



Examining the Evidence: The Impact of Housing on HIV Prevention and Care

Summary of Key Findings from the Third National Housing and HIV/AIDS Research Summit
Baltimore, MD – March 5 – 7, 2008

“[R]esearch without action is dusty books on a shelf...and action without research is simply a tantrum.” –
Shirlene Cooper, New York City AIDS Housing Network
Opening keynote, Summit III

The National AIDS Housing Coalition (NAHC), working in collaboration with the Johns Hopkins Bloomberg School of Public Health, convened the Third National Housing and HIV/AIDS Research Summit in Baltimore, Maryland, March 5th – 7th, 2008. The Summit Series now provides a regular forum for researchers, policy experts, providers, and consumers to share research findings, policy perspectives, challenges and opportunities in the field of HIV/AIDS housing. Summit III brought together over 200 participants, representing 25 states, the District of Columbia, and three Canadian Provinces, to share experiences, research and expertise.

NAHC is currently summarizing the research presentations and policy discussions from Summit III, and will circulate a number of Summit products over the coming months, including a Summit III policy paper and updates to the NAHC *Housing is HIV Prevention and Care* Policy Tool-Kit. The Summit III compact disc Briefing Book, available from NAHC at cost, is a compilation of relevant research articles and policy documents, including all articles appearing in the special “Housing and HIV” issue of the journal *AIDS and Behavior* released in November 2007 (Volume 11, Supplement 2 / November, 2007).

The following outlines some of the key research findings presented at Summit III. For more information on the Summit Series, Summit III updates, and to view the Policy Tool-kit, please visit: <http://nationalaidshousing.org>.

Data from two major studies provide new evidence for housing as an effective and cost-saving health care intervention for homeless & unstably housed persons with HIV and other chronic health conditions

Investigators from two major multi-year studies released preliminary findings at Summit III that link housing assistance to improved health outcomes for homeless and unstably housed persons living with HIV and other chronic health conditions, and show that public investment in housing not only improves health outcomes but actually saves taxpayer money. These two studies are the first of their kind, designed specifically to examine the significance of housing as an independent determinant of health.

The Housing and Health (H&H) Study is a large-scale, longitudinal study conducted by the Centers for Disease Control and Prevention (CDC) and the HUD Housing Opportunities for People with AIDS (HOPWA) program, to assess the impact, in terms of disease progression and risks of transmission, of providing housing assistance to persons with HIV who are homeless or at imminent risk of homelessness.

The Chicago Housing for Health Partnership (CHHP), a multi-disciplinary collaboration of health care, respite care and housing providers, is a large-scale, comprehensive examination of the impact of

supportive housing on the stability and health of homeless persons living with HIV/AIDS and other chronic illnesses, as well as their health services utilization rates.

The Innovative “Housing First” CHHP Program Improves Quality of Life and Reduces Hospital, Emergency Room, and Nursing Home Visits of Homeless Individuals with Chronic Medical Illnessesⁱ

The Chicago Housing for Health Partnership (CHHP) is an innovative program that provides housing to homeless individuals living with HIV/AIDS and other chronic illnesses. The CHHP study followed 407 chronically ill homeless persons over an 18-month period from their discharge from Chicago hospitals. During the 18-month research phase, researchers used a randomized control trial design to study the number of hospital, emergency room, and nursing home visits incurred by two groups: individuals who received CHHP supportive housing versus those who received “usual care” – a piecemeal system of emergency shelters, family and recovery programs. The information was used to track health outcomes and assess how much in medical expenses could be saved through stable housing and increasing access to primary care rather than relying on costly hospital visits and nursing home stays.

Intervention group participants had high rates of long-term substance abuse (86 percent), mental illness (46 percent), and medical issues such as HIV/AIDS (34 percent) and hypertension (33 percent), as well as a number of other chronic medical illnesses such as diabetes and cancer. Initial findings were presented March 6, 2008 at the National Housing and HIV/AIDS Summit in Baltimore. Final study results and costs analyses will be submitted for publication this fall.

