



CULTURALLY COMPETENT SUBSTANCE ABUSE TREATMENT PROJECT

FINAL REPORT

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Introduction

On July 1, 2007, The Iowa Department of Public Health (IDPH) received an appropriation from the general fund of the Iowa Legislature (House File 909a) to provide culturally competent substance abuse treatment. Through a competitive process, the Iowa Department of Public Health awarded three licensed substance abuse treatment providers funds to implement culturally competent substance abuse treatment pilot projects. The pilot projects were implemented in November 2007 and continued through June 30, 2008. These projects were awarded funding to provide a second year of services from July 1, 2008 through June 30, 2009, and a third year of services beginning July 1, 2009.

The three agencies providing services under the Culturally Competent Substance Abuse Treatment Project are: Center for Alcohol and Drug Services (CADS); Employee and Family Resources (EFR), which provides case management services and subcontracts with Urban Dreams to provide treatment services; and Jackson Recovery Centers.

The objectives of the Culturally Competent Substance Abuse Treatment Project (CCTP) are to:

- increase substance abuse treatment options for racially and ethnically diverse populations;
- provide best practices or tried treatment methods and document program outcomes so Iowa treatment providers may adopt culturally competent treatment methods;
- identify barriers to participants accessing treatment and work with community wrap-around services to assist clients with barriers in order to participate in and complete treatment services;
- maintain contact and support services with clients for six months;
- document and provide program outcomes by working with the Iowa Consortium for Substance Abuse Research and Evaluation;
- disseminate information about the project including, but not limited to, programming, lessons learned, community involvement, and outcomes as requested; and
- train substance abuse treatment staff to work more effectively with the target population.

In early, 2010, state budget cuts necessitated the suspension of the evaluation component of the Culturally Competent Substance Abuse Treatment Project. This evaluation report provides outcomes data for the first half of the 2009-2010 project year: July 1 through December 31, 2009, and an outcomes analysis comparing pilot and 2009 project year clients to a similar group of minority clients not in the Culturally Competent Treatment Project. Information on the processes, methods, and instruments used in the evaluation is available in the 2009 Annual Evaluation Report. Process information regarding agency activities for the 2009-2010 project year is available in the agencies' quarterly reports. Staff survey results are available through May, 2009, and may be found in the 2009 Annual Evaluation Report. Client survey results are available through November, 2009, and may be found in the 2010 First Quarter Evaluation Report.

Outcomes Evaluation

Clients Served

Screenings and Admissions

One-hundred sixty-three clients received placement screenings through the Culturally Competent Treatment Project between July 1 and December 31, 2009. One-hundred twenty-two clients were admitted to treatment. Table 1 presents Culturally Competent Treatment Project (CCTP) placement screening and admission totals by agency, based on records agencies submitted to IDPH via I-SMART/SARS. Some of these figures differ from figures reported by agencies in their quarterly reports. "New Clients Admitted to CCTP Treatment" includes only clients who were not previously admitted to CCTP. In the event that a client was admitted more than once during the reporting period, only the first admission is counted.

Table 1. Client Screenings and Admissions: July 1, 2009 – December 31, 2009

	CADS	EFR/UD	JRC	TOTAL
CCTP Placement Screenings	0 ¹	129	34	163
New Clients Admitted to CCTP Treatment	27	70	25	122
Semiannual Target for Admissions	20	30	50	100

¹CADS does not bill placement screenings to the Culturally Competent Treatment Project.

Additional Clients Served

Agencies also provide Culturally Competent Treatment Project services to some clients who are not counted as CCTP clients (i.e., clients whose treatment is paid by another source). The numbers of additional clients served during the first half of the 2009-2010 project year can be found in the agency first and second quarter reports.

