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HIV/AIDS Services in Private Substance Abuse Treatment Programs

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Abstract

Background—HIV infection among substance abusers is a growing concern in the United States. Little research, however, has examined the provision of HIV/AIDS services in substance abuse treatment programs.

Methods—This study examines the provision of onsite HIV/AIDS services in a nationally representative sample of 345 privately funded substance abuse treatment programs. Data were collected via face-to-face interviews with administrators and clinical directors of treatment programs in 2007–2008.

Results—Results show that larger programs and programs with a higher percentage of both African American and injection drug using (IDU) patients were more likely to offer onsite HIV/AIDS support groups and a dedicated HIV/AIDS treatment track. Multinomial logistic regression reveals that the odds of offering onsite HIV testing services were higher for hospital based programs, programs providing medical services onsite, and programs with higher percentages of African American patients, relative to the odds of offering no HIV testing or referring patients to an external provider for HIV testing services. The odds of providing onsite testing were lower for outpatient-only treatment programs, relative to the odds of offering no HIV testing or referring patients to an external provider for HIV testing services.

Conclusions—Our findings highlight critical barriers to the adoption of onsite HIV/AIDS services and suggest treatment programs are missing the opportunity to significantly impact HIV-related health outcomes.

Keywords

substance abuse treatment; HIV/AIDS services; HIV testing

1. Introduction

HIV infection among substance abusers is a growing concern in the United States (Des Jarlais et al., 2007; NIDA, 2006; Strathdee and Stockman, 2010; Volkow and Montaner, 2010). While injection drug use (IDU) has been a primary mode of HIV transmission since

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the 1980s, HIV prevalence among non-IDU substance abusers (e.g., alcohol and stimulant abusers) now parallels that of IDUs (Deiss, 2010; Strathdee and Stockman, 2010). These data suggest the integration of substance abuse treatment with HIV/AIDS services may be an effective public health strategy for reducing contraction and spread of HIV/AIDS.

HIV risk assessment, education and prevention, and testing are important components of comprehensive HIV/AIDS service delivery recommended by US federal health agencies (Centers for Disease Control and Prevention, 2001; Institute of Medicine, 2000; National Institute on Alcohol Abuse and Alcoholism, 2002; National Institute on Drug Abuse, 2002, 2006; Substance Abuse and Mental Health Services Administration, 2000). Risk assessment is a first step in addressing behaviors that put substance abusers at risk for contracting and spreading HIV and facilitates the linkage of at-risk patients to HIV education and counseling services. HIV testing is a fundamental component of quality care for at-risk populations and has long been recommended for individuals with SUDs.

Onsite delivery of HIV/AIDS services in substance abuse treatment programs is associated with improvements in risk reduction, greater HIV/AIDS service utilization, and decreased rates of new HIV transmission, compared to provision of HIV/AIDS services in ancillary referral agencies (Friedmann et al., 2000; McLellan, 1993; Rothman et al., 2007; Volkow and Montaner, 2010). Further, substance abuse treatment itself is both a primary and secondary HIV prevention strategy (Metzger et al., 1998; Sorenson and Copeland, 2000; Volkow and Montaner, 2010). Despite federal efforts to increase HIV/AIDS services in US health care settings, only 29% of substance abuse treatment programs offer either offsite or onsite HIV testing and just over 50% provide HIV/AIDS education, counseling, or support (Substance Abuse and Mental Health Services Administration, 2009).

1.1 Organizational adoption of HIV/AIDS services

Organizational characteristics may influence HIV service adoption based on compatibility (i.e., fit with the organization's values, norms, and needs) and pressure from external stakeholders (Rogers, 2003). Since for-profit programs offer fewer wraparound services and serve fewer patients at high-risk for HIV, they may be less likely to adopt HIV services (Ducharme et al., 2007; Friedmann et al., 2003). Program size may influence adoption of HIV/AIDS services since larger programs have greater surplus or discretionary resources (i.e., slack resources) available for ancillary service implementation (Damanpour, 1991; Rogers, 2003). Hospital-based programs may be more likely to offer HIV services due to their strong medical orientation and access to medical resources (Knudsen and Oser, 2009). Finally, patient need for HIV services (i.e., a higher percentage of IDU and minority patients) may influence program adoption of onsite HIV services (e.g., Brown et al., 2006, 2009; Knudsen and Oser, 2009; Pollack and D'Aunno, 2010).

