

Comprehensive Substance Abuse Prevention Program Evaluation

THE IOWA CONSORTIUM FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

Comprehensive Substance Abuse Prevention Program Evaluation – Annual Report 7/1/2014 – 6/30/2015

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EXECUTIVE SUMMARY

The Comprehensive Substance Abuse Prevention Project provides primary alcohol, tobacco, and other drug (ATOD) prevention services to all counties in Iowa. Eighteen providers covering twenty-three service areas implemented a variety of evidence-based prevention programming for the project year that ran from July 1, 2014 to June 30, 2015. Agencies submitted 6,472 total matched pre-test and post-test surveys for analysis.

Participants included in this evaluation ranged in age from 6 to 19; the median age (at post-test) was 13. Nearly three-fourths (73.9%) of the participants are in middle school (6th through 8th grade students). Males comprise 51.0% of respondents, and 9.9% of all respondents are Hispanic or Latino. Attrition analyses indicated that participants who were 19 years old were more likely to drop out or not complete a post-test for the regular Comprehensive Survey, while those who were in the ninth grade (22.6%) were more likely to complete a post-test than other grades. For Younger Youth participants, the less they thought it hurt to smoke cigarettes every day, the more likely they were to attrite. Adolescents in the Diversion program who indicated African American and Asian left the program at a higher rate than others races.

The evaluation of the Comprehensive Prevention project answers the following questions:

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

The following table presents data on the percentage of middle and high school 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. These data are for participants in all programs combined, excluding Diversion programs. Iowa Youth Survey data are also provided.

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: Comprehensive Prevention Survey Respondents										
Group	N	Median Age	Alcohol		Binge Drinking		Cigarettes		Marijuana	
			Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change
Iowa Youth Survey ¹	52,560 ²	12	-	+2.00	_	+1.00	_	+1.00	_	+1.00
Comprehensive Prevention	4,438	13	7.85	-0.30	1.74	-0.25	2.44	0	1.97	+0.09

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



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

³ The total number of participants completing the regular Comprehensive Prevention Survey excluding Diversion was 4,438; participants were in the 5th through 12th grades

There was no evidence of change from pre-test to post-test for alcohol, binge drinking, cigarette, or marijuana use in the combined middle school and high school Comprehensive Prevention participant group. (McNemar test results are: P values were greater than 0.05).

 Has the percentage of the target population who indicate desirable attitudes (i.e., that it is wrong to use substances) at baseline (pre-test) maintained or increased after the intervention (post-test)?

Attitude responses are coded on a Likert scale from "not wrong at all" to "very wrong." 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. Elementary school programs showed positive outcomes of 86% or more for attitude toward substance use. Most middle and high school programs showed positive outcomes for 83% or more of participants. All Stars and Project Towards No Drug Abuse tended to be the highest performers. For Diversion programs, more than 72% of participants showed positive outcomes for attitudes regarding alcohol use, more than 82% showed positive outcomes regarding attitude toward cigarette use, and more than 84% showed positive outcomes regarding attitude toward marijuana use. It is noteworthy that 36.3% of Diversion participants moved up the scale (further toward "very wrong") for alcohol use.

 Has perception of risk of harm from alcohol/tobacco/marijuana use maintained a positive response or increased from pre-test to post-test?

Perception of risk responses are coded on a Likert scale from "no risk" to "great risk." Maintaining a response from pre-test to post-test that use poses "moderate risk" or "great risk," or moving up the scale towards "great risk" from any point on the scale is considered a positive outcome. Outcome percentages were more variable among programs for perception of risk of harm from use than for attitude toward use. Most of the elementary school programs had positive outcomes of 78% or more for alcohol and cigarettes. Outcome percentages for perceived risk of marijuana use range from 59.0% to just over 74% for elementary programs. All middle and high school programs had higher positive outcome percentages, most with 80% or more for alcohol and cigarettes. Outcome percentages for perceived risk of marijuana use range from just over 64% to 100%. For Diversion programs, over 85.6% of participants showed positive outcomes for perceived risk of harm from substance use. It is noteworthy that 34.4% of Diversion participants moved up the scale (further toward "great risk") for perceived risk of harm from alcohol use and 41.4% moved up the scale for perceived risk of harm from marijuana use.

All students believe marijuana use is more wrong than alcohol or cigarettes but believe that use of marijuana is less risky than alcohol or cigarettes. Coupled with the fact that the positive outcome percentages for elementary students for perceived risk of harm from marijuana use appear lower than those percentages for middle and high school groups, the evaluators recommend agencies identify and implement elementary-level programming containing greater emphasis on the risks of marijuana use.

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BACKGROUND

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 a 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, Division of Behavioral Health (IDPH) administers the prevention portion of the Block Grant funds through a competitive process to provide funding for each county in the state. Eighteen providers covering twenty-three service areas were awarded contracts to implement a variety of evidence-based prevention programming for the funding cycle that runs from July 1, 2014 to June 30, 2015.

The Iowa Consortium for Substance Abuse Research and Evaluation (Consortium) was awarded a contract with IDPH to evaluate the project and to provide training and technical assistance to the providers on data collection and data entry. In addition, one contractor implements prevention programming with early elementary students who are below the appropriate age for surveying; therefore data for that contractor is not included in this report. Another contractor did not have access to schools for programming, therefore they do not have any surveys to include for this report.

Methodology

The evaluation involves a matched pre-post design whereby a survey is administered to the target population at the beginning and at the conclusion of the prevention program. The survey is also administered at the end of each year for programs spanning multiple years. Post-test survey data from the previous program year is typically used as a baseline for reporting current-year outcomes for multi-year programs. Survey instruments may be found in Appendix A.

Agencies submitted 6,472 pre-tests, 6,105 first-year post-tests, 1,804 second-year post-tests, and 72 third-year post-tests during State Fiscal Year 2015 (July 1, 2014 – June 30, 2015). This yielded 5,989 total matched surveys; 4,320 of these were from participants in single-year programs and those in the first year of multi-year programs; 1,597 were from participants in the second year of multi-year programs, and 72 were from participants in the third year of multi-year programs. Matched data include participants completing the Comprehensive or Younger Youth survey instruments.

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.

OUTCOME DATA

Participant Profile

Demographic data provided here include participants in all programs who completed the Comprehensive or Younger Youth (YY) survey instrument. 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 increasing by one year. In those cases, post-test responses were used, as those data most closely represent the matched group included in this report. In addition, there were numerous mismatches in individual participant responses from pre-test to post-test for gender, race, and ethnicity on both surveys. 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 report is 13. Nearly one-fourth (73.9%) of the participants are in middle school (6th through 8th grade students). Males comprise 51.0% of respondents, and 9.9% of all respondents are Hispanic or Latino. Participant racial groups are delineated below:

80.6% White

3.8% Black/African American

1.7% Asian

0.8% American Indian/Alaska Native

0.3% Native Hawaiian/Other Pacific Islander

3.7% Some Other Race

9.1% More than one race

Attrition Analysis

The evaluators performed an attrition analysis to identify potential differences between participants who terminated their involvement in the program, that is, they did not complete a post-test, and those who remained in the program, that is, they completed a post-test this project year. The analysis was conducted on data for students in single-year programs and the first year of multi-year programs. Agencies differ in the number of curriculum years implemented of any given program, and students who do not complete post-tests in subsequent years of multi-year programs. Therefore, determining attrition from year to year can be difficult. The evaluators split the analysis into three parts the older Regular Comprehensive Prevention (RCP) participants, the Younger Youth (YY) participants – a group of fourth through sixth graders, and those participants in the Diversion Program (Diversion). In comparing RCP and YY participants the older RCP participants did not complete a post-test, whereas only 12.0% of the YY participants did not complete a post-test.

The RCP participants who were 19 years old (66.7%) tended to attrite more often than other aged participants were.¹ Those who were in the ninth grade (22.6%) were more likely to complete a post-test than other grades.² The less wrong the respondents thought it was to smoke cigarettes³ or marijuana⁴

⁴ Cochran-Mantel-Haenszel test $\chi^2 = 8.15$; df = 3; p = .043



¹ Cochran-Mantel-Haenszel test $\chi^2 = 38.41$; df = 11; p < .001

² Cochran-Mantel-Haenszel test $\chi^2 = 43.87$; df = 8; p < .001

³ Cochran-Mantel-Haenszel test $\chi^2 = 9.81$; df = 3; p = .020

the more likely they were to leave the program compared to those who thought it was wrong. Adolescents who thought there was no risk of harming themselves from consuming three or more drinks of alcohol in a day (13.7%)⁵, smoking marijuana (15.4%)⁶, using other illegal drugs (14.98%)⁷, or medication prescribed for someone else (14.4%)8 the more likely they were to attrite than those who thought it was more risky. The RCP respondents represented by the outcome data in this report differ from those who initiated the program. When interpreting outcomes, take into consideration the selective attrition discussed above.

The YY participants who thought it was not wrong at all to smoke cigarettes (18.2%)⁹, marijuana (37.5%)¹⁰, or use other drugs (42.9%)¹¹ did not complete a post-test at a higher rate than those who thought it was wrong to smoke to cigarettes, marijuana, or do other drugs. The less the respondents thought it hurt to smoke cigarettes every day, the more likely they were to attrite. ¹² Moreover, children who thought that it did not hurt to smoke marijuana once a week (12.8%) were more likely to not complete a post-test. 13 The YY respondents represented by the outcome data in this report differ from those who initiated the program. When interpreting outcomes, take into consideration the selective attrition discussed above.

Five and eight-tenths percent of the participants in the Diversion program did not take the post-test. Adolescents who indicated African American and Asian left the program at a higher rate than other races. 14 Diversion participants who thought that it was not wrong at all to use over the counter medications left the program at a higher rate (50.0%) than those who thought it was wrong. 15 Participants in the Diversion program represented by the outcome data in this report differ from those who initiated the program. When interpreting outcomes, take into consideration the selective attrition discussed above.

Past 30-Day Use

Data on past 30-day use are provided for Comprehensive Prevention project participants who completed the Comprehensive Prevention Survey. Data are provided for programs where 50 or more participants completed both a pre-test and a post-test. The Comprehensive Prevention Younger Youth survey does not ask about past 30-day use, therefore participants who completed that survey are not included in the past 30-day use data. Attitude and perceived risk outcomes for Younger Youth respondents are provided beginning on page 23. In addition, data for Diversion program participants appear separately because the population served by Diversion programs is different from that of the other programs. Diversion program outcome data begin on page 40. Tables 1 through 3 and Figures 1 through 3 on the following pages present past 30-day use data for middle school and high school youth in non-Diversion programs.

