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Patient characteristics and availability of onsite non-rapid and rapid HIV testing in US substance use disorder (SUD) treatment programs

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Abstract

Racial and ethnic minorities and injection drug users (IDUs) are at increased risk of HIV infection. To date, the associations between these caseload characteristics and availability of onsite HIV testing in substance use disorder treatment programs are unknown. This uses data collected in 2008–2009 from 198 program administrators of treatment programs participating in the National Institute on Drug Abuse's Clinical Trials Network to address this gap in the literature. Results show positive associations between the percentages of African American, Hispanic, and IDU patients and the odds of non-rapid onsite HIV testing versus no onsite testing. The associations between racial/ethnic composition and the availability of rapid HIV testing were more complicated. These findings suggest that many programs are responding to the needs of at-risk populations. However, programs and their patients may benefit from greater adoption of rapid testing which is less costly and better ensures that patients receive their results.

1. Introduction

For the past 25 years, the early detection of HIV and timely entry into treatment has been a goal of US health care providers (Blower, Gershengorn, & Grant, 2000; Branson et al., 2006; CDC, 2009a; CDC, 2009b; Kassler et al., 1997; Otten et al., 1993; Porco, Martin, & Page-Shafer, 2004). The US Centers for Disease Control and Prevention (CDC) recommends that health care providers, including treatment programs for substance use disorders (SUDs), engage in universal HIV screening for all patients and screen high-risk patients at least annually to increase knowledge of serostatus and ensure timely entry into treatment (Branson et al., 2006). Further, the National HIV/AIDS Strategy calls for increasing HIV prevention in SUD treatment programs, increasing collaboration between HIV medical care providers and SUD treatment programs, and increasing the number of

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HIV providers in SUD treatment settings (NHAS, 2010). Onsite HIV testing in SUD treatment programs is associated with earlier initiation of HIV treatment, improved SUD treatment outcomes, and decreased rates of new HIV transmission (Friedmann et al., 2000; Metzger et al., 1993; Rothman et al., 2007; Umbricht-Schneider et al., 1994; Volkow & Montaner, 2010).

Data suggest that federal recommendations have had only a modest impact on the SUD treatment field with only 29% of programs in the US providing onsite HIV testing (Substance Abuse and Mental Health Services Administration, 2010). These data suggest SUD patients continue to face barriers in access to HIV testing. Furthermore, as many as 30% of individuals tested for HIV in all healthcare settings never return to obtain their results (Horton, 2003; Otten et al., 1993). Patients unaware of their HIV infection are approximately 3.5 times more likely than patients aware of their HIV status to sexually transmit the virus to others (Marks, Crepaz, Janssen, 2006). These data highlight the added value of rapid HIV testing in which test results are generated in 20 to 30 minutes.

Extant research identifies many barriers to providing HIV testing in SUD treatment programs including inadequate access to medical staff, staff training, patient health care coverage, patient acceptance, and the costs of administering HIV tests (Abraham et al., 2011; Bini et al., 2011; Brown et al., 2006; D'Aunno et al., 1999; Haynes et al., 2011; Kritz et al., 2008; Pollack et al., 2006; Strauss et al., 2003; Winstock et al., 2006). However, few studies have explored the relationships between programs' patient caseload characteristics, particularly the presence of patients at greater risk of HIV infection, and the availability of onsite HIV testing in SUD treatment programs (Abraham et al., 2011; Guerrero & Cederbaum, 2011; Straus et al., 2003). In a study of residential programs, Strauss et al. (2003) examined provision of onsite HIV testing but did not include measures of patient characteristics. Research on programs affiliated with the NIDA Clinical Trials Network (CTN) also excluded patient characteristics from their analyses of availability of services for infectious diseases (Brown et al., 2006; Bini et al., 2011). Other studies that have measured patient characteristics have not differentiated programs providing onsite HIV testing from programs that refer patients to external providers (D'Aunno et al., 1999; Guerrero & Cederbaum, 2011; Pollack, D'Aunno, & Lamar, 2006; Pollack & D'Aunno, 2010;).