A small body of literature examines provision of HIV services in US treatment programs. For example, one set of studies reveals that public ownership, accreditation, program size, and proportion of IDU and minority patients were positively associated with the provision of HIV testing in outpatient-only programs (D'Aunno et al., 1999; Pollack et al., 2006; Pollack and D'Aunno, 2010). Program ownership, patient-staff ratio, and provision of medical care onsite were associated with onsite HIV testing in residential-only programs (Strauss et al., 2003). Finally, adolescent-only treatment programs offering overnight levels of care and onsite primary medical care were more likely to provide HIV prevention services and onsite HIV testing (Knudsen and Oser, 2009).

This body of research has limitations. First, research examines a limited range of onsite HIV/AIDS services. Second, studies focus on sub-samples of the US treatment system (e.g., outpatient-only, residential-only) and findings, therefore, lack generalizability. Third,

limited sample size has precluded the use of multivariate analytic techniques. One exception is the work of D'Aunno and colleagues (D'Aunno et al., 1999; Pollack et al., 2006; Pollack and D'Aunno, 2010). However, this research is limited to outpatient-only treatment settings which are less likely to provide HIV testing. Further, the researchers did not examine the provision of onsite HIV testing, which is an important distinction in terms of service integration.

To address these gaps in the literature, this study uses data from a nationally representative sample of privately funded treatment programs to examine provision of a wide range of onsite HIV/AIDS services. It is important to examine provision of HIV/AIDS services in privately funded programs since they are less likely than public programs to offer HIV/AIDS services (Ducharme et al., 2007; Pollack and D'Aunno, 2010). Patients seeking treatment in this sector may therefore face a significant disparity in their access to HIV/AIDS care.

2. Methods

2.1. Data Collection and Sample

Data for this study are taken from a nationally representative sample of 345 privately funded substance abuse treatment programs. Data were collected via structured face-to-face interviews with program administrators and clinical directors from February 2007 to July 2008. Onsite interviews were conducted by a trained field interviewer from the University of Georgia. On average, interviews were approximately 2.5 hours in length. Programs were selected via a two-stage sampling. First, we assigned all US counties to 1 of 10 strata based on population and then randomly sampled within strata. This process ensured inclusion of a mixture of urban, suburban, and rural areas. Next, all substance abuse treatment facilities in the sampled counties were enumerated using national and state directories. Treatment programs were then proportionally sampled across strata, with telephone screening used to establish eligibility for the study. Facilities screened as ineligible were replaced by random selection of alternative treatment programs from the same geographic stratum. The final sample represented a 67% response rate. (See Oser and Roman (2007) for complete details of the research methods). To assess response bias, we compared the characteristics of study participants with non-responding programs at this wave of data collection and found there were no significant differences between participants and non-responders on key organizational characteristics.

Treatment programs were defined as “private sector” if at least 50% of their annual operating revenues were derived from commercial insurance, patient fees, and income sources other than government block grants or contracts. Medicaid and Medicare, which are reimbursements received by programs on an individual patient basis, were not regarded as “block” funding. Based on this definition, less than half of program funding may be derived from public sources. To be eligible for inclusion in the study, programs were required to offer alcohol and drug treatment at a level of intensity at least equivalent to American Society of Addiction Medicine Level 1 outpatient services. Counselors in private practice; halfway houses and transitional living facilities; programs offering exclusively methadone maintenance, court-ordered driver education classes, or detoxification services; and programs located in correctional or Veteran’s Administration facilities were not eligible for the study.

