Congressional Research Service
Informing the legislative debate since 1914

Chronic Homelessness: Background, Research, and Outcomes

name redacted
Specialist in Housing Policy

name redacted
Analyst in Health Policy

December 8, 2015

Congressional Research Service
7-....
www.crs.gov
R44302

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

Chronically homeless individuals are those who spend long periods of time living on the street or other places not meant for human habitation, and who have one or more disabilities, frequently including mental illnesses and substance use disorders. In the 2015 Department of Housing and Urban Development (HUD) point-in-time count of people experiencing homelessness, more than 83,000 individuals met the definition of chronically homeless, down from nearly 120,000 in 2008. In part the decline is due to the federal government's plan, announced in 2002, to end chronic homelessness within 10 years. The target date has since been extended to 2017. Among the federal programs focused on ending chronic homelessness are the HUD Homelessness Assistance Grants, the HUD and Veterans Affairs Supported Housing Program (HUD-VASH), and several HUD demonstration programs.

One of the reasons that federal programs have devoted resources to ending chronic homelessness is studies finding that individuals who experience it, particularly those with serious mental illness, use many expensive services often paid through public sources, including emergency room visits, inpatient hospitalizations, and law enforcement and jail time. Even emergency shelter resources can be costly. In addition to potential ethical reasons for ending chronic homelessness, doing so could reduce costs in providing assistance to this population.

For years, ending chronic homelessness was thought to be a multi-step process, with individuals receiving treatment for addictions and illnesses, perhaps while living in transitional or temporary housing, before being found capable of living on their own. However, the strategy for ending homelessness has changed, largely due to research pioneered by housing providers. Instead of requiring chronically homeless individuals to be "housing ready" by first addressing issues thought to underlie homelessness, the new strategy allows chronically homeless individuals to move into permanent supportive housing without preconditions. Permanent supportive housing (PSH) is not time-limited and makes services available to residents. A particular PSH, called Housing First, focuses on resident choice about where to live and the type and intensity of services and does not require abstinence or medication compliance. Housing First has been embraced by HUD and the Department of Veterans Affairs as a way to end chronic homelessness.

Many researchers have examined PSH, including Housing First, as a way to reduce homelessness. Some researchers have also examined related outcomes, including changes in the use of services, and the costs of those services, by formerly homeless individuals after they move into housing; whether drug and alcohol use decreases; if there are improvements in mental health outcomes; and resident satisfaction after moving to housing. Overall, based on a review of the research, PSH helps increase days spent in housing and reduce days spent homeless, showing that PSH can be a successful way to end homelessness. The outcomes in other areas are not as clear, perhaps evidence that reductions in service use and costs, reductions in substance use, and mental health improvements may depend on individual needs and circumstances and require more than a successful move out of homelessness.

When reductions in service use result from chronically homeless individuals moving into PSH, any commensurate cost reductions are largely seen in public spending on health care. Medicaid funds can be used to pay for housing-related services, and increasingly housing advocates are encouraging this as a way to help chronically homeless individuals gain and maintain housing. In addition, with limited funding available for new units of housing through HUD programs, some states are using their own shares of Medicaid funds to finance permanent supportive housing for chronically homeless individuals. Another possible funding source is Pay for Success initiatives, where private investments in PSH are paid back if certain outcomes are attained.

Contents

Tables

Appendixes

Contacts

Introduction

For more than a decade, Congress and the federal government have focused on ending homelessness among the chronically homeless population, a group characterized by extended periods of time spent living on the street or other places not meant for human habitation and having one or more disabling conditions. The strategy embraced by the federal government for ending chronic homelessness for more than a decade is permanent supportive housing (PSH)—housing in conjunction with services for chronically homeless individuals. One model of PSH, called Housing First, emphasizes consumer choice and lack of preconditions, and has gained prominence in recent years. PSH interventions are a change from an earlier philosophy that chronically homeless individuals must address underlying issues like substance abuse and mental illness to become "housing ready" prior to moving into permanent housing.

An impetus for prioritizing chronically homeless individuals for permanent housing resources is evidence that they use many high-cost services such as emergency rooms, hospitals, law enforcement resources, and emergency shelters. According to some research, providing PSH could be more cost-effective than providing emergency shelter or transitional housing, or even no intervention. Research regarding housing interventions for chronically homeless individuals has had a part in driving federal policy, and studies are often cited as supporting PSH as an effective intervention.

This CRS report summarizes the research surrounding PSH for chronically homeless individuals. In doing so, it attempts to examine the nuance in the research to determine where PSH could be considered successful and where gaps may remain. The report discusses what it means to be chronically homeless ("What is Chronic Homelessness?"), the way in which assistance for chronically homeless individuals has evolved ("Evolution of the Permanent Supportive Housing Strategy"), and how federal programs target assistance to individuals experiencing chronic homelessness ("Federal Actions to Assist People Experiencing Chronic Homelessness"). In addition, it summarizes the research regarding chronically homeless individuals who move into PSH ("Research on Permanent Supportive Housing for Chronically Homeless Individuals"). The final section discusses questions and implications of the research. Tables in **Appendix B** contain summaries of all research reviewed by CRS.

What is Chronic Homelessness?

The term "chronic homelessness" describes individuals who have spent long periods of time experiencing homelessness and have one or more disabling conditions. The term began to appear in research literature in the 1980s. For example, a 1988 Institute of Medicine report described three patterns of homelessness based on the amount of time spent homeless, including chronically homeless individuals who spent a year or more at a time experiencing homelessness and who were more likely to suffer from mental illness and substance abuse issues.[1] In the late 1990s, researchers Randall Kuhn and Dennis Culhane tested a way of characterizing homeless individuals based on the number of days they used emergency shelter and number of episodes of homelessness.[2] Although theirs was not the first research that based homelessness categories on

[1] Institute of Medicine, Committee on Health Care for Homeless People, *Homelessness, Health, and Human Needs* (Washington, DC: National Academy Press, 1988), p. 24.

[2] Randall Kuhn and Dennis P. Culhane, "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*, (continued...)

duration of time spent homeless, it tied chronic homelessness to shelter days used, and has often been cited in efforts to end chronic homelessness.[3] Their research defined three categories:

- **Transitionally homeless** individuals tend to be homeless for short periods of time and do not return to homelessness. They are also less likely than other groups to face health or substance use barriers to attaining housing.
- **Episodically homeless** individuals are homeless on a more frequent basis, but with stays in shelter not exceeding several months.
- **Chronically homeless** individuals may have fewer stays in shelter than those who are episodically homeless, but stay for long periods of time, to the point where "shelters are more like long-term housing than an emergency arrangement."[4]

Kuhn and Culhane found that chronically homeless individuals, while estimated to account for about 10% of all users of the homeless shelter system in the New York and Philadelphia areas, used nearly 50% of the total days of shelter provided.[5] Chronically homeless individuals were also more likely to suffer from physical and mental health problems and have substance abuse issues, though episodically homeless individuals also have these issues in greater numbers than those considered transitionally homeless.

Kuhn and Culhane theorized that assistance could be targeted to individuals based on the nature of their homelessness. While short-term assistance such as income supports may be sufficient for someone who is transitionally homeless, a person experiencing chronic homelessness may need long-term housing subsidies and ongoing supportive services.

Homeless services providers responded to this research by focusing attention on the needs of chronically homeless individuals and how best to serve them. Policy recommendations also followed. In 2000, the National Alliance to End Homelessness released a plan to end homelessness, which included a first priority to end chronic homelessness.[6] The George W. Bush Administration also took up the goal of ending chronic homelessness within 10 years, announcing it as part of the FY2003 budget.[7] Within a year, HUD had issued proposed regulations to define the term "chronically homeless,"[8] and federal projects began to target assistance to chronically homeless individuals.[9]

(...continued)

vol. 26, no. 2 (April 1998), pp. 207-232.

[3] See, for example, National Alliance to End Homelessness, *A Plan, Not A Dream: How To End Homelessness In Ten Years*, 2000, http://b.3cdn.net/naeh/b970364c18809d1e0c_aum6bnzb4.pdf. "The first and most important group to address when seeking to end homelessness is the group that lives in the shelter system – the chronically homeless."

[4] Randall Kuhn and Dennis P. Culhane, "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*, vol. 26, no. 2 (April 1998), p. 211. Unlike the subsequent federal definition of chronic homelessness, Kuhn and Culhane did not include disability criteria for chronic homelessness.

[5] Ibid., p. 219.

[6] National Alliance to End Homelessness, *A Plan, Not A Dream: How To End Homelessness In Ten Years*, 2000, http://b.3cdn.net/naeh/b970364c18809d1e0c_aum6bnzb4.pdf.

[7] *FY2003 Budget of the United States, Department of Housing and Urban Development*, p. 179, http://www.gpo.gov/fdsys/pkg/BUDGET-2003-BUD/pdf/BUDGET-2003-BUD-3-7.pdf.

[8] U.S. Department of Housing and Urban Development, "Revisions and Updates to Consolidated Plan: Proposed Rule," 69 *Federal Register* 78830, December 30, 2004.

[9] See, for example, U.S. Departments of Housing and Urban Development, Health and Human Services, and Veterans (continued...)

Federal Definition of Chronic Homelessness

The federal definition of chronic homelessness grew out of the George W. Bush Administration's plan to end chronic homelessness and an interagency project, the Collaborative Initiative to Help End Chronic Homelessness, that was funded in 2003. The Collaborative Initiative was an effort by HUD, the Department of Health and Human Services (HHS), and the Department of Veterans Affairs (VA) to provide rental assistance and supportive services for chronically homeless individuals. The Collaborative Initiative defined the term chronically homeless person for purposes of eligibility for assistance.[10]

Shortly after the Collaborative Initiative was funded, HUD proposed that the same definition be published in regulation,[11] and it was made final in 2006.[12] The definition was codified[13] when Congress reauthorized the HUD Homeless Assistance Grants in 2009 as part of the Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act (P.L. 111-22). There are several components to the definition, each of which must be satisfied to be considered chronically homeless:

- Both **homeless individuals and families can be chronically homeless**. Prior to enactment of the HEARTH Act, only *unaccompanied individuals* were included in the definition of chronic homelessness, and, as a result, most research to date regarding chronic homelessness involves individuals.
- An unaccompanied individual or adult head of household must have a **disabling condition**. The conditions that qualify are listed in statute: "a diagnosable substance use disorder, serious mental illness, developmental disability ... post traumatic stress disorder, cognitive impairments resulting from a brain injury, or chronic physical illness or disability, including the co-occurrence of 2 or more of those conditions."[14]
- The **duration requirement** determines that an individual or family is chronically homeless if they are continuously homeless for a year or more or had at least four occasions of homelessness in the past three years. A regulation released by HUD on December 4, 2015 (and effective January 4, 2016) clarifies that occasions of homelessness must total at least 12 months, with at least seven nights separating each occasion.[15] Periods spent in institutions of less than 90 days count toward total time spent homeless.
- A **component involving where someone sleeps/lives** determines that individuals and families are homeless if they are residing in a place not meant for human

(...continued)

Affairs, "Notice of Funding Availability (NOFA) for the Collaborative Initiative to Help End Chronic Homelessness," 68 *Federal Register* 4018, January 27, 2003.

[10] Ibid., p. 4019.

[11] U.S. Department of Housing and Urban Development, "Revisions and Updates to Consolidated Plan," 69 *Federal Register* 78830, December 30, 2004.

[12] U.S. Department of Housing and Urban Development, "Consolidated Plan Revisions and Updates," 71 *Federal Register* 6950-6971, February 9, 2006. Regulations were published at 24 C.F.R. §91.5 (2007).

[13] 42 U.S.C. §11302.

[14] 42 U.S.C. §11360(2).

[15] U.S. Department of Housing and Urban Development, "Homeless Emergency Assistance and Rapid Transition to Housing: Defining ''Chronically Homeless'','' 80 *Federal Register* 75791, December 4, 2015.

habitation (such as streets, parks, or abandoned buildings), in an emergency shelter, or a safe haven. (Safe havens are shelters serving homeless individuals with serious mental illness who are unwilling or unable to undergo treatment.[16]) However, someone who is homeless under another federal definition, which may involve residing with family or friends, may not be considered chronically homeless.

Number of Chronically Homeless Individuals

The number of people experiencing chronic homelessness and the percentage of the homeless population they represent varies based on estimates. The best data in recent years comes from annual community point-in-time counts of people experiencing homelessness. Since 2005, most communities, at the direction of HUD, have conducted these counts on one day during the last week of January. They attempt to capture everyone who is living in shelters, transitional housing, or places not meant for human habitation. Communities may ascertain who is chronically homeless by asking survey questions about length-of-time spent homeless and disabling conditions.[17] The point-in-time counts do not contain demographic information about the individuals and families who are considered chronically homeless.

For the last nine years (2007 to 2015), the number of unaccompanied individuals counted as chronically homeless has declined from a high of 18.8% of the total homeless population (120,115 people) in 2008 to a low of 14.6% (86,289 people) in 2013 and again in 2014 (83,989 people). See **Table 1**.[18] In 2015, half (50%) of chronically homeless individuals lived in the 50 largest cities in the U.S., another 39% lived in smaller cities and counties, and the remainder (12%) either lived in rural counties or were reported on a statewide basis by small population states.[19] Los Angeles city and county had the most chronically homeless individuals, with 12,356, nearly 15% of all chronically homeless individuals.[20]

HUD began publishing data on individuals in chronically homeless families in 2013. In that year, 2.8% of the total homeless population (16,539 people) were members of chronically homeless families; this number decreased to 2.3% (13,105 people) by 2015.

[16] Safe havens were defined as part of the Safe Haven for Homeless Individuals Demonstration Program, which was codified at 42 U.S.C. §11392 prior to enactment of the HEARTH Act.

[17] HUD has point-in-time count survey tools, with sample questions, on its website at https://www.hudexchange.info/resource/3322/point-in-time-survey-tools/.

[18] U.S. Department of Housing and Urban Development, *The 2015 Annual Homeless Assessment Report (AHAR) to Congress, Part 1, Point-in-Time Estimates of Homelessness*, November 2015, p. 60, https://www.hudexchange.info/resources/documents/2015-AHAR-Part-1.pdf. Note that in the 2015 AHAR, HUD revised previous estimates and they are lower than previously reported. This is due to adjustments made to estimates submitted by the Los Angeles City and County and Las Vegas Continuums of Care. See p. 8.

[19] Ibid., p. 66.

[20] Ibid.

Table 1. Chronic Homelessness, 2007-2015

Point-in-Time Estimates

Year	Total Homeless Individuals	Chronically Homeless Individuals		Chronically Homeless People in Families[a]	
		Number	Percentage of Total Homeless Population	Number	Percentage of Total Homeless Population
2007	647,258	119,813	18.5%	—	—
2008	639,784	120,115	18.8%	—	—
2009	630,227	107,212	17.0%	—	—
2010	637,077	106,062	16.6%	—	—
2011	623,788	103,522	16.6%	—	—
2012	621,553	96,268	15.5%	—	—
2013	590,364	86,289	14.6%	16,539	2.8%
2014	576,450	83,989	14.6%	15,143	2.6%
2015	564,708	83,170	14.7%	13,105	2.3%

Source: U.S. Department of Housing and Urban Development, *The 2015 Annual Homeless Assessment Report (AHAR) to Congress, Part 1, Point-in-Time Estimates of Homelessness*, November 2015, p. 60, https://www.hudexchange.info/resources/documents/2015-AHAR-Part-1.pdf.

Notes: In the 2015 AHAR, HUD revised previous point-in-time estimates of homelessness, and they are lower than previously reported. This is due to adjustments made to estimates submitted by the Los Angeles City and County and Las Vegas Continuums of Care.

a. HUD did not begin publishing the number of chronically homeless individuals in families until 2013. HUD considers a chronically homeless family one where the head of household has a disability and the family has been continuously homeless for one year or had at least four episodes of homelessness in the previous three years. A family is a household with at least one adult and one child. See *2015 AHAR*, p. 2.

