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HIV Testing in Correctional Agencies and Community Treatment Programs: The Impact of Internal Organizational Structure

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Abstract

This study compares the provision of HIV testing in a nationally representative sample of correctional agencies and community-based substance abuse treatment programs and identifies the internal organizational-level correlates of HIV testing in both organizations. Data are derived from the CJ-DATS' National Criminal Justice Treatment Practices Survey (NCJTP). Using an organizational diffusion theoretical framework (Rogers, 2003), the impact of *Centralization of Power, Complexity, Formalization, Interconnectedness, Organizational Resources, and Organizational Size* on HIV testing was examined in correctional agencies and treatment programs. While there were no significant differences in the provision of HIV testing among correctional agencies (49%) and treatment programs (50%), the internal organizational-level correlates were more predictive of HIV testing in correctional agencies. Specifically, all dimensions, with the exception of Formalization, were related to the provision of HIV testing in correctional agencies. Implications for correctional agencies and community treatment to adopt HIV testing are discussed.

Keywords

HIV testing; Correctional Agencies; Outpatient Substance Abuse Treatment; Organizational-Level Adoption

1. Introduction

According to the Bureau of Justice Statistics (BJS), the rate of confirmed AIDS cases was 3 times higher among prison inmates than in the US general population (Maruschak, 2005). The strategies used for HIV testing in correctional institutions vary nationwide with most states offering HIV testing on inmate request or clinical indication. The majority of inmates are infected with HIV through high-risk community behavior, including unprotected sex and substance use (Spaulding et al., 2002). Even less is known about HIV testing in community treatment settings serving predominantly criminal justice populations. HIV testing can be

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operationalized as a necessary medical practice in both correctional and treatment settings. The purpose of this study is to compare the provision of HIV testing in a nationally representative sample of correctional agencies and community treatment programs, as well as to identify the internal organizational correlates of HIV/AIDS testing in both correctional and community treatment settings.

1.1 HIV Testing in Correctional Agencies and Community Based Treatment Programs

The number of individuals involved in the US criminal justice system is growing. After adjudication, an individual can be sentenced to a variety of sanctions including imprisonment or community supervision (parole or probation). Recently there has been an increase in the number of prison inmates, jail inmates, and individuals under community supervision (Glaze & Palla, 2005; Harrison & Beck, 2006). Drug-related offenses have significantly contributed to the ballooning criminal justice populations in recent years. Overall, the number of sentenced inmates in Federal prisons for drug offenses increased 64.8% between 1995 and 2003; and, at the state level, about one-fifth (21%) of prisoners were incarcerated for a drug offense in 2002 (Harrison & Beck, 2005). Approximately three-fourths of Federal prisoners (82%), state prisoners (76%), and convicted jail inmates (77%) are alcohol- or drug-involved (James, 2004; Mumola, 1999). Nationally, the two most common offenses for which individuals were placed on probation in 2004 were drug law violations (26%) and driving while intoxicated (15%) (Glaze & Palla, 2005).

Correctional authorities have experienced a heightened sensitivity to the HIV problem during the past decade; however there is still a need for increased collaboration with public health organizations (Braithwaite, Hammett, & Mayberry, 1996; Hammett, 1998; Hammett & Harmon, 1999). This awareness occurred, in part, because it has been estimated that approximately one quarter of people living with HIV cycle through the criminal justice system (Hammett, Harmon, & Rhodes, 2002). While an overall decrease has been observed in the number of reported HIV seropositive cases in US prisons, it has been estimated that 2.0% of state inmates and 1.1% of federal inmates are infected with HIV (Maruschak, 2005). Incarcerated substance abusers are at higher risk of exposure to and acquiring HIV, given their higher rates of drug use and risky sexual behaviors. In fact, the likelihood of testing positive for HIV increases linearly as a function of drug use, with a prevalence of 2.3% among inmates who never used drugs, 2.7% of those who used drugs in the month prior to their commitment offense, 4.6% of those who ever injected, and 7.7% of those who reported ever sharing a syringe (Hammett, Harmon, & Maruschak, 1999). Similar rates of HIV infection were found among parolees and probationers (Belenko, Langley, Crimmins, & Chaple, 2004).

