

INTERCHANGE: OUTCOME EVALUATION

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A TECHNICAL REPORT FOR THE
LOCAL PUBLIC SAFETY COORDINATING COUNCIL'S
ALCOHOL & DRUG CRIMINAL JUSTICE WORKING GROUP, THE
DEPARTMENT OF COMMUNITY JUSTICE AND THE INTERCHANGE
PROGRAM

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EXECUTIVE SUMMARY

InterChange, a secure alcohol and drug treatment program administered by the Multnomah County Department of Community Justice, has been in operation since November 1999. The InterChange program has two goals: reducing criminal behavior and reducing substance abuse. InterChange clients are some of the most difficult people to treat because of their chronic criminality and substance abuse problems. The following report describes the efficacy of the InterChange program by examining key variables of its graduates' at both six months and one year after treatment completion. In addition, many analyses contrast results from a matched comparison group of Department of Community Justice supervised community-based residential treatment clients who successfully completed treatment, and a group of clients who entered but failed to graduate from InterChange.

Results six months after graduation found that 64% of InterChange graduates had not been rearrested for any reason. In addition, 72% of graduates had not tested positive for substances. Combined, half of InterChange graduates had neither been rearrested nor had tested positive for substances at six months. Within a year after treatment, 48% of graduates, 45% of those completing residential treatment, and 38% of the InterChange non-graduates had not been rearrested for any reason. Overall, InterChange graduates showed reductions in criminal thinking and actual criminal behaviors using a variety of measures, culminating in an estimated savings of 28 jail bed days per graduate, per year after treatment. The matched residential treatment comparison group showed similar savings after treatment. This outcome report finds that the InterChange program displays efficacy in reducing criminal behavior and reducing substance abuse. The positive results found with the InterChange graduates are tempered by the substantial programmatic expense to Multnomah County. For every InterChange graduate, three similar clients could successfully complete a Department of Community Justice community-based residential treatment program with similar criminal behavior outcomes and savings.

Evaluation limitations and future directions are discussed at the end of the report.

EVALUATION HIGHLIGHTS

- Within one year, 48% of InterChange graduates, 45% of those completing residential treatment, and 38% of the InterChange non-graduates had not been rearrested
- Two-thirds of all initial rearrests after treatment were for drug-related crimes and probation violations/fugitive wants, for each treatment group
- All treatment groups showed significant decreases in the average number of yearly bookings; Graduates fell 58%, community-based Residential clients fell 56%
- Non-graduates average number of yearly bookings fell 26%, however they were still booked at significantly higher rates than the other two treatment groups

- The average length of jail stay per booking for Graduates and those completing Residential treatment remained largely unchanged after successful treatment
- Non-graduates had three times longer jail stays per booking than the two other groups after treatment, a 148% *increase* in jail time after treatment
- By six months, 72% of graduates had not tested positive for substances
- The single most popular substance to test positive for was methamphetamine
- Whites appeared more likely to return to substance use, while African-Americans appeared more likely to be arrested
- InterChange Graduates avoided an average of 28 jail bed days per year after treatment; those completing community-based Residential treatment had similar savings avoiding 27 jail bed days per year
- Each InterChange Graduate's treatment costs an average of \$27,298 while the cost to those completing community-based Residential treatment averaged nearly three times less, at \$9,599
- In terms of jail bed savings, at current rates it will take InterChange Graduates approximately nine years to reach the program pay-back period and three years for those who completed community-based residential treatment
- InterChange Non-graduate failures, at \$8,728 per client, cost the county nearly as much as those who completed community-based residential treatment

RECOMMENDATIONS

- Reduce InterChange treatment costs, to be more comparable with other residential treatment service options. For example, reduce treatment time, use economy of scale, increase completion rates, contract the program to a community provider, have treatment concurrent with a five to six month jail sentence, and/or use a non-correctional based facility for treatment
- The program target population should be examined, as it appears that similar clients were also receiving and successfully completing treatment in the community
- Better substance abuse post-treatment outcomes data and assessment of other DCJ substance abuse programs long-term outcomes are also needed for comparison purposes
- Assess the client's mental health to assure appropriate treatment assignment
- Increased coercive methods may be needed if program expansion is expected
- Expand programming to include treatment for women under DCJ supervision

INTRODUCTION

InterChange is a substance abuse treatment program based on therapeutic community model. The model integrates cognitive-behavioral therapy methods designed by Wanberg and Milkman.¹ The program is characterized by its reliance on the treatment community as a therapeutic agent. The goals of treatment are to promote abstinence from substance use and antisocial behavior and to effect a global change in participants' lifestyles, attitudes and values. This philosophy views substance related problems as disorders of the whole person that are reflected in problems with conduct, attitudes, moods, values and emotional management.

The program has two specific goals: reducing criminal behavior and reducing substance abuse. The program's target population are men under the Department of Adult Community Justice (DCJ) supervision who have demonstrated a need for substance abuse treatment but who can also be safely housed in a minimum security facility. The program uses cognitive-behavioral therapy to address the client's criminal thinking—this is intended to lead to outcomes of reduced criminal behaviors and substance abuse. Results of pre-post test have found that client's significantly reduced their criminal thinking after completing the InterChange program.² The following report describes the InterChange program “outcomes”—changes in graduate's actual criminal behaviors and substance abuse.

The program, which began operation in November 1999, is located in Washington County, and has a current capacity of 50 beds. Clients are referred to the program by their probation officer, usually via a judge's order for substance abuse treatment. Clients receive housing, food, limited medical care and structured skill building and substance abuse treatment in the secure facility. InterChange treatment lasts approximately six months, with an additional continuing care up to six months. InterChange is not a dual-diagnosis treatment center.

This evaluation was performed in accordance with the American Evaluation Association's generally accepted *Guiding Principles for Evaluators*.

METHODOLOGY

Several steps were taken to ensure a comprehensive evaluation of InterChange program outcomes. First, in addition to evaluating the InterChange graduates, two comparison groups were established and their performance was also monitored. This allows a contrasting of InterChange graduate results with those clients receiving alternative treatments. Second, multiple measures of actual behavior from multiple sources were used to assess program effectiveness. Measures of actual behavior are a more accurate indicator of program performance than measures where clients self-report their behaviors.

¹ Wanberg, K. W., & Milkman, H. B. (1998). *Criminal conduct and substance abuse treatment*. Sage Publications, CA.

² Nice, M. (2002). *Results of InterChange Graduate's Test Assessments: May 2002*. Multnomah County.

Each measure brings a unique perspective of performance, thus multiple behavioral measures were used to ensure a more complete picture. Having data from multiple sources reduces the risks inherent with the reliance upon a single data source. Finally, program performance was based not on how many people completed the program successfully, but instead whether clients returned to a life of crime and drugs after treatment.

Treatment Groups. Three substance abuse treatment groups were compared over time: InterChange graduates (*Graduates*), InterChange non-graduates (*Non-graduates*), and a matched DCJ supervised community-based residential treatment completion group (*Residential*). Analyses compared the three treatment groups, where data was available. While performing analyses across treatment groups, control variables (*covariates*) were used to control for pre-treatment group differences.³ When significant, these controls acted as a “leveling of the playing field” when comparing the different treatment groups.

Three treatment groups, each with 50 clients—Graduates, Non-graduates, and those who completed community-based Residential treatment—were selected for evaluation. The InterChange Graduate group consisted of the first 50 program graduates. They were selected to allow for the greatest amount of time released into the community. The Non-graduate group was comprised of the first 50 to fail out of InterChange. At the time of the study, none of the Non-graduates had subsequently returned to InterChange to graduate. They were selected because they attended InterChange during similar time periods as the Graduates, and therefore also have the greatest time in the community.

The last 50 were a group of DCJ clients who completed community-based residential treatment. They were selected because before InterChange began, community-based residential treatment was the only DCJ alternative for this population. To help ensure comparability, they were matched to InterChange clients on risk score, sex, and age. Forty-two percent were treated in community-intensive residential treatment services (CIRT) and 58% were treated in enhanced residential treatment services.⁴ It is highly probable that many of the residential treatment clients were eligible for InterChange, as records indicate that several had been referred to the InterChange at some time.⁵ One of the Residential clients was later dropped from the study as he entered InterChange treatment during the study period. This study examined a total of 149 clients.

CLIENT DEMOGRAPHICS

All 149 clients were adult males under DCJ supervision at the time of selection. Client’s age ranged from 21 to 63 years. The average age was 37.8 years (SD = 9.2) with no

³ Covariates were tested and included in models only when statistically significant and appropriate.

⁴ CIRT programming was a shorter duration, higher intensity treatment residential treatment. CIRT treatment is no longer supported by DCJ.