Consideration of caseload characteristics is significant because certain groups of SUD patients, such as racial and ethnic minorities and intravenous drug users (IDUs), are at increased risk of contracting and transmitting HIV/AIDS. CDC surveillance reports (2006b; 2008; 2009a) show that minority populations in the US comprise a disproportionate percentage of the country's HIV/AIDS cases. By 2006, HIV was the third leading cause of death for African American men and women (CDC, 2010). Black men, in particular, accounted for more than half of all new HIV infections in the years 2006–2009, and AIDS is the fourth leading cause of death for Hispanic/Latino males and females in the same age range (CDC, 2010). CDC reports show that Hispanics/Latinos represented almost 20% of new HIV diagnoses in the US in 2008 (CDC, 2010). Among women, African Americans and Hispanic/Latinas exhibit markedly higher rates of HIV infection than white women (CDC, 2010). HIV/AIDS infection among women in general increased from 2000–2005 and has remained higher than pre-2000 levels (CDC, 2008; CDC, 2010; Kaiser Family Foundation, 2011).

Compounding these health disparities is the well-documented association between substance use and HIV/AIDS (CDC, 2002; CDC, 2006a; Colfax et al., 2001; Dreisbach, Hickler, & Koester, 2004; Gorman et al., 2004; Molitor, Truax, Ruiz, & Sun, 1998; Substance Abuse and Mental Health Services Administration [SAMHSA], 2000), which places these vulnerable populations at an even greater risk of acquiring HIV. The association between

injection drug use and HIV infection is also exacerbated by the rate of heterosexual transmission of HIV to women by injection drug-using partners (Tortu et al., 1994). Since the beginning of the HIV/AIDS epidemic, 18% of all AIDS cases in women were acquired through injection drug use and 82% through heterosexual transmission from IDU and non-IDU male sexual partners (CDC, 2009a). Furthermore, higher rates of death from AIDS are found among minority IDUs than their non-Hispanic white, non-IDU counterparts, which may be partly explained by delays in detecting the virus from lack of testing, and thus postponed HIV treatment (Estrada, 2002). Grigoryan et al. (2010) found that during the years 2004 to 2006, late HIV diagnoses were received by approximately 40% of the HIV infected IDUs in 34 US states. Therefore, timely access to HIV testing and treatment is particularly critical for vulnerable and high-risk populations, particularly those served by SUD treatment programs (Guerrero & Cedarbaum, 2011; Volkow & Montaner, 2011).

To address this gap in the literature, the current study investigates the relationships between caseload characteristics and availability of on-site HIV testing in a sample of community treatment programs (CTPs) participating in the CTN. More specifically, we examine the patient characteristics associated with the availability of onsite non-rapid or rapid HIV testing, while controlling for organizational characteristics.

2. Methods

2.1. Sample and study eligibility

Data were collected during face-to-face interviews with administrators of community treatment programs (CTPs) participating in the National Institute on Drug Abuse's Clinical Trials Network (CTN) as of 2008–2009 (see Roman et al., 2010 for a complete description of the study methods). The CTN is a research network that partners academic researchers with community based treatment providers to test the effectiveness of evidence-based practices for the treatment of substance use disorders (SUDs). Thus, CTPs have greater exposure to scientific research than typical SUD treatment programs. Participating CTPs include the full range of drug treatment modalities: outpatient “drug free” programs, therapeutic communities, opioid treatment programs (OTPs), and inpatient hospital-based programs (Ducharme et al., 2007; McCarty et al., 2008). For the purposes of this study, a CTP is defined as an organizational unit with an autonomous administrator who has discretionary control over the unit's budget. This wave of data included 198 CTPs which represented 83 unique treatment organizations (response rate= 84.7%). To be eligible for the study, CTPs were required to provide a minimum level of care at least equivalent to American Society of Addiction Medicine (ASAM) defined outpatient services (Mee-Lee, Gartner, Miller, Schulman, & Wilford, 1996) or dispense methadone as an opioid treatment program (OTP). Face-to-face interviews were conducted with administrators of 198 CTPs, representing an 84.7% response rate. Programs received a \$150 donation for participating in the study. All research procedures were approved by the University of Georgia's Institutional Review Board.

