

2013

# Teen Pregnancy Prevention Program

## Year Three Outcome Evaluation Report for the Southern Nevada Health District

This is the Year Three Evaluation Report for the Southern Nevada Health District's  
Teen Pregnancy Prevention Program.



# Nevada Institute For Children's Research & Policy

# NICRP

This report was prepared by the Nevada Institute for Children's Research and Policy through a contract with the Southern Nevada Health District

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## About the Nevada Institute for Children's Research and Policy

The Nevada Institute for Children's Research and Policy (NICRP) is a not-for-profit, non-partisan organization whose primary goal is to advance the well-being of children in Nevada. As a research center in the School of Community Health Sciences at the University of Nevada, Las Vegas, NICRP is dedicated to conducting academic and community-based research that helps guide the development of policies, practices, and programs which serve to enhance the health and well-being of children and families. For more information about NICRP, please contact us or visit our website at

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## 1. Executive Summary

In the fall of 2010 the Southern Nevada Health District (SNHD) was awarded funding from the Federal Office of Adolescent Health to implement an evidence based teen pregnancy prevention curriculum. They have partnered with the Department of Juvenile Justice Services, the Clark County Department of Family Services, and the City of Las Vegas to offer this curriculum to the youth in juvenile detention, probation, community centers, and life skills classes for youth aging out of the foster care system. The Nevada Institute for Children’s Research and Policy (NICRP) has been contracted to complete the outcome evaluation for this program and is collecting data to help measure the program’s progress toward meeting its goals. The program will be implemented over a five year period with the goal of reducing teen pregnancy and birth rates, as well as the rate of sexually transmitted infections among adolescents in Southern Nevada. To achieve these goals, the SNHD selected two evidence based curricula: Be Proud! Be Responsible! and ¡Cuidate!. Both are designed to educate youth about protecting themselves from sexual health risks. Adolescents who participated in the program also completed surveys to allow for an evaluation of the program’s impact on their knowledge, attitudes, and behaviors related to sexual health.

Year One of this project was considered a “pilot” year to allow for adjustments in curriculum implementation, venues, and survey instruments. Therefore, the Year One Pilot data is not included in the analyses for the current report. The current report is based on the cumulative data collected during Year Two and Year Three of the project.

During Year Two and Year Three of the project, 1617 youth were enrolled in the program (completed a pre-survey) and of those, 1336 (82.6%) completed the course. Youth from juvenile detention, probation, foster care, and community centers participated in the Teen Pregnancy Prevention Program. To date, 1035 participants have become eligible for the 3-month follow-up survey and 543 have been completed for a 3-month follow-up survey response rate of 52.5%. There are 821 participants that have become eligible for a 6-month follow-up survey of which 400 have been completed, for a 6-month follow-up survey response rate of 48.7%.

## *Findings through Year Three*

The Southern Nevada Health District chose to focus on five measurable goals that serve as indicators of improved sexual health and safety for the target population and would likely help to reduce teen pregnancy and STI occurrence. Each of these goals, and SNHD's progress toward these goals, are discussed in more detail below.

At the time of this report, 1035 participants (Year Two and Year Three) have become eligible for the 3-month follow-up survey and 543 have been completed for a 3-month follow-up survey response rate of 52.5%. There are 821 participants (Year Two and Year Three) that have become eligible for the 6-month follow-up survey of which 400 have been completed, for a 6-month follow-up survey response rate of 48.7%. Although the follow-up response rates have been increasing each year of the project, it is still important to note that the status of many of the outcome goals in this report is based on the survey responses of roughly half of the overall program participants. This should be taken into consideration when evaluating the true impact of the program.

Following is a brief description of each goal, how it was measured, and the findings through Year Three.

### ***OUTCOME GOAL 1: 80% of program participants will report an increase in knowledge about HIV/AIDS transmission and prevention immediately following the curriculum***

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Program participants were surveyed prior to and immediately following course completion. At both points of measurement, participants were asked a series of ten true/false questions designed to measure knowledge about HIV/AIDS transmission and prevention. Of the participants that completed the course and the entire series of questions both before and after the course:

- 75.9% demonstrated an increase in knowledge (answered at least one more question correctly after completing the course)
- 18.1% demonstrated no change in knowledge
- 6% demonstrated a decrease in knowledge of (answered at least one fewer question correctly after completing the course)

The Southern Nevada Health District is approaching its goal but did not meet the goal of having 80% of program participants demonstrate an increase in knowledge about HIV/AIDS transmission and prevention immediately following the curriculum.

### ***OUTCOME GOAL 2: 65% of program participants will report an increase in intention to abstain from sex at least 6 months post-curriculum***

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This goal was assessed by comparing participant responses at pre-survey to the question, "Do you intend to have sexual intercourse in the next year, if you have the chance?" to participant responses to the same question at 3- and 6-month follow-up. Response options ranged from 1 ("Yes, definitely") to 4 ("No, definitely not"). Of the participants that completed the course, provided valid responses to the question on both surveys being compared, and at pre-survey did not answer, "No, definitely not" to the question, the intention to abstain score, when compared to pre-curriculum, increased for:

- 19.7% of participants immediately following course completion
- 31.2% of participants at 3-month follow-up
- 27.9% of participants at 6-month follow-up

The Southern Nevada Health District did not meet the goal of having 65% of program participants report an increase in intention to abstain from sex at least 6 months post-curriculum.

### ***OUTCOME GOAL 3: 50% of program participants will report a reduction in sex partners as compared to pre-curriculum testing***

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To assess this goal, the question “During the last 3 months, with how many people did you have sexual intercourse?” was asked on the pre-survey and the 3-month and 6-month follow-up surveys. Participant responses to this question at pre-survey were compared to the responses at 3- and 6-month follow-up.

Participants were excluded from the analyses (1) if they did not have a valid pair of survey responses to compare (pre-survey and 3-month or pre-survey and 6-month), (2) if they indicated at pre-survey that they had never had sex, (3) if they reported “0” sex partners on the pre-survey and 3-month follow-up surveys or the pre-survey and 6-month follow-up survey, and (4) if they responded “illogically” regarding sexual activity (stated that they had never had sex, but then answered several questions about their sexual history or stated on the pre-survey that they were sexually active but at follow-up reported that they had never had sex). The number of reported sex partners “during the last 3-months” decreased for:

- 25.4% of participants from pre-curriculum to 3-months post-curriculum
- 21.2% of participants from pre-curriculum to 6-months post-curriculum

The Southern Nevada Health District did not meet the goal of having 50% of program participants report a reduction in the number of sex partners at follow-up as compared to pre-curriculum testing.

### ***OUTCOME GOAL 4: 50% of program participants will report an increase in condom use at 3 months and 6 months compared to pre-curriculum testing***

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To assess this goal, the question “How often do you use condoms during sexual intercourse?” was asked on the pre-survey and on the 3- and 6-month follow-up surveys. Participant responses to this question at pre-survey were compared to the responses at 3- and 6-month follow-up. Response options ranged from “Never” to “Always” with a total of 7 response options. For analysis, response options were recoded to a scale of 0 – 4 (0 = never use condoms, 4 = always use condoms). The reported frequency of condom use increased for:

- 37.7% of participants from pre-curriculum to 3-months post-curriculum
- 35.6% of participants from pre-curriculum to 6-months post-curriculum

The Southern Nevada Health District did not meet the goal of having 50% of program participants report an increase in condom use at 3 months and 6 months as compared to pre-curriculum testing.

### ***OUTCOME GOAL 5: 50% of program participants will report an increase in refusal skills as compared to pre-curriculum testing***

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Refusal skills were assessed by participant responses to two questions administered on each of the surveys. These questions were:

1. How easy or hard would it be for you to say “no” to sex?
2. If your partner wanted to have sex, how easy or hard would it be for you to get your partner NOT to have sex?

To calculate a refusal skills score, the responses to these two questions were numerically coded and averaged for each participant. Final refusal skills scores ranged from 1 – 5 (1 = very hard to refuse sex, 5 = very easy to refuse sex).

Participant refusal skills scores at pre-survey were compared to the refusal skills scores at post-survey and 3- and 6-month follow-up. The refusal skills score increased for:

- 58.1% of participants from pre-survey to post-survey
- 58.9% of participants from pre-survey to 3-month follow-up survey
- 65.4% of participants from pre-survey to 6-month follow-up survey

The Southern Nevada Health District did meet the goal of having 50% of program participants report an increase in refusal skills as compared to pre-curriculum testing. This goal was met at each post-curriculum survey time point.

## 2. Introduction

In the spring of 2011, the Southern Nevada Health District began implementation of two evidence-based curricula with the goal of reducing pregnancy and birth rates, as well as the rate of sexually transmitted infections among adolescents in Southern Nevada. The negative consequences of teenage pregnancy are numerous for both teenage parents and their offspring (Salihu et al., 2011). However, teen pregnancy is not the only negative outcome the Southern Nevada Health District hopes to alleviate with the implementation of these programs. In 2000, it was estimated that almost half of all new sexually transmitted diseases affected young people between the ages of 15 and 24 (Weinstock, Berman & Cates, 2000). The same behaviors that lower the risk of pregnancy – abstinence, consistent and correct use of condoms, and minimizing one’s number of sex partners – also reduce the risk of HIV infection. By increasing abstinence and safe sex practices, the Southern Nevada Health District hopes to lower the rate of sexually transmitted infections as well as unplanned pregnancies by 10% by the year 2015 in Southern Nevada.

Incarcerated youth are at exceptionally high risk for negative sexual health outcomes such as teenage pregnancy and HIV infection (Bryan, Schmiege & Broaddus, 2009; Magura, Kang, & Shapiro, 1994). Youth in foster care are also more likely to experience unplanned pregnancies than the general population (McGuinness, Mason, Tolbert, & DeFontaine, 2002). The Southern Nevada Health District is targeting these high risk youth by implementing the Teen Pregnancy Prevention Program in detention, probation, community centers, and foster care.

### Selected Curricula

The Southern Nevada Health District is using two evidence-based curricula (Be Proud! Be Responsible! and ¡Cuidate!) to achieve its goals. ¡Cuidate! is an adaptation of the Be Proud! Be Responsible! curriculum tailored for Hispanic and Latino youth.

#### *Be Proud! Be Responsible!*

Be Proud! Be Responsible! is a curriculum developed by Jemmott, Jemmott, and McCaffree. The curriculum was designed to modify behavior and increase knowledge about sexual issues while fostering a sense of responsibility about sexual health. The program is also intended to build a sense of community and instill pride in making safe and healthy decisions. The curriculum is taught in six modules that address knowledge, attitude, and skills regarding sexual decision-making. The curriculum is delivered through the format of role-play, group discussions, games, videos, and demonstrations. Originally, the program was designed to be implemented in one five-hour session with 5-6 youth, but it has also been successful with larger groups when split up over the course of multiple sessions (Office of Adolescent Health, <http://www.hhs.gov/ash/oah/oah-initiatives/tpp/programs-v1.html>).