Below is a summary of the preliminary CHHP data and cost estimates presented at the Summit:

- Despite high rates of mental illness (46%), substance use (86%) and other factors thought to an individual’s ability to remain stably housed, preliminary data indicate that 60% of the study participants provided housing were stably housed at the end of the 18-month study period, compared to only 15% of the “usual care” participants.
- The housed group used only half as many nursing home days as their usual care counterparts and were nearly two times less likely to be hospitalized or use an emergency room.
- An annual average of \$12,000 was spent per housed client to provide a permanent supportive housing unit in a highly coordinated system of care.
- Preliminary cost estimates show substantial savings in annual medical expenses for the group of housed clients as compared to the usual care group, after subtracting the annual expense of providing the CHHP supportive housing intervention.

The CHHP model differs from traditional emergency shelter or transitional housing approaches in that the primary focus is on helping individuals quickly access and sustain housing, where needed services are provided best. Such “housing first” and “low demand” programs are less expensive than the cost of habitual shelter stays and emergency medical services often required by chronically ill homeless people.

CHHP Improves HIV Health Outcomes Among Positive Participantsⁱⁱ

Significantly, more than a third of the CHHP participants studied were HIV positive. Like other study subjects, HIV+ participants were randomly assigned to “usual care” or to a permanent housing placement with intensive case management. A sub-study examined the impact of housing on HIV disease progression. After twelve months, 55% of HIV+ participants who received a housing placement were alive and had “intact immunity,” compared to only 34% of HIV+ participants who received only “usual care.” Those who received a housing placement were twice as likely at 12 months to have an undetectable viral load (39%) as those who did not receive housing (19%).

Preliminary H&H Results Demonstrate Connection Between Housing and Health for PLWHAⁱⁱⁱ

The groundbreaking HUD/CDC Housing and Health (H&H) Study is the first effort to investigate the effect of housing on HIV risk behaviors, medical care and treatment adherence. The study was conducted as a randomized controlled trial among 630 HIV positive participants in three cities – Baltimore, Chicago and Los Angeles. Participants were homeless (27%), doubled up (62%), or otherwise at risk of homelessness (11%) at baseline, and all participants were provided case management, help finding housing, referral to medical care, and two behavioral HIV prevention interventions. Participants were then randomly assigned to two study groups: half received immediate HOPWA rental assistance (the intervention group); while the other half continued to receive the services provided by the participating service providers, including housing from other sources (the customary care group).

H&H participants were followed for an eighteen-month period (2004 – 2006), to compare data on a range of HIV risk and health care indicators, at baseline and at three follow up assessments, collected through in-depth questionnaires and blood tests. The CDC’s analyses of the H&H data are ongoing: some important variables, including substance use, have not yet been examined; anticipated trend analyses will enable the researchers to examine participants’ housing experiences over time; and cost-utility analyses will evaluate the cost-effectiveness of housing as an HIV prevention and treatment intervention. Final results will be submitted for publication later this year.

Preliminary H&H results released for the first time at Summit III show significant improvements in housing status among all study participants, leading to significant improvements in health outcomes.

Researchers found significant improvements in housing status among participants in both arms of the study. The intervention group showed much stronger gains in securing housing, with 82% reporting a stable housing situation at 18 months, up from just 4% at baseline. However, participants receiving only customary care also substantially improved housing, with 52% reporting stable housing at 18 months, up from 4% at baseline. This “crossover” between the intervention and customary care groups limits the statistical power to detect differences in outcome measures between the “intent to treat” study arms. Significantly, however, as housing status improved for the group as a whole, so did health outcomes. Analyses show substantial improvements in health outcomes over time in both groups, including:

- A 34% reduction in emergency room visits;
- A 21% reduction in hospitalizations;
- A 44% reduction in self-reported opportunistic infections;
- A 40% reduction in sex trade;
- Significantly improved mental health status.

Additional “as treated” analyses are currently being conducted to better understand the association between obtaining housing and health outcomes among H&H participants. For example, preliminary analyses presented at Summit III examine differences between study participants who reported an experience of homelessness at a follow up interview and those who did not, controlling for socio-

demographic variables, substance use, and physical and mental health status. Results show significant differences in outcomes between participants experiencing homelessness and housed persons in:

- Emergency room visits (homeless significantly more likely to use an ER);
- HAART use (housed persons more likely to be receiving HAART than homeless);
- HAART adherence (homeless more likely to report one or more missed doses);
- Viral load (homeless significantly more likely to have a detectible viral load at 18 months); and
- Mental health (homeless reporting significantly higher levels of perceived stress; housed reporting significantly better overall mental health).

