



INTRODUCTION

Colorado Department of Public Health and Environment administers CHAPP, the Colorado HIV/AIDS Prevention Program, established in June 2006. In Year Four of this program, CHAPP currently funds 17 agencies across the state of Colorado to administer 23 HIV-prevention programs. Collectively, the funded programs are working towards the larger CHAPP program goals of reducing the transmission of HIV and decreasing the morbidity and mortality related to HIV/AIDS. The programs target a spectrum of affected groups and address a multitude of participant-related outcomes through curriculum-based programs, HIV and Hepatitis C testing, community events, and outreach efforts.

CHAPP Cross-site Evaluation

The six main targeted outcomes of the CHAPP programs, which are considered indicators of the larger CHAPP program goals, include: (1) Increase Early Detection of HIV; (2) Increase Personal Knowledge of HIV Status; (3) Increase Partner Disclosure of HIV Status; (4) Improve HIV-related Attitudes and Beliefs (with sub-domains of Perception of Risk and Sexual Self-Efficacy); (5) Improve HIV-related Knowledge; and (6) Decrease Number of High-risk Transmission Behaviors (Sexual Risk Behaviors and Drug Risk Behaviors).

Each of the CHAPP-funded programs addresses at least one of these outcomes in addition to other program-specific outcomes. Each program is required to work with OMNI Institute (OMNI) to assess progress towards these outcomes at both the program and the cross-site level. Throughout the evaluation, OMNI works with each grantee to build their capacity around evaluation, create a clear map (logic model) of their program, and provide appropriate data collection tools and strategies for collecting these data. As part of the logic modeling process, OMNI facilitated grantees' identification of program target populations, activities and associated outcomes. From there, OMNI created data collection tools along with plans for data collection and databases for data entry and storage.

To assess the CHAPP outcomes, OMNI identified widely used, standardized measurement tools for grantees to measure each CHAPP outcome and key demographic questions. OMNI also identified additional, optional demographic and outcome measures to aid agencies in evaluating their programs. Relevant measures were identified for each program component and incorporated into data collection instruments. Table 1, on page 4 of this report, shows the breakdown by program type of the most frequently assessed outcomes.

Each grantee and program was matched with a member of OMNI's evaluation team who provided technical assistance (TA) to address questions or needs. Additional OMNI staff worked with the TAs in developing evaluation materials for grantees, such as surveys, codebooks, and databases.

Year Four

(July 1, 2010—June 30, 2011)

Evaluation Activities:

- Partnering with Grantees and Building their Evaluation Capacity
- Revising Program Logic Models
- Developing or Updating Program Data Collection Tools and Plans
- Updating Data Entry & Storage Systems
- Providing Ongoing Technical Assistance and Training
- Providing Data Analysis and Reporting at the Program and Cross-Site Levels
- Working Collaboratively with CDPHE
- Piloting Community Based Participatory Action Research and Program Fidelity Monitoring

CHAPP: Year -End Data

In addition to grantees being responsible for collecting data using the tools OMNI developed for each of their program components, they were also responsible for entering their data into the OMNI-created storage systems (or their own system) and submitting that data to OMNI quarterly (October and December 2010, March and June 2011). Following the December and June data submissions, the data were merged into aggregate files, cleaned and then analyzed at both the program and the aggregate level; this report reflects the aggregate-level data analyzed after the June submission. For each level of analysis, the data were delineated into adult program data, youth program data, and outreach data (including peer-to-peer outreach, resource distribution, community events, and testing). Across the 23 programs, year-end data were submitted for 25 adult program components, 6 youth program components, and 31 outreach efforts. This report presents key aggregate demographic and outcome findings, followed by a summary of the results. The demographic data from the carryover period (data collected and entered between July 1 and approximately October 1, 2010) are also included in this report.

For all graphs in this report, an asterisk (*) indicates a statistically significant difference of $p < .05$.

DEMOGRAPHICS

Figures 1 through 4 display the age, gender, race and ethnicity demographics of participants involved in CHAPP programming by program type. About two-thirds (67.6%) of all participants were between the ages of 19 and 44. Across program modality, about two-thirds (65%) were male. About one quarter (22.2%) of participants identified their ethnicity as Hispanic or Latino. More than half (58.4%) of participants identified as White, and many identified as Black or African-American. Overall, nearly 12,700 people were reached through CHAPP programming during the 2010-11 fiscal year.