This well-researched curriculum has been shown to increase knowledge about HIV and other sexual health issues as well as impact and increase the intention to abstain from risky behaviors and increase self-reported refusal and negotiation skills (Jemmott, Jemmott & Fong, 1992; Jemmott, Jemmott & Fong; 1998; Morris, Ulmer & Chimnai, 2003; Borawski et al., 2009).

#### *¡Cuidate!*

¡Cuidate!, meaning “take care of yourself,” was adapted from the Be Proud! Be Responsible! curriculum by Villarruel, Jemmott, and Jemmott. The program incorporates important Hispanic and Latino cultural beliefs such as familialism and machismo to communicate the importance of risk-reduction and sexual health. The program is delivered in the same format as the Be Proud! Be Responsible! curriculum (Office of Adolescent Health, <http://www.hhs.gov/ash/oah/oah-initiatives/tpp/programs-v1.html>).

Although there is less research available for the ¡Cuidate! curriculum, one evidence-based study found that program participants were less likely than a control group to have sex, and more likely to use condoms consistently (Villarruel,

Jemmott & Jemmott, 2006). Based on the success of these programs with males and females and different racial/ethnic groups, these curricula were selected for the Southern Nevada Health District’s Teen Pregnancy Prevention Program.

### Timeline for Year Three

The Nevada Institute for Children’s Research and Policy (NICRP) serves as the outcome evaluator for the Southern Nevada Health District’s Teen Pregnancy Prevention Program. NICRP used four surveys (pre-survey, post-survey, 3-month follow-up survey, and a 6-month follow-up survey) to assess whether the Southern Nevada Health District’s Teen Pregnancy Prevention Program was meeting its stated program goals.

The pre-survey is completed prior to program participants receiving the curriculum in order to establish a baseline. The post-survey is administered immediately following the completion of the sixth and final module of the curriculum. Follow-up surveys are administered 3- and 6-months after the course completion date. Table 1 illustrates the reporting timeline for the Year Three outcome evaluation.

**Table 1. Reporting Timeline for Year Three Outcome Evaluation**

Month	Date	Activity
September	9/1/2012	Modified 1 <sup>st</sup> Quarter Reporting Period Begins
November	11/30/12	1 <sup>st</sup> Quarter Reporting Period Ends
December	12/31/12	1 <sup>st</sup> Quarter Report Due
February	2/28/13	2 <sup>nd</sup> Quarter Reporting Period Ends
March	3/31/13	2 <sup>nd</sup> Quarter Report Due
May	5/31/13	3 <sup>rd</sup> Quarter Reporting Period Ends
June	6/30/13	3 <sup>rd</sup> Quarter Report Due
August	8/31/13	Year 3 Reporting Period Ends
September	9/30/13	Year 3 Evaluation Report Due

### 3. Outcome Evaluation Plan

Progress toward the outcome goals of the Southern Nevada Health District's (SNHD) Teen Pregnancy Prevention Program is measured using participant responses to questions on a series of surveys. The pre-survey serves as the baseline measurement for participants and consists of a Sexual History Questionnaire and an Outcome Monitoring Tool. The Sexual History Questionnaire includes questions about participant sexual health and behavior. The Outcome Monitoring Tool includes questions about HIV/ AIDS knowledge, intention to abstain from sex, and self-efficacy in making sexual decisions. The post-survey and follow-up surveys include only the Outcome Monitoring Tool.

#### **Pre-Survey**

Prior to the first day of the course, the pre-survey is administered by the Nevada Institute for Children's Research and Policy (NICRP) staff. The pre-survey consists of a Sexual History Questionnaire and an Outcome Monitoring Tool which together measure baseline knowledge and participant attitudes and behaviors regarding sexual health.

NICRP staff begins the pre-survey administration by reading the participants an informed consent/confidentiality statement which explains their participation in the entire program evaluation process including a discussion of follow-up surveys and the incentive schedule. Youth are asked to indicate whether or not they agree to participate in the evaluation and any questions they have about the evaluation process are answered. If youth do not want to participate in the evaluation but do want to participate in the program they are allowed to complete the curriculum and are not required to complete any surveys.

After participants have been read the informed consent/confidentiality statement and indicated whether or not they want to participate, NICRP staff reads the pre-survey out loud to the participants. Upon initial testing of the survey, NICRP recognized great variability in literacy levels for program participants. Therefore, to ensure that all participants have the opportunity to complete the surveys, NICRP reads the survey out loud and asks participants to follow along and mark their responses on the survey. This process also allows NICRP staff to read all definitions for "sex" and "birth control" as indicated on the survey to help ensure consistency in question and response interpretation.

#### **Post-Survey**

NICRP staff administers the post-survey immediately following completion of the last module of the curriculum. The same procedure used for administering pre-surveys is used to administer post-surveys, including reading the informed consent/confidentiality statement and the survey out loud. The post-survey consists of only the Outcome Monitoring Tool and is used to identify changes in attitudes, or knowledge from the pre-survey.

#### **Contact Information/Demographic Form**

All participants are asked to complete the demographic section of the Contact Information/Demographic Form. Participants who are willing to participate in the follow-up portion of the evaluation are asked to also complete the contact information section of the Contact Information/Demographic Form. This section of the form allows participants to indicate their preferred method of contact for follow-up survey completion (e.g., phone numbers, addresses, email, and text messages). At the probation sites, the Contact Information/Demographic Form is completed by participants after post-survey administration. At all other sites, it is completed after pre-survey administration. This difference in administration is due to classroom scheduling constraints at the probation sites

#### **Follow-up Surveys**

Those participants who agree to participate in the follow-up evaluation of the program complete the contact information section of the Contact Information/Demographic Form. This information is used to contact participants for a courtesy call and to complete the 3- and 6-month follow-up surveys.

Participants are contacted one month after course completion for a courtesy call. The purpose of the courtesy call is to remind participants about the 3- and 6-month follow-up surveys, confirm or update participant contact information, and

to identify invalid and out of date contact information in order to improve the 3- and 6-month follow-up survey response rates.

NICRP staff begins to attempt to contact participants for their 3- and 6-month follow-up surveys 3 and 6 months after course completion. Although contact may occur via phone, text, email, or letter, all follow-up surveys are conducted over the telephone. Once a participant is reached by phone and agrees to take the survey, they are read the informed consent/confidentiality statement and are asked to verify their date of birth. After 3-month follow-up survey completion, participants are asked to provide any updated contact information and are reminded about the 6-month follow-up survey. Following completion of a follow-up survey, participants are asked if they would like to pick-up their gift card from SNHD or if they would like it mailed to them. This information is then forwarded to SNHD staff so that they can provide the participant with a gift card.

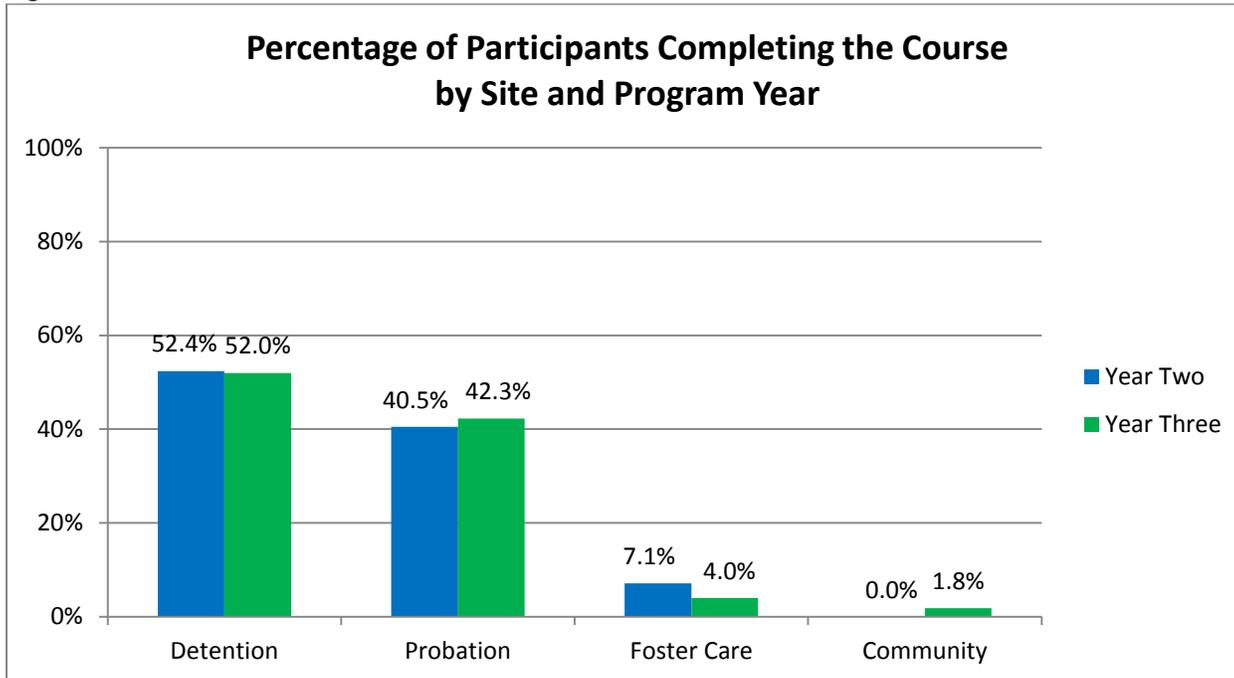
## 4. Participant Demographics

There were 1617 youth enrolled (completed a pre-survey) during Year Two and Year Three of the program and of those, 1336 (82.6%) completed the course. Following is an overview of demographics for those participants that completed the course. For more detailed information, see Appendix A.

Of the 1336 Year Two and Year Three program participants that completed the course, 983 reported that they were male (73.6%) and 353 reported that they were female (26.4%). The proportion of males and females participating in the program were similar during both Year Two (75.1% male; 24.9% female) and Year Three (72.1% male; 27.7% female).

To date, most of the participants completed the course at detention as compared to probation and foster care. Figure 1 illustrates the percentage of participants completing the program at the different sites by project year.