Client Demographics

Demographic data are based on the one-hundred twenty-two admission records found in I-SMART/SARS for the timeframe of July 1, 2009 through December 31, 2009. Seventy-five percent (74.6%) of clients were African American, twenty-one percent (21.3%) were Hispanic or Latino, and four percent (4.1%) were coded as another race/ethnicity. Eighty-two percent (82.0%) of clients were male and eighteen percent (18.0%) were female. The median age of clients admitted to the project was thirty-two (32.0 years). The youngest was seventeen; the oldest, sixty-one.

Client Discharges

Sixty-two Culturally Competent Treatment Project (CCTP) clients were discharged from treatment between July 1 and December 31, 2009. Twenty-six of these had also been admitted during this reporting period. Of the clients who were discharged, sixty-six percent (66.1%) successfully completed treatment. Table 2 presents Culturally Competent Treatment Project (CCTP) client discharge numbers and discharge status information by agency for all clients discharged between July 1 and December 31, 2009.

Table 2. Numbers of Clients Discharged and Discharge Status: July 1, 2009 – December 31, 2009

	CADS	EFR/UD	JRC	TOTALS
Number of Clients with Successful Discharge	14	5	22	41
Number of Clients Discharged Prior to Treatment Completion	10	8	3	21
Total Number of Clients Discharged	24	13	25	62

Duration of CCTP Services for Clients Discharged in Current Project Year

The duration of services analysis uses a different starting point for each agency, due to differences in the point at which the agencies begin providing CCTP services to clients. CADS clients are admitted by staff decision into their Cultural Diversity Program after they are admitted to treatment. For CADS clients, the date the client was admitted to the Cultural Diversity Program was used as the start date. For Jackson Recovery clients, the admission to treatment date was used, as clients begin CCTP programming upon admission to treatment. For EFR/Urban Dreams clients, the placement screening date for clients admitted to CCTP treatment at Urban Dreams was used, as CCTP case management services begin at the time of the placement screening/referral to CCTP treatment. The last date of client contact with the agency was used for all agencies as the end-of-service date. Duration of services data presented in this section are based on clients discharged from the Culturally Competent Treatment Project between July 1 and December 31, 2009, for whom there was a corresponding screening, admission, or first billing date record found in I-SMART/SARS. The median length of CCTP services for clients successfully completing treatment was one-hundred ninety-two days. The median length of CCTP services for clients discharged before completing treatment was twenty-one days.

The following section presents more comprehensive treatment length of stay and survival analysis results based on clients admitted during the pilot project year and the 2009 project year.

Cultural Competency and Comparison Group Outcomes

This section includes data on a sample of clients served through the Culturally Competent Treatment Project between November 1, 2007 and June 30, 2009.

Evaluators conducted an analysis comparing outcomes for Culturally Competent Treatment Project clients (Cultural Competency group) to outcomes for minority clients in other treatment agencies in Iowa (Comparison group). For the Cultural Competency group, Evaluators selected CCTP clients who had both admission and discharge data submitted to the state. Clients were also eligible to be included without discharge data if they remained in treatment on June 30,

2009, reported their race as African American/Black, or their ethnicity as Hispanic. Clients who indicated their race as African American/Black, regardless of ethnicity, were regarded as African American/Black. Clients who indicated any other race and listed their ethnicity as any Hispanic or Latino group were regarded as Hispanic/Latino. There were too few clients (n = 5) in the other race/ethnic groupings to reliably analyze. If clients were admitted more than once into the program, only one of their admissions was randomly included. This resulted in 279 clients for analysis in the Cultural Competency group. (Note: This includes clients from both the pilot and 2009 project years, whereas the client figures in Table 1 include only clients in the 2009 project year.)

A comparison group of minority clients who were not involved with the Culturally Competent Treatment Project was drawn from the state's SARS and I-SMART systems. To improve comparability, evaluators selected those minority clients (Black or Hispanic) with an admission date between the earliest (December 18, 2006) and latest (June 23, 2009) dates found for the CCTP clients. The Comparison group was also restricted to represent the age range of Cultural Competency group clients, eighteen to sixty-three years of age. Clients admitted for detoxification services only were excluded. Methadone clients also were excluded from both groups because of their usually atypical (extremely long) lengths of stay. When clients had multiple admissions during the period, one admission was randomly selected. These criteria produced 4497 comparison client admissions. For every admission record, the relevant databases were searched for a corresponding discharge record.

