Metropolitan Housing and Communities Center

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Targeting Chronically Homeless Veterans with HUD-VASH

Mary Cunningham

Inside:

President Obama has made ending homelessness among veterans a national priority, noting that his administration has a "zero tolerance policy for veterans falling into homelessness."[1] Recently, in an address to the National Coalition for Homeless Veterans, Secretary of the Veterans Administration General Shinseki concurred, stating, "We have a moral duty to prevent and eliminate homelessness among veterans."[2] A good place to target efforts is in the District of Columbia, which has one of the highest rates of homelessness among veterans in the country (National Alliance to End Homelessness 2007). Recent city surveys identified hundreds of homeless veterans living on the street or in the shelter system. An overwhelming majority of these veterans is chronically homeless and suffers from high rates of mental illness and chronic and acute health problems that leave them at heightened risk of dying on the street. Many have been the victims of violent crimes since becoming homeless.

Considering the scarcity of housing subsidies, the Department of Veterans Affairs (VA) should use HUD-Veterans Affairs Supportive Housing (HUD-VASH) vouchers to help these chronically homeless veterans get back into permanent housing. Research shows that with the help of intensive services and a housing subsidy, such as those provided through the HUD-VASH program, even those with serious mental illness and substance use disorders can maintain permanent housing. Efforts to target HUD-VASH to chronically homeless veterans would contribute significantly to D.C. Mayor Fenty's commitment to end homelessness and could save taxpayers money. Providing chronically homeless veterans with permanent supportive housing will certainly help them access health care services and stabilize their housing situation.

D.C. Chronically Homeless Veterans Have Serious Health Needs

The D.C. Department of Human Services (DCDHS) identified 537 homeless veterans sleeping in shelter, transitional housing, or on the street.[3] The city and its partners surveyed these veterans about their current living situation, as well as their physical and mental health problems.[4] DCDHS used these data to prioritize homeless people for scarce permanent supportive housing resources and, at the time, helped 79 homeless veterans move into permanent supportive housing. Approximately 458 veterans identified through the survey remain on the street or in the shelter system. The survey data reveal that an overwhelming majority is

chronically homeless, with the average time spent homeless at seven years, and the median at five years. Most of the veterans identified are middle-aged men, but 6 percent are women. A small share (3 percent) is 35 years old or younger. Veterans identified through the survey are disproportionally African American (84 percent) and are frequent users of correctional institutions: 69 percent reported having been to jail, and 32 percent reported having spent time in prison.

Veterans living on the street and in shelter report serious health problems. Seventy percent reported at least one major health problem, among them kidney disease, liver disease, heart disease, stroke, and HIV/AIDS (figure 1). Twenty-nine percent are tri-morbid, meaning they reported mental health problems, a serious medical condition, and substance abuse issues (figure 2). Just over one-third (191 veterans) turn to VA hospitals and medical centers for health care (160 reported they have health care coverage from the VA). Over a third reported that they have sought emergency care in the past three months; 51 percent of this group reported that they visited the emergency room one time, 27 percent visited two times, 11 percent visited three times, and 12 percent visited four or more times (figure 3). These emergency room visits can be costly.

Veterans living on the street and in shelter report serious health problems.

D.C. Homeless Veterans Living on the Streets and in Shelter Are Highly Vulnerable

After a wave of deaths among homeless people in Boston during the late 1990s, Dr. Jim O'Connell of Boston's Healthcare for the Homeless program developed a method for identifying homeless people who are at a high risk of dying on the street (Hwang et al. 1998; O'Connell et al. 2005). He used this approach to monitor deaths among homeless people in Boston and develop appropriate interventions to prevent further deaths. Common Ground, a nonprofit permanent supportive housing provider, has used this tool, commonly known as the vulnerability index, in cities across the country, including Los Angeles, New Orleans, Portland, Santa Monica, and New York City, to prioritize people for permanent supportive housing.[5] Using data from this survey, we calculated the vulnerability index for homeless veterans in D.C.

The vulnerability index score is the added total of how many risk qualifiers an individual has, on a scale of 0 to 8. Risk factors include the following:

FIGURE 1. Health Problems Reported by Homeless Veterans (N = 537)