While there is awareness of the need for HIV testing in correctional agencies, little is known about HIV testing in community based outpatient substance abuse treatment programs. Using data from the NIDA Clinical Trials Network (CTN), Brown and colleagues (2006) reported that 48.5% of substance abuse treatment programs offered HIV testing, 83.7% provided HIV education, 65.9% provided HIV counseling, and 38.1% offered HIV treatment services. While descriptively informative, this study only included programs in the NIDA CTN and did not identify the organizational-level correlates of providing HIV testing. In another study, Friedmann and colleagues (1999) used cross-sectional data from the 1995 wave of the National Drug Abuse Treatment System Survey (NDATSS) to examine organizational factors that influence drug abuse treatment clients' access to health care, including acute care for an HIV-related condition. Findings reveal that HIV/AIDS treatment was provided by 21% of the NDATSS programs. In addition, ownership, organizational resources, and program philosophy were associated with the provision of HIV/AIDS treatment. NDATSS data was also used by D'Aunno, Vaughn, and McElroy (1999) who reported that clients' risk profile, resources, internal support, and external support were related to the percentage of clients who received

HIV testing. Additional national information is needed about HIV testing in substance abuse treatment programs that is comparable to correctional agencies.

HIV testing in criminal justice settings and substance abuse treatment programs is beneficial from both primary and secondary prevention perspectives. Criminal justice HIV testing provides an excellent public health opportunity to reach otherwise hard-to-reach and high-risk populations. In fact, many criminal offenders and drug users have limited access to health care, which is also associated with less HIV testing (Mosen, Wenger, Shapiro, Andersen, & Cunningham, 1998). Moreover, many of these individuals are isolated from the community health care system and receive their first contact with a medical provider while under criminal justice supervision (Boutwell & Rich, 2004; Glaser & Griefinger, 1993). Individuals who have been tested for HIV often neglect to return for their results (CDC, 2000). Consequently, HIV testing in criminal justice agencies and substance abuse treatment programs could increase the chance of obtaining results. In addition, early identification of HIV leads to earlier medical attention which is medically desirable (Boutwell & Rich, 2004; Stein & Nyamathi, 2000), and has been demonstrated among prisoners with their adherence to treatment regimens (Springer et al., 2004; Wohl et al., 2003).

HIV testing provides an opportunity for risk reduction counseling (CDC, 2006) and allows the opportunity for participants to become involved in secondary prevention activities, including partner notification. Testing in criminal justice agencies and community based treatment programs can also reduce the risk of transmission, especially for inmates because the majority eventually return to the community (Harrison & Beck, 2006). Finally, HIV testing in criminal justice agencies and community based organizations, such as outpatient substance abuse treatment, is ethically appropriate (Boutwell & Rich, 2004) and constitutionally mandated/protected (*Estelle v. Gamble*, 1976).

1.2 Internal Organizational Structure and the Adoption of HIV Testing

Correctional institutions and substance abuse treatment programs providing HIV care and other medical services are faced with challenges which include under-funding, under-staffing, limited access to effective therapies, and cultural barriers to caregiving (Braithwaite, Hammett, & Arriola, 2002; Brown et al., 2006; D'Aunno et al., 1999; Fridmann et al., 1999; Springer & Altice, 2005). As such, it is important to consider medical services, such as HIV testing, from the perspective of the criminal justice provider organization and substance abuse treatment program because they may have different internal organizational structures.

Given the high seroprevalence among criminal justice populations and the link between crime and drug use, the organizational correlates of HIV testing need to be identified in a nationally representative sample of criminal justice agencies as well as community based outpatient substance abuse treatment programs. According to a diffusion theoretical framework (Rogers, 2003), internal organizational structure can be examined as six inter-related dimensions of management and organizational characteristics, including (1) *Centralization of Power*, (2) *Complexity*, (3) *Formalization*, (4) *Interconnectedness*, (5) *Organizational Resources*, and (6) *Organizational Size*.