Figure 1: Age by Program Type

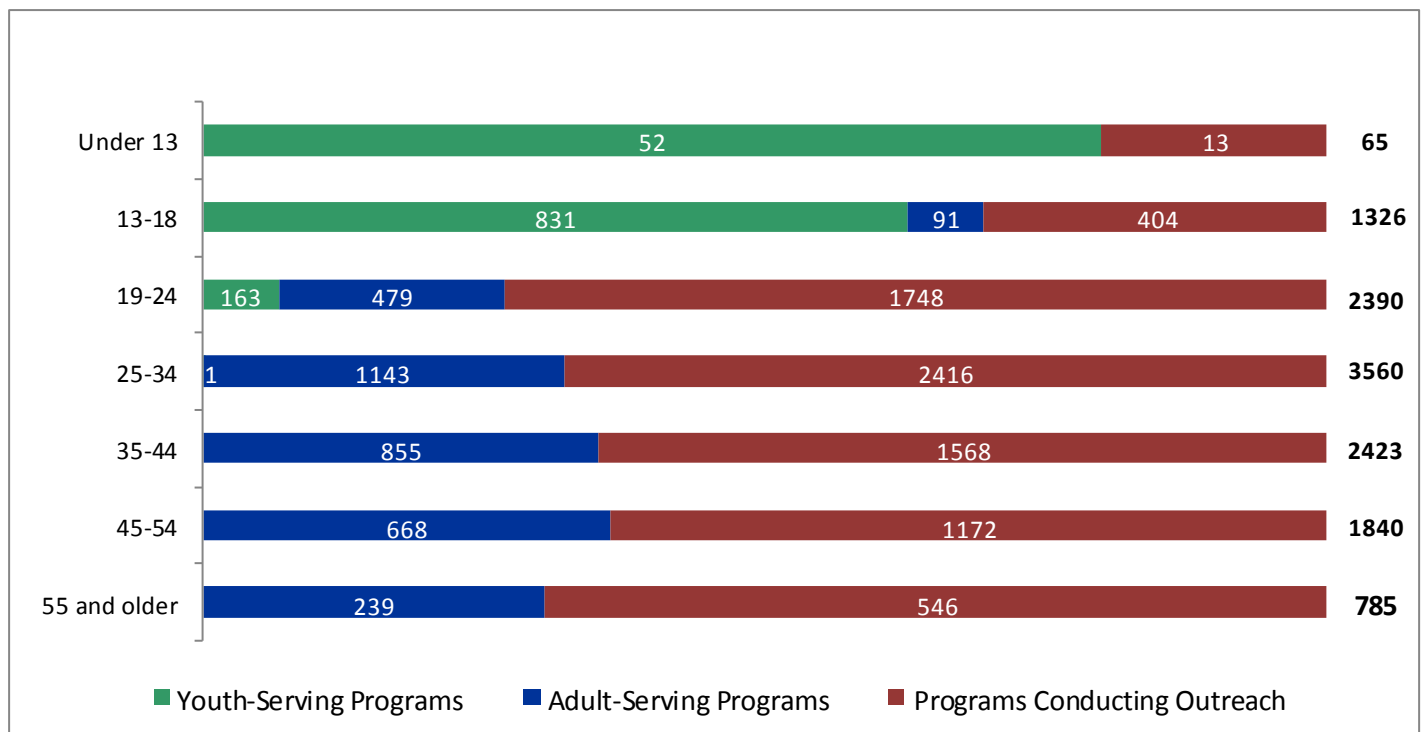


Figure 2: Gender by Program Type

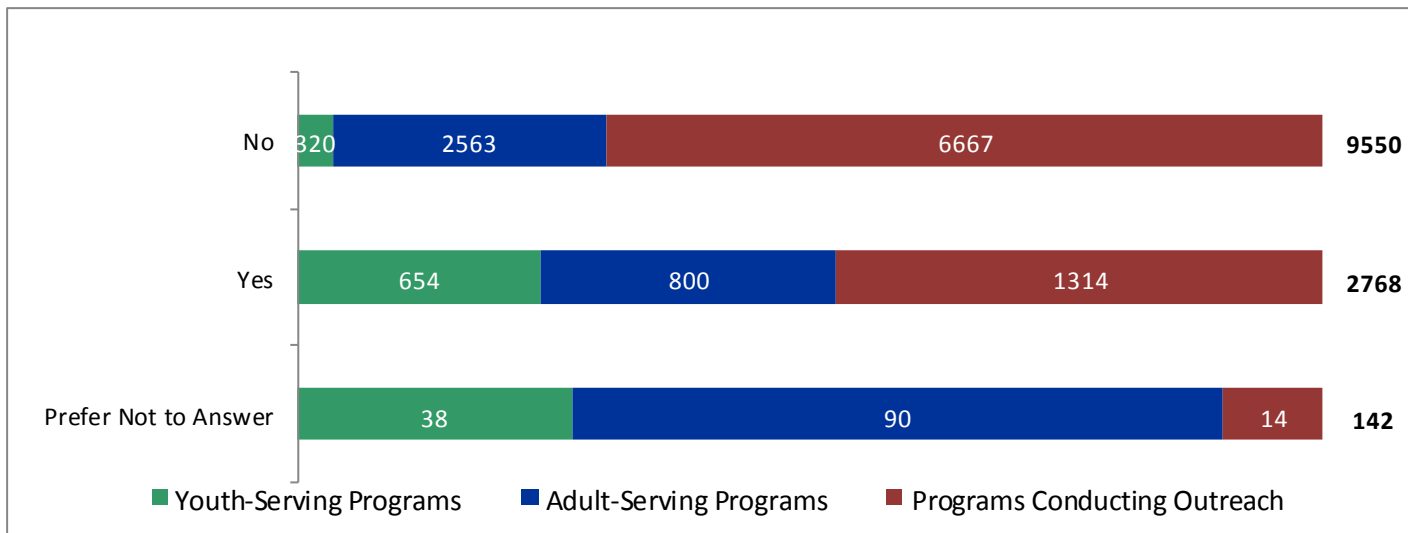
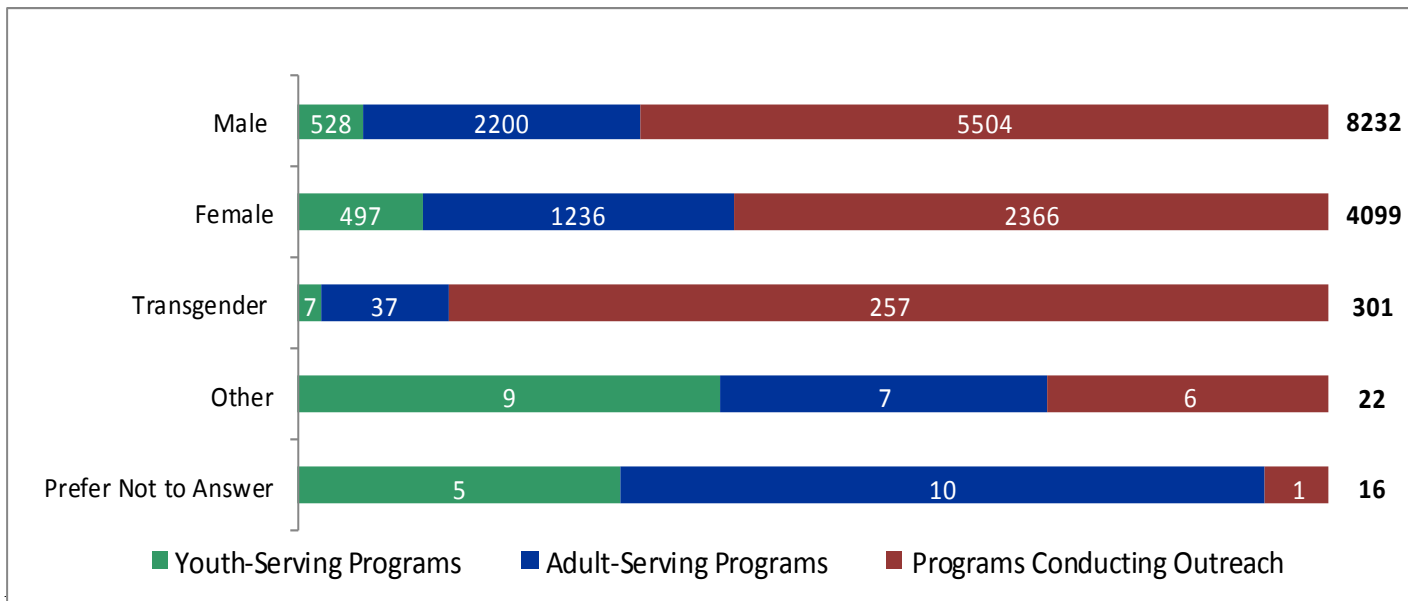
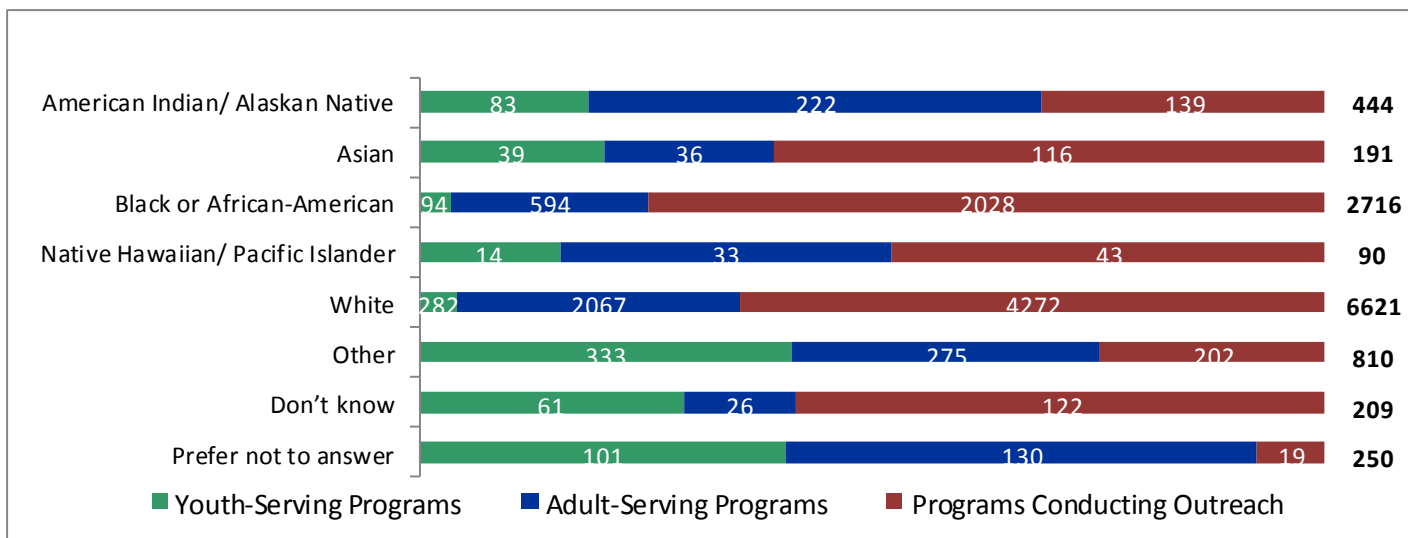