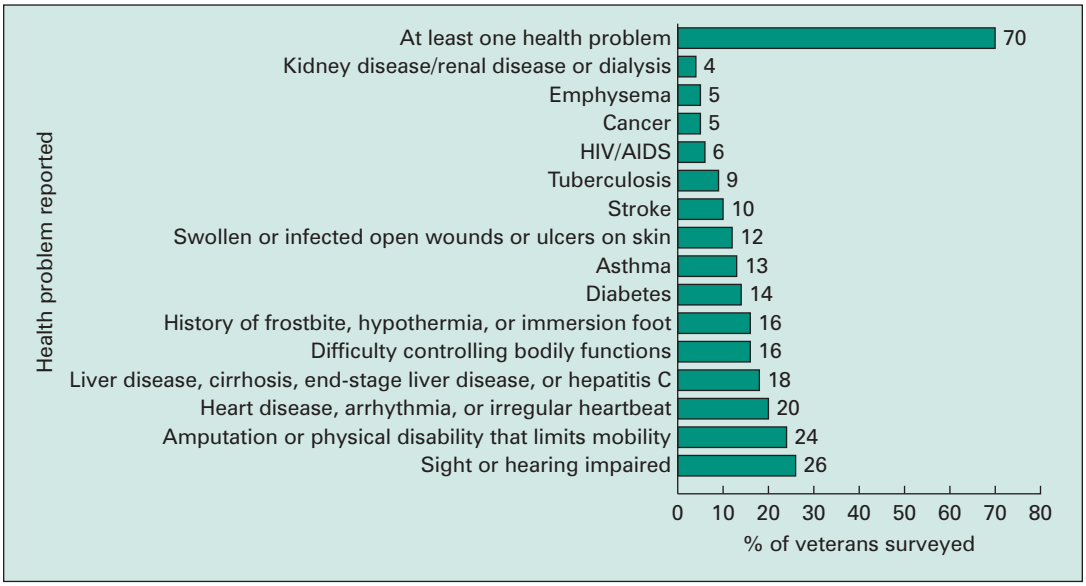
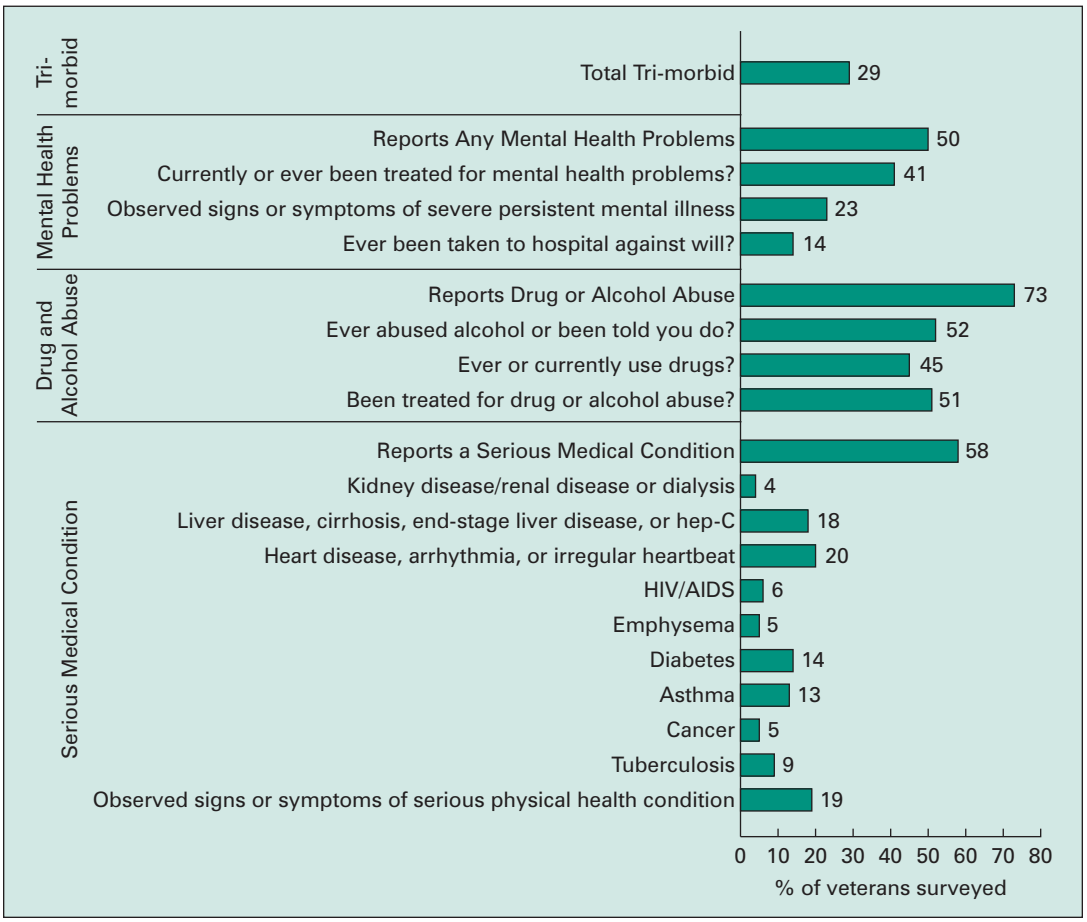


FIGURE 2. Mental Health and Substance Use Problems Reported by Homeless Veterans (N = 537)



