

On-Site HIV Testing in Residential Drug Treatment Units: Results of a Nationwide Survey

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SYNOPSIS

Objective. Residential drug treatment units are uniquely situated to provide HIV testing and counseling to their patients. This article examines the extent to which residential drug treatment units in the United States provide HIV testing on-site, and identifies organizational and institutional characteristics that differentiate units in which on-site HIV testing is available from those in which it is not.

Methods. The analyses use data collected in telephone interviews with unit managers from a random nationwide sample ($N=138$) of residential drug treatment units in 2001.

Results. About half (48.6%) of the residential drug treatment units made HIV testing available to their patients on-site. Residential units were significantly more likely to make on-site testing available if they were larger (i.e., had a greater number of patients treated each month or had a greater number of staff that provided direct patient services) and if they were publicly rather than privately owned. Provision of on-site HIV testing was significantly correlated with having a medical orientation, i.e., with being operated by a hospital, with the unit viewing itself as patients' primary medical provider, or with providing medical care to the patients either on-site or at another part of the same treatment agency.

Conclusion. In view of the critical importance of HIV testing for individuals who use illicit drugs and the existence of a simplified testing protocol involving saliva samples (eliminating the need for phlebotomy), units that do not have a medical orientation should be encouraged to make HIV testing available on-site.

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HIV testing and counseling remain the most widely promoted interventions for curbing the spread of HIV among drug users because they are the most practical, economical, and theoretically grounded options for reaching large numbers of high-risk individuals and potentially preventing the spread of AIDS.¹ From a public health perspective, drug users who test HIV-negative can benefit from HIV testing and counseling by learning about ways in which they can alter their drug- and sex-related risk behaviors to avoid contracting the virus.² Receiving HIV test results and post-test counseling can also benefit drug users who test HIV-positive, especially those who were previously unaware that they had contracted the virus. In particular, HIV-positive drug users can be assisted in obtaining social services and effective pharmacological therapies to make it possible for them to live healthier and longer lives.²⁻⁴ In addition, they can be encouraged to adopt risk reduction practices in order to protect themselves from reinfection and limit the spread of the virus to others with whom they share drugs and have sex.²

Because drug users are a medically underserved and difficult-to-reach population,⁵⁻⁷ HIV testing and counseling may not be readily available to many of these individuals. Drug treatment units are uniquely situated, however, to provide comprehensive care for drug users,⁸⁻¹³ suggesting that these units can serve as important venues for HIV testing and counseling. Past research has demonstrated that there is considerable variation in the degree to which patients in drug treatment units receive these critical HIV prevention services. In particular, D'Aunno and colleagues conducted a multisite study of a nationally representative sample of outpatient drug treatment units in 1995.¹⁴ Their study showed that patients were more likely to receive HIV testing in units having organizational and institutional characteristics that included: fewer clients; a high percentage of black and Hispanic clients; a high percentage of injection drug-using clients; "slack" resources (low client-staff ratios, large revenues); internal support for AIDS prevention (i.e., unit managers' positive attitudes toward distribution of bleach solution kits and clean needles); hospital affiliation; public ownership; external pressure (e.g., when such services are a requirement of the Joint Commission on Accreditation of Healthcare Organizations or other organizational affiliation); and a more urban location (as measured on a scale of 0-9, with 0 indicating a metropolitan center with a population of >1 million and 9 a rural area with fewer than 20,000 residents not adjacent to a metropolitan center). Identifying the characteristics that differentiate drug treatment units according to whether they provide HIV testing is im-

portant because it suggests the types of units that need to be encouraged to make this vital service available to patients.

While important and informative, the study conducted by D'Aunno and colleagues was limited to outpatient units.¹⁴ A complete picture of the provision of HIV testing in drug treatment units requires an examination of the extent to which this testing is available in residential treatment units. In fact, Polinsky and colleagues found considerable variation in the provision of HIV/AIDS testing according to treatment modality.¹¹ Their study of drug treatment units in Los Angeles showed that testing was provided in 96% of hospital inpatient units, 60% of residential units, 52% of outpatient drug-free units, 68% of day treatment units, 95% of outpatient methadone maintenance units, and 98% of outpatient detoxification units that used methadone or other medications such as naltrexone.