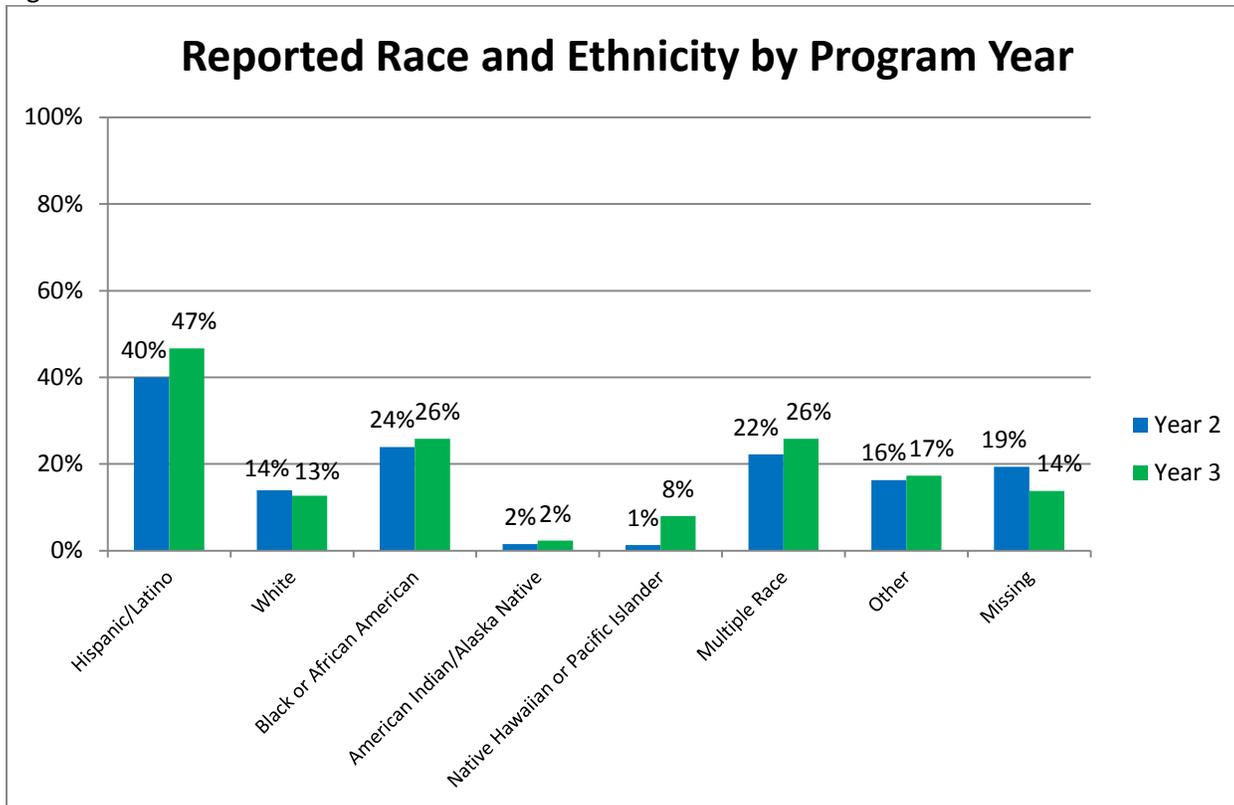
Figure 1.



Race and Ethnicity were asked separately on the questionnaire but are presented in one figure below. Of the 1336 participants that completed the course, 1118 participants provided data regarding race and 1249 participants answered the question about ethnicity. It is interesting to note that of the 546 participants that reported that their ethnicity was Hispanic/Latino, 164 (30%) did not indicate their race. On the other hand, of the 703 participants that indicated that they were not Hispanic/Latino, only 5 (.7%) did not indicate their race. It is possible that those participants that indicated that they were Hispanic/Latino felt as though this sufficiently described their racial identity.

The reported race and ethnicity distributions of program participants in Year Three are very similar to those of the Year Two. See Figure 2 for information regarding reported race and ethnicity by program year.

Figure 2.



Note: Missing cases include those that did not provide a response when asked for their race. Multiple Race refers to those participants that checked that they were Multiple Race and those that checked more than one box when indicating what race they were. Other refers to those participants that chose to write the race that they identified with on the form rather than checking a box.

Participants were also asked to report their current grade level in school. Of the 1336 participants that completed the program, 1262 (94.5%) provided a grade level or reported that that they were not currently enrolled in school. More participants reported being in the 11<sup>th</sup> grade as compared to any other grade. This was true for both Year Two (25.4%) and Year Three (23.9%). See Appendix A for full results.

In an attempt to understand the proportion of participants who may be linguistically isolated, participants were asked about the language/languages most often spoken at home. Participants were able to check both English and Spanish. Of the 1336 participants that completed the course, 858 (64.2%) participants indicated that they spoke English at home, 102 (7.6%) participants indicated that they spoke Spanish at home, 295 (22.1%) participants indicated that they spoke more than one language at home, and 7 (.5%) participants reported that they spoke languages other than English or Spanish at home. A small percentage of participants (5.5%) did not indicate which language they spoke when at home or with their family. See Appendix A for full results.

Family structure can be a risk factor associated with poor sexual health, therefore a question was asked about whether or not the participant came from a single parent household. Of the 1247 participants completing the course and answering this question, roughly an equal number of participants reported living in a single parent household (50.3%) as those that did not live in a single parent household (49.7%). See Appendix A for full results.

## 5. Progress toward Outcome Goals

Progress toward the 5 outcome goals for the program is addressed in the sections that follow. Within each section, the outcome goal is stated, the methodology used to measure the goal is described, the results of the analyses are reported, and the progress toward the goal is summarized. In addition, within the goal summary, a comparison is made between the Year Two and Year Three data.

In assessing the progress toward the outcome goals, only the Year Two and Year Three data for those participants that completed the course were included in the analyses. If additional exclusion criteria were used to determine the outcome goal status, it is noted within the particular section.

### Outcome Goal One

*80% of program participants will report an increase in knowledge about HIV/AIDS transmission and prevention immediately following curriculum*

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Be Proud! Be Responsible! has consistently shown to increase participants' knowledge about HIV and other STIs, including behaviors that increase risk. Morris, Ulmer and Chimnai (2003) found that the average score on an inventory similar to the one used in our evaluation increased from 62%- 84%. The True/False format has consistently been used by other researchers as well to demonstrate an increase in HIV knowledge resulting from the Be Proud! Be Responsible! curriculum (Jemmott, Jemmott & Fong, 1998; Borawski et al., 2009; Jemmott, Jemmott, & Fong, 1992).

#### *Methods*

The first outcome goal is that 80% of program participants will demonstrate an increase in knowledge about HIV transmission and prevention immediately following the curriculum. Participant knowledge of HIV/AIDS transmission and prevention was measured through the administration of 10 True/False statements. The 10 True/False statements were administered to participants at pre-survey (prior to the start of the curriculum) and post-survey (immediately following the last module in the curriculum). An increase in knowledge was defined as correctly answering at least one additional question on the post-survey than was answered on the pre-survey.

A pre- and post-survey HIV/AIDS knowledge score was calculated for each participant based on the number of correctly answered True/False items. A "change in knowledge" score was then calculated by subtracting the pre-survey score from the post-survey score. The "change in knowledge" score indicates whether a participant's score increased, decreased, or did not change from pre- to post-survey and if it did change, by how much. This "change in knowledge" score is reported to indicate what percentage of participants showed an increase, decrease, and no change in knowledge with regard to HIV/AIDS transmission and prevention. Additionally, a paired samples t-test was conducted to determine if there was a significant difference between the pre- and post-survey scores.

Participants were only included in these analyses if they completed the course, had valid pre- and post-survey knowledge scores (i.e., answered the entire series of true/false statements on both the pre- and post-survey), and did not earn a perfect score (10/10) on the true/false statements at pre-survey.

#### *Results*

Of those participants that completed the course, 1188 had a valid pre-survey knowledge score, 1229 had a valid post-survey knowledge score, and 1111 had a valid score on both the pre-survey and the post-survey. Of those participants with a valid pre- and post-survey score, 111 earned a perfect score of 10/10 on the pre-survey and were excluded from the analysis. Therefore, 1000 participants (1111 minus 111) were included in the analysis of progress toward this goal.

Of the 1000 participants included in the analysis, 75.9% (759) demonstrated an increase in knowledge about HIV/AIDS transmission and prevention following the course, 6% (60) of the participants demonstrated a decrease in knowledge following the course, and 18.1% (181) demonstrated no change in knowledge immediately following the course.

As seen in Table 2, participants who completed the curriculum at foster care demonstrated a larger percent increase in knowledge about HIV/AIDS transmission and prevention following the course (77.6%) than did participants who completed the course at detention (77%) or probation (73.9%). The City of Las Vegas was not included in this comparison because too few participants met the criteria necessary to be included in the analysis.

**Table 2. Change in HIV/AIDS Knowledge from Pre-Survey to Post-Survey across All Sites**

	<i>All Sites (n=1000)</i>	<i>Detention (n=539)</i>	<i>Probation (n= 403)</i>	<i>Foster Care (n=49)</i>	<i>City of Las Vegas (n=9)</i>
<b>Increase in Knowledge</b>	75.9% (759)	77% (415)	73.9% (298)	77.6% (38)	n/a
<b>No Change in Knowledge</b>	18.1% (181)	17.4% (94)	19.6% (79)	14.3% (7)	n/a
<b>Decrease in Knowledge</b>	6% (60)	5.6% (30)	6.5% (26)	8.2% (4)	n/a
<b>Total</b>	<b>100% (1000)</b>	<b>100% (539)</b>	<b>100% (403)</b>	<b>100% (49)</b>	<b>(n=9)</b>

*Note. Only those participants that completed the course, had valid pre- and post-survey scores, and did not receive a perfect score (10/10) on the pre-survey knowledge assessment were included in this analysis.*

The average score out of ten for the HIV/AIDS True/False statements was examined for all sites. For all participants, regardless of the program site, the average score prior to the course across all sites was 79% (7.9 correct out of 10 possible points) and the average score after the course was 91% (9.1 correct out of 10 possible points). In addition, a paired samples t-test was performed on the total scores from the pre- and post-surveys. The average score improved by 1.31 (SD=1.29), and the results from the paired samples t-test [ $t(999)=32.16, p<.000$ ] show a statistically significant difference between the pre- and post-survey scores indicating that overall, participants scores significantly improved after participation in the course.

As seen in Table 3, program participants from each of the sites demonstrated a statistically significant increase in their knowledge of HIV/AIDS transmission and prevention from pre-survey to post-survey. The City of Las Vegas site demonstrated the largest increase in HIV/AIDS knowledge (1.4 points).