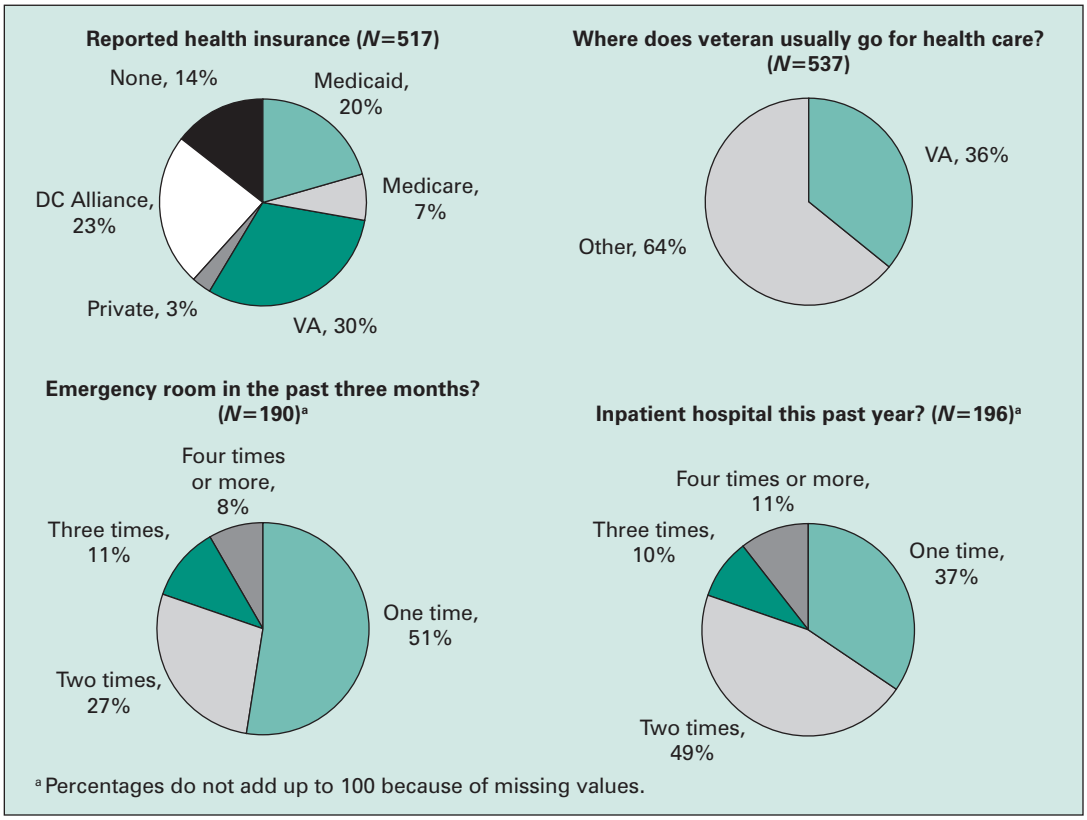
- Tri-morbidity (mental health problem, a serious health problem, and substance use abuse)
- More than three hospitalizations or emergency room visits over a year
- More than three emergency room visits in the past three months
- 60 years or more of age
- HIV/AIDS
- Cirrhosis
- Kidney disease/renal disease or dialysis
- Cold weather injuries (frostbite, immersion foot, hypothermia)

Using this tool, 46 percent of D.C. homeless veterans identified through the survey have one risk factor that increases their likelihood of premature mortality, 30 percent have two risk factors, and 17 percent have three or more risk factors (figure 4). In addition to serious health problems, these veterans face violent streets, where crimes against homeless people are all too common.[6] Thirty-nine percent of homeless veterans reported being the victim of a violent attack since becoming homeless.

Homelessness Is Costly; Supportive Housing Works and Can Be Cost-Effective

Homelessness comes at an incredible cost to veterans and to society. Living for years on the street and in shelters has contributed to serious health problems among chronically homeless veterans. Without attention, these health problems are costly: veterans enter and exit emergency rooms without proper long-term treatment. Many also cycle in and out of jails or prisons. Living on the street exacerbates health problems, making it difficult to treat chronic illnesses such as cancer, heart disease, and cirrhosis of the liver. In addition to chronic health problems, many veterans suffer from