2.2. Measures

The dependent variable is a three-category measure of availability of HIV testing that differentiated CTPs into those that offered no onsite testing, onsite non-rapid HIV testing, or onsite rapid HIV testing. These three categories are mutually exclusive. Three continuous measures of patient caseload characteristics representing populations at higher risk for acquiring HIV were measured: 1) the percentage of the program's current caseload who were African American, 2) Hispanic, and 3) injection drug users. We also included the percentage of the current caseload that were women. We controlled for several dichotomous measures of organizational structure: government ownership (1=government owned),

hospital location (1=located in a hospital setting), accreditation (1=accredited by Joint Commission (JC) or Commission on the Accreditation of Rehabilitation Facilities (CARF)), program type (1=opioid treatment program (OTP)), and provision of onsite medical services (=1). Program size measured the number of full-time equivalent employees (FTEs) and was log transformed to adjust for skew.

2.3. Analytic Strategy

Descriptive statistics were calculated for all measures. Chi-square tests and one-way analysis of variance (ANOVA) tests were used to examine differences in organizational variables across the three categories of the dependent variable. Multinomial logistic regression (MLR) was used to model the availability of HIV testing because this dependent variable consisted of more than two non-ordered categories (Long, 1997). MLR produces relative risk ratios (RRR) indicating the extent to which an independent variable increases or decreases the likelihood of being in one category of the dependent variable relative to the likelihood of being in a reference category. Predicted probabilities were calculated to help explain the relationship between significant independent variables and adoption of HIV testing. Data were analyzed using STATA 11.0 (StataCorp, 2009).

3. Results

3.1. Descriptive statistics

Nearly half (48%) of treatment programs affiliated with NIDA's Clinical Trials Network offered onsite HIV testing. Of the 88 programs providing onsite HIV testing, 52% had adopted rapid HIV testing (e.g., Oraquick®, Orasure®). About 6% of programs were government owned, 12% were located in a hospital setting, and 70% were accredited. Less than a fourth (23%) of the sample were opioid treatment programs (OTPs), and 22% reported providing onsite medical services. On average, 26% (SD = 24) of programs' current caseloads were African American and 14% (SD = 17) were Hispanic. Women comprised 41% (SD = 25) and IDUs represented 33% (SD = 31) of the average patient caseload.

Table 1 compares the patient and organizational characteristics of programs by the typology of HIV testing services. The results show significant differences in the percentage of African American, Hispanic and IDU patients across the three categories of this dependent variable. For example, programs that offered non-rapid HIV testing had a higher percentage of African American, Hispanic, and IDU patients compared to programs that did not offer onsite HIV testing. There were also significant differences in the three categories of HIV testing by hospital location, program size, provision of medical services, and OTPs. More specifically, programs offering non-rapid HIV testing were more likely than the other two groups to be based in hospital settings. Programs offering non-rapid HIV testing were more likely to provide medical services onsite than programs offering no HIV testing and programs offering rapid testing and non-rapid testing more likely to be OTPs than programs without onsite HIV testing services.

3.2. Multinomial logistic regression predicting availability of HIV testing

The results of the multinomial logistic regression model of HIV testing adoption are shown in Table 2. Three pairwise comparisons are presented: (1) the likelihood of onsite non-rapid HIV testing versus the likelihood of no onsite testing; (2) rapid testing versus no onsite testing; and (3) non-rapid testing versus rapid testing. As column 1 shows, three patient caseload characteristics were positively associated with the odds of offering non-rapid onsite HIV testing relative to the odds of no onsite testing services. There was a positive association between the percentage of African American patients and offering non-rapid HIV testing; a standard deviation increase in the percentage of African American patients

(SD=25) was associated with a 96% increase in the odds of non-rapid HIV testing availability ($96=100 \times [e^{(.027)(25)} - 1]$). The odds of offering non-rapid HIV testing were also greater for programs treating a higher percentage of Hispanic patients. A standard deviation increase in the percentage of Hispanic patients (SD = 16) was associated with a 62% increase in the odds of offering non-rapid HIV testing. Programs treating a higher percentage of IDU patients were more likely to offer non-rapid testing compared with no onsite HIV testing; a standard deviation increase in the percentage of IDU patients (SD=26) was associated with a 68% increase in the odds of offering non-rapid HIV testing.