The face-to-face interview approach offers advantages in assuring data quality. Respondents are provided with a list of pre-interview questions to assist them in preparation for the interview including numerical breakdowns of various facets of the program. This allows respondents an opportunity to consult their records prior to the interview to ascertain, for

example, the percentage of patients that were tested for HIV in the past year. The interview included a detailed module on the provision of HIV/AIDS services, which allowed the interviewer to determine if programs were meaningful providers of HIV services. Further, detailed follow-up questions allowed the interviewer to check for internal consistency of respondents' answers and for real-time clarification and correction. All research procedures were approved by the University of Georgia's Institutional Review Board.

2.2. Measures

2.2.1 HIV/AIDS services—Program administrators were asked a series of questions about HIV/AIDS services, including HIV risk assessment, HIV/AIDS education and prevention, and HIV testing. A complete description of these variables is provided in Table 1.

2.2.2 Dependent Variables—Two dependent variables are used in the bivariate logistic regression models. First, *onsite support groups* (N=46) is a dichotomous measure that denotes whether programs offer HIV/AIDS support groups onsite (1=offer onsite support groups, 0=do not offer onsite support groups). In this study, we define onsite HIV/AIDS support groups as either support groups for patients with HIV/AIDS lead by a counselor or peer-to-peer support groups, both of which provide an important resource to HIV/AIDS patients that is available at the program, rather than a different location in the community. Second, *dedicated track* is a dichotomous variable. Programs that had a dedicated HIV/AIDS treatment track (i.e., a separate substance abuse treatment track for patients with HIV/AIDS that is tailored to the specific needs of patients with HIV/AIDS) were coded '1' and programs that did not have a dedicated HIV/AIDS track were coded '0' on this variable. The dependent variable used in the multinomial logistic regression model predicting the adoption of HIV testing services is coded into three categories (0= program does not offer HIV testing, 1= program offers onsite HIV testing, 2=program refers patients to external provider for HIV testing).

2.2.3 Organizational, patient, and environmental characteristics—Building on existing research and theory, we include several measures of organizational, patient, and environmental characteristics hypothesized to influence provision of HIV services (i.e., onsite HIV/AIDS support groups, dedicated HIV/AIDS treatment track, and onsite HIV testing). *For-profit* and *hospital based* are dichotomous variables (1=for-profit, 0=non-profit; hospital based=1, not hospital based=0). *Program size* is measured by the number of full time equivalents (FTEs); this measure is log transformed to account for skew. *Accredited* is a dichotomous variable that denotes whether programs are accredited by Joint Commission or the Commission on Accreditation of Rehabilitation Facilities. We include the percentage of counselors with a master's degree or higher as a measure of staff professionalism. *Outpatient-only* (1=programs that offer only outpatient levels of care, 0=programs that offer inpatient/residential only or mixed levels of care) and *onsite medical services* (1=program provides medical services onsite, 0=program does not provide medical services onsite) are dichotomous variables. We also include two continuous measures of patient characteristics: the percentage of patients who are *African American* and the percentage of patients who are *injection drug users*. (Note that we examined two additional patient characteristics, the percentage of Hispanic patients and the percentage of female patients. However, neither of these variables were significant in any of the bivariate correlations or multivariate models. Therefore, these variables were excluded from the final analyses.) To account for urban versus rural location, we include a set of dummy variables measuring city population size (<14,999; 15,000 to 49,999; 50,000 to 199,999; >200,000).

2.3. Statistical Analysis

Three analytic techniques were used to investigate the adoption of HIV/AIDS services. First, we used descriptive statistics to determine the range of HIV/AIDS services offered by treatment programs. Since there was little variation in the provision of HIV education and prevention services (more than 80% of programs reported providing these services), inferential statistics were not estimated. Second, we performed a series of bivariate logistic regressions to identify organizational characteristics associated with the availability of onsite HIV/AIDS support groups and dedicated HIV/AIDS treatment tracks. Due to the small number of observations on these dependent variables, our ability to estimate multivariate models was limited. Third, we use multinomial logistic regression to model the adoption of HIV testing services. Data were analyzed using Stata 11.0 (StataCorp, 2009).