Figure 4: Race by Program Type (Participants & POLs were able to select more than one category)



OUTCOMES

Outcome data were analyzed by adult programs, youth programs and outreach efforts, with outreach split between peer-to-peer outreach, community events and/or testing (HIV) and solely resource distribution. Although the aggregated data were analyzed for all CHAPP outcomes, only outcomes assessed by a sufficient number of programs and with a sufficient amount of data are presented in this report. Programs serving adults collected data on the largest number of CHAPP outcomes; therefore, matched data from those programs make up the majority of the analyses reported.

Table 1: Number of Programs Assessing each Presented Outcome

	HIV-Related Attitudes and Beliefs		HIV-Related Knowledge	Personal Knowledge of HIV Status
	Perception of Risk	Sexual Self-Efficacy		
Adult	7	6	11	8
Youth	3	3	4	0

Improve HIV-related Attitudes and Beliefs

Seven adult programs assessed Perception of Risk and six assessed Sexual Self-Efficacy as domains of the outcome Improve HIV-related Attitudes and Beliefs. Each domain was measured by several items comprising a scale; the scale scores (mean response across items) at pre (before program) and post (after program) are presented in Figures 5 & 6. Unexpectedly, perceived risk of contracting HIV due to risky sexual or substance use behaviors significantly decreased. Scores on the sexual self-efficacy scales did not significantly change, indicating no change in participants’ confidence in asserting safe sexual practices with either a casual or primary partner. However, it is important to note that scores on all three measures were high at pre-test and post-test.

Figure 5: Sexual Self-Efficacy

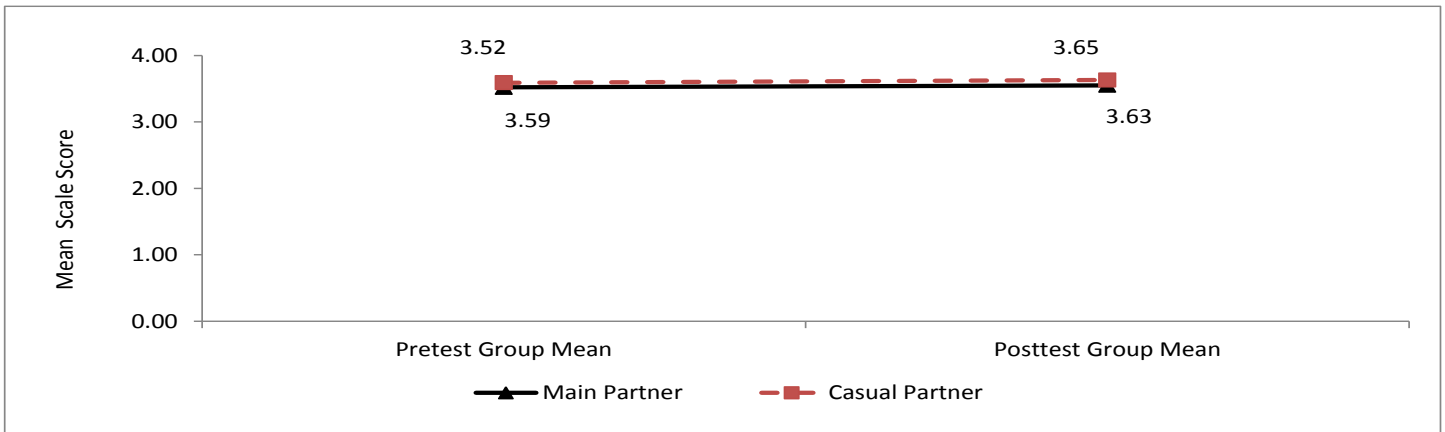
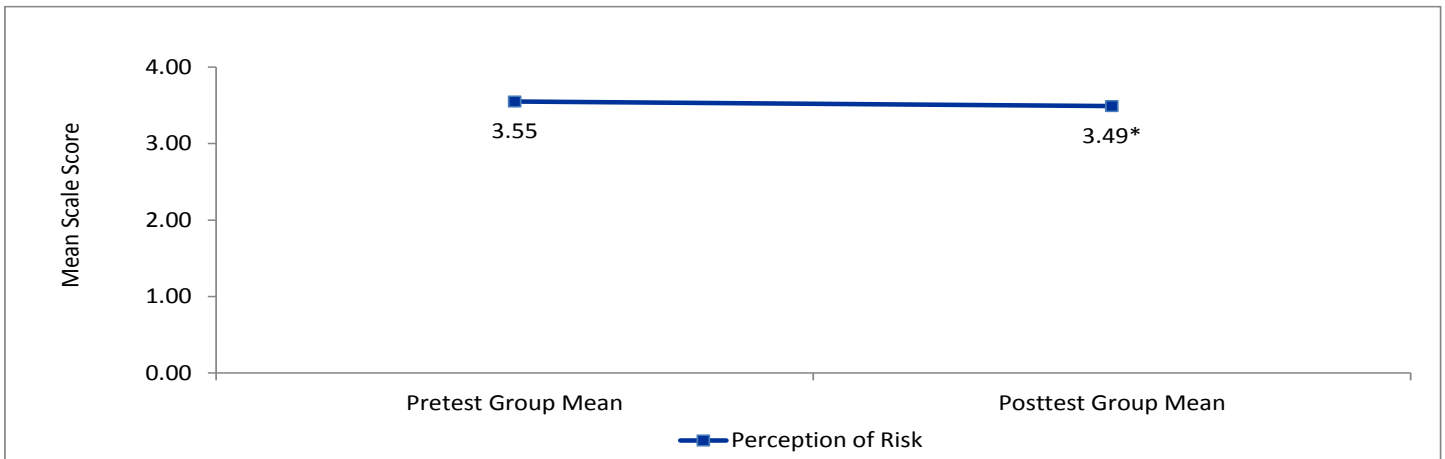