⁵ The InterChange program managers stated that it is often the case that the client who enters treatment depends on which treatment services had openings and whether PO’s are aware of those openings.

significant difference between groups.⁶ Clients were mostly White (68%), with African-Americans comprising most non-white clients (28%). There was no significant difference in the frequency of whites and non-whites between groups.⁷ In general, Hispanics were underrepresented at the InterChange program and in this evaluation.⁸ Previous reports suggested that non-white clients who enter InterChange were just as likely to graduate as their white counterparts.⁹

Client risk. Client risk-to-reoffend scores for all three groups were averaged based on three measures—the calculated risk score, the DCJ actual supervisory risk score, and the contractor’s risk score—and compared.¹⁰ It should be noted that risk scores for any DCJ client can and are often overridden by probation officers depending on the circumstances.¹¹ Risk scores (none/limited, low, medium, and high) were recoded 1 to 4, with 4 being high-risk. Analysis found the averaged risk score for all groups was 3.4, between a medium and high-risk to reoffend. No significant difference in risk score was identified between treatment groups.¹² This suggests that each group consisted of clients with a similar likelihood to commit new crimes.

Length of treatment. As expected, the average length of treatment differed significantly by group; Graduates had the highest total length of treatment (193.6 days, SD = 33.6).¹³ Because they dropped out, Non-graduates had the least number of treatment days (InterChange treatment, 61.9 days, SD = 50) while the Residential group averaged 126.3 days (SD = 64.4) of community-based residential treatment. Because time in treatment has been cited as a predictor of long term success it was tested as a covariate (i.e., held constant) in remaining analyses, where appropriate.

Treatment history. One entrance criterion for InterChange is a client having a prior community-based substance abuse treatment failure. Both Graduates and Non-graduates are assumed to have met this screening requirement. An analysis of the Residential group’s treatment history was performed to determine how many had a history of DCJ treatment. Although data systems prior to June 2000 were incomplete, 15 (31%) clients in the Residential group’s clients were identified with having prior DCJ community-based substance abuse treatment.¹⁴ The DCJ contracts database was only able to account for a sub-section of those receiving substance abuse treatment in the community. This system was unable to account for other treatment provided by the County Office of Addiction Services or those services paid by the client or by a third-party insurer, the sum of which

⁶ ANOVA results were not significant, $F(2, 146) = .253, p = .777$.

⁷ Chi-square ($df=2$) = .251, $p = .882$.

⁸ Nice, M. (2002). *InterChange Referrals, Clients, and Graduates: June 2002*. Multnomah County, pg 6.

⁹ *Ibid.* pg 9.

¹⁰ All risk scores were obtained from the DCJ contracts database. Note data was limited to 82 cases.

¹¹ Johnson, K. D., Austin, J., & Davies, G. (2002). Low risk offenders: Is it a good investment. National Institute of Justice, pg 28.

¹² ANOVA, $F(2, 79) = .116, p = .890$.

¹³ This included all treatment days; 24% of Graduates had multiple episodes. $F(2, 146) = 84.03, p < .001$.

¹⁴ Department of Community Justice contracts database. It should also be noted that the same number of Graduates were also found in this database, thus complete community treatment history was not available.

provide substantially more treatment services than DCJ. Thus, the available data finds that many the Residential group had similar prior treatment failures.

To summarize, the clients in the all three treatment groups were not significantly different on demographic variables. They were under DCJ supervision during their treatment. They did not differ on sex, age, race, or likelihood to commit new crimes (as assessed by risk score). As expected, only length of treatment was found to be significantly different by treatment group. Thus, treatment groups appeared comparable.

OUTCOME MEASURES

To measure the treatment effectiveness of the InterChange program, behavioral measures were established, analyzed and compared with other treatment groups.¹⁵ Measures of criminal behavior and drug use were established. The criminal behavior measures were based on multiple criminal justice data sources and consisted of rearrest, type of charge, booking frequency, and lengths of stay in jail. One assumption is that frequent arrests or arrests for more serious crimes were more likely to lead to clients being booked into jail and longer stays in jail. Multiple sources of data, multiple measures and a variety of statistics ensured a more comprehensive picture of actual criminal behavior.

Booking data and lengths of time in jail data were gathered and averaged for each group up to nine years before substance abuse treatment. These baselines were compared to data taken after release from treatment a year or longer after clients' were release from substance abuse treatment.

Urine analysis data was also gathered and analyzed to determine substance use. Data was only available for the InterChange Graduates, to a maximum of six months after treatment release. In addition, the type of substance was also evaluated.

Due to the quasi-experimental design (i.e., clients not randomly assign into treatment groups) analyses and conclusions were limited (see Limitations section). A combination of measures and variety of analyses were employed, based on theory, practicality, and data availability, to assess the efficacy of the program. Where applicable, testing used pre-post treatment measures, measures across various matched comparison groups, time-series data, and analysis with covariates.

CRIMINAL BEHAVIORS: REARREST

Due to overlapping jurisdictions and varying reporting standards, both the Oregon Law Enforcement Data System (LEDS) and the Portland Police Data System (PPDS) were used to determine earliest rearrest after the client's treatment release date. LEDS captures

¹⁵ Multiple pre-post treatment assessment instruments were also analyzed. Results found that Graduates significantly reduced criminal thinking and enhanced problem solving skills after treatment. Nice, M. (2002). *Results of InterChange Graduate's Test Assessments: May 2002*. Multnomah County.

statewide arrests, but in Multnomah County LEDS is less consistent for misdemeanor charges.¹⁶ PPDS is superior in capturing arrests at all levels, including misdemeanor charges common in this group of clients, but is unable to capture arrests outside of its jurisdictional system. Treatment release date for Graduates was the first graduation date from InterChange, for Non-graduates it was the date of release from InterChange, and for the Residential group it was residential treatment completion date. Rearrest was defined as any rearrest at any level after release.¹⁷

Figure 1 depicts the survival curves—the percent of clients not being rearrested after treatment release—for each of the three treatment groups. Overtime, as the curves drop more clients get arrested. The length of time clients spent in treatment was entered in the model as a covariate, but was not found to be significant.¹⁸ The curves show that initially for each unit of time (days after treatment release), Graduates avoided rearrest at slightly better rates than the Residential group, while Non-graduates had substantially worse rates of rearrest than either treatment completion group. In addition, the Graduate’s and the Residential group’s rates of rearrest appeared more stable, while the Non-graduates rate was abrupt—most rearrests occurred within the first 180 days. However, by one year results for Graduates and the Residential group had equalized. Non-graduates were the least successful group long term.

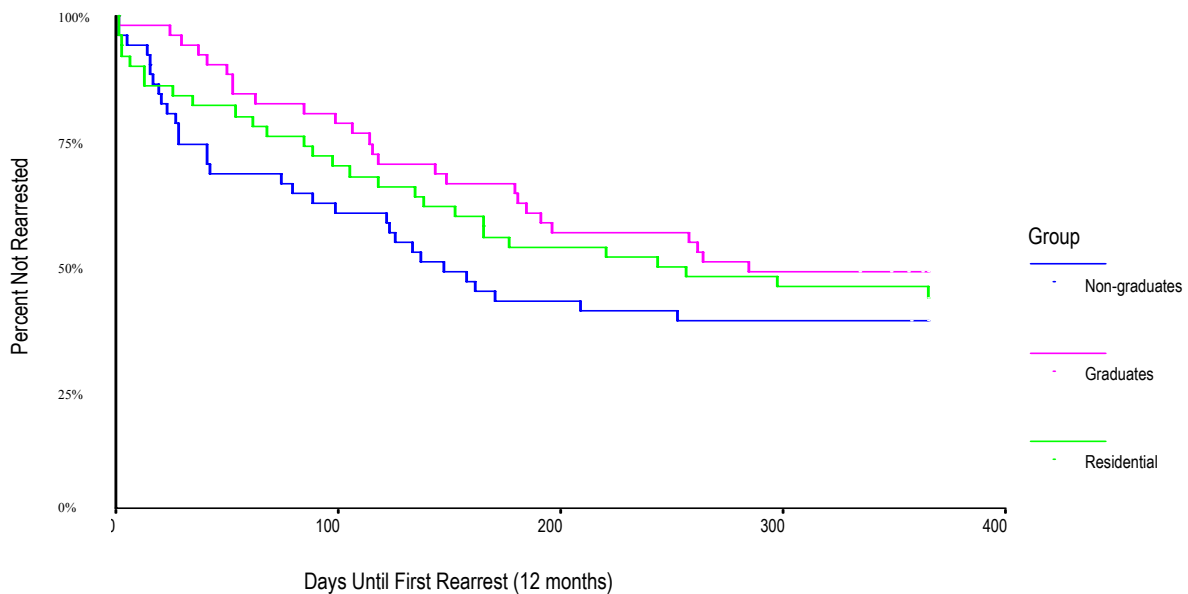


Figure 1. Rearrest survival curves, by treatment group

¹⁶ Nice, M. (2002). *Comparison of Arrest Data in Public Safety Data Systems*. Multnomah County. This may not include all arrests from Gresham police, which accounted for 10% of all county arrests.

¹⁷ Rearrest data for five clients in the study was compiled slightly less than one year (50 weeks); on average, clients had been released from treatment an average of 1.4 years.

¹⁸ A Cox Regression was performed, using the length of treatment as a covariate. The covariate was not significant ($\alpha = .05$), and was removed from the model. A Kaplan-Meier model was used to develop the survival curve.