(1) *Centralization* is the concentration of power in an organization. For example, more educated administrators may centralize power since these individuals possess the power and autonomy to make authority based adoption decisions. The control of power in the hands of a small number of administrators is an information dominating strategy that may inhibit both the learning and acceptability of line staff (e.g., those who are responsible for and/or conduct the HIV testing) (Diamond, 1995). In fact, studies have demonstrated a negative relationship between centralization and adoption (Damanpour, 1991; Kavanagh, 1995; Kimberly & Evanisko, 1981).

(2) *Complexity*, can be defined as the extent of professional knowledge and expertise within an occupational specialty and has been found to have a positive relationship with adoption behaviors (Damanpour, 1991;Fichman, 2001). “Learning organizations” promote education as a shared responsibility and invest in increasing staffs’ technical knowledge and expertise through professional development and other training activities. These organizations are expected to be more open to newer medical practices (Glassman, 1995;McGill, Slocum, & Lei, 1992).

(3) *Formalization*, defined as the extent to which rules and procedures govern employee and organizational activities, can be measured by the presence of rule manuals and job descriptions (Damanpour, 1991;Cohn & Turyn, 1980). Formal and inflexible environments are hypothesized to stifle creativity and alienate workers (Adler & Borys, 1996); thereby, hindering staff impetus to learn about, and subsequently adopt, new medical procedures (Bailyn, 1985;Raelin, 1985). Thus, formalization can have a negative relationship on the adoption of HIV testing in correctional agencies and community based treatment programs.

(4) *Interconnectedness* is the degree to which an organization is embedded with in a social network of other organizations. Cross-organizational involvement increases the capacity to successfully exchange knowledge (Damanpour, 1991), and thus fosters the flow of information on public health concerns. Interconnectedness is expected to have a positive relationship with the provision of HIV testing.

(5) *Organizational Resources* can be described as the extent to which germane resources are available to a correctional agency or substance abuse treatment program. Specifically, the availability of financial, material, and human resource slack (Miller & Friesen, 1982) provides a comfortable environment in which adoption experimentation, and possible failure, can occur (Damanpour, 1991;Drazin & Schoonhowern, 1996;Roman & Johnson, 2002). However, it must be noted that some criminal justice agencies have been resistant to adopt HIV testing because of subsequent financial medical treatment implications (Boutwell & Rich, 2004).

(6) *Organizational Size* positively impacts adoption behavior (Castle & Banaszak-Holl, 1997;Fennell, 1984;Kimberly & Evanisko, 1981;Knudsen & Roman, 2004;Roman & Johnson, 2002). Larger criminal justice agencies and substance abuse treatment programs will have more capital for investing in new medical procedures, greater volumes of activity, and possess the manpower necessary for implementation. Organizational size has been conceptualized as the number of FTEs (Knudsen, Johnson, Roman, & Oser, 2003;Roman & Johnson, 2002).

Additional research is needed on HIV testing in nationally representative samples of correctional agencies and community based outpatient substance abuse treatment programs. Extant studies have either focused on a single organization or a specific geographic location such as a community or state (Brown, Chu, Nemoto, Ajuluchukwu, & Primm, 1989;Brown et al., 2006;Hartel & Schoenbaum, 1998;Lally et al., 2005). As such, the précis here is that organizational-level characteristics may impact the adoption of medical procedures, such as HIV testing, in correctional agencies and community based outpatient substance abuse treatment programs. The purpose of this paper is threefold. First, differences in internal organizational structure will be examined across correctional agencies and community substance abuse treatment programs. Second, variation in internal organizational structure will be explored as a function of the adoption of HIV testing practices in both correctional agencies and community substance abuse treatment programs. Third, differences in the organizational-level correlates of HIV testing (i.e., adoption behavior) among correctional agencies and substance abuse treatment programs will be identified.

2. Materials and Methods

2.1. Sample

Data are derived from the NIDA funded Criminal Justice Drug Abuse Treatment Studies' (CJ-DATS) National Criminal Justice Treatment Practices Survey (NCJTP). Specifically, data are used from Survey 3, which is a nationally representative sample of wardens/directors of prisons, jails, and community corrections (e.g., administrators in charge of probation and parole offices) as well as directors of outpatient adult substance abuse treatment programs that self-report serving criminal-justice involved clients. Data was collected through mail surveys with 289 corrections administrators and 217 substance abuse treatment directors between 2003 and 2005. Administrators and Directors served as a proxy for the organization; therefore, the unit of analysis is the organization. See Taxman and colleagues (2006) for additional information on the NCJTP survey methodology.