FIGURE 3. *Health Care Coverage and Use among Homeless Veterans*



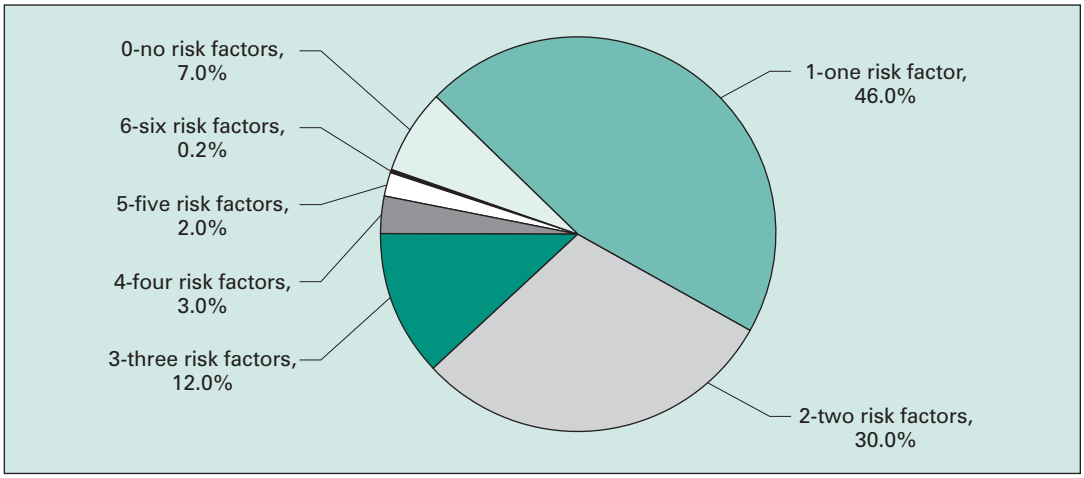
a Percentages do not add up to 100 because of missing values.

Providing permanent supportive housing under a housing-first umbrella to persons with mental illness or co-occurring disorders results in more days housed and, for certain high-service users, can be cost-effective.

weather-related injuries: 12 percent of veterans surveyed reported that they currently had swollen or infected open wounds or ulcers on their skin, and 16 percent reported experiencing frostbite, hypothermia, or immersion foot (see figure 1).

A growing body of evidence shows that providing permanent supportive housing under a housing-first umbrella to persons with mental illness or co-occurring disorders results in more days housed than comparison or control groups and, for certain populations of high-service users, can be cost-effective (Culhane, Metraux, and Hadley 2002; Kuhn and Culhane 1998). Housing-first helps chronically homeless

FIGURE 4. *Vulnerability Index for Homeless Veterans* (N = 537)



people gain immediate access to permanent housing linked with comprehensive services. Unlike linear models, which emphasize emergency shelter and transitional housing programs that typically require sobriety and service plan compliance before permanent housing, housing-first uses a low-demand approach. Services are voluntary and typically include mental and physical health care, substance use treatment or harm reduction counseling, independent living skills, and referrals to employment or vocational training. Nonprofit agencies provide services on site, with mobile assertive community treatment (ACT) teams, or through other models of care. Supportive housing models vary in structure (e.g., scattered site, multi-unit building), scale, target population, and tenant mix. Importantly, the data show that, for certain populations, the costs of permanent supportive housing can be offset by savings in public services such as emergency room visits, jail and hospital stays, and mental health services that people who experience homelessness use while living on the street or in emergency shelter (Caton, Wilkins, and Anderson 2007; Culhane et al. 2002; Martinez and Burt 2006).

Other studies show similar findings: one randomly controlled study of Pathways to Housing, the program credited as one of the first housing-first models for chronically homeless adults, showed that the treatment group (those who received permanent supportive housing under a housing-first umbrella) reported spending less time homeless and more time stably housed than the control group (Tsemberis, Gulcur, and Nakae 2004). A study of two San Francisco permanent supportive housing sites found that 81 percent of residents remained in housing for at least one year and that housing placement reduced emergency department and inpatient services (Martinez and Burt 2006). Recent evidence from an evaluation of 1811 East Lake, a supportive housing building operated by the Seattle Downtown Emergency Service Center, shows that providing permanent supportive housing to chronically homeless alcoholics results in costs savings and can lead to reduced alcohol consumption (Larimer et al. 2009). Together, this research debunks the notion that people experiencing homelessness need to be "housing ready" before placing them in permanent housing.

HUD-VASH Is a Successful Housing Model for Homeless Veterans with High Service Needs

HUD-VASH is a supportive housing program that links housing vouchers with case management and clinical services for homeless veterans "who would not be able to live independently without the support of case management."[7] The program, initially funded in 1992, provided a small pool of about 1,700 HUD-VASH vouchers to homeless veterans. In 2008, Congress significantly increased the program by providing $75 million of funding for 10,000 HUD-VASH vouchers, and then an additional appropriation in the fiscal year 2009 budget for another 10,000. HUD awarded the first round of HUD-VASH (10,150 vouchers) in May 2008 to 132 Veterans Affairs medical centers (VAMCs) and 137 housing agencies across the country.[8] This round of vouchers significantly expanded the eligibility for the program, which was once limited to those homeless veterans with chronic mental illness or chronic substance use disorders. Chronically homeless veterans are a target population for HUD-VASH, but homeless veterans with children, homeless veterans who served in Operations Iraqi Freedom and Enduring Freedom, female homeless veterans, and other homeless veterans with "diminished functional capacity" who need case management are also eligible for the program (Smits and Kane 2009).[9]

HUD-VASH was initially modeled after the Housing Choice Voucher Program: participants are issued a voucher, which they use to search for housing to rent from private-market landlords. Participants typically pay between 30 to 40 percent of their income toward rent, and the government, through local public housing authorities

HUD-VASH links housing vouchers with case management and clinical services for homeless veterans who are unable to live independently without case management.