Examining the same data in another way, Figure 2 shows that at six months 36% of Graduates had been rearrested, while 47% of the Residential group and 58% of Non-graduates had been rearrested. The frequency of rearrest was significantly higher at six months for Non-graduates than Graduates.¹⁹ There were 22% more Non-graduates rearrested by six months than Graduates. By one year this difference dissipated for Graduates (52%) and the Residential group (55%), while Non-graduates (62%) were rearrested at higher rates (Figure 2).

Compared to other treatment groups, Graduate’s rearrest frequency increased substantially between the six months and one year period (eight additional cases). Within a year, Graduates’ rearrest frequency was on par with the Residential group (Figure 2.). InterChange Graduates received an additional six months of community-based continuing care upon graduation. In addition, some of those in the Residential group may have also enjoyed continuing care after their residential treatment episodes.²⁰ Graduates’ higher rate of rearrest after six months appears to have corresponded with the time in which their continuing care services would have typically ended. Unlike Graduates, the majority of Non-graduates and Residential group rearrests occurred within the first six months of release. Within the first year, Graduates who were rearrested had been out of treatment an average of 126 days, the Residential group averaged 101 days, and the Non-graduates were 78 days.²¹

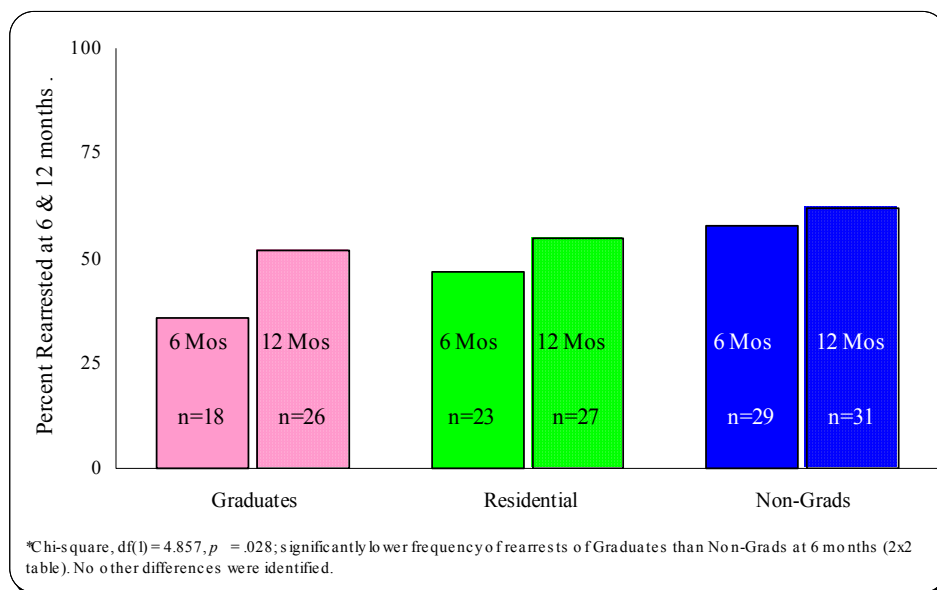


Figure 2. Percent rearrested at six months and 12 months, by group

¹⁹ The initial Chi-square analysis showed near significant results ($p = .088$) at six months for the three groups, thus follow-up 2x2 tables were performed to identify the difference at six months, χ^2 (df=1) = 4.857, $p = .028$. No difference was found at one year by treatment group, χ^2 (df=2) = 1.065, $p = .587$.

²⁰ Some residential providers offered continuing care after treatment. It was undetermined, but up to 58% of the Residential groups may have received such care.

²¹ ANOVA results neared significance ($\alpha = .05$) between Graduates and Non-graduates.

Post treatment rearrests. In addition to how soon one was rearrested after treatment, we also compared the average number of times per year one was rearrested post treatment, by group. Length of treatment time was entered in the model as a covariate, but was not found to be significant. Figure 3 shows that while Graduates averaged fewer number of rearrests per year after treatment than other groups, the difference was not statistically significant.²²

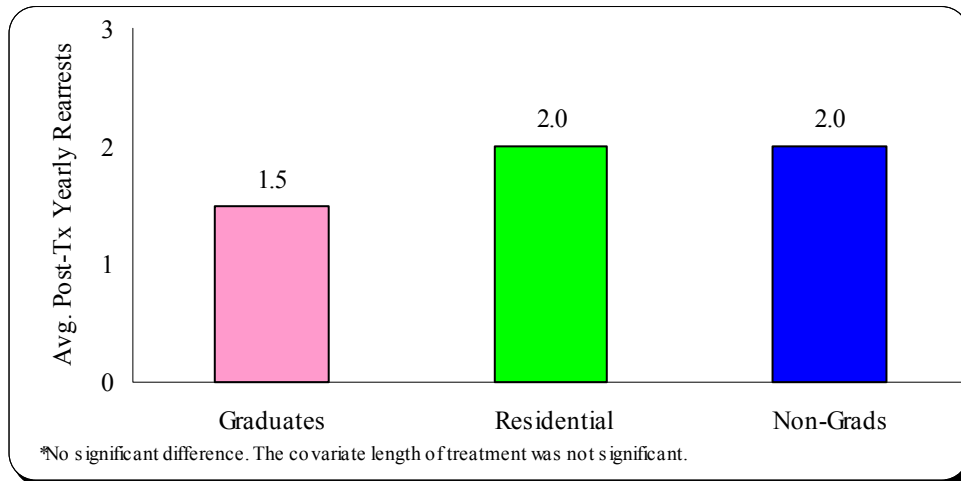


Figure 3. Average number of post-treatment rearrests per year, by group

Initial rearrest charge-type. Most of the reoffending clients were rearrested on multiple charges and in many cases were arrested more than once (c.f. Figure 3). An assessment of the most serious charge for the client's initial rearrest was performed. The DSS-J Primary Charge Hierarchy criterion was used to determine and report the most serious of these charges. Each charge received a severity score, and was then rank ordered with PV/fugitives superceding other charge types. This allowed the most serious charge (i.e., of greatest danger to the public) to become the primary charge for which clients were initially rearrested. For example, a client rearrested for possession of a controlled substance, trespassing, and who also had a fugitive warrant was rank ordered fugitive, possession of a controlled substance, then trespassing. The most serious charge was compared by treatment group to determine whether there was a descriptive difference in the type of charges faced by each treatment group.

Figure 4 displays the percentage of each group's first rearrest by most severe charge.²³ For all groups, about a quarter of first rearrests were for the possession of a controlled substance (19% to 30% for PCS/DCS).²⁴ Approximately two-thirds of all initial rearrests

²² Previous InterChange reports based solely on LEDS data identified a median of two arrests per year prior to treatment, Drapela, L.A.(2001). These figures can not be compared with figures reported herein, as the methodology has changed substantially. It is estimated that LEDS data underreports a significant number of arrests due to local reporting procedures, see Nice, M. (2002). *Comparison of Arrest Data in Public Safety Data Systems*. Multnomah County

²³ This figure only lists charges by type, which may contain both felony and misdemeanor charges.

²⁴ Only one case of distribution of a controlled substance (DCS) was identified at initial rearrest.

were for drug possession or drug-related crimes (e.g., trespass, likely due to a drug-free zone exclusion) and probation violations or fugitive warrants, regardless of treatment group.²⁵ Of the 12 Graduates with PV/Fugitive rearrests, 8 (67%) included additional charges, while 8 of 13 (62%) Non-graduates had additional charges.²⁶ Few Residential group clients had initial PV/Fugitive rearrests (5) and none showed additional charges at arrest. In a few cases the Non-graduates were found to have more severe arrest types than other groups, including serious sex crimes (captured in the “Other” category).