2.2. Measures

The dependent variable used in the binary logistic regression models is the presence of organizational HIV testing (0=no; 1=yes). Specifically, administrators were asked "Is HIV/AIDS testing offered to clients at your facility/location?" Six theoretical concepts of Internal Organizational Structure were measured: *Centralization*, *Complexity*, *Formalization*, *Interconnectedness*, *Organizational Resources*, and *Size*. First, *Centralization* measures the Administrator's education. This was an ordinal measure of the highest degree obtained and was composed of the categories of high school degree (coded 1), Associate's Degree (coded 2), Bachelor's Degree (coded 3), Master's Degree (coded 4), and J.D., Ed.D., Ph.D., or M.D. (coded 5).

Three variables measure the concept of *Complexity*, including a 5-point likert scale item and two additive scales. Administrators were asked to rate the importance of substance abuse treatment as compared to HIV/AIDS counseling/treatment on a scale ranging from 1 (much less important) to 5 (much more important). In addition, the training/development scale, derived from the TCU Survey of Organizational Functioning (Lehman, Greener, & Simpson, 2002), and a support scale were included as measures of *Complexity*. Both the training/development scale and the support scale are additive scales which maintain good reliability, $\alpha=.80$ and $\alpha=.61$ respectively.

The presence of a formal written treatment protocol within the organization (1=yes; 0=no) is used as an indicator of *Formalization*. *Interconnectedness*, is measured by three scales which target the extent to which an organization experiences systems integration with substance abuse treatment programs ($\alpha=.91$), with judiciaries ($\alpha=.86$), and with corrections including prison, jail, and community corrections ($\alpha=.88$). Each additive scale ranges from 0 to 11, with a higher score indicating greater systems integration.

The fifth component, *Organizational Resources*, contains three sub-scales from the TCU Survey of Organizational Functioning (Lehman, Greener, & Simpson, 2002). The financial resource scale is an additive scale comprised of 3 items which are measured on a 5-point likert scale ($\alpha=.66$). Organizations with a higher score have more financial resources. The staff resource scale is comprised of the staffing and retention subscales and maintains a good internal consistency ($\alpha=.70$). The staff resource scale ranges from 4 (minimal staff resources) to 20 (considerable staff resources). Three items comprise the office/physical space scale ($\alpha=.79$). Organizations scoring higher on this scale are resource rich in their physical office space.

Organizational Size, the final component of Internal Organizational Structure, is measured as the natural log of the number of full time equivalent employees (FTE's). A log transformation of this indicator is appropriate because the distribution of FTE's is positively skewed.

2.3. Analytic Strategy

The analytic approach uses data from the National Criminal Justice Treatment Practices Survey (NCJTP) to meet the three research objectives. First, we examined group differences between correctional agencies and substance abuse treatment programs across the organizational-level variables using chi-squares and ANOVAs. Second, differences between correctional agencies providing HIV testing and organizations not providing HIV testing were examined using chi-squares and ANOVAs across each of the organizational-level measures. In addition, analyses examined group differences across organizational-level measures for treatment programs which have adopted HIV testing and non-adopters. Third, multivariate models examined the effects of *Centralization of Power*, *Complexity*, *Formalization*, *Interconnectedness*, *Organizational Resources*, and *Organizational Size* on HIV testing in both correctional agencies (i.e., prisons, jails, and community corrections) and community-based outpatient substance abuse treatment programs. Given the dichotomous nature of the dependent variables, binary logistic regression analysis was used (Mertler & Vennatta, 2002). As a common occurrence in self-administered survey data, missing data on continuous variables were imputed using mean substitution. None of the independent variables correlated so highly as to imply problems with multicollinearity. Results of the binary logistic regression models reported the unstandardized coefficients, standard errors, odds ratios, and 95% confidence intervals.

