and entered into Database Builder. Consortium staff then downloaded the data from Database Builder to check for errors on the administrative items, and notified the contractors of errors needing correction. This allowed the contractors time to fix errors prior to the annual reporting time. The tracking form was instituted in 2006 and revised in 2008 to a more user-friendly format for contractors and evaluators.

Evaluators faced additional challenges during the course of the project. Contractor staff turnover and lack of communication between project coordinators and data entry staff led to inconsistencies in survey administration protocols, lost surveys, incomplete data, and incorrect data. Additionally, staff from agencies with multiple prevention contracts would mistakenly enter agency or location codes pertaining to another project, apply the participant identification numbering system from another project, administer a survey instrument from another project, or enter surveys into another project's measurement points in Database Builder. In 2008, additional enhancements were made to reduce data entry error and facilitate data checking. Consortium staff created measurement points in which contractors entered data for only the current fiscal year, and restricted data-entry access to previous years' measurement points.

Evaluators provided training and technical assistance to contractors regarding survey administration, data entry, and data corrections. Training and technical assistance were primarily provided by telephone; however, evaluators periodically attended biannual contractor meetings to provide additional assistance. Consortium staff was also available at the Prevention Symposium and the Annual Governor's Conference on Substance Abuse to field questions and provide technical assistance regarding interpreting and making use of data reports. In 2009, the Consortium revised the format of individual agency reports in response to requests and input from contractors, making the reports easier to read and interpret.

Methodology

The evaluation involved a matched pre-post design whereby a survey was administered to the target population at the beginning and at the conclusion of the prevention program. The survey was also administered at the end of each year for programs spanning multiple years. For annual reports, post-test survey data from the previous program year was used as a baseline for reporting current-year outcomes of multi-year programs. For this five-year report, each participant's earliest pre-test and most recent post-test are used to assess outcomes of multi-year programs. Not all participants completed all years of multi-year programs; therefore, this approach covers the greatest length of time each participant was involved in programming.

The matched data sets are used to answer the following evaluation questions:

- Has alcohol/tobacco/marijuana use changed in the target population?
- Has the percentage of the target population who indicate at baseline (pre-test) that substance use by someone their age is wrong or very wrong remained the same (maintained) or increased after the intervention (post-test)?
- Has perceived risk of harm from alcohol/tobacco/marijuana use maintained a positive response (belief that using poses a moderate or great risk of harm) or increased from pre-test to post-test?

Participant Profile

Agencies submitted 24,426 pre-tests, 21,526 first-year post-tests, 5092 second-year post-tests, and 415 third-year post-tests between July 1, 2005 and June 30, 2010. This yielded 20,784 total matched pre- and post-test surveys. Of these, 18,144 were pre-test to first-year post-test matches, which includes participants in programs spanning one year or less and participants who attended only one year of multi-year programs (multi-year programs span two or three years). The matched set also contains 2293 pre-test to second year post-test matches, which include participants who attended both years of a two-year program and those who attended two years of a three-year program; and 347 pre-test to third-year post-test matches. Matched data include participants completing the Comprehensive, Younger Youth, and Juvenile Alcohol and Drug Education (JADE) survey instruments. There were no post-test surveys submitted for the LifeSkills Training instrument during the reporting period.

Demographics

Demographic data include participants completing the Comprehensive, Younger Youth, and Juvenile Alcohol and Drug Education (JADE) survey instruments. There are some instances where individual responses on demographic data varied from pre-test to post-test. Some differences are naturally occurring, such as participants' age or grade increasing by one year. However, there also were numerous mismatches in individual participant responses from pre-test to post-test for gender, race, and ethnicity. Upon investigation, agency and Consortium staff discovered that the majority of these discrepancies were due to participants giving different responses and not due to data entry error. Therefore, evaluation staff created a standard rule for addressing discrepancies in demographic data, which was to use the responses on the post-tests.

The median age (at post-test) of participants included in this evaluation is 13. Nearly half (47.2%) of the participants are 7th and 8th grade students. Females comprise 50.3% of respondents, and 7.3% of respondents are Hispanic or Latino. Participant racial groups are delineated below:

- 83.31% White
- 3.34% Black/African American
- 1.51% Asian
- 1.51% American Indian/Alaska Native

- 0.35% Native Hawaiian/Other Pacific Islander
- 0.17% Arab American
- 9.81% More than one race

Attrition Analysis

Due to a large number of unmatched pre- and post-tests (possibly caused by survey administration anomalies, data entry error, or ID assignment mistakes) an attrition analysis was performed on these data, which examined demographics, attitudes toward alcohol, tobacco, and marijuana use, and perception of risk of harm from alcohol, tobacco, and marijuana use. Statistically significant differences between participants who completed a post-test and those who did not were found in age, grade, race, ethnicity, attitudes toward alcohol, tobacco, and marijuana use, and perceived risk of harm from alcohol, tobacco, and marijuana use. Attrition (either not completing the program or not completing the post-test) was higher among nine and ten year olds and those age fifteen and older than among participants of other ages (Cochran-Mantel-Haenszel, $p < 0.0001$). Correspondingly, attrition among fourth graders and those in ninth grade and above was higher than among participants in other grades ($p < 0.0001$). Participants of Hispanic or Latino ethnicity were significantly less likely to complete the program or a post-test than non-Hispanic or Latino participants; ten percent (10.06%) of Hispanic/Latino participants did not complete the program or a post-test compared to seven percent (7.34%) of participants whose ethnicity was not Hispanic/Latino ($p < 0.0001$). Participants of racial minority groups also were less likely to complete the program or a post-test than were Whites; non-Whites comprised seventeen percent (17.67%) of participants completing the post-test survey, but comprised twenty-four percent (23.71%) of those not completing the survey ($p < 0.0001$). Participants who felt at pre-test that use of alcohol, tobacco, and marijuana by someone their age was not wrong or only a little wrong were less likely to complete the program or a post-test than those who believed use is very wrong ($p < 0.0001$). Similarly, participants who felt at pre-test that use of alcohol, tobacco, and marijuana posed no, slight, or moderate risk were less likely to complete the program or a post-test than participants who felt it posed great risk ($p < 0.0001$).

These effects of attrition indicate that participants who did not complete the post-test or did not complete prevention programming differed in some respects from those who completed programming and a post-test. Thus, the participants represented by these outcome data differ in some ways from the total pool of participants who began programming. This should be taken into consideration when interpreting the outcome data.

Outcome Data

The figures included in the outcome data detail past 30-day substance use, attitudes about substance use, and perceived risk of harm from substance use. Data are provided for all participants in the project combined, as well as by individual program.

Past 30-Day Use

Tables 1 through 4 on pages 7, 10, 14, and 17 present data on change in past 30-day alcohol, tobacco, and marijuana use. Graphs 1 through 5 on pages 8, 11, 12, 15, and 18 graphically present the information shown in Tables 1 through 4. Program-specific data are

provided for evidence-based prevention programs with at least 50 matched pre- and post-tests. A Comprehensive Prevention project total is also provided so that individual program results can be viewed in relation to the overall totals for the project. The Comprehensive (All) figures include all participants in the Comprehensive Prevention Project with matched pre- and post-tests, other than those who completed the Younger Youth Survey, and include participants in programs for which there were not enough matches to report on separately. The 30-day use data do not include participants taking the Younger Youth Survey because that survey does not contain questions regarding respondent substance use.

The programs are grouped into school levels (elementary and middle school versus high-school) based on the median age of participants at post-test; however, participants outside those school groups also may have participated in those programs. Program data is also grouped into tables based on the duration of the program (programs spanning one year or less versus those spanning multiple years).

The Iowa Youth Survey (IYS) data are provided as a reference for interpreting the outcome data in this report. The Iowa Youth Survey is a biennial assessment of Iowa's school-age (grades 6, 8, and 11) students' use of substances and attitudes toward substance use. The IYS data reflect changes due to maturation of the youth through the different grade levels. The 2008 IYS data provided here represent an estimate of the change one might see among youth in the general population over the course of one, two, and three years. Thus, this shows the estimated change one might expect in Iowa's general youth population versus the outcomes of youth who complete specific prevention programming under the Comprehensive Prevention project (Note: Youth who received Comprehensive programming may also have completed the IYS). The average change for a single year was calculated by dividing the difference between the use figures for each grade by the number of years between grades. The single-year figure was doubled to obtain an average change for two years, and tripled for an average change for three years. This was done using 6^{th} and 8^{th} grade IYS data to provide a reference for programs implemented in the elementary and middle schools, and using 8^{th} and 11^{th} grade IYS data for programs in the high schools. A single average yearly change figure is given in the tables below to simplify interpretation. True yearly change rates, however, would increase each successive year (i.e., past 30-day use may increase less than 3% between 6^{th} and 7^{th} grade, but may increase more than 3% between 7^{th} and 8^{th} grade). 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.

Table 1 on page 7 and Graph 1 on page 8 display the change in past 30-day use of alcohol, tobacco, and marijuana reported by elementary and middle school age youth in single-year programs. A positive (+) figure indicates an increase in use from pre-test to post-test, whereas a negative figure (-) indicates a decrease in use. Iowa Youth Survey data show increases in past 30-day use of all three substances. Some Comprehensive Prevention programs show reductions in use from pre-test to post-test, and no programs show increases as great as in the IYS group. Reach for the Stars Project Drug Free (referred to as Reach for the Stars) shows the most notable outcomes of the four single-year programs listed. Fewer participants used alcohol at post-test than at pre-test, and there was no change, therefore no increase, in tobacco or marijuana use at post-test. Fewer Girl Power participants also used alcohol at post-test than at pre-test, and there was no increase in

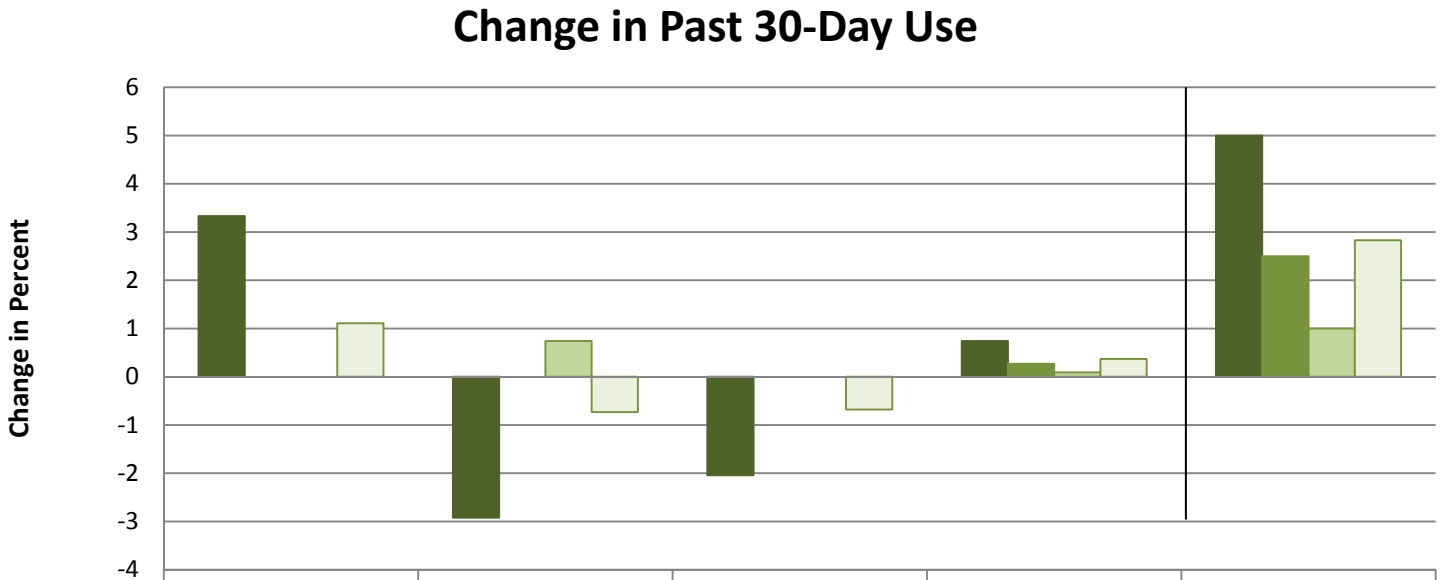
tobacco use. There was a slight increase in marijuana use at post-test for Girl Power participants. Girls Circle and Project Towards No Tobacco Use participants also show either no change or a small percentage increase in use.

Table 1. Change in Past 30-Day Use: Elementary and Middle School Age Youth in Single-Year Programs

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: Elementary and Middle School Age Youth in Single-Year Programs								
Group	**N**	**Median Age**	**Alcohol**		**Tobacco**		**Marijuana**	
			Pre-Test %	**Change**	**Pre-Test %**	**Change**	**Pre-Test %**	**Change**
Iowa Youth Survey[1]	64,937[2]	13	–	**+5.00**	–	**+2.50**	–	**+1.00**
Comprehensive (All)[3]	15,672	13	13.37	**+0.89**	7.37	**+0.58**	2.97	**+0.35**
Girls Circle	240	12	0	**+3.33**	0	**0**	0	**0**
Girl Power	138	13	11.68	**-2.92**	5.15	**0**	1.47	**+0.74**
Reach for the Stars	265	10	4.08	**-2.04**	1.92	**0**	1.92	**0**
Project Towards No Tobacco Use	3171	11	3.52	**+0.74**	0.56	**+0.27**	0.19	**+0.09**

[1] IYS entries reflect the yearly average change in 30-day use between participating Iowa students in grades 6 and 8. The majority of 6th graders completing the IYS were 11 years old; the majority of 8th graders were 13. Data were from the 2008 Iowa Youth Survey, State of Iowa report (pgs.12, 29-30, 90-91).
[2] The total number of 6th graders completing the Iowa Youth Survey was 32,264; the total number of 8th graders was 32,673.
[3] The Comprehensive (All) row includes all Comprehensive Prevention project participants with matching pre- and post-tests, regardless of their age, the program in which they participated, or how many years of programming they completed.

Graph 1. Change in Past 30-Day Use: Elementary and Middle School Age Youth in Single-Year Programs



	GC	GP	RFTS	TNT	IYS
Alcohol	3.33	-2.92	-2.04	0.74	5
Tobacco	0	0	0	0.27	2.5
Marijuana	0	0.74	0	0.09	1
Average	1.11	-0.73	-0.68	0.37	2.83

GC – Girls Circle
GP – Girl Power
RFTS – Reach for the Stars
TNT – Project Towards No Tabacco Use
IYS – Iowa Youth Survey

Table 2 on page 10 and Graphs 2 and 3 on pages 11 and 12 display the change in past 30-day use of alcohol, tobacco, and marijuana reported by elementary and middle school age youth who participated in multi-year programs. Data for participants completing one and two years of multi-year programs are reported separately. Data for participants completing only one year of All Stars, Project ALERT, or Too Good for Drugs are presented first, with single-year comparison data from the Iowa Youth Survey. Data for participants completing two years of Project ALERT or Too Good for Drugs are presented next, with two-year comparison data from the IYS (there were not enough participants completing two years of All Stars to be included in this report). The group completing two years of Project ALERT is the only group in this table that completed a full program course.