Figure 6: Perception of Risk



The perception of risk scale was significantly modified for the 2010-11 evaluation year to include items that were expected to be perceived as less risky than other items. Therefore, additional analyses were conducted on each of the scale items to see if the average risk level did vary by item. As shown in Table 3, perception of risk increased for some items, and decreased for others; all changes between pre-test and post-test were statistically significant (high scores = higher risk perception). The highest level of perceived risk, on average, was associated with sharing dirty needles with someone whose HIV status is unknown. The lowest average risk was associated with having protected sex with a partner of unknown HIV status. At post-test, the perceived risk of unprotected anal sex was significantly higher than the perceived risk of unprotected oral sex (means = 3.95 vs. 2.41, $p < .01$). The average perceived risk at post-test for having unprotected sex under the influence of drugs or alcohol was significantly higher for sex with a casual partner than it was for sex with a primary partner (means = 3.95 vs. 3.15, $p = .001$). These analyses suggest that participants were thinking critically about each item and assessing risk in a manner consistent with a harm reduction approach.

Table 3: Perception of Risk Pre-test and Post-test Mean Scores

Perception of Risk Item	Pre-test Mean Score	Post-test Mean Score
Oral sex without a condom or dental dam with a partner whose HIV status is unknown	3.18	2.41
Vaginal or anal sex without a condom and both partners are HIV positive	3.63	3.90
Unprotected receptive anal sex with a partner whose HIV status is unknown	3.81	3.95
Share dirty needles with someone whose HIV status is unknown	3.84	3.95
Vaginal or anal sex in exchange for money or drugs	3.72	3.81
Use a condom during vaginal or anal sex with someone whose HIV status is unknown?	2.71	2.24
Unprotected vaginal or anal sex with a casual partner while under the influence of alcohol or drugs	3.69	3.95
Unprotected vaginal or anal sex with a primary (main) partner while under the influence of alcohol or drugs	3.52	3.15
Unprotected vaginal or anal sex with a main partner and neither person knows their HIV status	3.42	3.86
Unprotected vaginal or anal sex with multiple partners of unknown status	3.77	3.97
Unprotected vaginal or anal sex with someone who is being treated for HIV and has an undetectable viral load	3.76	3.95
Unprotected vaginal or anal sex with someone who injects drugs and whose HIV status is negative	3.63	2.79

Improve HIV-Related Knowledge

HIV-related knowledge was assessed by seven adult programs and four of the six youth programs, using 10 statements (11 on the youth measure) to which participants responded “true,” “false,” or “don’t know.” Responses of “don’t know” were counted as incorrect and the remaining responses were coded as either correct or incorrect, depending on the question. For participants who responded to at least 90% of the items, a mean knowledge score was calculated for pre and post data. Data from participants who responded “don’t know” to all items at either pre- or post-test were not analyzed. See Figures 7 and 8 for adult and youth results, respectively. Although pre-program knowledge was relatively high for adult programs, there was still a statistically significant increase in the mean score. The mean knowledge score for youth also significantly increased from pre to post.

Figure 7: Adult HIV-Related Knowledge

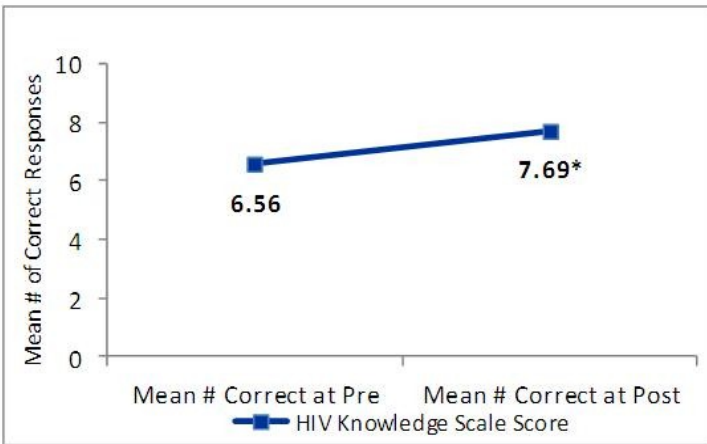
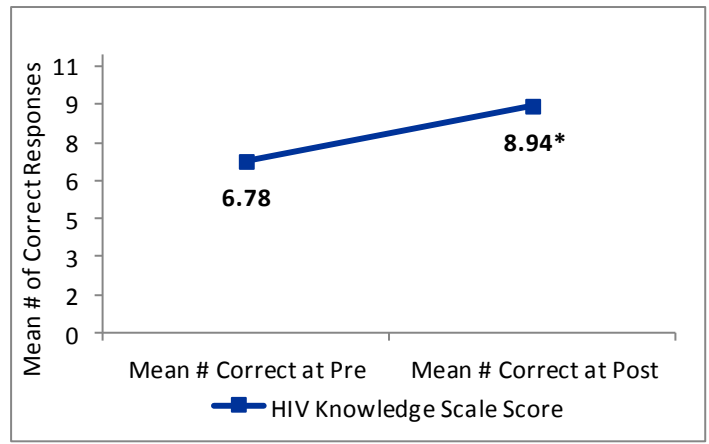


Figure 8: Youth HIV-Related Knowledge



Additional analyses were conducted to determine if there were differences in amount of knowledge increase across different age categories for adult and youth (shown in Figures 9 and 10, respectively). Although mean knowledge scores were relatively high at pre-test, scores increased significantly for each age category among adults and youth.