3. Results

3.1. Descriptive Statistics

Descriptive statistics are presented in Table 1. Overall, 91% of programs assessed patients for HIV/AIDS risk at some point during treatment (74% of programs assessed patients at intake and 17% assessed patients later during treatment). Programs that conducted HIV/AIDS risk assessments reported that on average, 31% of assessed patients were considered at high risk for HIV/AIDS. Risk assessment was based on frequency of injection drug use, severity of substance dependence, multiple sex partners, and frequency of unprotected intercourse.

Next, we assessed HIV/AIDS education and prevention services. The majority of programs reported offering HIV/AIDS education and prevention services to patients (83%). More than half of the programs offered these in stand-alone sessions (52%) with the remaining programs integrating education and prevention into counseling services (45%) or a combination of both approaches (4%).

Respondents also reported on the content and intensity of educational services. Programs reported placing the greatest emphasis on the transmission of HIV/AIDS (Mean=4.76) and developing safer sex skills (Mean=4.44) and placed a lower emphasis on skill rehearsal of correct condom use (Mean=2.52) and practicing strategies to stop verbal coercion to engage in unsafe sex (Mean=2.99) (Responses ranged from 0 (no extent) to 5 (very great extent)). Patients reportedly received an average of 2.48 hours of HIV/AIDS education/prevention training during a typical treatment episode (Range: less than 1 hour to 20 hours). Just over half of programs (57%) reported that the counselors in their program were required to cover HIV/AIDS education and prevention in their routine interactions with patients. Of these programs, approximately 65% reported that all counselors were expected to use standardized content when educating their patients about HIV/AIDS.

Finally, we examined the provision of onsite HIV/AIDS support groups, dedicated treatment tracks, and HIV testing services. Approximately 13% of programs reported offering onsite support groups for patients living with HIV/AIDS. Of the programs that did not offer onsite support groups, almost all (91%) of these programs reported referring HIV-positive patients to community-based support groups. Only 10% of programs reported offering a dedicated HIV/AIDS treatment track. The data were also examined to determine whether programs offering onsite support groups also offered a dedicated treatment track and vice versa. We found that 56% of programs that offered onsite support groups also offered an HIV/AIDS treatment track and 41% of programs offering a dedicated treatment track also offered an onsite HIV/AIDS support groups. Therefore, we felt it was necessary to conduct separate analyses predicting adoption of each of these services.

Turning to the adoption of HIV testing services, 27% of programs reported providing onsite HIV testing, 47% reported referring patients to an external provider for testing services, and 26% did not offer HIV testing. Of the programs that offered onsite testing, only 15% reported using rapid testing. Overall, programs reported less than a quarter (21%) of their patients were tested for HIV in the past year and 2.36% of those patients tested positive for the disease.

3.2. Bivariate logistic regressions predicting the availability of onsite HIV/AIDS support groups and dedicated HIV/AIDS treatment tracks

The results of two sets of bivariate logistic regressions predicting whether programs offer *onsite HIV/AIDS support groups* and have an *HIV/AIDS dedicated treatment track* are displayed in Table 2. Organizational and patient characteristics were associated with offering onsite support groups (column 2) and having a dedicated HIV/AIDS treatment track (column 3). The odds of offering onsite HIV/AIDS support groups was greater for larger programs ($OR=1.45, p<.05$). Programs with a greater percentage of IDU patients ($OR=1.024, p<.05$) and African American patients ($OR=1.015, p<.05$) were more likely to offer onsite support groups.

Similarly, larger programs were significantly more likely to have a dedicated HIV/AIDS treatment track ($OR=1.36, p<.05$), as were programs with a higher percentage of African American patients ($OR=1.023, p<.05$) and a higher percentage of IDU patients ($OR=1.033, p<.05$).