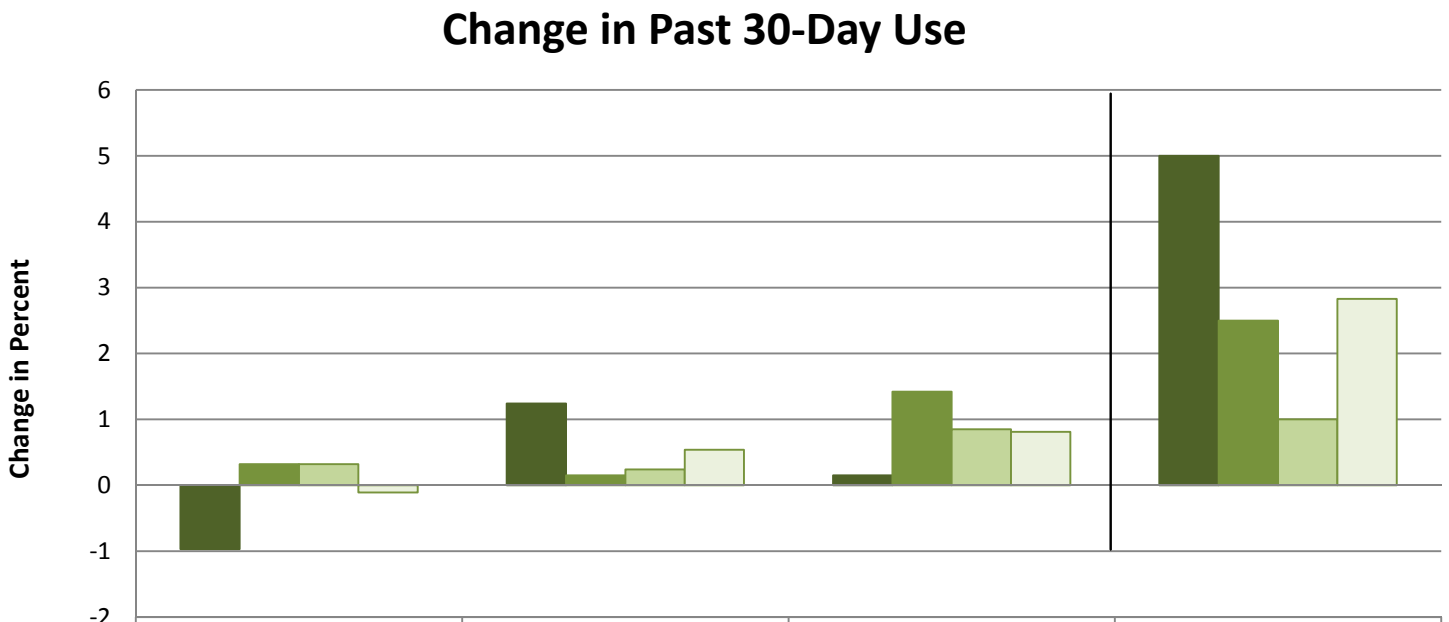
Participants completing one year of All Stars show a reduction in alcohol use from pre-test to post-test. All Stars participants show a slight increase in tobacco and marijuana use. All other programs show increases in use of all substances; however, those increases, with one exception, are also smaller than seen in the IYS group. The exception is marijuana use among the Project ALERT – 2 Year group.

Table 2. Change in Past 30-Day Use: Elementary and Middle School Age Youth in Multi-Year Programs

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: Elementary and Middle School Age Youth in Multi-Year Programs								
Group	**N**	**Median Age**	**Alcohol**		**Tobacco**		**Marijuana**	
			Pre-Test %	**Change**	**Pre-Test %**	**Change**	**Pre-Test %**	**Change**
Iowa Youth Survey – 1 Year[1]	64,937[2]	13	–	**+5.00**	–	**+2.50**	–	**+1.00**
Comprehensive (All)[3]	15,672	13	13.37	**+0.89**	7.37	**+0.58**	2.97	**+0.35**
All Stars – 1 Year[4]	310	12	4.53	**-0.97**	2.27	**+0.32**	0.65	**+0.32**
Project ALERT – 1 Year	4131	13	6.87	**+1.24**	2.47	**+0.15**	1.21	**+0.24**
Too Good for Drugs – 1 Year	2425	10	9.33	**+0.15**	3.28	**+1.42**	2.43	**+0.85**
Iowa Youth Survey – 2 Years[1]	64,937	13	-	**+10.00**	-	**+5.00**	-	**+2.00**
Project ALERT – 2 Years	1449	13	7.32	**+4.93**	2.37	**+3.29**	1.47	**+2.31**
Too Good for Drugs – 2 Years	109	13	3.67	**+8.26**	0	**+0.92**	0	**+1.83**

[1] IYS entries reflect the yearly average change in 30-day use between participating Iowa students in grades 6 and 8. The majority of 6th graders completing the IYS were 11 years old; the majority of 8th graders were 13. Data were from the 2008 Iowa Youth Survey, State of Iowa report (pgs.12, 29-30, 90-91).
[2] The total number of 6th graders completing the Iowa Youth Survey was 32,264; the total number of 8th graders was 32,673.
[3] The Comprehensive (All) row includes all Comprehensive Prevention project participants with matching pre- and post-tests, regardless of their age, the program in which they participated, or how many years of programming they completed.
[4] The number of matched surveys from the 2nd year of All Stars was less than 50, so those data are not reported.

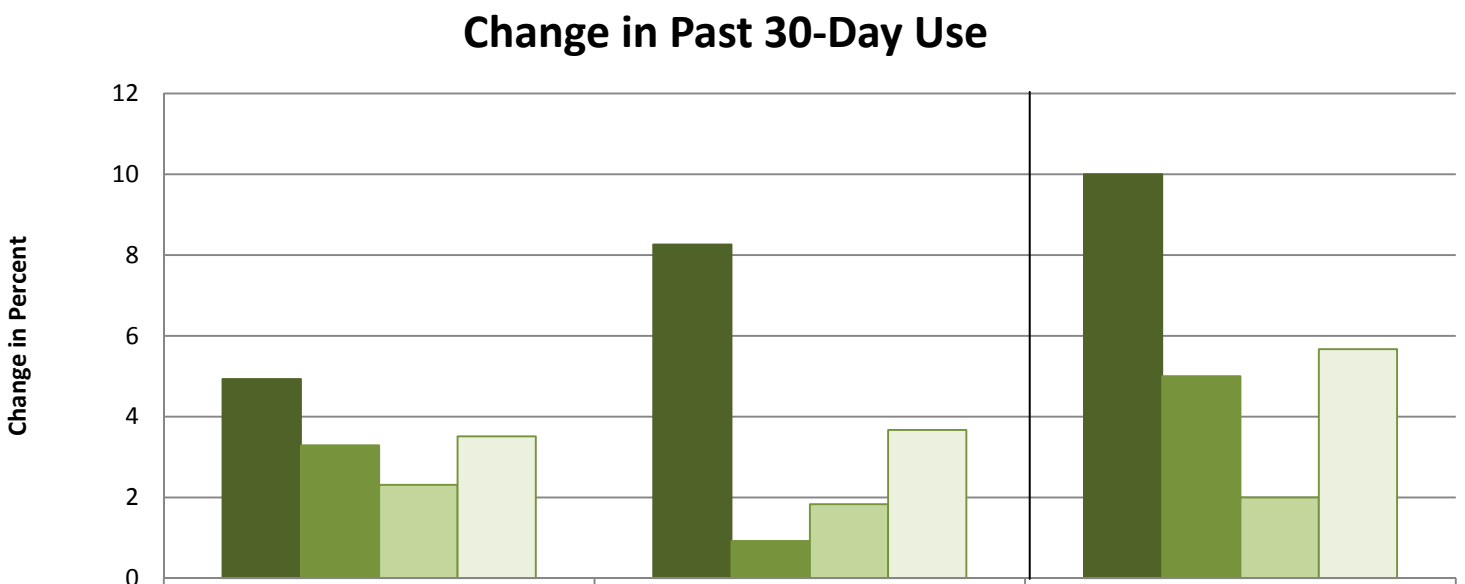
Graph 2. Change in Past 30-Day Use: Elementary and Middle School Age Youth Completing One Year of Multi-Year Programs



	AS-1Yr	PA-1Yr	TGFD-1Yr	IYS
Alcohol	-0.97	1.24	0.15	5
Tobacco	0.32	0.15	1.42	2.5
Marijuana	0.32	0.24	0.85	1
Average	-0.11	0.54	0.81	2.83

AS – All Stars
PA – Project ALERT
TGFD - Too Good for Drugs
IYS – Iowa Youth Survey

Graph 3. Change in Past 30-Day Use: Elementary and Middle School Age Youth Completing Two Years of Multi-Year Programs



	PA-2Yrs	TGFD-2Yrs	IYS-2Yrs
Alcohol	4.93	8.26	10
Tobacco	3.29	0.92	5
Marijuana	2.31	1.83	2
Average	3.51	3.67	5.67

PA – Project ALERT
TGFD - Too Good for Drugs
IYS – Iowa Youth Survey

Table 3 on page 14 and Graph 4 on page 15 display the change in past 30-day use of alcohol, tobacco, and marijuana reported by LifeSkills Training participants. Data for participants completing one, two, and three years of this program are reported separately. The LifeSkills Training (LST) program offers elementary, middle school, and high school level curricula. While information on curriculum level used was not available, the LST participants represented here span grades 4 through 11. The group completing one year of LST is composed largely of elementary school age participants, whereas the group completing three years of LST is composed largely of high school age participants (as is shown by the median ages listed in Table 3). Iowa Youth Survey yearly change figures for the 1 Year group were calculated using 6^{th} to 8^{th} grade data. Iowa Youth Survey change figures for the 2 Year and 3 Year groups were calculated using 8^{th} to 11^{th} grade data, as those more closely match the median ages of participants completing two and three years of LifeSkills Training.

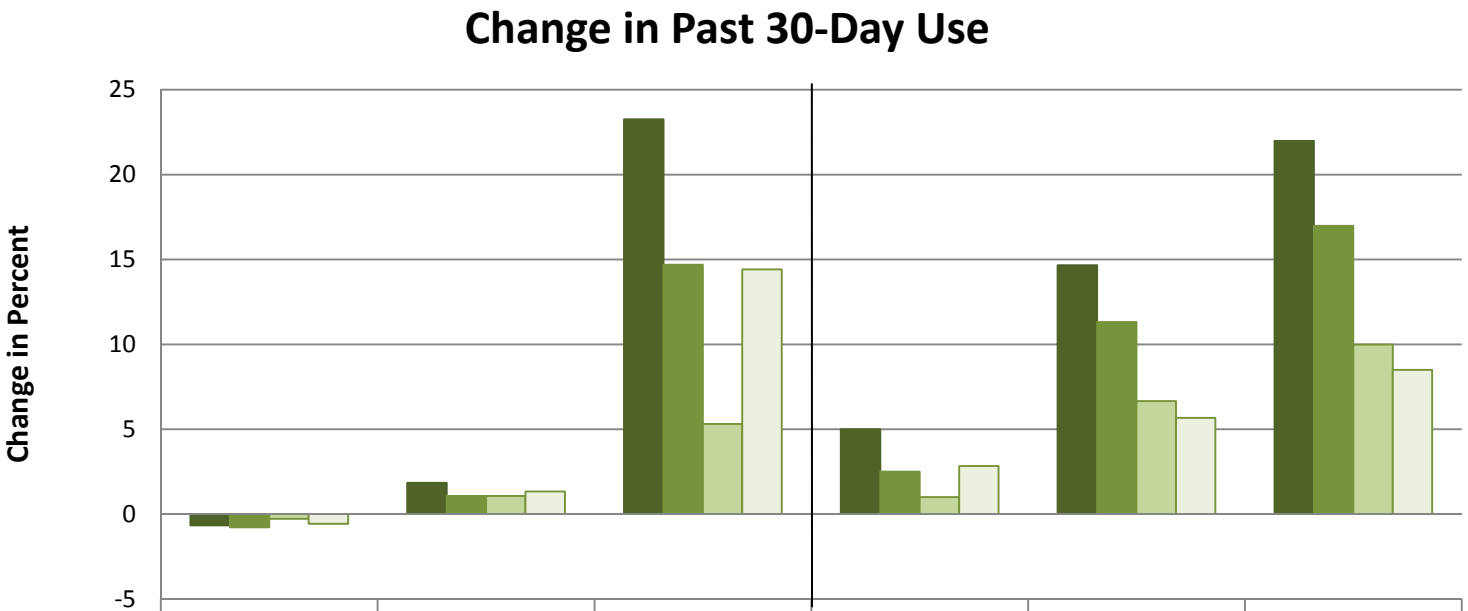
Iowa Youth Survey data show increases in use of all substances over one, two, and three years. Students completing one year of LifeSkills Training showed reductions in use of all three substances from pre-test to post-test. Students completing two years of LST showed increases in use of all three substances, though the percentage increases were much lower than in the IYS-2 Year group. Students completing three years of LST showed increases in use of all three substances, and the percentage increase in alcohol use was greater than in the IYS – 3 Year group. However, the median age of LST – 3 Year participants is two years higher than the median age of the IYS – 3 Year group; therefore alcohol use among the IYS group, or the general population those data are used to represent, might be expected to increase as much or more at an equivalent age.

Table 3. Change in Past 30-Day Use: LIfeSkills Training Participants

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: LifeSkills Training Participants								
Group	**N**	**Median Age**	**Alcohol**		**Tobacco**		**Marijuana**	
			Pre-Test %	**Change**	**Pre-Test %**	**Change**	**Pre-Test %**	**Change**
Iowa Youth Survey – 1 Year[1]	64,937[2]	13	–	**+5.00**	–	**+2.50**	–	**+1.00**
Iowa Youth Survey – 2 Years[3]	63,803[4]	14	–	**+14.66**	–	**+11.32**	–	**+6.66**
Iowa Youth Survey – 3 Years[3]	63,803	14	–	**+21.99**	–	**+16.98**	–	**+9.99**
Comprehensive (All)[5]	15,672	13	13.37	**+0.89**	7.37	**+0.58**	2.97	**+0.35**
LifeSkills Training – 1 Year	3504	12	6.16	**-0.66**	2.14	**- 0.78**	0.94	**-0.28**
LifeSkills Training – 2 Years	654	14	6.57	**+1.84**	0.46	**+1.07**	0	**+1.07**
LifeSkills Training – 3 Years	302	16	9.39	**+23.26**	2.45	**+14.69**	1.63	**+5.31**

[1] "IYS – 1 Year" entries reflect the yearly average change in 30-day use between participating Iowa students in grades 6 and 8. The majority of 6th graders completing the IYS were 11 years old; the majority of 8th graders were 13. Data were from the 2008 Iowa Youth Survey, State of Iowa report (pgs.12, 29-30, 90-91).
[2] The total number of 6th graders completing the Iowa Youth Survey was 32,264; the total number of 8th graders was 32,673.
[3] "IYS – 2 Years" and "IYS - 3 Years" entries indicate the average change in 30-day use over two years and three years, respectively, between participating Iowa students in grades 8 and 11. The majority of 8th graders completing the IYS were 13 years old; the majority of 11th graders were 16. Data were from the 2008 Iowa Youth Survey, State of Iowa report (pgs.12, 29-30, 90-91).
[4] The total number of 8th graders completing the Iowa Youth Survey was 32,673; the total number of 11th graders was 31,130.
[5] The Comprehensive (All) row includes all Comprehensive Prevention project participants with matching pre- and post-tests, regardless of their age, the program in which they participated, or how many years of programming they completed.

