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Transforming Fact into Strategy – Developing a Public Health Response to the Housing Needs of Persons Living With and At Risk of HIV/AIDS

Policy Paper from the Second National Housing and HIV/AIDS Research Summit

Overview

Mounting evidence demonstrates the independent significance of housing as a mechanism to improve the health of persons living with HIV and to prevent new infections. Findings presented at the 2006 National Housing and HIV/AIDS Research Summit show strong empirical support for a shift in the HIV risk paradigm, away from a focus on individual behaviors only, to a focus on risky contexts such as homelessness and unstable housing as structural factors that must be addressed in order to effectively prevent and treat HIV.

Housing status itself has been shown to independently predict HIV risk and health outcomes, controlling for a wide range of individual (poverty, race/ethnicity, history of substance use, mental illness) and service use (primary care, case management, substance abuse and/or mental health treatment) characteristics. This is an important finding, as it indicates that housing itself may improve the health of people living with HIV and AIDS (PLWHA) and reduce the spread of HIV. Identifying housing instability as a “vector” for HIV disease affords the opportunity to use housing policy as an effective new mechanism to control the HIV epidemic in the United States.

Contextual or structural factors such as housing status directly or indirectly affect an individual’s ability to avoid exposure to HIV, as well as HIV-positive individuals’ ability to avoid exposing others to infection, and to access and adhere to HIV care. Until recently, individual-focused factors have been emphasized in HIV literature and practice, but behavioral interventions based on these assumptions alone have not been sufficient to achieve articulated national goals of substantially reducing new HIV infections, and reducing racial/ethnic disparities in HIV incidence. Effectively addressing disparities in HIV risk and health outcomes requires attention to structural explanations that acknowledge the role of housing and other social/contextual factors that determine health.

Indeed, a growing body of practice-based evidence shows that housing interventions work to enable homeless and unstably housed persons to achieve and maintain stability, and that for persons living with HIV/AIDS, improved housing status is directly related to reduced risk behaviors, improved access to health care, higher levels of ART adherence, lowered viral loads, and reduced mortality. Significantly, innovative “housing first” or “harm reduction” housing approaches appear to be just as effective in achieving these results as more traditional abstinence-based housing models for persons with chronic mental health and/or substance use issues.

Important new cost analyses indicate that the provision of housing is also a cost-effective prevention and treatment intervention for homeless and unstably housed PLWHA. Cost-offset analyses have repeatedly demonstrated that supportive housing substantially reduces utilization of costly emergency and inpatient health care services, before taking into account the substantial

costs associated with new HIV infections and delayed or inconsistent HIV care. Housing intervention cost-per-client estimates are now available to answer HIV-specific “affordability” policy questions. These analyses indicate that housing interventions for homeless and unstably housed PLWHA are both cost-effective and cost-saving, making housing a sound investment of limited public resources.

The National AIDS Housing Coalition (NAHC)¹ convened the Second National Housing and HIV/AIDS Research Summit on October 20th and 21st, 2006, in Baltimore, Maryland, in collaboration with Dr. David Holtgrave and the Department of Health, Behavior and Society of the Johns Hopkins Bloomberg School of Public Health.² Building on the momentum begun at the inaugural Housing and HIV/AIDS Research Summit meeting in June 2005,³ Summit II brought together 160 researchers, policy experts, providers, and consumers, representing 24 states, the District of Columbia and two Canadian Provinces. Over two days of plenary sessions more than 30 of North America’s top research, practice, and policy experts in the fields of HIV/AIDS, homelessness and housing presented and discussed current research and its policy implications.

Four key policy imperatives have emerged from the Housing and HIV/AIDS Research Summit Series, dictated by our current understanding of housing and health:

- Make subsidized, affordable housing (including supportive housing for those who need it) available to all persons with HIV;
- Make housing homeless persons a top prevention priority, since housing is a powerful HIV prevention strategy;
- Incorporate housing as a critical element of HIV health care; and
- Continue to collect and analyze data to assess the impact and effectiveness of various models of housing as an independent structural HIV prevention and healthcare intervention.