3.3. Multinomial logistic regression models predicting adoption of HIV testing services

The results of multinomial logistic regression are presented in Table 3. Multinomial logistic regression produces relative risk ratios (RRR) which are similar to odds ratios produced in logistic regression; RRR indicate the extent to which an independent variable increases or decreases the odds of being in a particular category of the dependent variable relative to the odds of being in a reference category. Column 2 presents the odds of offering onsite HIV testing services versus offering no HIV testing services. The odds of offering onsite HIV testing services were higher for hospital based programs ($RRR=2.731, p<.05$), programs that reported providing medical services onsite ($RRR=3.295, p<.001$), and programs with a higher percentage of African American patients ($RRR=1.023, p<.05$), relative to the odds of offering no HIV testing. The odds of providing onsite HIV testing were lower for programs providing outpatient-only treatment ($RRR=.125, p<.001$).

Column 3 presents the odds of referring patients to an external provider for HIV testing versus the odds of offering no HIV testing services. None of the organizational or patient characteristics were significantly associated with the odds of referring patients to an external provider for testing versus the odds of a program offering no testing services.

Column 4 presents the odds of offering onsite testing versus the odds of referring patients to an external provider for testing services. The odds of offering onsite testing were greater for hospital based programs ($RRR=2.612, p<.05$), programs providing medical services onsite ($RRR=2.309, p<.01$), and programs with a higher percentage of African American patients ($RRR=1.017, p<.05$) relative to the odds of referring patients to an external provider for HIV testing services. Finally, the odds of providing onsite HIV testing were lower for programs offering outpatient-only treatment ($RRR=.177, p<.001$).

4. Discussion

We examined the provision of HIV/AIDS services in a nationally representative sample of privately funded substance abuse treatment programs in the US. The results of the study

show that a majority of private programs are conducting HIV risk assessment. However, almost 20% of all treatment programs assess for HIV risk later in treatment rather than at intake. Given the low rate of retention in treatment, the practice of delaying risk assessments likely results in missed opportunities to identify at-risk patients and begin targeted informational and risk reduction strategies (Simpson et al., 1997).

More than 80% of programs reported providing HIV/AIDS education and prevention services. Consistent with prior research (Knudsen and Oser, 2009), these services focused more on the delivery of information, rather than the development of risk reduction skills. Research shows that interventions including both information and skill development are more effective than information only interventions (Ammon et al., 2005; Jemmott et al., 1992; Rotheram-Borus, 2000; St. Lawrence et al., 1995; St. Lawrence et al., 2002). Programs should therefore increase efforts to incorporate risk reduction skills into education and prevention services.

A reported 35% of counselors were not expected to use standardized content when educating their patients about HIV/AIDS. This finding suggests the need for more specific guidelines to address the content and duration of HIV education and prevention. In fact, a 2008 study showed that many states had no written guidelines governing HIV related services (e.g., education, risk assessment, counseling, testing, and medical monitoring of HIV) (Kritz et al., 2008).

Although research demonstrates the efficacy and efficiency of providing HIV testing (Umbricht-Schneider et al., 1994), only 27% of private programs offered onsite HIV testing to patients. This percentage is especially low given that a majority of programs in the sample had access to a physician. Of the programs offering onsite HIV testing, only 15% reported using HIV rapid tests which have been FDA approved for almost eight years. While access to medical staff has been identified as a barrier in the adoption of onsite HIV testing (Winstock et al., 2006), rapid HIV tests can be administered by trained non-medical staff and are relatively inexpensive (ranging from \$14 to \$50).

Our findings emphasize the importance of organizational compatibility (i.e., fit with the values and needs of the organization) on the provision of onsite support groups and dedicated treatment tracks. Consistent with Rogers' diffusion theory (2003), larger programs which may have greater slack resources and staff to devote to adoption of new services were more likely to offer both onsite HIV/AIDS support groups and a dedicated HIV/AIDS treatment track. Programs with a greater percentage of at-risk patients were also more likely to offer these onsite services. Location in a hospital setting and provision of onsite medical services were not associated with provision of onsite support groups and dedicated treatment tracks. These findings indicate that program resources and patient characteristics are more relevant predictors than medical infrastructure.