The lowa Youth Survey (IYS) data are provided as a reference for interpreting the outcome data in this report. The lowa Youth Survey is a biennial assessment of lowa's school-aged (grades 6, 8, and 11)

¹⁵ Cochran-Mantel-Haenszel test $\chi^2 = 9.07$; df = 3; p = .028



⁵ Cochran-Mantel-Haenszel test χ^2 = 8.07; df = 3; p = .045 ⁶ Cochran-Mantel-Haenszel test χ^2 = 11.60; df = 3; p = .009 ⁷ Cochran-Mantel-Haenszel test χ^2 = 8.41; df = 3; p = .038 ⁸ Cochran-Mantel-Haenszel test χ^2 = 14.70; df = 3; p = .002 ⁹ Cochran-Mantel-Haenszel test χ^2 = 6.43; df = 2; p = .040 ¹⁰ Cochran-Mantel-Haenszel test χ^2 = 9.23; df = 2; p = .010 ¹¹ Cochran-Mantel-Haenszel test χ^2 = 6.23; df = 2; p = .004 ¹² Cochran-Mantel-Haenszel test χ^2 = 6.23; df = 2; p = .045 ¹³ Cochran-Mantel-Haenszel test χ^2 = 8.81; df = 2; p = .012

¹⁴ Cochran-Mantel-Haenszel test $\chi^2 = 9.21$; df = 3; p = .027

students' attitudes toward substance use and actual use of substances. The IYS data reflect changes due to maturation of the youth through the different grade levels. The 2014 IYS data provided here represent an estimate of the change one might see among youth in the general population over the course of one year. Thus, this shows the estimated annual change one might expect in lowa'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 yearly change was calculated by dividing the difference between grades by the number of years between grades. This was done using 6th and 11th grade IYS data to provide a reference for Comprehensive Prevention Project outcomes in Table 1; using 6th and 8th grade IYS data for participants in elementary and middle school programs; and using 8th and 11th grade IYS data for participants in high school programs. A single average yearly change figure is given in the tables to simplify interpretation. True yearly change rates, however, would increase each successive year (i.e., past 30-day use between 6th and 7th grade may increase less than 4.5%, but may increase more than 4.5% between 7th and 8th 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 presents data on the percentage of middle and high school youth reporting past 30-day use of alcohol, binge drinking (5 or more drinks in a row), cigarettes, and marijuana at the pre-test, and the percentage change and direction of change at post-test. Increases in the percentage of youth reporting use are indicated by a '+'; decreases in percentage of youth reporting use are indicated by a '-'. However, the change values presented in the table do not necessarily indicate statistically significant differences from pre-test to post-test. These data are for participants in all programs combined who completed the Comprehensive Prevention Survey, excluding Diversion program participants. Iowa Youth Survey data also are provided.

Table 1: Change in Past 30-Day Use: Comprehensive Prevention Survey Respondents

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: Comprehensive Prevention Survey Respondents										
			Alcohol		Binge Drinking		Cigarettes		Marijuana	
Group	N	Median Age	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change
Iowa Youth Survey ¹	52,560 ²	12	_	+2.00	_	+1.00	_	+1.00		+1.00
Comprehensive Prevention	4,438	13	7.85	-0.30	1.74	-0.25	2.44	0	1.97	+0.09

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

There was no evidence of change from pre-test to post-test for alcohol, binge drinking, cigarette, or marijuana use in the combined middle school and high school Comprehensive Prevention participant group. (McNemar test results are: P values for alcohol, cigarette, binge drinking, and marijuana use were greater than 0.05). However, this also means that use of those showed no evidence of increasing as would be expected due to maturation. Figure 1 on page 10 graphically displays the past 30-day use data provided in Table 1.

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

³ The total number of participants completing the regular Comprehensive Prevention Survey excluding Diversion was 4,438; participants were in the 5th through 12th grades

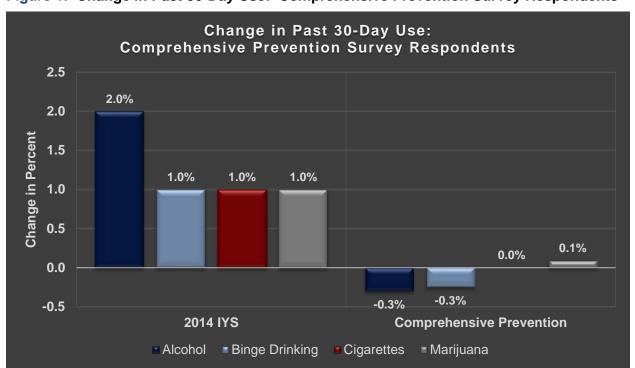


Figure 1: Change in Past 30-Day Use: Comprehensive Prevention Survey Respondents

The remaining tables and graphs in this report provide outcome data by specific prevention program within the Comprehensive Prevention Project. Programs are grouped according to whether the program is provided within one school year or grade (single-year programs), or spans more than one school year or grade (multi-year programs). The Consortium and IDPH re-categorized two programs during State Project Year 2012: Brain Power and Too Good for Drugs. Those programs offer curricula for several grades, but each grade's curricula can be administered as a stand-alone program, and some Comprehensive contractors implement those programs in only one grade. Therefore, Brain Power and Too Good for Drugs are now treated as single-year rather than multi-year programs.

Tables 2 and 3 and Figures 2 and 3 on the following pages present program-specific data on the percentage of youth reporting past 30-day use of alcohol, binge drinking, tobacco, marijuana at the pretest, and the percentage and direction of change at post-test. The change values presented in the tables do not necessarily indicate statistically significant differences from pre-test to post-test. Table 2 and Figure 2 present data for participants in single-year programs. Table 3 and Figure 3 present data for participants in multi-year programs.

Table 2: Change in Past 30-Day Use: Comprehensive Prevention Survey Respondents in Single-Year Programs

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: Comprehensive Prevention Survey Respondents in Single-Year Programs										
			Alcohol		Binge Drinking		Cigarettes		Marijuana	
Group	N	Median Age	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change
Iowa Youth Survey ¹	52,560 ²	12	-	+2.00	_	+1.00	_	+1.00	_	+1.00
Project Towards No Drugs Abuse	181	14 ³	20.0	-5.56	8.33	-4.44	6.15	-3.36	5.00	-2.22
Curriculum-Based Support Group	113	13 ⁴	24.30	-3.74	15.89	-4.67	20.75	+0.94	13.08	+0.93
Brain Power	66	12 ⁵	1.54	+3.08	1.54	0	1.54	0	1.54	0

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

The decreases in alcohol and binge drinking for Project Towards No Drug Abuse are statistically significant (McNemar test results are: Alcohol, p=0.0213; binge drinking, p=.0386); there is no evidence of change for cigarette or marijuana use. Curriculum-Based Support Group and Brain Power showed no evidence of change in use from pre-test to post-test ((McNemar test results are: P values for alcohol, cigarette, binge drinking, and marijuana use were greater than 0.05). However, this also means that use of those showed no evidence of increasing as would be expected due to maturation. Figure 2 on page 12 graphically displays the past 30-day use data provided in Table 2.

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

³ Project Towards No Drug Abuse participants were in the 7th through 12th grades.

⁴ Curriculum-Based Support Group participants were in the 5th through 12th grades.

⁵ Brain Power participants were in the 6th and 7th grades.

Figure 2: Change in Past 30-Day Use: Comprehensive Prevention Survey Respondents in Single-Year Programs

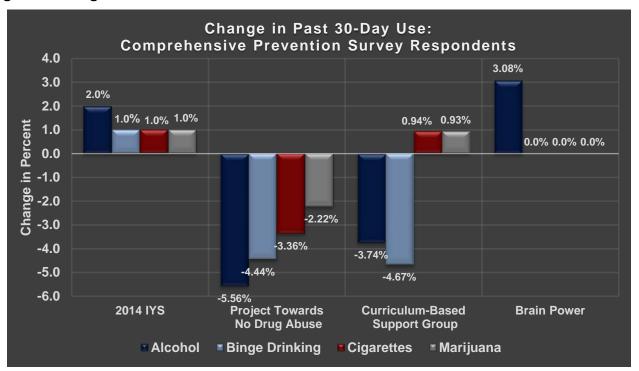


Table 3 on page 13 presents data on the percentage of youth reporting past 30-day use of alcohol, binge drinking, tobacco, and marijuana at the pre-test and the amount and direction of change at post-test for participants in multi-year programs. The change values presented in the table do not necessarily indicate statistically significant differences from pre-test to post-test.

Table 3: Change in Past 30-Day Use: Comprehensive Prevention Survey Respondents in Multi-Year Programs

Percentage of Youth Reporting Past 30-Day Use at the Pre-Test and Change at Post-Test: Comprehensive Prevention Survey Respondents in Multi-Year Programs Alcohol **Binge Drinking** Cigarettes Marijuana Media Ν Group Pre-Test Pre-Test Pre-Test **Pre-Test** n Age Change Change Change Change % % Iowa Youth Survey1 $52,560^{2}$ +2.00 +1.00 +1.00 12 +1.00 LifeSkills Training (LST) -994 13^{3} 0 10.00 -1.96 1.43 2.67 +0.31 +0.31 2.15 Year 1 LifeSkills Training (LST) - 13^{4} 0 112 2.08 +5.21 0 +1.04 1.04 0 +2.08 Year 2 Project ALERT (PA) - Year 1 664 13^{5} 10.05 -0.32 0.96 +0.48 1.75 +0.48 1.59 +0.32 Project ALERT (PA) - Year 2 1408 13^{6} 2.63 +1.15 0.54 -0.08 0.70 -0.16 0.54 -0.23 Too Good for Drugs (TGFD) -

0.84

0

+0.17

0

-0.17

+1.43

6.05

0

653

72

 12^{7}

13⁸

Year 1

All Stars - Year 3

+0.67

0

1.85

0

1.01

0

-0.34

0

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

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

³LST Yr.1 participants were in the 6th through 12th grades.

⁴LST Yr. 2 participants were in the 7th through 8th grades.

⁵ PA Yr. 1 participants were in the 6th through 8th grades.

⁶ PA Yr. 2 participants were in the 6th through 10th grades.