Mental Illness and Substance Use Disorders

Qualifying disabling conditions for chronically homeless status include physical and mental disabilities as well as substance use disorders. While there are not comprehensive data about the disabilities of chronically homeless individuals, the majority are thought to have serious mental illness, substance use disorders, or both (dual diagnosis). For example, in the Collaborative Initiative to Help End Chronic Homelessness, clinician reports indicated that 67% of the 1,400 individuals screened for participation had a psychotic disorder or other serious mental illness, 60% had an alcohol abuse issue, and 60% a drug abuse issue.[21] Among veterans enrolled in the HUD-VASH program (which prioritizes chronically homeless veterans) in FY2010, a majority (60%) reported having a substance use disorder, and 42% reported having a serious mental illness.[22]

[21] Alvin S. Mares and Robert Rosenheck, HUD/HHS/VA Collaborative Initiative to Help End Chronic Homelessness National Performance Outcomes Assessment Preliminary Client Outcomes Report, Northeast Program Evaluation Center, February 26, 2007, Table 2, http://aspe.hhs.gov/hsp/homelessness/CICH07/outcomes07/report.pdf.

[22] U.S. Department of Veterans Affairs, *FY2010 Department of Housing and Urban Development—Department of Veterans Affairs Supported Housing Program (HUD-VASH)*, Table 4.

Homeless individuals with mental illness and substance use disorders may struggle to earn income and otherwise stabilize their lives in order to achieve and maintain housing without assistance. The criteria for diagnosing mental illnesses and substance use disorders rely in part on symptoms that interfere in one or more areas of life, including, but not limited to, occupational functioning, social functioning, and self-care. For example, feeling sad or worried does not constitute a mental illness unless such feelings occur in combination with other symptoms that collectively "cause clinically significant distress or impairment in social, occupational, or other important areas of functioning."[23] Thus, a mental illness might be defined in part by its effect on the individual's ability to work (i.e., occupational functioning) or to interact with others in the customary way (i.e., social functioning).

Evolution of the Permanent Supportive Housing Strategy

Prior to the late 1990s and early 2000s, the primary strategy for addressing homelessness among high-need populations, such as those with mental illness and substance abuse issues, was a "continuum of care" or linear approach to housing for homeless individuals. A linear approach typically involves interim requirements before achieving housing, such as abstinence from drugs and alcohol and medication compliance. The notion behind a linear approach is that some high-need homeless individuals must gradually ease into housing through shelters and transitional housing while addressing these issues.[24] For example, the Federal Task Force on Homelessness and Severe Mental Illness published a report in 1992 describing the need for safe havens where homeless individuals with severe mental illness can be assisted in "overcoming specific problems that impede access to permanent housing and develop the integrated supports needed for successful residential tenure."[25]

Shortly after the release of the task force's report, President Clinton issued an executive order asking federal agencies, through the U.S. Interagency Council on Homelessness (USICH), to "develop a single coordinated Federal plan for breaking the cycle of existing homelessness and for preventing future homelessness."[26] The USICH released a report in which it noted that "[t]o be effective, a homeless system must provide three distinct components of organizations," emergency shelter, transitional or rehabilitative services, and—permanent housing.[27] Part of the transitional phase included substance abuse treatment, mental health services, and independent living skills.[28] The report noted that "a homeless person with a substance abuse problem may be referred to a transitional rehabilitation program before being assisted with permanent housing."[29]

---

[23] American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*, (Washington, DC: American Psychiatric Association, 2013), pp. 161, 222.

[24] Sam Tsemberis and Ronda F. Eisenberg, "Pathways to Housing: Supported Housing for Street-Dwelling Homeless Individuals With Psychiatric Disabilities," *Psychiatric Services*, vol. 51, no. 4 (April 2000), p. 488.

[25] Federal Task Force on Homelessness and Severe Mental Illness, *Outcasts on Main Street, Report of the Federal Task Force on Homelessness and Severe Mental Illness*, February 1992, p. 39.

[26] Executive Order 12848, "Federal Plan to Break the Cycle of Homelessness," *Weekly Compilation of Presidential Documents*, vol. 29 (May 24, 1993), pp. 909-910.

[27] U.S. Interagency Council on Homelessness, *Priority Home! The Federal Plan to Break the Cycle of Homelessness*, May 1994, p. 71.

[28] Ibid.

[29] Ibid., p. 73.

In a report released in 1996, HUD adopted a "Continuum of Care" model for administering its Homeless Assistance Grants, echoing the components articulated in the USICH approach.[30] The Continuum of Care included four components, including "Transitional housing with supportive services appropriate to the problems faced by the persons or families not prepared to live on their own."[31] The continuum or linear approach came to be seen as an appropriate approach for assisting high-need homeless individuals.[32]

An alternative to the linear approach developed around the research regarding chronic homelessness. Researchers found that chronically homeless individuals used expensive services, often paid with public funds. In addition, there began to be some evidence that providing permanent housing together with supportive services, rather than temporary housing and treatment, could reduce costs of services such as hospitalizations, prison and jail stays, and emergency shelter stays for some populations.[33] (For more discussion of this research, see the section of this report entitled "Public Service Use and Costs".)

What is Permanent Supportive Housing?

Most simply, permanent supportive housing (PSH) is housing that is not time-limited and where services are available for residents. HUD, which provides a considerable amount of funding for PSH, defines it as fulfilling the following criteria:

- being community-based (i.e., not institutional),
- not having a designated length of stay,
- having the resident as party to a renewable lease with an initial duration of at least one year, and
- providing supportive services to help residents with a disability to live independently.[34]

PSH may be located in a variety of settings. Units may be scattered site (i.e., residents in a PSH program may rent houses or units in apartment buildings or condominiums in different properties). Scattered-site housing may be most common when subsidies are provided through housing vouchers. Residents may also live in a single-site multifamily rental property. Single sites may be devoted to specific populations (e.g., homeless individuals with mental illness) or may be affordable housing available to a range of individuals and families, with some units set aside for chronically homeless individuals. In most cases, residents pay a portion of their income—typically 30%—toward rent with a subsidy covering the rest.

The Substance Abuse and Mental Health Services Administration (SAMHSA) in the Department of Health and Human Services (HHS) published practices that should characterize PSH,

[30] Ester Fuchs and William McAllister, *The Continuum of Care: A Report on the New Federal Policy to Address Homelessness*, U.S. Department of Housing and Urban Development, December 1996, p. 10.

[31] Ibid.

[32] Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004), pp. 651-652.

[33] See, for example, Dennis P. Culhane, Stephen Metraux, and Trevor Hadley, "Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing," *Housing Policy Debate*, vol. 13, no. 1 (2002), pp. 107-163.

[34] 24 C.F.R. §578.3.

particularly with regard to services.[35] For example, PSH should make services voluntary, with consumer choice an important aspect of a resident's living situation. Continuing residence should not be based on compliance with services. Available services should be comprehensive and targeted to meet the needs of each individual resident.

Models characterized as PSH may vary from one provider to another. For example, available services and provider interactions with residents may be more limited in some housing environments compared to others. The extent to which PSH adheres to SAMHSA principles may determine whether it is effective in serving chronically homeless individuals. As a result, SAMHSA developed a fidelity scale for PSH providers to assess their programs.[36]

The Housing First Model of Permanent Supportive Housing

Some PSH providers may require that, once in permanent housing, residents abstain from drugs and alcohol (sometimes referred to as abstinence-contingent housing) in order to become and remain eligible for housing. A model of PSH called Housing First developed largely in opposition to the concept of abstinence-contingent housing and has become a prominent method for serving chronically homeless individuals.[37] Housing First makes many services available but does not require residents to use them, nor does it require abstinence or medication compliance.

The Housing First model was pioneered by the New York provider Pathways to Housing. Created in the early 1990s, and "founded on the belief that housing is a basic human right for all individuals, regardless of disability," Pathways to Housing offers homeless individuals "immediate access" to housing even if they have not participated in treatment.[38] Instead, the Housing First model offers counseling and treatment services to clients on a voluntary basis rather than requiring sobriety or adherence to psychiatric medication treatment. It also stresses the importance of resident choice about where to live and the type and intensity of services, with services structured to fit individual resident needs.[39] Its focus is on harm reduction in the use of drugs or alcohol, a strategy that is meant to minimize dangerous behavior but not to require abstinence.[40]

Housing First providers may practice a form of modified Assertive Community Treatment (ACT, described in more detail in the next section) that involves a team of providers—caseworkers, nurses, psychiatrists, etc.—who are available (at the request of residents) 24 hours a day and has a low staff to client ratio.[41] Housing First programs also seek to maintain housing for residents even when problems arise and to intervene with landlords to avoid eviction. Allowing some latitude for

[35] Substance Abuse and Mental Health Services Administration, *Permanent Supportive Housing Evidence-Based Practices (EBP) KIT, Building Your Program*, July 2010, http://store.samhsa.gov/shin/content//SMA10-4510/SMA10-4510-06-BuildingYourProgram-PSH.pdf.

[36] See SAMHSA's EBP KIT *Evaluating Your Program*, at http://store.samhsa.gov/shin/content//SMA10-4510/SMA10-4510-05-EvaluatingYourProgram-PSH.pdf.

[37] Sam Tsemberis and Ronda F. Eisenberg, "Pathways to Housing: Supported Housing for Street-Dwelling Homeless Individuals With Psychiatric Disabilities," *Psychiatric Services*, vol. 51, no. 4 (April 2000), p. 488.

[38] Ibid.

[39] Ibid., p. 489.

[40] Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004), p. 652.

[41] Sam Tsemberis and Ronda F. Eisenberg, "Pathways to Housing: Supported Housing for Street-Dwelling Homeless Individuals With Psychiatric Disabilities," *Psychiatric Services*, vol. 51, no. 4 (April 2000), p. 489. The version of ACT used by Pathways to Housing is modified by taking account of consumer preferences.

addictions and behavior that may otherwise lead to eviction may be necessary with some formerly homeless individuals in order for them to remain in housing. Not all permanent housing with supportive services complies with the Housing First model. Some permanent housing may have preconditions, the services may not be voluntary, and it may not follow the modified ACT model. However, more and more, PSH models are following the low-demand approach of Housing First.

HUD and the VA have embraced Housing First as a model to assist chronically homeless individuals,[42] and SAMHSA includes Pathways to Housing's Housing First model on its National Registry of Evidence-Based Programs and Practices.[43] The USICH lists Housing First as a solution for ending homelessness in its report *Opening Doors*, and developed a check list to help local communities adopt the strategy.[44]

Assertive Community Treatment

ACT is designed to support community living for individuals with the most severe functional impairments associated with mental illness. Such individuals tend to need services from multiple providers (e.g., physicians and social workers) and multiple systems (e.g., social services, housing services, and health care). They may struggle to keep track of appointments, arrange transportation, and perform other activities necessary to access services and comply with treatment. In the ACT model, a multidisciplinary team is available around the clock to deliver a wide range of services in the individual's home or other community settings.

ACT services extend beyond traditional mental health services such as psychotherapy, medication, case management, and crisis intervention.[45] For example, ACT services may include support in activities of daily living (ADLs) such as bathing and dressing and instrumental activities of daily living (IADLs) such as shopping and preparing meals. ACT services may also include support in pursuing employment or education, or in obtaining legal or financial services. Providing a wide variety of services when and where the individual needs them makes ACT costly relative to traditional office-based services; however, research suggests that ACT is cost effective because it reduces the use of inpatient and emergency department services (among individuals who are typically high users of these expensive services).[46]

For homeless individuals, ACT services may be modified to include services such as assistance completing housing applications or advocating on the individual's behalf with landlords and neighbors.[47] In addition, Pathways to Housing reports that its ACT model is modified to take

[42] See, for example, Notice of Funding Availability (NOFA) for the Fiscal Year (FY) 2014 Funds in the FY 2013 – FY 2014 Continuum of Care Program Competition, September 15, 2014, p. 9, https://www.hudexchange.info/resources/documents/nofa-for-fy2014-funds-in-the-fy2013-fy2014-coc-program-competition.pdf; and Letter from Sandra B. Henriquez, HUD Assistant Secretary for Public and Indian Housing, to PHA Executive Directors, February 19, 2013, http://portal.hud.gov/hudportal/documents/huddoc?id=20130219vashltrphas.pdf.

[43] SAMHSA National Registry of Evidence-Based Programs and Practices website, http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=365, accessed December 5, 2014.

[44] U.S. Interagency Council on Homelessness, *The Housing First Checklist: A Practical Tool for Assessing Housing First in Practice*, http://usich.gov/resources/uploads/asset_library/Housing_First_Checklist_FINAL.pdf.

[45] U.S. Interagency Council on Homelessness, *Assertive Community Treatment*, http://usich.gov/usich_resources/solutions/explore/assertive_community_treatment.

[46] Craig M. Coldwell and William S. Bender. "The Effectiveness of Assertive Community Treatment for Homeless Populations with Severe Mental Illness: A Meta-Analysis," *The American Journal of Psychiatry*, vol. 164, no. 3 (March 2007), pp. 393-399.

[47] U.S. Interagency Council on Homelessness, *Assertive Community Treatment*, http://usich.gov/usich_resources/solutions/explore/assertive_community_treatment.

account of consumer preferences.[48] Studies have found that ACT reduces homelessness more than standard case management, using a variety of measures (e.g., percentage experiencing any homelessness or mean days of homelessness over various timeframes).[49] For homeless individuals, ACT combined with housing assistance is more effective than ACT alone.[50]

Federal Actions to Assist People Experiencing Chronic Homelessness

The federal government embraced ending chronic homelessness at least in part due to research indicating that chronically homeless individuals use a number of expensive services. In addition to spending nights in shelter, chronically homeless individuals use resources such as emergency rooms, hospitals, psychiatric institutions, and jails to a greater degree than those experiencing homelessness for shorter durations.[51] Chronically homeless individuals also make up a relatively small percentage of the homeless population, and solving their homelessness through housing is achievable in a way that might not be possible for the homeless population overall.

Starting in the early 2000s, around the time that the federal government announced its plan to end chronic homelessness, several federal programs began to target resources and technical assistance toward helping chronically homeless individuals, much of which continues today.

- The George W. Bush Administration undertook several interagency collaborations to reach its goal of ending chronic homelessness using existing program funding.[52] These included (1) a collaboration among HUD, HHS, and VA (the **Collaborative Initiative to Help End Chronic Homelessness**) that funded housing and treatment for chronically homeless individuals;[53] (2) a HUD and DOL project called **Ending Chronic Homelessness through Employment and Housing**, through which HUD funded permanent supportive housing and DOL offered employment assistance;[54] and (3) a HUD pilot program called **Housing for People Who Are Homeless and Addicted to Alcohol** that provided supportive housing for chronically homeless persons.[55]

[48] Sam Tsemberis and Ronda F. Eisenberg, "Pathways to Housing: Supported Housing for Street-Dwelling Homeless Individuals With Psychiatric Disabilities," *Psychiatric Services*, vol. 51, no. 4 (April 2000), p. 489.

[49] Craig M. Coldwell and William S. Bender. "The Effectiveness of Assertive Community Treatment for Homeless Populations with Severe Mental Illness: A Meta-Analysis," *The American Journal of Psychiatry*, vol. 164, no. 3 (March 2007), pp. 393-399.

[50] U.S. Interagency Council on Homelessness, *Assertive Community Treatment*, http://usich.gov/usich_resources/solutions/explore/assertive_community_treatment.

[51] Dennis P. Culhane, Stephen Metraux, and Trevor Hadley, "Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing," *Housing Policy Debate*, vol. 13, no. 1 (2002).

[52] See, for example, U.S. Departments of Housing and Urban Development, Health and Human Services, and Veterans Affairs, "Notice of Funding Availability (NOFA) for the Collaborative Initiative To Help End Chronic Homelessness," 68 *Federal Register* 4018-4022, January 27, 2003. Funds were used from the HUD Shelter Plus Care program, HHS SAMHSA grants for mental health and substance use and HHS HRSA Health Centers.

[53] U.S. Department of Housing and Urban Development, "Bush Administration Announces $75 Million to Provide Permanent Housing, Medical Care, Job Training and Other Services to Chronically Homeless, HHS, HUD, VA and Labor collaborate to help most vulnerable ," press release, October 1, 2003, http://archives.hud.gov/news/2003/pr03-101.cfm.

[54] Ibid.

[55] U.S. Department of Housing and Urban Development, "HUD Awards $10 Million to Help Provide Permanent (continued...)