Turning to adoption of onsite HIV testing, diffusion theory suggests that programs will be more likely to adopt innovations that are consistent with the services offered by the program (Rogers, 2003). Indeed, we found that the odds of providing onsite testing were greater for programs offering medical services onsite. Such programs likely place a stronger emphasis general health care and are more likely have the medical staff and provide the training necessary to offer onsite testing. Similarly, the odds of providing onsite testing were greater for hospital-based programs, indicating the importance of treatment environment and access to medical resources. The odds of offering onsite HIV testing were greater for programs with a higher percentage of African American patients, a population disproportionately infected with HIV/AIDS. Lastly, the odds of providing onsite testing were significantly lower for programs offering only outpatient levels of care (53% of programs) likely because

outpatient-only programs lack the resources necessary to train staff and adopt testing services. Few outpatient-only programs in this sample were based in hospital settings (20%) or provided medical services onsite (21%), which significantly increased the odds of offering onsite HIV testing.

Our findings indicate several barriers to adoption and implementation of onsite HIV/AIDS services including lack of trained medical staff, lack of medical infrastructure, and lack of funding. There are several possible mechanisms to increase the provision of onsite HIV services in substance abuse treatment programs. Greater access to medical resources, including increased access to medical staff and HIV/AIDS specialty training for both medical and non-medical staff, will likely be necessary for substance abuse treatment and HIV/AIDS service integration. Increased pressure from accreditation bodies and other external stakeholders to adopt HIV/AIDS services may also facilitate service integration. Finally, increased funding would likely facilitate the adoption and implementation of HIV services, especially in the private sector that receives a minority of funding from government block grants. A recent study of private and public community treatment providers found a large gap between the availability of funding for HIV services and funds received by programs (Kritz et al., 2008), suggesting programs may be unaware of potential funding or there are barriers to accessing available funding.

A promising strategy for securing additional funding may be to work with Medicaid officials to increase reimbursement for HIV services. This strategy, along with grant funding, was effective in a New York State initiative that integrated a wide range of HIV services into substance abuse treatment programs. In programs that already have access to medical staff, increased funding may also be necessary for the development of HIV clinical expertise in treatment settings, since physicians and other medical staff may not have specialty HIV training (Kritz et al., 2008).

Our findings also suggest that provision of onsite HIV/AIDS services may be easier to implement in programs that already have a medical infrastructure (e.g., programs in hospital settings, programs that provide medical services on-site, access to a physician). Our data show that a majority of programs in this sample have access to a physician (77%), suggesting that greater investment in HIV-specific medical training would be a valuable strategy. In programs where provision of onsite HIV services may not be necessary or feasible, programs could partner with primary care providers that deliver HIV/AIDS medical care or establish linkages with other types of HIV service providers in the community such as hospitals and social service agencies.

Overall, the results of this study reveal that private substance abuse treatment providers are not maximizing the opportunity to impact HIV-related health outcomes. Early identification of HIV reduces HIV transmission by providing the opportunity to implement appropriate counseling and medical interventions, which can be successfully addressed in substance abuse treatment programs. However, major changes in policy and the financing of substance abuse treatment programs will be required if meaningful integration of substance abuse treatment and HIV/AIDS services is to be achieved in the US.

To the extent that substance abuse treatment systems in other nations parallel the US treatment system, our findings have the potential to serve as a guide for integration of HIV/AIDS services and substance abuse treatment. Substance abuse treatment is not integrated into the US health care system; therefore, in nations with more integrated systems of care, using substance abuse treatment as a platform for delivery of HIV/AIDS services may be more feasible.

Several limitations to the current research must be noted. First, the data are representative of privately funded substance abuse treatment programs in the US and thus findings cannot be generalized to other treatment sectors. Second, our data does not include direct measures of the influence of state policy and funding on the adoption of HIV/AIDS services. Third, our data are cross-sectional and do not allow for the tracking of adoption of HIV/AIDS services over time. Given the recent advances in HIV testing technology and federal efforts to promote HIV testing in all health care settings, it is possible that adoption of HIV/AIDS services has increased over time in the private sector. Fourth, this research represents a first attempt to examine the organizational correlates of HIV/AIDS service adoption. The relatively low pseudo- R^2 values suggest that other factors not examined here may help explain HIV/AIDS service adoption. Fifth, programs that did not offer HIV/AIDS services were not asked about barriers to adoption. Future research should address these limitations.