Other Key Findings

As the following examples show, other findings presented at Summit III underscore the CHHP and H&H results, and provide strong evidence of the role of housing – or lack of housing - for the continuing HIV epidemic and associated health disparities.

Lack of stable housing is associated with HIV risk among vulnerable persons.

- Homeless youth are four to five times more likely to engage in high-risk drug use than youth in housing with some adult supervision and over twice as likely to engage in high-risk sex.^{iv}

Lack of housing is associated with HIV health disparities.

- 68% of the homeless and unstably housed participants in the H&H Study had a detectible viral load at baseline (24% with a viral load over 50,000), yet 44% either were not receiving any HIV antiretroviral medications (33%), or were on a suboptimal regimen (11%).^v

Housing Status Predicts Access and Maintenance in Health Care

- Over time, housing status is among the strongest predictors of entry into HIV care, primary care visits, continuous care, and care that meets clinical practice standards, and receipt of housing assistance has an independent, direct impact on improved medical care.^{vi}

Housing status predicts HAART access and adherence

- IDU's with stable housing were found to be 1.5 times as likely to access HAART than those who lacked stable housing, and among those on treatment, those with stable housing were almost 3.7 times as likely to achieve viral suppression.^{vii}

Stable housing remains a critical unmet need among PLWHA.

- A recent survey of PLWHA receiving care in the four-county Tampa, Florida area revealed that 84% could be considered unstably housed, as indicated by rent burden, need for housing assistance and other factors.^{viii}
- An ongoing study of US veterans living with HIV shows that 32% have experienced homelessness, and 7% are currently homeless.^{ix}

Stay Tuned!

"The results of the CHHP and CDC studies as well as the numerous other studies presented at the Summit are inspiring," said David Holtgrave, PhD, chair of the Department of Health, Behavior and Society at the Johns Hopkins Bloomberg School, who worked on the CDC study. "Not only do these studies show that there

is a really good scientific basis to the argument that housing is health care, they show that we can save lives and save money at the same time by providing people with housing."

Stay in touch with the National AIDS Housing Coalition for the Summit III Policy Paper – an overview of research findings presented at Summit III and the research and advocacy strategies developed by Summit III participants to translate this growing body of evidence into practice and policy.

May 2008

ⁱ *Chicago Housing for Health Partnership: Background, Methods & Preliminary Findings*, Laura Sadowski, John Stroger Hospital/Rush Medical College; *Chicago Housing for Health Partnership: 2003-2007 Preliminary Cost Estimates*, Arturo Bendixen, AIDS Foundation of Chicago. See also: *Homeless Study Looks at 'Housing First': Shifting Policies to Get Chronically Ill in Homes May Save Live, Money*, Wall Street Journal, March 6, 2008, p. A10.

ⁱⁱ *Chicago Housing for Health Partnership HIV Sub-Study*, David Buchanan, John Stroger Hospital/Rush Medical College

ⁱⁱⁱ *The Housing and Health Study: Background, Methods & Preliminary Findings*, Daniel Kidder & Richard Wolitski, United States Centers for Disease Control & Prevention, Divisions of HIV/AIDS Prevention

^{iv} *Housing status and HIV risk behaviors: Implications for prevention services for homeless youth*, JoAnn Lee, Larkin Street Youth Services, San Francisco

^v *Factors associated with clinically unacceptable HIV health status in homeless or unstably housed adults living with HIV*, Daniel P. Kidder, United States Centers for Disease Control and Prevention, Divisions of HIV/AIDS Prevention

^{vi} *Recently published findings on the relationship of housing status and HIV risk and health outcomes*, Angela Aidala, Mailman School of Public Health, Columbia University

^{vii} *Stable housing as a persistent barrier to HIV seropositive injection drug users' uptake and effective use of HAART*, Amy Knowlton, Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health

^{viii} *Are they really stable? Findings from a four-county community housing survey of low-income persons living with HIV/AIDS*, Russell Bennett, Collaborative Solutions, Inc.

^{ix} *Providing care to America's veterans living with HIV*, Ronald O. Valdiserri, United States Department of Veterans Affairs, Veterans Health Administration.