Graph 4. Change in Past 30-Day Use: LIfeSkills Training Participants



	LST-1Yr	LST-2Yrs	LST-3Yrs	IYS-1Yr	IYS-2Yrs	IYS-3Yrs
Alcohol	-0.66	1.84	23.26	5	14.66	21.99
Tobacco	-0.78	1.07	14.69	2.5	11.32	16.98
Marijuana	-0.28	1.07	5.31	1	6.66	9.99
Average	-0.57	1.33	14.42	2.83	5.67	8.5

LST – LifeSkills Training
IYS – Iowa Youth Survey

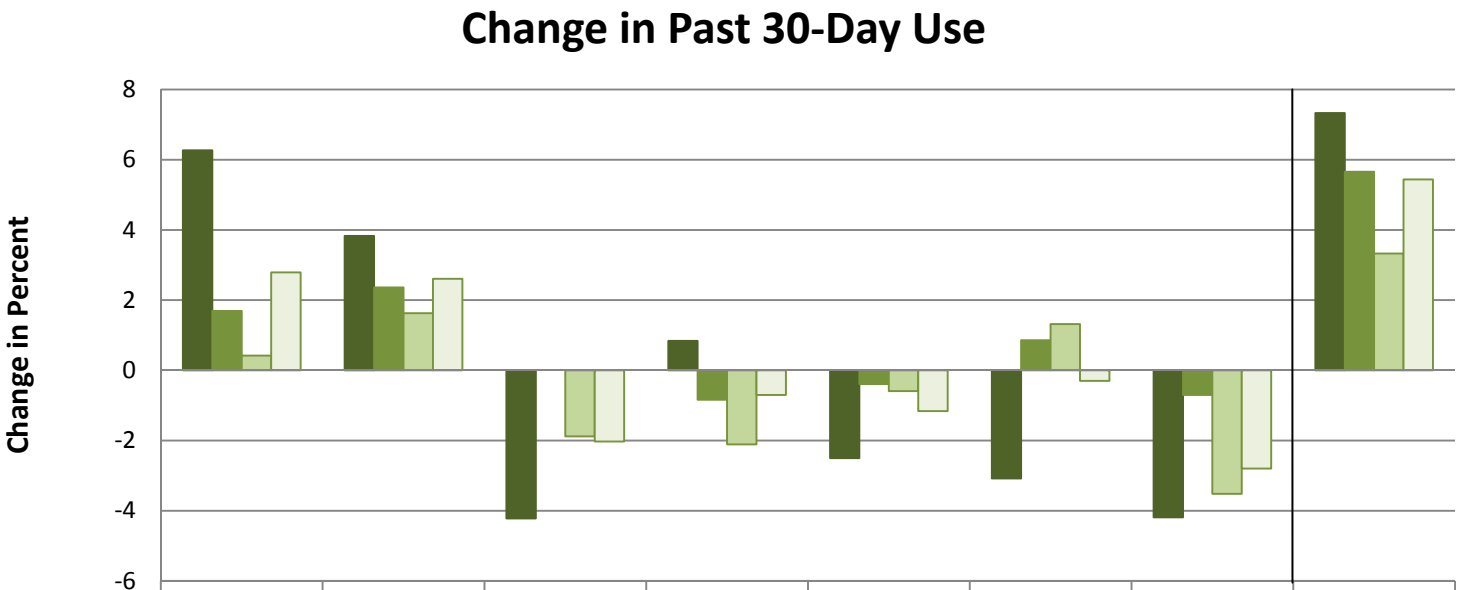
Table 4 on page 17 and Graph 5 on page 18 display the change in past 30-day use of alcohol, tobacco, and marijuana reported by high school age youth (all high school programs represented are single-year programs). Several programs show a decrease in use of one or more substances between the pre- and post-test. Project Towards No Drug Abuse (TND) and Prime for Life (PFL) show the most notable outcomes of the programs listed, with decreases in the use of all three substances. Juvenile Education Groups (JEG) shows decreases in use of alcohol and marijuana, and no change (therefore no increase) in use of tobacco. These outcomes for JEG and PFL are particularly notable because those programs serve indicated populations – youth who have already experienced consequences from their substance use. Peer Helping shows decreases in tobacco and marijuana use, and Project Northland Class Action (PNCA) shows a decrease in alcohol use. Two programs, Diversion and Juvenile Alcohol and Drug Education (JADE), show increases in the use of all substances, but the percentage increases are lower than in the IYS group.

Table 4. Change in Past 30-Day Use: High School Age Youth

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: High School Age Youth								
Group	**N**	**Median Age**	**Alcohol**		**Tobacco**		**Marijuana**	
			Pre-Test %	**Change**	**Pre-Test %**	**Change**	**Pre-Test %**	**Change**
IYS[1]	63,803[2]	14	–	**+7.33**	–	**+5.66**	–	**+3.33**
Comprehensive (All)[3]	15,672	13	13.37	**+0.89**	7.37	**+ 0.58**	2.97	**+0.35**
Diversion	250	17	38.08	**+6.27**	27.00	**+1.69**	13.45	**+0.42**
Juvenile Alcohol and Drug Education	808	16	51.73	**+3.83**	37.75	**+2.36**	7.08	**+1.63**
Juvenile Education Groups	213	16	41.78	**-4.22**	33.33	**0**	8.96	**-1.88**
Peer Helping	237	14.5	19.41	**+0.84**	7.59	**-0.84**	2.53	**-2.11**
Prime For Life Under 21	1542	16	34.96	**-2.50**	25.08	**-0.39**	12.12	**-0.59**
Project Northland Class Action	599	17	41.03	**-3.08**	22.01	**+0.86**	7.71	**+1.32**
Project Towards No Drug Abuse	167	16	9.09	**-4.19**	9.09	**-0.70**	4.93	**-3.52**

[1] IYS entries reflect the yearly average change in 30-day use between participating Iowa students in grades 8 and 11. The majority of 8th graders completing the IYS were 13 years old; the majority of 11th graders were 16. Data were from the 2008 Iowa Youth Survey, State of Iowa report (pgs.12, 29-30, 90-91).
[2] The total number of 8th graders completing the Iowa Youth Survey was 32,673; the total number of 11th graders was 31,130.
[3] The Comprehensive (All) row includes all Comprehensive Prevention project participants with matching pre- and post-tests, regardless of their age, the program in which they participated, or how many years of programming they completed.

Graph 5. Change in Past 30-Day Use: High School Age Youth



	DIV	JADE	JEG	PH	PFL	PNCA	TND	IYS
Alcohol	6.27	3.83	-4.22	0.84	-2.5	-3.08	-4.19	7.33
Tobacco	1.69	2.36	0	-0.84	-0.39	0.86	-0.7	5.66
Marijuana	0.42	1.63	-1.88	-2.11	-0.59	1.32	-3.52	3.33
Average	2.79	2.61	-2.03	-0.7	-1.16	-0.3	-2.8	5.44

DIV – Diversion
JADE – Juvenile Alcohol and Drug Education
JEG – Juvenile Education Groups
PH – Peer Helping
PFL – Prime for Life Under 21
PNCA – Project Northland Class Action
TND – Project Towards No Drug Abuse
IYS – Iowa Youth Survey

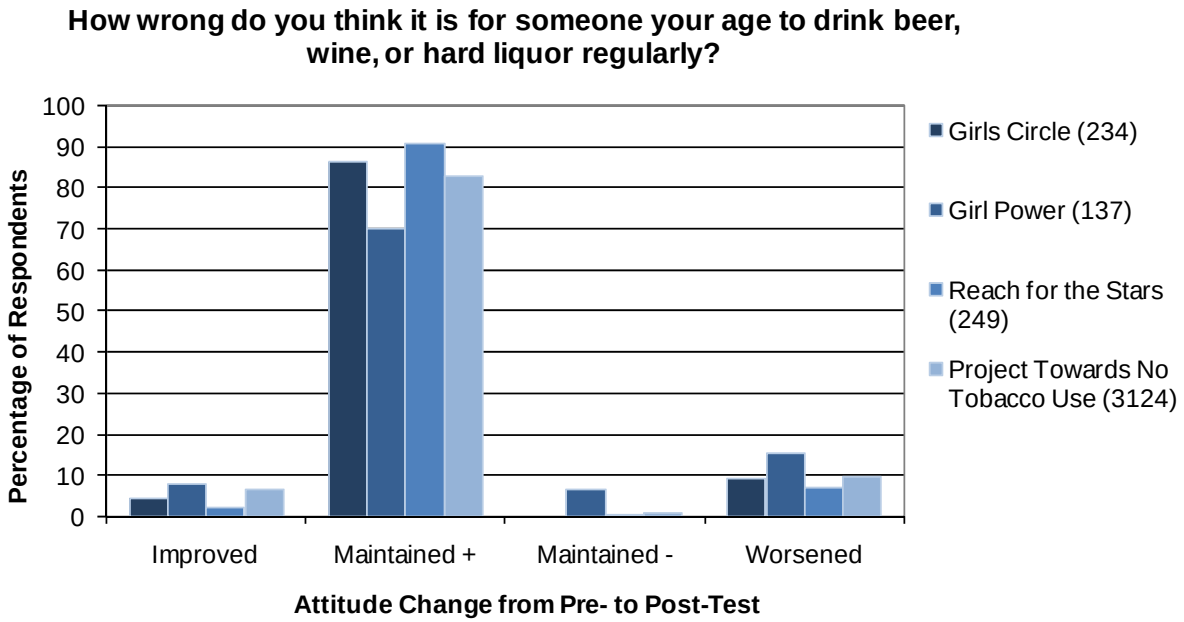
Attitudes Toward Substance Use

Graphs 6 through 17 on pages 19 through 30 show change in individual attitudes toward substance use from the pre-test to the post-test, by program and by substance. Programs are grouped according to the school level of the participants at post-test and by program duration. Attitude data do not include participants taking the JADE survey because that survey does not contain questions regarding attitudes. Individual attitudes either: 1) improved, which means that attitudes grew more unfavorable toward alcohol, tobacco, or marijuana use (e.g., respondent felt alcohol use was a little 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; 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 wrong at pre-test and not wrong at post-test). Desired outcomes for these questions are improvement and positive maintenance (maintained +) in attitudes. The number in parentheses after each program name in the graphs is the number of respondents answering the question on both the pre-test and the post-test.

Attitudes Toward Alcohol Use

Graph 6 shows the change in individual attitudes toward alcohol use from pre- to post-test for participants in single-year programs which served elementary and middle school age youth.

Graph 6. Change in Attitudes Toward Alcohol Use by Program: Elementary and Middle School Age Youth in Single-Year Programs

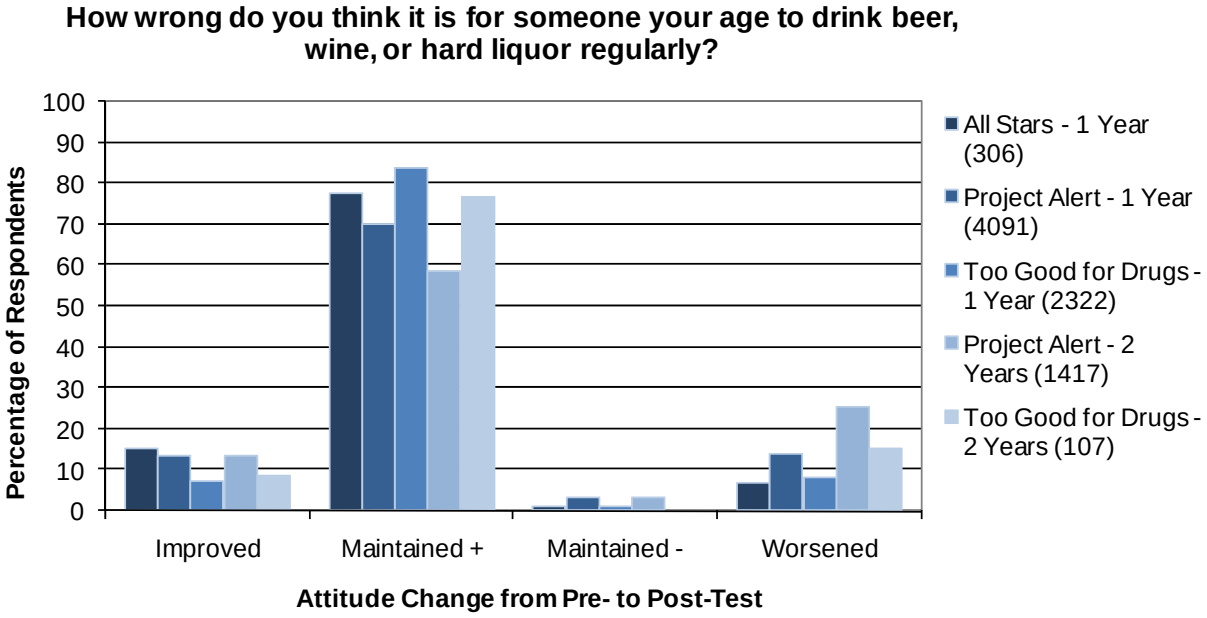


The percentages of elementary and middle school single-year program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- Girls Circle – 91%
- Girl Power – 78%
- Reach for the Stars – 93%
- Project Towards No Tobacco Use – 89%

Graph 7 shows the change in individual attitudes toward alcohol use from pre- to post-test for participants in multi-year programs serving elementary and middle school age youth. Participants completing only one year of All Stars, Project ALERT, or Too Good for Drugs are represented by the first three bars, and participants completing two years of Project ALERT or Too Good for Drugs are represented by the last two bars (there were not enough participants completing two years of All Stars to be included in this report). The group completing two years of Project ALERT is the only group that completed a full multi-year program course.

Graph 7. Change in Attitudes Toward Alcohol Use by Program: Elementary and Middle School Age Youth in Multi-Year Programs

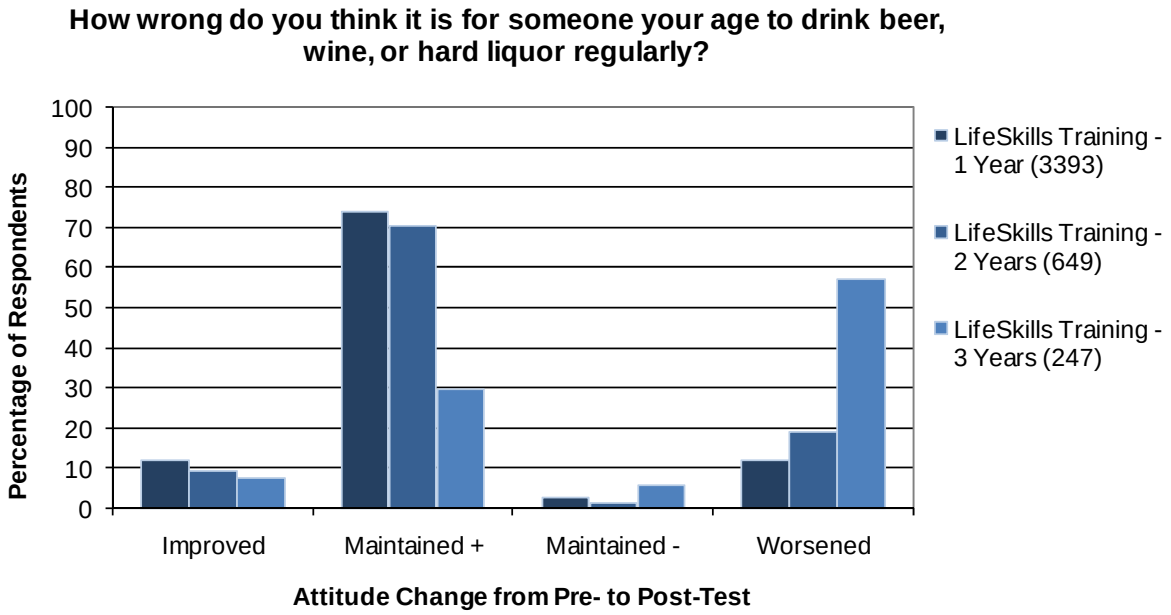


The percentages of elementary and middle school multi-year program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- One year of All Stars – 92%
- One year of Project ALERT – 83%
- One year of Too Good for Drugs – 91%
- Two years of Project ALERT – 72%
- Two years of Too Good for Drugs – 85%

Graph 8 shows the change in individual attitudes toward alcohol use from pre- to post-test for participants in the LifeSkills Training (LST) program. Data for participants completing one, two, and three years of LST are presented. The LifeSkills Training (LST) program offers elementary, middle school, and high school level curricula. While information on the curriculum level students received was not available, the LST participants represented here span grades 4 through 11. The group completing one year of LST is composed largely of elementary school age participants, whereas the group completing three years of LST is composed largely of high school age participants.