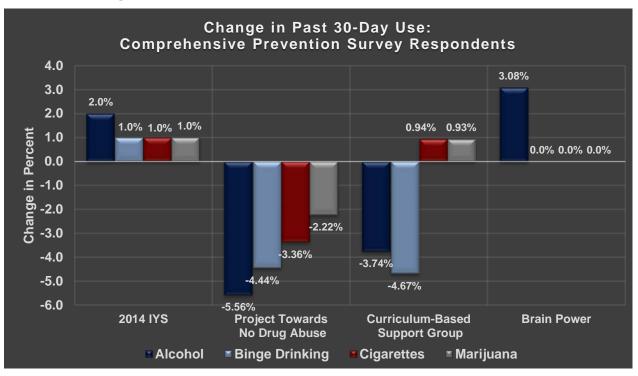
⁷ Too Good for Drugs Yr. 2 participants were in the 6th through 12th grades.

⁸ All Stars Yr. 3 participants were in the 7th grade.

The decrease in alcohol for LifeSkills Training Year 1 is statistically significant (McNemar test results are: p=0.0475); there is no evidence of change for binge drinking, cigarette, or marijuana use. All other multi-year programs showed no evidence of change in use from pre-test to post-test (McNemar test results are: P values for alcohol, cigarette, binge drinking, and marijuana use were greater than 0.05). However, this also means that use of those showed no evidence of increasing as would be expected due to maturation. Figure 3 on page 14 graphically displays the past 30-day use data provided in Table 3.

Figure 3 displays graphically the data provided in Table 3.

Figure 3: Change in Past 30-Day Use: Comprehensive Prevention Survey Respondents n Multi-Year Programs



Attitudes Toward Substance Use

Figures 4 through 12 on the following pages show change in individual attitudes toward substance use from the pre-test to the post-test, by program. Data for programs serving elementary school students are provided first, followed by data for programs serving middle-and high-school youth. The elementary school youth group contains some 6th graders (3.6% of total), although all completed the Younger Youth survey. Programs are grouped according to program duration (single-year and multi-year programs). Multi-year program data present individual years of the program and therefore are not indicative of how the complete program performs. The change values presented in the figures do not necessarily indicate statistically significant differences from pre-test to post-test. The number in parentheses after each program name in the figures is the number of respondents answering the question on both the pre-test and the post-test.

Attitude responses are coded on a Likert scale from "not wrong at all" to "very wrong." Individual attitudes either:



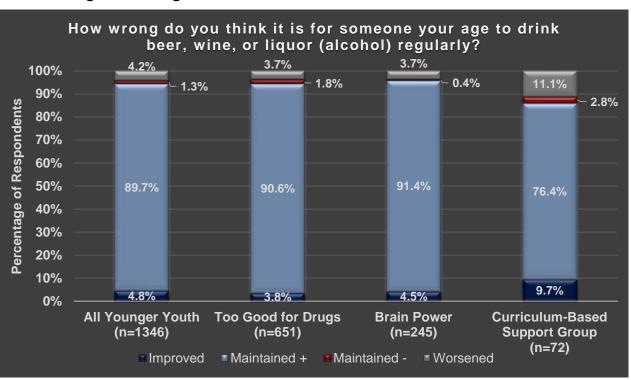
- improved, which means that attitudes moved up the scale towards "very wrong" from any point on the scale (e.g., respondent felt alcohol use was wrong at pre-test and very wrong at post-test);
- 2) maintained +, which means that the pre- and post-test responses remained the same and were unfavorable toward alcohol, cigarette, or marijuana use ("wrong" or "very wrong");
- 3) maintained -, which means that the pre- and post-test responses remained the same and were favorable toward alcohol, cigarette, or marijuana use ("a little wrong" or "not wrong at all"); or
- 4) worsened, meaning that attitudes moved down the scale away from "very wrong" from any point on the scale (e.g., respondent felt marijuana use was "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.

Attitudes Toward Alcohol Use

Figure 4 shows the direction of change in individual attitudes toward alcohol use from pre- to post-test for single-year programs that served elementary school youth.

Figure 4: Change in Attitudes Toward Alcohol Use by Program: Elementary School Youth in Single-Year Programs



Note: The median age of Too Good for Drugs Participants was 11; participants ranged in age from 8 to 13 and were in the 4th and 5th grades. The median age of Brain Power participants was 10; participants ranged in age from 8 to 12 and were in the 4th and 5th grades. The median age of Curriculum-Based Support Group participants was 10; participants ranged in age from 8 to 12 and were in the 4th through 6th grades

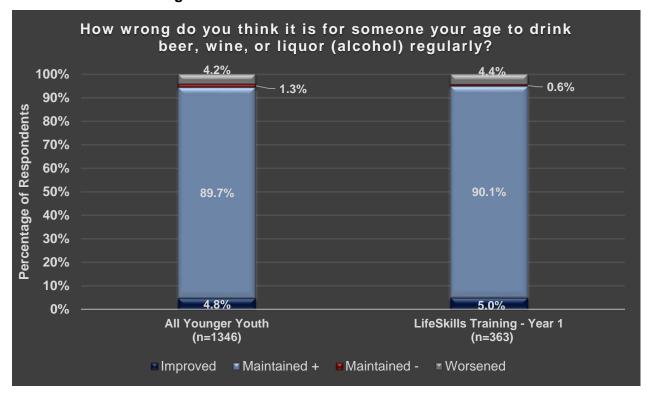
Due to rounding, percentages in figures may not equal the percentage totals in the maintained and improved categories for each program.

The percentages of elementary school single-year program participants showing a positive outcome (maintaining a response that alcohol use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Younger Youth 94.4%
- Too Good for Drugs 94.5%
- Brain Power 95.9%
- Curriculum-Based Support Group 86.1%

Figure 5 below shows the direction of change in individual attitudes toward alcohol use from pre- to post-test for multi-year programs that served elementary school youth.

Figure 5: Change in Attitudes Toward Alcohol Use by Program: Elementary School Youth in Multi-Year Programs



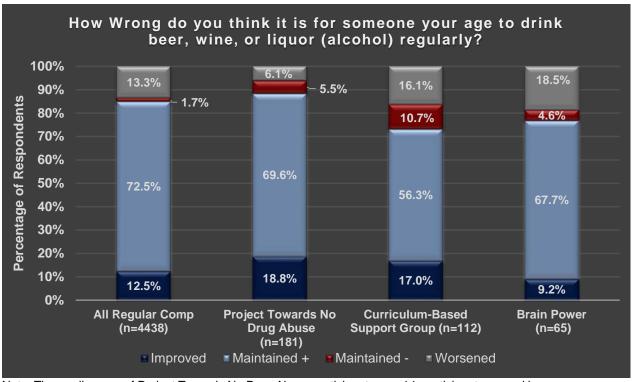
Note: The median age of LifeSkills Training Participants was 10; participants ranged in age from 8 to 12 and were in the 4th and 5th grades.

The percentage of elementary school multi-year program participants showing a positive outcome (maintaining a response that alcohol use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) is:

- All Younger Youth 94.4%
- LifeSkills Training (Year 1) 95.0%

Figure 6 shows the change in individual attitudes toward alcohol use from pre- to post-test for single-year programs that served middle and high school youth.

Figure 6: Change in Attitudes Toward Alcohol Use by Program: Middle and High School Youth in Single-Year Programs



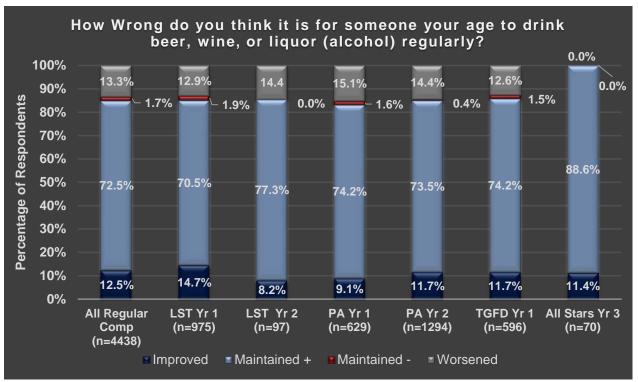
Note: The median age of Project Towards No Drug Abuse participants was 14; participants ranged in age from 12 to 18 and were in the 7th through 12th grades. The median age of CBSG participants was 13; participants ranged in age from 9 to 18 and were in the 5th through 12th grades. The median age of Brain Power participants was 13; participants ranged in age from 11 to 18 and were in the 6th and 12th grades. The median age of Brain Power participants was 12; participants ranged in age from 11 to 14 and were in the 6th and 7th grades.

The percentages of middle and high school youth single-year program participants showing a positive outcome (maintaining a response that alcohol use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Regular Comprehensive Prevention Excluding Diversion 85.0%
- Project Towards No Drug Abuse 88.4%
- Curriculum-Based Support Group 73.3%
- Brain Power 76.9%

Figure 7 below shows the change in individual attitudes toward alcohol use from pre- to post-test for multi-year programs that served middle and high school youth.

Figure 7: Change in Attitudes Toward Alcohol Use by Program: Middle and High School Youth in Multi-Year Programs



Note: The median age of LST Yr 1 participants was 13; participants ranged in age from 10 to 18 and were in the 6th through 12th grades. The median age of LST Yr 2 participants was 13; participants ranged from 12 to 14 and were in the 7th and 8th grades. The median age of PA Yr 1 participants was 13; participants ranged in age from 10 to 16 and were in the 6th through 8th grades. The median age of PA Yr 2 participants was 13; participants ranged in age from 12 to 15 and were in the 6th through 10th grades. The median age of Too Good for Drugs participants was 12; participants ranged in age from 11 to 18 and were in the 6th through 12th grades. The median age of All Stars Yr 3 participants was 13; participants ranged in age from 13 to 14 and were in the 7th through 8th grades.

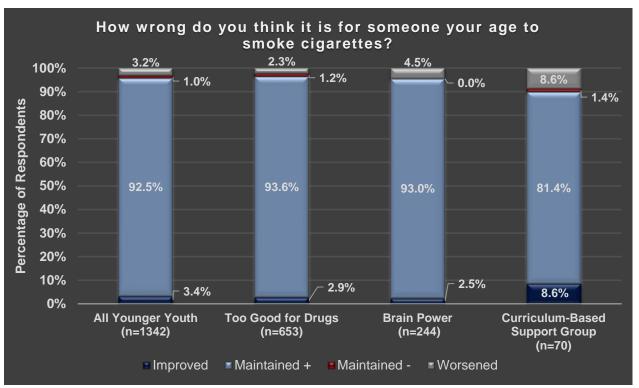
The percentages of middle and high school youth multi-year program participants showing a positive outcome (maintaining a response that alcohol use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Regular Comprehensive Prevention Excluding Diversion 85.0%
- LifeSkills Training (Year 1) 85.1%
- LifeSkills Training (Year 2) 85.6%
- Project ALERT (Year 1) 83.3%
- Project ALERT (Year 2) 85.2%
- Too Good for Drugs (Year 1) 85.9%
- All Stars (Year 3) 100%

Attitudes Toward Cigarette Use

Figures 8 through 11 below represent changes in individual attitudes towards daily cigarette use from the pre-test to the post-test, by program. Figure 8 shows the change in individual attitudes toward cigarette use from pre- to post-test for single-year programs that served elementary school youth.