- The **HUD Homeless Assistance Grants** are the primary way the federal government funds housing for people experiencing homelessness. Through the grants, which in recent years have totaled approximately $2 billion per year, grantees provide permanent housing, transitional housing, and supportive services for all populations of people experiencing homelessness. Over the last decade, the Homeless Assistance Grants have prioritized funding for PSH to assist chronically homeless individuals through its grant application process. The FY2003 Notice of Funding Availability (NOFA) encouraged grantees to target chronic homelessness;[56] in FY2004, 10% of funds were prioritized for serving chronically homeless individuals;[57] and in FY2005, a permanent housing bonus was available for grant applicants who proposed new projects to serve chronically homeless individuals.[58] Since then, the NOFAs have continued to prioritize new PSH projects for chronically homeless individuals.[59] HUD also requests that grantees give priority to chronically homeless individuals when units of PSH become available.[60] In addition, the HEARTH Act, the law authorizing the Homeless Assistance Grants, ensures that at least 30% of Homeless Assistance Grants funding for new housing be devoted to permanent housing for homeless individuals with disabilities and their families.[61] While this population need not have been homeless for the duration required for chronic homelessness, there is overlap in the populations. (For more information about the HUD Homeless Assistance Grants generally, see CRS Report RL33764, *The HUD Homeless Assistance Grants: Programs Authorized by the HEARTH Act*, by (name redacted).)
- The **HUD-VA Supported Housing (HUD-VASH) program** began in 1992 as a collaboration between the VA and HUD whereby HUD provided housing to homeless veterans through a set-aside of tenant-based Section 8 vouchers and the VA provided supportive services. The program targeted veterans with severe psychiatric or substance use disorders. Later, when HUD-VASH was codified (P.L. 107-95), eligible veterans continued to be those who have chronic mental illness or chronic substance use disorders.[62] From FY2008 through FY2015

(...continued)

Housing for Persons Experiencing Chronic Homelessness, Funding targeted to persons living on the streets and addicted to alcohol," press release, August 10, 2005, http://archives.hud.gov/news/2005/pr05-105.cfm.

[56] U.S. Department of Housing and Urban Development, "Funding Availability for Continuum of Care Homeless Assistance Programs," 68 *Federal Register* 21579, April 25, 2003, http://archives.hud.gov/funding/2003/thhasec.pdf.

[57] U.S. Department of Housing and Urban Development, "Continuum of Care Homeless Assistance Programs," 69 *Federal Register* 27495, May 14, 2004, http://archives.hud.gov/funding/2004/cocpsec.pdf.

[58] U.S. Department of Housing and Urban Development, "Continuum of Care Homeless Assistance Programs," 70 *Federal Register* 14272, March 21, 2005, http://archives.hud.gov/funding/2005/cocsec.pdf.

[59] See the FY2014 NOFA, U.S. Department of Housing and Urban Development, Notice of Funding Availability (NOFA) for the Fiscal Year (FY) 2014 Funds in the FY2013-FY2014 Continuum of Care Program Competition, September 15, 2014, p. 2, https://www.hudexchange.info/resources/documents/nofa-for-fy2014-funds-in-the-fy2013-fy2014-coc-program-competition.pdf.

[60] U.S. Department of Housing and Urban Development, Notice CPD 2014-12 Notice on Prioritizing Persons Experiencing Chronic Homelessness and Other Vulnerable Homeless Persons in Permanent Supportive Housing and Recordkeeping Requirements for Documenting Chronic Homeless Status, July 28, 2014, http://portal.hud.gov/hudportal/documents/huddoc?id=14-12cpdn.pdf.

[61] 42 U.S.C. §11386b.

[62] 42 U.S.C. §1437f(o)(19).

Congress appropriated $575 million to provide vouchers for approximately 80,000 homeless veterans. (The funding is sufficient for one year of vouchers, after which funding is absorbed in HUD's Section 8 account.) While HUD and VA waived the requirement that veterans have chronic mental illness or substance use disorders,[63] they have prioritized housing for chronically homeless veterans.[64] (For more information about HUD-VASH, see CRS Report RL34024, *Veterans and Homelessness*, by (name redacted).)

- After the George W. Bush Administration announced its initiative to end chronic homelessness, the U.S. Interagency Council on Homelessness (USICH) encouraged local communities to develop 10-year plans to end homelessness, the majority of which targeted chronic homelessness.[65] The HEARTH Act directed the USICH to develop a national plan to end homelessness, to be updated every year.[66] The first USICH plan, released in 2010, discussed ending homelessness among subpopulations, including ending homelessness among chronically homeless individuals within five years.[67] (The target has since been updated to 2017.[68])
- The Department of Health and Human Services, through its Office of the Assistant Secretary for Planning and Evaluation, has released a primer and best practices for state Medicaid directors and others to use in linking health care and housing for chronically homeless individuals.[69]

Research on Permanent Supportive Housing for Chronically Homeless Individuals

The federal government has used research regarding chronic homelessness as support for efforts to end it. The research and findings may therefore be relevant to ongoing policymaking. The

[63] U.S. Department of Housing and Urban Development, "Section 8 Housing Choice Vouchers: Revised Implementation of the HUD-VA Supportive Housing Program," 77 *Federal Register* 17088, March 23, 2012, http://www.gpo.gov/fdsys/pkg/FR-2012-03-23/pdf/2012-7081.pdf.

[64] See, for example, HUD-VA webinar slides, "Building Community Partnerships to Effectively Serve Chronically Homeless Veterans," September 20, 2012, http://portal.hud.gov/hudportal/documents/huddoc?id=vash-webinar.pdf, and U.S. Interagency Council on Homelessness, *Targeting Veterans Experiencing Chronic Homelessness and Using Housing First*, http://usich.gov/usich_resources/toolkits_for_local_action/using_hud_vash_to_end_veterans_homelessness/targeting_veterans/.

[65] National Alliance to End Homelessness, *What is a Ten Year Plan to End Homelessness?*, January 2010, pp. 1-2, http://b.3cdn.net/naeh/04e698bcb798f4ca28_hum6bnu03.pdf.

[66] 42 U.S.C. §11313(a)(1).

[67] U.S. Interagency Council on Homelessness, *Opening Doors: Federal Strategic Plan to Prevent and End Homelessness*, 2010, p. 38, http://usich.gov/resources/uploads/asset_library/Opening%20Doors%202010%20FINAL%20FSP%20Prevent%20End%20Homeless.pdf.

[68] See U.S. Interagency Council on Homelessness, *The President's 2016 Budget: Fact Sheet on Homelessness Assistance*, http://usich.gov/resources/uploads/asset_library/2016_Budget_Fact_Sheet_on_Homelessness_Assistance.pdf.

[69] Carol Wilkens, Martha Burt, and Gretchen Locke, *A Primer on Using Medicaid for People Experiencing Chronic Homelessness and Tenants in Permanent Supportive Housing*, Abt Associates, July 2014, http://aspe.hhs.gov/daltcp/reports/2014/PSHPrimer.cfm; and Martha Burt, Carol Wilkens, and Gretchen Locke, *Medicaid and Permanent Supportive Housing for Chronically Homeless Individuals: Emerging Practices From the Field*, Abt Associates, August 2014, http://aspe.hhs.gov/daltcp/reports/2014/EmergPrac.cfm.

remainder of this report discusses the research findings regarding how PSH affects outcomes for people experiencing chronic homelessness.

Since the 1990s, numerous studies have examined the outcomes of individuals who move from homelessness to PSH, whether through Housing First or arrangements that involve varying contingencies and service engagement. The majority of research involves unaccompanied chronically homeless individuals rather than those in families. This may largely be due to the fact that HUD did not include chronically homeless families in its definition of chronic homelessness until 2009. (See "Federal Definition of Chronic Homelessness.")

The primary purpose of most research is to determine whether housing reduces homelessness. As a result, outcomes tend to be measured as days individuals spend housed compared to baseline or returns to homelessness. However, some researchers may also look at other, secondary, outcomes that could result from housing stability, including reduced substance use, improved mental health, or increases in overall life satisfaction.

CRS conducted searches for articles that examine outcomes for chronically homeless individuals who moved from homelessness to PSH. Only articles in peer-reviewed journals were included, so a number of studies of chronic homelessness, including those conducted by nonprofits or local or state governments into their local housing situations, are not included.[70]

For more information on how CRS selected studies, see **Appendix A**. Full citations for all studies referenced can be found in tables in **Appendix B**. Tables in **Appendix B** also provide information about the type of housing and services received by the intervention groups and comparison groups (if any) and whether researchers characterized the intervention as Housing First. The outcomes measured by researchers are then summarized, and statistical significance is noted.

There are five common outcomes that appeared most frequently in the research:

- **Housing status and stability**—Typically measured by the number of days housed or days spent homeless after moving into housing;
- **Public service use and costs**—Evidenced by the number of visits to service providers or the amount of public funds spent on services such as hospitalizations, counseling, or shelter before and after a housing intervention;
- **Substance use**—Measured based on whether days drinking or using drugs increase or decrease after moving into housing;
- **Mental health**—Evaluated by such factors as psychiatric symptoms or time spent in treatment or psychiatric hospitals;
- **Resident satisfaction and quality of life**—Evaluated based on residents' impressions of housing and other aspects of their lives based on residents' responses to survey questions after moving into housing.

A successful outcome in one area—such as stable housing—may not necessarily translate to a successful outcome in other areas, such as improved mental health or less use of alcohol and

[70] Examples of such research include New York City Department of Health and Mental Hygiene, Human Resources Administration, and Office of Mental Health, *New York/New York III Supportive Housing Evaluation, Interim Utilization and Cost Analysis*, January 2, 2014, http://shnny.org/images/uploads/NY-NY-III-Interim-Report.pdf and Melany Mondello, Anne B. Gass, and Thomas McLaughlin PhD, et al., *Cost of Homelessness, Cost Analysis of Permanent Supportive Housing, State of Maine - Greater Portland*, Corporation for Supportive Housing, MaineHousing, and Maine Department of Health and Human Services, September 2007, http://shnny.org/uploads/Supportive_Housing_in_Maine.pdf.

drugs. CRS found evidence that providing PSH reduced chronic homelessness, but outcomes in other areas were somewhat mixed. Each outcome is discussed in separate subsections, below.

Housing Status and Stability

The primary way in which researchers attempt to determine the success of PSH for chronically homeless individuals is by measuring housing stability after a housing intervention over a period of time. Measures include days spent in permanent housing, days spent homeless, and the percentage of participants remaining in housing during a follow-up period. Typical periods for following participants range from about 12 months to three years.

Of the studies surveyed by CRS, the majority, 33 of 47 (70%), examined housing status and stability as an outcome for chronically homeless individuals who moved into PSH. In nearly all studies where homeless individuals moved into PSH, their number of days housed increased and number of days homeless decreased when compared to the time prior to housing, in many cases substantially. This occurred both when compared to those living in some other type of housing such as transitional or abstinence-contingent housing and when there was no comparison group. The results from these studies support the Housing First principle that individuals need not be housing-ready to succeed in ending a long-term spell of homelessness. See **Table B-1** for citations for each study and summaries of the housing status and stability outcome. In addition, studies noted in the bulleted list, below, are linked to their entries in **Table B-1**.

Because outcomes in the reviewed studies show fairly consistently that housing status improved, this section does not catalogue those results. Instead, it summarizes factors that may have affected housing success; for example, resident substance use, mental illness, or the intensity of services provided. These may provide some insight into residents who need additional assistance to maintain housing and how programs can be structured.

While many results are inconsistent, some outcomes are worth noting. There is some evidence that substance abuse can contribute to housing instability. Non-white residents, in general, had less housing success than white residents, and men had less success than women. And the availability of services, the experience of a services provider, and targeting services to resident needs may increase housing success.

- **Drug and alcohol use among homeless individuals** was most commonly examined as a factor related to housing success. Some researchers found that substance abuse hindered housing stability, and others found that it did not make a difference. Four studies found that clients with drug and alcohol problems were more likely to lose housing or had spent more days homeless (Hurlburt, Hough, and Wood (1996), Goldfinger, Schutt, Tolomiczenko, et al. (1999), Lipton, Siegel, Hannigan, et al., 2000(2000), and Schutt and Goldfinger (2009)). However, two other studies found either no relationship between substance use and housing retention (Martinez and Burt, 2006 (2006)) or that substance users and abstainers had similar success in maintaining housing (Edens, et al. (2011)). Finally, two additional studies found that participants with co-occurring substance use disorders were more likely to remain in housing compared to those with either mental illness or substance use only (Burt, 2012 (2012) and O'Connell, Kasprow, and Rosenheck, 2012(2012)) and that active substance users had more days housed and fewer days homeless than less active substance users (O'Connell, Kasprow, and Rosenheck, 2012(2012)).
- Other factors that have been found to affect housing success include **gender, race, age, and educational attainment**. In general, being a woman, white, and

older have been associated with greater housing success. See Hurlburt, Hough, and Wood (1996), Goldfinger, Schutt, Tolomiczenko, et al. (1999), Lipton, Siegel, Hannigan, et al., 2000(2000), Tsemberis and Eisenberg, 2000(2000), Malone, 2009 (2009), Pearson, Montgomery, and Locke, 2009(2009), Schutt and Goldfinger (2009), Burt, 2012 (2012), and O'Connell, Kasprow, and Rosenheck, 2012(2012). Exceptions were Tsemberis and Eisenberg, 2000(2000), where being white decreased time spent in housing compared to African American residents and Schutt and Goldfinger (2009), where being a female predicted homelessness.

- **The living situation of chronically homeless individuals prior to entering housing** may have an effect on housing stability. While the amount of time spent homeless prior to entering housing was found to affect housing stability (Hurlburt, Hough,
and Wood (1996) and Burt, 2012 (2012)), research varied on the role of living location. In Pearson, Montgomery, and Locke, 2009(2009), living in some form of shelter improved the likelihood of remaining housed compared to those on the street, and in Gulcur, Stefancic, Shinn, et al., 2003(2003) those previously living on the street spent more time homeless than those who came from psychiatric institutions. But Lipton, Siegel, Hannigan, et al., 2000(2000) differed, finding that residence in a psychiatric institution meant shorter housing tenure than for individuals living in other locations (shelters, transitional housing, the street, etc.). Researchers looking at chronically homeless individuals who spent time in residential treatment or transitional housing prior to permanent housing did not see improved housing stability as a result, and even found that it could detract from housing stability. (Mares, Kasprow, and Rosenheck, 2004(2004), Tsai, Mares, and Rosenheck, 2010(2010), and Montgomery, Hill, Kane, et al., 2013(2013)).
- Only a few studies examined the effect of certain **mental disorders** on housing, and they did not have consistent findings. Tsemberis and Eisenberg, 2000(2000) found that clients with mood disorders were more likely to remain housed than those without mood disorders. In O'Connell, Kasprow, and Rosenheck, 2012(2012) previously homeless veterans with co-occurring mental disorders had fewer days homeless and more days housed versus those with substance use disorders only. Collins, Malone, and Clifasefi, 2013(2013) found that in housing dedicated to those with alcohol addiction, residents with severe psychotic symptoms were more likely to leave the project.
- C**riminal background** was not a significant factor in housing success and attainment as examined in Malone, 2009 (2009) and Tejani, Tsai, Kasprow, et al., 2014(2014).
- The effects of services in isolation (i.e., not considered together with the effects of housing) are not measured frequently. Some early research into the **availability and intensity of services** indicates that services may help residents maintain housing. In research conducted by Goldfinger, Schutt, Tolomiczenko, et al. (1999) group home residents with 24-hour access to case managers spent fewer days homeless than residents in independent apartments with no onsite staff. And in Mares, Kasprow, and Rosenheck, 2004(2004), residents at sites with more intensive case management were less likely to leave their housing. But in research conducted by Hurlburt, Hough,
and Wood (1996), outcomes were not different between those receiving

traditional case management versus comprehensive case management (24-hour access and lower caseloads).

- The **experience and quality of a housing and services provider, including adherence to Housing First principals**, could make a difference in resident success in maintaining housing in Stefancic and Tsemberis, 2007(2007). Researchers found that 57% of residents in housing from a provider new to Housing First remained housed after four years, compared to 78% of residents residing in housing provided by Pathways to Housing, an experienced Housing First provider. Collins, Malone, and Clifasefi, 2013(2013) found that in housing dedicated to those with alcohol addiction, residents who reported using drugs were more likely to leave the project, while drinkers were more likely to stay than non-drinkers, perhaps indicating that tailoring housing to residents' needs may improve retention. In Gilmer, Stefancic, Katz, et al., 2014(2014) residents in housing with high fidelity to Housing First saw their days homeless decrease by 63 days over 12 months, compared to 53 days for residents in low-fidelity models. Similarly, in Davidson, Neighbors, Hall, et al., 2014(2014) residents in housing that more closely adhered to principles of consumer participation had a greater likelihood of housing retention than residents of housing with less adherence.