**Table 3. Difference between Pre-Survey and Post-Survey HIV/AIDS Knowledge Scores**

<i>All Sites (n=1000)</i>	<i>Detention (n=539)</i>	<i>Probation (n=403)</i>	<i>Foster Care (n=49)</i>	<i>City of Las Vegas (n=9)</i>
+1.31* (SD= 1.29)	+1.34* (SD= 1.24)	+1.31* (SD= 1.38)	+1.04* (SD= 1.14)	+1.44* (SD=.88)

*Note. Only those participants that completed the course, had valid pre- and post-survey scores, and did not receive a perfect score (10/10) on the pre-survey knowledge assessment were included in this analysis.*

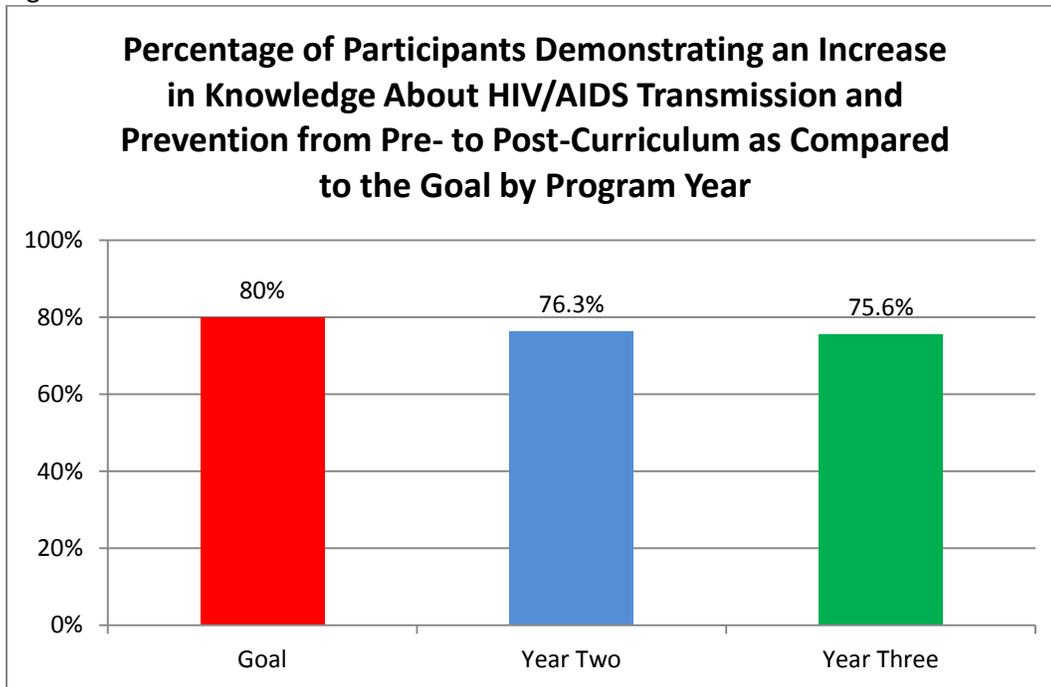
*\*Indicates that this difference is statistically significant at  $p<.01$*

### Progress Summary

With 75.9% of program participants demonstrating an increase in knowledge about HIV/AIDS transmission and prevention, the Southern Nevada Health District was close, but did not meet their goal of 80% of program participants reporting an increase in knowledge about HIV/AIDS transmission and prevention immediately following curriculum.

As seen in Figure 3, a slightly larger percentage of participants demonstrated an increase in knowledge about HIV/AIDS transmission during Year Two of the program as compared to Year Three. However, this goal was not met in either year of the project.

Figure 3.



## Outcome Goal Two

*65% of program participants will report an increase in intention to abstain from sex at least 6 months post curriculum*

Both of the curricula used in the Teen Pregnancy Prevention Program have successfully increased intention to abstain from sex as evidenced in previous studies. Jemmott, Jemmott, and Fong (1992) showed that participants reported an increased intention to abstain following the Be Proud! Be Responsible! course, while Villarruel, Jemmott, and Jemmott (2006) had the same results when testing the iCuidate! curriculum. Both of these studies have shown that the two curricula successfully increased intention to abstain in treatment participants as compared to a control group which did not receive the program.

### Methods

The second outcome goal is that 65% of program participants will report an increase in intention to abstain from sex at least 6 months post-curriculum as compared to pre-curriculum testing. This goal was assessed by comparing participant responses to the question, “Do you intend to have sexual intercourse in the next year, if you have the chance?” at pre-survey, to participant responses to the same question at 3- and 6-month follow up. Response options ranged from 1 (“Yes, definitely”) to 4 (“No, definitely not”).

A participant’s change in intention to abstain was determined by subtracting the pre-survey response score from the post-survey response score. A negative score was deemed an increase in intention to abstain (participant was LESS LIKELY to have sex in the year as compared to pre-survey) and a positive score was deemed a decrease in intention to abstain from sex (participant was MORE LIKELY to have sex in the next year as compared to pre-survey).

## Results

Of the participants that completed the course, 1158 had valid responses to the intention question on both the pre- and post-survey, 497 had valid responses on both the pre-survey and 3-month follow-up survey, and 364 had valid responses on both the pre-survey and 6-month follow-up survey. Participants were excluded from the analyses measuring this goal if, at pre-survey, they responded “No, definitely not” to the question, “Do you intend to have sexual intercourse in the next year, if you have the chance?” They were excluded because their intention to abstain could not increase. This exclusion criterion eliminated 47 participants from the pre- to post-survey comparison, 20 participants from the pre-survey to 3-month follow-up survey, and 20 participants from the pre-survey to 6-month follow-up survey comparison.

As seen in Table 4, as compared to pre-survey, 19.7% (219) of the participants reported an increase in their “intention to abstain” at post-survey, 31.2% (149) reported an increase at 3-month follow-up, and 27.9% (96) reported an increase at 6-month follow-up.

**Table 4. Change in Intention to Abstain from Pre-Survey**

	<b>Post (n=1111)</b>	<b>3-Months (n=477)</b>	<b>6-Months (n= 344)</b>
<b>Increase in Intention</b>	19.7% (219)	31.2% (149)	27.9% (96)
<b>No Change in Intention</b>	69.2% (769)	60.8% (290)	63.1% (217)
<b>Decrease in Intention</b>	11.1% (123)	8% (38)	9% (31)
<b>Total</b>	<b>100% (1111)</b>	<b>100% (477)</b>	<b>100% (344)</b>

*Note. Participants were excluded from the analyses if they did not provide valid data on the pair of surveys being compared and responded “No, definitely not” when asked at pre-survey, “Do you intend to have sexual intercourse in the next year, if you have the chance?”*

At post-survey, a larger percentage of participants who completed the curriculum at probation, as compared to detention and foster care, reported an increase in intention to abstain. Additionally, a larger percentage of participants who completed the curriculum at probation, as compared to detention, reported an increase in intention to abstain at 3-months and 6-months. The City of Las Vegas was not included in any of these comparisons because too few participants met the inclusion criteria necessary to be included in the analysis. For the same reason, foster care was not included in the comparisons with regard to the follow-up surveys. See Table 5.

**Table 5. Change in Intention to Abstain from Pre-Survey Across Sites**

	<b>Detention</b>			<b>Probation</b>			<b>Foster Care</b>			<b>City of Las Vegas</b>		
	<b>Post</b>	<b>3- Month</b>	<b>6- Month</b>	<b>Post</b>	<b>3- Month</b>	<b>6- Month</b>	<b>Post</b>	<b>3- Month</b>	<b>6- Month</b>	<b>Post</b>	<b>3- Month</b>	<b>6- Month</b>
<b>Increase in Intention</b>	18.6% (113)	30.5% (71)	24.4% (42)	21.8% (97)	34.3% (72)	34.5% (51)	16% (8)	n/a	n/a	n/a	n/a	n/a
<b>No Change in Intention</b>	71.1% (433)	62.2% (145)	64% (110)	67.1% (298)	57.1% (120)	58.8% (87)	62% (31)	n/a	n/a	n/a	n/a	n/a
<b>Decrease in Intention</b>	10.3% (63)	7.3% (17)	11.6% (20)	11% (49)	8.6% (18)	6.8% (10)	22% (11)	n/a	n/a	n/a	n/a	n/a
<b>Total</b>	<b>100% (609)</b>	<b>100% (233)</b>	<b>100% (172)</b>	<b>100% (444)</b>	<b>100% (210)</b>	<b>100% (148)</b>	<b>100% (50)</b>	<b>(n=27)</b>	<b>(n=18)</b>	<b>(n=8)</b>	<b>(n=7)</b>	<b>(n=6)</b>

*Note. Participants were excluded from the analyses if they did not provide valid data on the pair of surveys being compared and responded “No, definitely not” when asked at pre-survey, “Do you intend to have sexual intercourse in the next year, if you have the chance?”*

A repeated measures ANOVA with a Greenhouse-Geisser correction indicated that there was a statistically significant difference among the pre-surveys, post-surveys, 3-month follow-up surveys, and 6-month follow-up surveys with regard to the intention to abstain score,  $F(2.69, 689.94) = 14.14$  at  $p < .001$ .

Post hoc tests using the Bonferroni correction indicated a statistically significant difference between the pre-survey ( $M = 1.45, SD = .58$ ) and all other surveys with regard to intention to abstain from sex. Specifically, intention to abstain from sex increased from pre-survey to post-survey ( $M=1.60, SD = .70$ ), 3-month follow-up ( $M = 1.70, SD = .69$ ), and 6-month follow-up ( $M = 1.67, SD = .72$ ). This indicates that intention to abstain from sex significantly increased post-curriculum and remained high at the subsequent follow-up surveys. See Table 6.

**Table 6. Average Intention to Abstain Score across Survey Time Points**

	Pre-Survey (n=258)		Post-Survey (n=258)		3-Month Follow-Up Survey (n=258)		6-Month Follow-Up Survey (n=258)		F(2.69,689.94)	p
	M	SD	M	SD	M	SD	M	SD		
<b>Intention to Abstain Score</b>	1.45 <sup>abc</sup>	.58	1.60 <sup>a</sup>	.70	1.70 <sup>b</sup>	.69	1.67 <sup>c</sup>	.72	14.14	.000*

\*Mean difference is significant at the .01 level.

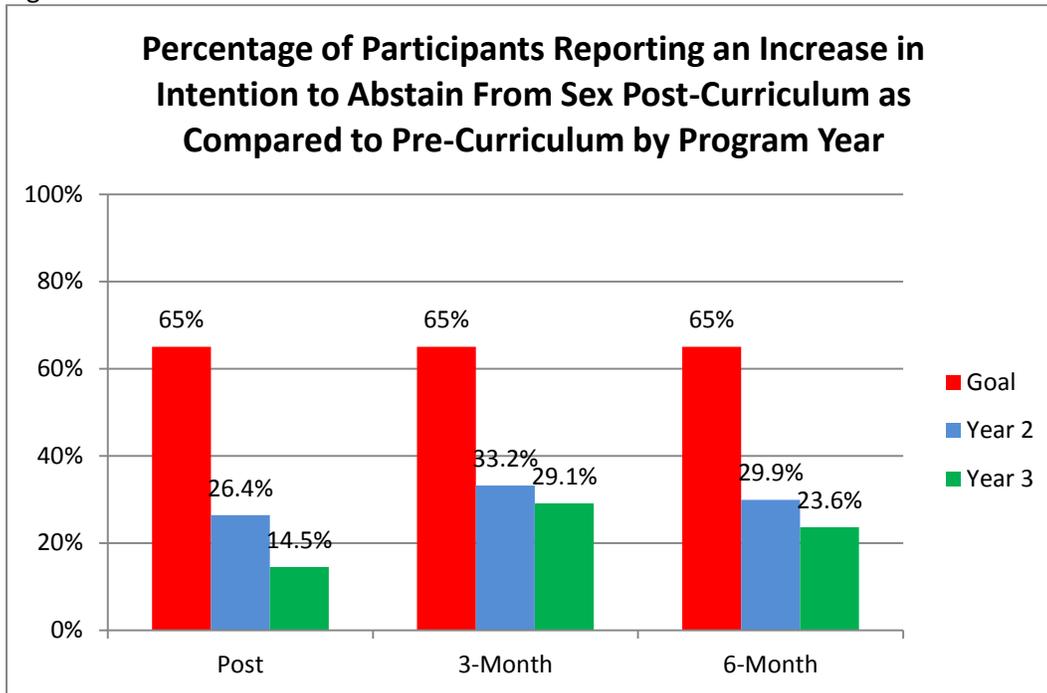
Note: Cells sharing the same superscript statistically significantly differ; Averages and standard deviations given for only those participants that provided an answer to the question on all 4 surveys and excludes those participants who responded, “No, definitely not” when asked at pre-survey, “Do you intend to have sexual intercourse in the next year, if you have the chance?”