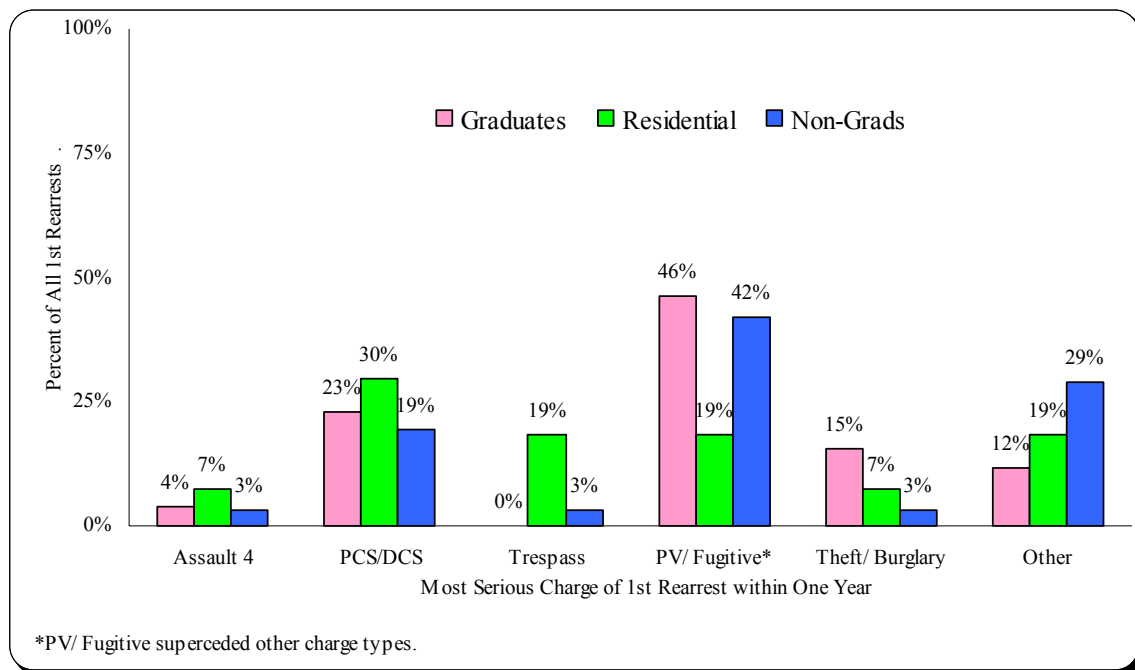


Figure 4. Percentage of each groups first rearrest by most serious charge type

Rearrest demographics. A profile of those rearrested within one year was produced by treatment group. Please note that sample size for this profile was small and results should be viewed with caution. Displayed in Table 1. are the number of clients rearrested for each treatment group and the percentage of that racial group rearrested. Of Whites who successfully completed treatment (Residential or InterChange), less than half were rearrested with the year. Of all the African-Americans who completed treatment, 69% - 75% were rearrested within one year. Due to the small sample size and possibility of individual identification, Native Americans, Hispanics, and Asians were reported as Other non-whites. There was no difference in the age of arrestees and non-arrestees. While samples were too small for effective comparisons, it should be noted that only African-Americans were initially rearrested for trespass violations.

²⁵ Fugitive arrests typically are warrants issued by agencies other than the arresting agency, often for probation or parole violations.

²⁶ Graduates had three additional PCS/DCS, while Non-graduates had two additional PCS/DCS charges.

Table 1. Demographic profile of clients rearrested within one year after treatment, by group

	White Arrest/ No arrest	Rearrest of Whites (%)	African- American Arrest/ No arrest	Rearrest of African- American (%)	Other Non- white Arrest/ No arrest	Rearrest of other Non- whites (%)	Age of arrestee
Graduates	16/19	46%	9/4	69%	1/1	50%	34.8
Residential	15/17	47%	12/4	75%	0/1	0%	38.4
Non-Graduates	21/13	62%	8/4	67%	2/2	50%	36.0

BOOKING FREQUENCY

Those arrested for serious crimes are more likely to be booked into jail and the stay in jail may be longer than average.²⁷ To augment rearrest data, analyses of booking frequency and lengths of stay in jail were performed. Booking data was obtained using the Decision Support System-Justice (DSS-J) recidivism module and days in jail calculation, and were tested in the Sheriff's data system (SWIS). It is important to remember that the jail data is exclusively that of Multnomah County, and jail stays at other facilities were not captured (e.g., Washington County Jail).

Pre-treatment bookings. Analyses of jail bookings per year, length of local jail time per booking, and total local jail time up to the past nine years were compiled as baselines. Overall, clients from each group were booked into jail an average of three times per year (SD = 2.2) for an average length of stay of 20.2 days (SD = 12.5).²⁸ Only the length of stay per booking for Non-graduates (24.4 days) was significantly greater than either the Residential group (17.3) or Graduates (19.0).²⁹ Thus, those who failed out of InterChange historically averaged more time in jail per booking before treatment. Similar to time in treatment, this variable was used as covariates in remaining analyses where appropriate.

Booking frequency before and after treatment. Pre-post treatment comparisons analyzed the average number of bookings per year before and after treatment, separately, for each group. Across treatment groups, the average number of bookings per year was significantly lower after treatment (Figure 5). Graduates and Residential groups had similar average declines in yearly frequency of bookings of 58% and 56%, respectively. The Non-graduates had a decline of 26% after treatment. Thus regardless of group, the average number of bookings per year fell after treatment, in some groups substantially. A review by the Multnomah County Sheriff's Office Planning and Research staff found no

²⁷ Many factors impact whether one is booked into jail and how long they may stay (e.g., law, policy, criminal history, holds, etc). A recent MCSO booking policy change (#02-11, 5/02/02) should significantly reduce booking frequency among persons in these groups. A new booking and release policy (#02-20, 9/21/2002) an update to (#02-11) should return booking frequency to its previous state, but lower the average time in jail.

²⁸ Average length of stay is consistent with published reports (19.3 days in 2000 and 20.3 days in 2001). *Multnomah County Sheriff's Office Jail Population Report—Calendar Year 2001* (pg 4).

²⁹ ANOVA, $F(2, 146) = 4.559, p = .012$.

booking policy changes which occurred during the post-treatment time frame which may have impacted the booking frequency.

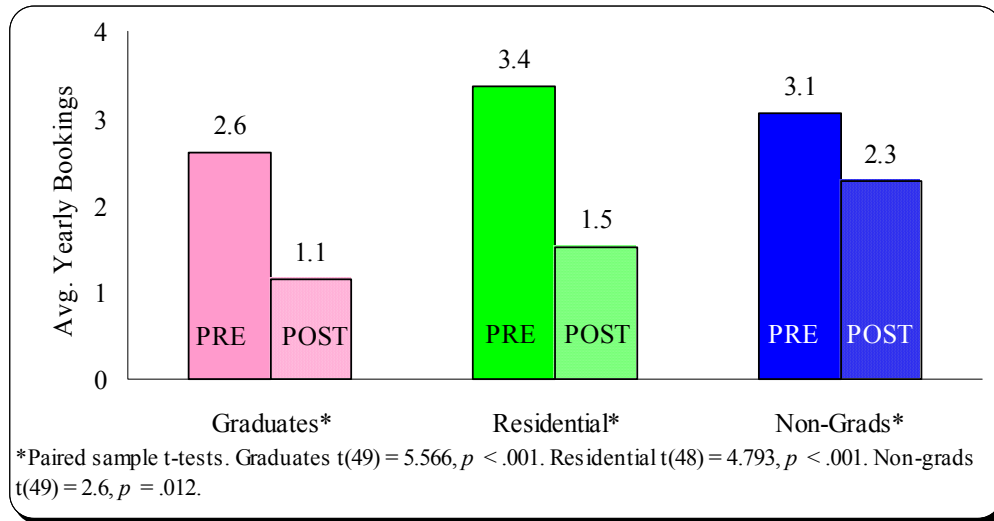


Figure 5. Average yearly bookings before and after treatment, by group.

Comparisons of post-treatment booking frequency by treatment group. This analysis compared the average number of post-treatment bookings per year across the treatment group. Both length of treatment time and historical booking frequency per year were entered in the model as covariates; only historical booking frequency was identified as a significant covariate and was retained in the analysis. Controlling for the effect of historical booking frequency, Non-graduates were found to have significantly more post-treatment bookings per year than either the Graduate or the Residential clients (Figure 6). Regardless of their prior booking frequency, those completing either treatment group had significantly lower bookings per year than those who failed treatment.³⁰

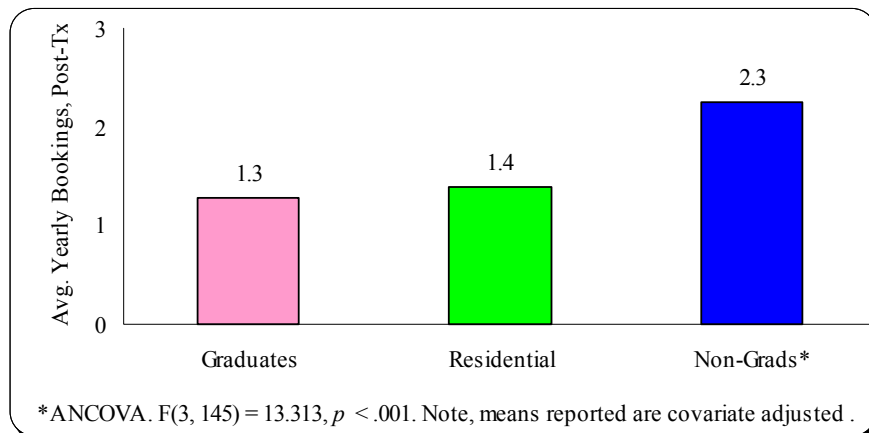


Figure 6. Average yearly post-treatment bookings controlling booking history.

³⁰ Note that post-treatment average yearly bookings are different in Figures 5 and 6; Figure 6 uses adjusted means based on the significant covariate leading to the slight change. Explained another way, each group's pre-score differences in Figure 5 were used to "level the playing field" for data reported in Figure 6.