Public Service Use and Costs

An impetus for prioritizing permanent supportive housing for chronically homeless individuals is the idea that housing can reduce the use of expensive services, often paid with public funds, such as hospitals and emergency rooms; law enforcement resources, jails, and prisons; and temporary emergency shelter.[71] As a result, common outcomes measured by researchers are service use and costs paid for or reimbursed with public funds. These are measured by factors such as changes in visits to service providers and public funds spent to serve homeless individuals before and after moving into housing. Researchers may use actual costs incurred in providing services to homeless individuals, such as Medicaid reimbursement rates to providers,[72] or estimates of average costs for a particular service, such as operating costs for housing[73] and outpatient and inpatient costs and emergency services.[74] In some cases researchers may consider all possible costs, while others may look only at one or two categories. Not all researchers included the cost of housing in their analysis.

A number of studies reviewed by CRS—14 of 47 (30%)—examined public service use and costs as an outcome for chronically homeless individuals who moved into PSH. Some descriptions of PSH, particularly those in the media, indicate that cost reductions from PSH should be expected. However, unlike housing stability, where providing PSH largely improved this outcome, findings regarding cost reductions are somewhat mixed. Of the 14 studies surveyed by CRS, six found

[71] See, for example, U.S. Interagency Council on Homelessness, *Opening Doors: Federal Strategic Plan to Prevent and End Homelessness 2010, Chronic Homelessness Fact Sheet*, http://usich.gov/resources/uploads/asset_library/FactSheetChronicHomelessness.pdf.

[72] See, for example, Dennis P. Culhane, Stephen Metraux, and Trevor Hadley, "Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing," *Housing Policy Debate*, vol. 13, no. 1 (2002), pp. 122-123.

[73] Ibid., pp. 150-151.

[74] See, for example, Todd Gilmer, Willard G. Manning, Susan L. Ettner, "A Cost Analysis of San Diego County's REACH Program for Homeless Persons," *Psychiatric Services*, vol. 60, no. 4 (April 2009), p. 447.

statistically significant cost or service reductions in at least one category of service after providing PSH (e.g., hospitalizations or emergency department use), three found statistically significant cost increases in either overall spending or individual categories, and three had some increases and some decreases. (The remaining studies did not have statistically significant findings.) See **Table B-2** for full citations and summaries of each study. In addition, studies noted in the bulleted list, below, are linked to their entries in **Table B-2**.

Factors accounting for the differences in service use and cost from one study to another include the neediness of the population receiving housing (very high-need populations with co-occurring mental illness and serious addictions likely have more opportunities to reduce service use); the type of assistance received by comparison groups, if any (a comparison group in transitional housing may have fewer differences in service use than one receiving no housing assistance); the number of costs included by researchers (if only a limited number of costs are assessed, or if the costs of housing are not included, it may not give a full picture of a housing intervention); and the length of the follow-up period (changes may be more positive in a short amount of time after receiving housing or could take longer to occur).

- **Cost/Service Reductions:** Researchers in Gulcur, Stefancic, Shinn, et al., 2003 (2003) found that the Housing First group's costs per day based on time spent in shelters or hospitals ranged from about $75-$125 (depending on whether participants had previously been living on the street or in psychiatric hospitals, respectively) compared to $100 to $150 for the comparison group.[75] In Martinez, and Burt, 2006 (2006), placement in housing reduced the number of emergency department visits compared to individuals on a waiting list for housing. In Larimer, Malone, Garner, et al., 2009 (2009), individuals who had moved into housing had costs (including hospital, Medicaid, and EMS) that were 53% lower compared to participants on the waiting list for the same housing over six months. The researchers estimated that, including housing costs, monthly costs for housed participants were reduced by $2,249 per person relative to the comparison group. Sadowski, Kee, VanderWeele, et al., 2009 (2009) found that over 18 months, homeless individuals who moved into housing reduced hospitalizations by 29%, days hospitalized by 29%, and emergency room visits by 24% compared to those who received only hospital discharge planning. In Srebnik, Connor, and Sylla, 2013 (2013) homeless individuals with high numbers of visits to sobering centers reduced emergency room and sobering center visits relative to homeless individuals with comparable sobering center visits but no housing in the year following program entry.
- **Cost/Service Increases:** Culhane, Metraux, and Hadley, 2002 (2002) found that although costs declined for shelter and hospital stays for homeless individuals with severe mental illness who moved into housing, the offsetting costs of the housing resulted in a cost increase when placing an individual in housing of $1,425 per year. In Rosenheck, Kasprow, Frisman, et al., 2003 (2003) overall health, shelter, incarceration, and housing costs for veterans receiving housing and modified ACT case management exceeded those of a group receiving modified ACT case management but no housing by more than $7,000 over three years, and those receiving standard case management only by more than $10,000. Mares and Rosenheck, 2011 (2011) saw higher inpatient and outpatient health

[75] It is unclear whether housing costs were included in the analysis.

care costs (for medical, mental health, and substance use) for housed participants of approximately $1,200 over the two-year follow-up period compared to those without housing assistance.

- **Some Cost/Service Increases and Some Cost/Service Decreases:**[76] Gilmer, Manning, and Ettner, 2009 (2009) found that over two years, case management costs increased (by $6,403) for homeless individuals with mental illness who moved into housing relative to those without housing, but that inpatient/emergency and criminal justice costs decreased (by $6,103 and $570, respectively). In Gilmer, Stefancic, Ettner, et al. 2010 (2010) outpatient and housing costs for chronically homeless individuals with mental illness who received housing rose by $9,180 and $3,180 per participant per year compared to those without housing, while costs for inpatient services, emergency services, and justice system services fell by $6,882, $1,721, and $1,641, respectively, per participant per year. And in Basu, Kee, Buchanan, et al., 2012 (2012) annual per person outpatient treatment, housing, and case management costs were higher for the formerly homeless individuals with mental illness who received housing relative to the comparison group who did not (by $689, $3,154, and $183, respectively). Annual residential substance abuse treatment costs were lower (by $383).

Substance Use Outcomes

A high percentage of chronically homeless individuals suffer from addictions. For example, one study found that 60% had an alcohol abuse issue and 60% had a drug abuse issue.[77] Among veterans enrolled in the HUD-VASH program (which prioritizes chronically homeless veterans) in FY2010, a majority (60%) reported having a substance use disorder.[78] A number of researchers look at how substance use and treatment patterns change after individuals gain housing.

Substance use outcomes can be measured based on whether instances of alcohol and/or drug use increase or decrease among participants or if amounts consumed increase or decrease. Days and amounts of substance use are captured by participants' self-reports and interview aids such as follow-back calendars (tools for retrospectively estimating daily drinking or drug use over a specified timeframe).[79] Some researchers use measures from the Addiction Severity Index, a survey with questions meant to elicit the severity of substance addiction (from no problem to

[76] The three studies cited in this bullet also reported findings for total costs, but none were statistically significant. In Gilmer, Manning, Ettner (2009), total costs (not including housing) were higher for comparison participants than for intervention group members. In Gilmer (2010) total costs (including housing), increased for intervention group participants relative to the comparison group. And in Basu, et al. (2012) total costs (including housing) were higher for comparison participants.

[77] Alvin S. Mares and Robert Rosenheck, HUD/HHS/VA Collaborative Initiative to Help End Chronic Homelessness National Performance Outcomes Assessment Preliminary Client Outcomes Report, Northeast Program Evaluation Center, February 26, 2007, Table 2, http://aspe.hhs.gov/hsp/homelessness/CICH07/outcomes07/report.pdf.

[78] U.S. Department of Veterans Affairs, *FY2010 Department of Housing and Urban Development—Department of Veterans Affairs Supported Housing Program (HUD-VASH)*, Table 4.

[79] See, for example, Colleen Clark and Alexander R. Rich, "Outcomes of Homeless Adults With Mental Illness in a Housing Program and in Case Management Only," *Psychiatric Services*, vol. 54, no. 1 (January 2003), p. 80; and Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004), p. 653.

extreme problem).[80] Another substance use outcome measured is use of and adherence to treatment, measured by interview and aids such as the Treatment Services Review.[81]

Of the studies surveyed by CRS, 16 out of 47 (34%) examined changes in substance use as an outcome for chronically homeless individuals moving into PSH. In five of the studies that looked at whether drug and/or alcohol use increased or decreased after housing was provided, there were no differences between housed and comparison groups. Three found reductions in use when individuals moved into housing, and an additional four studies without comparison groups saw some reductions among participants. Five studies compared engagement in substance abuse treatment, with most finding treatment usage higher among those not in PSH. See **Table B-3** for a complete list of citations and a summary of each study. In addition, studies noted in the bulleted list, below, are linked to their entries in **Table B-3**.

These mixed results could be based on a variety of factors. Some researchers propose that for PSH settings that make no demands on residents regarding alcohol and drug use, it could be considered a positive outcome when substance use does not increase, and that decreased use should not be expected.[82] Residents who want to reduce or cease substance use may find it difficult to live in an environment where other residents use drugs and alcohol.[83] And treatment may only be effective for some in an environment where substances are not available.[84] It is also possible that reducing reliance on drugs and alcohol does not occur quickly. Individuals with high, sustained levels of substance use for many years may have difficulty reducing use, particularly if study follow-up periods are relatively short; for example, the authors of one study recognized the lack of a 24-month follow-up period as a limitation.[85] In general, comparison groups with individuals not receiving housing participated in treatment more frequently than those receiving housing, perhaps because some programs may require participation in treatment while PSH programs, particularly Housing First, do not.

- **No Substance Use Reductions in Relation to Comparison Group:** Five studies found no significant differences in substance use outcomes between previously homeless individuals who moved into housing and those who did not have housing: Clark and Rich, 2003 (2003) found no differences for days of drug or alcohol use; Rosenheck, Kasprow, Frisman, et al., 2003 (2003) found no differences for days drinking to intoxication or alcohol and drug severity index

[80] See, for example, Robert Rosenheck, Wesley Kasprow, Linda Frisman, and Wen Liu-Mares, "Cost-effectiveness of Supported Housing for Homeless Persons with Mental Illness," *Journal of the American Medical Association*, vol. 60, no. 9 (September 2003), p. 942; and Mary E. Larimer, Daniel K. Malone, Michelle D. Garner, et al., "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*, vol. 301, no. 13 (April 2009), p. 1351.

[81] Deborah K. Padgett, Leyla Gulcur, and Sam Tsemberis, "Housing First Services for People Who Are Homeless With Co-Occurring Serious Mental Illness and Substance Abuse," *Research on Social Work Practice*, vol. 26, no. 1 (January 2006), p. 77.

[82] See, for example, Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004), p. 655.

[83] Stefan G. Kertesz, Kimberly Crouch, and Jesse B. Milby, et al., "Housing First for Homeless Persons with Active Addiction: Are We Overreaching," *The Milbank Quarterly*, vol. 87, no. 2 (2009), pp. 522-523.

[84] For example, in Edens, et al. (2011), individuals who abstained from substance use saw their drug use increase when they moved into a Housing First environment.

[85] Carol Pearson, Ann Elizabeth Montgomery, and Gretchen Locke, "Housing Stability Among Homeless Individuals with Serious Mental Illness Participating in Housing First Programs," *Journal of Community Psychology*, vol. 37, no. 3 (April 2009), p. 414.

scores;[86] Tsemberis, Gulcur, and Nakae, 2004 (2004) found no significant differences for days of drug or alcohol use; Padgett, Gulcur, and Tsemberis, 2006 (2006) found no significant differences in alcohol and drug use; and in Mares and Rosenheck, 2011 (2011), days drinking to intoxication, days of drug use, and addiction severity index scores were largely the same between individuals who received housing and those who did not.

- **Reductions in Alcohol and Drug Use in Relation to Comparison Group:** In Cheng, Lin, Kasprow, et al., 2007 (2007), the group that moved into housing experienced fewer days of alcohol use than two comparison groups receiving services and no housing, and fewer days drinking to intoxication and of drug use than the group receiving more minimal services. Padgett, Stanhope, Henwood, et al., 2011 (2011) found that the group that did not receive housing was 3.4 times more likely to use illicit drugs and/or have heavy alcohol use. In Davidson, Neighbors, Hall, et al., 2014 (2014) residents living in housing with greater fidelity to the consumer participation element of Housing First were more likely to reduce use of opiates and stimulates compared to residents of housing with lower fidelity; however, there was no relationship between consumer participation and alcohol or marijuana use.
- **Reductions in Drug or Alcohol Use for Housed Participants (No Comparison Group):** Larimer, Malone, Garner, et al., 2009 (2009) found that residents with alcohol addiction reduced days drinking to intoxication 12 months after obtaining housing, from 28 days out of 30 to 12 of 30; and Collins, Malone, Clifasefi, et al., 2012 (2012), examining results among the same population over two years, found decreased typical and peak alcohol intake and declines in the percentage of residents drinking to intoxication. In Edens, Mares, Tsai, et al. 2011(2011) high-frequency substance users saw their drug and alcohol use decrease (though the percentage of abstainers using drugs increased after moving into housing), and Tsai, Mares, and Rosenheck, May 2012 (May 2012) found small decreases (from 41% to 39%) in residents reporting drug use and Addiction Severity Index scores for alcohol use
- **Use of Substance Abuse Treatment:** In four studies, non-housed participants used treatment more than those in housing. In a comparison of individuals in treatment-first programs to residents of a Housing First program, the treatment-first group reported greater use of substance abuse treatment programs over 24 months (Tsemberis, Gulcur, and Nakae, 2004 (2004)) and 48 months (Padgett, Gulcur, and Tsemberis, 2006 (2006)). Padgett, Stanhope, Henwood, et al., 2011 (2011) found that those in treatment-first programs were 10 times more likely to use substance abuse services than those in housing (while at the same time the treatment-first group was also more likely to use drugs and alcohol). In Edens, Mares, Tsai, et al. 2011(2011) high-frequency substance users who moved into housing reduced substance use treatment. However, in at least one study, participants who received housing were more likely to maintain treatment. In Appel, Tsemberis, Joseph, et al., 2012 (2012) greater percentages of the group that received housing maintained methadone treatment than the non-housed group over 8 and 24 months.

[86] Note that when the Rosenheck, Kasprow, Frisman, et al. (2003) research was updated for missing data, changes were observed. See Cheng, Lin, Kasprow, et al. (2007).

Mental Health Outcomes

As with substance use, large percentages of chronically homeless individuals suffer from mental illness. For example, one study found that 67% had a serious mental illness.[87] Among veterans enrolled in the HUD-VASH program (which prioritizes chronically homeless veterans) in FY2010, 42% had a serious mental illness.[88] Researchers examining mental health outcomes measure severity of mental illness using scales with survey questions meant to elicit mental health status. Some of the surveys are the Colorado Symptom Index,[89] Medical Outcomes Short Form 12 (SF-12) or 36 (SF-36),[90] and Brief Symptom Inventory.[91]

Of the studies surveyed by CRS, 14 out of 47 (30%) examined improvements in mental health as an outcome for chronically homeless individuals moving into PSH. Mental health improvements among residents of PSH occurred infrequently in these studies. Of the 14, six had statistically significant results and the others found no significant differences between intervention and comparison groups or before and after receiving housing.[92] Of the six with significant results, four looked at mental health improvements and two at treatment outcomes. See **Table B-4** for complete citations and summaries of each study. In addition, studies noted in the bulleted list, below, are linked to their entries in **Table B-4**.

Perhaps it should not be expected that mental health symptoms improve upon entry into housing, at least not immediately. Most forms of mental illness are considered chronic conditions that may or may not fully resolve, but can be managed, over time, with appropriate treatment. It is quite common for people to relapse or to experience "response" (some decrease in symptoms) rather than remission. A lack of stable housing might impede treatment of (and recovery from) mental illness because, for example, basic activities such as scheduling and attending appointments with mental health providers are more difficult without stable housing. It does not necessarily follow, however, that stable housing leads to more or better mental health treatment (or outcomes). For example, an individual with stable housing may still be unwilling or unable to schedule and attend appointments. Providing stable housing might be considered removing a barrier to accessing mental health care, rather than increasing or improving mental health care. Many other barriers—such as lack of availability of providers or lack of motivation to seek care—may remain. From this perspective, one might not expect PSH to be associated with more or better

[87] Alvin S. Mares and Robert Rosenheck, HUD/HHS/VA Collaborative Initiative to Help End Chronic Homelessness National Performance Outcomes Assessment Preliminary Client Outcomes Report, Northeast Program Evaluation Center, February 26, 2007, Table 2, http://aspe.hhs.gov/hsp/homelessness/CICH07/outcomes07/report.pdf.