### Progress Summary

The Southern Nevada Health District did not meet the goal of having 65% of program participants report an increase in intention to abstain from sex at least 6 months post-curriculum. The largest percentage of participants reporting an increase in intention to abstain as compared to pre-survey was seen at 3-months post curriculum (31.2%). Although the goal was not met, intention to abstain did statistically significantly increase post-curriculum and remained high at the 3-month and 6-month follow-up time points.

As seen in Figure 4, a smaller percentage of Year Three participants, as compared to Year Two participants, reported an intention to abstain from sex at each post-curriculum survey time point.

Figure 4.



### Outcome Goal Three

*50% of program participants will report a reduction in sex partners as compared to pre-curriculum testing*

In previous studies, participants who received the Be Proud! Be Responsible! curriculum reported having fewer sex partners 3 months after receiving the training as compared to the 3 months prior to the training (Jemmott, Jemmott, & Fong, 1992).

### Methods

The third outcome goal is that 50% of program participants will report a reduction in sex partners post-curriculum as compared to pre-curriculum testing. To assess this goal, the question “During the past 3 months, with how many people did you have sexual intercourse?” was asked on the pre-survey and the 3-month and 6-month follow-up surveys.

Based on their survey responses, certain participants were excluded from the analyses used to assess this goal. The conditions for exclusion from analysis included (1) participants who did not have valid pre-survey and 3-month follow-up survey scores or pre-survey and 6-month follow-up scores, (2) participants who indicated at pre-survey that they have never had sex, (3) participants who reported “0” sex partners on the pre-survey and 3-month follow-up surveys or the pre-survey and 6-month follow-up surveys, and (4) participants who responded “illogically” regarding sexual activity (i.e., stated that they had never had sex, but then answered several questions about their sexual history or stated on the pre-survey that they were sexually active but at follow-up reported that they had never had sex).

### Results

Of the participants that completed the class and met the inclusion criteria listed above, 201 had a valid response to the question, “During the past 3 months, with how many people did you have sexual intercourse?” on both the pre-survey and 3-month follow-up survey. A total of 151 participants met the inclusion criteria and had valid responses on both the pre-survey and 6-month follow-up survey.

As seen in Table 7, as compared to pre-survey, 25.4% (51) of participants reported a decrease in the number of sex partners “during the past three months” at 3-month follow-up, and 21.2% (32) of participants reported a decrease at 6-month follow-up.

**Table 7. Change in Number of Sex Partners from Pre-Survey**

	<b>3-Months (n=201)</b>	<b>6-Months (n= 151)</b>
<b>Decrease in Number of Partners</b>	25.4% (51)	21.2% (32)
<b>No Change in Number of Partners</b>	50.7 (102)	58.9% (89)
<b>Increase in Number of Partners</b>	23.9% (48)	19.9% (30)
<b>Total</b>	<b>100% (201)</b>	<b>100% (151)</b>
<i>Note. Participants were excluded from this analysis if they (1) reported at pre-survey that they have never had sex,(2) gave “illogical” responses, (3) did not have a valid pair of surveys needed for comparison, or (4) reported “0” sex partners on the pair of surveys being compared.</i>		

As seen in Table 8, a larger percentage of participants who completed the curriculum at detention reported a decrease in the number of sexual partners at both 3- and 6-months as compared to those completing the curriculum at probation. Too few participants from foster care and the City of Las Vegas sites met the criteria necessary to be included in this analysis; therefore neither of these sites was included in this comparison.

**Table 8. Change in Number of Sex Partners from Pre-Survey Across Sites**

	<b>Detention</b>		<b>Probation</b>		<b>Foster Care</b>		<b>City of Las Vegas</b>	
	<b>3-Month</b>	<b>6-Month</b>	<b>3-Month</b>	<b>6-Month</b>	<b>3-Month</b>	<b>6-Month</b>	<b>3-Month</b>	<b>6-Month</b>
<b>Decrease in Number of Partners</b>	27.5% (19)	34.5% (19)	23.8% (29)	14.3% (13)	n/a	n/a	n/a	n/a
<b>No Change in Number of Partners</b>	49.3% (34)	52.7% (29)	50.8% (62)	61.5% (56)	n/a	n/a	n/a	n/a
<b>Increase in Number of Partners</b>	23.2% (16)	12.7% (7)	25.4% (31)	24.2% (22)	n/a	n/a	n/a	n/a
<b>Total</b>	<b>100% (69)</b>	<b>100% (55)</b>	<b>100% (122)</b>	<b>100% (91)</b>	<b>(n=9)</b>	<b>(n=4)</b>	<b>(n=1)</b>	<b>(n=1)</b>
<i>Note. Participants were excluded from this analysis if they (1) reported at pre-survey that they have never had sex,(2) gave “illogical” responses, (3) did not have a valid pair of surveys needed for comparison, or (4) reported “0” sex partners on the pair of surveys being compared.</i>								

Two paired samples t-tests were conducted to determine if participants reported a significant difference in the number of partners “during the past three months” at either of the follow-up time points as compared to pre-survey. Although the mean number of partners decreased from pre-survey to both follow-up time points, results from the paired samples t-test indicate that there was not a statistically significant difference in the number of sex partners between the pre-survey ( $M = 1.75, SD = 1.18$ ) and the 3-month follow-up survey ( $M = 1.73, SD = 1.29$ ) time period, [ $t(200) = .271, p = .787$ ]. Likewise, there was not a statistically significant difference between the pre-survey ( $M = 1.66, SD = 2.13$ ) and the 6-month follow-up survey ( $M = 1.46, SD = .97$ ) time period, [ $t(150) = 1.08, p = .283$ ].

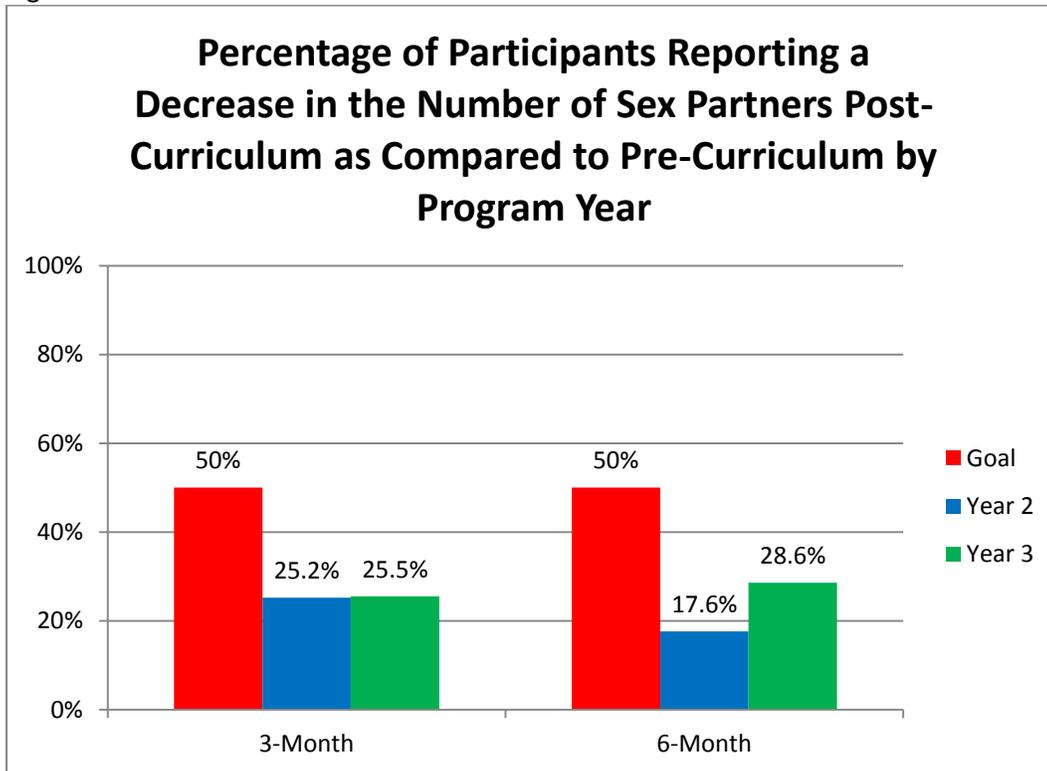
### Progress Summary

The Southern Nevada Health District did not meet the goal of having 50% of Year Two program participants report a reduction in number of sex partners as compared to pre-curriculum testing. As compared to pre-survey, 25.4% of

participants reported a decrease in the number of sex partners “during the past three months” at 3-month follow-up, and 21.2% of participants reported a decrease at 6-month follow-up.

As seen in Figure 5, a slightly larger percentage of Year Three participants reported a decrease in the number of sex partners at both 3- and 6-month follow-up as compared to Year Two participants.

Figure 5.



## **Outcome Goal Four**

*50% of program participants will report an increase in condom use at 3 months and 6 months compared to pre-curriculum testing*

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Participants receiving either the Be Proud! Be Responsible! (Jemmott, Jemmott, & Fong, 1992; Jemmott, Jemmott, Fong & Morales, 2010) or the iCuidate! (Villarruel, Jemmott, & Jemmott, 2006) curricula have demonstrated an increase in condom use post-curriculum.

### ***Methods***

The fourth outcome goal is for 50% of the program participants to report an increase in condom use at 3 months and 6 months as compared to pre-curriculum testing. To assess this goal, the question “How often do you use condoms during sexual intercourse?” was asked on the pre-survey and on the 3- and 6-month follow-up surveys. Response options ranged from “Never” to “Always” with a total of 7 response options. For analyses, response options were recoded to a scale of 0 – 4 (0 = never use condoms, 4 = always use condoms). The response options of “Sometimes”, “If I have a condom available to me”, and “Only if my partner asks me to use a condom” were collapsed into one response category representing the “sometimes” response category (2 = sometimes).

Participants were excluded from these analyses (1) if they reported at pre-survey that they have never had sex, (2) if their responses were “illogical” (i.e., stated that they had never had sex, but then answered several questions about their sexual history or stated on the pre-survey that they were sexually active but at follow-up reported that they had never had sex) (3) if they did not have a valid pre-, 3-, or 6-month follow-up survey score, and (4) if they reported on the pre-survey that they “Always” use condoms.

