

IN FOCUS

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HIV/AIDS among Persons Experiencing Homelessness: Risk Factors, Predictors of Testing, and Promising Testing Strategies

The October issue of *In Focus* provides a synthesis of recent literature on HIV/AIDS among persons experiencing homelessness in the United States. Special attention is given to literature on HIV risk behaviors, predictors of HIV testing utilization, and promising HIV testing strategies for both youth and adult populations experiencing homelessness.

Prevalence of HIV/AIDS in Homeless Population

In 2009, an estimated 784,701 individuals were living with a diagnosis of HIV infection in the United States.^[1] According to a 2010 study, HIV infection was more prevalent in urban poverty areas¹ in the U.S. (2.1%) than in the general population (<1%); in these urban poverty areas, homeless status was significantly associated with and a predictor of HIV prevalence.^[2] Persons experiencing homelessness are disproportionately infected with HIV/AIDS at a rate 3-9 times higher than the stably housed population.^[3-5] Among youth experiencing homelessness, HIV prevalence is estimated to be between 2-11%.^[6]

High-Risk Behaviors among Persons Experiencing Homelessness

HIV risk behavior is prevalent among the homeless population. Individuals experiencing homelessness are more likely than other subpopulations to engage in behaviors associated with HIV risk, including risky sexual practices, injection drug use and needle sharing, and trading sexual acts for money, drugs, or a place to stay.^[5]

An emerging topic within HIV/AIDS literature is that of high-risk behaviors and HIV prevalence among homeless youth. The country's estimated two million runaway and homeless youth (RHY) are disproportionately affected by HIV and other sexually transmitted infections in comparison to stably housed youth.^[6, 7] Unstably housed youth are at 2-10 times greater risk of HIV infection than stably housed adolescents in the U.S.^[6] This elevated rate of HIV infection could be the result of the small networks of social support that exist among RHY, in which high-risk behaviors are normalized, including unprotected sexual intercourse and injection drug use.^[8] A study of homeless youth found that the longer adolescents had been homeless, the less motivated they were to reduce HIV risk behaviors.^[9]

Unstably housed youth are at **2 to 10X** Greater Risk of HIV infection

Online social networking—used by over 96% of youth experiencing homelessness—can play a significant facilitative and preventative role in high-risk behavior, depending on how it is used.^[6] For example, online social networking

¹ Urban poverty area defined as a census tract where $\geq 20\%$ of residents had household incomes below the U.S. Poverty level in one of 23 cities included in the study.

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by youth who are homeless has shown to be a tool for identifying sexual partners and establishing exchanges of sex for food, drugs, or places to stay, while it has also been used to discuss safe sex practices and build knowledge about HIV/STI prevention behaviors.^[6, 10]

Factors Associated with Utilization of HIV Testing

According to Wenzel et al. (2012): “HIV testing is an effective tool for reducing HIV transmission and for combating poor HIV/AIDS health outcomes that disproportionately affect homeless persons” (p. 270).^[4] If routine HIV testing became widespread, it could extend survival rates by 1.5 years for the average HIV-infected individual who seeks care.^[11] However, HIV testing has yet to become a widespread practice, as more than one-fifth of HIV positive persons in the United States are unaware they are infected.^[1]

1 in 5
People infected with HIV
in U.S. is unaware
he or she is infected

Testing rates among youth experiencing homelessness are higher than youth in the general population.^[6, 7] In a study of sexually active youth experiencing homelessness in Los Angeles, 85% had ever been tested, while 47% had been tested in the past three months.^[7] The factors significantly associated with increased likelihood of testing included youth who self-identified as gay or had been to a drop-in center in the past month; factors marginally associated included youth who were of older age, Hispanic ethnicity, had more depressive symptoms, injected drugs in the past six months, and had two or more casual or need-based sexual partners in the past three months. Sexual risk behavior had no associations with testing likelihood.