(PHAs), pays the difference directly to the landlord. Before the participant moves in, the PHAs must inspect the unit to ensure it meets HUD's Quality Standards (HQS), and the monthly rent for the unit must meet the fair-market rent (FMR) and local rent reasonableness standards. HUD-VASH can also be project-based, according to guidance released in March 2009 by HUD, allowing PHAs to attach the voucher assistance to specific rehabilitated or newly constructed housing units or to set aside a portion of units in an existing housing development. The PHA enters into an assistance contract with the owner of the specified units for a specified term. The owner agrees to construct or rehabilitate the units, and the PHA agrees to subsidize the units upon satisfactory completion.[10]

The PHA and the local VAMC administer HUD-VASH jointly. The VAMC is responsible for screening the homeless veteran to determine eligibility, referring the participant to the PHA, providing housing search assistance, and identifying clinical and medical needs among participants and providing ongoing case management, outpatient health services, hospitalization, and other services. After referral, the PHA checks income eligibility and screens the veterans for lifetime sex-offender registration—the only two factors the PHA can use to deny the application—and then issues the vouchers.

Previous research on HUD-VASH programs shows that the intervention can improve outcomes for homeless veterans.

Previous research on HUD-VASH programs operating in the 1990s shows that the intervention can lead to positive outcomes for homeless veterans. A study conducted by Rosenheck and colleagues (2003) found that a randomly assigned treatment group that received HUD-VASH had 25 percent more days housed than the standard care group and had 36 percent fewer days homeless than the case management–only group. The HUD-VASH group reported greater satisfaction with housing and larger social networks. Though costs increased slightly for the treatment group, HUD-VASH helped veterans with serious mental illness or substance use disorders exit homelessness and get back into permanent housing. A follow-up study of a subsample of these veterans (392) over a five-year period concluded, "subsidized housing vouchers, combined with intensive case management, are advantageous both for facilitating the initial transition from homelessness to being housed and for reducing the risk of discontinuous housing even among individuals with more severe substance abuse problems" (O'Connell, Kaprow, and Rosenheck 2008, 268).

Slow Start for HUD-VASH Lease-Up

While the historical success of HUD-VASH is well recognized, the slowness of recent implementation has raised concern among advocates and policymakers. As of this writing, only about 5,500 of the 10,000 HUD-VASH vouchers distributed in 2008 have been leased, and the VA recently allocated 10,000 additional HUD-VASH vouchers in June 2009.[11] Lease-up rates by PHAs vary considerably, with some fully utilized and others far behind.

While no formal implementation assessment has been completed, anecdotal evidence points to several reasons for slow implementation. Initially the VA cited the need for hiring caseworkers as one factor stalling implementation, and this is, to some extent, to be expected when significantly increasing the size of a program. It is also likely that problems with leasing are inherent to the structure of the program, which is modeled after the Housing Choice Voucher Program. Common barriers to securing an apartment with housing vouchers include finding units below the FMR, identifying landlords who will accept vouchers, and navigating the inspections process (Turner, Popkin, and Cunningham 2000). In addition, program participants typically do not have enough money for first month's rent and security deposit required by most landlords. Further compounding the problem is that VAMC caseworkers, for the most part, have expertise in clinical services, not housing search services; this may add an extra challenge to helping veterans identify available housing. Finally, implementing HUD-VASH vouchers requires a number of different groups to work in partnership, including the local VAMCs, PHAs, private-

market landlords, and homeless service providers. In many communities, these groups need to form stronger partnerships to successfully implement HUD-VASH.

Another factor that has been slow is the option to "project-base" HUD-VASH vouchers. Initially, HUD discouraged project-basing "due to the need to lease up quickly." HUD issued project-basing guidelines in March 2009 and will provide approval for project-basing on a case-by-case basis.[12] Under this guidance, PHAs, with the joint support of the VAMC, may apply to HUD to project-base up to 50 percent of their HUD-VASH allocation. No HUD-VASH vouchers had been project-based as of the March 2009 guidance explicitly permitting this use.