Demographic and Clinical Composition

The evaluators performed analyses to compare the Cultural Competency group clients to the Comparison group on basic demographics and clinical variables. Comparisons are shown in Table 3. The ratio of African Americans to Hispanics in CCTP clients was not different from the ratio in the rest of the state during this time period. The clients were also similar in age. The two groups differed in the percentage of males and females, with relatively fewer females among the Cultural Competency group when compared to minority clients statewide.

Table 3: Basic Demographic and Clinical Composition of the Comparison and Cultural Competency Groups

	Comparison Group (n = 4,497)	Cultural Competency Group (n = 279)
Mean Age at Admission (years)	32.7 (sd = 10.4)	33.9 (sd = 10.5)
Race/Ethnicity %		
African American	64.1	60.2
Hispanic	35.9	39.8
Sex %¹		
Male	76.2	84.2
Female	23.8	15.8
Primary Substance, Admission %²		
None	< 0.1	2.2
Alcohol	49.1	50.5
Cocaine/Crack	13.9	19.9
Marijuana	30.8	25.6
Other/Miscellaneous	6.3	1.8
Referral Source %³		
Self	9.2	14.3
Health Care Provider	4.3	3.9
SA Provider	7.8	1.8
Other Individual	3.8	1.4
OWI	16.9	15.4
Criminal Justice	33.6	31.2
Civil Commitment	1.1	1.8
Other Community	2.3	25.5
Miscellaneous	20.8	4.7

¹ p < 0.003, $\chi^2 = 9.455$, df = 1.

² p < 0.0001, $\chi^2 = 86.739$, df = 4.

³ p < 0.0001, $\chi^2 = 441.461$, df = 8.

There were statistically significant differences between the groups in the primary substance reported. Many types of primary substance at admission appeared too infrequently in the Cultural Competency group to allow for a statistical comparison (e.g., heroin, opiates and synthetics, PCP, hallucinogens, methamphetamine or other stimulants, barbiturates). These substances were collapsed into the Other/Miscellaneous group. Alcohol was the most frequently cited substance, with both groups reporting alcohol as the primary substance approximately fifty percent of the time. Cocaine/Crack was more frequently reported in the Cultural Competency group than in the Comparison group. Clients in the Cultural Competency group reported Marijuana less frequently than clients in the Comparison group.

Referral source percentages also differed between Cultural Competency and Comparison groups. The referral "Other Community" was much more frequently noted in the Cultural Competency group than in the statewide Comparison group. Referral sources in the miscellaneous category (e.g., community mental health, school, employer/EAP) were

consistently more frequent in the statewide Comparison group than in the Cultural Competency group.

Discharge Status

Of the two-hundred seventy-nine Culturally Competent Treatment Project clients in this analysis group, over one third were still in treatment as of June 30, 2009. In the Comparison group, less than twenty percent were still in treatment. Discharge status was collapsed into three categories. A discharge was considered "Successful" when discharge status was coded as Completed Treatment - Treatment Plan Completed or Completed Treatment - Treatment Plan Substantially Completed. A discharge was coded "Unsuccessful" when discharge status was coded as Program Decision Due to Lack of Progress/Compliance or Client Left before completing treatment. A "Neutral" category was created that consisted of the codes: Referred Outside, Incarceration, Death, Other, and Managed Care Decision. Table 4 presents discharge status of the Comparison group and Cultural Competency group clients. The first category, "All Clients," includes clients who were discharged and clients who were still in treatment as of June 30, 2009. The second category, "Discharged Clients," includes only clients who have completed treatment.