3. Results

3.1. Descriptive

As displayed in Table 1, there was no statistically significant difference in the percentage of correctional agencies (48.44%) and the percentage of substance abuse treatment programs (51.44%) providing HIV testing. In this nationally representative sample, approximately half of the correctional agencies and outpatient substance abuse treatment programs provide HIV testing. Among the *Centralization* dimension, substance abuse treatment program administrators' reported significantly more education than correctional agency administrators.

In the second dimension, *Complexity*, there were no significant differences between the two types of agencies on the support scale. However, correctional agencies scored significantly lower on the training/development scale than their community-based treatment counterparts. As expected, treatment programs were significantly more likely to report that substance abuse treatment was more important than HIV counseling or treatment. There were no significant differences between correctional agencies (62%) and treatment programs (60%) in the percentage of organizations that used a formal written treatment protocol.

There were statistically significant differences on two of the three variables for *Interconnectedness*. Specifically, correctional agencies were more likely to report systems integration with substance abuse treatment programs and less likely to report systems integration with judiciaries. Treatment programs also reported having more *Organizational Resources*, specifically financial resources, than their criminal justice counterparts. In addition, correctional agencies employed significantly more FTEs than their community-based treatment counterparts.

The next step was to categorize correctional agencies into two groups based on the availability of HIV testing: no HIV testing (n=149) and HIV testing (n=140). Community based treatment programs were also dichotomized into programs that did not offer HIV testing (n=101) and those that did provide HIV testing (n=107). Nine cases were excluded from the community based treatment program analyses because they were missing data on the variable of interest,

HIV testing. Results of the bivariate comparisons for both correctional agencies and treatment programs are displayed in Table 2.

There were several differences between correctional agencies that provided HIV testing and those that did not provide HIV testing across the six domains of *Centralization*, *Complexity*, *Formalization*, *Interconnectedness*, *Organizational Resources*, and *Size*. For *Complexity*, criminal justice organizations that provide HIV testing were more likely to have training/development and support for new services and programs. In addition, HIV testing was significantly more likely to occur in correctional organizations with greater financial resources and more employees.

There was only one significant difference between treatment programs and the provision of HIV testing. Specifically, substance abuse treatment programs providing HIV testing employed significantly more FTEs than their non-HIV testing counterparts.

3.2. Multivariate

The results of the binary logistic regression models which identified the correlates of HIV testing are displayed in Table 3 for correctional agencies and in Table 4 for community-based substance abuse treatment programs. In the multivariate model for correctional agencies, the *Centralization* measure was a significant correlate of HIV testing. Specifically, correctional agencies employing administrator's with more education were significantly less likely to provide HIV testing. In a similar fashion, one of the specific measures of *Complexity* – Training and Development -- was positively related to HIV testing in correctional agencies.

The *Formalization* measure -- Utilizing a Formal Written Treatment Protocol -- was not significant which suggests that the varying use of some formalized practices neither increases nor decreases the likelihood of an organization to provide HIV testing. One of the three variables assessing *Interconnectedness*, was a significant correlate of HIV testing in correctional agencies. Specifically, agencies reporting greater levels of systems integration with judiciaries were significantly less likely to offer HIV testing.

Finances, staff, and office/physical space were included as measures of *Organizational Resources* in the multivariate model; however, only one measure reached statistical significance. Holding all other variables constant, correctional agencies with greater financial resources were significantly more likely to make HIV testing available. The final dimension, *Size*, was related to HIV testing with odds ratios indicating that larger agencies were 1.5 times more likely to provide HIV testing as compared to smaller agencies.

Table 4 displays the binary logistic analyses of HIV testing in community based substance abuse treatment programs on the measures of *Centralization*, *Complexity*, *Formalization*, *Interconnectedness*, *Organizational Resources*, and *Size*. Only one domain, *Size*, was a significant correlate of HIV testing in substance abuse treatment programs. Specifically, odds ratios indicate that substance abuse treatment organizations employing more FTEs were 1.4 times more likely to provide HIV testing compared to smaller treatment programs.