[88] U.S. Department of Veterans Affairs, *FY2010 Department of Housing and Urban Development—Department of Veterans Affairs Supported Housing Program (HUD-VASH)*, Table 4.

[89] See, for example, Ronni M. Greenwood, Nicole J. Schaefer-McDaniel, Gary Winkel, et al., "Decreasing Psychiatric Symptoms by Increasing Choice in Services for Adults with Histories of Homelessness," *American Journal of Community Psychology*, vol. 36, nos. 3/4 (December 2005), p. 228.

[90] See, for example, Jack Tsai, Alvin S. Mares, and Robert Rosenheck, "A Multisite Comparison of Supported Housing for Chronically Homeless Adults: 'Housing First' versus 'Residential Treatment First'," *Psychological Services*, vol. 7, no. 4 (November 2010), p. 222.

[91] See, for example, Alvin S. Mares and Robert A. Rosenheck, "A Comparison of Treatment Outcomes Among Chronically Homeless Adults Receiving Comprehensive Housing and Health Care Services Versus Usual Local Care," *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 38, no. 6 (November 2011), p. 465.

[92] A seventh study compared chronically homeless individuals who had co-occurring substance use issues to those who did not. Ellen Lockard Edens, Alvin S. Mares, Jack Tsai, and Robert A. Rosenheck, "Does Active Substance Use at Housing Entry Impair Outcomes in Supported Housing for Chronically Homeless Persons?" Psychiatric Services, vol. 62, no. 2 (February 2011), pp. 175-176.

mental health treatment (or outcomes); however, one would probably not expect it to be associated with less or worse mental health treatment (or outcomes).

- **No Significant Changes in Mental Health Status:** Clark and Rich, 2003 (2003), Rosenheck, Kasprow, Frisman, et al., 2003 (2003) (re-evaluated by Cheng, Lin, Kasprow, et al., 2007 (2007)), and Tsemberis, Gulcur, and Nakae, 2004 (2004)[93] found no significant differences in psychiatric symptoms between the groups receiving housing and those that did not, and in Greenwood, Schaefer-McDaniel, Winkel, et al., 2005 (2005) decreases in psychiatric symptoms experienced by homeless individuals moving into housing were not associated with program assignment. Similarly, Pearson, Montgomery, and Locke, 2009 (2009) found no trends in psychiatric symptoms among individuals moving into housing, and Mares and Rosenheck, 2011 (2011) found no significant differences in mental health status between homeless individuals who moved into housing and those who did not.
- **Mental Health Improvements:** The one study with a comparison group that found mental health improvements, Wolitski, Kidder, Pals, et al., 2010 (2010), found reductions in depression and perceived stress for both the group moving into housing and the group receiving case management and housing search services. Two studies that examined mental health outcomes for participants before and after moving into housing saw reduced reports of psychological distress (Tsemberis, Kent, and Respress, 2012 (2012)) and small improvements in mental health scores (Tsai, Mares, and Rosenheck, May 2012 (May 2012)). Gulcur, Stefancic, Shinn, et al., 2003 (2003), while not looking at participant symptoms, found that the group receiving services but no housing assistance spent more time in psychiatric hospitals than the housed group, particularly those who had previously been hospitalized.
- **Treatment Differences:** Padgett, Gulcur, and Tsemberis, 2006 (2006) found that individuals in a treatment-first group used mental health treatment at higher rates after 48 months. By contrast, Gilmer, Stefancic, Ettner, et al., 2010 (2010) saw homeless individuals who moved into housing increase case management, medication management, and therapy compared to the group without housing.

Resident Satisfaction and Quality of Life

A hallmark of Housing First and many PSH projects is resident choice, whether it is a say in location or the services received. In some cases when residents move into permanent housing, researchers conduct interviews, asking formerly homeless individuals to rate various aspects of their lives after obtaining housing.[94]

A small number of studies—11 out of the 47 (23%) reviewed by CRS—surveyed formerly chronically homeless housing residents about satisfaction with their living situation and quality of life in PSH, including factors such as fitting into the neighborhood, community involvement, levels of choice, family relationships, and social contacts. While residents in several studies

[93] Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004), p. 654.

[94] Among the surveys used were the Lehman Quality of Life Interview (Rosenheck, et al. (2003)), a 16-point Consumer Choice index (Tsemberis, Gulcur, and Nakae (2004)), and the SAMHSA Housing Satisfaction Scale (Tsai, Mares, and Rosenheck (June 2012).

reported satisfaction with housing and community choice, in a couple of studies residents reported feeling isolated and disconnected from the community. In at least one study, having housing preferences fulfilled was associated with higher scores on quality of life responses.

Unlike the previous outcomes discussed, resident satisfaction may not have an obvious relationship to cost reductions. And while it may seem that resident satisfaction could predict improvements in other areas, such as mental health or substance use, the limited research did not bear this out. However, one might consider that satisfaction and quality of life may be goals in themselves. For formerly homeless individuals, less tangible outcomes like the comfort, stability, and lower stress that comes with knowing one has a place to stay may be important outcomes.

See **Table B-5** for full citations and summaries of each study. In addition, studies noted in the bulleted list, below, are linked to their entries in **Table B-5**.

- **Reports of Satisfaction:** Generally, formerly homeless individuals who moved into housing were **more satisfied with their housing situation and their situation in general** than those who did not. Gilmer, Stefancic, Ettner, et al. 2010 al. (2010) found that residents in PSH reported greater satisfaction with life and their living situation than the comparison group without housing assistance; and in Rosenheck, Kasprow, Frisman, et al., 2003 (2003), the group receiving housing reported greater satisfaction than members of the two comparison groups who received case management only. In Tsai, Mares, and Rosenheck, 2010 (2010), satisfaction differed based on prior residential treatment experiences. Those who spent time in residential treatment prior to permanent housing reported greater housing satisfaction than those who moved directly to housing.
- **Isolation and Community Integration:** In Siegel, Samuels, Tang, et al., 2006 (2006), after 18 months, residents in non-abstinence contingent housing reported greater housing satisfaction than those in abstinence-contingent housing. However, some in non-abstinence contingent housing reported greater feelings of **isolation** than those in abstinence-contingent housing, and some also reported feeling less empowered. Similarly, in Yanos, Barrow, and Tsemberis, 2004 (2004), where both the abstinence-contingent group and the non-abstinence contingent group reported positive reactions to housing, both groups also had a number of respondents (41% and 32%, respectively) reporting **difficulties fitting into the community**.
- Housed participants in two studies reported having **greater levels of consumer choice** (Tsemberis, Gulcur, and Nakae, 2004 (2004); and Greenwood, Schaefer-McDaniel, Winkel, et al., 2005 (2005)). And in O'Connell, Rosenheck, Kasprow, et al., 2006 (2006), having a greater proportion of housing preferences met (e.g., safety, privacy, etc.) was associated with higher quality of life scores.
- **Social Relationships:** Housing recipients in Rosenheck, Kasprow, Frisman, et al., 2003 (2003) reported larger social networks and greater satisfaction in family relationships; and in Gilmer, Stefancic, Ettner, et al. 2010 (2010), participants living in housing had more favorable responses regarding family and social relationships than those who did not. In Tsai, Mares, and Rosenheck, May 2012 (May 2012), participants reported increased confidence in support from service providers (e.g., getting a ride or a loan, or assistance when feeling suicidal), but decreased confidence in support from others (including clergy and neighbors). However, the same residents indicated increased **community and civic participation**; for example, going to stores and restaurants, visiting family and friends, and voting.

- **Drug and Alcohol Use and Mental Health Status** may have an effect on housing satisfaction and quality of life. Siegel, Samuels, Tang, et al., 2006 (2006) found that participants who used both alcohol and drugs (compared to alcohol users alone) had less community integration and less housing satisfaction in terms of autonomy and social aspects of housing. In O'Connell, Kasprow, and Rosenheck, 2012 (2012), veterans with a mental disorder, together with a substance use disorder, had lower quality of life scores and fewer social contacts than those with substance use disorders alone. Siegel, Samuels, Tang, et al., 2006 (2006) found that participants with high baseline scores on depression-anxiety, regardless of housing type, were more likely to have less housing satisfaction, higher levels of crisis intervention, more isolation, less empowerment, and a lower quality of life.
- **Relationship of Satisfaction to Other Outcomes:** In O'Connell, Rosenheck, Kasprow, et al., 2006 (2006), the percentage of housing preferences obtained (such as location, condition of housing, proximity to family and friends), while related to quality of life, was not associated with clinical outcomes (psychiatric symptoms, alcohol and drug use, medical problems, days in an inpatient psychiatric hospital). Tsai, Mares, and Rosenheck, June 2012 (June 2012) found that housing satisfaction did not predict improvements in mental health, substance use, or duration in housing.

Policy Implications

Research shows that permanent supportive housing is successful at reducing days spent homeless and increasing days housed for many individuals experiencing chronic homelessness. While the evidence shows that PSH can be a solution to chronic homelessness, it is less clear whether PSH will "solve" other issues faced by homeless individuals or reduce treatment and other service costs for all homeless individuals. As some researchers have said, the challenge may be identifying "what works for whom" rather than just what works.[95]

While cost reductions are often cited as a reason for providing PSH for chronically homeless individuals, research indicates that cost reductions or service reductions may not occur in every case. The costs associated with placement in PSH may be offset for homeless individuals with the most serious issues and who use numerous services at high rates. For example, according to research conducted by Poulin et al. (2010) in Philadelphia, "only the consumers with relatively higher costs of services are likely to have sufficiently high current costs to fully or mostly offset the costs of a PSH placement."[96]

An option may be to tailor housing subsidies and services to homeless individuals based on their needs. As Poulin, et al. (2010) point out, lower-need chronically homeless individuals (e.g., those without co-occurring disorders) may not have the same housing and services requirements. Clark

[95] Stefan G. Kertesz, Kimberly Crouch, and Jesse B. Milby, et al., "Housing First for Homeless Persons with Active Addiction: Are We Overreaching," *The Milbank Quarterly*, vol. 87, no. 2 (2009), pp. 522-523, citing Carol L. M. Caton, Carol Wilkins, and Jacquelyn Anderson, *People Who Experience Long-Term Homelessness: Characteristics and Interventions*, The 2007 National Symposium on Homelessness Research, March 2007, http://aspe.hhs.gov/hsp/homelessness/symposium07/caton/report.pdf.

[96] Stephen R. Poulin, Marcella Maguire, and Stephen Metraux, et al., "Service Use and Costs for Persons Experiencing Chronic Homelessness in Philadelphia: A Population-Based Study," *Psychiatric Services*, vol. 61, no. 11 (November 2010), p. 1097.

and Rich (2003) found that "high impairment" individuals with high psychiatric symptom severity and high levels of alcohol and drug use had better housing stability and functional homelessness outcomes with supportive housing, but that low- and medium-impairment individuals did just as well with case management only. It may also be good practice to intervene with homeless individuals before health conditions and substance use issues become too severe. Cost reductions could occur over the long run if less intensive interventions occur earlier and prevent increased need.

In cases where there are cost or service use reductions after chronically homeless individuals move into housing, the reductions may not accrue to the entity funding the housing. In many situations, funding for PSH is provided by HUD. However, cost reductions may occur for provider hospitals, state Medicaid programs (which are jointly financed by states and the federal government), and law enforcement. Similarly, cost reductions could be seen at the state and local levels rather than by federal programs. This could be an issue in the era of the Budget Control Act spending limits, where additional funding for federal discretionary appropriations, including HUD programs, may not be available. In order to end chronic homelessness with PSH, flat funding may not be sufficient.

Looking to other parts of the budget where agencies may have an interest in reducing service use and costs and improving outcomes may be a consideration. For example, in states that expanded Medicaid under the Patient Protection and Affordable Care Act (P.L. 111-148 as amended),[97] many chronically homeless individuals who were not eligible under previous criteria are likely to be eligible under the expansion.[98] Housing providers are partnering with Medicaid providers to improve the housing stability, health care, and outcomes for chronically homeless individuals.[99]

In June 2015, the Center for Medicare and Medicaid Services (CMS) released an informational bulletin describing how Medicaid funds could be used to pay for housing-related activities and services.[100] The bulletin identifies three areas in which funds can be used (1) Housing Transition Services such as assistance with housing applications and help obtaining resources to pay for security and utility deposits or furniture, (2) Housing and Tenancy Sustaining Services such as intervening when behaviors arise that could lead to eviction and training on how to be a good tenant, and (3) State-Level Housing Related Collaborative Activities such as developing housing locator systems for people transitioning from institutional settings to housing.

Providing housing for high-need Medicaid recipients is seen by some as a way of reducing health system use and costs, with providers and state Medicaid agencies working to find stable housing for clients.[101] Although Medicaid can be used for the services outlined in the CMS informational

[97] For information about the expansion, see CRS Report R43564, *The ACA Medicaid Expansion*, by (name redacted).

[98] Julia Zur, Ramin Mojtabai, and Suhui Li, "The Cost Savings of Expanding Medicaid Eligibility to Include Currently Uninsured Homeless Adults with Substance Use Disorders," *Journal for Behavioral Health Services & Research*, vol. 41, no. 2 (April 2014), pp. 110-124.

[99] Carol Wilkins, Martha Burt, and Gretchen Locke, *A Primer on Using Medicaid for People Experiencing Chronic Homelessness and Tenants in Permanent Supportive Housing*, U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, July 23, 2014, http://aspe.hhs.gov/sites/default/files/pdf/77121/PSHprimer.pdf.

[100] U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services, *Coverage of Housing-Related Activities and Services for Individuals with Disabilities*, June 26, 2015, http://www.medicaid.gov/federal-policy-guidance/downloads/CIB-06-26-2015.pdf.

[101] See, for example, United Healthcare, *Why Does a Health Care Company Care About Housing? Understanding the Intersection of Housing and Health Care*, May 2015, https://www.hudexchange.info/course-content/strategies-to-support-homeless-or-at-risk-clients-with-effectively-utilizing-the-healthcare-system/UnitedHealthcare%20Whitepaper.pdf.

bulletin, it cannot be used to pay the costs of housing directly (unless the housing is an institutional setting such as a nursing home). If housing can help reduce the costs incurred by Medicaid in providing care to chronically homeless individuals, it may not be unreasonable to think that Medicaid funds could directly support housing costs. At least two states are using their state share of Medicaid for supportive housing. For example, Pennsylvania's HealthChoices behavioral health Medicaid Managed Care program allows cost savings to be used for PSH.[102] Similarly, New York set aside funds from its state share of Medicaid funding for PSH, with the notion of recouping at least some of the costs through reductions in Medicaid spending.[103]

States and communities are also addressing the need to pay for PSH through Pay for Success initiatives (sometimes called Social Impact Bonds). In the Pay for Success model, a government entity partners with philanthropic organizations or private sector investors. The non-governmental partners provide up-front funding for a program that will help individuals in some way. If success is achieved according to a pre-determined measurable outcome, the government pays back the initial investment to the outside investors.[104] For example, in the state of Massachusetts a pay for success initiative will create 500 units of PSH for chronically homeless individuals with success based on housing stability.[105] Similarly, the city of Denver and partners will provide housing for 300 chronically homeless individuals.[106] In addition, pursuant to provisions in FY2014 and FY2015 appropriations laws,[107] HUD and the Department of Justice are to release nearly $9 million for a Pay for Success Demonstration for grantees to provide PSH to homeless individuals who cycle through the criminal justice and homeless services systems.[108] A benefit of a model like Pay for Success is that governments can identify where spending reductions occur and target their budgets accordingly.

The service use and cost issues raise a question: even if a PSH intervention results in increased costs, could the benefits of ending homelessness justify the added expense? Or perhaps there is an expenditure level at which governments may find investing in housing cost-effective. There may be positive outcomes for participants whose benefits are not as easily quantified. For example, Mares and Rosenheck (2011) found that housed participants were more likely to have health care providers and had more contact with health professionals, including more outpatient visits for

[102] See Pennsylvania Office of Mental Health and Substance Abuse Services, *Utilizing HealthChoices Reinvestment Funds to Develop Permanent Supportive Housing*, November 27, 2006, http://www.pahousingchoices.org/PDF/Appendix_to_Template_Summary_of_Strategies.pdf.