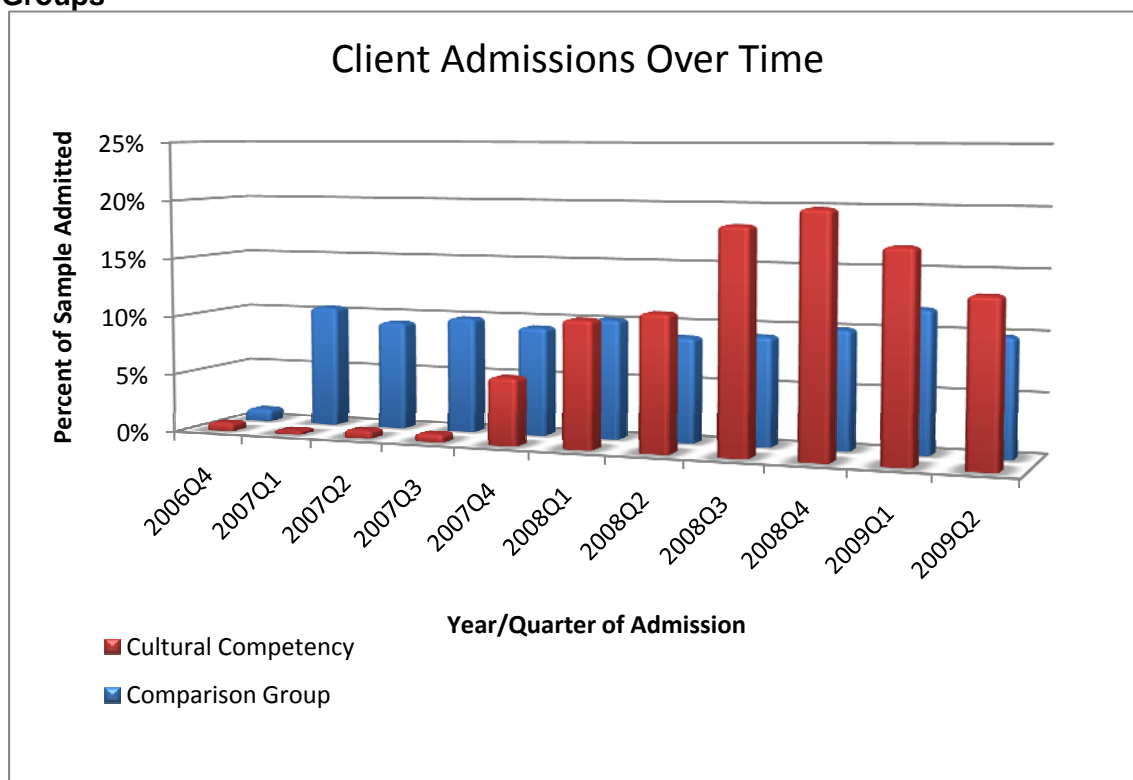
Table 4: Client Discharges - Comparison and Cultural Competency Groups

Discharge Status	Comparison Group	Cultural Competency Group
All Clients¹	(n = 4,497)	(n = 279)
Successful	46.0%	39.8%
Neutral	7.3%	7.5%
Unsuccessful	27.7%	18.3%
Still in Treatment	19.0%	34.4%
Discharged Clients	(n = 3,643)	(n = 185)
Successful	56.8%	60.3%
Neutral	9.0%	11.4%
Unsuccessful	34.2%	28.3%

¹ p < 0.0001, $\chi^2 = 42.26$, df = 3.

The Cultural Competency group had significantly more clients still in treatment when compared to the statewide Comparison group. When considering only discharged clients (removing clients still in treatment), there was no significant difference between the two groups. Successful completions occurred at approximately the same frequency for discharged clients. However, it is possible that a later follow up of these data may indicate more successful completions among the Cultural Competency group, as the programs have become more established. To complicate matters, there are significant differences in the pattern of admission dates, as shown in Figure 1. The Cultural Competency group has many more admissions later in the analysis time window (p < 0.0001, Mann-Whitney t = 10.00, df = 4774) whereas the Comparison group admissions appear more evenly distributed over the entire time period. This is likely due to lower admissions in the beginning of the Culturally Competent Treatment Project.