4. Discussion

This study is the first to examine the organizational-level characteristics impacting the provision of HIV testing in a nationally representative sample of both correctional agencies and community based outpatient substance abuse treatment programs. Correctional agencies and substance abuse treatment programs provide a captive audience for HIV prevention programs and provide access to individuals who engage in high-risk behaviors such as injection drug use and commercial sex work (Braithwaite et al., 2002; Brown et al., 2006; Oser et al.,

2006). Therefore, prisons, jails, community corrections, and community treatment providers need to collaborate to reduce risky behaviors and ultimately decrease the spread of HIV. Results of this study indicate that about one-half of correctional agencies and one-half of the outpatient community-based substance abuse treatment programs are providing HIV testing. This is substantially lower than national survey data from just a decade ago which reported that 60% of outpatient substance abuse treatment units offered HIV testing (D'Aunno et al., 1999); however, it is consistent with more recent data from the NIDA Clinical Trials Network (CTN) (Brown et al., 2006).

Findings from the binary logistic regression model indicate that correctional agencies were more likely to provide HIV testing when organizational power was not centralized, when the organization provided training and professional development activities for staff, when the organization was less integrated with judiciaries, when the organization had greater financial resources, and when the organization had more FTE employees. Overall, the multivariate model which used a diffusions framework (Rogers, 2003) to identify the independent correlates of HIV testing in correctional agencies was significant. *Formalization* was the only dimension of the theoretical model that was not associated with HIV testing in correctional agencies. Bureaucratic formalization has been demonstrated to limit the aspiration to learn about and subsequently adopt new medical practices as a result of limited job autonomy (Aiken, Bacharach, & French, 1980; Bailyn, 1985; Raelin, 1985); however, the lack of significance could be attributed to the operationalization of the variable in the present study.

Conversely, the organizational-level variables derived from Roger's (2003) diffusions theoretical framework did not explain the provision of HIV testing in community based substance abuse treatment programs that serve criminal justice involved clients. In fact, employing more FTEs was the only significant correlate of HIV testing in treatment programs. The positive relationship between size of a treatment program and the provision of new medical practices has been repeatedly demonstrated in the medical literature (Castle & Banaszak-Holl, 1997; Fennell, 1984; Kimberly & Evanisko, 1981; Knudsen & Roman, 2004; Roman & Johnson, 2002).

Perhaps, substance abuse treatment programs' organizational adoption behaviors may be affected by numerous external factors that are mostly beyond the program's control, such as state regulations, policy, union issues, and competitive threats posed by other treatment programs. For example, research on the adoption of technical innovations in hospitals was positively influenced by competition with neighboring facilities (Kimberly & Evanisko, 1981). In addition, it is clear that there is resistance to adopting HIV testing practices, which could be related to "social construction" (Nicholson-Crotty & Nicholson-Crotty, 2004). Specifically, social construction theory would suggest that criminal offenders and drug users are negatively constructed groups by society because of social anxieties; furthermore, HIV testing is more controversial and value-laden than other medical practices (D'Aunno, Vaughn, & McElroy, 1999; Nicholson-Crotty & Nicholson-Crotty, 2004). As such, little is known about the financial commitment of policy makers to public health programs designed to benefit these criminal offenders and substance abusers. Future research should examine an ecological model (McLeroy, Bibeau, Steckler, & Glanz, 1988) which incorporates intrapersonal factors (client-level), interpersonal factors, institutional factors (correctional or treatment organizations), community factors, and public policy to examine the availability of HIV testing.

Several limitations need to be reported. First, the NCJTP survey uses the administrator or director as a proxy for the organization and reducing the organization to the equivalent of an individual may be an oversimplification (Rogers, 2003). Second, this study used cross-sectional data. Future studies should examine predictors, rather than correlates, of organizational-level adoption of HIV testing. Third, the extent of implementation of HIV

testing among adopting organizations is unknown. For example, HIV testing may only be provided to certain individuals based upon engagement in high risk behaviors such as injection drug use or transactional sex. Fourth, the NCJTP survey did not collect data from other types of substance abuse treatment facilities (e.g., residential programs, methadone maintenance programs, or therapeutic communities) which limit the generalizability of this study.