As shown in column 2, programs with a greater percentage of Hispanic patients were more likely to adopt rapid HIV testing versus no onsite HIV testing, as were larger programs. A standard deviation increase in the percentage of Hispanic patients (SD=15) was associated with a 45% increase in the odds of offering rapid HIV testing. One patient caseload characteristic and one organizational characteristic were associated with the odds of adopting rapid HIV testing relative to the odds of non-rapid testing (Column 3). There was a negative association between the percentage of African American patients and the likelihood of onsite rapid testing, relative to the likelihood of non-rapid testing. As standard deviation increase in the percentage of African American patients (SD=20) was associated with a 34% decrease in the odds of adopting rapid HIV testing. Hospital based programs were also less likely than freestanding programs to offer rapid onsite HIV testing when compared to the likelihood of offering non-rapid HIV testing.

Predicted probabilities can further clarify relationships between independent variables and categorical dependent variables. First, we calculated reference probabilities with all dichotomous variables set to zero and all continuous variables set to their mean, which represents a non-hospital based, non-accredited, non-OTP program, non-government owned program that offers no medical services onsite, is of average size, and has an average caseload size of African American, Hispanic, IDU and women patients. Under these conditions, the probability of offering no HIV testing (.594) was higher than offering non-rapid (.200) or rapid HIV testing (.207). Then, we estimated the probabilities of HIV testing for each significant variable by either setting the variable at one standard deviation above its mean for continuous variables or setting the variable at “1” for dichotomous variables. A standard deviation increase in African American patients raised probability of nonrapid testing (.314), but had little impact on the probability of rapid testing (.195). In contrast, a standard deviation increase in the percentage of Hispanic patients increased the probabilities for both nonrapid (.266) and rapid HIV testing (.253). Similarly, the predicted probabilities for nonrapid (.293) and rapid HIV testing (.235) increased with a standard deviation increase in the percentage of IDU clients. Differences based on hospital status were particularly large; compared to non-hospital based programs, the predicted probability of non-rapid HIV testing was .563 for hospital-based programs, but only .112 for rapid HIV testing. The availability of on-site medical services also raised the probability of non-rapid testing (.421) with a minor decrease in the probability of rapid HIV testing (.172). Finally, a standard deviation increase in the measure of program size also elevated the probabilities for non-rapid (.241) and rapid HIV testing (.265).

4. Discussion

This paper explored patient caseload characteristics associated with the availability of HIV testing in a sample of substance use disorder treatment programs affiliated with the NIDA Clinical Trials Network (CTN). We found that almost half of programs (48%) provided onsite HIV testing for SUD patients, which is nearly double the rates reported by privately funded treatment programs (Abraham et al., 2011) and programs responding to the most recent National Survey of Substance Abuse Treatment Services (SAMHSA, 2010). About

52% of CTN-affiliated programs offering onsite HIV testing services used a rapid test. This finding is promising and suggests that rapid HIV testing may be a feasible innovation that can be successfully adopted by SUD treatment programs.

Our findings revealed that SUD caseload characteristics at the program-level were associated with the availability of onsite HIV testing. Programs serving a higher percentage of African Americans appear to have focused on onsite but non-rapid HIV testing. This finding may be a product of the extent to which African Americans have been disproportionately affected by HIV infection (McCree, Jones, & O'Leary, 2010). Many of the HIV testing initiatives introduced by public health advocacy groups have targeted clinical settings that serve a high percentage of African American patients, including behavioral health settings (CDC, 2007; Kaiser Family Foundation, 2011; National Alliance of State and Territorial AIDS Directors, 2009; National Medical Association, 2010). It is therefore likely that onsite HIV testing began in these treatment settings prior to the 2002 FDA approval of rapid HIV testing. With the medical resources and testing protocols already in place, programs may perceive a lack of need for converting to rapid HIV testing or may feel unable to afford the costs associated with transitioning to rapid testing.

Programs treating a higher percentage of Hispanic patients were more likely to offer both onsite non-rapid HIV testing and rapid HIV testing relative to the odds of not offering onsite testing. This finding suggests that these programs are being more responsive to the increased risk of contracting of HIV/AIDS faced by Hispanic Americans. Treatment programs serving this population may be taking advantage of the benefits associated with rapid HIV testing, namely that it can be implemented without medical personnel and at a lower cost than traditional non-rapid HIV tests (Branson, 2000; Kallenborn, Price, Carrico, & Davidson, 2001; Shrestha et al., 2008).

Finally, programs with a higher percentage of IDU patients were more likely to offer onsite non-rapid HIV testing versus no onsite HIV testing. This finding suggests that programs are addressing the needs of high-risk IDU patients by providing traditional non-rapid HIV testing. However, adoption of rapid HIV testing may decrease the spread of HIV among IDU patients by increasing early detection and entry into HIV treatment.