One study, conducted in 2000, examined the provision of HIV testing in state-funded inpatient detoxification facilities in New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) and found that nearly half (45%) of the facilities did not routinely offer on-site HIV testing to their patients.¹⁵ The reasons given by the units for not offering routine testing included the lack of facilities for testing, the lack of follow-up for HIV test results when testing had been offered in the past, and the inability of patients to cope with an HIV test during their stay. Also cited was the brief length of patients' treatment, a situation that would not typically be the case in residential treatment units that offer treatment beyond detoxification. Given the unique opportunity for this critical HIV prevention strategy for drug users, the present article examines the extent to which residential drug treatment units provide HIV testing on-site. Using data collected from a random nationwide sample of these residential drug treatment units ($N=138$), this article also identifies organizational and institutional characteristics that differentiate residential treatment units in which on-site HIV testing is available from those in which it is not.

METHODS

Sampling frame

The study used data collected in a larger study involving interviews with a nationwide random sample of unit managers of both outpatient and residential substance abuse treatment units. The larger study, funded by the National Institute on Drug Abuse, was conducted by surveying a random sample of drug treat-

ment units included in the October 1, 2000, Inventory of Substance Abuse Treatment Services (I-SATS). I-SATS is a comprehensive list of organized substance abuse treatment units known to the Substance Abuse and Mental Health Services Administration. The unit of analysis for the survey was the treatment unit. By "treatment unit" we mean a unit that primarily provides treatment for drug (not only alcohol) abuse, dependence or addiction on a one-to-one or group basis. To be eligible for inclusion in the larger study, treatment units needed to be located within the 50 United States or the District of Columbia and to provide drug abuse treatment services (*a*) on-site (*b*) to at least 50% of their patients. In addition, services could not be limited to detoxification or other very short-term treatment (i.e., less than seven days).

Procedures

For the larger study, to eliminate any systematic sources of bias in using the I-SATS list of 17,160 drug treatment units, the list was randomly ordered using a random number generator in SPSS for Windows, Version 9.0.¹⁶ Three interviewers then conducted the survey using a computer-assisted telephone-screening questionnaire written in Questionnaire Development System software, Version 1.1.¹⁷ Units were contacted sequentially according to the randomly ordered list. After the purpose of the research was described and eligibility was determined, interviews were conducted with either the unit manager or the individual most knowledgeable about the medical services the unit provided. The interviewers provided a number of assurances regarding the voluntary nature of the research and the confidentiality of responses. The protocol for the 15- to 20-minute interview received approval from the Institutional Review Board at the National Development and Research Institutes, Inc.

Interview instrument

For the larger study, information was gathered from each eligible unit on the unit's organizational characteristics, including ownership (public or private); network membership (freestanding or not); estimated number of patients per month; and number of staff members providing direct patient services. Also obtained was information about the unit's medical orientation, including whether the unit was operated by a hospital, whether the unit viewed itself as the patients' primary medical provider, whether patients received medical care either on-site or at another part of the same treatment agency, and whether medical exams were routinely performed at treatment intake. Unit managers were also asked if the treatment unit pro-

vided HIV testing on-site. In addition, from the information regarding the city in which the treatment unit was located, treatment units were categorized according to Census region (Northeast, Midwest, South, or West) and the population of the city (<15,000, 15,000–49,999, 50,000–200,000, and >200,000).

Study sample

For the larger study, attempts were made to contact a total of 1,009 units from February through August 2001. Interviews were completed with 445 units (44.1%). Among the 564 units that did not complete interviews for the research, 35.8% could not be reached after eight attempts, 35.1% were not eligible for the study since fewer than 50% of their patients received drug abuse treatment or the unit provided only detoxification or alcohol treatment services, 15.6% had unit managers who opted not to participate in the research, and 13.5% did not participate for some other reason, e.g., because they were located outside of the 50 U.S. states, were administrative offices only, had disconnected numbers, or were no longer in existence. Assuming that all of the units that refused to participate were eligible for the research, the database for the project reflects a participation rate of 83.5% among the eligible units that could be contacted.

The 445 units varied with respect to treatment modality. In all, 286 provided only outpatient services, 105 provided only residential services, and 54 provided both outpatient and residential drug treatment services to their patients. Each of these latter 54 units was reclassified as an outpatient or residential treatment unit depending on whether the majority of its patients were in the outpatient or residential component of the treatment unit. Respondents from these 54 units were asked to answer the interview questions as they related to the component of their unit in which the majority of their patients received treatment. In all, 307 units (69.8%) were classified as outpatient units, and 138 (30.2%) were classified as residential treatment units. The sample for the present study consists of these 138 residential treatment units; this sample includes drug treatment units in 41 of the 50 states.