Figure 8: Change in Attitudes Toward Cigarette Use by Program: Elementary School Youth in Single-Year Programs



The percentages of elementary school single-year program participants showing a positive outcome (maintaining a response that cigarette use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Younger Youth 95.8%
- Too Good for Drugs 96.5%
- Curriculum-Based Support Group 90.0%
- Brain Power 95.5%

Figure 9 below shows the change in individual attitudes toward cigarette use from pre- to post-test for multi-year programs that served elementary school youth.

Figure 9: Change in Attitudes Toward Cigarette Use by Program: Elementary Aged Youth in Multi-Year Programs

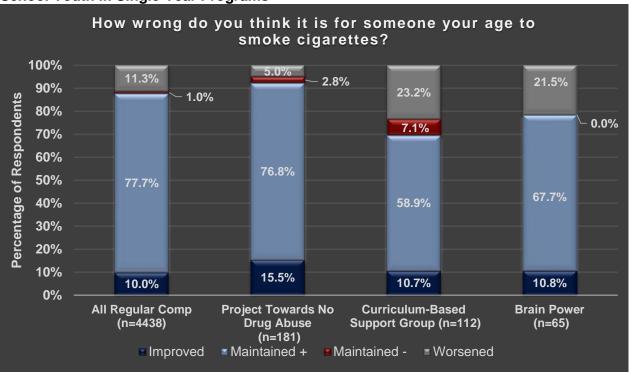


The percentage of elementary school multi-year program participants showing a positive outcome (maintaining a response that cigarette use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) is:

- All Younger Youth 95.8%
- LifeSkills Training (Year 1) 95.8%

Figure 10 below shows the change in individual attitudes toward cigarette use from pre- to post-test for single-year programs that served middle and high school youth.

Figure 10: Change in Attitudes Toward Cigarette Use by Program: Middle and High School Youth in Single-Year Programs

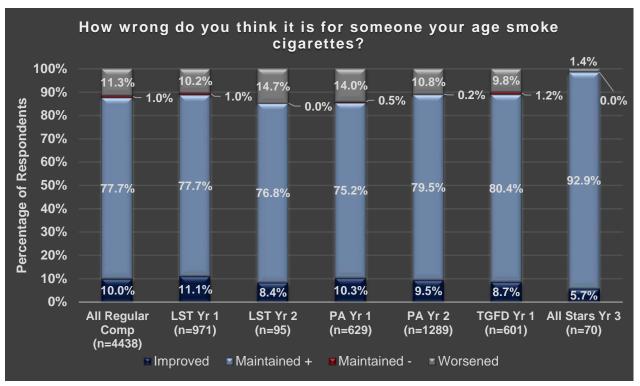


The percentages of middle and high school youth single-year program participants showing a positive outcome (maintaining a response that cigarette use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Regular Comprehensive Prevention Excluding Diversion 87.7%
- Project Towards No Drug Abuse 92.3%
- Curriculum-Based Support Group 69.6%
- Brain Power 78.5%

Figure 11 below shows the change in individual attitudes toward cigarette use from pre- to post-test for multi-year programs that served middle and high school youth.

Figure 11: Change in Attitudes Toward Cigarette Use by Program: Middle and High School Youth in Multi-Year Programs



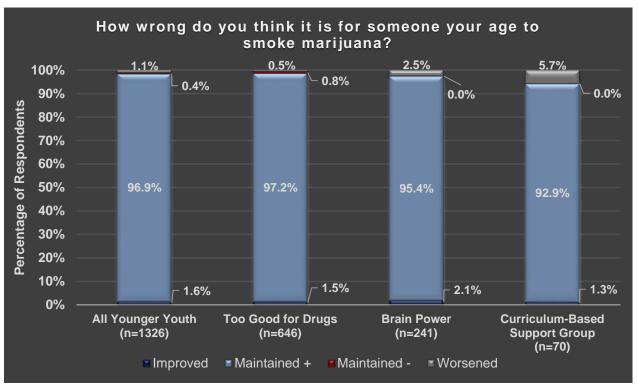
The percentages of middle and high school youth multi-year program participants showing a positive outcome (maintaining a response that cigarette use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Regular Comprehensive Prevention Excluding Diversion 87.7%
- LifeSkills Training (Year 1) 88.8%
- LifeSkills Training (Year 2) 85.3%
- Project ALERT (Year 1) 85.5%
- Project ALERT (Year 2) 89.0%
- Too Good for Drugs (Year 1) 89.0%
- All Stars (Year 3) 98.6%

Attitudes Toward Marijuana Use

The following figures show change in individual attitudes toward marijuana use from the pre-test to the post-test, by program. Figure 12 shows the change in individual attitudes toward marijuana use from pre- to post-test for single-year programs that served elementary school youth.

Figure 12: Change in Attitudes Toward Marijuana Use by Program: Elementary School Youth in Single-Year Programs



The percentages of elementary school single-year program participants showing a positive outcome (maintaining a response that marijuana use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Younger Youth 98.5%
- Too Good for Drugs 98.8%
- Brain Power 97.5%
- Curriculum-Based Support Group 94.3%

Figure 13 below shows the change in individual attitudes toward marijuana use from pre- to post-test for multi-year programs that served elementary school youth.

Figure 13: Change in Attitudes Toward Marijuana Use by Program: Elementary School Youth in Multi-Year Programs

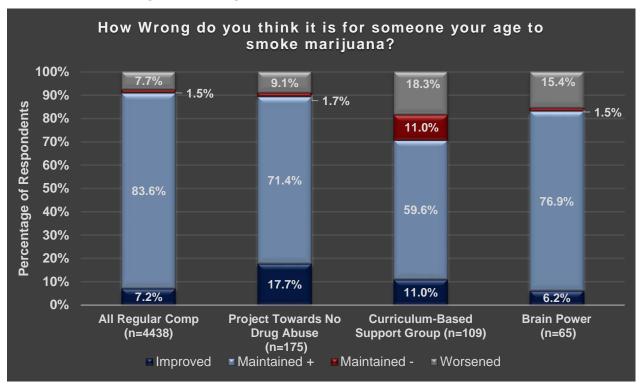


The percentage of elementary school multi-year program participants showing a positive outcome (maintaining a response that marijuana use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) is:

- All Younger Youth 98.5%
- LifeSkills Training (Year 1) 99.4%

Figure 14 below shows the change in individual attitudes toward marijuana use from pre- to post-test for single-year programs that served middle and high school youth.

Figure 14: Change in Attitudes Toward Marijuana Use by Program: Middle and High School Youth in Single-Year Programs

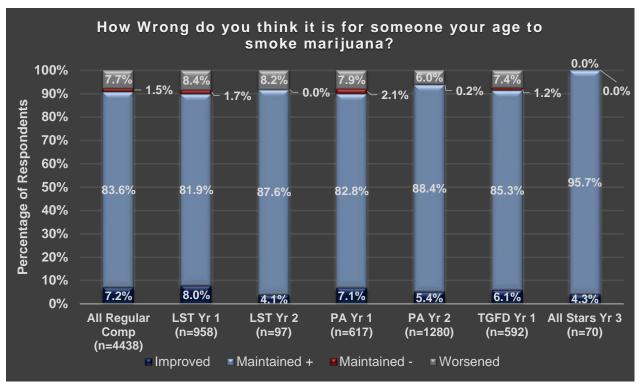


The percentages of middle and high school youth single-year program participants showing a positive outcome (maintaining a response that marijuana use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Regular Comprehensive Prevention Excluding Diversion 90.8%
- Project Towards No Drug Abuse 89.1%
- Curriculum-Based Support Group 70.6%
- Brain Power 83.1%

Figure 15 below shows the change in individual attitudes toward marijuana use from pre- to post-test for multi-year programs that served middle and high school youth.

Figure 15: Change in Attitudes Toward Marijuana Use by Program: Middle and High School Youth in Multi-Year Programs



The percentages of middle and high school youth multi-year program participants showing a positive outcome (maintaining a response that marijuana use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e. "Improved" plus "Maintained +" categories) are:

- All Regular Comprehensive Prevention Excluding Diversion 90.8%
- LifeSkills Training (Year 1) 90.0%
- LifeSkills Training (Year 2) 91.8
- Project ALERT (Year 1) 90.0%
- Project ALERT (Year 2) 93.8
- Too Good for Drugs (Year 1) 91.4%
- All Stars (Year 3) 100%

Summary of Positive Outcomes for Attitudes Toward Substance Use

Table 4 below shows the average positive outcome (improved plus maintained+) percentage for Comprehensive Prevention participants for each substance by program level group.

Table 4: Positive Outcome Percentages for Attitudes Toward Substance Use by Participant Group

Average Positive Outcome Percentages for Attitudes Toward Substance Use										
Participant Group	Alcohol	Cigarettes	Marijuana							
Elementary School Youth in Single-Year Programs	92.2%	94.0%	96.9%							
Elementary School Youth in Multi-Year Programs	95.0%	95.8%	99.4%							
Middle and High School Youth in Single-Year Programs	79.5%	80.1%	80.9%							
Middle and High School Youth in Multi-Year Programs	87.5%	87.5%	91.4%							

In three groups, the percentage of students believing it is wrong for someone their age to use marijuana was greater than the percentage believing it is wrong for someone their age to use alcohol or cigarettes. The percentage of students believing it is wrong for someone their age to use cigarettes was equal to or greater than the percentage believing it is wrong for someone their age to use alcohol.

Perceived Risk of Harm from Substance Use

Figures 16 through 27 on the following pages show change from pre- to post-test in individuals' perceptions of risk of harm from substance use, by program. Data for participants completing the Younger Youth survey (primarily elementary school youth) are provided first, followed by data for those completing the regular Comprehensive Prevention Survey (middle- and high-school youth). The elementary school youth group contains some 6th graders (3.6% of total), although all completed the Younger Youth survey. Programs are grouped according to program duration (single-year and multi-year programs). Multi-year program data present individual years of the program and therefore are not indicative of how the complete program performs. The change values presented in the figures do not necessarily indicate statistically significant differences from pre-test to post-test. The number in parentheses after each program in the figures is the number of respondents answering the question on the pre-test and the post-test.