HUD-VASH Should Target Veterans with High Needs

Advocates and policymakers have also voiced concerns about the lack of targeting HUD-VASH vouchers to those veterans who *need* supportive housing—that is, a housing subsidy and services that focus on housing stability. Given scarce resources, program administrators must make difficult decisions about how to prioritize and allocate HUD-VASH vouchers. Since HUD-VASH is a service-intensive and costly intervention, it should be reserved for homeless veterans who need *both* a housing subsidy and services to exit homelessness and, most especially, to remain housed. Some homeless veterans may have less intensive service needs and be able to maintain housing stability with the help of a housing subsidy alone.

Research demonstrates that chronically homeless veterans—those living on the street and shelter for long periods and who have a disability—have high rates of serious mental illness and high rates of service usage. These high-need veterans are the most costly to the system. Research from the University of Pennsylvania shows that a small subset (about 10 percent) of the single adult homeless population was using 50 percent of the emergency services available, and that deploying housing-first and permanent supportive housing helped chronically homeless people with serious mental illness, including substance use disorders, access and maintain housing (Culhane et al. 2002; Kuhn and Culhane 1998). Importantly, the data show that the costs of permanent supportive housing are offset by savings in public services (Caton et al. 2007; Culhane et al. 2002; Martinez and Burt 2006).

For these reasons, chronically homeless veterans living on the street or in shelter should, in most cases, receive priority for HUD-VASH. To date, however, only about 5 percent of those entering the HUD-VASH program have come directly from living on the street, 15 percent have come from shelter, and about 40 percent have come from transitional and temporary housing.[13] While many of the veterans leaving transitional housing may need an ongoing housing subsidy and services—such as job training—to improve their self-sufficiency, it is unclear if they need supportive services like those offered through HUD-VASH to help them *maintain their housing.* More data are needed to understand the characteristics and needs of veterans who are receiving HUD-VASH, and to ensure the program is targeted properly.

Steps to Improve HUD-VASH Implementation for Chronically Homeless Veterans

The recent survey data collected by DCDHS provide compelling reasons for targeting HUD-VASH to chronically homeless veterans who are living on the street or in shelter. These veterans, with their serious physical and mental health needs, are at heightened risk of dying on the street. There are several ways to enhance the HUD-VASH program to better serve chronically homeless veterans with serious mental illness and co-occurring disorders. Some of these promising strategies have been used by VA medical centers across the country or adopted by homeless service providers.

- **Target HUD-VASH to veterans with high service needs.** Ensuring that VA medical centers target HUD-VASH to those with the greatest need is critical to

Since HUD-VASH is service-intensive and costly, it should be reserved for homeless veterans who need both *a housing subsidy and services to exit homelessness and remain housed.*

ending homelessness among veterans, and must be clearly encouraged by the VA and *incentivized* through policy regulations. The VA could set targets, for example, that local VAMCs allocate 65 percent of HUD-VASH vouchers to chronically homeless veterans. This will prevent HUD-VASH vouchers from going to veterans that the VAMC could effectively serve with other, less service-intensive housing programs.

- **Provide financial assistance for security deposits.** HUD-VASH implementation lags in many communities because participants cannot easily find willing landlords. The first month's rent and security deposit, often required by landlords at lease-up or the time of application for the unit, may be too steep, too. Adding a financial assistance program for veterans who need help with security deposit and first month's rent could increase the participants' odds of securing an apartment. Seattle/King County, Washington, assists veterans through a Veterans Human Services Levy.[14] This fund can be used by local VA medical centers to provide a security deposit and first month's rent for veterans participating in HUD-VASH. Another potential resource to fund housing search and assistance with move-in expenses is HUD's Homeless Prevention and Rapid Re-housing Program (HPRP). This program, funded at $1.5 billion by the American Recovery and Reinvestment Act, can be used to pay for such assistance.
- **Create landlord outreach programs with housing specialists.** Navigating the private rental market is challenging for all households with housing vouchers, including participants of the Housing Choice Voucher Program. These challenges can be especially difficult for chronically homeless veterans. Many successful programs thus round up a pool of landlords as program partners. Some housing agencies—for example, CHAC Inc., an organization in Chicago that administers the Housing Choice Voucher Program—create dedicated staff positions to assist with housing search (Cunningham and Sawyer 2005). These housing specialists conduct landlord outreach, build relationships with landlords, mediate tenant/landlord problems, and help create a pool of housing units to draw from. Local VAMCs should consider adding a housing specialist position to their team or collaborating with homeless service providers and PHAs that have housing specialists who can serve HUD-VASH participants.
- **Encourage "project-basing."** HUD regulations allow PHAs to convert tenant-based vouchers (those subsidies that move with the tenant) to project-based subsidies that remain attached to a particular unit. Using HUD-VASH funds as an operating subsidy for project-based units can attract veterans who want to live among other veterans and could make service provision for some populations of veterans more efficient and effective, particularly for those who have higher service intensity needs. To date, this option has not been adopted by VA medical centers and public housing authorities. HUD and the VA should offer additional guidance and technical assistance to PHAs and local VAMCs to investigate the feasibility of project-basing units. This strategy could be particularly appealing in communities with tight rental markets.
- **Decrease the case management client-to-caseworker ratios.** Current funds support a 35-to-1 client-to-caseworker ratio. Caseloads this size may short-change veterans with serious mental illness and high service needs. Housing-first models typically provide caseworkers at a ratio of 1 to 10–25 clients, and previous HUD-VASH models were funded at 25:1 clients to caseworker (Pearson et al. 2007; Rosenheck et al. 2003). In addition to increasing the number of VA caseworkers assigned to veterans using HUD-VASH vouchers, VA medical centers could reduce caseloads by collaborating with community-based providers of services in supportive housing, many of whom operate ACT