Figure 9: HIV-Related Knowledge Increase by Age: Adult**

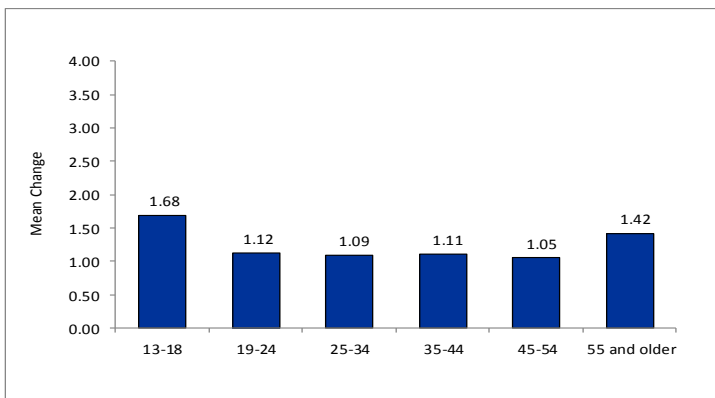
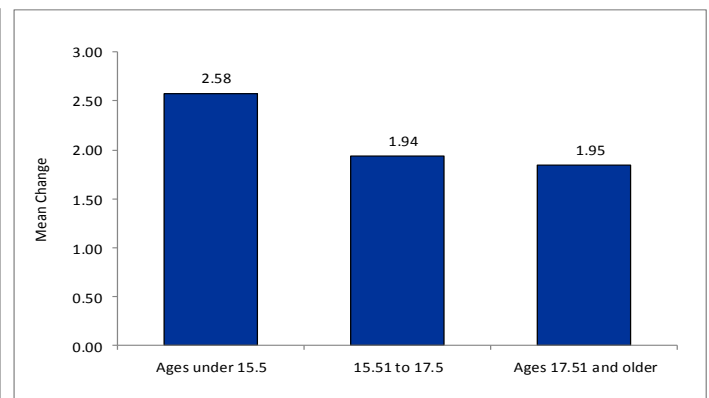


Figure 10: HIV-Related Knowledge Increase by Age: Youth**



Increase Personal Knowledge of HIV Status

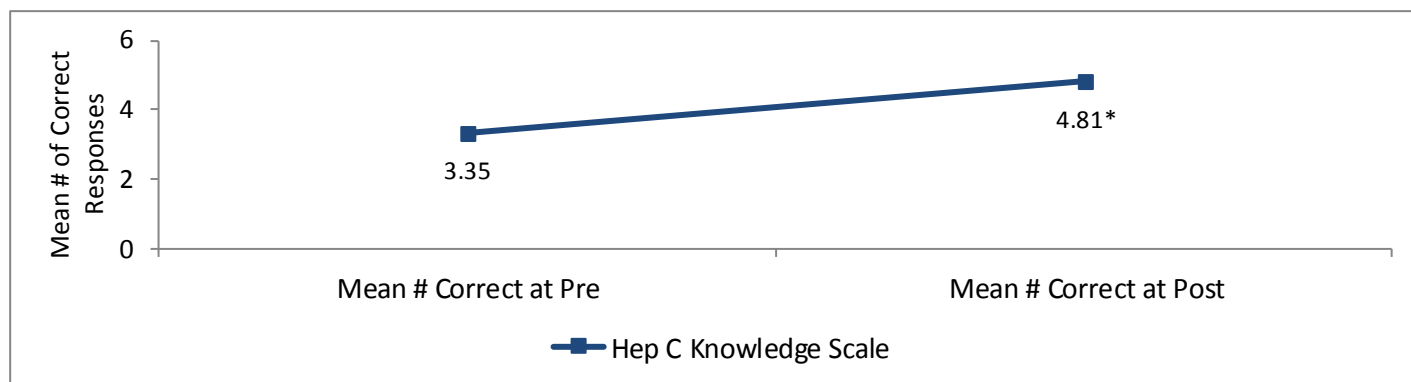
Eight adult programs assessed the outcome Increase Personal Knowledge of HIV Status. Four of these programs merely assessed prior testing history, whereas the other four assessed program impact by measuring change in testing. Among the four programs that either offered testing or administered the post-test on a different day than the pre-test, 46% of participants reported having been tested at pre-test; this proportion increased significantly to 92.9% by post-test. Across all eight programs, 71.7% of participants had been tested prior to the pre-test.

**Note: Adult programs served some participants under age 19, and youth programs served some participants over age 18.

Improve Knowledge of Hepatitis C

Similar to the HIV Knowledge CHAPP outcome, a six-item scale was used to measure knowledge of Hepatitis C (basic facts, transmission, symptoms, etc.). As with the HIV knowledge scale, response options included “true,” “false,” and “don’t know”; data were not analyzed for participants who responded “don’t know” to all items at either pre or post-test. Change in Hepatitis C knowledge was assessed for nearly 1,700 participants in three different adult programs. Among these participants, Hepatitis C knowledge significantly increased between pre- and post-test, $p < .001$; see Figure 11.