Graph 8. Change in Attitudes Toward Alcohol Use by Program: LifeSkills Training Participants



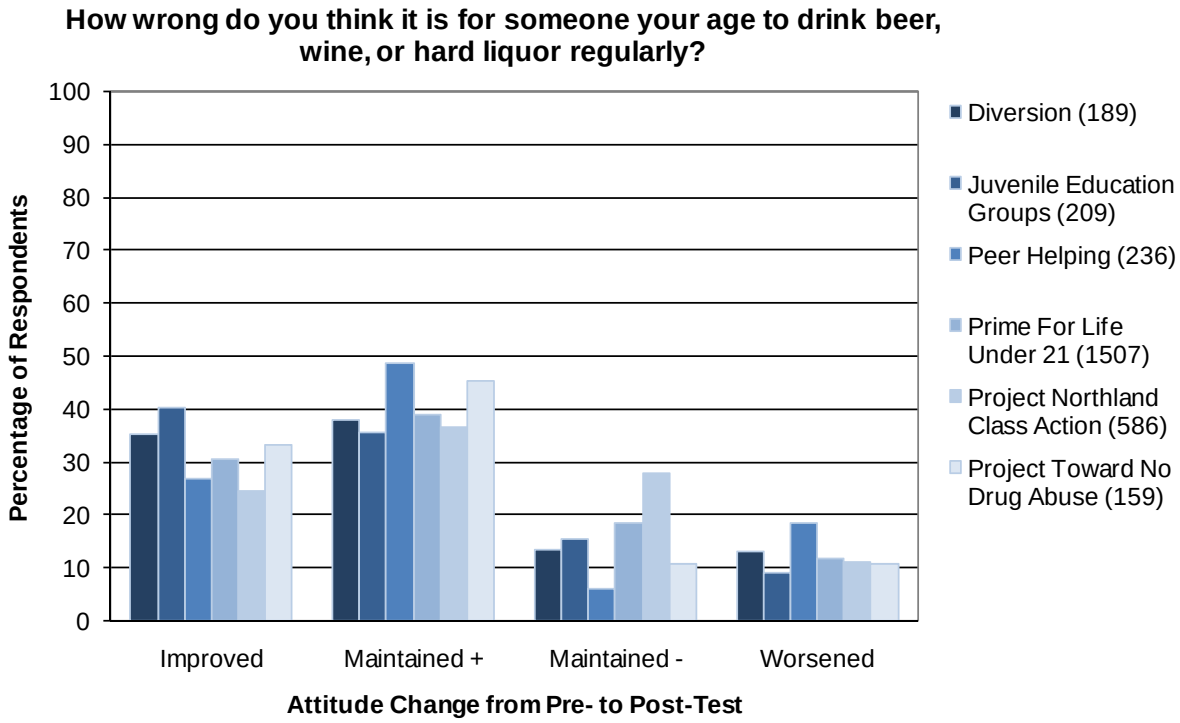
The percentages of LifeSkills Training program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- One year of LifeSkills Training – 86%
- Two years of LifeSkills Training – 80%
- Three years of LifeSkills Training – 37%

It should be noted, as mentioned above, that high school age youth comprise the majority of the group completing three years of LifeSkills Training. Attitudes toward substance use tend to worsen (become more favorable toward substance use) in the general population as youth increase in age, and this change is often most pronounced in high school.

Graph 9 shows the change in individual attitudes toward alcohol use from pre- to post-test for programs serving high school age youth.

Graph 9. Change in Attitudes Toward Alcohol Use by Program: High School Age Youth



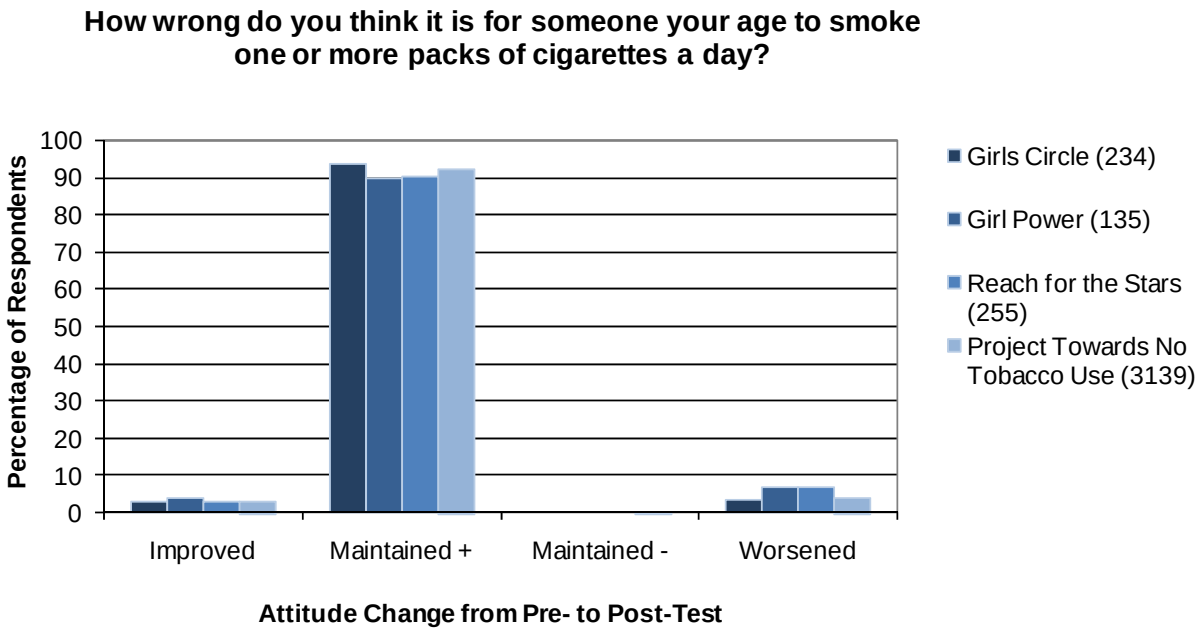
The percentages of high school program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows (all high school programs represented here are single-year programs):

- Diversion – 73%
- Juvenile Education Groups – 76%
- Peer Helping – 76%
- Prime For Life Under 21 – 70%
- Project Northland Class Action – 61%
- Project Towards No Drug Abuse – 79%

Attitudes Toward Cigarette Use

Graphs 10 through 13 on pages 23 through 26 show change in individual attitudes toward daily cigarette use from the pre-test to the post-test, by program (see p. 19 for an explanation of the attitude change categories). Graph 10 shows the change in individual attitudes toward cigarette use from pre- to post-test for single-year programs which served elementary and middle school age youth.

Graph 10. Change in Attitudes Toward Cigarette Use by Program: Elementary and Middle School Age Youth in Single-Year Programs

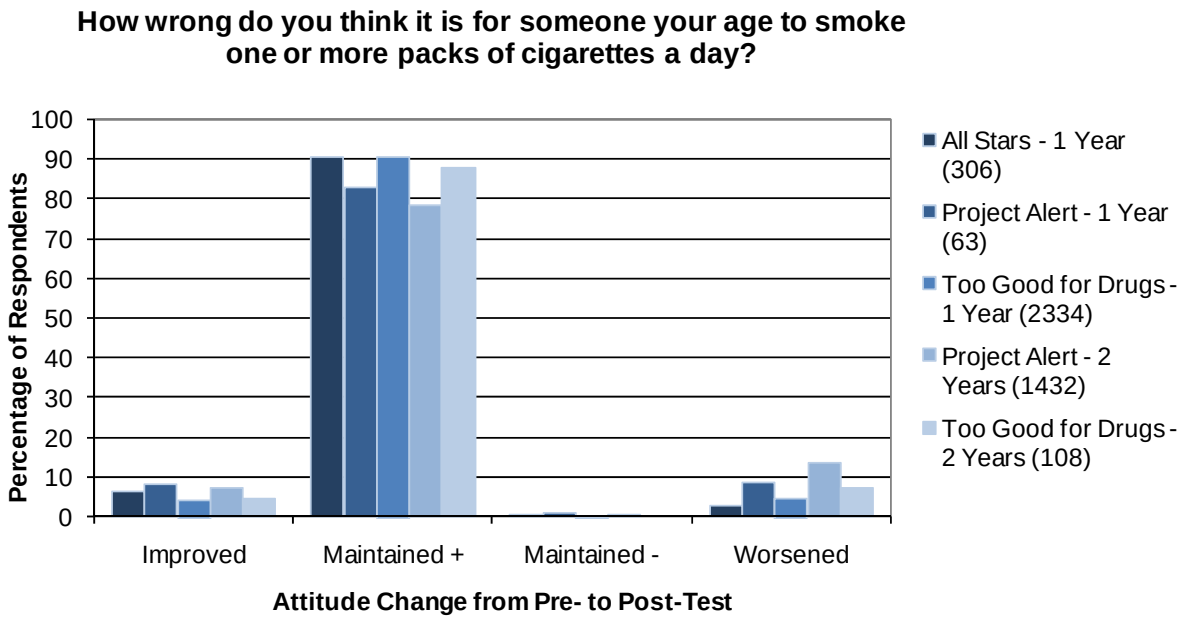


The percentages of elementary and middle school single-year program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- Girls Circle – 97%
- Girl Power – 93%
- Reach for the Stars – 93%
- Project Towards No Tobacco Use – 95%

Graph 11 shows the change in individual attitudes toward cigarette use from pre- to post-test for multi-year programs which served elementary and middle school age youth (see p. 19 for an explanation of the program groups represented in this graph).

Graph 11. Change in Attitudes Toward Cigarette Use by Program: Elementary and Middle School Age Youth in Multi-Year Programs

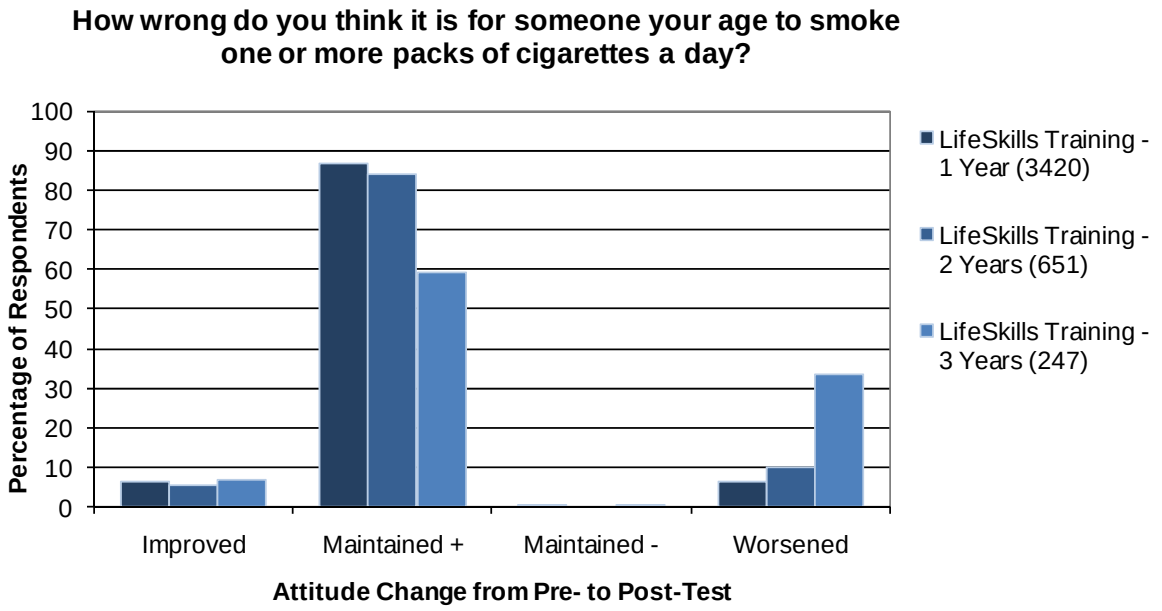


The percentages of elementary and middle school multi-year program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- One year of All Stars – 97%%
- One year of Project ALERT – 91%
- One year of Too Good for Drugs – 95%
- Two years of Project ALERT – 86%
- Two years of Too Good for Drugs– 93%

Graph 12 shows the change in individual attitudes toward cigarette use from pre- to post-test for the LifeSkills Training program (see p. 20 for an explanation of the three LifeSkills groups represented in the graph).

Graph 12. Change in Attitudes Toward Cigarette Use by Program: LifeSkills Training Participants



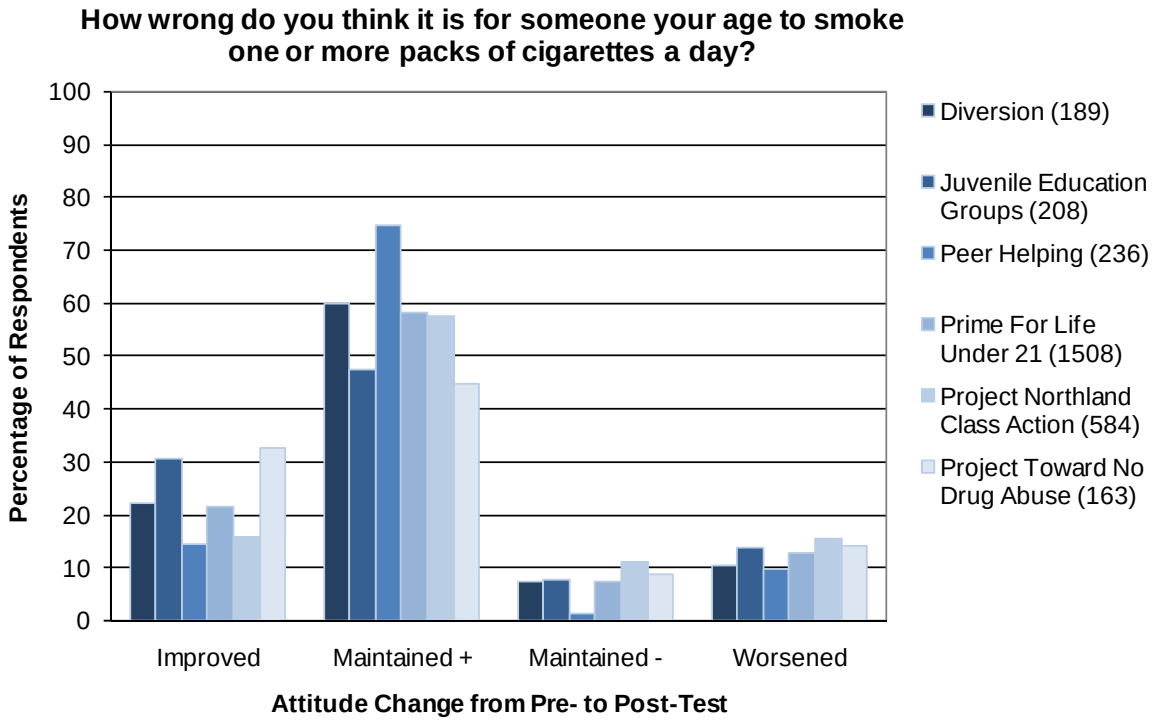
The percentages of LifeSkills Training program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- One year of LifeSkills Training – 93%
- Two years of LifeSkills Training – 90%
- Three years of LifeSkills Training – 66%

It should be noted, as mentioned above, that high school age youth comprise the majority of the group completing three years of LifeSkills Training. Attitudes toward substance use tend to worsen (become more favorable toward substance use) in the general population as youth increase in age, and this change is often most pronounced in high school.

Graph 13 shows the change in individual attitudes toward cigarette use from pre- to post-test for programs that served high school age youth.

Graph 13. Change in Attitudes Toward Cigarette Use by Program: High School Age Youth



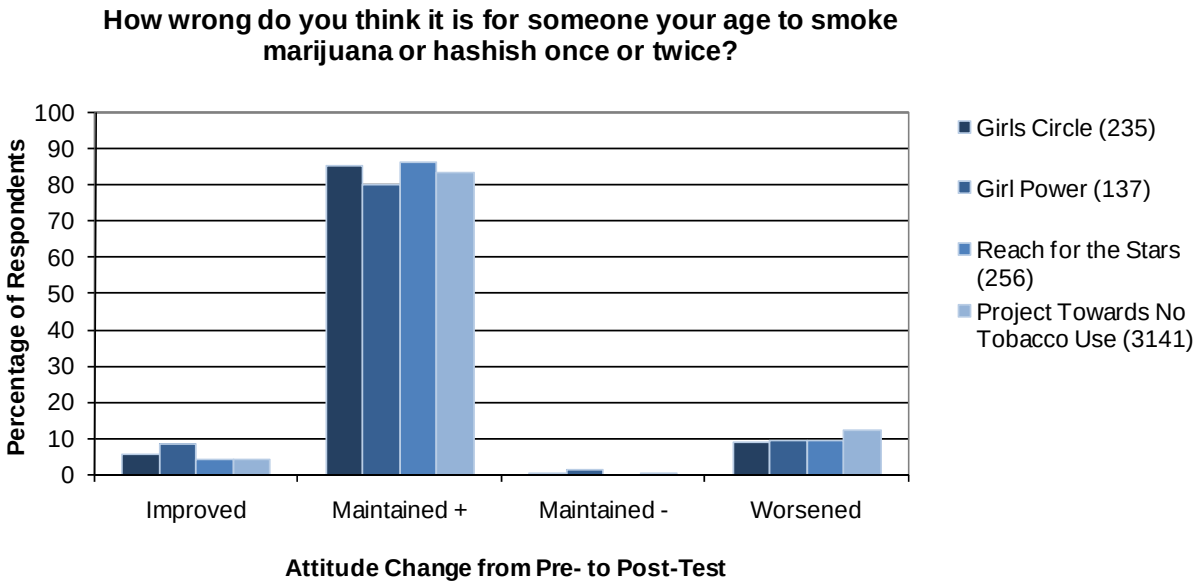
The percentages of high school program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows (all high school programs represented here are single-year programs):

- Diversion – 82%
- Juvenile Education Groups – 78%
- Peer Helping – 89%
- Prime For Life Under 21 – 80%
- Project Northland Class Action – 73%
- Project Towards No Drug Abuse – 77%

Attitudes Toward Marijuana Use

Graphs 14 through 17 on pages 26 through 29 show change in individual attitudes toward marijuana use from the pre-test to the post-test, by program (see p. 19 for an explanation of the attitude change categories). Graph 14 shows the change in individual attitudes toward marijuana use from pre- to post-test for single-year programs serving elementary and middle school age youth.