teams, an evidence-based model that has been successful in housing-first programs. Increasing services will help ensure high success rates of housing stability, as follow-up and ongoing case management are particularly important for clients with serious mental illness and co-occurring disorders.

- **Fund PHA/VA cross-training and technical assistance.** An effective HUD-VASH program requires a strong partnership between the local VA and the public housing authority. Inspection and lease-up bottlenecks are common in many PHAs. To streamline the lease-up process, VA medical center case managers need to understand the public housing authority process and work with PHA staff to reduce lease-up time. One or more case managers may also become qualified and authorized to do apartment inspections themselves, thus bypassing the PHA backlogs. In D.C., DHS was able to work with the DC Housing Authority to reduce lease-up time for participants in permanent supportive housing programs from approximately four to six months to six weeks after voucher issuance. In addition, the national VA office should consider providing regional roundtables and trainings that convene VAMCs, PHAs, and homeless service providers and focus on how to build strong partnerships.

Targeting Chronically Homeless Veterans Will Help End Homelessness

The VA estimates that there are approximately 131,000 homeless veterans nationwide (Kuhn and Nakashima 2009). Even with the recent increases in HUD-VASH, 20,000 vouchers will not meet the needs of all homeless veterans. In D.C., the VA estimates that approximately 1,100 veterans are homeless with only 140 HUD-VASH vouchers.[15] Given scarce resources, program administrators must make difficult decisions about how to prioritize and allocate HUD-VASH vouchers. Since HUD-VASH is an intensive and costly intervention, it should be reserved for homeless veterans who need *both* a housing subsidy *and* services to exit homelessness and to remain housed. Specifically, this means targeting HUD-VASH vouchers toward chronically homeless veterans who have been living in the streets or in emergency shelters and have serious physical and mental health needs. Targeting chronically homeless veterans could help alleviate overflow issues in shelters, make a visible change in homelessness on the streets, and go a long way in furthering President Obama's goal of ending homelessness among veterans.

About the Data

In July 2008, the D.C. Department of Human Services worked in collaboration with Common Ground, a nonprofit organization, and shelter and outreach staff to identify and survey individuals who have been sleeping on the streets and in the city shelters the longest and who are the most vulnerable. Common Ground and its partners completed 1,152 surveys during this period. The D.C. Department of Human Services has, with the help of its partners, continued ongoing administration of the survey, identifying 3,445 homeless individuals and families in shelter and on the street.

Notes

1. As noted in "Barack Obama for Veterans" campaign literature downloaded from http://obama.3cdn.net/4318d63a632c966be0_pq86mvri6.pdf.
2. General Shinseki's remarks are available at http://www.nchv.org/news_article.cfm?id=549.
3. The total number of homeless veterans in D.C. is unknown. Surveys were completed starting June 13, 2008, and are ongoing. To date, DCDHS has identified and surveyed 554 veterans. This analysis includes survey data for 537 veterans—those for whom a survey was completed when the analysis began. This number does not include the entire universe of veterans who are homeless, only those identified during the survey timeframe. The VA has identified approximately 1,100 homeless veterans in D.C.
4. All the data reported in this brief, except where noted, are respondent self-reports.
5. Visit http://www.commonground.org for more on Common Ground's work using the vulnerability index.