Perceived risk responses are coded on a Likert scale from "no risk" to "great risk." Individual perceptions of risk either:

- 1) improved, which means that their reported perception of risk of harm from using alcohol, cigarettes, or marijuana moved up the scale from pre-test to post-test towards "great risk," from any point on the scale (e.g., respondent felt alcohol use posed "no risk" at pre-test and "moderate risk" at post-test);
- 2) maintained +, which means that the pre- and post-test responses remained the same and were unfavorable toward alcohol, cigarette, or marijuana use (that use posed "moderate risk" or "great risk");
- maintained –, which means that the pre- and post-test responses remained the same and were favorable toward alcohol, cigarette, or marijuana use (that use posed "slight risk" or "no risk"); or

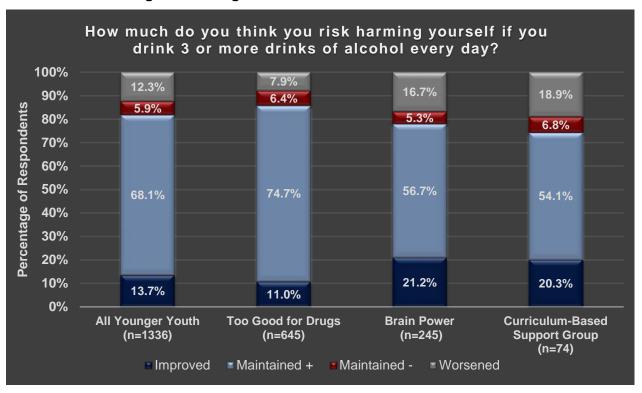
4) worsened, meaning that their reported perception of risk of harm moved down the scale from pre-test to post-test away from "great risk," from any point on the scale (e.g., respondent reported that marijuana use posed "moderate risk" of harm at pre-test and "slight risk" at post-test).

Maintaining a response from pre-test to post-test that use poses "moderate risk" or "great risk," or moving up the scale towards "great risk" from any point on the scale is considered a positive outcome.

Perceived Risk of Harm from Alcohol Use

Figure 16 shows the change in individuals' perception of risk of harm from alcohol use from preto post-test for single-year programs serving elementary school youth.

Figure 16: Change in Perceived Risk of Harm from Alcohol Use by Program: Elementary School Youth in Single-Year Programs

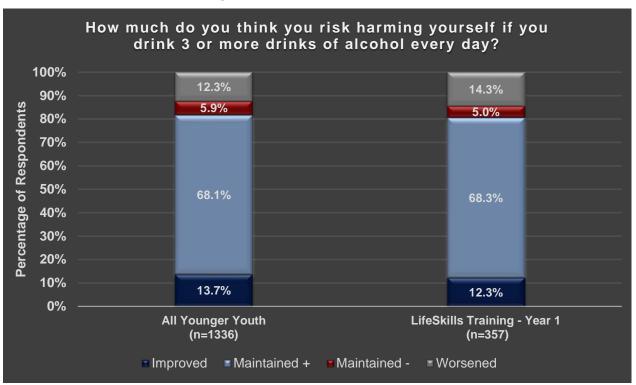


The percentages of elementary school single-year program participants showing positive perceived risk outcomes (maintaining a response that alcohol use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) are:

- All Younger Youth 81.8%
- Too Good for Drugs 85.7%
- Brain Power 78.0%
- Curriculum-Based Support Group 74.3%

Figure 17 shows the change in individuals' perception of risk of harm from alcohol use from preto post-test for multi-year programs serving elementary school youth.

Figure 17: Change in Perceived Risk of Harm from Alcohol Use by Program: Elementary School Youth in Multi-Year Programs

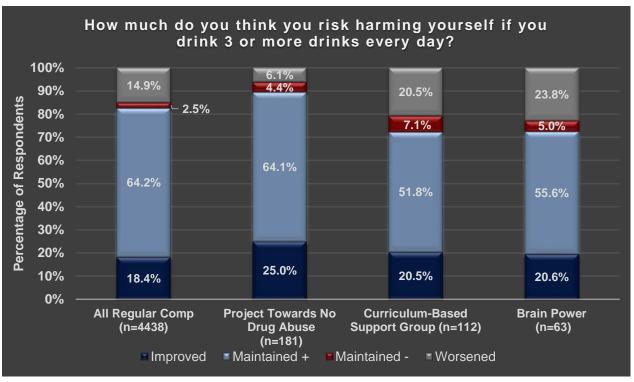


The percentage of elementary school multi-year program participants showing positive perceived risk outcomes (maintaining a response that alcohol use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol is:

- All Younger Youth 81.8%
- LifeSkills Training (Year 1) 80.7%

Figure 18 below shows the change in individuals' perception of risk of harm from alcohol use from pre- to post-test for single-year programs serving middle and high school youth.

Figure 18: Change in Perceived Risk of Harm from Alcohol Use by Program: Middle School Youth in Single-Year Programs

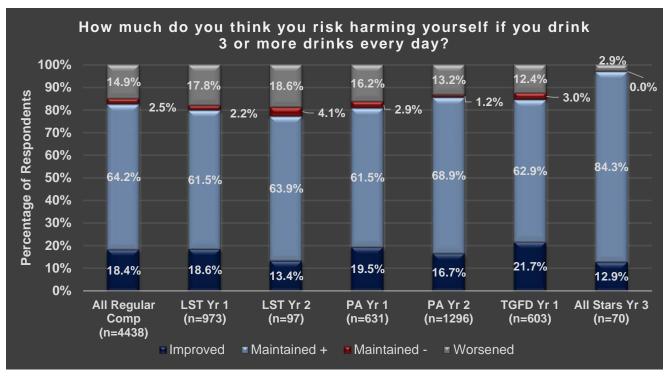


The percentages of middle and high school single-year program participants showing positive perceived risk outcomes (maintaining a response that alcohol use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol are:

- All Regular Comprehensive Prevention Excluding Diversion 82.7%
- Project Towards No Drug Abuse 89.5%
- Curriculum-Based Support Group 72.3%
- Brain Power 76.2%

Figure 19 below shows the change in individuals' perception of risk of harm from alcohol use from pre- to post-test for multi-year programs serving middle and high school youth.

Figure 19: Change in Perceived Risk of Harm from Alcohol Use by Program: Middle School Youth in Multi-Year Programs



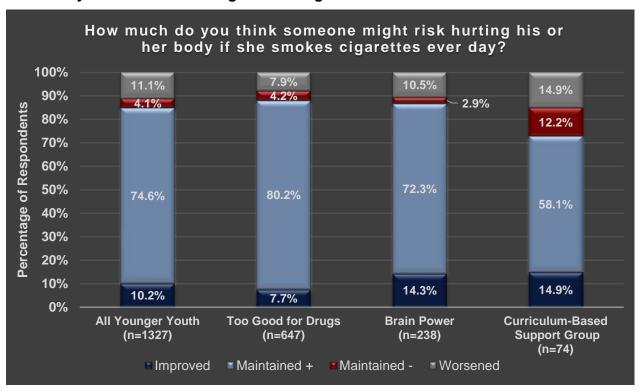
The percentages of middle and high school multi-year program participants showing positive perceived risk outcomes (maintaining a response that alcohol use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol are:

- All Regular Comprehensive Prevention Excluding Diversion 82.7%
- LifeSkills Training (Year 1) 80.1%
- LifeSkills Training (Year 2) 77.3%
- Project ALERT (Year 1) 81.0%
- Project ALERT (Year 2) 85.6%
- Too Good for Drugs (Year 1) 84.6%
- All Stars (Year 3) 97.1%

Perceived Risk of Harm from Cigarette Use

Figure 20 below shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for single-year programs serving elementary school youth.

Figure 20: Change in Perceived Risk of Harm from Cigarette Use by Program: Elementary School Youth in Single-Year Programs

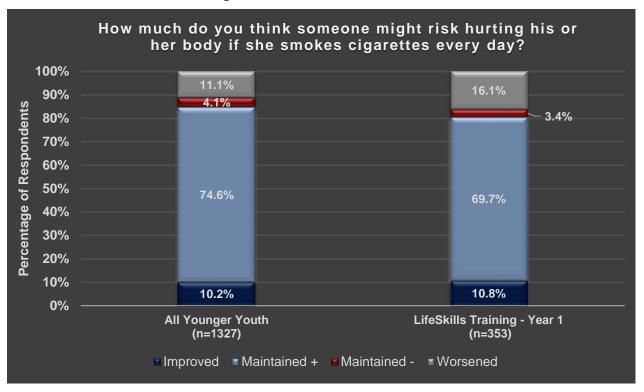


The percentages of elementary school single-year program participants showing positive perceived risk outcomes (maintaining a response that cigarette use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) are:

- All Younger Youth 84.8%
- Too Good for Drugs 87.9%
- Brain Power 86.6%
- Curriculum-Based Support Group 73.0%

Figure 21 below shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for multi-year programs serving elementary school youth.

Figure 21: Change in Perceived Risk of Harm from Cigarette Use by Program Elementary School Youth in Multi-Year Programs

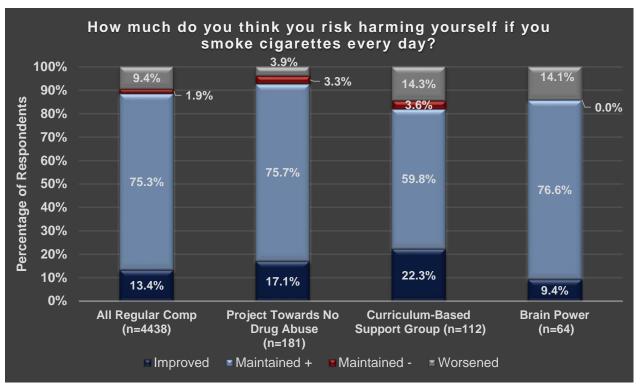


The percentage of elementary school multi-year program participants showing positive perceived risk outcomes (maintaining a response that cigarette use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol is:

- All Younger Youth 84.8%
- LifeSkills Training (Year 1) 80.5%

Figure 22 below shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for single-year programs serving middle and high school youth.