Graph 14. Change in Attitudes Toward Marijuana Use by Program: Elementary and Middle School Age Youth in Single-Year Programs

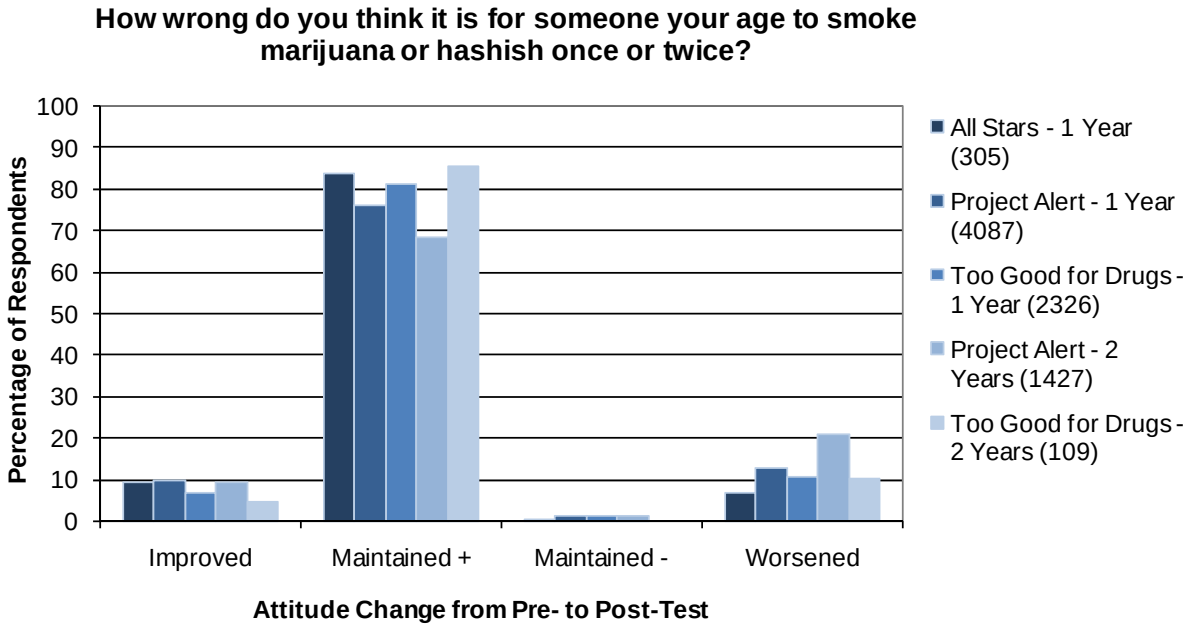


The percentages of elementary and middle school single-year program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- Girls Circle – 91%
- Girl Power – 89%
- Reach for the Stars – 91%
- Project Towards No Tobacco Use – 88%

Graph 15 shows the change in individual attitudes toward marijuana use from pre- to post-test for multi-year programs serving elementary and middle school age youth (see p. 19 for an explanation of the program groups represented in this graph).

Graph 15. Change in Attitudes Toward Marijuana Use by Program: Elementary and Middle School Age Youth in Multi-Year Programs

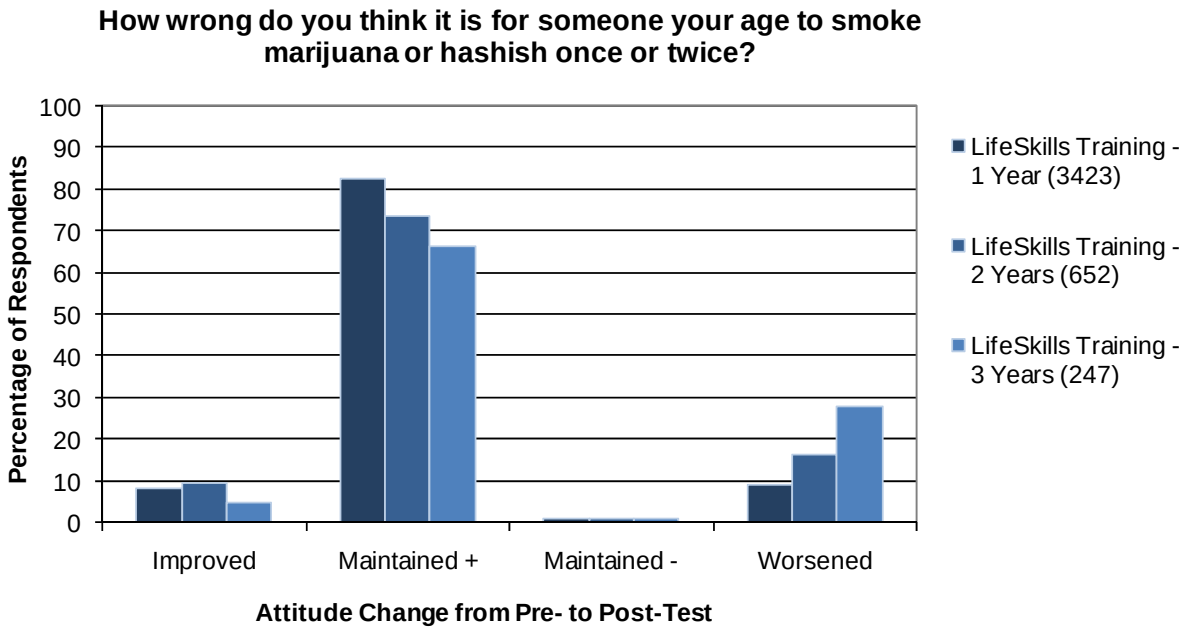


The percentages of elementary and middle school multi-year program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- One year of All Stars – 93%
- One year of Project ALERT – 86%
- One year of Too Good for Drugs – 88%
- Two years of Project ALERT – 78%
- Two years of Too Good for Drugs – 90%

Graph 16 shows the change in individual attitudes toward cigarette use from pre- to post-test for the LifeSkills Training program (see p. 20 for an explanation of the three LifeSkills groups represented in the graph).

Graph 16. Change in Attitudes Toward Cigarette Use by Program: LifeSkills Training Participants



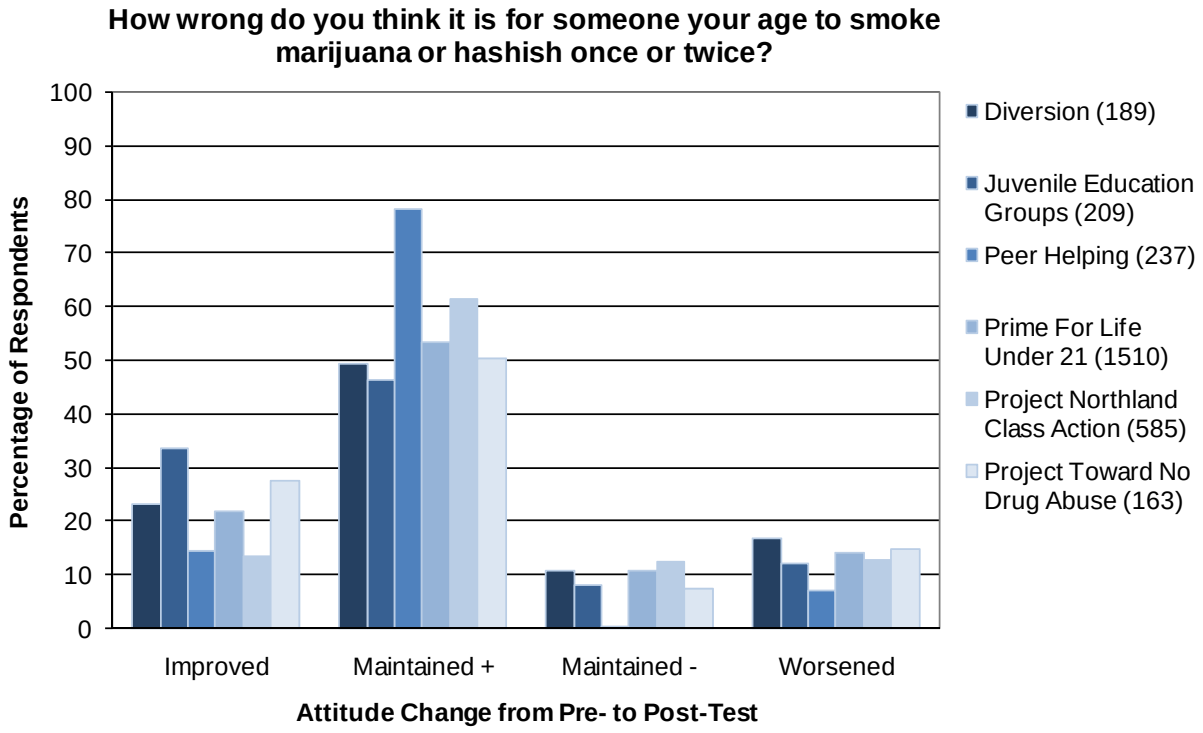
The percentages of LifeSkills Training program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows:

- One year of LifeSkills Training – 90%
- Two years of LifeSkills Training – 83%
- Three years of LifeSkills Training – 71%

It should be noted that high school age youth comprise the majority of the group completing three years of LifeSkills Training. Attitudes toward substance use tend to worsen (become more favorable toward substance use) in the general population as youth increase in age, and this change is often most pronounced in high school.

Graph 17 shows the change in individual attitudes toward marijuana use from pre- to post-test for programs that serve high school age youth.

Graph 17. Change in Attitudes Toward Marijuana Use by Program: High School Age Youth



The percentages of high school program participants showing positive outcomes (maintaining or increasing their belief that use is wrong or very wrong) are as follows (all high school programs represented here are single-year programs):

- Diversion – 72%
- Juvenile Education Groups – 80%
- Peer Helping – 92%
- Prime For Life Under 21 – 75%
- Project Northland Class Action – 75%
- Project Towards No Drug Abuse – 78%

Positive Outcomes for Attitudes Toward Substance Use

Table 5 shows the average positive outcome (improved or maintained+) percentage for each substance by program/school level group.

Table 5. Positive Outcome Percentages for Attitudes Toward Substance Use by School Age Group

Positive Outcome Percentages for Attitudes Toward Substance Use			
School Age Group	**Alcohol**	**Tobacco**	**Marijuana**
Elementary-Middle School Age Youth in 1 Year Programs	87.69	94.67	89.48
Elementary-Middle School Age Youth in Multi-Year Programs	84.59	92.16	86.90
LifeSkills Training	67.59	83.05	81.59
High School Age Youth	72.33	79.93	78.78

All four groups show higher percentages of positive outcomes for attitude toward tobacco use (that it is wrong or very wrong) than for alcohol or marijuana. Positive outcome percentages for attitude toward alcohol use were the lowest among all groups.

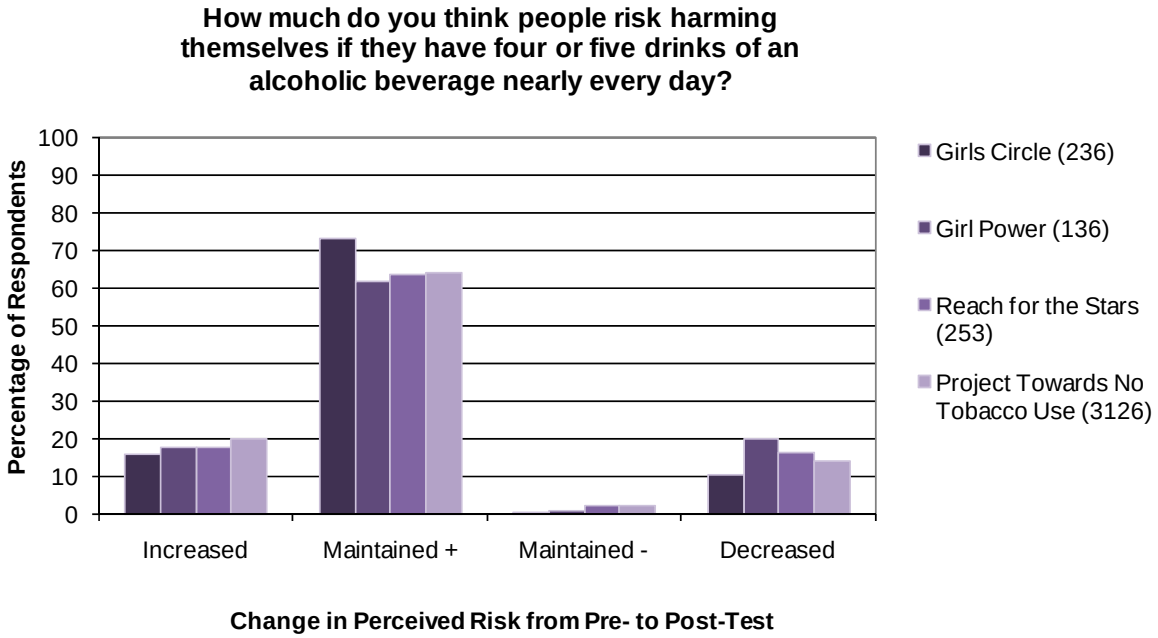
Perceived Risk of Harm from Substance Use

Graphs 18 through 29 on pages 33 through 45 show change from pre- to post-test, in individuals' perceptions of risk of harm from substance use, by program and by substance. Programs are grouped according to the grade of the participants at post-test and by program duration. The perceived risk data do not include participants taking the JADE survey because that survey does not contain questions regarding perceived risk. Individual perceptions either: 1) increased, which means that their reported perception of risk of harm from using 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 + (a positive outcome), which means that the pre- and post-test responses remained the same and were unfavorable toward alcohol, tobacco, or marijuana use; 3) maintained -, which means that the pre- and post-test responses remained the same and were favorable toward alcohol, tobacco, or marijuana use; 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 perceived risk. The number in parentheses after each program in the graphs is the number of respondents answering the question on the pre-test and the post-test.

Perceived Risk of Harm from Alcohol Use

Graph 18 on page 33 shows the change in individuals' perception of risk of harm from alcohol use from pre- to post-test for single-year programs serving elementary and middle school age youth.

Graph 18. Change in Perceived Risk of Harm from Alcohol Use by Program: Elementary and Middle School Age Youth in Single-Year Programs

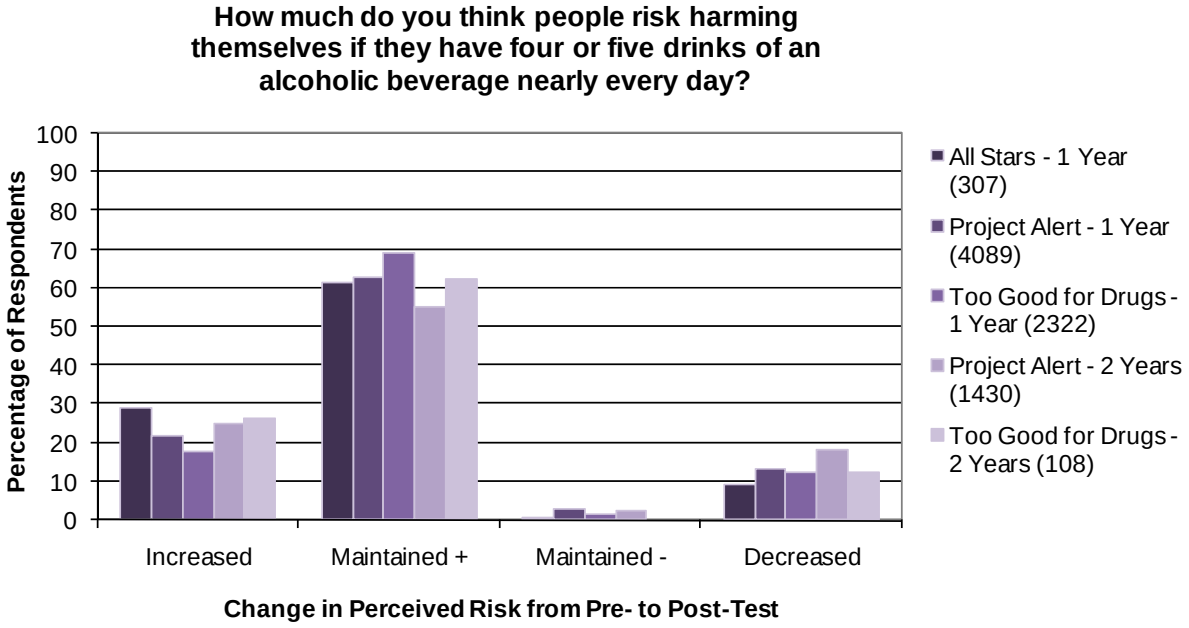


The percentages of elementary and middle school single-year program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- Girls Circle – 89%
- Girl Power – 79%
- Reach for the Stars – 81%
- Project Towards No Tobacco Use – 84%

Graph 19 shows the change in individuals' perception of risk of harm from alcohol use from pre- to post-test for multi-year programs serving elementary and middle school age youth. Participants completing only one year of All Stars, Project ALERT, or Too Good for Drugs are represented by the first three bars, and participants completing two years of Project ALERT or Too Good for Drugs are represented by the last two bars (there were not enough participants completing two years of All Stars to be included in this report). The group completing two years of Project ALERT is the only group that completed a full multi-year program course.