Consistent with prior research (Abraham et al., 2011; D'Aunno et al., 1999; Guerrero & Cederbaum, 2011; Knudsen & Oser, 2009; Pollack et al., 2006; Pollack & D'Aunno, 2010; Strauss et al., 2003), certain organizational characteristics were associated with availability of rapid and non-rapid HIV testing. Hospital-based programs were more likely than freestanding programs to offer traditional non-rapid HIV testing, relative to the odds of offering no onsite testing. Interestingly, these data suggest that hospitals are particularly committed to traditional non-rapid testing, as seen in the negative association for the comparison of rapid versus traditional testing. In part, this may reflect the medical resources, particularly the presence of medical staff and laboratory services that are available in hospital settings. Such an explanation would also be consistent with the finding that programs offering onsite medical care were more likely to offer traditional non-rapid HIV testing.

Program size, an indicator of slack financial resources (i.e., surplus or discretionary resources beyond those necessary for basic operations), was positively associated with adoption of rapid HIV testing versus no onsite HIV testing. This finding is supported by Rogers' diffusion theory (2003) which argues that larger organizations have greater slack resources and staff to devote to adoption of innovations (Abraham et al., 2011). Given the current economic crisis faced by many states (Dorn & Buettgens, 2010; Jorgensen, 2011; Walsh, 2011), it may be difficult for programs to access the funding necessary to facilitate

wider implementation of rapid HIV testing. However, many treatment programs were unaware of the existing funding for HIV services in their states (Kritz et al., 2008), so there may be some untapped resources available to support adoption. Greater dissemination of information about funding for HIV services, perhaps through the each state's Single State Authority or the regional Addiction Technology Transfer Centers (ATTCs), could enhance adoption of onsite HIV testing (Brown et al., 2006; Haynes et al., 2011). Partnering with local public health departments may also be a promising strategy for treatment programs to obtain rapid HIV tests at minimal cost.

Given the constraints of the current economic climate, rapid HIV testing may hold promise for SUD treatment programs for two reasons. First, rapid testing can be implemented by non-medical staff once they have been trained and the program has received a CLIA waiver. This is significant since access to physicians is limited for many treatment programs (Knudsen, Roman, & Oser, 2010; Knudsen, Abraham, & Oser, 2011). Second, implementation of rapid HIV testing may also be less costly than traditional non-rapid testing (Bini et al., 2011; Brown et al., 2006; Haynes et al., 2011) since the per-patient cost of a rapid test is about \$8

4.1. Limitations

The current study has several limitations. First, the CTN programs represent a non-random network with high involvement in applied research, which may limit the generalizability of the study findings (Abraham et al., 2010; Ducharme et al., 2007). These findings about the relationships between caseload characteristics and availability of HIV testing should be confirmed in representative samples of programs. Second, the data are cross-sectional which limits our ability to establish causality. Third, the data are self-reported and may be subject to response bias. Fourth, we did not measure barriers to adoption of onsite HIV testing, which should be explored in future research. Fifth, we did not collect data on the percentage of caseload who were men who have sex with men (MSM) or minority women, which are two groups at particularly high risk for contracting HIV/AIDs. Sixth, we were unable to control for HIV/AIDs prevalence at the community or state-level, which may also be associated with the likelihood of offering testing services. Unfortunately, data on HIV/AIDs prevalence rates are available for a limited number of states and therefore could not be included in analyses (CDC, 2009a).

4.2. Conclusions

Overall, our findings suggest that many programs affiliated with NIDA's Clinical Trials Network are responding to CDC and SAMHSA guidelines as well as the National HIV/AIDS Strategy (Branson et al., 2006; NHAS, 2010) about the HIV testing needs of vulnerable and at-risk patient populations with SUDs. Although prior research has shown low rates of rapid HIV testing adoption (Abraham et al., 2011a), data from these programs are more promising with about 25% of all programs having adopted rapid testing. Treatment programs and their patients who they serve may benefit from greater adoption of rapid testing which is less costly and better ensures that patients receive their results.

