HIV CARE CONTINUUM

The Connection Between Housing And Improved Outcomes Along The HIV Care Continuum

HOPWA
Housing Opportunities for Persons With AIDS

COMMUNITY PLANNING DEVELOPMENT
The HIV Care Continuum Initiative

After more than 30 years of sustained effort and medical breakthroughs, the end of the United States AIDS epidemic is now possible. While there is still no cure for HIV infection, targeted HIV prevention strategies and early antiretroviral (ARV) treatment have the potential to dramatically reduce new infections and promote optimal health for all people living with HIV/AIDS. Consistent ARV treatment suppresses the virus and enables PLWHA to live longer and stay healthy. Viral suppression has been found to reduce the risk of transmitting HIV to others by 96%.1

HUD and the HIV Care Continuum Initiative

The U.S. Department of Housing and Urban Development (HUD) is a core partner in the HIV Care Continuum Initiative, as targeted housing assistance has been a key component of the federal HIV response since the Housing Opportunities for Persons with AIDS (HOPWA) program was established in 1990. The initiative calls on HUD and other federal agencies to use the HIV Care Continuum as a tool to identify gaps in HIV prevention and care, improve outcomes, and monitor progress.

HUD implementation of the HIV Care Continuum Initiative will include new technical assistance, guidance, and tools to help providers of HUD-funded housing programs evaluate and demonstrate the impact of housing assistance on HIV prevention and treatment outcomes. This report outlines the link between housing status and HIV health outcomes and the role of housing assistance at a critical ebb of effective care at each step in the HIV Care Continuum.

HIV/AIDS and Housing: Housing as Medicine

Housing providers with the ability to track, evaluate, and demonstrate improvement in HIV care continuum outcomes for assisted households will be in the strongest position to participate in community planning for integrated HIV care systems and to advocate for continued and expanded housing resources.

FOOTNOTES

THE HIV CARE CONTINUUM

STEP 1: HIV Testing and Diagnosis

The evidence shows that housing instability is linked to delayed HIV diagnosis and to increased risks of acquiring and transmitting HIV infection. One study found that men who have sex with men (MSM) and experience homelessness or housing instability are over 15 times more likely than stably housed MSM to delay HIV testing. Housing programs also provide an important opportunity to offer HIV testing. The U.S. Preventive Services Task Force recommends HIV screening for all persons aged 15 to 65, but only about half of all Americans have ever been tested, including many at highest risk. Fear of stigma and discrimination is still a factor discouraging testing, including fear of exclusion from housing or shelter. Partnerships between HUD’s housing programs and other service organizations present important opportunities for HIV education and testing to support HIV prevention, timely HIV diagnosis and linkage to ongoing medical care for both HIV positive and HIV negative persons.

Timely HIV testing is the first critical step in effective HIV care and prevention. Nearly one in five Americans (20%) with HIV are unaware of their diagnosis, and far too many PLWHA in the U.S. are diagnosed too late in the course of HIV infection to fully benefit from available life-extending treatment. (See Figure 1.) Undiagnosed PLWHA are not accessing the care they need to stay healthy and can unknowingly pass the virus on to others. (See Figure 1.)

FOOTNOTES


STEP 2: Linkage to care for those who test HIV positive

Every person diagnosed with HIV infection should be connected quickly (within three months of diagnosis) to an HIV healthcare provider who can offer treatment and counseling to promote health and reduce the risk of onward HIV transmission. Currently, only 66% of all PLWHA in the U.S. are being linked to care. (See Figure 2.)

Since housing is a basic need, housing-related service providers may have a unique opportunity to offer HIV testing and linkage to care for at-risk persons not connected to other systems of care.

For PLWHA, homelessness and unstable housing are conditions strongly associated with inadequate HIV healthcare, including failure to connect with a primary care provider. One large study found that over a 12-year period, PLWHA who lacked stable housing were significantly more likely than those who were stably housed to delay entry into care. Access to care programs for persons newly diagnosed with HIV was able to link 25% of participants with unstable housing to primary care, compared to 55% of persons with stable housing. Researchers in San Francisco who used HIV surveillance data to examine engagement in care for all persons diagnosed with HIV between 2007 and 2010 found that homelessness or unknown housing status predicted not entering HIV care within six months of diagnosis.
Step 5: Achieving and Maintaining Viral Suppression Through ARV Adherence

For most PLWHA, taking ARVs as prescribed reduces the amount of HIV virus in the blood to a very low level. Viral suppression optimizes the health of PLWHA and dramatically reduces their risk of transmitting the virus to others. Unfortunately, only 25 percent of PLWHA in the U.S. are fully benefiting from available treatments by successfully keeping the HIV virus under control.