Despite these limitations, the multivariate models assessing the correlates of HIV testing within correctional agencies and community based substance abuse treatment programs provide recommendations for administrators wishing to adopt HIV testing. Specifically, increasing staff knowledge decreases the complexity of a new medical procedure. Organizations that invest in training and professional development increase staff knowledge and create an innovation-friendly environment. In addition, organizations with limited financial resources can engage in an in-house strategy to reduce the complexity of HIV testing using educational approaches like newsletters, videos, or magazines (Meyer, Johnson, & Ethington, 1997). Systems integration is also important to develop guidelines and institute policies in order to standardize voluntary HIV testing for criminal offenders and substance users receiving community treatment. This collaborative effort could increase the HIV testing, improve surveillance data, provide the foundation for implementing educational programs, facilitate appropriate medical care, and assist with discharge planning to ensure that appropriate linkages are made to community resources in order to achieve primary and secondary prevention goals (Dean, Lanksy, & Fleming, 2002).

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Table 1
Internal Organizational Structure by Type of Program

| | Correctional Agencies (n=289) | Tx Programs (n=217) | Total Sample %/Mean (S.D.) (n=506) | Min. – Max. |
|---------------------------------|-------------------------------|---------------------|------------------------------------------|---------------|
| % HIV Testing | 48.44 | 51.44 | 49.70 (50.05) | 0.00 – 100.00 |
| Centralization | | | | |
| Administrator's Education ** | 3.14 | 3.54 | 3.31 (.97) | 1.00 – 5.00 |
| Complexity | | | | |
| Training/ | 17.95 | 18.70 | 18.27 (3.24) | 7.00 – 25.00 |
| Development Scale * | | | | |
| Support Scale | 14.08 | 13.95 | 14.02 (2.05) | 6.00 – 20.00 |
| Importance of Substance | 2.90 | 3.11 | 3.00 (.90) | 1.00 – 5.00 |
| Abuse Tx as compared to HIV | | | | |
| Counseling/Tx * | | | | |
| Formalization | | | | |
| Formal Written Tx Protocol | 62.00 | 60.00 | 61.00% (48.80) | .00 – 100.00 |
| Interconnectedness | | | | |
| Relationship w/ Tx Programs | 3.92 | 1.66 | 2.95 (3.29) | .00 – 11.00 |
| Scale ** | | | | |
| Relationship w/ Judiciary | 1.52 | 2.69 | 2.02 (2.50) | .00 – 11.00 |
| Scale ** | | | | |
| Relationship w/ Corrections | 3.85 | 3.74 | 3.80 (3.19) | .00 – 11.00 |
| Scale | | | | |
| Organizational Resources | | | | |
| Financial Resources Scale * | 6.83 | 7.35 | 7.05 (2.35) | 3.00 – 15.00 |
| Staff Resources Scale | 11.05 | 11.28 | 11.15 (3.30) | 3.00 – 20.00 |
| Office/Physical Space Scale | 10.09 | 10.26 | 10.16 (2.75) | 3.00 – 15.00 |
| Size | | | | |
| Natural Log of FTEs ** | 4.30 | 2.21 | 3.40 (1.70) | .00 – 9.13 |

*
p<.05

**
p<.01

Table 2
Internal Organizational Structure by HIV Testing Status in Correctional Agencies and in Treatment Programs

| | Correctional Agencies | | Treatment Programs | |
|-------------------------------------------------------------------|------------------------|---------------------|------------------------|---------------------|
| | No HIV Testing (n=149) | HIV Testing (n=140) | No HIV Testing (n=101) | HIV Testing (n=107) |
| Centralization | | | | |
| Administrator's Education | 3.24 | 3.04 | 3.59 | 3.50 |
| Complexity | | | | |
| Training/Development Scale | 17.41 | 18.53** | 18.77 | 18.56 |
| Support Scale | 13.81 | 14.36* | 13.98 | 13.94 |
| Importance of Substance Abuse Tx as compared to HIV Counseling/Tx | 2.83 | 3.02 | 3.01 | 3.18 |
| Formalization | | | | |
| Formal Written Tx Protocol | 62.00 | 62.00 | 53.00 | 66.00 |
| Interconnectedness | | | | |
| Relationship w/ Tx Programs Scale | 3.79 | 4.05 | 1.44 | 1.85 |
| Relationship w/ Judiciary Scale | 1.60 | 1.44 | 2.64 | 2.73 |
| Relationship w/ Corrections Scale | 3.62 | 4.09 | 3.48 | 3.98 |
| Organizational Resources | | | | |
| Financial Resources Scale | 6.45 | 7.24** | 7.44 | 7.18 |
| Staff Resources Scale | 10.82 | 11.30 | 11.32 | 11.17 |
| Office/Physical Space Scale | 9.83 | 10.37 | 10.32 | 10.13 |
| Size | | | | |
| Natural Log of FTEs | 3.83 | 4.80** | 1.97 | 2.41** |