Length of jail stays before and after treatment. In addition to how often a client was booked into jail, analysis of their jail stay was performed. Each treatment group was analyzed to determine the average time in jail per booking before and after treatment (Figure 7). There was little change in per booking jail stay for the Graduates (-0.2 days) and the Residential group (+3.2 days), however Non-graduates were found to have significantly *increased* lengths of stay in jail per booking after treatment (148% increase or 36.2 days more per booking). One reason for longer post-treatment jail time for Non-graduates could be due to the severity of their crimes; as noted earlier Non-graduates appeared to have higher incidents of severe arrests, including some sex-related offenses.³¹

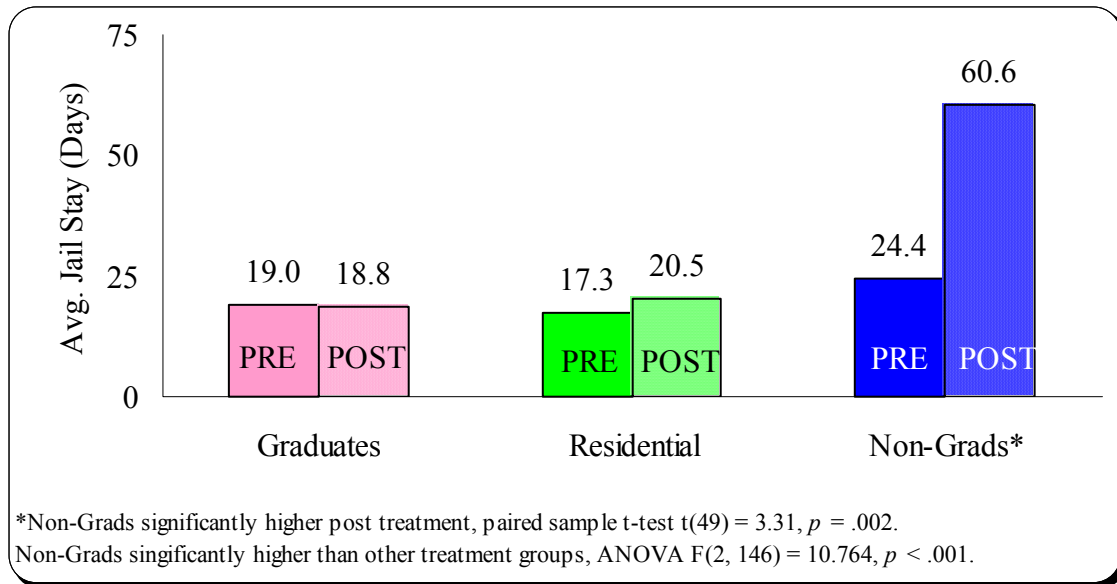


Figure 7. Average jail stay before and after treatment per booking episode, by group.

Comparing post-treatment jail stay by treatment groups found that Non-graduates spent significantly more time in jail per booking after treatment than the successful treatment completion groups. On average their length of stay in jail after release was three times higher than the other groups. Both length of treatment time and historical jail lengths of stay were entered in the model as covariates, however neither was statistically significant.

To summarize, criminal behavior outcomes were somewhat mixed, however clearly those who completed treatment performed better than those who did not. Results found that Graduates initially avoided rearrest at slightly better rates than either comparison groups. Within a year, frequency of rearrest equalized for groups that completed treatment, and while slightly better than the Non-graduates, none were significantly better. On average, more than half of clients from any treatment group were rearrested within one year, averaging 1.5 – 2.0 arrests per year thereafter. Regardless of treatment group, two-thirds of all initial rearrests were for drug-related crimes and violations or fugitive warrants. While all treatment groups had significantly reduced booking frequencies after treatment,

³¹ Several factors would also increase jail time, including conviction.

those who completed treatment had significantly lower booking frequency after treatment when compared to the Non-graduates. No differences were found in the average amount of time the Graduates and Residential group spent in jail after treatment. Again, Non-graduates had significantly longer terms in jail after treatment compared to other groups.

POST-TREATMENT DRUG USE

It is a requirement for those entering InterChange to have a current substance abuse problem, with a history of failed treatment. Client drug testing data was analyzed to assess the efficacy of the program's substance treatment component. While no single comprehensive source of urine analysis (UA) data was available, a combination of aftercare provider and the Oregon Department of Corrections data was used for analysis. The majority of this data was from the aftercare provider, where UA's were typically given weekly to Graduates to a maximum of six months after InterChange release (c.f., the length of continuing care). UA data was available for 46 of the 50 Graduates, with the average Graduate receiving 12.8 weekly tests (SD = 8.6).³² Tests covered the following substances: alcohol, barbiturates, methamphetamines (includes amphetamines), opiates, marijuana, and cocaine/crack.

Figure 8 displays the survival curve for a positive test on any substance within six months—the percent of clients not being testing positive after release from InterChange. Overtime, as the curve drops more clients test positive. Length of InterChange treatment was entered as a covariate of survival (c.f., rearrest survival curve) but was not significant and was removed from the model.³³ By six months, 28% of Graduates (13 of 46) had tested positive for substances, thus 72% had remained abstinent.³⁴ Of those, five tested positive once and eight tested positive multiple times. Whites accounted for 11 of the 13 (85%) positives, with an average age of 35.9 years.³⁵

DCJ does not track UA outcomes after treatment completion, and therefore comparison group data was unavailable. However, nationally recognized research of the KEY-CREST program, a corrections-based program that included continuing aftercare services found that 15% of their participants tested positive for substances at six-months.³⁶ It must be stressed that these were residents of a prison-based therapeutic community, and that aftercare UA testing was performed once every six months, likely accounting for the

³² Missing test data and less frequent tests likely due to client rearrest. Race and age of those missing appeared no different than the Graduate group as a whole.

³³ A Cox Regression model was performed, using length of treatment covariate. Results were not significant, thus a Kaplan-Meier model was used to develop the survival curve.

³⁴ Three more Graduates tested positive *after* 180 days, however due to the quality of the available data and the type of analysis, only cases up to 180 days were analyzed.

³⁵ Note 31% of the White Graduates tested positive for drugs within six months.

³⁶ National Institute of Justice (1996). *A Corrections-Based Continuum of Effective Drug Abuse Treatment*. pg. 2.

lower number of positive results.³⁷ Nonetheless, it gives the reader some idea of what therapeutic community UA test results may be.

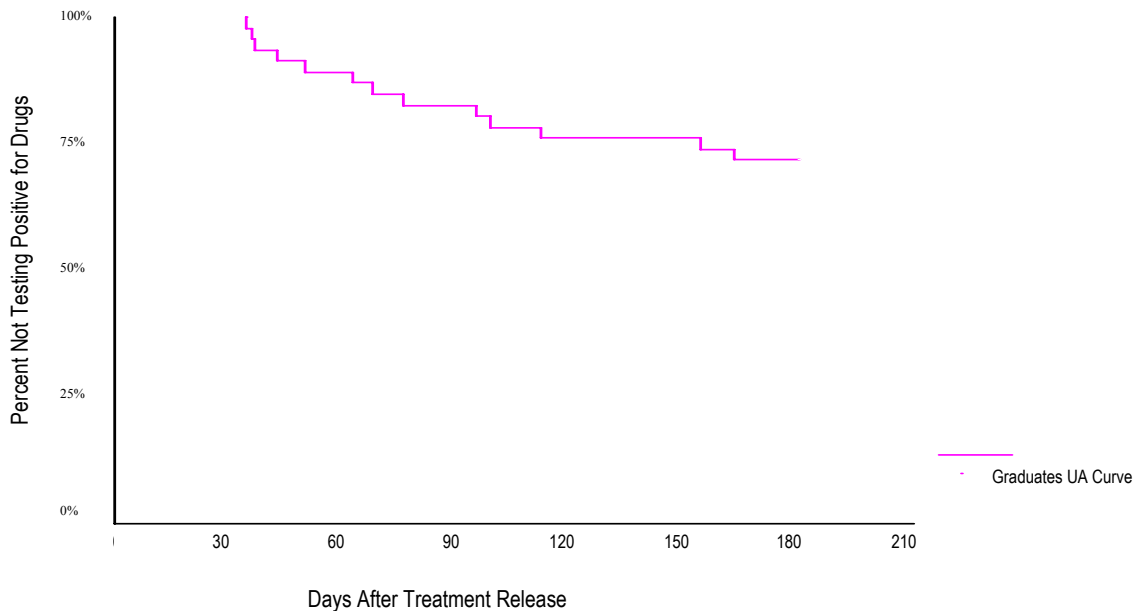


Figure 8. Survival curve of post-InterChange positive drug tests

Substances identified. The type of drug initially found in the Graduate's system can be seen in Figure 9. The single most popular substance was methamphetamines and/or amphetamines with five of the initial positive cases (one was a poly-drug user). With the exception of cocaine cases (only two poly-drug users), the profile of Graduate's substance use is consistent with year 2000 male arrestee drug use results (ADAM) in Multnomah County.³⁸ According to DCJ's drug testing contractor, UA tests are in most cases good for less than a week.³⁹ Thus, the possibility for Graduates to use drugs and not test positive does exist.

