

The Blending Initiative

An Urgent Need

Despite substantial increases in effective HIV management over the past 15 years, new HIV cases have appeared in the United States at a steady rate. There were approximately 50,000 new cases of HIV in 2009.¹ Yet, nearly **21% of persons who are HIV infected are unaware of their infection² and the majority of new HIV infections are transmitted by these individuals.**³

Substance use continues to be a major factor in the transmission of HIV/AIDS via injection and sexual risk behavior. In 2009, nine percent (9%) of the new cases of HIV/AIDS were attributed to transmission through injection drug use.⁴ Methamphetamine and amphetamine abuse is widespread and their use is associated with high risk sexual behaviors.⁵ Studies show that there is a high HIV prevalence among persons who are in substance abuse treatment programs, ranging from over 3% in non-injection drug users (non-IDUs) to 27% in IDUs.^{5,6,7} Despite this high prevalence and the known, well-established link among substance use, sex risk behaviors, and HIV, **fewer than half of U.S. drug treatment programs offer HIV testing on-site.**^{8,9,10}

Advances in rapid HIV testing technology allow for HIV testing to be more readily accessible with faster results, minimizing loss to follow-up and ensuring that those who are tested receive their results. **Test results can now be obtained within community settings in as little as 1-20 minutes.** This provides persons who test positive with preliminary information about their HIV status, allowing them to get the care they need to slow the progression of their disease and to take precautionary measures and medications that help prevent the spread of the HIV virus.

NIDA's HIV Rapid Testing and Counseling Study

The NIDA Clinical Trials Network conducted the multisite HIV Rapid Testing and Counseling Study to examine the efficacy of on-site rapid testing and risk-reduction counseling in increasing the receipt of results and reducing HIV risk behaviors of substance abuse treatment program patients. The HIV Rapid Testing CTN Study was conducted in substance abuse treatment programs representing all different levels of care (outpatient psychosocial, intensive outpatient, outpatient narcotic replacement, and residential programs). Adults who were HIV-negative or whose status was unknown and who reported no HIV testing in the last 12 months were assigned randomly to three study conditions:

- referral for off-site HIV testing;
- on-site rapid HIV testing with brief, risk-reduction counseling (based on RESPECT-2¹¹); or
- on-site rapid testing with verbal information about testing only.

More than eighty percent (80%) of those tested on-site received their test results as compared with only 18% who followed through when referred to an external resource for testing.¹² Results of the study show that on-site rapid HIV testing increased testing rates and receipt of test results, and identified HIV-infected persons. Providing brief, client-centered counseling to high risk drug users did not have an effect on the sexual risk behaviors of persons who tested negative.¹³ Therefore, these results support the implementation of routine rapid HIV testing with information only (and not test-specific counseling) in substance abuse treatment centers. The results also support the implementation of rapid HIV testing in different types of treatment settings.



NIDA's Cost Study

An ancillary study was conducted to measure the cost to substance abuse treatment programs of implementing the HIV testing strategies and cost-effectiveness from a societal perspective. The cost of on-site rapid HIV testing with information only was approximately \$36 per rapid test offered. Set-up costs for obtaining a Clinical Laboratory Improvement Amendments (CLIA) certificate of waiver, purchasing equipment, establishing linkages to local HIV medical care, and other administrative tasks cost each program on average an additional \$2,000. Offering rapid HIV testing on-site with information only to individuals who had not received HIV test results in the past 12 months was cost-effective compared to referral off-site; this resulted in a cost-effectiveness ratio of \$60,300 per quality-adjusted life year (QALY) compared to the current US threshold whereby anything up to \$100,000 per QALY is cost-effective.¹⁴ The strategy remained cost-effective when the HIV prevalence was as low as 0.1%.