Summit II included presentation of important new research, as well as development of action strategies for advancing the HIV/AIDS housing policy imperatives. This paper summarizes new findings presented at Summit II, framed in terms of three research and practice action strategies:

Action strategy one: Shift the HIV risk paradigm away from a focus on individual behaviors only, to a focus on risky contexts such as homelessness and unstable housing.
Action strategy two: Promote evidence-based structural interventions that incorporate housing as a key component of HIV prevention and health care, including “housing first” harm reduction housing approaches for active drug users; and

¹ The National AIDS Housing Coalition, Inc (www.nationalaidshousing.org) is a 501(c)(3) organization formed in 1994 to assert the fundamental right of all persons living with HIV/AIDS to decent, safe, affordable housing and supportive services that are responsive and appropriate to their self-determined needs. NAHC engaged Shubert Botein Policy Associates (www.shubertbotein.com) to help plan, coordinate, and document the summit.

² Dr. David Holtgrave chairs the Department of Health, Behavior and Society of the Johns Hopkins Bloomberg School of Public Health, which was established in the summer of 2005 with a mission dedicated to research and training that advances scientific understanding of the impact on health of behavior and the societal context.

³ A summary of Summit I proceedings is available from NAHC in its policy paper *Housing is the Foundation of HIV Prevention and Treatment: Results of the National Housing and HIV/AIDS Research Summit*, which can be found, along with other Summit I and Summit II materials, at www.nationalaidshousing.org.

Action strategy three: Employ practice-based research methodologies to continue to deepen our understanding of the link between housing and health, including cost-saving and cost-effectiveness analyses of housing interventions.

The Housing and HIV/AIDS Research Summit Series.

The National Housing and HIV/AIDS Research Summit series provides an unprecedented venue for the presentation of research of significance to HIV/AIDS housing policy, coupled with dialogue about the public policy implications of research findings.⁴ The series provides a regular forum for the exchange of research findings and public policy strategies on topics related to housing and HIV prevention and care, among participants from different disciplines, different parts of the country, and different socioeconomic perspectives. Participants examine empirical data on the relation of housing, HIV, and community health; discuss the policy implications of research findings; and work collaboratively on the development of collective strategies for ensuring a sound, data-driven public health response to the housing needs of persons living with HIV and at heightened risk of infection.⁵

Most importantly, the Summit Series has facilitated the synthesis and dissemination of existing research on housing and HIV/AIDS, and these findings have begun to inform health and housing policy, program development and research. Despite the important relationship between housing status and HIV-related health outcomes, there has been limited published research in the area, and existing data has not been easily accessible to public policy makers, service providers or even other researchers. NAHC's Summit I policy paper synthesizing existing and ongoing research on housing, homelessness and HIV/AIDS has been featured in a number of national publications, has been used by advocates to educate federal, state and local policy-makers, and was cited on the floor of Congress during debate on federal housing appropriations. Summit research findings have been presented at HIV/AIDS and homelessness/housing conferences, and to state and local planning bodies, and have influenced at least one community to fund housing as an HIV prevention measure. The Summit Series has broken down barriers between researchers and policy makers who work in HIV/AIDS and homelessness/housing, and collaborations are underway as a direct result. Finally, the Summit Series' convening researchers are working closely with NAHC on the production of a special housing issue of the journal *AIDS and Behavior*.

Summit II Action Strategies

Action strategy one: Shift the HIV risk paradigm away from a focus on individual behaviors only, to a focus on risky contexts such as homelessness and unstable housing.

Homelessness and unstable housing are strongly associated with enhanced risk of HIV infection and poor health outcomes among HIV+ persons.

Recent research findings underscore the dramatic link between homelessness and increased HIV risk and mortality. An examination of administrative data maintained by the New York City Departments of Homeless Services and Health and Mental Hygiene has revealed that the rate of new HIV diagnoses among users of the NYC shelter system is over sixteen times the rate among the general New York City population. The death rate due to HIV/AIDS is seven times higher among single homeless adults who use New York City shelters than the general population, and

⁴ Leading researchers and policy experts in the fields of housing and health worked with NAHC and Johns Hopkins to convene Summit II, and others committed their time and resources to the project. In addition to Dr. Holtgrave, co-convenors included: Dr. Angela Aidala, Research Scientist at the Center for Applied Public Health at Columbia University and the Department of Sociomedical Sciences; Dr. Dennis Culhane, Professor of Social Welfare Policy and Psychology, Senior Fellow of the Leonard Davis Institute of Health Economics and Co-Director of the Cartographic Modeling Lab at the University of Pennsylvania School of Social Work; and member organizations of the Visioning Committee of the NAHC Board of Directors.