[103] Kelly M. Doran, Elizabeth J. Misa, and Nirav R. Shah, "Housing as Health Care—New York's Boundary-Crossing Experiment," *New England Journal of Medicine*, vol. 369, no. 25 (December 19, 2013), pp. 2374-2377. See also the New York State Medicaid Re-Design website at http://www.health.ny.gov/health_care/medicaid/redesign/affordable_housing_workgroup.htm.

[104] See for example the White House website, "Paying for Success," https://www.whitehouse.gov/omb/factsheet/paying-for-success.

[105] Commonwealth of Massachusetts Executive Department of the Governor, "Massachusetts Launches Pay for Success Initiative to Reduce Chronic Individual Homelessness," press release, December 8, 2014, http://archives.lib.state.ma.us/bitstream/handle/2452/217588/ocn795183245-2014-12-08b.pdf?sequence=1&isAllowed=y.

[106] City of Denver Mayor's Office, "Mayor Hancock Announces Plans to Connect Hundreds of Homeless to Supportive Housing," press release, June 25, 2014, https://www.denvergov.org/content/denvergov/en/mayors-office/newsroom/2014/mayor-hancock-announces-plans-to-connect-hundreds-of-homeless-to.html.

[107] Funding was provided as part of the DOJ State and Local Law Enforcement Assistance Account in the FY2014 Consolidated Appropriations Act (P.L. 113-76) and the FY2015 Further and Consolidated Continuing Appropriations Act (P.L. 113-235).

[108] U.S. Department of Housing and Urban Development, *Pay for Success Permanent Supportive Housing Demonstration*, October 15, 2015, http://portal.hud.gov/hudportal/documents/huddoc?id=2015-pfspshdemo-nofa.pdf.

physical health, mental health, and substance use.[109] The same was true of case managers and visits with case managers. Parker (2010) found significant increases in Social Security receipt, SNAP receipt, qualification for special needs bus passes, use of a primary care physician, and use of mental health services.[110] These outcomes can improve the health and quality of life for recipients and may eventually lead to cost reductions elsewhere (and outside the scope of study follow-up periods). Perhaps there should not be the expectation of a full cost offset, and consideration that some reduction or even increase in service use may be a positive development as individuals may be gaining access to needed services.

[109] Alvin S. Mares and Robert A. Rosenheck, "A Comparison of Treatment Outcomes Among Chronically Homeless Adults Receiving Comprehensive Housing and Health Care Services Versus Usual Local Care," *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 38, no. 6 (November 2011), p. 466.

[110] David Parker, "Housing as an Intervention on Hospital Use: Access among Chronically Homeless Persons with Disabilities," *Journal of Urban Health*, vol. 87, no. 6 (December 2010), p. 916.

Appendix A. Research Selection

CRS conducted searches for journal articles that examined outcomes for chronically homeless individuals who moved from homelessness to permanent supportive housing. CRS primarily searched three databases for research published from 2000 through 2013: EBSCOhost Academic Search Complete, ProQuest Databases, and PubMed Central. Search term variations included "housing first," "homeless/homelessness," "chronic/chronically," and "permanent supportive housing/supportive housing." CRS also reviewed bibliographies of the studies. Some of the studies referenced in bibliographies pre-date 2000, and others were previously known to CRS, so in a few cases the dates of publication are before 2000. In addition, in the course of writing the report the authors became aware of several studies published after 2013; three of these are included. Therefore, the range of publication dates is from 1996-2014.

Once articles were identified using search terms, CRS included only those published in peer reviewed journals, where housing was provided as an intervention for individuals considered chronically homeless or who had histories of homelessness and disability, where the housing was provided within the United States, where the housing for at least one group was permanent housing (not time-limited), and where formerly homeless individuals had access to supportive services. The articles only included chronically homeless individuals, not those in families, perhaps because until recently the federal definition did not include families. It is possible that not every group met the requirements of the federal definition of chronic homelessness, but each study involved a high-need homeless population that fulfilled some aspects of the definition. The specifics of the arrangements, including whether researchers characterized the intervention as Housing First, are noted in the tables in **Appendix B**.

CRS did not exclude articles based on methodology. Some are more statistically rigorous than others (e.g., some include random assignment and large numbers of participants while others may not have comparison groups and look at small numbers of individuals). Details about each article, including comparison groups and statistical significance, are provided in the tables in **Appendix B**.

Research articles were grouped based on the outcomes that they measured. Overall, there were five categories of outcomes commonly found within the articles: housing status and stability, service use and costs, substance use, mental health, and resident satisfaction/quality of life. While there are other outcomes measured by some researchers, including employment, income, criminal justice, and physical health outcomes, very few of the studies found by CRS look at these outcomes, and they have not been included in this discussion.[111]

[111] Lack of research on physical health outcomes (versus mental and behavioral health) was noted in Benjamin F. Henwood, Leopoldo J. Cabassa, and Catherine M. Craig, et al., "Permanent Supportive Housing: Addressing Homelessness and Health Disparities?," *American Journal of Public Health*, vol. 103, no. S2 (September 2, 2013), pp. S188-S192.

Appendix B. Research Summaries

In this Appendix are five tables summarizing the journal articles surveyed by CRS. Each table is based on outcomes measured by researchers, with **Table B-1** reporting housing status (e.g., days spent in housing or days homeless), **Table B-2** reporting public service use and costs (e.g., use and cost of hospitals and emergency rooms after housing), **Table B-3** reporting substance use (e.g., increases or decreases in substance use or treatment), **Table B-4** reporting mental health (e.g., improved symptoms or treatment compliance), and **Table B-5** reporting resident satisfaction and quality of life (e.g., satisfaction with housing and social contacts). Because many articles looked at multiple outcomes, several of them may appear in more than one table.

Each table arranges research by date from oldest to most recent and contains links to citations for journal articles in the table notes. There is also information about the type of housing and services received by the intervention (or treatment) groups and comparison groups (if any). The entries also note if researchers characterized the intervention as Housing First. The outcomes measured by researchers are then summarized, and statistical significance is noted.

Table B-1. Housing Status and Stability

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Hurlburt, Hough, and Wood, 1996[b]	Homeless individuals with severe and chronic mental illness	HUD-funded, Section 8 housing (n=361 divided equally across all groups)	No specific housing assistance	Two groups: traditional case management and comprehensive case management	Two groups: traditional case management and comprehensive case management	There were four groups total: (1) Section 8 + traditional case management; (2) Section 8 + comprehensive case management; (3) no housing + traditional case management; and (4) no housing + comprehensive case management. After two years, participants with Section 8 housing were nearly five times more likely to achieve stable independent housing (living consistently in an apartment or home). The type of case management did not have a relationship to housing outcomes. Factors significantly related to successful housing outcomes were being a woman, having less than one year homeless, and not having drug or alcohol problems.	Yes
Tsemberis, 1999[c]	Homeless individuals with psychiatric disabilities	Independent apartments (n=139)	Community residences, supportive single room occupancy dwellings (SROs), residential care centers, and adult homes (n=2,864)	Modified Assertive Community Treatment (ACT)	Not specified	After almost 30 months, 84.2% of intervention clients remained in housing. After two years, 59.6% of comparison group clients remained housed.	Not specified
Goldfinger, Schutt, Tolomiczenko, et al., 1999[d]	Homeless individuals with mental illness	Independent apartments (no onsite staff) (n=55)	Staffed group homes (n=63)	Intensive case management with no onsite staff	Intensive case management with onsite staff	At the end of 18 months, participants living in independent apartments spent more days homeless (mean of 78 days) than those living in group homes (43 days). Substance abuse and minority status were predictors of days homeless.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Lipton, Siegel, Hannigan, et al., 2000[e]	Homeless individuals with severe mental illness	Two groups based on amount of structure: (1) "Low intensity," own room or studio apartment (n=1,524) (2) "Moderate intensity," own room or studio apartment (n=540)	"High intensity," transitional housing (n=873)	(1) "Low intensity," few restrictions with largely optional services provided by multidisciplinary team. (2) "Moderate intensity," onsite staffing with services provided that "are fairly intensive but are usually not mandatory"	Onsite staffing with restrictive policies regarding curfew, overnight guests, attendance at activities, and medication dispensation	After five years, 54% of residents in low-intensity housing had been continuously housed, as had 56% of those in moderate-intensity housing, and 37% of those in high-intensity housing. Substance abuse problems and being referred from state psychiatric institutions were significantly associated with shorter housing tenure for all groups while older age was associated with longer housing tenure.	Not measured
Tsemberis and Eisenberg, 2000[f]	Homeless with psychiatric diagnosis or dually diagnosed	Independent scattered-site apartments characterized as Housing First (n=242)	SRO hotels, group homes, and community residences (n=1,600)	Modified ACT model	Not specified	88% of residents in the treatment group maintained their housing after five years, compared to 47% in the comparison group. Having a dual diagnosis and being white were associated with decreased time in housing and being older and having a mood disorder were associated with increased time in housing.	Yes
Clark and Rich, 2003[g]	Homeless individuals with severe mental illness classified as "high-" "medium-" or "low-" impairment	Unspecified guaranteed housing (n=83)	No direct housing assistance (n=69)	Housing support services and case management including priority access to a range of services	Case management from mental health services provider	After 12 months, high-impairment individuals in the intervention group increased their time in stable housing by 106 days on average (during a period of 180 days) compared to 52 days for high-impairment individuals in the comparison group. Comparison group participants considered to be low- and medium-impairment "did just as well" in their housing stability outcomes with case management alone as those in the intervention group.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Gulcur, Stefancic, Shinn, et al., 2003[h]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[i]	Independent apartments characterized as Housing First (n=99)	Sobriety and mental health treatment were prerequisites to housing (n=126)	Modified ACT model	Not specified	After two years, the comparison group spent more time homeless and hospitalized than the intervention group, with individuals from the street spending more time homeless than those recruited from psychiatric institutions (regardless of group assignment).	Yes
Rosenheck, Kasprow, Frisman, et al., 2003[j]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=182)	Two groups, neither with direct housing assistance (n=278)	Modified ACT model	Group 1: Modified ACT; Group 2: short-term case management	Over three years, researchers found that the intervention group had an average of 25% more days housed than the short-term case management group and 17% more days housed than the modified ACT only group. However, by the three-year mark differences among the three groups evened out, so that the number of days spent housed during the previous 90 days was nearly the same for each. Findings were similar for days spent homeless. Modified ACT, in the absence of housing vouchers, did not improve housing outcomes.	Yes, for days housed between intervention and each comparison group for first two years, and 18 months to two years for days homeless
Tsemberis, Gulcur, and Nakae, 2004[k]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[i]	Independent apartments characterized as Housing First (n=87)	Sobriety and mental health treatment were prerequisites to housing (n=119)	Modified ACT model	Not specified	After 24 months, intervention group participants were homeless less (less than 5% compared to about 25%) and retained housing a greater proportion of the time (80% compared to 30%) than comparison participants.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Mares, Kasprow, and Rosenheck, 2004[l]	Homeless veterans with psychiatric or substance use disorder	Moved directly from homelessness to subsidized and private apartments (n=447)	Spent time in residential treatment in six months prior to moving to subsidized and private apartments (n=208)	Case management through Health Care for Homeless Veterans program	Case management through Health Care for Homeless Veterans program	There was no significant difference between the two groups in terms of completing the program and days spent in housing. Residents at sites with more frequent case management were less likely to leave housing than those with no case management visits.	Yes for case management
Martinez and Burt, 2006[m]	Homeless with at least two of substance use disorder, Axis I or II mental disorder,[i] and HIV-AIDS	Single room occupancy units (n=236)	N/A[n]	Array of onsite services available but voluntary	N/A	After one year, 81% of participants remained in housing, after two years 63% were still housed, and after three years 48% of those for whom researchers had data were still in housing. There were no differences in retention based on mental illness, substance use disorder, or co-occurring disorders.	Not specified
Siegel, Samuels, Tang, et al., 2006[o]	Individuals with a history of homelessness and severe mental illness	Scattered-site studio or one-bedroom apartments (n=67)	Studio apartments in one building; housing contingent on abstinence (n=72)	ACT model	Onsite crisis services and case management available but voluntary	After 12 months, 72% to 87% of the intervention group and 62% to 74% of the comparison group remained in their initial housing. At 18 months these ranges shifted downward for both groups: 64% to 80% for intervention and 37% to 71% for comparison. (The ranges vary based on propensity scores researchers assigned to each group.)	No
Kessell, Bhatia, Bamberger, et al., 2006[p]	Chronically homeless and dually or triply diagnosed	Supportive housing characterized as Housing First (n=114)	N/A[q]	Unspecified	N/A	Of those in the intervention group, 74% remained housed after two years.	Not specified

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Stefancic and Tsemberis, 2007[r]	Severe mental illness and long history of shelter use, some with co-occurring substance use disorder	Two groups provided with scattered-site apartments characterized as Housing First; one with an experienced provider (n=131) one with an inexperienced provider (n=130)	Shelter-based programs and transitional housing (n=51)	Two groups using ACT model; one experienced provider, one inexperienced provider	Not specified	At 20 months, 88%-92% of participants placed in housing in the intervention programs remained housed, compared to approximately 27% of comparison group participants who started the program and were known to have attained permanent housing. At 47 months, housing retention ranged from 78% for the experienced provider to 57% for the inexperienced provider. There was no comparison group data at 47 months.	Not specified
Malone, 2009[s]	Homeless individuals with behavioral health disorders	Apartments in multifamily properties with 24-hour staff or scattered-site units characterized as Housing First (n=332)	N/A	Optional comprehensive services	N/A	In general, criminal background was not statistically significantly related to housing success. 70% of those with a criminal background were still housed after two years compared to 74% without a criminal background. However, there was a statistically significant association between property crimes and drug crimes and success. Those with two or more of each were less successful. In addition, older participants (age 50 and older) were more likely to succeed at housing.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Pearson, Montgomery, and Locke, 2009[t]	Homeless individuals with serious mental illness, some with co-occurring substance use disorders	Sample from three Housing First programs living in scattered-site housing, apartments in dedicated multifamily properties, SROs, safe havens (n=80)	N/A	ACT or modified ACT model	N/A	After 12 months, 84% of participants were still housed. Participants who had been sheltered in some manner prior to obtaining housing—in jails, shelters, or psychiatric hospitals—were more likely to remain housed than those coming directly from the streets. Women were more likely to stay in housing than men, and higher educational attainment also resulted in greater likelihood of remaining in housing. Black participants were more likely to leave.	No
Schutt and Goldfinger, 2009[u]	Homeless individuals with serious mental illness	Independent scattered-site apartments or SROs (n=55)	Staffed group homes (n=63)	Each participant was assigned an intensive clinical case manager.	Each participant was assigned an intensive clinical case manager.	Placement in one housing type or the other was not a statistically significant factor in predicting housing status. Factors that had a statistically significant relationship to housing loss were having a lifetime substance abuse diagnosis (at 18 and 36 months), being African American in independent housing (at 18 months), being a woman (18 and 36 months), and preferring to live in independent housing when clinicians recommended group homes (36 months).	Yes for individual factors, but not for housing type
Gilmer, Stefancic, Ettner, et al. 2010[v]	Chronically homeless with severe mental illness	Independent apartment or congregate housing characterized as Housing First (n=209)	No direct housing assistance; shelters, the street, psychiatric hospitals, jail, etc. (n=154)	ACT model	Public mental health services	Intervention group participants saw days homeless reduced by 68% (129 days) and days spent in independent housing or congregate housing increased 99% (73 days).	Yes for intervention group before and after housing. Not measured against comparison group