³⁷ Martin S. S., Butzin, C. A., Saum, C. A., & Inciardi, J. A. (1999). Three year outcomes of therapeutic community treatment for drug-involved offenders in Delaware: From prison to work release to aftercare. *The Prison Journal*, 79(23), 294-320.

³⁸ National Institute of Justice (2001). *ADAM Preliminary 2000 Findings on Drug Use and Drug Markets—Adult Male Arrestees*. pg 45.

³⁹ Most drug tests are accurate for 2-3 days after use; alcohol at about 1 day. Heavy marijuana users can test positive 2-3 weeks past time of use. Source: Mike Pamhot, Public Service Labs, Inc.

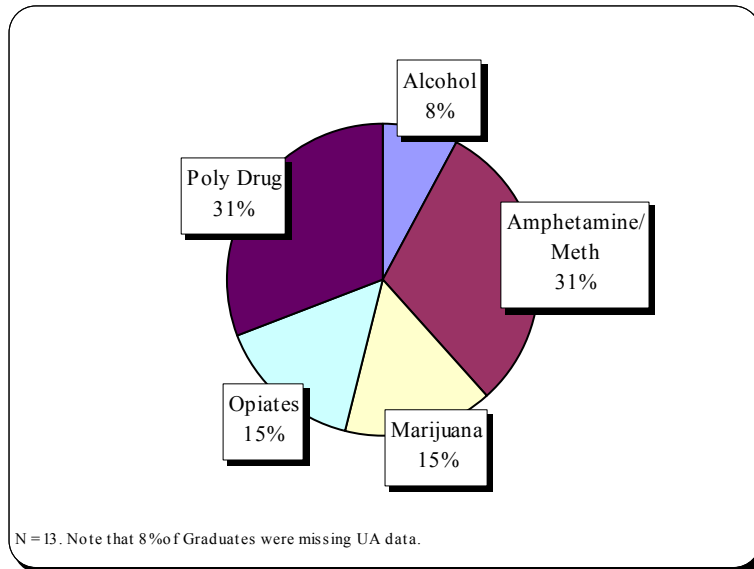


Figure 9. Drug of choice of first positive UA result

COMBINED OUTCOMES

Merging the rearrest frequency and the positive UA frequency for the first six months after graduation, illustrates a more comprehensive assessment of the InterChange program outcomes. The assumption is that all persons entering InterChange were clients with a current serious substance abuse problem and medium-high risk of reoffending. Results at six months found that half of Graduates were neither rearrested nor had tested positive for drugs (Figure 10). Six Graduates were both rearrested and tested positive for drugs by six months (these often go together).

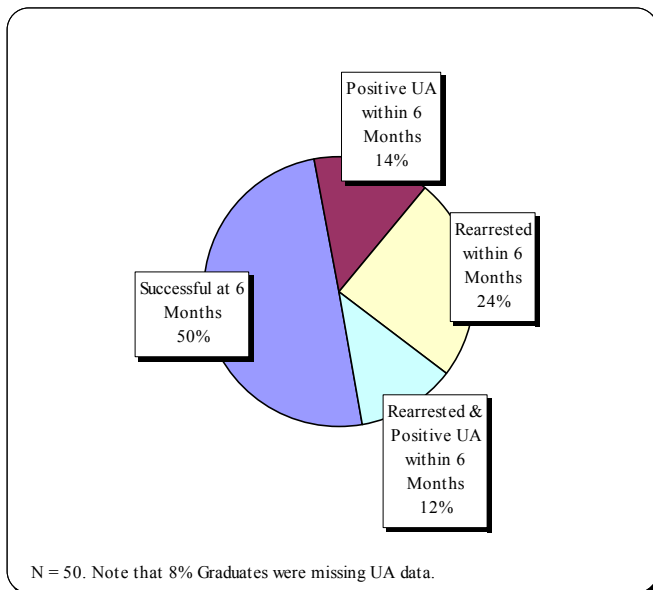


Figure 10. Six-month outcomes for combined rearrest and drug use

Summarizing substance abuse results at six months, finds 28% of Graduates had tested positive for substances. Most who tested positive were White. The majority of those tested positive more than once, with the single most popular substance being methamphetamines and/or amphetamines (five cases) and poly-drug use. The profile of Graduate's substance use was consistent with male arrestee drug use data. Examining combined results at six months found that half of Graduates were both drug and arrest free.

TREATMENT BENEFITS

The benefits of treatment come in a variety of forms impacting the person, family, and community. Among other things, benefits to the person include reduced or eliminated substance use, decreases in criminal sentiment measures and actual behaviors, and increases in personal health and social functioning. Family benefits can be realized with greater family stability from increased employment and decreased violence often associated with the drug problem. Communities can enjoy greater quality of life and, by reduced crimes, increased social order, as well as a reduced burden placed on the publicly funded criminal justice and health service systems. Cost-benefit analyses of substance programs have been well documented over the last decade, and many conclude that drug and alcohol treatment programs are a cost-beneficial investment to society as a whole.⁴⁰ This section specifically examines benefits to Multnomah County General Fund by contrasting InterChange with other existing DCJ treatment programs. Specifically, these benefits were evaluated in terms of avoided future jail bed days and their associated costs—costs directly borne by Multnomah County.

Jail days avoided. Because no significant difference was found in post-treatment arrests by group, and because of the availability and quality of pre-post treatment booking data, benefits to the county were calculated only in terms of future jail bed savings (days avoided). The assumption is that regardless of treatment group, those who re-offended would go through the same criminal justice system processes with the same associated costs (i.e., they would likely be rearrested, stay in jail, and be processed by the courts, etc.). With that assumption the direct benefit to the county in terms of jail beds savings can be calculated.

Estimates of the total avoided jail bed days per year after treatment were calculated with the frequency of client bookings and average lengths of stay before and after treatment, for each treatment group (Table 2). For example, before InterChange, Graduates averaged 2.60 bookings per year at an average stay of 18.96 days each, totaling 49.39 days in jail per year per graduate. After treatment, Graduates' yearly bookings declined to an average of 1.14 times per year at 18.81 days each, totaling 21.42 days in jail per year. Thus after treatment, each Graduate avoided 28 days (49.4 - 21.4) of jail per year.

⁴⁰ Gerstein, D. R., Harwood, H. J., Suter, N. & Malloy, K. (1994). *Evaluating Recovery Services: The California Drug & Alcohol Treatment Assessment, General Report, 1994*. California Dept. Of Alcohol and Drug Programs. Finigan, M. (1998). *An Outcome Program Evaluation of the Multnomah County S.T.O.P. Drug Diversion Program*. Northwest Professional Consortium, Portland Oregon.

Table 2. Jail days avoided after treatment for each client by group ⁴¹

	Pre-Tx average bookings per year	Pre-Tx average length of jail per booking	Pre-Tx average yearly days in jail	Post-Tx average bookings per year	Post-Tx average length of jail per booking	Post-Tx average yearly days in jail	Future avoided days in jail per year
Graduates	2.60	18.96	49.39	1.14	18.81	21.42	27.97
Residential	3.36	17.30	58.19	1.52	20.50	31.07	27.12
Non-Graduates	3.06	24.35	74.40	2.28	60.57	137.85	(-63.45)

After InterChange treatment, Graduates spent an average of 56% *less* time in jail per year. The total number of jail bed days avoided was almost entirely due to the reduced number of post-treatment bookings. Those completing the DCJ community-based residential program spent an average of 47% *less* time in jail per year. However, in terms of actual saved jail bed days per year, there was little difference in the number of days saved between Graduates of InterChange and those who completed community-based residential treatment. After release, Non-graduates reduced yearly bookings but substantially increased their average jail time, thus Non-graduates actually *increased* total jail time an average of 63 days per year.⁴² Figure 11 displays the number of jail days avoided after treatment, by group.

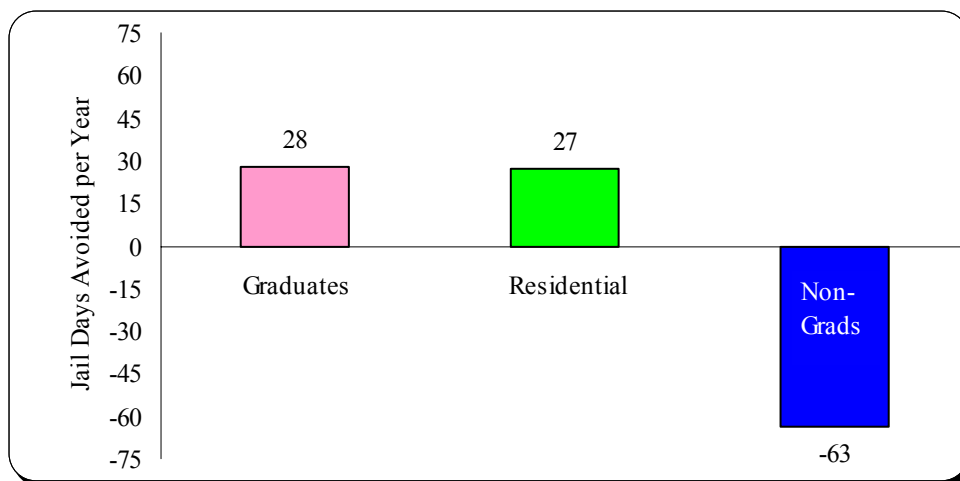


Figure 11. Post-treatment average yearly jail bed days avoided, by group.