To determine if program participant condom usage increased, decreased, or did not change, the pre-survey response value was subtracted from the follow-up survey response value. Positive values indicated an increase in condom usage and negative values indicated a decrease in condom usage.

### ***Results***

Of those participants who completed the course and met the inclusion criteria as noted above, 292 had a valid response to this question on both the pre-survey and 3-month follow-up survey and 208 had valid responses on both the pre-survey and 6-month follow-up survey.

As seen in Table 9, as compared to pre-survey, overall 37.7% (110) of participants reported an increase in condom use at 3-month follow-up and 35.6% (74) of participants reported an increase in condom use at 6-months. Participants completing the program at probation reported a larger percent increase in condom use than participants completing the program at detention at both 3-months (54.3%) and 6 months (47.9%) as compared to pre-survey. A full comparison across sites was not possible because there were too few participants from foster care and no participants from the City of Las Vegas site meeting the criteria to be included in the analysis.

**Table 9. Change in Condom Use from Pre-Survey across All Sites**

	<i>All Sites</i>		<i>Detention</i>		<i>Probation</i>		<i>Foster Care</i>		<i>City of Las Vegas</i>	
	<i>3- Months</i>	<i>6- Months</i>	<i>3- Months</i>	<i>6- Months</i>	<i>3- Months</i>	<i>6- Months</i>	<i>3- Months</i>	<i>6- Months</i>	<i>3- Months</i>	<i>6- Months</i>
<b>Increase in Condom Use</b>	37.7% (110)	35.6% (74)	25% (41)	26.6% (33)	54.3% (63)	47.9% (35)	n/a	n/a	n/a	n/a
<b>No Change in Condom Use</b>	47.6% (139)	51.4% (107)	59.1% (97)	58.1% (72)	34.5% (40)	43.8% (32)	n/a	n/a	n/a	n/a
<b>Decrease in Condom Use</b>	14.7% (43)	13% (27)	15.9% (26)	15.3% (19)	11.2% (13)	8.2% (6)	n/a	n/a	n/a	n/a
<b>Total</b>	<b>100%</b> <b>(292)</b>	<b>100%</b> <b>(208)</b>	<b>100%</b> <b>(164)</b>	<b>100%</b> <b>(124)</b>	<b>100%</b> <b>(116)</b>	<b>100%</b> <b>(73)</b>	<b>n=12</b>	<b>n=11</b>	<b>n=0</b>	<b>n=0</b>

*Note. Participants were excluded from this analysis if they (1) reported at pre-survey that they have never had sex, (2) gave “illogical” responses, (3) did not have a valid pair of surveys needed for comparison, or (4) reported at pre-survey that they “always” use condoms.*

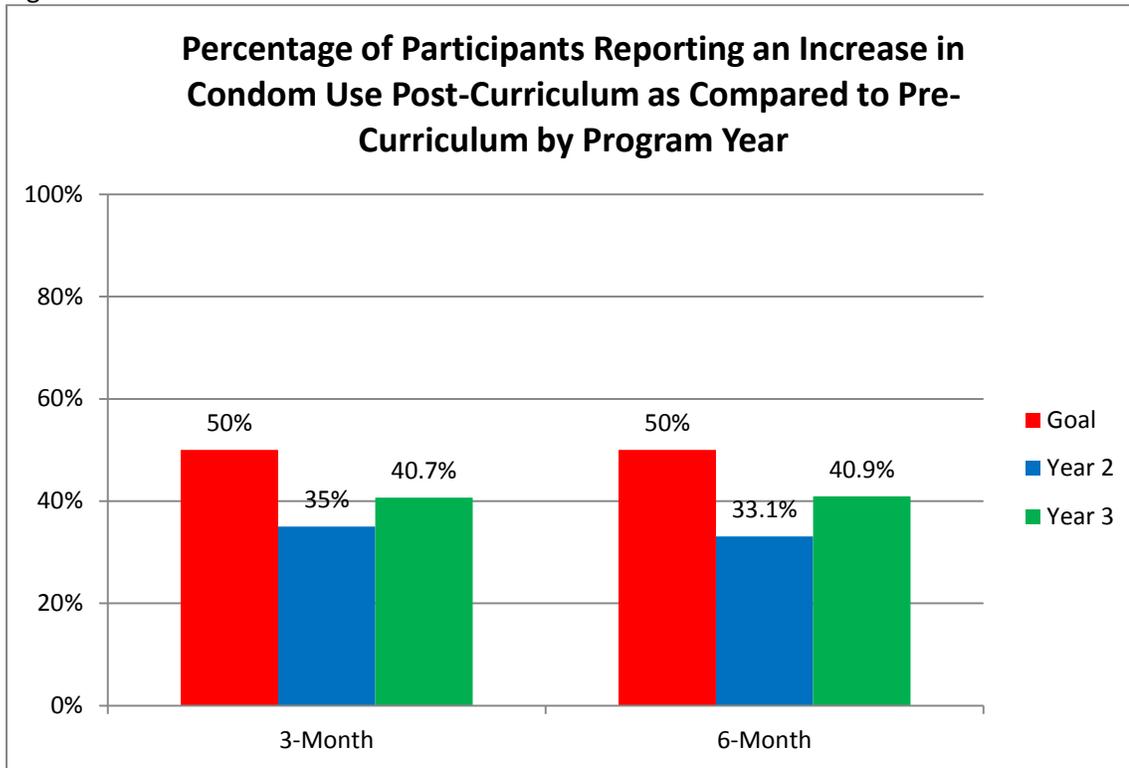
Two paired samples t-tests were conducted to determine if overall participants reported a statistically significant increase in condom use at either of the follow-up time points as compared to pre-survey. Results from the paired samples t-test indicate that there was a statistically significant difference in condom use between the pre-survey ( $M = 2.1, SD = .79$ ) and the 3-month follow-up survey ( $M = 2.4, SD = .86$ ) time period, [ $t(291) = 6.46, p = .000$ ]. Additionally, there was a statistically significant difference between the pre-survey ( $M = 2.1, SD = .81$ ) and the 6-month follow-up survey ( $M = 2.5, SD = .92$ ) time period, [ $t(207) = 5.20, p = .000$ ]. These results indicate that participants did report a statistically significant increase in condom use from pre-survey to both 3- and 6-month follow-up.

***Progress Summary***

The Southern Nevada Health District did not meet the goal of having 50% of Year Two program participants report an increase in condom use at 3-months and 6-months as compared to pre-curriculum testing. As compared to pre-survey, 37.7% of participants reported an increase in condom use at 3-months and 35.6% of participants reported an increase in condom use at 6-months.

As seen in Figure 6, a larger percentage of participants completing the program in Year Three reported an increase in condom use at both 3-months and 6-months as compared to those completing the program in Year Two.

Figure 6.



### Outcome Goal Five:

*50% of program participants will report an increase in refusal skills as compared to pre-curriculum testing*

In a previous study by Morriss, Ulmer, and Chimnani's (2003), participants reported that their refusal skills increased "very much" as a result of the Be Proud! Be Responsible! curriculum. Another study found an increase in refusal skills (compared to control participants) lasting four months, but that increase disappeared one year following curriculum (Borawski et al., 2009).

### Methods

The fifth outcome goal of the Teen Pregnancy Prevention Program is that 50% of program participants will report an increase in refusal skills at post-survey, 3-months follow-up, and 6-months follow-up as compared to pre-curriculum testing. Refusal skills were assessed by using two questions administered on the pre-survey, post-survey, and the two follow-up surveys. These questions were:

- How easy or hard would it be for you to say "no" to sex?
- If your partner wanted to have sex, how easy or hard would it be for you to get your partner NOT to have sex?

A "refusal skills" score was calculated by averaging participant responses to these two items. Final "refusal skills" scores ranged from 1 – 5 (1 = very hard to refuse sex, 5 = very easy to refuse sex).

To measure this goal, "refusal skills" score differences were calculated between pre-survey and post-survey, pre-survey and 3-month follow-up survey, and pre-survey and 6-month follow-up survey. Participants were excluded from the analyses in measuring this goal if, at pre-survey, they had a refusal score of 5. These participants were excluded because their refusal score could not increase.

## Results

Of those participants that completed the course and did not have a pre-survey refusal score of 5 (very easy to refuse sex), 1045 had a valid score on both the pre- and post-survey, 438 had a valid score on both the pre-survey and 3-month follow-up survey, and 315 had a valid score on both the pre-survey and 6-month follow-up.

As seen in Table 10, 58.1% of participants reported an increase in refusal skills from pre-survey to post-survey, 58.9% reported an increase from pre-survey to 3-month follow-up, and 65.4% reported an increase from pre-survey to 6-month follow-up.

**Table 10. Change in Refusal Skills Score from Pre-Survey**

	<i>Post-Survey (n=1045)</i>	<i>3-Months (n= 438)</i>	<i>6-Months (n = 315)</i>
<b>Increase in Refusal Skills Score</b>	58.1% (607)	58.9% (258)	65.4% (206)
<b>No Change in Refusal Skills Score</b>	25.3% (264)	20.5% (90)	19% (60)
<b>Decrease in Refusal Skills Score</b>	16.7% (174)	20.5% (90)	15.6% (49)
<b>Total</b>	<b>100% (1045)</b>	<b>100% (438)</b>	<b>100% (315)</b>

*Note. Participants were excluded from this analysis if their pre-survey refusal skills score was 5 (very easy to refuse sex).*

At post-survey, a larger percentage of participants who completed the curriculum at detention, as compared to probation and foster care, reported an increase in refusal skills. However, at the 3- and 6-month follow-ups, a larger percentage of participants who completed the curriculum at probation, as compared to detention, reported an increase in refusal skills. The City of Las Vegas was not included in any of these comparisons because too few participants met the criteria necessary to be included in the analysis. For the same reason, foster care was not included in the comparisons with regard to the follow-up surveys. See Table 11.