Figure 11: Adult Hepatitis C Related Knowledge



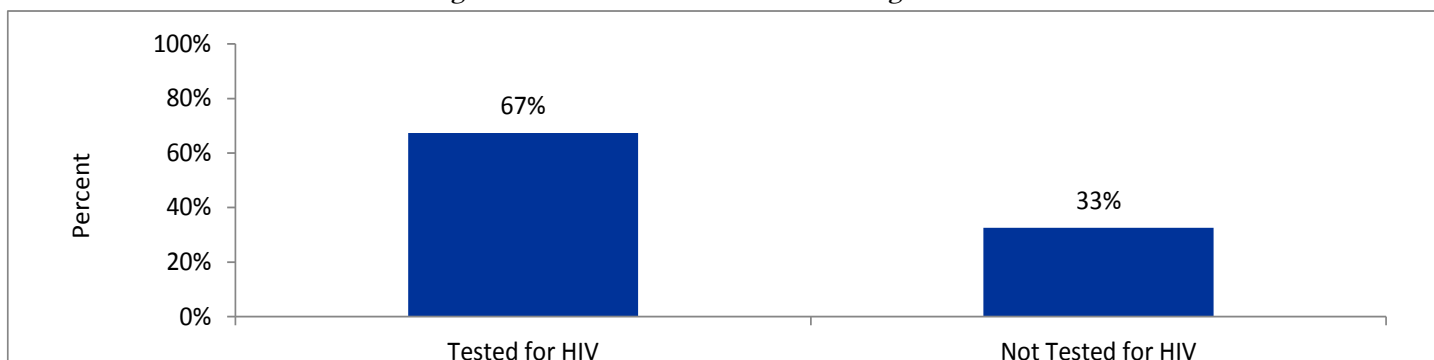
Improve Personal Knowledge of Hepatitis C Status

Two adult programs assessed change in Hepatitis C testing. Analyses of data from these programs revealed that Hepatitis C testing significantly increased from pre-test to post-test. At pre-test, only 8.9% of participants enrolled in these programs reported that they had been tested. By post-test, that proportion had increased to 84.2% among the 101 participants who completed both surveys.

Outreach Information

Data collected by outreach programs included HIV risk-related experiences, HIV test history, and resources distributed. About 2/3 (67.4%) of people served through outreach reported having been tested for HIV (see Fig. 12). Additional analyses examined tested status by age and ethnicity for the testing outreach programs. Results indicated that 13-18 year olds were significantly less likely to have been tested than other age groups (see Fig. 14) and 19-24 year olds were significantly less likely to have been tested than were participants older than age 25. Participants identifying as Hispanic or Latino were significantly less likely than non-Hispanics/Latinos to report having been tested (see Fig. 15). As displayed in Figure 13, the most common known risky experience reported by outreach participants was having multiple sexual partners. Figure 16 displays the total number of each resource that was distributed in the past year. Male condoms were the most widely distributed resource, followed by lubricant.

Figure 12: HIV Test Status - HIV Testing Outreach



RESULTS

Figure 13: Risk Experiences of People Served by Outreach

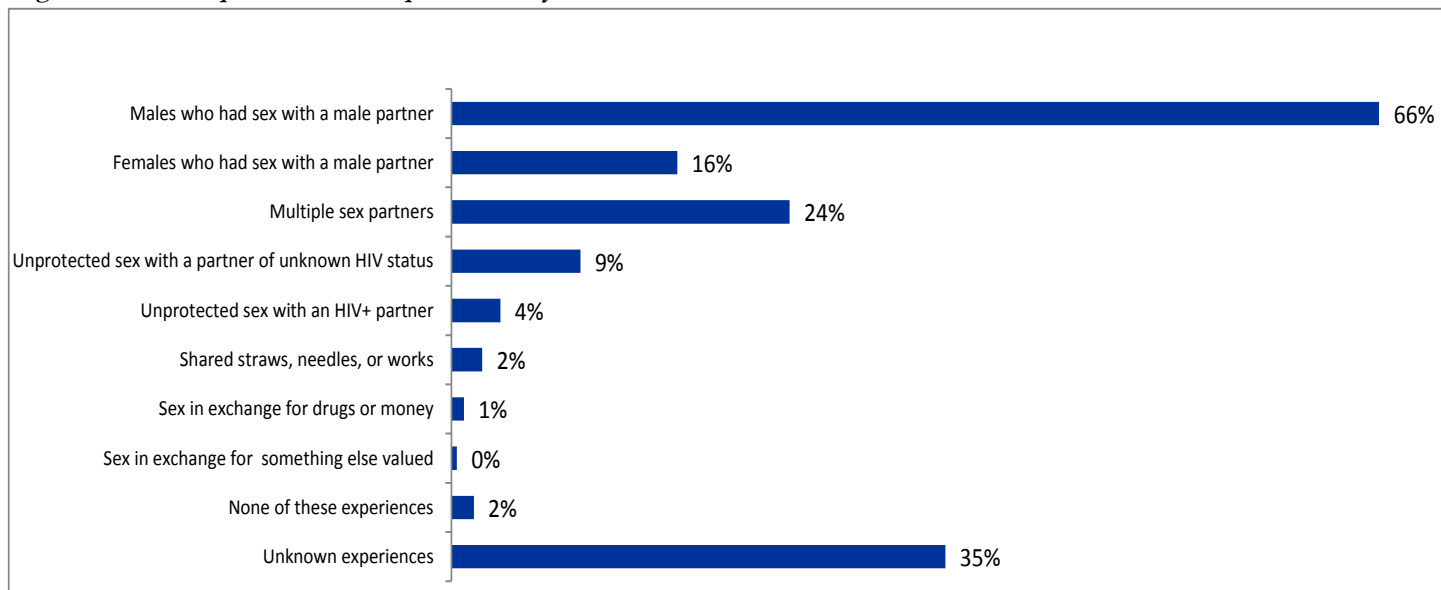
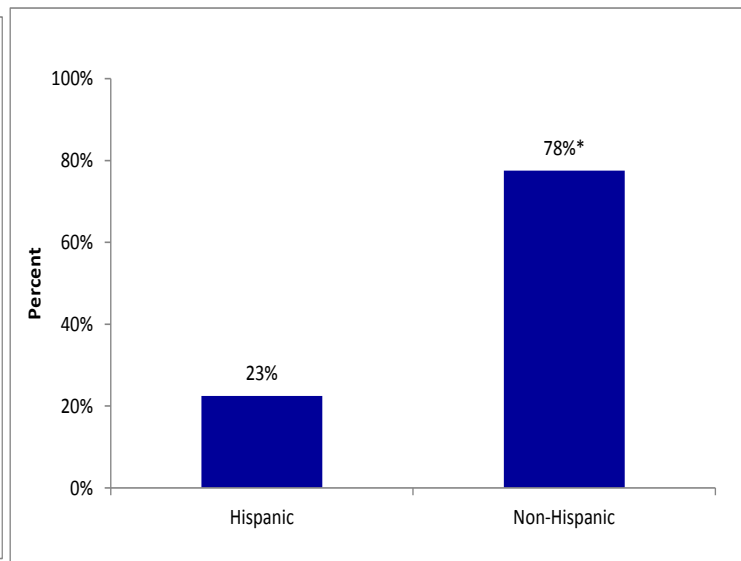
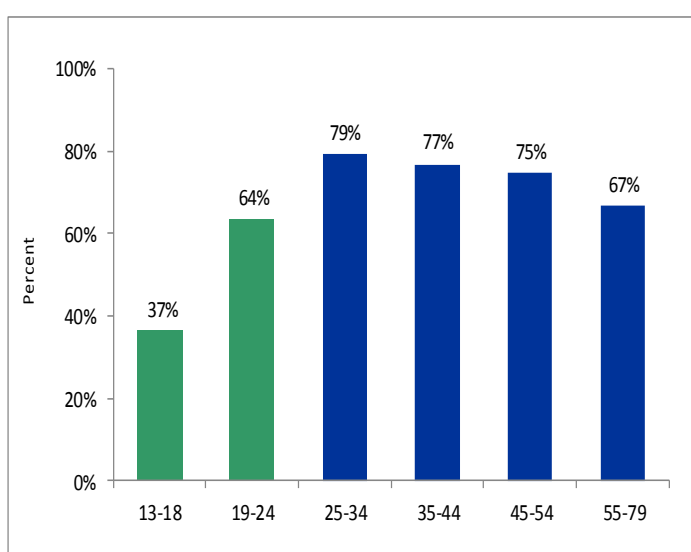