Pay-back periods. Taking the average number of jail bed days clients avoided and the treatment costs per day, cost calculations and pay-back periods can be estimated for each group. According to published reports, InterChange costs approximately \$141 per day.⁴³

⁴¹ Note figures were computed using hundredths for greater precision.

⁴² Greater time in jail mean less time in the community, possibly lowering the number of subsequent bookings.

⁴³ Costs noted for FY02. Nice, M. (2002). *Multnomah County Alcohol and Drug Treatment System: FY2002*. Board presentation 4-2-2002.

Direct InterChange program staff accounted for half of these costs. Washington County contracts provide for facility and security which accounted for approximately \$39.48 or 28% of the cost per day.⁴⁴ Clients in the Residential group resided in two different DCJ contracted community-based residential treatment programs: enhanced residential treatment and community intensive residential treatment (CIRT), each with different daily costs. A weighted average found that the Residential group's cost per day was \$76.

InterChange Graduates in this study averaged 193.6 days for an average treatment cost of \$27,298 each. The Residential group averaged 126.3 days for an average treatment cost of \$9,599 each. The Non-graduates from InterChange spent an average of 61.9 days in treatment for a total cost of \$8,728 (Table 3).

At the time of this report, the average jail bed in Multnomah County cost \$105 per day.⁴⁵ Calculating the cost-savings per year, each Graduate saved \$105 * 28 jail days or an average of \$2,940 per year. This figure was slightly less for the Residential group, at \$2,835 each. Non-graduates in this study never saved jail beds, therefore no jail bed cost-savings were realized.

Table 3. Treatment costs and estimated pay-back periods, by group

	Average treatment length in days	Treatment costs per day	Treatment completion cost per person	Future avoided days in jail per year	Jail bed cost per day	Future jail savings per year	Pay-Back Period in years
Graduates	193.6	\$141	\$27,298	28	\$105	\$2,940	9.3
Residential	126.3	\$76	\$9,599	27	\$105	\$2,835	3.4
Non-graduates	61.9	\$141	\$8,728	-63	\$105	(\$6,615)	-1.3

From cost-savings per year, one can estimate a program *pay-back period*—the time needed to recoup the treatment investment—for those in treatment who later avoid jail. Assuming that the 28 jail bed days saved per year is stable, InterChange Graduates will reach the program pay-back period in 9.3 years (\$27,298/\$2,940), by avoiding a total of 260 jail beds days.⁴⁶ The Residential group will reach the program pay-back period in 3.4 years (\$9,599/\$2,835), by avoiding a total of 91 jail beds days.

⁴⁴ Department of Community Justice Treatment Services Budget FY01-02.

⁴⁵ This is a loaded cost, *Multnomah County Jail Bed Per Diem Costs: Fiscal Budget Year 2001-2002*.

⁴⁶ Results are based on an average of 1.4 years of data; performance could improve or decrease for any group long-term.

DISCUSSION

The InterChange Graduates appeared to have reduced criminal thinking, criminal behaviors and substance use, in the cohort studied herein. Results were based on evaluating multiple psychometric tests results; rearrest survival curves, rearrest frequency, time to rearrest and type of crime; pre-post treatment bookings and jail lengths of stay; and substance use survival curves and substance type. Graduates displayed better initial rearrest survival curves than other groups. More importantly, was the reduction in the average number of times that Graduates were booked into jail, which accounted for an average of 28 jail days saved (\$2,940) per year. In addition, Graduates had shown a more than 70% abstinence-rate by six months. The criminal behavior outcomes were similar for those who completed the DCJ community-based residential treatment programs. However, InterChange treatment was substantially more expensive than other DCJ community-based residential treatment options, and continues to be the most expensive treatment modality option in Multnomah County's continuum of services.⁴⁷

Rearrest survival curves, while initially better for Graduates, revealed similar rates of rearrest within a year after DCJ treatment release for those who completed treatment. Slightly more than half of those completing treatment were rearrested within a year, while nearly two-thirds of Non-graduates were rearrested. The Graduate's success rate declined markedly after six months, coinciding with the end of continuing care. This points to the value of continuing care for InterChange Graduates and the need for continuing care for those completing other residential treatment services. There is a need to assess what components of continuing care are most critical in reducing rearrest, including treatment components, employment, and housing.

In addition to rearrest, those who failed InterChange had more bookings and spent substantially more time in jail than those who completed treatment. The 47% - 56% reduction in yearly jail time for those completing treatment was driven almost entirely by the reduction in the frequency of bookings. This reduction must be viewed in light of recently changed MCSO booking policies. These new policies should reduce jail time even further for those who completed treatment, thus reducing the program's pay-back periods. However, it should have little affect upon the *cost-relationship* between treatment groups (i.e., InterChange treatment will still take substantially longer than residential treatment). It must also be stressed that changes in policies (e.g., cite and release, booking, matrix release, release on own recognizance, adjudication, etc.) directly impact cost-effectiveness comparisons over time.

While the subsequent length of jail time is lower for those who completed treatment, it is markedly worse for Non-graduates. This is likely due to an interaction of treatment failure, to the severity of the crimes for which they were rearrested, and pre-treatment differences. Those failing out of treatment were often returned to jail and were not awarded "time-served" for treatment program enrolment. As noted earlier, it appears that

⁴⁷ Those costs borne by DCJ, may further increase as clients residing at InterChange are no longer eligible for Oregon Health Plan coverage. The InterChange budget increased 15% from FY02 to FY03 to offset these costs. This may also impact the type of client DCJ can treat.

some of the Non-graduates were engaged in more serious person-to-person crimes than other treatment groups, possibly contributing to greater average group jail time.⁴⁸ Some differences were also found prior to entering InterChange, such as elevated pro-criminal attitudes and longer average jail stays per booking, than those who went on to graduate InterChange. Pointing to the value of successful treatment completion, both InterChange Graduates and the community-based Residential group were found to have saved jail bed days after treatment completion.

It is possible that some racial disparities may be occurring in terms of both intake and outcomes. Hispanics have been underrepresented in the program in general and too few were in any the study to be reported separately. Program management has already taken several steps to respond to this issue with the addition of Spanish speaking staff and by translating workbook materials into Spanish. In terms of outcomes, the limited data suggested that African-Americans were arrested at higher rates than Whites, but conversely Whites appeared more likely to have failed drug tests. Interestingly, when examining initial rearrest charges, African-Americans accounted for all initial trespass rearrests reported (c.f., Figure 4). This is not unusual, as drug-free zones were located in predominately African-American neighborhoods. Recently the policy and legality of drug-free zone arrests was challenged, and as of March 14, 2002, all arrests for drug-free zone violations (trespass II) were suspended.⁴⁹ Policy changes by policing agencies and booking facilities may lower the future frequency of rearrest and bookings for those studied herein.

InterChange Graduates who failed drug testing were typically White 36 year-olds and were most likely found using methamphetamine and/or multiple substances within six months after release. This profile was similar to a 1999 report for the National Institute of Justice finding the majority of methamphetamine users in Portland were White, over 32 years of age, in addition to being poly-substance users.⁵⁰ The study also noted that while methamphetamine abuse had been a problem in western states for a number of years, few studies had examined the strategies that were most effective in treating this type of abuse.⁵¹ That said, and assuming all had current significant substance abuse problems entering the program, nearly three-quarters appeared abstinent six-months after InterChange.

InterChange was found to be substantially more expensive, both in terms of cost-per-day and total cost per successful completion than other DCJ treatment program options. For the cost of every InterChange Graduate three clients could have completed community-based residential treatment with similar outcomes. In the narrow terms of a jail bed pay-back point and assuming rates are stable long-term, it would take the InterChange Graduates more than nine years to match treatment costs with in jail bed savings. Those

⁴⁸ Conviction is another factor that will significantly influence jail time. Conviction data was not gathered.

⁴⁹ Portland Police Bureau's Manual of Policy and Procedure, pg. 478 (last accessed 8/02)

<http://www.portlandpolicebureau.com/PDFs/policy.pdf>

⁵⁰ Pennell, S., Ellett, J., Rienick, C. & Grimes, J. (1999). *Meth matters: Report on methamphetamines users in five western cities*. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice, pg. 20.