⁵ The Summit II Briefing Book, which includes presentations, articles and other materials used at the meeting and cited in this paper, is available at a nominal charge from the National AIDS Housing Coalition, www.nationalaidshousing.org.

the death rate is nine times higher among homeless women, making HIV the leading cause of death among sheltered women.⁶ In Philadelphia, the rate of HIV infection in the seriously mentally ill population has been found to be at least 15 times higher than the rate in the general population, with HIV affecting in particular persons with histories of homelessness and substance abuse.⁷

New research also shows that homeless PLWHA are more likely than stably housed PLWHA to report a wide range of negative health outcomes. Researchers from the Centers for Disease Control and Prevention (CDC) have recently completed the first large-scale national study comparing health indicators for homeless and housed PLWHA. Data were collected from 7,925 PLWHA across the country through the CDC Supplement to HIV/AIDS Surveillance (SHAS) project. Compared to housed PLWHA, homeless respondents rated their mental, physical and overall health worse, and were more likely to be uninsured, use an emergency room, and be admitted to a hospital. Homeless respondents had lower CD4 counts and were less likely to report an undetectable viral load; a lower percentage of homeless PLWHA had ever taken HIV antiretroviral medications, and they were less likely to be on antiretroviral therapy (ART) currently; and among those on ART, self-reported adherence was significantly lower among homeless PLWHA.⁸

Housing status itself predicts HIV risk and health care outcomes, controlling for a range of individual characteristics.

Significantly, the CDC's large-scale comparison of the health of homeless and housed PLWHA found that housing status was more significant than individual characteristics as an independent predictor of health status, health care use, emergency room use, taking HIV medications, and HIV medication adherence. Multivariable analyses showed that housing status remained a significant predictor of HIV health outcomes after controlling for a range of individual characteristics, including demographic, drug use, and alcohol use variables. As noted by the study's authors, "this is an important finding, as it indicates that housing itself may improve the health of PLWHA."⁹

There is strong and growing evidence of the relationship of housing status to HIV risk behaviors, highlighting the potential of housing as an independent intervention to reduce the spread of HIV. In the most comprehensive study of housing status and HIV risk to date, homeless or unstably housed persons were found to be two to six times more likely to have recently used hard drugs, shared needles, or exchanged sex than persons with stable housing, controlling for demographics, economic resources, health and mental health status, and service utilization.¹⁰ Persons whose housing status improved during the course of this research were half as likely to use hard drugs, use needles, share needles or have unprotected sex as were individuals whose housing status did not change. Those whose housing status worsened over time were four times more likely than others to have recently exchanged sex.¹¹ A qualitative examination of the relation between housing status and HIV risk among drug users in a Baltimore neighborhood likewise found that stable housing decreased drug use and HIV risk, particularly if the housing was subsidized and/or had attached supportive services.¹²

⁶ Kerker, et. al., 2005.

⁷ Blank Summit II Presentation, 2006; Eisenberg & Blank, 2004.

⁸ Kidder, et al, 2006.

⁹ Kidder, et al, 2006.

¹⁰ Aidala & Cross, et al, 2005.

¹¹ Aidala Summit II Presentation (1), 2006; Aidala & Cross, et al, 2005.

¹² Dickson-Gomez Summit II Presentation, 2006.

Improved housing situation has also been found to be directly related to improved access to health care, higher levels of ART adherence, and lowered viral loads. Over time, the provision of direct housing services have been found to predict entry into medical care, entry into care that meets clinical guidelines, and continuity of appropriate medical care and services.¹³ After controlling for variables including outpatient use at baseline, demographics, health status, and receipt of case management, persons who improved their housing between baseline and follow up were almost five times as likely to report a recent outpatient visit for HIV care than persons who remained homeless or unstably housed, and homeless or unstably housed persons who improved their housing were over six times as likely as persons who did not change their housing situation to be receiving antiviral medications at follow-up.¹⁴

At least one study has also shown that housing status appears to be predictive of successful HAART, while individual factors are not significant. This study examined the relative importance of individual, interpersonal, and structural factors affecting HAART participation and adherence among HIV positive active injection drug users in Baltimore, Miami, New York City and San Francisco. Effective HAART was defined for purposes of the study as viral suppression for twelve months. The most significant factors impacting HAART among persons studied were: stable housing (persons with stable housing were 3.7 times more likely to be on effective HAART than homeless/unstably housed persons); informal care-giving (4.6 times more likely to be on effective HAART than those without social supports); and not living alone (3.8 times more likely to be on effective HAART than those who live alone). Individual characteristics, such as drug use, were *not* predictive of effective HAART.¹⁵ These findings are particularly significant because HIV treatment itself (in particular HAART) is a promising prevention intervention, since HAART has been demonstrated to reduce viral load, which could reduce transmissibility.¹⁶

Housing is a promising structural intervention to prevent and treat HIV.