Graph 19. Change in Perceived Risk of Harm from Alcohol Use by Program: Elementary and Middle School Age Youth in Multi-Year Programs

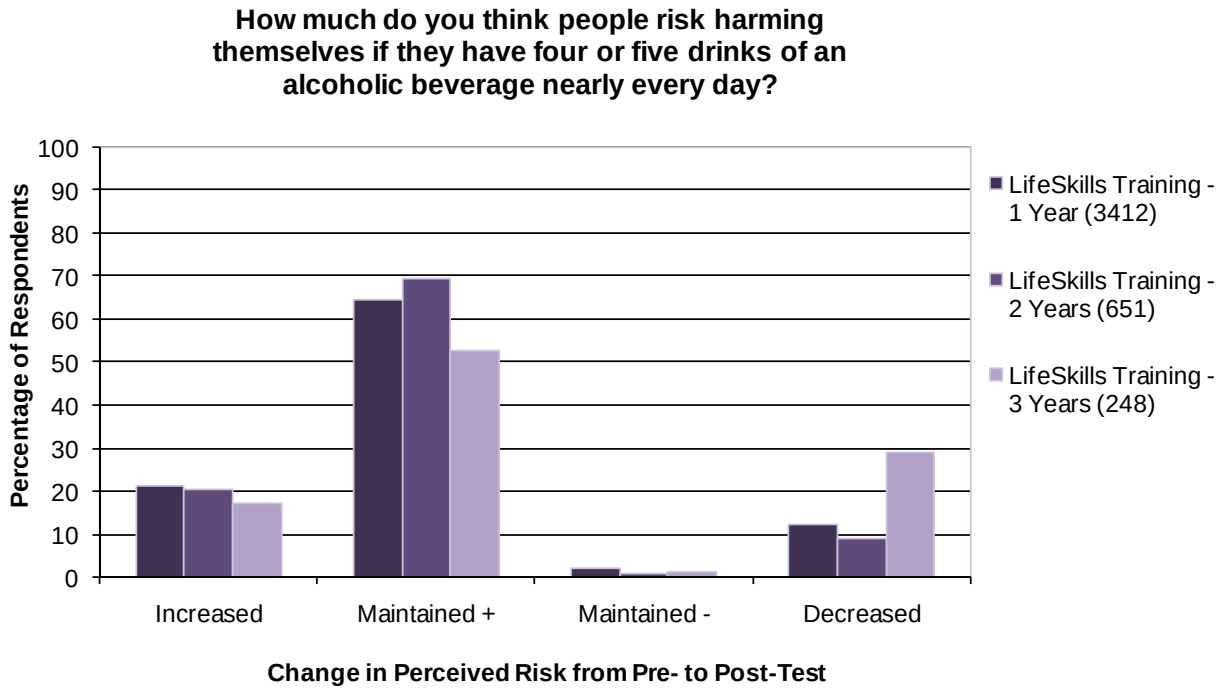


The percentages of elementary and middle school multi-year program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- One year of All Stars – 90%
- One year of Project ALERT – 84%
- One year of Too Good for Drugs – 86%
- Two years of Project ALERT – 80%
- Two years of Too Good for Drugs – 88%

Graph 20 shows the change from pre- to post-test in perception of risk of harm from alcohol use for participants in the LifeSkills Training (LST) program. Data for participants completing one, two, and three years of LST are presented. The LifeSkills Training (LST) program offers elementary, middle school, and high school level curricula. While information on the curriculum level students received was not available, the LST participants represented here span grades 4 through 11. The group completing one year of LST is composed largely of elementary school age participants, whereas the group completing three years of LST is composed largely of high school age participants.

Graph 20. Change in Perceived Risk of Harm from Alcohol Use by Program: LifeSkills Training Participants

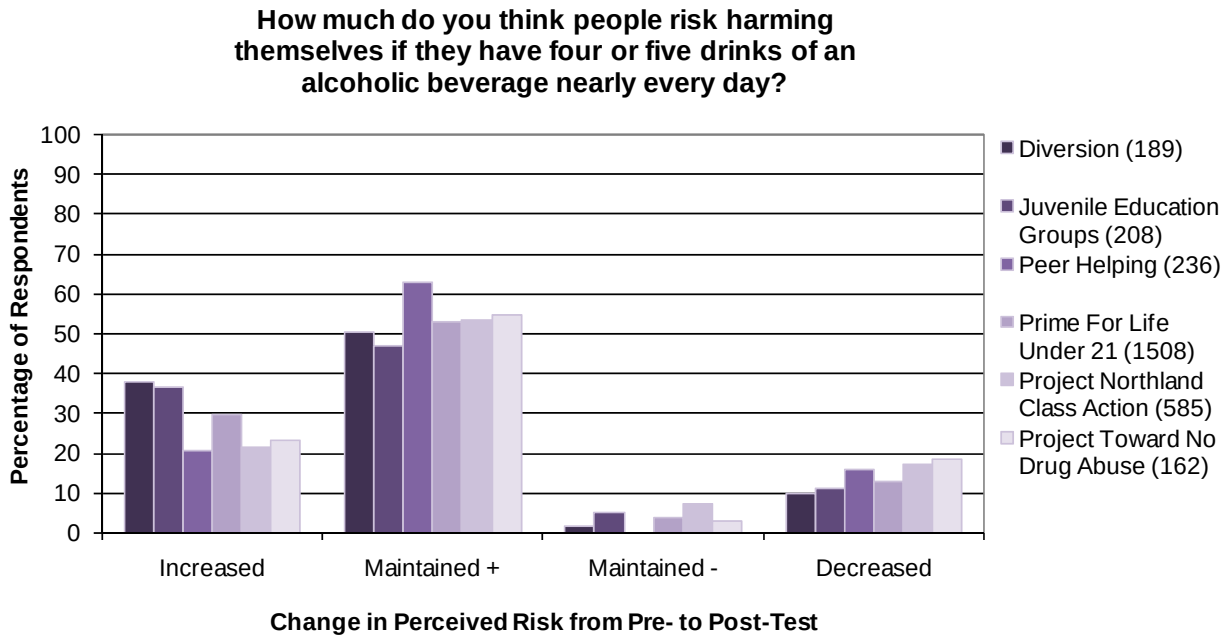


The percentages of LifeSkills Training participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- One year of LifeSkills Training – 86%
- Two years of LifeSkills Training – 90%
- Three years of LifeSkills Training – 70%

Graph 21 shows the change in individuals' perception of risk of harm from alcohol use from pre- to post-test for programs serving high school age youth.

Graph 21. Change in Perceived Risk of Harm from Alcohol Use by Program: High School Age Youth



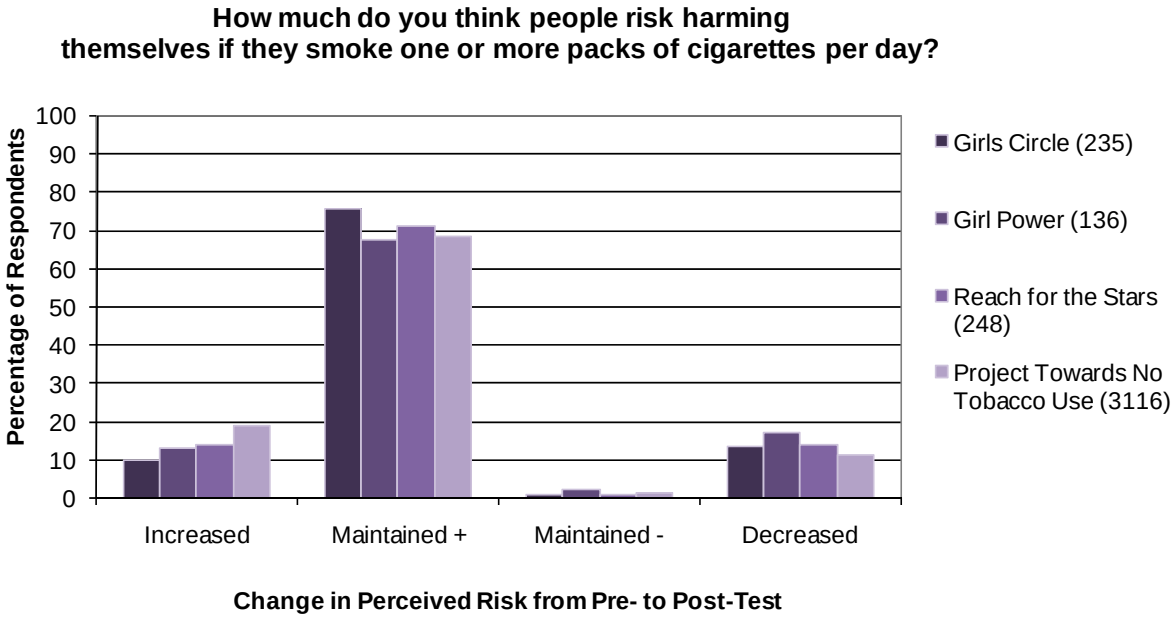
The percentages of high school program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows (all high school programs represented here are single-year programs):

- Diversion – 88%
- Juvenile Education Groups – 84%
- Peer Helping – 84%
- Prime For Life Under 21 – 83%
- Project Northland Class Action – 75%
- Project Towards No Drug Abuse – 83%

Perceived Risk of Harm from Cigarette Use

Graphs 22 through 25 on pages 37 through 40 show change from pre- to post-test, by program, in individuals' perceptions of risk of harm from daily cigarette use. Graph 22 shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for single-year programs serving elementary and middle school age youth.

Graph 22. Change in Perceived Risk of Harm from Cigarette Use by Program: Elementary and Middle School Age Youth in Single-Year Programs

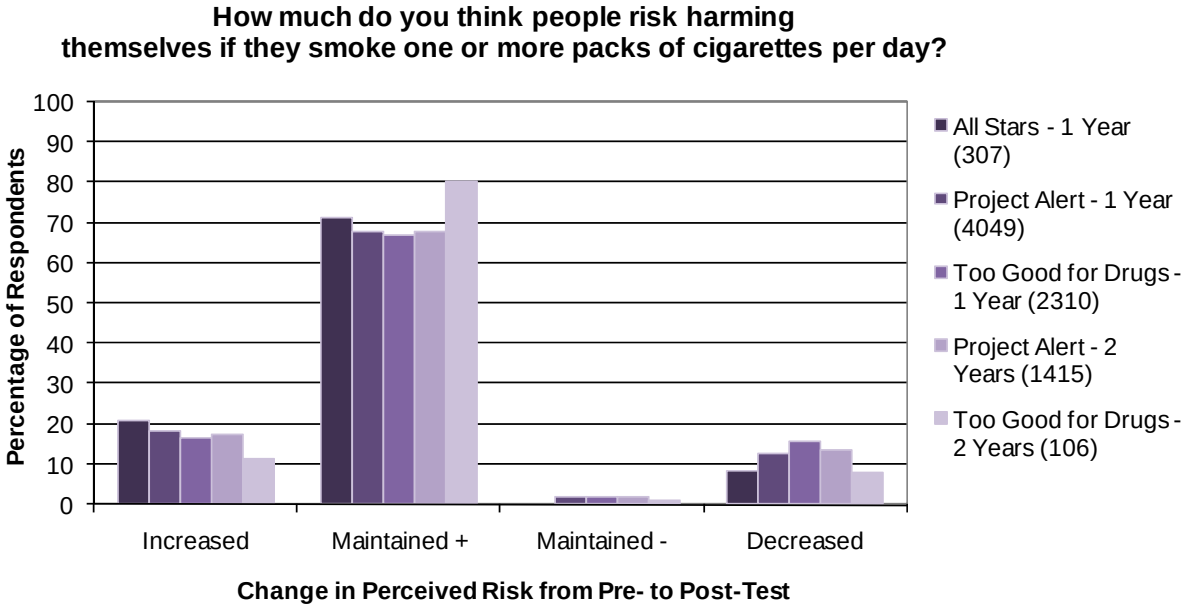


The percentages of elementary and middle school single-year program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- Girls Circle – 86%
- Girl Power – 81%
- Reach for the Stars – 85%
- Project Towards No Tobacco Use – 87%

Graph 23 shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for multi-year programs serving elementary and middle school age youth (see p. 34 for an explanation of the program groups represented in this graph).

Graph 23. Change in Perceived Risk of Harm from Cigarette Use by Program: Elementary and Middle School Age Youth in Multi-Year Programs

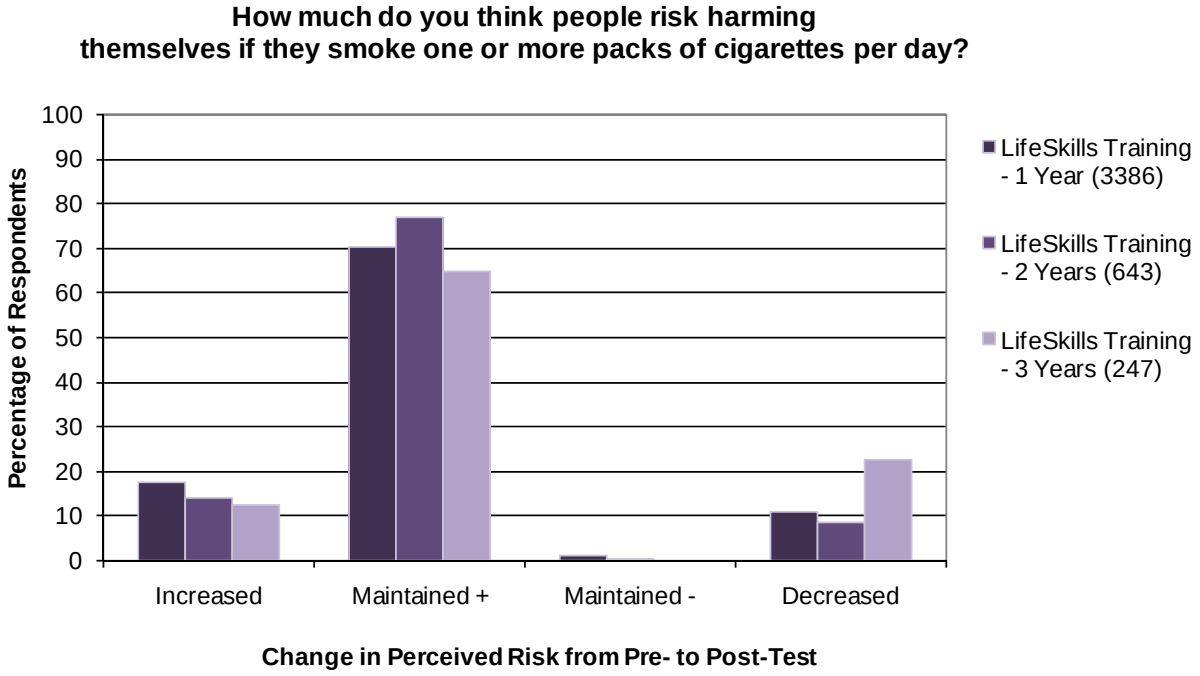


The percentages of elementary and middle school multi-year program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- One year of All Stars – 92%
- One year of Project ALERT – 86%
- One year of Too Good for Drugs – 83%
- Two years of Project ALERT – 85%
- Two years of Too Good for Drugs – 92%

Graph 24 shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for the LifeSkills Training Program (see p. 35 for an explanation of the three LifeSkills groups represented in the graph).