Predictors of HIV testing vary for adults. A study of heterosexually active homeless men explored the individual and structural predictors of HIV testing.^[4] The study found that structural factors related to service access and use—including recent access to medical or dental services or past U.S. military service—were significantly associated with a greater likelihood of past-year HIV testing. Conversely, individual factors—including demographic factors and HIV risk behavior—were not associated with a greater likelihood of past-year HIV testing. As Wenzel et al. (2012) state, these findings are supported by past research, which identifies access to medical services as a predictor of utilizing HIV testing.^[12]

A study of women in shelters and low-income housing units, however, found both individual and structural factors to be associated with testing likelihood.^[13] HIV testing was more likely among women who: lived in a shelter, were younger, lived with a child, had a regular source of medical care, had drug or alcohol dependence within the past year, experienced sexual violence, and were at low risk for mental health problems.

Promising Practices in HIV Testing

The increased likelihood of HIV testing utilization among unstably housed men who had recent access to medical or dental services and unstably housed women who had a regular source of medical care presents an opportunity to improve testing rates across the board. In the aforementioned study of women in shelters and low-income housing units, the most common location for testing was a clinic or physician’s office.^[13] Implementing routine and universal testing at medical and dental appointments regardless of individual factors such as demographic characteristics or HIV risk behavior has proven more effective

**Recent access to
medical services =
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than targeted, risk-based testing practices that rely on individual factors, which Wenzel et al. found to be ineffective predictors of testing.^[4, 14] This is consistent with the Centers for Disease Control's (CDC) revised testing recommendations, which endorse "routine voluntary HIV screening as a normal part of medical practice, similar to screening for other treatable conditions."^[14]

Health Center Program grantees, including Health Care for the Homeless (HCH) projects, can provide integral HIV testing locations for unstably housed consumers due to their roles as primary care medical homes for the country's most vulnerable populations, regardless of insurance status or ability to pay.^[15] Incorporating universal HIV testing into the primary care setting could increase the prevalence of HIV testing utilization among persons experiencing homelessness, potentially leading to "...earlier HIV diagnosis, improved linkage to care, and reduced transmission of HIV infection."^[16] This primary care testing approach is reiterated in the National HIV/AIDS Strategy released in 2010, which states that all health care settings should be utilized for HIV testing.^[17]

The dental care setting—found at some HCH projects—is also gaining attention for its suitability for rapid HIV testing.^[18] Rapid HIV testing is a quick and cost-effective method for HIV screening that can be conducted by non-laboratorians in a variety of settings, although reactive-positive results must be followed up with traditional testing.^[19] Even though exploration of HIV testing practices in the dental setting remains limited, dental clinics offer a promising venue for HIV rapid testing using oral fluid. Dentists already offer screening tests that are not focused on oral health, including tests for high blood pressure and elevated glucose, so incorporating routine HIV testing could become a standard component of dental exams.^[18]

40%
of unstably housed youth
received HIV testing in
non-clinical setting

Rapid HIV testing is also being implemented in outreach and community settings—including mobile medical units, homeless shelters, public parks, needle exchange programs, bathhouses, community events, bars, social service organizations, and drug treatment facilities—to reach minority groups and others at high risk for HIV infection.^[19] In a study of rapid HIV testing in non-clinical settings, which included over 24,000 participants, 98% of those tested by participating community-based organizations indicated that they believed the non-clinical venues were appropriate settings for testing.^[19]

Testing in non-clinical venues, especially bathhouses and community special events, successfully reached those who had not been previously tested.

Non-clinical testing venues—including outreach settings and community-based organizations—may also be more effective in reaching unstably housed youth than conventional medical settings.^[20] In particular, unstably housed youth have shown a preference for drop-in centers over other service sites, and the use of drop-in centers was significantly associated with testing among this population.^[7] In a study of youth experiencing homelessness in New York City, 40% of participants had received rapid and conventional testing in non-clinical venues.^[20] Considering that the majority of adolescents in a community sample were willing to take a free rapid HIV test when offered, routine rapid testing in drop-in centers and other non-clinical settings could be an effective way to increase testing rates among youth.^[21]

Discussion

Given the prevalence of HIV infection and high-risk behavior among persons experiencing homelessness, particularly unstably housed youth, a better understanding of HIV testing utilization predictors and innovative testing practices is essential. The educational potential of online social networking could be utilized as a



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prevention strategy for RHY, whom are generally well-connected to online social media. Additionally, the use of promising rapid HIV testing strategies, including in primary care, dental, and non-clinical settings, can reach individuals who have never been tested, such as minorities, youth, and those with high-risk behaviors.

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