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Wolitski, Kidder, Pals, et al., 2010[w]	Homeless or at severe risk and living with HIV/AIDS	Own room, apartment, or house funded through HUD HOPWA assistance (n=315)	Housing search assistance (n=314)	Case management	Case management	After 18 months, 82% of intervention group and 51% of comparison group were living in their own place (compared to 4% for each group at baseline).	Yes
Tsai, Mares, and Rosenheck, 2010[x]	Chronically homeless individuals	Moved from homelessness to HUD-funded housing characterized as Housing First (n=570)	Spent time in residential treatment prior to HUD-funded housing (n=121)	Not specified	Not specified	Participants who had spent time in residential treatment spent fewer days living in their own housing, more days incarcerated, and more days in residential treatment.	Yes
Edens, Mares, Tsai, et al., 2011[y]	Chronically homeless individuals	Moved from homelessness to HUD-funded housing characterized as Housing First (n=120 high-frequency substance users and 290 abstainers)	N/A	Services consistent with intensive case management or Housing First	N/A	Over 24 months, both high-frequency substance users and abstainers increased their days housed with no significant difference between the two groups. High-frequency substance users spent more days in prison or jail.	Yes for days spent in prison or jail
Padgett, Stanhope, Henwood, et al., 2011[z]	Axis I diagnosis[i] and history of substance abuse	Scattered-site housing characterized as Housing First (n=27)	Sobriety required for transitional housing ("treatment first") (n=48)	ACT model	Not specified	11% of intervention group participants left the program during 12-month follow-up, compared to 54% of the comparison group	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Mares and Rosenheck, 2011[aa]	Chronically homeless individuals	HUD-funded housing (n=281)	No direct housing assistance; shelters, the street, campgrounds, SRO hotels, etc. (n=104)	Modified ACT model and health and mental health services	Not specified	Over two years, intervention group housed an average of 69 days over the previous 90 compared to 45 days for the comparison group. They also spent fewer days homeless (12 during the previous 90 compared to 31).	Yes
Tsemberis, Kent, and Respress, 2012[bb]	Co-occurring psychiatric and substance use disorders with at least five years of homelessness	Scattered-site apartments characterized as Housing First (n=36)	N/A	ACT model	N/A	After one year, 97% of residents remained in some form of housing (not counting those deceased), and after two years 84% remained housed.	Not specified
Burt, 2012[cc]	Chronically homeless individuals with an Axis I diagnosis[i]	Typically efficiency apartments (n=56)	No direct housing assistance (n=415)	Services including additional employment assistance and mental health relative to the comparison group	Services including employment assistance and mental health	In the 13 months after enrollment, 50% of intervention group participants had found housing with 79 mean days spent housed compared to 1% and 3 days for the comparison group. Factors having a negative effect on housing outcomes were race and ethnicity (with white clients more likely to be housed) and days homeless during the previous 12 months. However, participants with co-occurring substance use disorders were more likely to have been housed.	Yes
Appel, Tsemberis, Joseph, et al., 2012[dd]	Homeless individuals with mental illness receiving methadone treatment	HUD-funded scattered-site apartments characterized as Housing First (n=31)	No direct housing assistance (n=30)	ACT model	Not specified	About eight months after the first of the intervention group were housed, 80.6% retained housing while 36.7% of comparison group had their own housing. After about 24 months, the percentages fell to 67.7% and 3.7%, respectively.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
O'Connell, Kasprow, and Rosenheck, 2012[ee]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=119)	Two groups, neither with direct housing assistance (n=140)	Modified ACT model	Group 1: Modified ACT (n=52), Group 2: short-term case management (n=88)	Researchers looked at subgroups of participants in Rosenheck, Kasprow, Frisman, and Mares (2003). Having housing assistance was associated with fewer days homeless among those with a co-occurring mental disorder (vs. substance use disorder alone). And active substance users had more days housed and fewer days homeless than less active substance users. African American participants did not see days homeless reduced to the same degree as white participants.	Yes
Montgomery, Hill, Kane, et al., 2013[ff]	Homeless veterans—individuals and family households	HUD-funded Section 8 housing characterized as Housing First (n=107)	Residential treatment and transitional housing followed by Section 8-funded housing (n=70)	ACT model	Standard VA case management services	Those in the intervention group were eight times more likely to be stably housed 12 months after moving into housing.	Yes
Collins, Malone, and Clifasefi, 2013[gg]	Chronically homeless individuals with severe alcohol problems	Studio apartments or semiprivate units in a single multifamily housing property characterized as Housing First (n=111)	N/A	24-hour onsite supportive services	N/A	Over a two-year period, 23% of participants left the housing project; of those, 24% returned to the housing project. Participants who reported using drugs were not as likely to stay in the housing project for the full two years, and participants who were active drinkers were more likely to stay in the project than non-drinkers. Residents who experienced psychoticism were more likely to leave the project.	Yes
Stefancic, Henwood, and Melton, 2013[hh]	Either chronically homeless or referred from correctional institution	Scattered-site housing characterized as Housing First (n=155)	N/A	Hybrid ACT model and intensive case management	N/A	After about three years, 85% of participants retained their housing; for a subset of 88 participants who were interviewed every six months, days homeless in the previous 30 decreased from 11.02 to 1.96 after 12 months.	Yes for days homeless

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Tejani, Tsai, Kasprow, et al., 2014[ii]	Homeless veterans	HUD-funded Section 8 housing (n=14,557)	N/A	Case management	N/A	Veterans were divided into three groups based on incarceration history (no incarcerations, 5,023 (34.5%); a year or less, 6,324 (43.4%); and more than a year, 3,210 (22.1%)). Researchers measured housing attainment, with 57.1% of the no-incarceration group attaining housing, 59.2% of the short-incarceration group, and 58.3% of the long-incarceration group with no statistical difference in likelihood of obtaining housing.	No
Davidson, Neighbors, Hall, et al., 2014[ij]	Chronically homeless individuals with substance use issues	Scattered-site housing characterized as Housing First	Scattered-site housing characterized as Housing First	Services with high fidelity to consumer participation	Services with low fidelity to consumer participation	Researchers followed 358 residents in housing characterized as Housing First, but some of the nine housing providers exercised greater fidelity to the consumer participation component of Housing First (including consumer choice and harm reduction). After one year, 75% of residents remained in housing. Residents living in housing with better fidelity to consumer participation were more likely to remain housed. However, factors including providers' training, supervision, and skills were not related to housing retention.	Yes for housing with consumer participation
Gilmer, Stefancic, Katz, et al., 2014[kk]	Individuals with serious mental illness who are homeless or at risk of homelessness	Primarily apartments or SRO hotels (n=1,858)	Primarily congregate or group residential settings (n=1,245)	Intensive case management or modified ACT model	Intensive case management or modified ACT model	After adjusting for resident characteristics, residents in housing with low fidelity to Housing First saw days spent homeless in the year after obtaining housing decline by 34 compared to 87 for residents in housing with high fidelity to Housing First. After adjusting for resident characteristics and days spent in a residential setting prior to program entry, the declines were 53 days and 63 days, respectively.	Yes

Source: The citations for each study summarized by CRS are in the table notes.

a. Statistical significance protects against finding a relationship between variables in the study sample that does not exist in the population (known as type I error). Researchers establish a threshold for the maximum tolerable risk of type I error (by convention, not higher than 5%, written as $p \leq 0.05$). In this table, a "Yes" for statistically significant means $p \leq 0.05$.

b. Michael S. Hurlburt, Richard L. Hough, and Patricia A. Wood, "Effects of Substance Abuse on Housing Stability of Homeless Mentally Ill Persons in Supported Housing," *Psychiatric Services*, vol. 47, no. 7 (July 1996), pp. 734-735.

c. Sam Tsemberis, "From Streets to Homes: An Innovative Approach to Supported Housing for Homeless Adults with Psychiatric Disabilities," *Journal of Community Psychology*, vol. 27, no. 2 (March 1999).

d. Stephen M. Goldfinger, Russell K. Schutt, George S. Tolomiczenko, et al., "Housing Placement and Subsequent Days Homeless Among Formerly Homeless Adults with Mental Illness," *Psychiatric Services*, vol. 50, no. 5 (May 1999), p. 677.

e. Frank R. Lipton, Carole Siegel, Anthony Hannigan, Judy Samuels, and Sherryl Baker, "Tenure in Supportive Housing for Homeless Persons with Severe Mental Illness," *Psychiatric Services*, vol. 51, no. 4 (April 2000), p. 484.

f. Sam Tsemberis and Ronda F. Eisenberg, "Pathways to Housing: Supported Housing for Street-Dwelling Homeless Individuals With Psychiatric Disabilities," *Psychiatric Services*, vol. 51, no. 4 (April 2000), p. 491.

g. Colleen Clark and Alexander R. Rich, "Outcomes of Homeless Adults With Mental Illness in a Housing Program and in Case Management Only," *Psychiatric Services*, vol. 54, no. 1 (January 2003), pp. 81-82.

h. Leyla Gulcur, Ana Stefancic, Marybeth Shinn, Sam Tsemberis, and Sean N. Fischer, "Housing, Hospitalization, and Cost Outcomes for Homeless Individuals with Psychiatric Disabilities Participating in Continuum of Care and Housing First Programmes," *Journal of Community and Applied Social Psychology*, vol. 13; no. 2 (March/April 2003), pp. 177-178.

i. Until recently (with the publication of its 5th edition in 2013), the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders used an assessment system with multiple categories (called axes), in which Axis I included "clinical disorders" and "other conditions that may be a focus of clinical attention," and Axis II included "personality disorders" and "mental retardation."

j. Robert Rosenheck, Wesley Kasprow, Linda Frisman, and Wen Liu-Mares, "Cost-effectiveness of Supported Housing for Homeless Persons with Mental Illness," *Journal of the American Medical Association*, vol. 60, no. 9 (September 2003), pp. 945, 947-948.

k. Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004).

l. Alvin S. Mares, Wesley J. Kasprow, and Robert A. Rosenheck, "Outcomes of Supported Housing for Homeless Veterans with Psychiatric and Substance Abuse Problems," *Mental Health Services Research*, vol. 6, no. 4 (December 2004), pp. 206, 209.

m. Tia E. Martinez and Martha R. Burt, "Impact of Permanent Supportive Housing on the Use of Acute Care Health Services by Homeless Adults," *Psychiatric Services*, vol. 57, no. 7 (July 2006), p. 4.

n. Martinez and Burt (2006) had a comparison group, but the group was not used to compare time in housing to the intervention group. Rather, the comparison group was used in comparing emergency room and hospital use.

o. Carole E. Siegel, Judith Samuels, Dei-In Tang, Ilyssa Berg, Kristine Jones, and Kim Hopper, "Tenant Outcomes in Supported Housing and Community Residences in New York City," *Psychiatric Services*, vol. 57, no. 7 (July 2006).

p. Eric R. Kessell, Rajiv Bhatia, Joshua D. Bamberger, and Margot B. Kushel, "Public Health Care Utilization in a Cohort of Homeless Adult Applicants to a Supportive Housing Program," *Journal of Urban Health*, vol. 83, no. 5 (September 2006).

q. Kessell, et al. (2006) had a comparison group, but the group was not used to compare time in housing to the intervention group. Rather, the comparison group was used in comparing service use before and after the housing intervention.

r. Ana Stefancic and Sam Tsemberis, "Housing First for Long-Term Shelter Dwellers with Psychiatric Disabilities in a Suburban County: A Four-Year Study of Housing Access and Retention," *Journal of Primary Prevention*, 28:265-279 (June 2007), p. 272.

s. Daniel K. Malone, "Assessing Criminal History as a Predictor of Future Housing Success for Homeless Adults with Behavioral Health Disorders," *Psychiatric Services*, vol. 60, no. 2 (February 2009), pp. 227-228.

t. Carol Pearson, Ann Elizabeth Montgomery, and Gretchen Locke, "Housing Stability Among Homeless Individuals with Serious Mental Illness Participating in Housing First Programs," *Journal of Community Psychology*, vol. 37, no. 3 (April 2009), pp. 410-412.

u. Russell K. Schutt and Stephen M. Goldfinger, "Fundamental Causes of Housing Loss among Persons Diagnosed with Serious and Persistent Mental Illness: A Theoretically Guided Test," *Asian Journal of Psychiatry*, vol. 2, no. 4 (December 2009), p. 6-7.

v. Todd Gilmer, Ana Stefancic, Susan L. Ettner, Willard G. Manning, and Sam Tsemberis, "Effect of Full-Service Partnerships on Homelessness, Use and Costs of Mental Health Services, and Quality of Life Among Adults With Serious Mental Illness," *Archives of General Psychiatry*, vol. 67, no. 6 (June 2010).

w. Richard J. Wolitski, Daniel P. Kidder, Sherri L. Pals, et al., "Randomized Trial of the Effects of Housing Assistance on the Health and Risk Behaviors of Homeless and Unstably Housed People Living with HIV," *AIDS and Behavior*, vol. 14, no. 3 (June 2010).

x. Jack Tsai, Alvin S. Mares, and Robert Rosenheck, "A Multisite Comparison of Supported Housing for Chronically Homeless Adults: 'Housing First' versus 'Residential Treatment First'," *Psychological Services*, vol. 7, no. 4 (November 2010), p. 227.

y. Ellen Lockard Edens, Alvin S. Mares, Jack Tsai, and Robert A. Rosenheck, "Does Active Substance Use at Housing Entry Impair Outcomes in Supported Housing for Chronically Homeless Persons?" *Psychiatric Services*, vol. 62, no. 2 (February 2011), pp. 175-176.

z. Deborah K. Padgett, Victoria Stanhope, Ben F. Henwood, and Ana Stefancic, "Substance Use Outcomes Among Homeless Clients with Serious Mental Illness: Comparing Housing First with Treatment First Programs," *Community Mental Health Journal*, vol. 47, no. 2 (April 2011).

aa. Alvin S. Mares and Robert A. Rosenheck, "A Comparison of Treatment Outcomes Among Chronically Homeless Adults Receiving Comprehensive Housing and Health Care Services Versus Usual Local Care," *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 38, no. 6 (November 2011).

bb. Sam Tsemberis, Douglas Kent, and Christy Respress, "Housing Stability and Recovery Among Chronically Homeless Persons with Co-Occurring Disorders in Washington, DC," *American Journal of Public Health*, vol. 102, no. 1 (January 2012).

cc. Martha R. Burt, "Impact of Housing and Work Supports on Outcomes for Chronically Homeless Adults with Mental Illness: LA's HOPE," *Psychiatric Services*, vol. 63, no. 3 (March 2012), pp. 211-213.

dd. Philip W. Appel, Sam Tsemberis, Herman Joseph, Ana Stefancic, and Dawn Lambert-Wacey, "Housing First for Severely Mentally Ill Homeless Methadone Patients," *Journal of Addictive Diseases*, vol. 31, no. 3 (October 2012).

ee. Maria J. O'Connell, Wesley J. Kasprow, and Robert A. Rosenheck, "Differential Impact of Supported Housing on Selected Subgroups of Homeless Veterans with Substance Abuse Histories," *Psychiatric Services*, vol. 63, no. 12 (December 2012), p. 1202.

ff. Ann Elizabeth Montgomery, Lindsay L. Hill, Vincent Kane, and Dennis P. Culhane, "Housing Chronically Homeless Veterans: Evaluating the Efficacy of a Housing First Approach to HUD-VASH," *Journal of Community Psychology*, vol. 41, no. 4 (May 2013), pp. 511-512.

gg. Susan E. Collins, Daniel K. Malone, and Seema L. Clifasefi, "Housing Retention in Single-Site Housing First for Chronically Homeless Individuals with Severe Alcohol Problems," *American Journal of Public Health*, vol. 103, no. S2 (December 2013), p. S272.

hh. Ana Stefancic, Benjamin F. Henwood, Hilary Melton, et al., "Implementing Housing First in Rural Areas: Pathways Vermont," *American Journal of Public Health*, vol. 103, no. S2 (December 2013).

ii. N. Tejani, R. Rosenheck, J. Tsai, W. Kasprow, and J.F. McGuire, "Incarceration Histories of Homeless Veterans and Progression Through a National Supported Housing Program," Community Mental Health Journal, vol. 50, no. 5 (July 2014), p. 518.

jj. Clare Davidson, Charles Neighbors, Gerod Hall, et al., "Association of Housing First Implementation and Key Outcomes Among Homeless Persons with Problematic Substance Use," *Psychiatric Services*, vol. 65, no. 11 (November 2014), pp. 1321-1322.

kk. Todd P. Gilmer, Ana Stefancic, Marian L. Katz, et al., "Fidelity to the Housing First Model and Effectiveness of Permanent Supported Housing Programs in California," *Psychiatric Services* Vol. 65, no. 11 (November 2014), pp. 1315-1316.