Figure 1: Admission Patterns for Clients in the Cultural Competency and Comparison Groups



Note: The Cultural Competency group is represented in the front row of the Figure 1 graph.

Survival Analysis

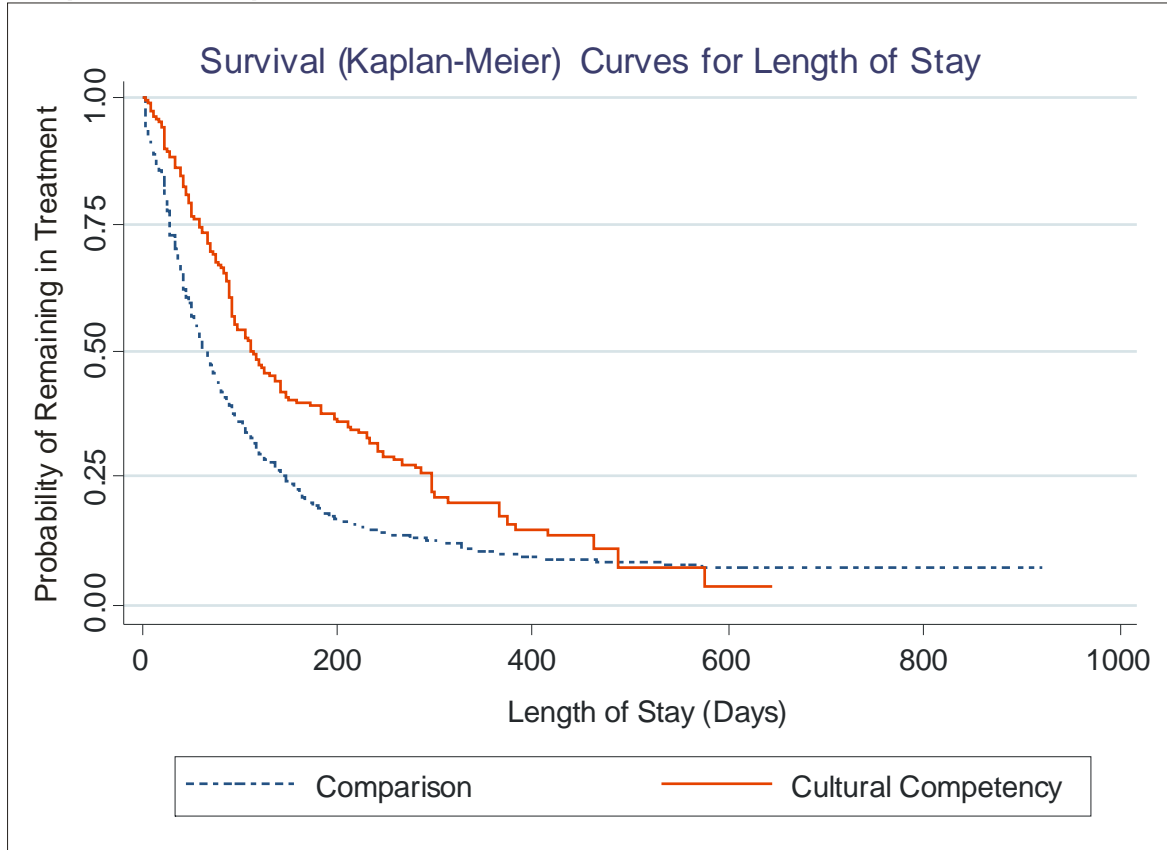
Several analyses are presented regarding length of time in treatment. These analyses use survival methods to account for the fact that some clients had not completed treatment by the analysis cut-off date, thus, clients who were discharged and clients who remained in treatment on June 30, 2009 are included in the analyses. The survival analysis also considers that the two groups are not equivalent in admission patterns. For most of the analyses, methods used make the least statistical assumptions and most conservative assessments (e.g., the log-rank test).