Conclusion

This CTN study has broad clinical and public health ramifications for routine HIV testing. Research has shown that offering on-site rapid HIV testing in substance abuse treatment centers substantially increased receipt of HIV test results and identified persons who were unaware of their HIV infection. The practice may be implemented for less than \$40 per rapid HIV test and is cost-effective. *Furthermore, substance use treatment patients are receptive to on-site testing, and are more likely to get tested than if they are referred to another agency for testing.* The results, overall, support the implementation of routine on-site rapid HIV testing with verbal information about testing among patients in substance abuse treatment centers.

www.nattc.org/rapidtesting

Citations

- ¹ Prejean J, Song R, Hernandez A, Ziebell R, Green T, et al. (2011) Estimated HIV Incidence in the United States, 2006–2009. PLoS ONE 6(8): e17502. doi:10.1371/journal.pone.0017502.
- ² Campsmith MI, Rhodes PH, Hall HI, & Green TA. Undiagnosed HIV prevalence among adults and adolescents in the United States at the end of 2006. J Acquir Immune Defic Syndr. 2010; 53(5): 619-24.
- ³ Marks G, Crepaz N, Janssen R. (2006) Estimating sexual transmission of HIV from persons aware and unaware that they are infected with the virus in the USA. AIDS. 2006; 20: 1447–1450.
- ⁴ Prejean J, Song R, Hernandez A, Ziebell R, Green T, et al. (2011) Estimated HIV Incidence in the United States, 2006–2009. PLoS ONE 6(8): e17502. doi:10.1371/journal.pone.0017502
- ⁵ Degenhardt I, Mathers B, Guarinieri M, Panda S, et al. Meth/amphetamine use and associated HIV: implications for global policy and public health. International Journal of Drug Policy. 2010; 21(3): 347-58.
- ⁶ Des Jarlais DC, Arasteh K, Perlis T, Hagan H, Abdul-Quader A, Heckathorn DD, McKnight C, Bramson H, Nemeth C, Torian LV, Friedman SR. Convergence of HIV seroprevalence among injecting and non-injecting drug users in New York City. AIDS. 2007 Jan 11; 21(2): 231-5.
- ⁷ Prevots DR, Allen DM, Lehman JS, Green TA, Petersen LR, Gwinn M. (1996). Trends in human immunodeficiency virus seroprevalence among injection drug users entering drug treatment centers, United States, 1988–1993. American Journal of Epidemiology. 1996; 143(7): 733–42.
- ⁸ Pollack HA, D'Annunzio T. HIV testing and counseling in the nation's outpatient substance abuse treatment system, 1995–2005. J Subst Abuse Treat. 2010; 38(4): 307–16.
- ⁹ Substance Abuse and Mental Health Services Administration. The N-SSATS Report: Infectious Disease Screening. 2010; Rockville, MD.
- ¹⁰ Brown LS, Jr, Kritz SA, Goldsmith RJ, Bini EJ, Robinson J, Alderson D, et al. Health Services for HIV/AIDS, Hepatitis C Virus, and Sexually Transmitted Infections in Substance Abuse Treatment Programs. Public Health Rep. 2007; 122(4): 441–51.
- ¹¹ Metcalf CA, Douglas JM, Jr, Malotte CK, Cross H, Dillon BA, Paul SM, et al. Relative efficacy of prevention counseling with rapid and standard HIV testing: a randomized, controlled trial (RESPECT-2). Sex Transm Dis. 2005; 32(2): 130–8.
- ¹² Metsch, L.R., Feaster, D.J., Gooden, L., Matheson, T., Mandler, R.N., Haynes, L., Tross, S., Kyle, T., Gallup, D., Kosinski, A.S., Douaihy, A., Schackman, B.R., Das, M., Lindblad, R., Erickson, S., Korthuis, P.T., Martino, S., Sorensen, J.L., Szapocznik, J., Walensky, R., Branson, B. and Colfax, G.N. Implementing rapid HIV testing with or without risk-reduction counseling in drug treatment centers: results of a randomized trial. American Journal of Public Health. In Press.
- ¹³ Metsch, L. op. cit.
- ¹⁴ Schackman BR, Metsch LR, Colfax GN, Leff JA, Wong A, Scott CA, Feaster DJ, Gooden L, Matheson T, Mandler RN, Haynes LF, Paltiel AD, Walensky RP. The cost-effectiveness of on-site rapid HIV testing in substance abuse treatment: results of the CTN 0032 randomized trial. 6th IAS Conference on HIV Pathogenesis, Treatment, and Prevention. July 18, 2011 Rome, Italy.