Statistical analyses

We used chi-square tests or *t*-tests for analyses comparing residential treatment units that provided on-site HIV testing with those that did not. We report *p*-values for results that are significant at the *p*=0.05 level. Pearson correlations (*r*) for continuous variables and phi values (ϕ) for correlations of dichotomous variables, together with their significance levels, are also reported for some pairs of study variables.

RESULTS

Treatment unit characteristics and medical orientation of the units

As can be seen in the Table, 13.0% of the units were publicly, rather than privately, owned. The majority (65.9%) operated as part of networks rather than as independent units. The four Census regions (North-east, Midwest, South, and West) were approximately equally represented. Units were also about equally likely to be located in cities with populations of <15,000, 15,000–49,999, 50,000–200,000, and >200,000 people. On average, units in the sample had 15 staff members who had direct patient contact with an average of 41 patients each month, and the mean patient/staff ratio was 3.93. There was a statistically significant correlation ($r=0.529$, $p<0.001$) between the number of patients treated in the unit each month and the number of staff having direct patient contact.

While only 7.2% of the units were operated by hospitals, many units had a medical orientation. About half (56.2%) of the unit managers interviewed indicated that they viewed the treatment agency as the primary medical provider for their unit's patients, and about half (51.4%) indicated that their patients received medical care either on-site or at another part of the agency. About three-fourths (74.6%) of the units routinely required medical exams for patients at treatment intake.

Characteristics that differentiate units according to their provision of on-site HIV testing

In all, 67 (48.6%) of the 138 residential treatment units provided on-site HIV testing to their patients. As can be seen in the Table, publicly owned units were significantly more likely to provide on-site HIV testing than privately owned units (72.2% of the publicly owned units vs. 45.0% of the private units; $p=0.031$). Units providing on-site HIV testing were also larger, i.e., served a greater estimated number of patients each month (mean of 49.2 vs. mean of 34.1; $p=0.045$), or employed a greater number of staff having direct patient contact (18.4 vs. 11.7; $p=0.020$).

Having a medical orientation was generally associated with providing on-site HIV testing. In particular, a much greater proportion of hospital-operated units (90%) than of units not operated by hospitals (45.3%) provided HIV testing on-site ($p=0.006$). In addition, 59.7% of the units that viewed themselves as their patients' primary medical provider provided on-site HIV testing, compared with 35.0% of the units that did not have this view ($p=0.004$). Finally, on-site HIV testing was provided by 63.4% of the units in which

medical care was provided either on-site or at another part of the same treatment agency, compared with only 32.8% of the remaining units ($p=0.001$). Provision of medical care was significantly correlated with whether the unit was operated by a hospital ($\phi=0.216$; $p=0.011$) and with the unit's perception that it was the primary medical provider for its patients ($\phi=0.268$; $p=0.002$).

DISCUSSION

Given the lifestyles of many drug users that put them at risk for contracting and transmitting HIV, providing on-site HIV testing in drug treatment units is important in all treatment modalities. Because patients in residential treatment units tend to have more severe drug problems and longer drug use histories than those in outpatient programs,^{18,19} their associated HIV risks may be especially pronounced, arguably making on-site testing for HIV even more critical in these units. It is therefore of considerable concern that only an estimated half of the nation's residential treatment units were providing on-site HIV testing in 2001. This is especially unfortunate because there are distinct advantages to providing testing to residential treatment unit patients, as compared to patients in other treatment modalities. For example, unlike some patients in detoxification units, residential treatment unit patients are almost always in treatment long enough to obtain their HIV test results and the counseling that accompanies it. Patients who learn that they are HIV-positive while in residential drug treatment can obtain assistance in making decisions about beginning antiretroviral therapy. In addition, because they reside in the treatment facility, those opting for this therapy can be more closely monitored for adherence to medication regimens and for keeping appointments with specialist physicians.