Graph 24. Change in Perceived Risk of Harm from Cigarette Use by Program: LifeSkills Training Participants

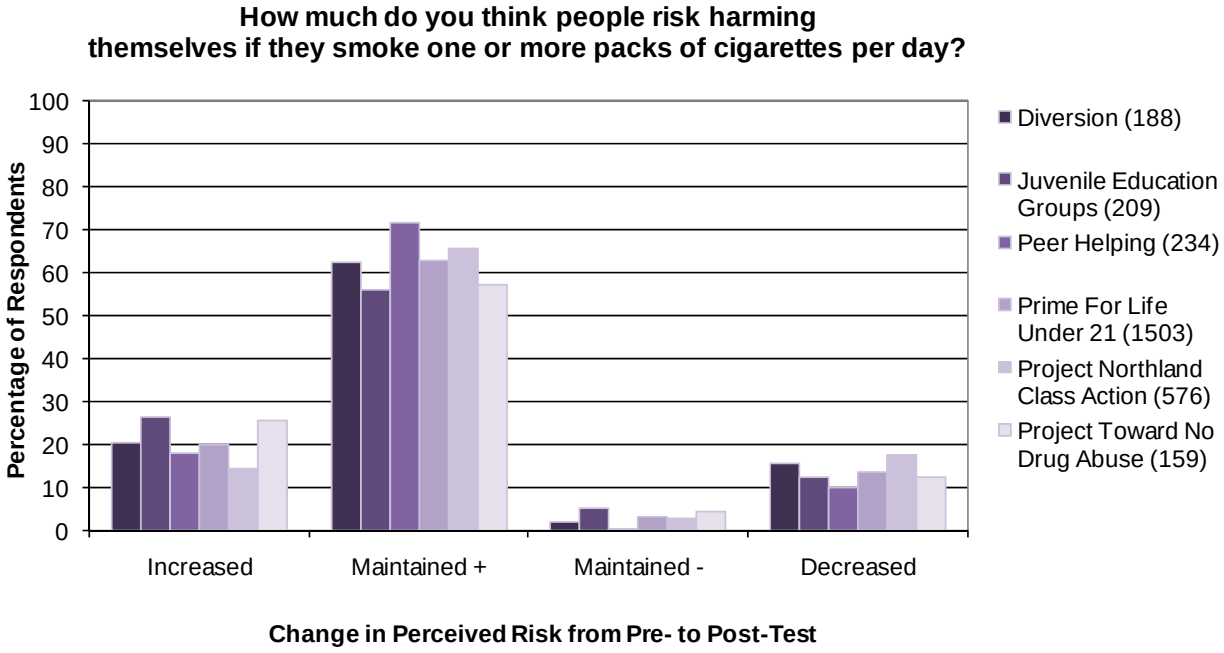


The percentages of LifeSkills Training participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- One year of LifeSkills Training – 88%
- Two years of LifeSkills Training – 91%
- Three years of LifeSkills Training – 77%

Graph 25 shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for programs serving high school age youth.

Graph 25. Change in Perceived Risk of Harm from Cigarette Use by Program: High School Age Youth



The percentages of high school program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows (all high school programs represented here are single-year programs):

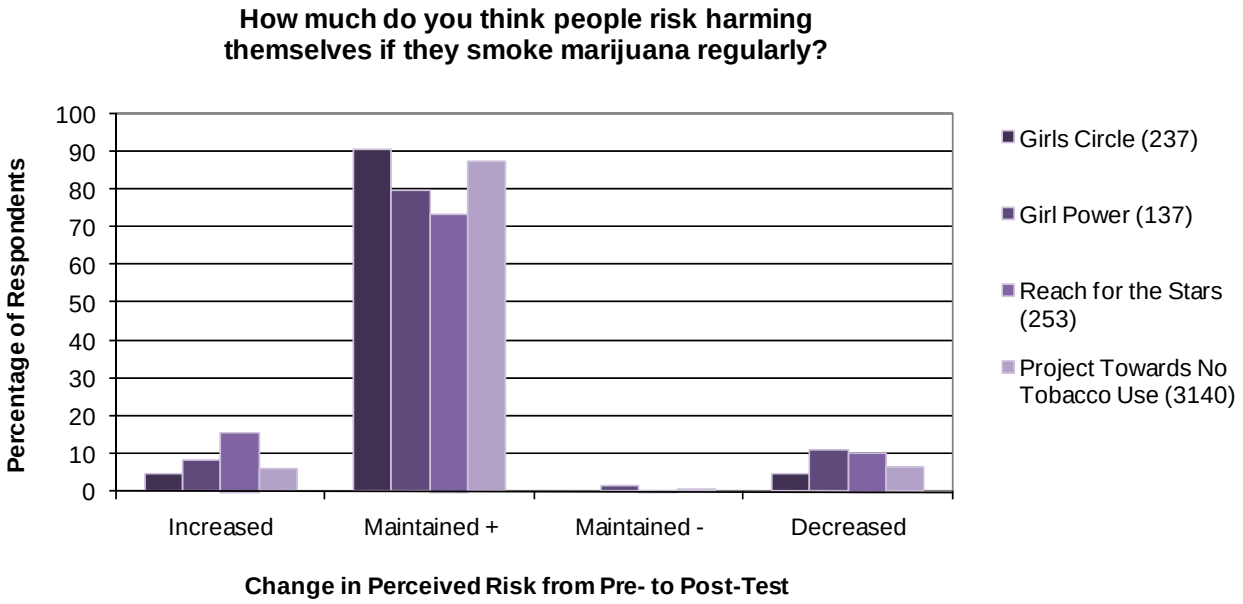
- Diversion – 82%
- Juvenile Education Groups – 82%
- Peer Helping – 90%
- Prime For Life Under 21 – 83%
- Project Northland Class Action – 80%
- Project Towards No Drug Abuse – 83%

Perceived Risk of Harm from Marijuana Use

Graphs 26 through 29 on pages 41 through 44 show change from pre- to post-test, by program, in individuals' perceptions of risk of harm from regular marijuana use.

Graph 26 shows the change in individuals' perception of risk of harm from marijuana use from pre- to post-test for single-year programs serving elementary and middle school age youth.

Graph 26. Change in Perceived Risk of Harm from Marijuana Use by Program: Elementary and Middle School Age Youth in Single-Year Programs

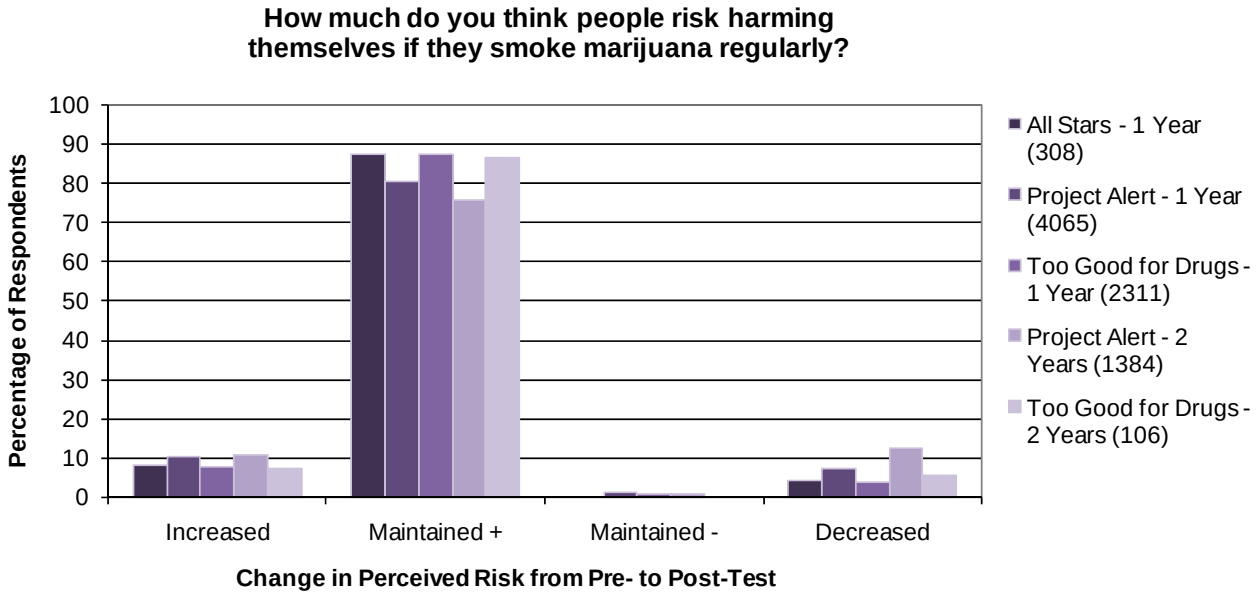


The percentages of elementary and middle school single-year program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- Girls Circle – 95%
- Girl Power – 88%
- Reach for the Stars – 89%
- Project Towards No Tobacco Use – 93%

Graph 27 shows the change from pre- to post-test in individuals' perception of risk of harm from marijuana use for multi-year programs serving elementary and middle school age youth (see p. 34 for an explanation of the program groups represented in this graph).

Graph 27. Change in Perceived Risk of Harm from Marijuana Use by Program: Elementary and Middle School Age Youth in Multi-Year Programs

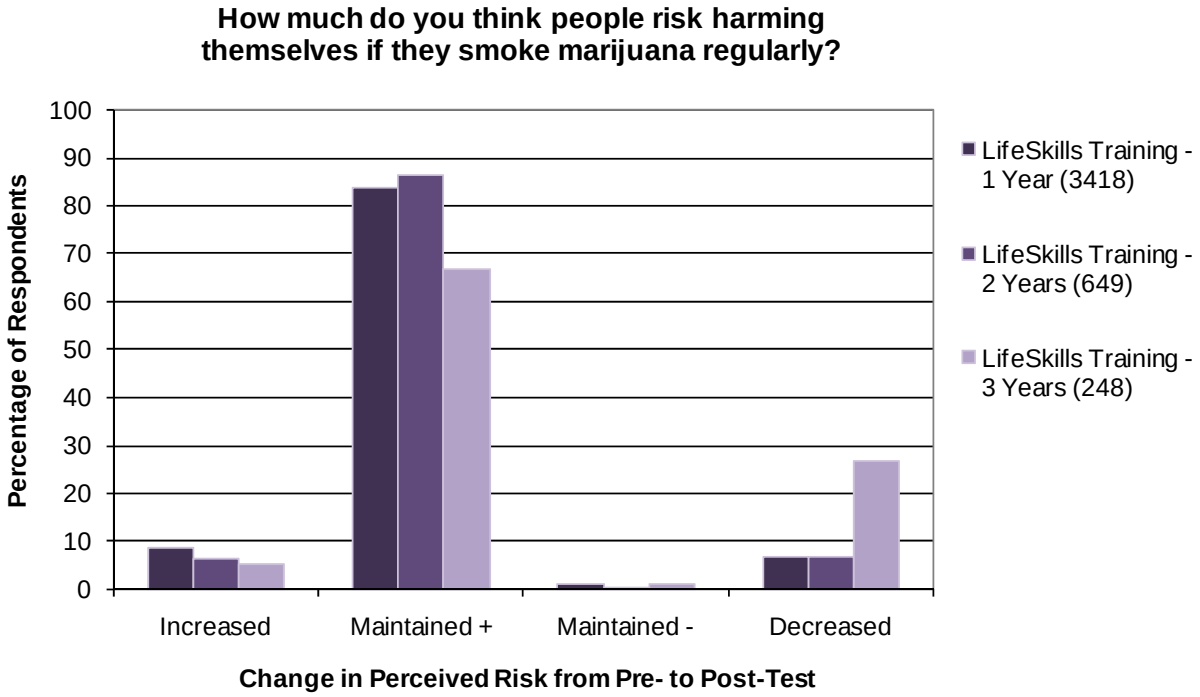


The percentages of elementary and middle school multi-year program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- One year of All Stars – 96%
- One year of Project ALERT – 91%
- One year of Too Good for Drugs – 95%
- Two years of Project ALERT – 86%
- Two years of Too Good for Drugs – 94%

Graph 28 shows the change in individuals' perception of risk of harm from marijuana use from pre- to post-test for the LifeSkills Training Program (see p. 35 for an explanation of the three LifeSkills groups represented in the graph).

Graph 28. Change in Perceived Risk of Harm from Marijuana Use by Program: LifeSkills Training Participants

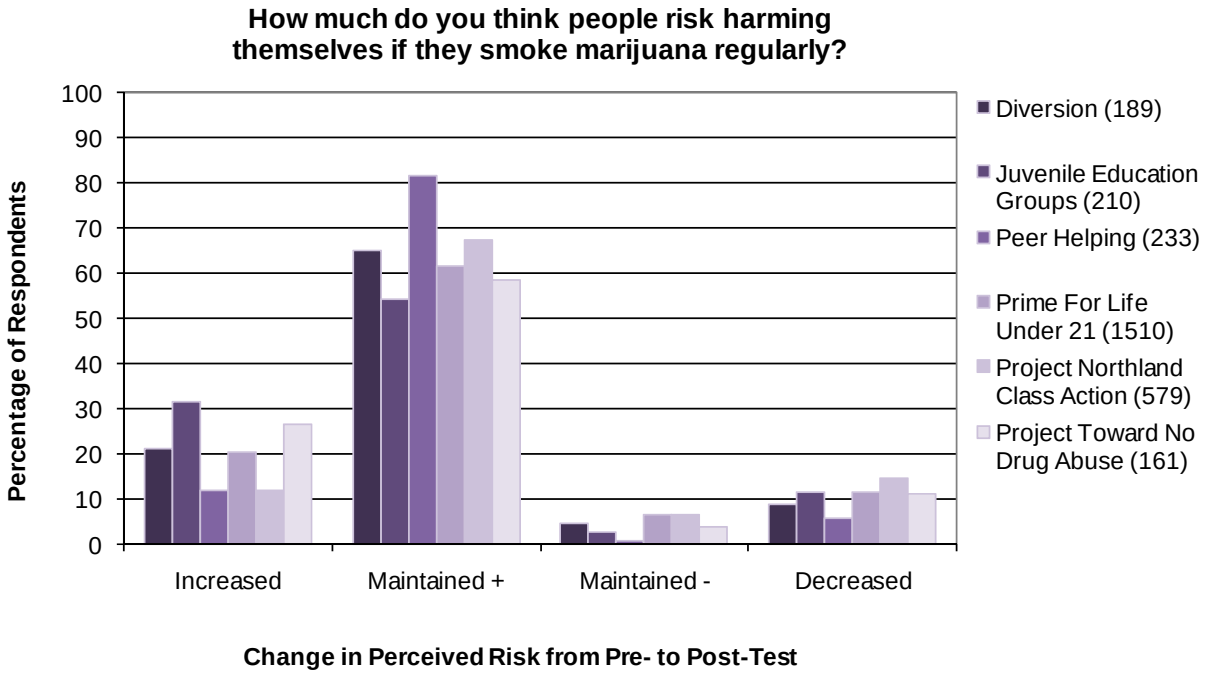


The percentages of LifeSkills Training participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows:

- One year of LifeSkills Training – 92%
- Two years of LifeSkills Training – 93%
- Three years of LifeSkills Training – 72%

Graph 29 shows the change in individuals' perception of risk of harm from marijuana use from pre- to post-test for programs serving high school age youth.

Graph 29. Change in Perceived Risk of Harm from Marijuana Use by Program: High School Age Youth



The percentages of high school program participants showing positive outcomes (maintaining or increasing their belief that use poses moderate or great risk) are as follows (all high school programs represented here are single-year programs):

- Diversion – 86%
- Juvenile Education Groups – 86%
- Peer Helping – 94%
- Prime For Life Under 21 – 82%
- Project Northland Class Action – 79%
- Project Towards No Drug Abuse – 85%

Positive Outcomes for Perceived Risk of Harm from Substance Use

Table 6 shows the average positive outcome (increased or maintained+) percentage for each substance by program/school level group.