**Table 11. Change in Refusal Skills Score from Pre-Survey across Sites**

	<i>Detention</i>			<i>Probation</i>			<i>Foster Care</i>			<i>City of Las Vegas</i>		
	<i>Post</i>	<i>3- Month</i>	<i>6- Month</i>	<i>Post</i>	<i>3- Month</i>	<i>6- Month</i>	<i>Post</i>	<i>3- Month</i>	<i>6- Month</i>	<i>Post</i>	<i>3- Month</i>	<i>6- Month</i>
<b>Increase in Refusal Skills Score</b>	60.9% (354)	53.5% (115)	61.0% (94)	55.7% (230)	63.3% (124)	69.9% (100)	42.2% (19)	n/a	n/a	n/a	n/a	n/a
<b>No Change in Refusal Skills Score</b>	23.1% (134)	20.9% (45)	18.8% (29)	27.6% (114)	20.4% (40)	18.2% (26)	35.6% (16)	n/a	n/a	n/a	n/a	n/a
<b>Decrease in Refusal Skills Score</b>	16.0% (93)	25.6% (55)	20.1% (31)	16.7% (69)	16.3% (32)	11.9% (17)	22.2% (10)	n/a	n/a	n/a	n/a	n/a
<b>Total</b>	<b>100% (581)</b>	<b>100% (215)</b>	<b>100% (154)</b>	<b>100% (413)</b>	<b>100% (196)</b>	<b>100% (143)</b>	<b>100% (45)</b>	<b>n=22</b>	<b>n=15</b>	<b>n=6</b>	<b>n=5</b>	<b>n=3</b>

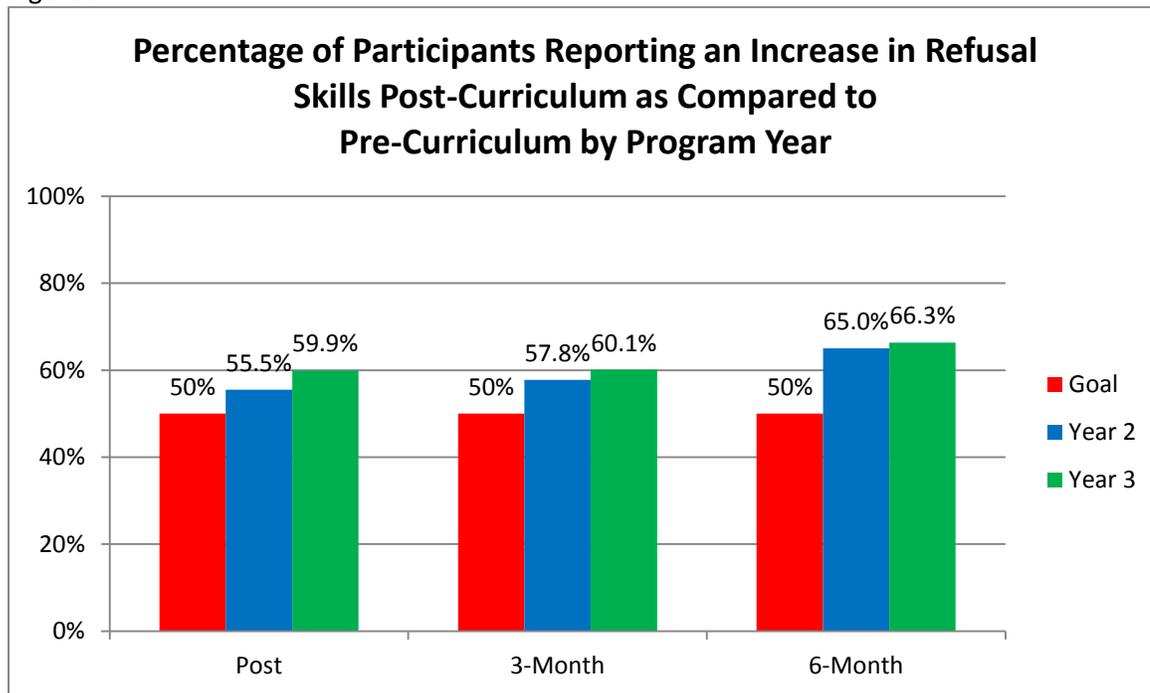
*Note. Participants were excluded from this analysis if their pre-survey refusal skills score was 5 (very easy to refuse sex).*

## Progress Summary

The Southern Nevada Health District did meet the goal of having 50% of Year Two program participants report an increase in refusal skills as compared to pre-curriculum testing. As compared to pre-survey, 58.1% of participants reported an increase in refusal skills at post-survey, 58.9% of participants reported an increase in refusal skills at 3-month follow-up, and 65.4% of participants reported an increase in refusal skills at 6-month follow-up.

As seen in Figure 7, this goal was met during both Year Two and Year Three at all measurement points. Additionally, there was a slight increase in the percentage of participants reporting an increase in refusal skills in Year Three as compared to Year Two.

Figure 7.



## 6. Overall Project Impact

Through the implementation of the Teen Pregnancy Prevention (TPP) Program, the Southern Nevada Health District (SNHD) intends to lower the rate of sexually transmitted infections and unplanned pregnancies in Southern Nevada by 10% by the year 2015. To assess progress toward this overall project impact, annual statistics regarding the rate of sexually transmitted infections and teen births in Clark County are provided in the tables below. The first year reported in the tables, 2010, is being considered the baseline for this project because it is the year prior to implementation of the TPP Program.

As seen in Table 12, the annual rate of cases of Chlamydia, Gonorrhea, and Syphilis (primary and secondary) increased from 2010 to 2011. Data is not yet available regarding 2012, however this information will be provided in the Year 4 Evaluation Report.

Table 12. Clark County Sexually Transmitted Infection Statistics by Year

	<i>Annual Total</i>			<i>Annual Rate per 100,000</i>		
	<i>2010</i>	<i>2011</i>	<i>2012*</i>	<i>2010</i>	<i>2011</i>	<i>2012*</i>
<b>Chlamydia</b>	7641	8817		390.03	455.69	
<b>Gonorrhea</b>	1578	1847		80.54	95.46	
<b>Syphilis (Primary and Secondary)</b>	128	128		6.54	6.62	

Data retrieved from the Southern Nevada Health District, Statistics, Surveillance, and Reports website:  
<http://www.southernnevadahealthdistrict.org/stats-reports/disease-stats-2011.php>  
<http://www.southernnevadahealthdistrict.org/stats-reports/disease-stats-2010.php>  
 \*Data not available on website at the time of this report

As seen in Table 13, the teenage (ages 15-19) birth counts and rates among Clark County residents have decreased annually from 2010 to 2012.

Table 13. Clark County Birth Counts and Rates for Ages 15-19 Years

<i>Year of Birth</i>	<i>Count</i>	<i>Rate</i>
<b>2010</b>	2,465	38.6
<b>2011*</b>	2,252	36.5
<b>2012*</b>	2,077	32.7

\*Counts are not final and subject to change  
 Data requested of and provided by The Nevada Division of Public and Behavioral Health, July, 2013.

The true overall impact of the SNHD TPP program on the State of Nevada will be difficult to isolate, however it seems logical that the program should be positively and not negatively impacting the sexually transmitted infection and teen birth rate in Clark County. Additionally, it will be difficult to determine how quickly the program would influence these rates; therefore they will continue to be monitored throughout the term of the project.

## 7. Year Three Summary and Recommendations

The Southern Nevada Health District's (SNHD) Teen Pregnancy Prevention Program was implemented to reduce the rate of teen births, pregnancy, and sexually transmitted infections in adolescents in Clark County, Nevada. This program is being implemented in a population of youth at greatest risk for negative health outcomes: those involved in juvenile justice services and foster care. The program's target population is unique in that these youth differ significantly from youth in the general population in Nevada in both the age of first sexual intercourse, and the proportion of the population who reports having ever had sex and having had sex in the past three months.

Of the 1617 participants that have been enrolled in the SNHD Teen Pregnancy Prevention Program, 82.7% reported ever having sex, while according to the 2011 Nevada Youth Risk Behavior Survey (YRBS) only 47.5% of adolescents in Nevada reported ever having sex (Soule, 2011). SNHD Teen Pregnancy Prevention Program participants were also more likely to have had sex in the past three months (69.1%) as compared to 32% of Nevada's adolescents as reported by the 2011 YRBS. In addition, a larger proportion of program participants reported ever having been pregnant or gotten someone pregnant (21%) than that of the Nevadan youth population (5.7%). The Year One and Year Two rates for these variables are presented in Table 12 and are compared with the 2011 Nevada YRBS rates.

Table 12. Comparison between SNHD TPP participants and 2011 Nevada YRBS results

	<i><b>SNHD TPP participants (n=1617)</b></i>	<i><b>2011 Nevada YRBS*</b></i>
<b>Ever had sex?</b>	82.7%	47.5%
<b>Had sex in the past three months</b>	69.1%	32%
<b>Sexual intercourse before age 13</b>	23.1%	6.1%
<b>Ever been pregnant or gotten someone pregnant</b>	21.0%	5.7%

*\*Data for YRBS comparisons obtained from Soule, P. P. Nevada Department of Education, (2011). Nevada youth risk behavior survey report. Carson City, NV: Retrieved from <http://nde.doe.nv.gov/YRBS.htm>*

These unique circumstances provide additional challenges for SNHD Teen Pregnancy Prevention Program staff and educators in meeting stated goals and objectives. This progress is summarized below.

Goal	Progress to date
1. <b>80%</b> of program participants will report an increase in knowledge about HIV/AIDS transmission and prevention immediately following curriculum (Knowledge)	<b>75.9%</b> of program participants demonstrated an increase in knowledge about HIV/AIDS transmission and prevention immediately following curriculum
2. <b>65%</b> of program participants will report an increase in intention to abstain from sex at least 6 months post curriculum (Motivation)	The intention to abstain score, when compared to pre-curriculum, increased for: <ul style="list-style-type: none"> <li>• <b>19.7%</b> of participants immediately following course completion</li> <li>• <b>31.2%</b> of participants at 3-months</li> <li>• <b>27.9%</b> of participants at 6-months</li> </ul>
3. <b>50%</b> of program participants will report a reduction in sex partners as compared to pre-curriculum testing (Behavior Change)	The number of reported sex partners “during the last 3-months” decreased for: <ul style="list-style-type: none"> <li>• <b>25.4%</b> of participants from pre-curriculum to 3-months post-curriculum</li> <li>• <b>21.2%</b> of participants from pre-curriculum to 6-months post-curriculum</li> </ul>
4. <b>50%</b> of program participants will report an increase in condom use at 3 months and 6 months compared to pre-curriculum testing (Decision-making)	The reported frequency of condom use increased for: <ul style="list-style-type: none"> <li>• <b>37.7%</b> of participants from pre-curriculum to 3-months post-curriculum</li> <li>• <b>35.6%</b> of participants from pre-curriculum to 6-months post-curriculum</li> </ul>
5. <b>50%</b> of program participants will report an increase in refusal skills as compared to pre-curriculum testing (Self-efficacy)	The “refusal skills” score increased for: <ul style="list-style-type: none"> <li>• <b>58.1%</b> of participants from pre-survey to post-survey</li> <li>• <b>58.9%</b> of participants from pre-survey to 3-month follow-up survey</li> <li>• <b>65.4%</b> of participants from pre-survey to 6-month follow-up survey</li> </ul>

During Year Three, the Southern Nevada Health District has exceeded Goal 5 (increase in refusal skills) and has come close to meeting Goal 1 (increase in knowledge about HIV/AIDS). This project year, as compared to Year Two, SNHD has come closer to meeting Goal 3 (decrease in sex partners) and Goal 4 (increase in condom use). Conversely, the SNHD was closer to meeting Goal 2 during Year Two than in Year Three.

## Recommendations for Improvement

### 1. Program Improvement

Since the chosen curricula have been effective in impacting the chosen outcome goal areas, it is important to continue to measure fidelity and adhere to program curricula. SNHD should review their process evaluation to better understand how to improve these results.