Figure 22: Change in Perceived Risk of Harm from Cigarette Use by Program: Middle School Youth in Single-Year Programs

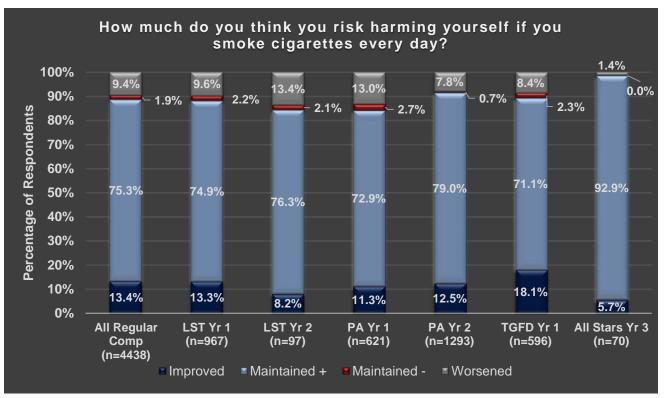


The percentages of middle and high school single-year program participants showing positive perceived risk outcomes (maintaining a response that cigarette use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol are:

- All Regular Comprehensive Prevention Excluding Diversion 88.7%
- Project Towards No Drug Abuse 92.8%
- Curriculum-Based Support Group 82.1%
- Brain Power 85.9%

Figure 23 below shows the change in individuals' perception of risk of harm from cigarette use from pre- to post-test for multi-year programs serving middle and high school youth.

Figure 23: Change in Perceived Risk of Harm from Cigarette Use by Program: Middle School Youth in Multi-Year Programs



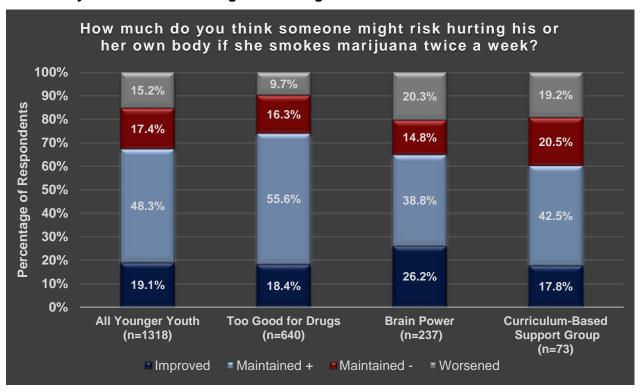
The percentages of middle and high school multi-year program participants showing positive perceived risk outcomes (maintaining a response that cigarette use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol are:

- All Regular Comprehensive Prevention Excluding Diversion 88.7%
- LifeSkills Training (Year 1) 88.2%
- LifeSkills Training (Year 2) 84.5%
- Project ALERT (Year 1) 84.2%
- Project ALERT (Year 2) 91.5%
- Too Good for Drugs (Year 1) 89.3%
- All Stars (Year 3) 98.6%

Perceived Risk of Harm from Marijuana Use

Figure 24 below shows the change in individuals' perception of risk of harm from marijuana use from pre- to post-test for single-year programs serving elementary school youth.

Figure 24: Change in Perceived Risk of Harm from Marijuana Use by Program: Elementary School Youth in Single-Year Programs

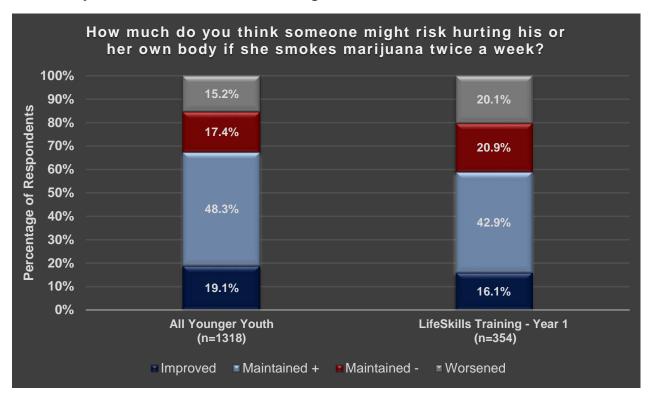


The percentages of elementary school single-year program participants showing positive perceived risk outcomes (maintaining a response that marijuana use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) are:

- All Younger Youth 67.5%
- Too Good for Drugs 74.1%
- Brain Power 65.0%
- Curriculum-Based Support Group 60.3%

Figure 25 below shows the change in individuals' perceptions of risk of harm from marijuana use from pre- to post-test for multi-year programs serving elementary school youth.

Figure 25: Change in Perceived Risk of Harm from Marijuana Use by Program: Elementary School Youth in Multi-Year Programs

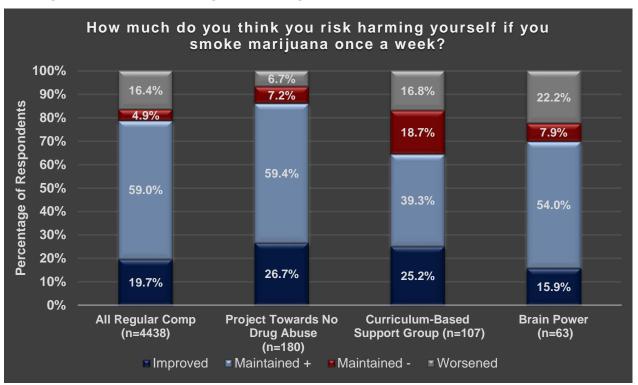


The percentage of elementary school multi-year program participants showing positive perceived risk outcomes (maintaining a response that marijuana use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol is:

- All Younger Youth 67.5%
- LifeSkills Training (Year 1) 59.0%

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

Figure 26: Change in Perceived Risk of Harm from Marijuana Use by Program: Middle and High School Youth in Single-Year Programs

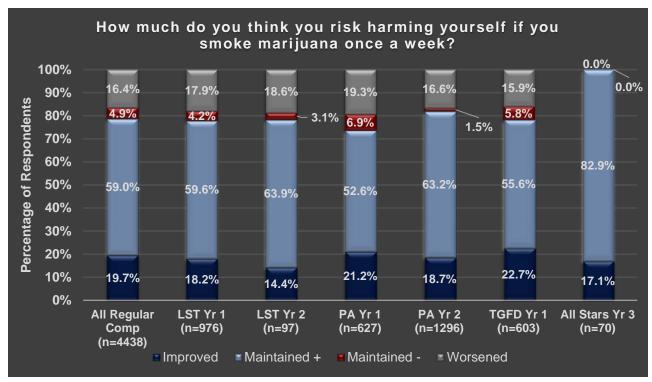


The percentages of middle and high school single-year program participants showing positive perceived risk outcomes (maintaining a response that marijuana use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol are:

- All Regular Comprehensive Prevention Excluding Diversion 78.6%
- Project Towards No Drug Abuse 86.1%
- Curriculum-Based Support Group 64.5%
- Brain Power 69.8%

Figure 27 below shows the change in individuals' perception of risk of harm from marijuana use from pre- to post-test for multi-year programs serving middle and high school youth.

Figure 27: Change in Perceived Risk of Harm from Marijuana Use by Program: Middle and High School Youth in Multi-Year Programs



The percentages of middle and high school multi-year program participants showing positive perceived risk outcomes (maintaining a response that marijuana use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for alcohol are:

- All Regular Comprehensive Prevention Excluding Diversion 78.6%
- LifeSkills Training (Year 1) 77.9%
- LifeSkills Training (Year 2) 78.4%
- Project ALERT (Year 1) 73.8%
- Project ALERT (Year 2) 81.9%
- Too Good for Drugs (Year 1) 78.3%
- All Stars (Year 3) 100%

Summary of Positive Outcomes for Perceived Risk of Harm from Substance Use

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

Table 5: Positive Outcome Percentages for Perceived Risk of Harm from Substance Use by School Group

Average Positive Outcome Percentages for Perception of Risk of Harm from Substance Use							
School Group	Alcohol	Cigarettes	Marijuana				
Elementary School Youth in Single Year Programs	79.3%	82.5%	69.6%				
Elementary School Youth in Multi-Year Programs	80.7%	80.5%	59.0%				
Middle and High School Youth in Single-Year Programs	79.3%	86.9%	73.5%				
Middle and High School Youth in Multi-Year Programs	84.3%	89.4%	81.7%				

For all groups, the percentage of students believing regular marijuana use poses risk of harm is less than the percentages believing cigarette and alcohol use pose risk of harm. It is noteworthy that the percentage of elementary school students believing marijuana use poses risk is lower than the percentages for the middle and high school student groups. The percentage believing cigarette use poses risk is higher for all groups than the percentages believing alcohol and marijuana pose risk of harm.

Diversion Program Outcomes

Diversion programs are prevention programs for indicated populations of youth who have already experienced legal or other consequences from their substance use. Hence, Diversion program data are presented separately from the primary prevention programs. Diversion programs also tend to be shorter in duration than other prevention programs, and usually span fewer than 30 days. The Comprehensive Prevention Survey instrument now accounts for such short programs by asking, at the post-test, if participants have used in the past 30 days or since the beginning of the prevention program, whichever is the shorter timeframe. Therefore, pretest data presented below on substance use reflect use reported in the 30 days prior to starting the program and completing the pre-test, and post-test data reflect the timeframe from the start of the program or completion of the pre-test to the end of the program or completion of the post-test. One-hundred and fifteen Diversion program participants completed both a pre-test and a post-test survey. The median age for these participants was 17 and the median grade was 11th.

Diversion Program Outcomes: Past 30-Day Use

Table 6 on the following page presents data on the percentage of Diversion program participants reporting use of alcohol, binge drinking (5 or more drinks in a row), cigarettes, and marijuana at the pre-test and the amount and direction of change at post-test. Iowa Youth Survey data also are provided.

Table 6: Change in Substance Use: Diversion Program Participants

Percentage of Youth Reporting Use at the Pre-Test and Change at Post-Test: Diversion Program Participants										
			Alco	ohol	ool Binge Drinking		Ciga	rettes	Marijuana	
Group	N	Median Age	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change	Pre-Test %	Change
Iowa Youth Survey ¹	52,560 ²	12	-	+2.00	_	+1.00	_	+1.00	-	+1.00
Diversion	115	17 ³	35.13	-9.01	17.12	-3.60	20.72	-3.60	10.81	-1.80

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

The decreases in alcohol are statistically significant (McNemar test, p=0.0414); there is no evidence of change for binge drinking, cigarette, or marijuana use (McNemar statistical tests yielded p values greater than 0.05). However, this also means that use of those substances showed no evidence of increasing as would be expected due to maturation. Figure 28 on page 41 graphically displays the past 30-day use data provided in Table 6.

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

³ Diversion program participants are in the 7th through 12th grades.

Figure 28 below displays, graphically, the change in past 30-day use from pre- to post-test for Diversion programs participants.