Clients in the Cultural Competency group stayed in treatment significantly longer than those in the statewide Comparison group. The median length of stay for clients in the Cultural Competency group was one-hundred twelve days (95% confidence interval: 96 – 139 days) while the median length of stay for clients in the Comparison group was sixty-four (95% confidence interval: 61 – 67 days). The survivor (i.e., staying in treatment) curves from the analysis are shown in Figure 2.

In Figure 2, the solid red line represents the proportion of the 279 Cultural Competency clients ending treatment over time. The dotted blue line represents the same information for the 4497 Comparison clients. The more jagged appearance of the Cultural Competency curve is a result of the much smaller number of clients in this group. The sharp drop at the end (around five-hundred days in treatment) is likely due to the duration that this program has been offered. The curve for the Cultural Competency group clearly indicates longer lengths of stay (the solid red

line is offset to the right of the dotted line) with an immediately obvious effect early in the program which becomes even more pronounced up until about one year (365 days) of treatment, where the advantage begins to taper off.

Figure 2: Length of Stay Survival Curves for Clients in the Cultural Competency and Comparison Groups



Note: Log-rank test = 42.98, df = 1, $p < 0.0001$.

To verify that this significant increase in length of stay was consistent for all clients regardless of discharge status, the survival analysis was repeated for those clients who had successful, neutral, and unsuccessful discharges from treatment. The median days in treatment are shown in Table 5 on page 9. All discharge categories showed a significantly increased length of stay for the Cultural Competency group.

Table 5. Median Days in Treatment for Clients in the Comparison and Cultural Competency Groups by Discharge Status

Days in Treatment	Comparison Group	Cultural Competency Group
Discharge Status (Median)		
Successful ¹	65.5 days	92 days
Neutral ²	30 days	73 days
Unsuccessful ³	29 days	46 days

¹Log-rank test = 10.34, df = 1, p < 0.002.

²Log-rank test = 4.07, df = 1, p < 0.05.

³Log-rank test = 5.15, df = 1, p < 0.03.

The Cultural Competency and Comparison groups were similar in that of the three categories, successful discharges occurred the most often, and unsuccessful discharges the least. The fact that the unsuccessful clients in the Cultural Competency programs remained in treatment longer than the Comparison clients is particularly impressive. The Cultural Competency programs increased the "Unsuccessful" clients' treatment exposure (length of stay) by one-and-a-half times.

To verify that the significant increase in length of stay was consistent for the Cultural Competency programs in all three agencies, evaluators repeated the survival analyses three times. Each analysis contrasted clients from a CCTP agency to the statewide Comparison group. All three individual agency program analyses showed significant increases in length of stay. Furthermore, an additional analysis compared the three agencies among themselves. The agencies did not differ from each other in length of stay. The increased length of stay of the Cultural Competency group appears to be consistent across agencies and consistently longer than the Comparison group length of stay.

The Cultural Competency group differed from the statewide Comparison group on a few demographic and clinical variables. The previous analyses (Table 3) indicated that the Cultural Competency group diverged somewhat from the Comparison group in the percentage of males, primary substance of abuse, and referral source. To assure that these differences did not artificially produce the favorable increase in length of stay, evaluators used methods to statistically control for the possible confounders (Cox proportional hazards regression). While primary substance at admission and referral source did affect the length of stay, these variables did not moderate the differences between the Cultural Competency and Comparison groups. Clients in the Cultural Competency group stayed significantly longer in treatment than those in the Comparison group once the other effects were removed (Wald $\chi^2 = 52.30$, df = 1, p < 0.0001). Thus, demographic and clinical differences in the two groups did not explain the increased length of stay seen in the Cultural Competency programs.