PLWHA experiencing homelessness are less likely to be virally suppressed, have lower CD4 counts and are at worse overall physical and mental health, compared to otherwise similar PLWHA who are stably housed. A recent study of 862 persons newly diagnosed with HIV in San Francisco over a two-year period found that homelessness at diagnosis independently predicted failure to achieve viral suppression. In a U.S. multi-site study of injection drug users (IDUs) receiving ARV treatment, those with stable housing were almost 3.7 times more likely than homeless participants to achieve viral suppression.

Intervention research demonstrates that housing assistance works to improve rates of viral suppression among PLWHA experiencing homelessness or housing instability. A study of the Chicago Housing for Health Project (CHHP) found that homeless HIV-positive participants who received an immediate housing placement were twice as likely after twelve months to be virally suppressed as HIV-positive study participants randomly assigned to continue to receive the usual care (as defined by receiving access to the range of shelter, case management and housing options usually available to homeless HIV positive persons at hospital discharge) available in their community.

Outcomes of the Housing and Health (H&H) Study conducted by the CDC in partnership with HUD’s Office of HIV/AIDS Housing to assess the impact of HOPWA housing vouchers shows that participants who continued to experience homelessness during the study period were significantly less likely to achieve viral suppression than persons who did not report homelessness.

For example, Housing and Health (H&H) Study researchers used study outcomes to calculate the cost-utility of housing assistance as an HIV health intervention, taking into account the cost of the housing services, savings from prevented HIV transmissions and reductions in emergency medical costs among other factors.

The public costs and benefits of targeted HIV housing supports

Recent studies of HIV housing interventions also show that housing assistance is a cost-effective way to improve HIV health outcomes. These economic evaluations weigh the public costs of housing assistance against the savings in public spending that result from reducing avoidable emergency and inpatient care, preventing costly new HIV infections and reducing reliance on expensive crisis systems such as jails and shelters. Such cost analyses have found that savings in other areas of public spending more than offset the cost of housing programs.

Supportive housing programs improve rates of viral suppression and other health outcomes for PLWHA despite complex social and behavioral health needs. A community residence for formerly homeless PLWHA enabled 69% of residents struggling with substance use addiction to achieve viral suppression. The San Francisco Department of Public Health found that placement in a low-threshold supportive housing program decreased mortality by 80% over a five-year period among PLWHA who were homeless at the time of an AIDS diagnosis.

Studies consistently find homelessness and housing instability are directly linked to higher viral loads and failure to achieve or sustain viral suppression, even after controlling other factors known to impact treatment effectiveness such as substance use and mental health needs.
The HIV Care Continuum is an important new tool to evaluate the effectiveness of current systems of care to ensure the best allocation of scarce public resources.

At the federal level, government agencies are now using the HIV Care Continuum to inform discussions about how to best prioritize and target resources. Housing interventions enable PLWHA experiencing homelessness or housing instability to achieve stability, improve HIV health outcomes, and reduce overall public costs. Local HIV housing providers also have a critical role in the rollout of the HIV Care Continuum initiative in their communities, by demonstrating stable housing as a key HIV prevention and care strategy in coordinated HIV services and care.

It is critical to ensure that housing resources are viewed and funded as a core component of cost-effective HIV care delivery. Homeless, housing, and health care providers have an opportunity to enhance community-level collaboration to ensure clients receive the broad scope of needed services. Coordination strategies might include:

- Organizing discussions between providers from the healthcare, housing, and supportive service systems of care to identify forms of primary care and behavioral health services that best link with housing assistance programs.
- Enhancing the public health system to offer coordinated care and prevention services to improve the health of persons experiencing homelessness and unstable housing.
- Educating local medical providers about the importance of assessing housing status and making appropriate referrals for housing supports.
- Collecting housing status as part of all assessments and intake processes including medical assessments.
- Better coordinating and aligning housing services with clinical care to demonstrate improved health outcomes, better service utilization, and lowered costs.
- Determining how housing services fit into new care coordination and payment models.