An ongoing national research project conducted by the United States Department of Housing and Urban Development (HUD) and the CDC promises to provide the most significant information to date on housing as a factor in HIV prevention and treatment. The Housing and Health (H&H) Study is a large-scale, longitudinal study conducted by the CDC and the HUD HOPWA program, to assess the ability of housing to reduce the risk of HIV transmission and improve the health of persons with HIV. Findings are expected in late 2007/early 2008, but baseline data presented at Summit II revealed a range of social and health care disparities among 630 PLWHA at study sites in Baltimore, Chicago and Los Angeles. Study participants, all homeless or unstably housed at H&H baseline, were largely black (79%) and male (68%), the median age was 41, only 11% were currently married, and over a third (35%) had less than a high school education. The overwhelming majority (86% of women and 77% of men) had been victims of physical or sexual violence. A third of study participants were not on any HIV medications at baseline, and another 11% were on a sub-optimal ART regimen.¹⁷

Summit II presenters noted that the same demographic factors that are associated with higher rates of HIV infection are also associated with chronic homelessness and criminal justice involvement – being male, black, having substance use issues, and serious mental illness. A

¹³ Aidela Summit II Presentation (1), 2006.

¹⁴ Aidela Summit II Presentation (1), 2006.

¹⁵ Knowlton Summit II Presentation, 2006; Knowlton et al, 2006.

¹⁶ Holtgrave & Curran, 2006.

¹⁷ Kidder Summit II Presentation, 2006.

study of chronically homeless persons has revealed that they are largely male (65%), black (84%), with diagnoses of serious mental illness (50%) and substance use issues (58%).¹⁸ African Americans comprise only 12.3% of the US population, but accounted for 40% of all AIDS cases reported through 2003, as well as 39% of local jail inmates and 44% of prisoners under federal or state jurisdiction during 2004.¹⁹

Until recently, HIV research and practice have emphasized individual-focused factors in seeking to understand and address disparities in risk and health outcomes, yet interventions based on these assumptions alone have had limited success. While existing behavioral HIV prevention interventions have been demonstrated to be effective and cost-saving to society, published reports reveal little or no progress towards the articulated national goals of substantially reducing new HIV infections, and reducing racial/ethnic disparities in HIV incidence.²⁰ Similarly, entry into medical care as early after infection as possible is associated with improved clinical outcomes for infected people and with reduction in risk behaviors that could transmit infection to others; yet research shows that as many as half of all PLWHA delay testing and/or delay entry into HIV medical care, and that substantial numbers of HIV positive persons drop out of care for significant periods of time.²¹

There is increasing awareness that effectively addressing disparities in HIV risk and health outcomes will require attention to structural explanations that acknowledge the role of housing and other social/contextual factors that determine health.²² Contextual or structural factors such as housing status directly or indirectly affect an individual's ability to avoid exposure to HIV, as well as HIV-positive individuals' ability to avoid exposing others to infection, and to access and adhere to HIV care. The growing body of evidence presented at Summit II shows a strong and consistent relationship between housing status and risk and medical care outcomes, regardless of other client characteristics, health status or service use variables. This suggests that the condition of homelessness, and not simply traits of homeless individuals, influences risk behaviors and service utilization, making the provision of housing a promising structural intervention to address HIV risk and health care disparities.

Action strategy two: Promote evidence-based structural interventions that incorporate housing as a key component of HIV prevention and health care, including “housing first” harm reduction housing approaches for active drug users.

Housing interventions work to create stability and to improve health outcomes.