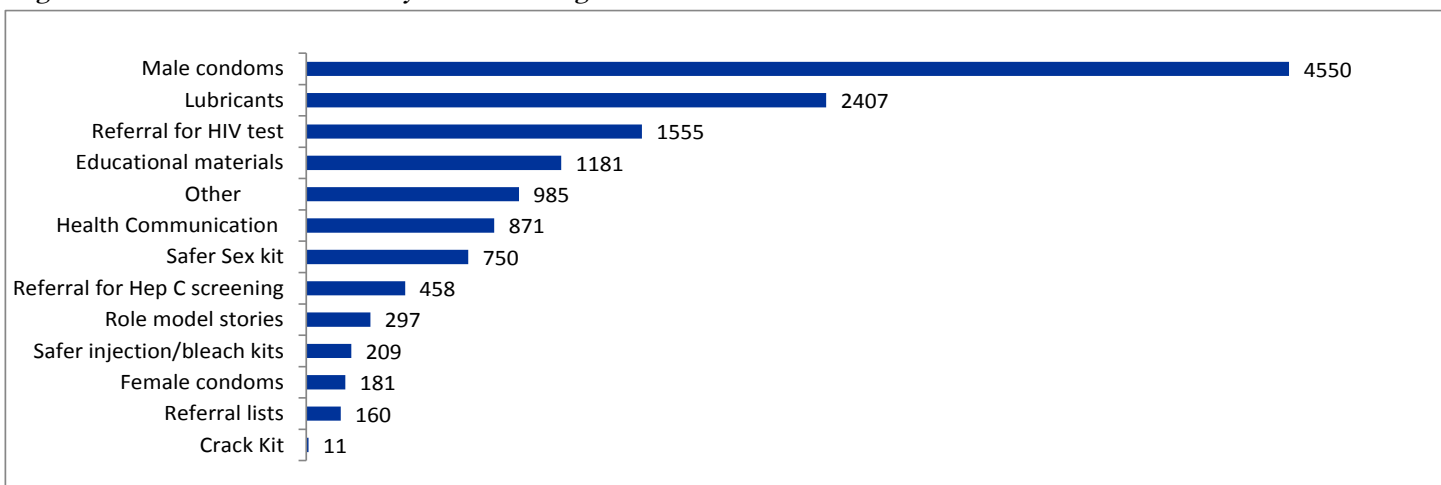
Figure 14*: Tested for HIV by Age Group - HIV Testing Outreach

Figure 15: Tested for HIV by Ethnicity - HIV Testing Outreach



*Note: The green bars in Figure 14 are statistically significantly different than the blue bars.

Figure 16: Resources Distributed by Outreach Programs



For Year Four of the CHAPP evaluation, we were interested in examining, to the extent possible, whether outcomes differed as a function of program features. OMNI evaluators used information about each funded program to further categorize the programs beyond adult, youth, and outreach programming.

Three of the new program feature categories are presented in Table 3 below. Number of sessions refers to how many sessions participants are expected or strongly encouraged to attend. Program facilitator training was categorized as either none, informal (use of DVDs or other materials, but no one has been formally trained), or formal (including a train-the-trainer model). Comprehensive curricula are those that include at least two of the following education components: HIV 101, Hepatitis C 101, and STI education. As shown in Table 3, most adult programs consisted of one session whereas most youth programs included multiple sessions. More adult programs had comprehensive curricula than did youth programs.

Table 3: Program Features

	Number of Sessions		Facilitator Training			Curriculum Comprehensiveness	
	One	Two or More	None	Informal	Formal	Not Comprehensive	Comprehensive
Adult programs	64%	36%	33%	33%	33%	27%	73%
Youth programs	25%	75%	40%	20%	40%	50%	50%

Of all the CHAPP outcome areas, HIV knowledge was assessed by the largest number of youth and adult programs. Therefore analyses for the new program categories were conducted looking at change in HIV knowledge. Because the categories were related to each other (e.g., programs with more sessions also had staff that had received more training), each analysis statistically controlled for the other program categories.

The increase in HIV knowledge was significantly greater among participants who had attended an adult program staffed by facilitators with formal training than it was among participants whose program facilitators had informal training. The sample size for the “no training” group was too small to analyze, and the difference was not significant among youth program participants. As shown in Figure 17, among adult programs, the increase in HIV knowledge was larger among participants who attended programs that offered more than one session. Among youth programs, the analysis of number of sessions was not statistically significant. Change in HIV knowledge differed significantly as a function of curriculum comprehensiveness, as shown in Figure 18. For adult program participants, knowledge gain was greater within a more comprehensive program; the reverse was true among youth program participants.