Summary

Based on records agencies submitted to the state I-SMART/SARS reporting system, agencies conducted one-hundred sixty-three placement screenings through the Culturally Competent Substance Abuse Treatment Project (CCTP) and admitted one-hundred twenty-two clients to substance abuse treatment between July 1 and December 31, 2009. CADS and EFR are on track to meet their annual goals; however, Jackson Recovery is below their semiannual target. Seventy-five percent of clients admitted to CCTP treatment were African American; twenty-one percent were Hispanic or Latino. Eighty-one percent of admitted clients were male. The median age of clients admitted to the project was thirty-two years.

Sixty-two Culturally Competent Treatment Project (CCTP) clients were discharged from treatment during the first half of this project year. Twenty-six of these also had been admitted during this project year; the others were admitted to treatment during the previous project year. Outcome data from I-SMART/SARS show that sixty-six percent of the clients discharged successfully completed treatment. The median duration of CCTP services for clients successfully completing treatment this project year (regardless of when admitted) was one-hundred ninety-two days. The median duration of CCTP services for clients discharged before completing treatment was twenty-one days.

Evaluators conducted an analysis comparing outcomes for clients in the Culturally Competent Treatment Project to outcomes for minority clients receiving treatment at other agencies in Iowa. Clients included in the analysis were restricted to those who reported their race as African American/Black or their ethnicity as Hispanic, and who had an admission date between the earliest (December 18, 2006) and latest (June 23, 2009) dates found for the CCTP clients. This yielded 279 CCTP clients and 4497 comparison group clients for the analysis. The ratio of African Americans to Hispanics in CCTP clients was the same in both groups. The clients were also similar in age. The two groups differed in the percentage of males and females, with relatively fewer females among the Cultural Competency clients when compared to the minority clients statewide.

Alcohol was the most frequently cited substance, with both groups reporting alcohol as the primary substance of choice about fifty percent of the time. Statistically significant differences were found between the two groups when alcohol was not the primary substance: cocaine/crack was more frequently mentioned in the Cultural Competency group than in the Comparison group, and clients in the Cultural Competency group mentioned marijuana less frequently than clients in the Comparison group. Referral source percentages also differed between Cultural Competency and Comparison groups. The category "Other Community" referral was much more frequently noted in the Cultural Competency group than in the statewide Comparison group.

There was no significant difference between the two groups in regard to discharge status: successful completions have occurred at about the same frequency. However, the Cultural Competency group had significantly more clients still in treatment and more admissions later in the analysis time window. It could be that many of the CCTP clients remaining in treatment may have a higher chance to successfully complete treatment, as the programs have solidified in recent months.

Clients in the Cultural Competency group stayed in treatment significantly longer than those in the statewide Comparison group. The median length of stay for clients in the Cultural Competency group was one-hundred twelve days while the median length of stay for clients in

the Comparison group was sixty-four. (Note: Length of stay for the Cultural Competency group referred to here includes clients from both project years and is based on the date of treatment admission, whereas the duration of CCTP services figures provided previously in this section include only clients discharged during Project Year 2010, and are based on the date the client began receiving CCTP services.) This significant increase in length of stay for the Cultural Competency group was consistent for all clients regardless of their discharge status. The Cultural Competency programs increased the "Unsuccessful" clients' treatment exposure (length of stay) by one-and-a-half times. The individual programs implemented in the Culturally Competent Treatment Project also were analyzed separately. Each program had a significantly greater length of stay than the comparison group, and CCTP programs did not differ among themselves in length of stay.

Staff survey results over the course of the project through May, 2009 indicate that staff members feel competent in most aspects of culturally competent treatment provision. However, the percentage of staff agreeing with some items decreased from the December, 2008 survey to the May, 2009 survey. It may be that as agency staff members were exposed to more information and training on cultural issues, they became more aware of gaps in their own knowledge of issues affecting minorities. Client survey results over the course of the project through February, 2010 indicate that the majority of clients see the programs and staff as culturally competent (85% or more of clients completing the survey in February, 2009 agreed or strongly agreed with most statements indicating cultural competency).