Results from the federal Housing Opportunities for Persons with AIDS (HOPWA) program show that housing interventions work to enable homeless and unstably housed persons to achieve and maintain stability. Initial findings from new HOPWA reporting tools indicate high levels of stability among households served at relatively low per-unit costs, for each type of HOPWA housing assistance. Results presented at Summit II compared 2004-2005 HOPWA program costs and 2005-2006 program outcomes. The data show that the average annual cost of HOPWA rental assistance was \$3,750, and that 88% of households receiving this ongoing rental assistance remained stably housed after one year. Seventy-five percent of residents of HOPWA funded housing facilities with on-site support remained stably housed at one year, at an average cost of

¹⁸ Culhane Summit II Presentation, 2006.

¹⁹ Blankenship Summit II Presentation, 2006; Blankenship, et al, 2005.

²⁰ Holtgrave & Curran, 2006.

²¹ Aidala Summit II Presentation (2), 2006; Aidala & Lee, 2006; Aidala & Waddell, et al, 2005.

²² Blankenship, et al, 2005; Aidala & Lee, 2006; Holtgrave & Curran, 2006.

\$9,056 per resident. Short-term assistance cost an average of \$811 per recipient, with 33% of recipient households stable at one year, and another 13% temporarily stable.²³

Findings from two ongoing housing demonstration projects show that supportive housing for homeless persons with a range of serious medical and psychosocial issues works not only to enable participants to achieve stability, but also to improve health outcomes, as reflected by reduced use of emergency and inpatient care. The Chicago Housing for Health Partnership (CHHP) is a four-year demonstration project (2003 – 2007) designed to address the fact that one of every three inpatients (32.4%) at Chicago’s Cook County Hospital during the period 2000 to 2006 was homeless or doubled-up. The project employs various models of “housing first” supportive housing for participants with long-term histories of homelessness (70%), substance use (86%), mental illness (46%), and medical issues such as HIV/AIDS (34%). Interim findings show that 66% of program participants have achieved stable housing; and that study participants have used one-third less nursing home days annually, were 2.5 times less likely to use an emergency room, and used a mean of 1.5 days of inpatient hospitalization compared to 2.3 days for the “usual care” control group.²⁴

Similarly, results from the San Francisco Health, Housing and Integrated Services Network show that permanent supportive housing for homeless persons with disabilities promotes housing stability and sharply reduces use of emergency department and inpatient services. During the study period 1994 to 1998, this intervention employed housing first permanent supportive housing targeted to meet the needs of homeless adults with co-occurring mental illness (87%), substance abuse (92%) and/or HIV/AIDS (14%). Using administrative data, the project compared service utilization by project participants during the two-year period prior to housing admission to the two years after entry. Eighty-one percent of residents remained in permanent supportive housing for at least one year. Housing placement significantly reduced the percentage of residents with an emergency department visit (down from 53% to 37% annually), the average number of visits per person (1.94 to .86), and the total number of emergency department visits (56% decrease) for the group as a whole. For hospitalizations, permanent supportive housing significantly reduced the likelihood of being hospitalized (from 19% to 11%) and the mean number of admissions per person (.34 to .19 admissions per resident).²⁵

Innovative “housing first” or “harm reduction” housing approaches appear to be just as effective as more traditional abstinence based housing models.

Significantly, both the Chicago Housing for Health Partnership and San Francisco Health, Housing and Integrated Services Network housing interventions described above included “housing first” or “low-demand” models of housing, in which placement in permanent housing is not conditioned upon sobriety or any other type of housing readiness, and supportive services are available but voluntary. In San Francisco, participating low-demand housing programs that enrolled “more challenging” consumers (longer histories of homelessness and more barriers to housing stability) did not see worse housing outcomes (in some cases better housing outcomes), demonstrating that “housing readiness” is not a good predictor of housing outcomes.²⁶

Low-demand, housing first, housing models are a promising approach to providing supportive housing to people with substance use issues. Chronic homelessness among persons with co-occurring HIV/AIDS, serious mental illness and substance use issues is a serious problem

²³ Vos Summit II Presentation, 2006.

²⁴ Bendixen Summit II Presentation, 2006.

²⁵ Wilkins Summit II Presentation, 2006, Martinez & Burt, 2006.