Table 6. Positive Outcome Percentages for Perceived Risk of Harm from Substance Use by School Age Group

Positive Outcome Percentages for Perceived Risk of Harm from Substance Use			
School Age Group	**Alcohol**	**Tobacco**	**Marijuana**
Elementary-Middle School Age Youth in 1 Year Programs	83.91	84.67	91.38
Elementary-Middle School Age Youth in Multi-Year Programs	85.79	87.51	92.59
LifeSkills Training	81.85	85.34	85.74
High School Age Youth	82.81	83.36	85.29

All four groups show higher percentages of positive outcomes for perceived risk of harm from marijuana use than for tobacco or alcohol use. Positive outcome percentages were lowest for perceived risk of harm from alcohol use in all groups.

Summary of Positive Outcomes for Attitude and Perceived Risk by Program

Table 7 on page 47 presents positive outcome percentages for attitude and perceived risk of harm by program. Program rows are color-coded by school level and program type. Elementary/middle school single-year programs appear in tan (the first four rows, Girls Circle through Girl Power); one year of elementary/middle school multi-year programs appears in light gray (the fifth through seventh rows, All Stars through Project ALERT – 1 Year); two years of elementary/middle school multi-year programs appears in dark gray (the eighth and ninth rows, Too Good for Drugs and Project ALERT – 2 Years); LifeSkills Training appears in blue; and high school programs appear in lavender (the last six rows, Peer Helping through Project Northland Class Action). Within school level groupings, individual programs are ordered by the combined average positive outcome percentages (attitude and risk percentages averaged together), from highest average positive outcome percentage to lowest. The programs with the highest averages in their category are Girls Circle, All Stars – 1 Year, Too Good for Drugs – 2 Years, LifeSkills Training – 1 Year, and Peer Helping. It should be noted that the majority of participants in the Peer Helping program were youth in training to become peer helpers, and that those participants may have been selected for the program based on desirable attitudes and perceptions of risk regarding substance use. Therefore, they may not be representative of the general population of students in that age group. Aside from Peer Helping, Juvenile Education Groups, Diversion, and Project Towards No Drug

Abuse had the next highest attitude and perceived risk positive outcome percentages, and those three had nearly equal percentages.

Elementary and middle school programs show higher positive outcome percentages for attitude toward substance use than for perceived risk of harm from substance use. This effect begins to shift in the multi-year programs, particularly for participants completing two years of those programs. The effect switches completely for the high school programs, with higher positive outcome percentages for perceived risk of harm than for attitudes toward use.

Table 7. Positive Outcome Percentages for Attitude and Perceived Risk of Harm by Program

	Positive Outcomes - Attitude			Positive Outcomes - Perceived Risk				Summary Statistics		
Program	Alcohol	Cigarettes	Marijuana	Alcohol	Cigarettes	Marijuana		Average Attitude	Average Risk	Combined Average
Girls Circle	90.6	96.6	90.6	89.0	85.5	95.4		92.6	90.0	91.3
Project Towards No Tobacco Use	89.3	95.4	87.6	83.9	87.2	93.3		90.8	88.1	89.4
Reach for the Stars	92.8	93.3	90.6	81.4	85.1	89.3		92.2	85.3	88.8
Girl Power	78.1	93.3	89.1	79.4	80.9	87.6		86.8	82.6	84.7
All Stars - 1 Year	92.2	96.7	93.1	90.2	91.9	95.8		94.0	92.6	93.3
Too Good for Drugs - 1 Year	90.8	94.9	88.0	86.4	83.0	95.2		91.2	88.2	89.7
Project ALERT - 1 Year	83.2	90.8	85.9	84.3	86.0	91.2		86.7	87.2	86.9
Too Good for Drugs - 2 Years	85.1	92.6	89.9	88.0	91.5	94.3		89.2	91.3	90.2
Project ALERT - 2 Years	71.6	85.8	77.6	80.0	85.2	86.4		78.3	83.9	81.1
LifeSkills Training - 1 Year	85.7	93.3	90.4	85.8	87.9	92.3		89.8	88.6	89.2
LifeSkills Training - 2 Years	79.8	89.9	83.1	90.0	90.8	92.8		84.3	91.2	87.7
LifeSkills Training - 3 Years	37.2	66.0	71.3	69.8	77.3	72.2		58.2	73.1	65.6
Peer Helping	75.5	89.0	92.4	83.9	89.7	93.6		85.6	89.1	87.4
Juvenile Education Groups	75.6	78.4	79.9	83.7	82.3	85.7		78.0	83.9	80.9
Diversion	73.4	82.0	72.5	88.4	82.4	86.2		76.0	85.7	80.8
Project Towards No Drug Abuse	78.6	77.3	77.9	82.8	83.0	85.1		77.9	83.6	80.8
Prime For Life Under 21	69.6	79.6	75.1	83.1	83.0	82.0		74.8	82.7	78.7
Project Northland Class Action	61.3	73.3	74.9	75.0	79.7	79.1		69.8	77.9	73.9

Tan (first four rows) – Single-Year Elementary/Middle School Programs
Light Gray (fifth through seventh rows)– One Year of Multi-Year Elementary/Middle School Programs
Dark Gray (eighth and ninth rows) – Two Years of Multi-Year Elementary/Middle School Programs
Blue (tenth through twelfth rows) – LifeSkills Training
Lavender (last six rows) – High School Programs

Summary and Conclusion

This evaluation of the Comprehensive Substance Abuse Prevention project addressed the following questions:

Has alcohol/tobacco/marijuana usage changed in the target population?

Several Comprehensive Prevention programs showed reductions in past 30-day use from pre-test to post-test, and all but one program that showed increases in use had smaller increases than the Iowa Youth Survey (IYS) group (the reference group for the general population of youth in Iowa). The exception was the LifeSkils Training (LST) – 3 Year group (participants completing three years of LifeSkills Training); the percentage increase in use of alcohol from pre-test to post-test was greater than the IYS percentage. However, the median age of LST – 3 Year participants is two years higher than the median age of the IYS – 3 Year group; therefore alcohol use among the IYS group, or among the general population those data are used to represent, might be expected to increase as much or more at an equivalent age. Program-specific outcomes are discussed below.

Elementary and Middle School Single Year Programs

Reach for the Stars (median age = 10) shows the most notable substance use outcomes of the four single-year elementary/middle school programs evaluated, with a decrease in alcohol use and no increase in tobacco or marijuana use at post-test. Girl Power (median age = 13) showed a decrease in alcohol use, no increase in tobacco use, and a slight increase in marijuana use at post-test. Given that the median age for Girl Power is three years higher than for Reach for the Stars, the Girl Power outcomes appear encouraging. Girls Circle (median age = 12) participants indicated no use of alcohol, tobacco, or marijuana at pre-test, and had no tobacco or marijuana use at post-test. Some participants had used alcohol at post-test. Project Towards No Tobacco Use (median age = 11) showed slight increases in use of all three substances at post-test.

Elementary and Middle School Multi-Year Programs

Participants completing one year of All Stars (median age = 12) showed a decrease in alcohol use, and a slight increase in tobacco and marijuana use. All other programs show increases in use of all substances, though those increases, with one exception, are smaller than seen in the IYS group. Participants completing two years of Project ALERT (median age = 13) showed a slightly greater increase in marijuana use than the IYS – 2 Year group. Participants completing two years of Too Good for Drugs (median age = 13) showed the highest increase in past 30-day alcohol use of the multi-year program groups, though the increase was not as great as in the IYS comparison group.

LifeSkills Training

Students completing one year of LifeSkills Training (LST, median age = 12) showed reductions in use of all three substances. Students completing two years (median age = 14) and three years (median age = 16) of LST showed increases in use of all three substances. The percentage increases for the 2 Year group were much lower

than in the IYS-2 Year group. As mentioned above, the percentage increase in alcohol use for the LST – 3 Year group was greater than in the IYS – 3 Year group; however, the median age is also two years higher than the IYS group. Information regarding the curriculum level each group received (elementary, middle school, or high school LST curriculum) was not available.

High School Programs

Several programs showed a decrease in use of one or more substances, and no high school programs showed increases for any substance greater than the IYS increases. Project Towards No Drug Abuse (TND, median age = 16) and Prime for Life (PFL, median age = 16) showed decreases in the use of all three substances. Juvenile Education Groups (JEG, median age = 16) showed decreases in use of alcohol and marijuana, and no change (therefore no increase) in use of tobacco. Peer Helping (median age = 14.5) showed decreases in tobacco and marijuana use, and Project Northland Class Action (PNCA, median age = 17) showed a decrease in alcohol use. Two programs, Diversion (median age = 17) and Juvenile Alcohol and Drug Education (JADE, median age = 16), show increases in the use of all substances; although, again, the percentage increases are lower than in the IYS group.

Has the percentage of the target population who indicate at baseline (pre-test) that substance use by someone their age is wrong or very wrong remained the same (maintained) or increased after the intervention (post-test)?

Has perceived risk of harm from alcohol/tobacco/marijuana use maintained a positive response (belief that using poses a moderate or great risk of harm) or increased from pre-test to post-test?

These two evaluation questions are addressed together, as program-specific outcomes for attitude and for perceived risk of harm were similar. Positive outcome percentages include the percentage of participants who maintained desirable responses (that use is wrong or very wrong and pose moderate or great risk of harm), and whose responses became more desirable at post-test.

Elementary and Middle School Single Year Programs

Girls Circle showed the highest positive outcome percentages for attitude and perceived risk of the four single-year elementary/middle school programs. Project Towards No Tobacco Use had the second highest combined (attitude and risk) average score. Reach for the Stars was third, and performed better on attitude than perceived risk. Girl Power had the lowest positive outcome percentages of this group.

Elementary and Middle School Multi-Year Programs

Participants completing one year of All Stars showed the highest positive outcome percentages for attitude and perceived risk of this group. Participants completing two years of Too Good for Drugs showed the second highest positive outcome percentages; one year of Too Good for Drugs was third. Project ALERT (participants completing one year and two years) had the lowest positive outcome

percentages for attitude and perceived risk of the multi-year programs, with the group completing two years being the lowest.

LifeSkills Training

Participants completing one, two, and three years of LST showed the highest, middle, and lowest positive outcomes for attitude and perceived risk, respectively. Participants completing three years of LST showed the lowest positive outcomes for attitude and perceived risk of harm of all the Comprehensive Prevention programs regardless of school level.

High School Programs

Peer Helping showed the highest positive outcome percentages for attitude and perceived risk of harm for the high school program group, although it should be noted that the majority of Peer Helping participants were youth in training to become peer helpers, and that those participants may have been selected partly on their desirable beliefs and attitudes. Juvenile Education Groups, Diversion, and Project Towards No Drug Abuse had the next highest positive outcome percentages, and had nearly equal percentages. These outcomes for Juvenile Education Groups and Diversion are particularly notable because those programs serve indicated populations. Project Northland Class Action had the lowest positive outcome percentages for attitude and perceived risk of harm.

Elementary and middle school programs showed higher positive outcome percentages for attitude toward substance use than for perceived risk of harm from substance use. This effect shifted completely for the high school programs, with higher positive outcome percentages for perceived risk of harm than for attitudes toward use. This shift may be a reflection of a different emphasis in the content of programs for younger versus older youth, although a comprehensive analysis of program content was beyond the scope of this evaluation. The switch, however, may also suggest that as children age, the perceived risks of substance use become more salient than the perceived wrongness of use. This bears further exploration and may have important implications for program selection for specific age groups based on content emphasis.

Recommendations

The results of the attrition analysis (see p. 4) may have implications for program and participant selection and engagement, even though the reasons particular participants did not complete the post-test are unclear. It may be that participants dropped out of the program; that particular participants remained in the program but were not in attendance on the day the post-test was administered; that particular participants did not wish to complete the post-test; or that circumstances with the school or agency providing programming precluded post-test survey administration in some classes (although it is known that this was a rare occurrence). Based on the possibility that certain participant groups did not complete the program or were not sufficiently engaged to attend regularly or be willing to complete a post-test, agencies may want to increase efforts to engage and retain minority participants and participants of the youngest and oldest age groups.

Many of the programs evaluated here varied in performance for substance use versus attitude and perception of risk. It is recommended that agencies and schools

determine program selection not only by the populations they wish to serve, but by whether they wish to primarily affect change in attitudes and perceptions, or change in substance use. Of course, population factors such as age and risk level also should determine where the emphasis of change will be.

Programs that performed relatively well overall (substance use, attitude, and perception of risk) with the populations they served in this project include All Stars (1 Year), LifeSkills Training (1 Year) and Girls Circle, although All Stars and Girls Circle showed increases in use of some substances. Additionally, the All Stars and LifeSkills groups represent only one year of those multi-year programs and it is not known how the full program curriculum would have performed.

Programs that performed best of those evaluated here in affecting substance use among Comprehensive Project participants include Reach for the Stars Project Drug Free (primarily elementary school), LifeSkills Training – 1 Year (primarily middle school), Girl Power (middle school), Project Towards No Drug Abuse, Prime for Life Under 21, and Juvenile Education Groups (the last three served primarily high school youth). These outcomes for Prime for Life and Juvenile Education Groups are particularly notable, as they serve indicated populations. It should be noted that the LifeSkills – 1 Year group represents participants completing only one year of the multi-year program, and that information regarding the curriculum level presented to these students is unavailable.

Programs that performed the best of those evaluated here in affecting attitude and perceived risk among Comprehensive Project participants are Girls Circle (primarily middle school), All Stars – 1 Year (primarily middle school), Too Good for Drugs – 2 Years (primarily middle school), LifeSkills Training – 1 Year (primarily middle school), and Peer Helping (primarily high school). Again, All Stars and LifeSkills Training represent only one year of those multi-year programs. It also should be noted, as mentioned previously, that Peer Helping participants were primarily youth in training to become peer helpers and may have been selected partly on their desirable beliefs and attitudes. Juvenile Education Groups, Diversion, and Project Towards No Drug Abuse also performed well.

Finally, it is recommended that agencies include information on program curriculum levels in the survey data so that evaluators can group and assess programs based on curriculum level and year (for instance, LifeSkills Training, elementary level, year 1).

Appendix A

Institute of Medicine Categories of Populations Served by Agency and Program

Institute of Medicine Population Categories by Agency and Program (continued on following page)

AGENCY	PROGRAM	POPULATION SERVED (IOM CATEGORY)
ADDS	LifeSkills Training	Universal-Direct
	Project ALERT	
ASAC	Project Towards No Drug Abuse	Universal-Direct
	LifeSkills Training	
Boone	Prime for Life	Indicated
CADS	Project ALERT	Universal-Direct
	Too Good For Drugs	
Capstone	Diversion	Indicated
	LifeSkills Training	Universal-Direct
CFR	Too Good for Drugs	Universal-Direct
	Project ALERT	
Clear Lake AEA 267	JCS Diversion	Indicated
Compass Pointe	Juvenile Alcohol & Drug Education	Indicated
EFR	Project Northland Class Action	Universal-Direct
	LifeSkills Training	
	Project ALERT	
	Project Towards No Tobacco Use	
	Safe Dates	
Helping Services	Project Towards No Tobacco Use	Universal-Direct
Jackson Recovery	All Stars	Selective
	Girl Power	
	Girl Power	Universal-Direct
MECCA	LifeSkills Training	Universal-Direct
	Prime for Life	Selective/Indicated
New (View) Opportunities	LifeSkills Training	Universal-Direct
New Directions	All Stars	Universal-Direct
New Horizons	Project ALERT	Universal-Direct
	Project Towards No Drug Abuse	
	Diversion	Indicated
Pathways	Prime for Life	Indicated
	Effective Black Parenting	Selective
	Women's Empowerment	
Prevention Concepts (10)	Project Towards No Tobacco Use	Universal-Direct
	Girls Circle	Indicated
	Diversion	

Institute of Medicine Population Categories by Agency and Program (continued from previous page)

AGENCY	PROGRAM	POPULATION SERVED (IOM CATEGORY)
Prevention Concepts (16)	Diversion	Indicated
	Girls Circle	Universal-Direct
	Project Towards No Tobacco Use	
SASCC	Peer Helping	Universal-Direct
	All Stars	
SATUCI	Juvenile Education Groups	Indicated
SIEDA	Project ALERT	Selective
	Project Towards No Tobacco Use	
YSS	Project ALERT	Universal-Direct
	Too Good For Drugs	