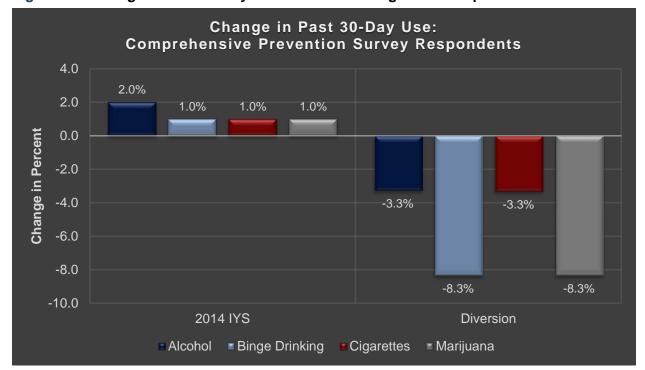


Figure 28: Change in Past 30-Day Use: Diversion Program Participants

Attitudes Toward Substance Use

Attitude responses are coded on a Likert scale from "not wrong at all" to "very wrong." Individual attitudes either:

- improved, which means that attitudes moved up the scale towards "very wrong" from any point on the scale (e.g., respondent felt alcohol use was wrong at pre-test and very wrong at post-test);
- maintained +, which means that the pre- and post-test responses remained the same and were unfavorable toward alcohol, cigarette, or marijuana use ("wrong" or "very wrong");
- maintained -, which means that the pre- and post-test responses remained the same and were favorable toward alcohol, cigarette, or marijuana use ("a little wrong" or "not wrong at all"); or
- 4) worsened, meaning that attitudes moved down the scale away from "very wrong" from any point on the scale (e.g., respondent felt marijuana use was "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.

Figure 29 represents data on the change in attitude toward alcohol, cigarette, and marijuana use from pre-test to post-test for Diversion program participants.

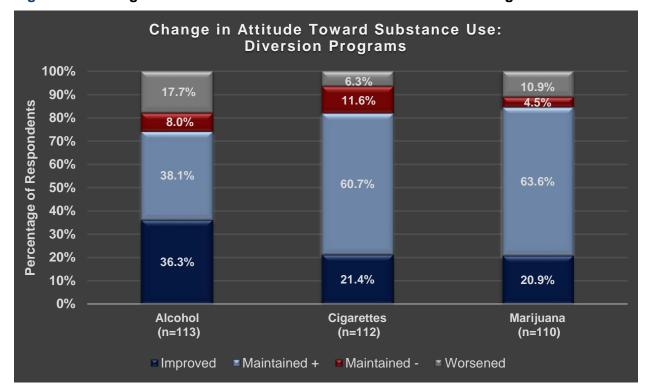


Figure 29: Change in Attitudes Toward Substance Use: Diversion Program

The percentages of Diversion program participants showing positive attitude outcomes (maintaining a response that use is "wrong" or "very wrong," or moving up the scale towards "very wrong", i.e., "Improved" plus "Maintained +") for each substance are:

- Alcohol 74.3%
- Cigarettes 82.1%
- Marijuana 84.5%

Perceived Risk of Harm from Substance Use

Perceived risk responses are coded on a Likert scale from "no risk" to "great risk." Individual perceptions of risk either:

- improved, which means that their reported perception of risk of harm from using alcohol, cigarettes, or marijuana moved up the scale from pre-test to post-test towards "great risk," from any point on the scale (e.g., respondent felt alcohol use posed "no risk" at pre-test and "moderate risk" at post-test);
- maintained +, which means that the pre- and post-test responses remained the same and were unfavorable toward alcohol, cigarette, or marijuana use (that use posed "moderate risk" or "great risk");
- 3) maintained –, which means that the pre- and post-test responses remained the same and were favorable toward alcohol, cigarette, or marijuana use (that use posed "slight risk" or "no risk"); or

4) worsened, meaning that their reported perception of risk of harm moved down the scale from pre-test to post-test away from "great risk," from any point on the scale (e.g., respondent reported that marijuana use posed "moderate risk" of harm at pre-test and "slight risk" at post-test). Maintaining a response from pre-test to post-test that use poses "moderate risk" or "great risk," or moving up the scale towards "great risk" from any point on the scale is considered a positive outcome.

Figure 30 presents data on the change in perception of risk of harm from alcohol, cigarette, and marijuana use from pre-test to post-test for Diversion program participants.

Change in Perception of Risk: **Diversion Programs** 100% 10.8% 11.6% 9.9% 90% Percentage of Respondents 5.4% 3.6% 9.0% 80% 70% 39.6% 60% 48.2% 64.9% 50% 40% 30% 41.4% 20% 34.8% 10% 20.7% 0% Alcohol Cigarettes Marijuana (n=112) (n=111) (n=111) ■ Improved ■ Maintained + Maintained -■ Worsened

Figure 30: Change in Perceived Risk of Harm from Substance Use: Diversion Program

The percentages of Diversion program participants showing positive perceived risk outcomes (maintaining a response that use poses moderate or great risk, or moving up the scale towards "great risk," i.e., combining Improved and Maintained +) for each substance are as follows:

- Alcohol 83.0%
- Cigarettes 85.6%
- Marijuana 81.1%

CONCLUSION

The results of the evaluation of the Comprehensive Prevention project answer the following questions:

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

There was no evidence of change from pre-test to post-test for alcohol, binge drinking, cigarette, or marijuana use in the combined middle school and high school Comprehensive Prevention participant group.

The decreases in alcohol and binge drinking for Project Towards No Drug Abuse are statistically significant (McNemar test results are: Alcohol, p=0.0213; binge drinking, p=.0386); there is no evidence of change for cigarette or marijuana use and no evidence of change for any other single-year programs.

The decrease in alcohol for LifeSkills Training Year 1 is statistically significant (McNemar test results are: p=0.0475); there is no evidence of change for binge drinking, cigarette, or marijuana use. All other multi-year programs showed no evidence of change in use from pretest to post-test.

The decreases in alcohol are statistically significant for Diversion program participants (McNemar test results are: p=0.0414); there is no evidence of change for binge drinking, cigarette, or marijuana use.

Programs that did not indicate a significant increase or decrease in use means that use of those substances among participants showed no evidence of increasing as would be expected due to maturation.

• Has the percentage of the target population who indicate desirable attitudes (i.e., that it is wrong to use substances) at baseline (pre-test) maintained or increased after the intervention (post-test)?

Eighty-six percent or more of the participants in the four single-year and multi-year elementary school programs showed positive outcomes for attitudes toward alcohol use (maintained a response from pre-test to post-test to post-test to post-test that use is "wrong" or "very wrong," or moved up the scale towards "very wrong" from any point on the scale). Seven of the nine middle and high school single-year and multi-year program groups showed positive outcomes above 83% for attitude toward alcohol use. Curriculum-Based Support Group for middle and high school aged participants had the lowest percentage, with 73.2% of participants showing positive outcomes while All Stars had the highest percentage at 100% and Project Towards No Drug Abuse had the second highest percentage at 88.4%. Brain Power program for elementary students had the highest positive outcome percentage at 95.9%.

More than ninety percent of participants in elementary school programs showed positive outcomes for attitudes toward cigarette use, and seven of nine middle and high school program groups showed positive outcomes of 85% or more. Curriculum-Based Support Group for middle and high school aged participants had the lowest percentage, with 69.6%. Too Good for Drugs for elementary school participants had the highest positive outcome percentage at 96.5%. The single-year and multi-year elementary school programs showed positive outcomes of 94% or more for attitude toward marijuana use.

Eight of the nine middle and high school program groups showed positive outcomes above 83% for attitude toward marijuana use. Curriculum-Based Group Support for middle and high school youth had the lowest percentage, with 70.6% of participants showing positive outcome attitudes toward marijuana use. LifeSkills Training - Year 1 for elementary school youth had the highest positive outcome percentage at 99.4%

For Diversion programs, more than 74% of participants showed positive outcomes for attitudes regarding alcohol use, more than 82% showed positive outcomes regarding attitude toward cigarette use, and 84% showed positive outcomes regarding attitude toward marijuana use. It is noteworthy that 36.3% of Diversion participants moved up the scale (further toward "very wrong") for alcohol use.

 Has perception of risk of harm from alcohol/tobacco/marijuana use maintained a positive response or increased from pre-test to post-test?

Three of the four single-year and multi-year elementary school programs had 78% or more of participants show positive outcomes for perception of risk of harm from alcohol use (maintained a response from pre-test to post-test that use poses "moderate risk" or "great risk," or moved up the scale towards "great risk" from any point on the scale). Curriculum-Based Support Group had the lowest positive outcome percentage, with 74.3% of participants showing positive outcomes. Too Good for Drugs had the highest positive outcome percentage at 85.7%.

Six of the nine middle and high school youth program had 80% or more of participants show positive outcomes for perception of risk from alcohol use. Curriculum-Based Support Group had the lowest positive outcome percentage, with 72.3% of participants showing positive outcomes for perceived risk of harm from alcohol use. All Stars and Project Towards No Drug Abuse had the highest positive outcome percentage at 97.1% and 89.5%, respectively.

Regarding perception of risk of harm from cigarette use, 87% or more of participants in three of the four elementary school programs showed positive outcomes. All of the middle and high school program groups in all single-year and multi-year programs had positive outcomes of 82% or more. Too Good for Drugs for elementary school programs had the highest positive outcome percentage at 87.9%. All Stars for middle school and high school youth had the highest positive outcome percentage at 98.6%.

Regarding perception of risk of harm from marijuana use, positive outcome percentages for the elementary school program groups ranged from 59.0% to 74.1%. Year 1 of LifeSkills Training was the lowest performer. Six of the nine middle and high school program groups had positive outcome percentages above 77%. Curriculum-Based Group Support had the lowest percentage at 64.5%; All Stars and Project Towards No Drug Abuse had the highest percentage at 100% and 86.1%.

For Diversion programs, just over 74% of participants showed positive outcomes for perceived risk of harm from alcohol use, just over 82% showed positive outcomes for perceived risk for cigarette use, and more than 84% showed positive outcomes for perceived risk for marijuana use. It is noteworthy that 34.8% of Diversion participants moved up the scale (further toward "very wrong") for alcohol use and 41.4% moved up the scale for marijuana use. It is important to consider the populations served by these programs when assessing their performance.

Curriculum-Based Support Group was the lowest performer for attitudes toward use of alcohol, cigarettes, and marijuana for all students and lowest on perceived risk of harm for alcohol and cigarette use for all students. Curriculum-Based Support Group was also lowest on perceived risk of harm for marijuana for middle and high school students. Alternatively, outcomes for the Diversion programs were quite positive given the indicated populations served.