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Table 1

Descriptive Statistics

Variable	Percentage (N)	Mean (SD)
HIV-related services		
Program conducts HIV risk assessment...		
At intake	73.6 (254)	
Later during treatment	17.4 (60)	
At some point during treatment	91.0 (314)	
For programs conducting HIV risk assessments, assessments calculate risk based on...		
Frequency of intravenous drug use	91.4 (287)	
Severity of substance abuse dependence	81.6 (256)	
Number of sexual partners	80.6 (253)	
Frequency of unprotected sexual intercourse	79.9 (251)	
Percentage of patients considered at high risk based on assessment		30.55 (30.27)
Program offers HIV education and prevention services	83.2 (287)	
For programs offering HIV education and prevention		
Services were delivered in stand alone sessions/groups	51.6 (147)	
Services were incorporated into counseling services	44.6 (127)	
Both (stand alone session/groups and incorporated)	3.9 (11)	
Average hours of HIV prevention/education received by patients in a typical treatment episode		2.48 (2.55)
Extent to which educational services emphasizes...		
How HIV/AIDS is transmitted ^a		4.76 (0.54)
The development of safer sex skills ^a		4.44 (1.03)
Skill rehearsal of correct condom use ^a		2.52 (2.04)
Practicing communication strategies to stop verbal coercion to engage in unsafe sex ^a		2.99 (1.69)
Practicing partner communication and negotiation skills about safer sex practices ^a		3.04 (1.66)
Counselors are required to cover HIV prevention/education during their usual interaction with patients	57.1 (197)	
If yes, is there standardized content that all counselors are expected to use when educating their patients about HIV?	64.5 (127)	

Variable	Percentage (N)	Mean (SD)
Program has a dedicated HIV/AIDS treatment track	9.9 (34)	
Program offers onsite support groups for patients with HIV/AIDS	13.3 (46)	
If no, are HIV-positive patients were referred to community-based support groups?	91.4 (267)	
HIV Testing		
Onsite testing	27.0 (93)	
Referral to external providers	47.2 (163)	
No testing services	25.8 (89)	
If program offers testing		
Percentage of patients tested in the past year		21.34 (25.83)
Percentage of patients tested positive in the past year		2.36 (4.78)
Organizational characteristics		
Profit status		
For-Profit	36.5 (126)	
Non-profit	63.5 (219)	
Hospital status		
Hospital based	29.6 (102)	
Freestanding	70.4 (243)	
Program size (log of FTEs)		2.65 (1.21)
Accreditation		
Accredited by JC/CARF	56.8 (196)	
Not accredited by JC/CARF	43.2 (149)	
Staff education		
% counselors with a Master's degree or higher		51.98 (35.62)
Levels of care		
Outpatient-only	53.3 (184)	
Mixed levels of care, In-patient only	46.7 (161)	

Variable	Percentage (N)	Mean (SD)
Provision of medical services		
Onsite medical services	32.5 (112)	
No onsite medical services	67.5 (233)	
Patient characteristics		
% African American patients		17.11 (20.51)
% IDU patients		17.26 (24.26)
City population size		
<14,999		.20 (.40)
15,000 to 49,999		.24 (.43)
50,000 to 199,999		.31 (.46)
>200,000 (reference category)		.25 (.43)

^a Responses range from zero (no extent) to five (very great extent)

Table 2

Bivariate logistic regressions predicting offering onsite HIV/AIDS support groups and a dedicated HIV/AIDS treatment track