* p<.05

** p<.01

Table 3
 Logistic Regression Analysis of HIV Testing in Correctional Agencies (n=289)

| | Coefficient (SE) | OR | 95% CI |
|-------------------------------------------------------------------|-------------------------|------|-------------|
| Centralization | | | |
| Administrator's Education | .27 (.14) ^{-*} | .76 | .58 – 1.01 |
| Complexity | | | |
| Training/Development Scale | .08 (.05) [*] | 1.09 | .99 – 1.19 |
| Support Scale | .03 (.07) | 1.03 | .90 – 1.19 |
| Importance of Substance Abuse Tx as compared to HIV Counseling/Tx | .10 (.15) | 1.11 | .83 – 1.47 |
| Formalization | | | |
| Formal Written Tx Protocol | .05 (.28) ⁻ | .95 | .55 – 1.64 |
| Interconnectedness | | | |
| Relationship w/ Tx Programs Scale | .04 (.04) | 1.05 | .96 – 1.14 |
| Relationship w/ Judiciary Scale | .12 (.07) ^{-*} | .89 | .78 – 1.01 |
| Relationship w/ Corrections Scale | .04 (.04) | 1.04 | .96 – 1.13 |
| Organizational Resources | | | |
| Financial Resources Scale | .11 (.06) [*] | 1.12 | .99 – 1.27 |
| Staff Resources Scale | .02 (.05) ⁻ | .98 | .90 – 1.08 |
| Office/Physical Space Scale | .00 (.05) ⁻ | 1.00 | .90 – 1.10 |
| Size | | | |
| Natural Log of FTEs | .45 (.09) ^{**} | 1.57 | 1.31 – 1.88 |

⁻ χ^2 2 Log likelihood=349.98; Model χ^2 =50.38, p<.001

^{*} p<.05 (one-tailed significance test)

^{**} p<.01

Table 4
 Logistic Regression Analysis of HIV Testing in Community Treatment Programs (n=217)

| | Coefficient (SE) | OR | 95% CI |
|-------------------------------------------------------------------|-------------------------|------|-------------|
| Centralization | | | |
| Administrator's Education | .10 (.17) ⁻ | .91 | .65 – 1.26 |
| Complexity | | | |
| Training/Development Scale | .02 (.05) ⁻ | .98 | .88 – 1.08 |
| Support Scale | .07 (.08) ⁻ | .93 | .79 – 1.10 |
| Importance of Substance Abuse Tx as compared to HIV Counseling/Tx | .27 (.19) | 1.30 | .90 – 1.88 |
| Formalization | | | |
| Formal Written Tx Protocol | .45 (.31) | 1.57 | .86 – 2.90 |
| Interconnectedness | | | |
| Relationship w/ Tx Programs Scale | .06 (.07) | 1.06 | .93 – 1.22 |
| Relationship w/ Judiciary Scale | .00 (.06) | 1.00 | .90 – 1.12 |
| Relationship w/ Corrections Scale | .06 (.05) | 1.06 | .95 – 1.17 |
| Organizational Resources | | | |
| Financial Resources Scale | .06 (.07) ⁻ | .94 | .82 – 1.08 |
| Staff Resources Scale | .00 (.05) | 1.00 | .91 – 1.10 |
| Office/Physical Space Scale | .01 (.06) | 1.01 | .90 – 1.14 |
| Size | | | |
| Natural Log of FTEs | .36 (.15) ^{**} | 1.44 | 1.08 – 1.91 |

⁻ 2 Log likelihood=261.33; Model χ^2 =16.91, p<.15

* p<.05 (one-tailed significance test)

** p<.01