All students believe marijuana use is more wrong than alcohol or cigarettes but believe that use of marijuana is less risky than alcohol or cigarettes. Coupled with the fact that the positive outcome percentages for elementary students for perceived risk of harm from marijuana use appear lower than those percentages for middle and high school groups, evaluators recommend agencies identify and implement elementary-level programming containing greater emphasis on the risks of marijuana use.

APPENDIX A

Survey Instruments

Comprehensive Prevention Survey

(Recommended for Participants in Grade 6 and above)

COMPREHENSIVE PREVENTION

SURVEY

Administrative Section						
1.a. Is this a pre-test or a post-test?		Pre-test		_ Post-tes	t	
b. What program year is this surveyfor? (For single-year programs, circle "1".)	1	2	3	4	5	
2. What month is it?						
3. What day of the month is it?						
4. What year is it?	20					
5. What is your agency/service area?						
6. What is the prevention program?						
7. How long is this program running for this group (in weeks)?		Weeks				
8. What is this program's <u>curriculum</u> level?		Elementary	y Curricu	lum		
[Please select the school level that the curriculum being taught to this student is designed for, regardless of what grade this student is in school.]		Middle Sch	ool Curri	culum		
g. 222 tille 3133211 13 117 3011001]		High School	ol Curricu	ılum		
9. What is the location of implementation? [Numerical Code]						



10. What IOM population category is this program group?	Univers	alSe	elective	Indicated
Demographics				
11. What is your current age?	8 or younger 9 10 11	12131415	older	16 17 18 19 or
12. What grade are you in?	5 th 6 th 7 th	8 th 9 th	11 ¹ 12 Add	



13. Are you a male (boy) or a female (girl)?	Male (Boy)		_ Female (Girl)			
14. Are you Hispanic or Latino?	Yes			_ No			
15. Which of the following best describes you? (please choose one)	White Black/ Americ Asian Native Some More t	can Indian/Ala Hawaiian/Otl	aska Nativ				
My Beliefs and Attitudes							
How wrong do you think it is fo	or someone yo	our age to:					
16. Drink beer, wine or hard liquor (for	example, vodka,	whiskev or a	in) regula	ırlv?			
Very wrong W	·	, ,					
17. Smoke cigarettes?							
Very wrong W	rong A	little wrong		Not wrong at all			
18. Smoke marijuana? ——— Very wrong ——— Wall	/rong A	little wrong		Not wrong at			
19. Use any illegal drug other than alco	ohol, cigarettes, o	r marijuana?					
Very wrong W	/rong A	little wrong		Not wrong at			
20. Use prescription drugs that were not	prescribed for you	, or in a way o	ther than	the directions?			
Very wrong W	/rong A	little wrong		Not wrong at			
21. Use over the counter medications d	ifferent from the o	directions?					
Very wrong W	/rong A	little wrong		Not wrong at			
How much do you think you risk harming yourself (physically or otherwise) if you:							
22. Drink 3 or more drinks (glasses, car drinks) of alcohol nearly every day?	ns or bottles of be	er; glasses of	wine, liq	uor or mixed			
No risk	Slight risk _	Moderate	risk	Great risk			
23. Smoke cigarettes every day?							
No risk	Slight risk _	Moderate	risk	Great risk			



24. Smoke marijuan		_ Slight risk	Moderate risk	Great risk			
How much do you think you risk harming yourself (physically or otherwise) if you: (This section is continued from the previous page.)							
25. Use any other illegal drug (other than alcohol, cigarettes, or marijuana) once a week?							
	_ No risk	_ Slight risk	Moderate risk	Great risk			
26. Use medication prescribed for someone else? No risk Slight risk Moderate risk Great risk							
27. Use over the cou							
				Great risk			
	r	My Experien	ces				
(For the <u>Pre-Test</u>) In the <u>past 30 days</u> , have you: (For the <u>Post-Test</u>) In the past 30 days, or since you started the program – whichever is a shorter time – have you:							
28. Had at least one can of beer; glass of	·		Yes	No			
29. Had 5 or more drinks of alcohol (glasses, bottles or cans of beer; glasses of wine, liquor, mixed				No			
30. Smoked cigarett	es?		Yes	No			
31. Smoked cigars?			Yes	No			
32. Used smokeless snuff, plug, dipping		tobacco,	Yes	No			
33. Used marijuana	(pot, grass, hash,	bud, weed)?	Yes	No			
34. Taken any <u>other</u> methamphetamines, hallucinogens) without	barbiturates, hero	oin,	Yes	No			
35. Used prescription prescribed for you by		were not	Yes	No			

36. Used over the counter medications different from the directions?	Yes	No
During the past 12 months, have you:		
37. Talked with at least one of your parents about the dangers of tobacco, alcohol, or drug use? By parents, we mean your biological parents, adoptive parents, stepparents, or adult guardians, whether or not they live with you.	Yes	No



Comprehensive Prevention Survey for Younger Youth (Recommended for Participants in Grades 4 and 5)



COMPREHENSIVE PREVENTION SURVEY INSTRUMENT FOR YOUNGER YOUTH $(4^{TH} - 5^{TH} GRADES)$

Administrative Section (for facilitators to complete)						
1.a. Is this a pre-test or a post-test?	Pre-test Post-test					
 b. What program year is this survey for? (For single-year programs, circle "1". For multi-year programs, circle the year of the program.) 	1 2 3 4 5					
2. What month is it?						
3. What day of the month is it?						
4. What year is it?	20					
5. What is your agency/service area?						
6. What is the prevention program?						
7. How long is this program running for this group (in weeks)?	Weeks					
8. What is this program's <u>curriculum</u> level?	Elementary Curriculum					
[Please select the school level that the curriculum being taught to this student is designed for, regardless of what grade this student is in school.]	Middle School Curriculum High School Curriculum					
9. What is the location of implementation? [Numerical Code]						
10. What population category is this program group?	UniversalSelectiveIndicated					
Demographics (for facilitator or student to complete)						
11. How old are you?	8 or younger 11 12 12 13					
12. What grade are you in?	4 th grade 6 th grade					



13. Are you a male (boy) or a female (girl)?	Male	(Boy)		Female (Girl)	
14. Are you Hispanic or Latino?	Yes			No	
15. Which of the following best describes you? (please choose one)	Asian	a Native Pacific Islander			
-	and Attitude at to complete				
How wrong do <u>you</u> think it is for someone your age to: give.)	(Please circle the answer you want to				
16. Drink beer, wine or liquor (alcohol) regularly?	Very Wrong	A Little	Wrong	Not Wrong at All	
17. Smoke cigarettes?	Very Wrong	A Little	Wrong	Not Wrong at All	
18. Smoke marijuana?	Very Wrong	A Little	Wrong	Not Wrong at All	
19. Use any illegal drug other than alcohol, cigarettes, or marijuana?	Very Wrong	A Little	Wrong	Not Wrong at All	
How much do you think someone might hurt his or her body if he or she: give.)	(Please circle	e the ans	swer yo	ou want to	
20. Drinks 3 or more drinks (glasses of wine, liquor or mixed drinks, cans or bottles of beer) of alcohol nearly every day?	None	A Littl	e Bit	A Lot	
21. Smokes cigarettes every day?	None	A Littl	e Bit	A Lot	
22. Smokes marijuana once a week?	None	A Littl	e Bit	A Lot	
23. Uses any other illegal drug (other than alcohol, cigarettes, or marijuana) once a week?	None	A Littl	e Bit	A Lot	
My Experiences (for student to complete)					
24. During the past 12 months, have you tal dangers of tobacco, alcohol, or drug use? By adoptive parents, stepparents, or adult guard circle the answer you want to give.)	parents, we mealians, whether or	an your b	iological	parents,	
Ves	No				



APPENDIX B

Institute of Medicine Categories of Populations Served by Agency and Program



Institute of Medicine Population Categories by Agency and Program

AGENCY	PROGRAM	POPULATION SERVED (IOM CATEGORY)
Alcohol and Drug Dependency	LifeSkills Training	Universal-Direct
Services of Southeast Iowa	Project ALERT	Universal-Direct
	Adults and Children Together	Selective
	LifeSkills Training	Universal-Direct
Area Cubatanas Abusa	Prime for Life	Indicated
Area Substance Abuse Council, Area 6	FAST	Selected
Council, Alea o	Youth Connection	Selected
	Project Towards No Drug Abuse	Selective and Universal
	Curriculum-Based Support Group	Selective
Area Substance Abuse	Curriculum-Based Support Group	Selective
Council, Area 8	All Stars	Universal-Direct
Center for Alcohol and Drug Services	Too Good for Drugs	Universal-Direct
Community and Family	LifeSkills Training	Indicated
Community and Family Resources	Too Good for Drugs	Universal-Direct
Resources	Prime for Life	Indicated
O Paints	Too Good for Drugs	Universal
Compass Pointe	Diversion	Indicated
Employee and Family	Too Good for Drugs	11.
Resources, Area 13	LifeSkills Training	Universal-Direct
Employee and Family	Too Good for Drugs	Hairanad Dinast
Resources, Area 16	LifeSkills Training	Universal-Direct
Employee and Family	Too Good for Drugs	
Resources, Area 20	LifeSkills Training	Universal-Direct
Zion Recovery Area 9	(No data submitted this year)	
Zion Recovery Area 10	Project Towards No Drug Abuse	Universal-Direct
Helping Services for Northeast Iowa, Inc.	(No data submitted this year)	
Jackson Recovery Centers	LifeSkills Training	Universal-Direct
	LifeSkills Training	Universal-Direct
Prelude Behavioral Services	Diversion (Juvenile Alcohol & Drug Education)	Indicated
New Opportunities	LifeSkills Training	Universal-Direct
Pathways Behavioral Services,	Diversion (Prime for Life)	Indicated
Inc.	LifeSkills Training	Universal-Direct
Prairie Ridge Addiction Treatment Services	Diversion (Prime for Life)	Indicated
Southern Iowa Economic Development Association	Brain Power	Universal-Direct

Substance Abuse Services for Clayton County, Inc.	All Stars	Universal-Direct	
Substance Abuse Treatment Unit of Central Iowa	Juvenile Education Groups	Indicated	
	LifeSkills Training	Universal-Direct	
New Horizons	Project ALERT	Universal-Direct	
	Project Towards No Drug Abuse	Indicated	
Youth and Shelter Services,	Project ALERT	Universal-Direct	
Inc., Area 1	Too Good For Drugs	oniversal-Direct	
Youth and Shelter Services, Inc., Area 2	Project ALERT	Universal-Direct	