### **3. Outcome Evaluation Improvement**

#### **Communication Regarding Schedule Changes**

During the last quarter of Year Three, SNHD made several changes to the original schedule sent out at the beginning of the project year. Classes were added at detention and probation, class start times were changed, and the number of days the curriculum was taught was shortened at some locations which changed the class end times.

The Nevada Institute for Children’s Research and Policy (NICRP) accommodated the schedule changes of which they were made aware. NICRP was notified of some schedule changes the day prior to the schedule change or the day of the schedule change. Unfortunately, in one instance, NICRP was not notified at all of a schedule change and therefore, was not able to administer pre-surveys to the program participants. In this same instance, the SNHD health educator did not attempt to contact NICRP when NICRP did not arrive to administer the pre-surveys.

It is important that SNHD staff communicate schedule changes to NICRP as soon as possible. The majority of the pre- and post-surveys are conducted by part-time student employees. Their work schedules are based solely on the class schedule provided by SNHD at the beginning of the project year. Therefore, it is often difficult for NICRP staff to ensure coverage for last minute schedule changes. However, the more notice given by SNHD regarding schedule changes, the higher the likelihood that NICRP staff will be able accommodate them.

#### **Follow-Up Surveys**

The current 3-month follow rate for Year Three participants is 54.7% and the current 6-month follow-up rate is 48.9%. These are improvements over the Year Two 3-month follow-up rate (49.6%) and the 6-month follow-up rate (48.7%). Changes made during Year Two are credited for these improvements and will continue to be implemented throughout the term of the project to increase the survey response follow-up rates. The changes that were made during Year Two are listed below.

1. The Contact Information Form was modified so that participants could provide an additional contact person and phone number. The original form only allowed for the participant’s contact information.
2. After administering the post-survey, NICRP provides each participant with a follow-up card similar to an appointment card received at a physician’s office. The follow-up card indicates the specific 3-month and 6-month follow-up interview dates for the participant and that they will be paid \$20 for each survey completed. The cards also list NICRP’s phone number and request that participants call NICRP if their contact information changes or if they are ready to complete their follow-up survey.
3. The original tracking process, established during the Year One Pilot, limited the number of contact attempts for each participant to 3 times per follow-up survey. The current tracking process no longer limits the number of contact attempts that are made to a participant in attempt to complete a follow-up survey. A participant is now “tracked” and contact attempts are made for one month after the follow-up survey due date.

NICRP continues to work with Clark County Juvenile Probation, the Clark County Juvenile Detention Center, and Foster Care to cross check contact information provided by program participants when information is incorrect or phone numbers are no longer in service. The staff at Nevada Youth Training Center, Caliente Youth Center, and Spring Mountain Youth Camp continues to be very accommodating in allowing NICRP staff to conduct follow-up surveys with youth housed at their facilities.

The 1-month courtesy calls have continued to be successful in improving follow-up survey response rates during Year Three and will continue to be conducted throughout the project. The purpose of these calls is not only to remind

participants of the follow-up surveys but to confirm or update participant contact information and to identify invalid and out of date contact information.

## Appendix A: Participant Demographics

Demographic Variable	Year 2 (n=603)		Year 3 (n=733)		Total (n=1336)	
	Count (N)	Percent (%)	Count (N)	Percent (%)	Count (N)	Percent (%)
<b>Gender</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
Male	453	75.1	530	72.3	983	73.6
Female	150	24.9	203	27.7	353	26.4
Missing	-	-	-	-	-	-
<b>Age</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
11	-	-	2	0.3	2	0.1
12	6	1.0	13	1.8	19	1.4
13	32	5.3	34	4.6	66	4.9
14	59	9.8	87	11.9	146	10.9
15	112	18.6	150	20.5	262	19.6
16	167	27.7	174	23.7	341	25.5
17	190	31.5	224	30.6	414	31.0
18	33	5.5	40	5.5	73	5.5
More than or Equal to 19	2	0.3	9	1.2	11	0.8
Missing	2	.03	-	-	2	0.1
<b>Grade Level</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
6 <sup>th</sup> Grade	2	0.3	9	1.2	11	0.8
7 <sup>th</sup> Grade	15	2.5	25	3.4	40	3.0
8 <sup>th</sup> Grade	62	10.3	76	10.4	138	10.3
9 <sup>th</sup> Grade	85	14.1	106	14.5	191	14.3
10 <sup>th</sup> Grade	122	20.2	131	17.9	253	18.9
11 <sup>th</sup> Grade	145	24.0	165	22.5	310	23.2
12 <sup>th</sup> Grade	107	17.7	119	16.2	226	16.9
GED	7	1.2	14	1.9	21	1.6
College	5	0.8	8	1.1	13	1.0
Not Currently in School	21	3.5	38	5.2	59	4.4
Missing	32	5.3	42	5.7	74	5.5
<b>Ethnicity</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
Hispanic or Latino	221	36.7	325	44.3	546	40.9
Not Hispanic or Latino	332	55.1	371	50.6	703	52.6
Missing	50	8.3	37	5.0	87	6.5
<b>Race</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
American Indian/Alaska Native	9	1.5	17	2.3	26	1.9
Asian	9	1.5	11	1.5	20	1.5
Black or African American	144	24.0	189	25.8	333	24.9
Native Hawaiian or Pacific Islander	8	1.3	6	0.8	14	1.0
White	84	13.9	93	12.7	177	13.2
Multiple Races	134	22.2	189	25.8	323	24.2
Other	98	16.3	127	17.3	225	16.8
Missing	117	19.4	101	13.8	218	16.3

## Participant Demographics (continued)

Demographic Variable	Year 2 (n=603)		Year 3 (n=733)		Total (n=1336)	
	Count (N)	Percent (%)	Count (N)	Percent (%)	Count (N)	Percent (%)
<b>Home Language</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
English	384	63.7	474	64.7	858	64.2
Spanish	49	8.1	53	7.2	102	7.6
Multiple Languages	122	20.2	173	23.6	295	22.1
Other	4	.7	3	0.4	7	0.5
Missing	44	7.3	30	4.1	74	5.5
<b>“Single Parent” Household?</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
Yes	283	46.9	344	46.9	627	46.9
No	270	44.8	350	47.7	620	46.4
Missing	50	8.3	39	5.3	89	6.7
<b>Program Implementation Location</b>	<b>603</b>	<b>100%</b>	<b>733</b>	<b>100%</b>	<b>1336</b>	<b>100%</b>
<b>Detention</b>	<b>316</b>	<b>52.4</b>	<b>381</b>	<b>52.0</b>	<b>697</b>	<b>52.2</b>
Unit E-1	-	-	15	2.0	15	1.1
Unit E-2	108	17.9	113	15.4	221	16.5
Unit E-3/E-7	123	20.4	142	19.4	265	19.8
Unit E-5	85	14.1	105	14.3	190	14.2
SMYC	-	-	6	0.8	6	0.4
<b>Probation</b>	<b>244</b>	<b>40.5</b>	<b>310</b>	<b>42.3</b>	<b>554</b>	<b>41.5</b>
Martin Luther King Jr.	76	12.6	93	12.7	169	12.6
Stewart	71	11.8	85	11.6	156	11.7
Charleston	57	9.5	91	12.4	148	11.1
Flamingo/SNHD ELV	40	6.6	41	5.6	81	6.1
<b>Foster Care (SAFY)</b>	<b>43</b>	<b>7.1</b>	<b>29</b>	<b>4.0</b>	<b>72</b>	<b>5.4</b>
<b>City of Las Vegas</b>	<b>-</b>	<b>-</b>	<b>13</b>	<b>1.8</b>	<b>13</b>	<b>1.0</b>
<i>Note. Demographic information only provided for those that completed the course (N=1336). The total number of enrolled participants was 1617.</i>						

## Appendix B: References

- Borawski, E.A., Trapl, E.S., Adams-Tufts, K., Hayman, L.L., Goodwin, M.A., & Lovegreen, L.D. (2009). *Perspectives on Sexual and Reproductive Health*, 41, 12-22.
- Bryan, A.D., Schmiege, S.J., & Broaddus, M.R. (2009). HIV risk reduction among detained adolescents: a randomized, controlled trial. *Pediatrics*, 1181-1186.
- Jemmott, J.B., Jemmott, L.S., & Fong, G.T. (1992). Reductions in HIV risk-associated sexual behaviors among black male adolescents: Effects of an AIDS prevention intervention. *American Journal of Public Health*, 82, 372-377.
- Jemmott, J.B., Jemmott, L.S., & Fong, G.T. (1998). Abstinence and safer sex HIV risk-reduction intervention for African American adolescents: A randomized controlled trial. *JAMA*, 19, 1529- 1536.
- Jemmott, J.B., Jemmott, L.S., Fong, G.T., & Morales, K.H. (2010). Effectiveness of an HIV/STD risk-reduction intervention for adolescents when implemented by community-based organizations: A cluster-randomized controlled trial. *American Journal of Public Health*, 100, 720-725.
- Magura, S., Kang, S.Y., & Shapiro, J.L. (1994). Outcomes of intensive AIDS education for male adolescent drug users in jail. *Journal of Adolescent Health*, 15, 547-563.
- McGuinness, T.M., Mason, M., Tolbert, G., & DeFountaine, C. (2002). Becoming responsible teens: Promoting the health of adolescents in foster care.
- Morris, L.A., Ulmer, C., & Chimnani, J. (2003). A role for community healthcorp members in youth HIV/AIDS prevention education. *Journal of School Health*, 73, 138-141.
- Office of Adolescent Health. Teen Pregnancy Prevention Programs for Replication: 28 Effective Programs. <http://www.hhs.gov/ash/oah/oah-initiatives/tpp/programs-v1.html>
- Salihu, H.M., August, E.M., Jeffers, D.F., Mbah, A.K., Alio, A.P., & Berry, E. (2011). Effectiveness of a federal health start program in reducing primary and repeat teen pregnancies: Our experiences over the decade. *Journal of Pediatric and Adolescent Gynecology*, 24, 153-160.
- Soule, P. P. Nevada Department of Education, (2011). *Nevada youth risk behavior survey report*. Carson City, NV: Retrieved from <http://nde.doe.nv.gov/YRBS.htm>
- Southern Nevada Health District. Statistics, Surveillance & Reports: Clark County Disease Statistics, 2010 Monthly Disease Rates, Annual Rates and Totals. <http://www.southernnevadahealthdistrict.org/stats-reports/disease-stats-2010.php>
- Southern Nevada Health District. Statistics, Surveillance & Reports: Clark County Disease Statistics, 2011 Monthly Disease Rates, Annual Rates and Totals. <http://www.southernnevadahealthdistrict.org/stats-reports/disease-stats-2011.php>
- Weinstock, H., Berman, S., Cates, W. (2004). Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. *Perspectives on Sexual and Reproductive Health*, 36, 6-10.