⁵¹ *Ibid*, pg 10.

completing community-based residential treatment would take approximately three years. Non-graduate results suggest that this group of clients for whatever reason, did not appear to benefit from the InterChange program. This finding is important when one considers that an InterChange failure costs nearly as much as a successful community-based residential treatment episode.⁵²

RECOMMENDATIONS

Program costs must be reduced. While the InterChange program appears effective in its intended goals—reducing criminal behavior and reducing substance abuse—in this difficult to serve population, it appears far from cost-effective. Successful completion cost three times more than other equally effective modalities.⁵³ This does not mean that the program should be dismissed out of hand. Instead efforts should focus first on reducing the substantial costs of the program. Several strategies could substantially reduce program costs including reducing the amount of time given to complete the program (e.g., this graduate cohort needed from 156 to 280 days), increasing the number served at any one time (i.e., economy of scale), using data at intake to select those most likely to graduate (i.e., increase completion rate), identifying a less expensive location (i.e., using a non-correctional facility), contracting the program to a community provider, and/or shifting the program to coincide with a required five to six-month jail sentence (i.e., concurrent treatment). Due to the risk of reducing effectiveness, care should be taken so that the reductions in costs do not affect programmatic components. Results must make daily costs comparable with other modalities to justify program continuation.⁵⁴

The program's target population should be reexamined. First, the demographics of client receiving treatment at InterChange were also identified in other DCJ residential treatment programs. This was expected as DCJ treats only those clients who are medium to high-risk with serious substance issues—lower risk clients may be treated by services through the state funded Office of Addiction Services. In addition, program management has stated that who gets into InterChange versus other treatment programs often rests on which program has availability. This is not unusual when a system has a greater need than capacity, however it is important to match client need with appropriate treatment. So while InterChange is designed for the “most difficult to treat clients”, it appeared as though similar difficult clients also received and successfully completed treatment in the community.

More comparison data is needed. This research was unable to compare substance abuse outcomes with other treatment groups. In addition, historical substance abuse data was lacking, especially when agencies other than DCJ were involved. Research has identified various issues relating to long-term treatment success such as time in treatment, employment, housing, education, demographics, client motivation, counselor-client

⁵² In terms of Multnomah County General Fund expenditure.

⁵³ In terms of criminal behavior and not necessarily substance abuse as comparison data was unavailable.

⁵⁴ One should consider that DCJ's new residential contract rates will be \$100 per day.

relationship, and aftercare, however which of these is key in the InterChange experience? It appears with the limited data that those with methamphetamine or multiple drug problems were more likely to return to substance abuse, and most were White. Is this consistent with other DCJ programs? Better substance abuse post-treatment outcomes data and assessment of other DCJ substance abuse programs long-term outcomes are needed for comparison purposes.

Assessment of client mental health must occur. While psychotropic medication use is continued during InterChange treatment, a comprehensive assessment of mental health does not currently occur at InterChange intake.⁵⁵ Clients perform substantially better when the treatment modality is matched to their need, and mental health has been recommended as an important need assessment component.⁵⁶ Clients suffering from major mental illness and substance abuse should be treated in a dually-diagnosis program, such as the DCJ's Residential Intensive Treatment Services (RITS) program.⁵⁷ Program managers have suggested the possibility that those failing out of InterChange may have been mentally unsuitable for its single diagnosis treatment.

There are no secure treatment service options for women in Multnomah County under DCJ supervision. According to National Institute of Justice and ADAM data, women who were arrested were historically more likely to have drugs in their systems than men, including higher rates of methamphetamines and multiple drugs.⁵⁸ This population may benefit from InterChange type treatment programming.

Finally, more pressure to enter the program may be needed. Previous InterChange reports have suggested that this cohort may have had greater motivation for substance abuse treatment than more recent graduates. It is also likely that the cohort studied herein was less coerced into the treatment program than were subsequent graduate groups.⁵⁹ While research suggests the importance of client motivation to enter and engage in treatment, studies have also found that coercion appears likely to keep an individual in treatment longer.⁶⁰ This evaluation found that length of treatment was significantly predictive of successful treatment completion and that those who successfully completed treatment had significantly better long-term outcomes than those who failed InterChange.⁶¹ Finding that most clients who were referred but who failed to enter Interchange treatment did so of

⁵⁵ Program management stated that an informal one-time review of client revealed 60%-75% of clients were taking psychotropic medication while receiving treatment at InterChange. Type of illness and severity were not assessed.

⁵⁶ Tims, F. M., Inciardi, J. A., Fletcher, B. W., & Horton Jr., A. M. (1997). *The effectiveness of innovative approaches in the treatment of drug abuse*. Greenwood Press, Westport Ct. pg 10. CSAT (1999). *Screening and assessment for alcohol and other drug abuse among adults in the criminal justice system (TIP #7)*. U.S. Department of Health and Human Services. Pg. 32.

⁵⁷ The Residential Intensive Treatment Services is a 12 bed program for high risk men in the criminal justice system with chronic and persistent mental illness.

⁵⁸ Ibid, pg 15. National Institute of Justice (1999). *ADAM 1999: Adult Program Findings*. pg 68.

⁵⁹ Nice, M. (2002). *Results of InterChange Graduate's Test Assessments: May 2002*. Multnomah County.

⁶⁰ Inciardi, J. A., McBride, D. C., & Rivers, J. E. (1996). *Drug control and the courts*. Sage Publications, CA. Volume 3, pg xi. Nice, M. (2002). *Multnomah County Alcohol and Drug Treatment System: FY2002*. Board presentation 4-2-2002.

⁶¹ Nice, M. (2002). *InterChange Referrals, Clients, and Graduates: June 2002*. Multnomah County.

their own volition suggests greater coercion into treatment may be needed. This is especially true if treatment capacity were to increase.

LIMITATIONS

It is important to note the limitations to this applied evaluation, as they impact how results are interpreted and generalize to future graduate cohorts and the future of the InterChange program. As mentioned earlier, this study design was quasi-experimental and clients were not randomly assigned into treatment. Indeed, clients actually self-selected themselves into treatment at InterChange.⁶² As this was not a laboratory controlled experiment and all of the results of treatment cannot be attributed solely to the program (e.g., client maturation).

Because of limitations to available data, this study was unable to include a control group—a group of clients eligible for InterChange, but who did not enter *any* substance abuse treatment. Instead, this evaluation compared the performance of other established DCJ treatment programs.⁶³ At the time of this study we were unable to assess the outcomes of those in this specific population who needed treatment, but did not receive any treatment.⁶⁴ One is cautioned not to use the Non-graduates as a control group, as they received treatment. Furthermore, while the Residential group appeared well matched by all available data and outcomes were comparable, readers are cautioned that clients were *not exactly* the same as InterChange clients (i.e., one group entered InterChange, one group residential treatment). In addition, it is possible that the limitations of the available data (e.g., continuing care services, risk score or treatment history) could have impacted some comparison factors.

The Graduates followed in this evaluation endured formative stages of the InterChange program (i.e., “growing pains”), the effects of which are unknown. The evaluation was a collaborative effort, throughout which program information was fed back to program managers. In all likelihood, the program has matured and performed more efficiently as staff gain experience with this difficult population. Indeed, it has been determined that more recent graduates of InterChange have received an average of 27 days less of treatment than the group followed here.⁶⁵ While treatment length and successful completion have been linked to long-term treatment success, it is impossible to assess what interaction may occur between reduced treatment time and program maturity, and their affect upon long-term outcomes.

Additionally, the amount of time clients were followed during the evaluation was limited. Clients were followed for a year after their release, a typical timeframe for evaluation of

⁶² While the program is technically voluntary both the courts and PO’s exert significant leverage in a client’s decision to enter treatment. However, this is the case for other DCJ treatment programs as well.

⁶³ Thus the research hypothesis asked, without InterChange what other treatment options would have been available to the client and what might those results have been?

⁶⁴ Because the majority of substance abuse treatment occurs through the County Office of Addiction Services, identifying who did or did not receive treatment independent of DCJ would prove difficult.

⁶⁵ Nice, M. (2002). *InterChange Referrals, Clients, and Graduates: June 2002*. Multnomah County.

this type. While it is likely that initial rearrests will continue albeit at a diminished rate in this medium-high risk group, it is important to remember that cost-benefits were directly derived from the frequency of booking. It is likely that policy changes, client profiles, and program changes which have occurred, will impact program performance, and that estimates of long-term outcomes be regarded as such.

As mentioned earlier (c.f. Rearrest demographics) the sample size of the sub-treatment groups (e.g., of those rearrested or of those who tested positive for substances) made statistics unfeasible. For example, conclusions drawn about those clients rearrested based on race would be unstable due to the small size of the groups. Results of sub-treatment groups should not be generalized to the various treatment populations.

Finally, the issue of dually-diagnosed clients must be mentioned. Dually-diagnosed clients are those suffering from both mental illness and substance abuse problems. Many of those receiving treatment may have also been suffering from mental illness, the extent and severity which were unknown. Neither InterChange nor the community-based residential providers in this study were dual-diagnosis treatment facilities. While unlikely, this may be a confounding variable if the residential treatment clients received additional mental illness treatment independent of their substance abuse provider or DCJ.⁶⁶

The final stage in the InterChange evaluation will attempt to assess correlates and predictors of long-term success from rearrest or substance abuse for those graduating InterChange.

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The InterChange evaluation was a complex piece of applied research, where many individuals contributed significant time and energy. This report would not have been made possible without the help of the following individuals:

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⁶⁶ It is possible that those receiving residential treatment services could have also had mental health services independent of the residential provider and DCJ.