²⁶ Wilkins Summit II Presentation, 2006.

impacting the health of individuals and communities. Substance use has been reported to negatively affect residential stability for formerly homeless adults in supportive housing programs, in part because relapse may be grounds for eviction.²⁷ Yet, a growing body of evidence demonstrates that low-demand housing achieves housing and service use outcomes comparable to more traditional abstinence-only supportive housing models. Results from the San Francisco Health, Housing and Integrated Services Network show that a majority of homeless adults achieved residential stability despite the high prevalence (91%) of current or past substance use disorder, a level of success comparable to that reported by abstinence only programs.²⁸ A recent evaluation of a joint HUD-Veteran Affairs program showed that low-demand supportive housing programs resulted in stability for a subset of homeless veterans who actively used substances.²⁹ Research comparing a low-demand supportive housing model with a sobriety and treatment requirement model for persons with serious mental illness found that residents in the low-demand housing model had better treatment outcomes without worsening symptoms of substance use or psychiatric disorders.³⁰ These studies indicate that even in the absence of sobriety requirements, supportive housing provides substantial housing stability for clients with a diagnosis of substance use disorder.

Preliminary findings from an examination of “use-tolerant” housing for chronically homeless PLWHA in New York City likewise show stability and connection to care for persons with serious co-occurring issues. A secondary analysis of program data examined permanent supportive housing for people with HIV/AIDS where neither admission nor retention is conditioned on abstinence from drugs or alcohol. Residents report histories of chronic homelessness (90%), substance use history (95%), mental health issues (80%) and criminal justice involvement (82%). Despite these co-occurring issues, 62% of all residents from 2000 to 2006 had positive housing outcomes (31% remained housed and 31% moved to independent housing), and residents of the program achieved substantial housing stability, with 34% of all residents remaining housed in the program for two years or longer. Medical indicators for current residents showed high levels of ART participation (97% of all clients who meet clinical guidelines for ART), and ART adherence (89% of clients reporting 100% adherence to medications), and indicate that length of stay in the program is associated with viral suppression.³¹

Action strategy three: Employ practice-based research methodologies to continue to deepen our understanding of the link between housing and health, including cost-saving and cost-effectiveness analyses of housing interventions.

Cost analyses indicate that housing is a cost-effective HIV prevention and treatment intervention for homeless and unstably housed PLWHA, making housing costs a sound investment of limited public resources.

Homelessness is not only an individual human crisis; it appears to be extremely costly for communities as a whole. A recent analysis revealed that the annual costs of service use by each chronically homeless person ranges from \$12,000 per year for each sheltered homeless person, to over \$20,000 annually for homeless persons living on the street or other places not intended for sleeping.³²

²⁷ Martinez & Burt, 2006.

²⁸ Wilkins Summit II Presentation, 2006, Martinez & Burt, 2006.

²⁹ Rosenheck, et al, 2003.

³⁰ Tsemberis, et al. 2004; Rosenheck, et al, 2003.

³¹ Shubert Summit II Presentation, 2006.

³² Culhane Summit II Presentation, 2006.

In contrast, as noted above, supportive housing for homeless persons with special needs has been shown to promote stability while substantially reducing utilization of costly emergency and inpatient health care services. These studies build on earlier findings that the costs of mental health housing interventions are clearly offset by service cost savings. A 2002 evaluation of mental health supportive housing in New York City found that the total annual services cost savings (emergency shelter, health care utilization, criminal justice system, etc.) associated with each supportive housing unit were over \$16,000, while the annual cost of the housing services was just \$17,000; thus 95% of supportive housing costs were offset by service reductions.³³

These cost-offset analyses support the provision of supportive housing for persons with special needs before even taking into account the substantial costs associated with heightened risk of HIV infection among homeless persons, or the costs of delayed or inconsistent care among unstably housed PLWHA. Significantly, sufficient housing intervention cost-per-client estimates are now available through the HUD-CDC Housing and Health Study to answer HIV-specific “affordability” policy questions. Findings from the H&H cost analyses indicate that housing is likely both a cost-saving and cost-effective HIV prevention and treatment intervention for homeless and unstably housed PLWHA.³⁴