Our analyses indicate that larger residential units, both in terms of the number of patients and the number of staff with direct patient contact, are more likely to provide HIV testing on-site. Recognizing that they are serving many clients with varying needs, including primary and secondary HIV prevention, these units may find it more important to provide on-site HIV testing. In addition, there may be more of a concern regarding possible breaches of patient confidentiality in smaller residential units. In particular, in smaller units, the activities of patients are more likely to be noticed by other patients. For individuals who test HIV-positive in smaller units, it may be harder to conceal the fact that some of them are being treated for their HIV infection by outside physicians or that they

Table. Characteristics of residential drug treatment units that provided/did not provide HIV testing on-site (N = 138)

Characteristic	Number of programs	Percent of total	Provided on-site testing		Did not provide on-site testing	
			Percent		Percent	
Organizational						
Ownership ^a						
Private	120	87.0	45.0		55.0	
Public	18	13.0	72.2		27.8	
Network membership						
Independent	47	34.1	44.7		55.3	
Part of a network	91	65.9	50.5		49.5	
			<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Estimated number of patients treated per month ^a	136 ^b	98.6	49.2	50.4	34.1	33.7
Number of staff members providing direct patient services ^a	138	100.0	18.4	21.7	11.7	8.46
Estimated patient/staff ratio	136 ^b	98.6	3.68	3.29	4.16	4.39
			<i>Percent</i>		<i>Percent</i>	
Geographic						
Census region						
Northeast	33	23.9	45.5		54.5	
Midwest	31	22.5	35.5		64.5	
South	41	29.7	58.5		41.5	
West	33	23.9	51.5		48.5	
City population						
<15,000	37	26.8	56.8		43.2	
15,000–49,999	31	22.4	51.6		48.4	
50,000–200,000	35	25.4	42.9		57.1	
>200,000	35	25.4	42.9		57.1	
Medical orientation						
Operated by a hospital ^c						
Yes	10	7.2	90.0		10.0	
No	128	92.8	45.3		54.7	
Agency is primary medical provider ^c						
Yes	77	56.2	59.7		40.3	
No	60	43.8	35.0		65.0	
Patients receive medical care on-site or at another part of same agency ^d						
Yes	71	51.4	63.4		36.6	
No	67	48.6	32.8		67.2	
Medical exams routinely performed at treatment intake						
Yes	103	74.6	49.5		50.5	
No	35	25.4	45.7		54.3	

^aSignificant difference between units that provided and did not provide on-site testing, $p < 0.05$.

^bTwo units did not supply an estimate of the number of patients treated each month.

^cSignificant difference between units that provided and did not provide on-site testing, $p < 0.01$.

^dSignificant difference between units that provided and did not provide on-site testing, $p < 0.001$.

have begun a treatment regimen. By failing to make HIV testing available to their patients, these smaller units avoid identifying individuals who are newly diagnosed as infected with HIV and the possible patient confidentiality concerns that this identification brings with it. We also found that public units were more likely than privately owned facilities to provide HIV testing on-site. These units may have a broader view of their public health mission, including their responsibility to provide HIV testing to patients who might not otherwise have it available to them.

Overall, residential units having a medical orientation (i.e., those units operated by a hospital, those in which medical care was provided on-site or at another part of the treatment agency, or those viewing themselves as their patients' primary medical provider) were more likely to provide on-site testing for HIV. Whether a unit is medically oriented or not, treatment intake may be an optimal time to provide on-site HIV testing. This is especially the case given that three-quarters of the units required a pre-admission medical exam for patients, some of them on-site at the treatment unit. Unlike in years past, when HIV testing required a phlebotomist, the ability to obtain reliable test results using saliva samples²⁰ makes testing for HIV more feasible for units that do not have medical staff. In addition, the wide availability of training for HIV counseling in many areas in the United States makes it possible for more units to have staff trained in providing effective HIV/AIDS-related support to their patients.

The larger study had a number of limitations that should be noted. First, the interview was brief, and many potentially relevant questions were not asked due to lack of time. These especially included questions concerning the reasons why some units may have offered on-site HIV testing while others did not (e.g., organizational finances available to support HIV testing, state requirements for providing this testing to drug treatment patients, and internal unit support for AIDS prevention). Second, the data reflect the availability of on-site HIV testing rather than the proportion of patients who actually received this service. Finally, while respondents were either unit managers or those most knowledgeable about the medical services provided at the treatment units, their level of knowledge about their units likely varied across units. Thus, these data should be viewed as representing the perceptions of the respondents, which in some cases may have been misperceptions. Nonetheless, this research provides important information concerning the degree to which residential drug treatment units are responding to the continuing health crisis of HIV/AIDS among drug users.

As we enter the third decade of the AIDS epidemic, we must utilize all readily available means to diagnose and assist individuals most at risk for contracting and transmitting the virus. Making on-site HIV testing available to residential drug treatment patients is an important strategy in this effort.

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