Figure 17: HIV Knowledge Change by Number of Sessions

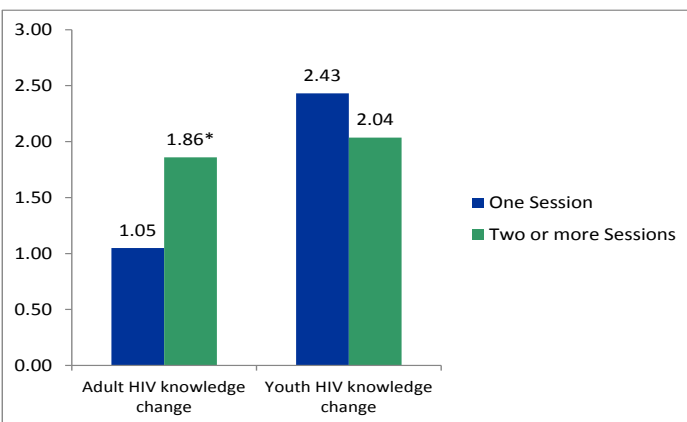
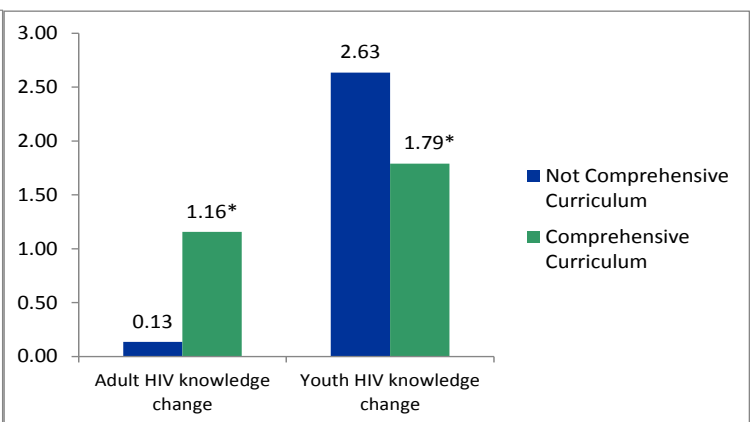


Figure 18: HIV Knowledge Change by Curriculum Comprehensiveness



PROGRAM FEATURES AND PROCESS, CONTINUED

For several reasons, caution should be used in interpreting the program features results. The information used to categorize each program was obtained by OMNI during site visits with the grantees. Although the session information categories are very straightforward, the curriculum comprehensiveness dimension may not accurately reflect grantees' programming. Grantees told OMNI if they offer "HIV 101" or other types of education, but program curricula were not directly observed or reviewed to verify this information or to determine the level of comprehensiveness offered by each program. Likewise, grantees were asked about facilitator training at their organization, and different agencies may have interpreted the options differently. It is also important to note that the number of participants served by each program varied greatly. For example, 65% of all adult program participants participated in the same program. Characteristics of programs that served large numbers of clients may account for a disproportionately large amount of the results, rather than each category contributing equally.

The program features results presented in this report should be considered preliminary. It is expected that analyzing outcome data by program features will be a larger component of the 2011-12 evaluation. By the end of Year Five, there will be more outcome data overall, which may allow for analysis of more outcome areas than just HIV knowledge. In addition, as multiple programs with various features accumulate data, the features of any one program or feature type will be less likely to dominate the results.

KEY FACTS & RESULTS

- During the logic-modeling process, each funded program identified its alignment with the CHAPP cross-site evaluation, through programming or outreach efforts. At least one CHAPP outcome was measured by each funded program.
- Data for nearly 12,700 people were submitted and analyzed across programs. Most of these individuals were White and male.
- The majority of adult program (71.7%) and outreach participants (67.4%) who were asked about their HIV testing history had been tested.
- Some adult program participants had the opportunity to be tested between pre-test and post-test. Among these participants, the proportion who had been tested significantly increased from 46% to 93%.
- Most CHAPP programs intended to increase HIV-related knowledge. On average, they were successful; HIV knowledge significantly increased among participants in adult and youth programs.
- Perception of risk significantly decreased among adults. An item-by-item analyses revealed that risk perceptions increased for some items and decreased for others, consistent with a harm reduction approach.
- Sexual self-efficacy with either a main or casual partner did not increase significantly, but was high before and after programming.
- Unprotected anal sex was seen as more risky in contracting HIV than unprotected oral sex. Unprotected sex under the influence of alcohol or drugs was considered to be more risky with a casual partner than with a primary partner.
- Among outreach participants, Hispanics and those under age 19 were less likely to have been tested for HIV than non-Hispanics and older participants.
- Although not presented in this report due to very small sample sizes, among adult program participants, partner disclosure and using protection during sex increased and substance use decreased between pre- and post-test.
- Overall, there was demonstrated progress at the aggregate level across program modalities towards most CHAPP outcomes. In addition, many programs demonstrated reach to targeted populations as well as movement toward achieving CHAPP and program-specific outcomes.

Highlighted Findings

- ◆ HIV-related knowledge increased for youth program and adult program participants from pre-program to post.
- ◆ Most adult program and outreach participants asked about their HIV testing history had been tested. Testing significantly increased among adult participants.
- ◆ Adult program participants distinguished between higher and lower risk activities in assessing the risk of contracting HIV.
- ◆ HIV knowledge increased more among adult participants who attended a program conducted by a trained facilitator than among those who attended a session led by an informally trained facilitator.

The fourth year of the cross-site evaluation benefitted greatly from things learned during the first three years of the project. As in Year Three, trainings were interactive and provided in a group setting. OMNI provided TA to grantees using numerous methods and spanning numerous topics (see Appendix A: TA Addendum). Based on the success of the first annual CHAPP Grantee Meeting in 2009, a second meeting was held in August of 2010 to kick off Year Four. At this meeting, CDPHE and OMNI worked together to provide additional context for the grantees on the cross-site evaluation, including presenting the newly-developed cross-site logic model. OMNI presented aggregate evaluation results from Year Three, and CDPHE facilitated grantee presentations about their programs. Throughout the year, agencies provided a lot of valuable feedback regarding the evaluation and the relationship of the targeted outcomes to the communities and clients they serve.

Three main changes were implemented during Year Four, resulting from grantee interest, OMNI's initiative, and CDPHE's support: significant measure revision, Community Based Participatory Research (CBPR), and a preliminary fidelity assessment. Several measures were revised, for a variety of reasons: to be more challenging (HIV Knowledge), to reflect a harm reduction approach (Perception of Risk), to better capture client behavior (Sexual Self-Efficacy), and to be more culturally competent (Experiences). The CBPR and fidelity components are described in Appendix B: Evaluation Enhancement Addendum.

Overall, the numerous achievements of the 2010-11 fiscal year were due to collaborative effort between the grantees, OMNI, and CDPHE. Lessons learned throughout the first four years of the CHAPP evaluation will be utilized in 2011-12 to further understand the impact and benefit of the many programs and processes used to provide HIV prevention in Colorado.

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