Variable	Onsite HIV/AIDS support group b(SE) OR	Dedicated HIV/AIDS treatment track b(SE) OR
For-Profit (vs. non-profit)	.419(.320) 1.52	.332(.365) 1.39
Hospital based (vs. freestanding)	-.340(.368) .711	-.538(.442) .584
Program size (log of FTEs)	.371(.135) 1.45**	.309(.155) 1.36*
Accredited by JC/CARF (vs. not accredited by JC/CARF) ^a	-.014(.320) .986	.512(.384) 1.668
% Counselors with a Master's degree or higher	-.008(.005) .992	-.007(.005) .993
Outpatient-only	-.363(.318) .696	-.418(.364) .659
Onsite medical services	.338(.327) 1.402	.141(.379) 1.151
% African American patients	.024(.006) 1.024***	.023(.007) 1.023***
% IDU patients	.015(.007) 1.015*	.033(.008) 1.033***
City population size		
<14,999	.457(.463) 1.579	-.166(.522) .847
15,000 to 49,999	-.223(.502) .800	-.537(.541) .584
50,000 to 199,999	.266(.432) 1.304	-.162(.463) .851

* $p < .05$,

** $p < .01$,

$p < .001$ (two-tailed test);

^a JC=Joint Commission, CARF=Commission on Accreditation of Rehabilitation Facilities

Table 3
Multinomial logistic regression of HIV testing services on organizational, patient, and environmental characteristics

	Onsite Testing (vs. No Testing) b(SE) RRR (95%CI)	Referral to testing (vs. No Testing) b(SE) RRR (95%CI)	Onsite Testing (vs. Referral to external) b(SE) RRR (95%CI)
For-profit program (vs. non-profit program)	-.628(.451) .533 (.220-1.292)	-.290(.329) .748 (.392-1.426)	-.338(.387) .713 (.334-1.521)
Hospital based (vs. freestanding)	1.00(.498)* 2.731 (1.030-7.242)	.044(.436) 1.046 (.455-2.456)	.960(.382)* 2.612 (1.236-5.521)
Size (log of FTEs)	.031(.218) 1.032 (.673-1.581)	.189(.167) 1.208 (.871-1.677)	-.158(.180) .854 (.601-1.214)
Accredited by JC/CARF (vs. not accredited by JC/CARF) ^a	.753(.471) 2.125 (.844-5.352)	.382(.348) 1.465 (.740-2.900)	.372(.406) 1.450 (.654-3.215)
% Counselors with Master's degree or higher	.011(.006) 1.010 (.999-1.022)	.001(.004) 1.00 (.992-1.009)	.010(.005) 1.010 (.999-1.020)
Outpatient-only services	-2.080(.537)*** .125 (.044-.358)	-.346(.423) .708 (.309-1.620)	-1.734(.445)*** .177 (.074-.423)
Medical services provided onsite	1.192(.463)** 3.295 (1.328-8.172)	.356(.413) 1.427 (.635-3.208)	.837(.341)** 2.309 (1.184-4.504)
% African American patients	.023(.010)* 1.023 (1.003-1.044)	.006(.008) 1.006 (.990-1.022)	.017(.008)* 1.017 (1.001-1.033)
% IDU patients	.005(.010) 1.005 (.985-1.026)	.009(.009) 1.009 (.990-1.027)	-.003(.006) .997 (.985-1.009)
City population size			
<14,999	1.167(.626) 3.212(.943-10.945)	.564(.497) 1.757 (.663-4.657)	.603(.497) 1.828 (.690-4.839)
15,000 to 49,999	.331(.581) 1.366 (.437-4.266)	-.167(.452) .846 (.348-2.054)	.479(.496) 1.615 (.611-4.267)
50,000 to 199,999	.274(.552) 1.315 (.446-3.878)	.377(.407) 1.458 (.657-3.235)	-.103(.464) .902 (.363-2.240)
Constant	-1.381 (.937)	-.0413 (.723)	-1.340 (.784)

* $p < .05$,
**
*** $p < .01$,
*** $p < .001$ (two-tailed test);

^aJC=Joint Commission, CARF=Commission on Accreditation of Rehabilitation Facilities