6. According to the National Coalition for the Homeless, from 1999 to 2007, 774 documented acts of violence were committed against homeless individuals in the United States, 217 of which resulted in deaths. For more information, see http://www.nationalhomeless.org/news/pr_050709.html.
7. Noted on the VA web site in the HUD-VASH program description. http://www1.va.gov/homeless/page.cfm?pg=2, downloaded May 31, 2009.
8. See *Federal Register,* Volume 73, No. 88, Issued May 6, 2008. A list of participating VAMCs and PHAs is posted at http://www.hud.gov/offices/pih/programs/hcv/vash/.
9. In the 1990s, the HUD-VASH program required that the homeless veterans have "chronic mental illness or chronic substance use disorders." This requirement was waived in the recent allocation of HUD-VASH vouchers. See *Federal Register,* Volume 73, No. 88, Issued May 6, 2008.
10. See http://www.hud.gov/offices/pih/publications/notices/09/pih2009-11.pdf.
11. Vincent Kane, personal correspondence with the author, June 2009.
12. See PIH Notice 2009-11, "Project-Basing HUD-Veterans Affairs Supportive Housing Vouchers."
13. Vincent Kane, personal correspondence with the author, May 2009.
14. For more information on this program, visit http://www.kingcounty.gov/operations/DCHS/Services/Levy.aspx.
15. The total number of homeless veterans in D.C. is unknown. Through its 2008 point-in-time count, D.C. identified 667 homeless veterans. The vulnerability index survey reported in this brief identified 537 veterans, and the VA has identified 1,100 veterans. The overlap and duplication between these data sources is unknown. It should also be noted that the 140 HUD-VASH vouchers were allocated during the 2008 round; it is expected that D.C. will receive additional vouchers from the 2009 round.

References

Caton, Carol, Carol Wilkins, and Jacqueline Anderson. 2007. "People Who Experience Long-Term Homelessness: Characteristics and Interventions." In *Toward Understanding Homelessness: The 2007 National Symposium on Homelessness Research.* Washington, DC: U.S. Department of Housing and Urban Development and U.S. Department of Health and Human Services.

Culhane, Dennis P., Stephen Metraux, and Trevor Hadley. 2002. "Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing." *Housing Policy Debate* 13(1): 107–63.

Cunningham, Mary, and Noah Sawyer. 2005. "Moving to Better Neighborhoods with Mobility Counseling." A Roof Over Their Heads Brief 8. Washington, DC: The Urban Institute.

Hwang, Stephen W., Joan M. Lebow, Michael F. Bierer, James J. O'Connell, E. John Orav, and Troyen A. Brennan. 1998. "Risk Factors for Death in Homeless Adults in Boston." *Archives of Internal Medicine* 158:1454-60.

Kuhn, John H., and John Nakashima. 2009. *Community Homelessness Assessment, Local Education, and Networking Group (CHALENG) for Veterans.* Washington, DC: U.S. Department of Veterans Affairs.

Kuhn, Randall, and Dennis P. Culhane. 1998. "Applying Cluster Analysis to Test a Typology of Homelessness by Pattern of Shelter Utilization: Results from the Analysis of Administrative Data." *American Journal of Community Psychology* 26(2): 207–31.

Larimer, Mary, Daniel K. Malone, Michelle D. Garner, David C. Atkins, Bonnie Burlingham, Heather S. Lonczak, Kenneth Tanzer, Joshua Ginzler, Seema L. Clifasefi, William G. Hobson, and G. Alan Marlatt. 2009. "Health Care and Public Service Use and Costs before and after Provision of Housing for Chronically Homeless Persons with Severe Alcohol Problems." *Journal of the American Medical Association* 301(13): 1349–57.

Martinez, Tia, and Martha R. Burt. 2006. "Impact of Permanent Supportive Housing on the Use of Acute Care Health Services by Homeless Adults." *Psychiatric Services* 57(7): 992–99.

National Alliance to End Homelessness. 2007. *Vital Mission, Ending Homelessness among Veterans.* Washington, DC: National Alliance to End Homelessness.

O'Connell, James J., Shawn Mattison, Christine M. Judge, H. Joslyn Strupp Allen, and Howard K. Koh. 2005. "A Public Health Approach to Reducing Morbidity and Mortality among Homeless People in Boston." *Journal of Public Health Management and Practice* 11(4): 311–16.

O'Connell, Maria J., Wesley Kasprow, and Robert A. Rosenheck. 2008. "Rates and Risk Factors for Homelessness after Successful Housing in a Sample of Formerly Homeless Veterans." *Psychiatric Services* 59(3): 268–75.

Pearson, Carol L., Gretchen Locke, Ann Elizabeth Montgomery, and Larry Buron. 2007. "The Applicability of Housing First Models to Homeless Persons with Serious Mental Illness." Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Rosenheck, Robert, Wesley Kasprow, Linda Frisman, and Wen Lue-Mares. 2003. "Cost-Effectiveness of Supportive Housing for Homeless Persons with Mental Illness." *Archives of General Psychiatry* 60:940–53.

Smits, Paul, and Vince Kane. 2009. "Homelessness and Our Nation's Veterans." Power Point presented at the National Coalition for Homeless Veterans Conference, May 20–22.

Tsemberis, Sam, Leyla Gulcur, and Maria Nakae. 2004. "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals with Dual Diagnosis." *American Journal of Public Health* 94:651.

Turner, Margery, Susan Popkin, and Mary Cunningham. 2000. *Section 8 and Neighborhood Health.* Washington, DC: The Urban Institute.

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