- Operationalizing new federal housing-related indicators of HIV care to identify unmet housing need for appropriate referrals and to evaluate the impact of housing on health care utilization and costs.
- Identifying and taking advantage of new opportunities to fund, deliver and report outcomes of housing services as part of coordinated and accountable HIV care systems.

The New York City Department of Health and Mental Hygiene (NYC DOHMH) has created an HIV Care Continuum for the NYC HOPWA program using surveillance data to assess health outcomes among HOPWA beneficiaries in New York City. NYC DOHMH reported data in 2011, 99% of HOPWA beneficiaries were linked to HIV care; 95% were retained in care; and 87% were prescribed antiretroviral medications. Most importantly, 65% of NYC HOPWA beneficiaries were virally suppressed compared to 44% of persons diagnosed with HIV/AIDS City-wide, and only 30% of those diagnosed with HIV/AIDS in the U.S. (different methods used nationally). NYC DOHMH has actively researched the role of HOPWA housing and its impact on health outcomes.

**Conclusion**

For PLWHA experiencing homelessness and housing instability, improving outcomes on the HIV Care Continuum will require attention to housing need, including access to HUD housing programs. Two recent studies that ranked factors (including ART treatment) affecting the health status of HIV-infected homeless and unstably housed women and men found that unmet substance needs (i.e., food, hygiene, shelter) had the strongest impact on overall physical and mental health. As the authors observed, "Impoverished persons will not fully benefit from progress in HIV medicine until these barriers are overcome, a situation that is likely to continue fueling the US HIV epidemic."

"Stable housing is critical to promoting full engagement in HIV care from diagnosis through attaining a suppressed viral load. Through these mechanisms, stable housing helps contribute to national HIV care and prevention of transmission goals."

- Edward M. Gardner, MD

**Dr. Edward Gardner** is an Infectious Diseases/HIV physician at Denver Public Health and Associate Professor of Medicine at the University of Colorado Denver, and conducts research in engagement in HIV care and adherence to antiretroviral therapy. The HIV Care Continuum model was first described by Dr. Gardner and colleagues in a widely-cited article, The Spectrum of Engagement in HIV Care and its Relevance to Test-and-Treat Strategies for Prevention of HIV Infection. Dr. Gardner et al. led the way in reviewing current HIV/AIDS research to develop estimates of how many individuals with HIV in the U.S. are engaged at various steps in the continuum of care from diagnosis through viral suppression. CDC conducted further analysis with similar findings and updated the HIV Care Continuum which became the focus of President Obama's Executive Order establishing the HIV Care Continuum Initiative as the next step in implementing the National HIV/AIDS Strategy.
Quick Facts: The Impact of Stable Housing on Health for PLWHA

Why Housing?

- For persons who lack a safe, stable place to live, housing assistance is a proven, cost-effective health care intervention.
- Stable housing has a direct, independent, and powerful impact on HIV incidence, health outcomes, and health disparities.
- Housing status is a more significant predictor of health care access and HIV outcomes than individual characteristics, behavioral health issues or access to other services.

Compared to stably housed persons, persons who are homeless or unstably housed:

- Are more likely to become HIV infected;
- Are more likely to be diagnosed late, after infection has progressed to HIV illness;
- Are more likely to delay entry into HIV care;
- Experience higher rates of discontinuous health care;
- Are less likely to be prescribed ARV treatment;
- Are less likely to achieve sustained viral suppression;
- Have worse health outcomes, with greater reliance on emergency and inpatient care; and
- Experience higher rates of HIV-related mortality.

Homeless/unstably housed people with HIV whose housing status improves:

- Reduce behaviors that can transmit HIV;
- Increase rates of HIV primary care visits, continuous care, and care that meets clinical practice standards;
- Are more likely to return to care after drop out;
- Are more likely to be receiving ARV treatment;
- Are more likely to be virally suppressed;
- Reduce avoidable use of expensive emergency and inpatient health care; and
- Use less public resources even taking into account housing supports.