The goal of the H&H cost analyses, like that of all economic evaluation, is to understand how to maximize the health benefits from the fixed resources available. The H&H service cost analysis (an examination of costs associated with all stages and elements of service delivery) shows that the total cost of H&H housing services is in the range of \$10,000 to \$14,000 annually. The service costs have been used to determine cost “thresholds” or service standards – measures that show how many new HIV transmissions have to be prevented in order for services to be cost-saving (service costs divided by life-time medical cost savings when a transmission is prevented) and cost-effective (service costs divided by medical cost saved plus a value for each quality-adjusted life year saved when an infection is averted). Based upon estimated discounted lifetime medical costs of \$221,000 per new HIV infection, the H&H analysis shows that an average of just one transmission per 19 clients must be averted in order for housing services to be cost-saving, and only one transmission per 69 clients served must be prevented in order for housing services to be cost-effective. Based on current infection rates, as many as 34 new infections would be expected among the 314 clients included in the H&H analysis; only 16 of those infections would have to be averted for housing to be cost-saving, and only five for housing to be cost-effective. While actual results will not be available until the study is completed in 2007, these analyses indicate that housing interventions for PLWHA are both cost-effective and cost-saving, making housing a sound investment of limited public resources.³⁵

Conclusion

Housing policy holds great power as an exciting new mechanism to control the HIV epidemic in the United States. Mounting empirical evidence shows that models of care that include housing as a key component work to prevent new HIV infections, improve the quality and length of the lives of persons living with HIV/AIDS, and are cost-saving for communities as a whole. NAHC and its member organizations call on federal, state and local policy makers to join with us to

³³ Culhane, et al, 2002; Culhane Summit II Presentation, 2006.

³⁴ Holtgrave Summit II Presentation, 2006.

³⁵ Holtgrave Summit II Presentation, 2006.

promote an evidence-based, public health approach to the housing needs of PLWHA and those at heightened risk of HIV infection by advancing three key action strategies:

Action strategy one: Shift the HIV risk paradigm away from a focus on individual behaviors only, to a focus on risky contexts such as homelessness and unstable housing;

Action strategy two: Promote evidence-based structural interventions that incorporate housing as a key component of HIV prevention and health care, including “housing first” harm reduction housing approaches for active drug users; and

Action strategy three: Employ practice-based research methodologies to continue to deepen our understanding of the link between housing and health, including cost-saving and cost-effectiveness analyses of housing interventions.

References

NAHC Summit II Presentations

(Copies of these presentations, as well as key articles and reports, are available at nominal cost from the National AIDS Housing Coalition as the *Second National Housing and HIV/AIDS Research Summit Briefing Book*)

Angela Aidala (1), Center for Applied Public Health at Columbia University and the Department of Sociomedical Sciences – *Risky Persons vs. Risky Contexts – Housing as a Structural Factor Affecting HIV Prevention and HIV Care.*

Angela Aidala (2), Center for Applied Public Health at Columbia University and the Department of Sociomedical Sciences – *Delayers and Drop-Outs: Housing Status and Entry Into and Retention in HIV Care.*

Art Bendixen, AIDS Foundation of Chicago, *The Relationship of Housing Status and Health Care Access: Results from the Chicago Housing for Health Partnership.*

Michael B. Blank, University of Pennsylvania – *Co-Occurrence of HIV/AIDS Among Persons with Serious Mental Illness.*

Kim M. Blankenship, Center for Interdisciplinary Research on AIDS, Yale University – *The Criminal Justice System, Housing and Race Disparities in HIV/AIDS.*

Dennis Culhane, University of Pennsylvania – *Cost Offsets Associated with Supportive Housing for Persons with Special Needs.*

Julia Dickson-Gomez, Institute for Community Research – *The Relationship between Housing Status and HIV Risk among Active Drug Users: A Qualitative Analysis.*

David Holtgrave, Johns Hopkins Bloomberg School of Public Health – *Examining the Cost Effectiveness of Housing as an HIV Prevention and Health Care Intervention.*

Dan Kidder, Centers for Disease Control and Prevention – *Baseline Findings From the Housing and Health Study of Homeless and Unstably Housed People Living with HIV: Housing, Adherence, Health, and Stigma.*

Amy Knowlton, Johns Hopkins Bloomberg School of Public Health – *Individual, Interpersonal, and Structural Correlates of Effective HAART Use Among Urban Active Injection Drug Users.*

Virginia Shubert, Shubert Botein Policy Associates – *Employing Use-Tolerant, Harm Reduction Housing to Establish Stability and Connection to Care Among Chronically Homeless Active Drug Users Living with HIV/AIDS.*

David Vos, Office of HIV/AIDS Housing, U.S. Department of Housing and Urban Development – *Initial Client Outcomes Data from the New HOPWA Reporting Tools.*

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