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Table 1

Descriptive statistics of community treatment programs in the NIDA Clinical Trials Network

	No onsite HIV testing (N=94)	Non-rapid onsite HIV testing (N= 42)	Rapid onsite HIV testing (N=46)	χ^2 or F-statistic
	% (N) or Mean (SD)	% (N) or Mean (SD)	% (N) or Mean (SD)	
Percentage African American caseload	22.26 (25.19)	34.79 (24.71)	23.49 (19.79)	3.74 ^{*a}
Percentage Hispanic caseload	10.40 (16.29)	17.55 (15.28)	16.19 (17.92)	3.54 ^{*a}
Percentage female caseload	43.57 (27.64)	40.57 (25.64)	36.60 (16.29)	1.24
Percentage IDU caseload	24.86 (26.10)	43.02 (33.76)	40.60 (31.81)	7.54 ^{†a,b}
Government owned	6.38 (6)	9.52 (4)	2.17 (2)	2.13
Hospital based	7.45 (7)	26.19 (11)	6.52 (3)	11.51 ^{†a,c}
Program size	2.68 (0.85)	3.02 (0.81)	3.07 (0.70)	4.73 ^{*b}
Accredited	67.02 (63)	66.67 (28)	80.43 (40)	3.01
Medical services onsite	11.70 (11)	42.86 (18)	23.91 (11)	16.57 ^{†a}
Opioid treatment program	12.77 (12)	30.95 (13)	36.96 (17)	12.09 ^{†,b}

Note: IDU = injection drug-using.

^aSignificant differences between no onsite testing and onsite non-rapid HIV testing.^bSignificant differences between no onsite testing and rapid HIV testing.^cSignificant differences between non-rapid HIV testing and rapid HIV testing.^{*}
 $p < .05$,[†]
 $p < .01$.

Table 2

Multinomial logistic regression model of adoption of HIV testing by community treatment programs ($n = 182$).

	Non-rapid testing vs. No onsite HIV testing	Rapid HIV testing vs. No onsite HIV testing	Rapid HIV testing vs. Non-rapid testing
	b (SE) RRR (95% CI)	b (SE) RRR (95% CI)	b (SE) RRR (95% CI)
Percentage African American caseload	.027 (.009)[†] 1.027 (1.009, 1.046)	.006 (.009) 1.006 (.989, 1.023)	-.021 (.010)[*] .979 (.960, .999)
Percentage Hispanic caseload	.030 (.013)[*] 1.030 (1.004, 1.056)	.025 (.012)[*] 1.025 (1.001, 1.049)	-.005 (.013) .995 (.970, 1.021)
Percentage women caseload	-.004 (.008) .996 (.979, 1.012)	-.015 (.009) .985 (.968, 1.003)	-.011 (.011) .989 (.969, 1.010)
Percentage IDU caseload	.020 (.010)[*] 1.020 (1.000, 1.040)	.012 (.009) 1.011 (.933, 1.029)	-.008 (.011) .992 (.971, 1.013)
Government owned (vs. privately owned)	-.627 (.867) .534 (.098, 2.921)	-1.286 (1.155) .276 (.029, 2.658)	-.659 (1.237) .518 (.046, 5.846)
Hospital based (vs. non-hospital location)	1.639 (.622)[†] 5.149 (1.522, 17.417)	-.010 (.751) .990 (.267, 4.317)	-1.649 (.747)[*] .192 (.044, .831)
Program size (log-transformed FTEs)	.445 (.280) 1.561 (.902, 2.701)	.522 (.252)[*] 1.685 (1.029, 2.759)	.077 (.303) 1.080 (.596, 1.956)
Accredited (vs. not accredited)	-.486 (.498) .615 (.232, 1.631)	.306 (.480) 1.358 (.530, 3.477)	.793 (.575) 2.209 (.716, 6.814)
Medical services onsite (vs. no medical services)	1.121 (.528)[*] 3.068 (1.089, 8.644)	.191 (.543) 1.211 (.418, 3.508)	-.930 (.549) .395 (.135, 1.157)
Opioid treatment program (vs. non-OTP)	.074 (.744) 1.076 (.250, 4.627)	.584 (.633) 1.793 (.519, 6.197)	.510 (.764) 1.666 (.372, 7.449)

Note: IDU = injection drug-using. FTEs = full-time equivalent employees.

^{*}
 $p < .05$,

[†]
 $p < .01$.

RRR = relative risk ratio, 95% CI = 95% confidence interval.