Table B-2. Public Service Use and Costs

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Culhane, Metraux, and Hadley, 2002[b]	Chronically homeless individuals with severe mental illness	Scattered-site apartments, SROs, community residence facilities (n=4,679)	Matched pair control group with no direct housing assistance (n=3,338)	Psychosocial services	Matched care control group with no special access to services	Intervention group had statistically significant reductions in use of shelters, state hospitals, inpatient hospitals, VA hospitals, state prisons and city jails compared to comparison group; intervention group had increases in outpatient use. Service usage in each of these areas resulted in net cost reductions ($12,146 per participant per year), but housing costs ($13,570 per person per year) resulted in an increase in intervention costs of $1,425 to place an individual in housing.	Yes
Gulcur, Stefancic, Shinn, et al., 2003[c]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[d]	Independent apartments characterized as Housing First (n=99)	Sobriety and mental health treatment were prerequisites to housing (n=126)	Modified ACT model	Not specified	The comparison group spent more time hospitalized than the intervention group, with individuals from psychiatric institutions spending more time hospitalized than those recruited from the street. After 24 months, costs per day based on time spent homeless or in hospitals ranged from about $75-$125 for the intervention group and $100 to $150 for the comparison group (it is not clear if housing costs were included).	Yes
Rosenheck, Kasprow, Frisman, et al., 2003[e]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=182)	Two groups, neither with direct housing assistance (n=278)	Modified ACT model	Group 1: Modified ACT, Group 2: short-term case management	The total three-year costs of VA health care were highest for intervention group. The difference between the intervention group and the short-term case management group was $8,009 and the modified ACT group was $1,429. When non-VA costs were included, including housing, costs for intervention participants exceeded short-term case management participants by $10,295 and modified ACT by $7,137.	Yes for difference between intervention and short-term case management groups.

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Martinez, and Burt, 2006[f]	Homeless with at least two of substance use disorder, Axis I or II mental disorder,[d] and HIV-AIDS	Single-room occupancy units (n=236)	Waiting list participants who received housing a year later (n=25)	Array of onsite services available but voluntary	Not specified	Placement in housing reduced the number of emergency department visits and in-patient hospitalizations for intervention group. When compared to comparison group, only ER visit reductions were significant. Researchers estimated cost reduction of emergency department visits and in-patient hospitalizations of $1,300 per person per year for the first two years.	Yes for ER visits
Kessell, Bhatia, Bamberger, et al., 2006[g]	Dually diagnosed chronically homeless individuals	Units in three multifamily supportive housing developments (n=113)	Unsuccessful applicants for same housing units with no direct housing assistance (n=135)	Not specified	Not specified	There was not a statistically significant difference between the groups in mean service usage before and after the intervention. This included non-emergency health care, ambulance use, emergency department visits, inpatient and outpatient substance use and mental health treatment, and inpatient care.	No
Stefancic and Tsemberis, 2007[h]	Severe mental illness and long history of shelter use, some with co-occurring substance use disorder	Two groups provided with scattered-site apartments characterized as Housing First; one with an experienced provider (n=131), one with an inexperienced provider (n=130)	Shelter-based programs and transitional housing (n=51)	Two groups using ACT model; one experienced provider, one inexperienced provider	Not specified	Per diem costs for the two Housing First programs were lower than the cost of shelter reimbursement associated with the control group. The experienced and inexperienced provider program costs per participant per year were $18,850 and $21,971, respectively, while shelter reimbursement costs ranged from $24,269 to $43,530.	Not specified

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Gilmer, Manning, and Ettner, 2009[i]	Homeless individuals with mental illness	Safe havens, SROs, and scattered-site apartments characterized as Housing First (n=177)	Unspecified (administrative data match) (n=161)	ACT model	County mental health services	Researchers looked at mental health services costs and found that, relative to the comparison group, case management and outpatient costs increased (by $6,403 and $687, respectively) and inpatient/emergency and criminal justice costs decreased (by $6,103 and $579, respectively). Overall, per-client costs increased by $4,907 for the intervention group and $4,491 for the comparison group. Housing costs were not included.	No for total costs or outpatient costs, but yes for case management, inpatient care, and criminal justice involvement.
Larimer, Malone, Garner, et al., 2009[j]	Chronically homeless individuals with alcohol addiction	Studio apartments or semiprivate units in a single multifamily housing property characterized as Housing First (n=95)	Individuals waitlisted for units in the same development living on the street, or in shelters, hospitals, sobering centers, etc. (n=39)	24-hour onsite supportive services	Not specified	Taking into account Medicaid, hospital, and emergency department costs, researchers found a 53% cost rate reduction for the intervention group relative to the comparison group after six months. Median costs for the intervention group fell from $4,066 to $1,492 per month after six months, and costs for the comparison group fell from $3,318 to $1,932 per month. Researchers estimated that, including housing costs, monthly costs for housed participants were reduced by $2,249 per person relative to the comparison group.	Yes
Sadowski, Kee, VanderWeele, et al., 2009[k]	Individuals without stable housing in previous 30 days and with chronic illness	Respite care followed by group living arrangement or apartments characterized as Housing First (n=201)	No direct housing assistance (n=204)	Case management provided	Access to case management	Over 18 months, the intervention group reduced hospitalizations by 29%, days hospitalized by 29%, and emergency room visits by 24% compared to the comparison group.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Gilmer, Stefancic, Ettner, et al. 2010[l]	Chronically homeless with severe mental illness	Independent apartment or congregate housing characterized as Housing First (n=209)	No direct housing assistance; shelters, the street, psychiatric hospitals, jail, etc. (n=154)	ACT model	Public mental health services	Over one year, outpatient costs rose for the intervention participants relative to the comparison group by $9,180. Costs for inpatient, emergency, and justice system services fell by $6,882, $1,721, and $1,641, respectively, per participant per year. Together with increased housing costs of $3,180 per year, the cost of the Housing First program per participant per year, accounting for reduced spending, was $2,116 more than for comparison group.	No for total costs, but yes for each component.
Parker, 2010[m]	Homeless individuals with long-term disabilities	Unspecified permanent housing characterized as Housing First (n=20)	N/A	Range of supportive services and case management	N/A	Six months after program entry, emergency department visits, hospital admissions, and inpatient hospital days decreased.	No
Mares and Rosenheck, 2011[n]	Chronically homeless individuals	HUD-funded housing (n=281)	No direct housing assistance; shelters, the street, campgrounds, SRO hotels, etc. (n=104)	Modified ACT model and health and mental health services	Not specified	Over the two-year follow-up period, mean health costs, medical, mental health, and substance use treatment for housed participants over the previous three months were higher than those for the comparison group. The intervention group's health costs exceeded those of the comparison group ($4,544 compared to $3,326).	Yes for differences in mental health, substance use, and total health care costs.

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Basu, Kee, Buchanan, et al., 2012[o]	Individuals without stable housing in previous 30 days and chronic illness	Respite care followed by group living arrangement or apartments characterized as Housing First (n=201)	No direct housing assistance (n=204)	Onsite case management provided	Access to case management	Over 18 months, the intervention group saw annual cost increases relative to the comparison group in outpatient treatment (by $689), housing (by $3,154), and case management (by $183). Costs decreased for the intervention group relative to the comparison group for hospitalization ($6,786), emergency visits ($704), residential substance abuse treatment (SAT) ($383), nursing home ($895), and legal ($1,051). The total costs for the comparison group exceeded those of the intervention group by $6,307 (housing costs were included in total costs).	Yes for outpatient treatment, residential SAT, housing, and case management. No for hospitalization, ER visits, nursing home, legal, and total costs.
Srebnik, Connor, and Sylla, 2013[p]	Chronically homeless individuals with high inpatient or sobering center use	Units in multifamily housing characterized as Housing First (n=20)	No direct housing assistance (n=31)	Comprehensive supportive services available	Not specified	The intervention group saw reduced emergency room visits and sobering center visits relative to the comparison group in the year following admission; and average of 2.1 compared to 4.5 emergency room visits and 1.2 compared to 8.8 sobering center visits. The intervention group also significantly reduced hospital admissions and days spent hospitalized (but not relative to the comparison group).	Yes for emergency room and sobering center visits.

Source: The citations for each study summarized by CRS are in the table notes.

a. Statistical significance protects against finding a relationship between variables in the study sample that does not exist in the population (known as type I error). Researchers establish a threshold for the maximum tolerable risk of type I error (by convention, not higher than 5%, written as $p \leq 0.05$). In this table, a "Yes" for statistically significant means $p \leq 0.05$.

b. Dennis P. Culhane, Stephen Metraux, and Trevor Hadley, "Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing," *Housing Policy Debate*, vol. 13, no. 1 (2002), p. 136.

c. Leyla Gulcur, Ana Stefancic, Marybeth Shinn, Sam Tsemberis, and Sean N. Fischer, "Housing, Hospitalization, and Cost Outcomes for Homeless Individuals with Psychiatric Disabilities Participating in Continuum of Care and Housing First Programmes," *Journal of Community and Applied Social Psychology*, vol. 13; no. 2 (March/April 2003), p. 181.

d. Until recently (with the publication of its 5th edition in 2013), the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders used an assessment system with multiple categories (called axes), in which Axis I included "clinical disorders" and "other conditions that may be a focus of clinical attention," and Axis II included "personality disorders" and "mental retardation."

e. Robert Rosenheck, Wesley Kasprow, Linda Frisman, and Wen Liu-Mares, "Cost-effectiveness of Supported Housing for Homeless Persons with Mental Illness," *Journal of the American Medical Association*, vol. 60, no. 9 (September 2003), p. 948.

f. Tia E. Martinez and Martha R. Burt, "Impact of Permanent Supportive Housing on the Use of Acute Care Health Services by Homeless Adults," *Psychiatric Services*, vol. 57, no. 7 (July 2006), pp. 4-6.

g. Eric R. Kessell, Rajiv Bhatia, Joshua D. Bamberger, and Margot B. Kushel, "Public Health Care Utilization in a Cohort of Homeless Adult Applicants to a Supportive Housing Program," *Journal of Urban Health*, vol. 83, no. 5 (September 2006).

h. Ana Stefancic and Sam Tsemberis, "Housing First for Long-Term Shelter Dwellers with Psychiatric Disabilities in a Suburban County: A Four-Year Study of Housing Access and Retention," *Journal of Primary Prevention*, 28:265-279 (June 2007).

i. Todd Gilmer, Willard G. Manning, Susan L. Ettner, "A Cost Analysis of San Diego County's REACH Program for Homeless Persons," *Psychiatric Services*, vol. 60, no. 4 (April 2009), p. 449.

j. Mary E. Larimer, 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, "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*, vol. 301, no. 13 (April 2009), p. 1353.

k. Laura S. Sadowski, Romina A. Kee, Tyler J. VanderWeele, and David Buchanan, "Effect of a Housing and Case Management Program on Emergency Department Visits and Hospitalizations Among Chronically Ill Homeless Adults," *Journal of the American Medical Association*, vol. 301, no. 17 (May 6, 2009), pp. 1775-1776.

l. Todd Gilmer, Ana Stefancic, Susan L. Ettner, Willard G. Manning, and Sam Tsemberis, "Effect of Full-Service Partnerships on Homelessness, Use and Costs of Mental Health Services, and Quality of Life Among Adults With Serious Mental Illness," *Archives of General Psychiatry*, vol. 67, no. 6 (June 2010), p. 650.

m. David Parker, "Housing as an Intervention on Hospital Use: Access among Chronically Homeless Persons with Disabilities," *Journal of Urban Health*, vol. 87, no. 6 (December 2010).

n. Alvin S. Mares and Robert A. Rosenheck, "A Comparison of Treatment Outcomes Among Chronically Homeless Adults Receiving Comprehensive Housing and Health Care Services Versus Usual Local Care," *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 38, no. 6 (November 2011), p. 471.

o. Anirban Basu, Romina Kee, David Buchanan, and Laura S. Sadowski, "Comparative Cost Analysis of Housing and Case Management Program for Chronically Ill Homeless Adults Compared to Usual Care," *Health Services Research*, vol. 47, no. 1.2 (February 2012), p. 536.

p. Debra Srebnik, Tara Connor, and Laurie Sylla, "A Pilot Study of the Impact of Housing First—Supported Housing for Intensive Users of Medical Hospitalization and Sobering Services," *American Journal of Public Health*, vol. 103, no. 2 (February 2013), pp. 317-318.

Table B-3. Substance Use

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Clark and Rich, 2003[b]	Homeless individuals with severe mental illness classified as "high" "medium" or "low" impairment	Unspecified guaranteed housing (n=83)	No direct housing assistance (n=69)	Housing support services and case management including priority access to a range of services	Case management from mental health services provider	There was no significant difference between groups for days of drug use and days of alcohol use.	No
Rosenheck, Kasprow, Frisman, et al., 2003[c]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=182)	Two groups, neither with direct housing assistance (n=278)	Modified ACT model	Group 1: Modified ACT, Group 2: short-term case management	There were no significant differences between groups in drinking to intoxication, alcohol index score, or drug index score.	No
Tsemberis, Gulcur, and Nakae, 2004[d]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[e]	Independent apartments characterized as Housing First (n=87)	Sobriety and mental health treatment were prerequisites to housing (n=119)	Modified ACT model	Not specified	After 24 months, there was no significant difference in substance use between the two groups, though the comparison group had higher use of substance abuse treatment programs.	Yes for use of treatment programs

		Housing Type		Services Type			
Study	**Population**	**Intervention Group**	**Comparison Group**	**Intervention Group**	**Comparison Group**	**Outcomes**	**Statistically Significant?[a]**
Padgett, Gulcur, and Tsemberis, 2006[f]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[e]	Independent apartments characterized as Housing First (n=99)	Sobriety and mental health treatment were prerequisites to housing (n=126)	Modified ACT model	Not specified	After 48 months, there was no significant difference in drug or alcohol use between the two groups. Comparison group members used substance abuse treatment at higher rates than those in the intervention group.	Yes for substance abuse treatment at 36 and 48 months.
Cheng, Lin, Kasprow, et al., 2007[g]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=182)	Two groups, neither with direct housing assistance (n=278)	Modified ACT model	Group 1: Modified ACT, Group 2: short-term case management	Over three years, the intervention group experienced fewer days drinking to intoxication (69 compared to 102) and fewer days of drug use (100 compared to 129) than those in the short-term case management group and fewer days of alcohol use than both groups (123 compared to 175 for short-term case management and 178 for modified ACT).	Yes
Larimer, Malone, Garner, et al., 2009[h]	Chronically homeless individuals with alcohol addiction	Studio apartments or semiprivate units in a single multifamily housing property characterized as Housing First (n=95)	Individuals waitlisted for units in the same development living on the street, or in shelters, hospitals, sobering centers, etc. (n=39)	24-hour onsite supportive services	Not specified	Over 12 months, drinks per day had decreased for the intervention group from 15.7 to 10.6. The number of days in which housed participants reported drinking to intoxication also declined from 28 days out of 30 at baseline to 10 out of 30 after 12 months.	Yes for days drinking to intoxication before and after housing but no comparison was made to comparison group.

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Pearson, Montgomery, and Locke, 2009[i]	Primarily chronically homeless individuals with serious mental illness and history of substance abuse	Sample from three Housing First programs with a range of scattered-site, apartments in dedicated multifamily properties, SROs, and safe havens (n=80)	N/A	ACT or modified ACT model	N/A	Over the first 12 months in housing, there were no significant trends in substance use among participants.	No
Tsai, Mares, and Rosenheck, 2010[j]	Chronically homeless individuals	Moved from homelessness to HUD-funded housing characterized as Housing First (n=570)	Spent time in residential treatment prior to HUD-funded housing (n=121)	Not specified	Not specified	Participants who had spent time in residential treatment incurred higher substance abuse service costs over 24 months.	Yes
Edens, Mares, Tsai, et al. 2011[k]	Chronically homeless individuals	Moved from homelessness to HUD-funded housing characterized as Housing First (n=120 high-frequency substance users and n=290 abstainers)	N/A	Services consistent with intensive case management or Housing First	N/A	Over 24 months, high-frequency substance users decreased days intoxicated, and the percentage using drugs over the previous 30 days declined. The percentage of abstainers using drugs increased after moving into housing. Scores on the Addiction Severity Index (ASI)[l] for alcohol and drugs were higher for high-frequency substance users than abstainers. High-frequency substance users decreased outpatient substance use treatment visits by 50% within the first six months, with a slight increase by the end of 24 months.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Padgett, Stanhope, Henwood, et al., 2011[m]	Axis I diagnosis[e] and history of substance abuse	Scattered-site housing characterized as Housing First (n=27)	Sobriety required for transitional housing ("treatment first") (n=48)	ACT model	Not specified	Participants in the comparison group were 3.4 times more likely to use illicit drugs and/or have frequent or heavy alcohol use and 10 times more likely to use substance abuse services than those in the Housing First group.	Yes
Mares and Rosenheck, 2011[n]	Chronically homeless individuals	HUD-funded housing (n=281)	No direct housing assistance; shelters, the street, campgrounds, SRO hotels, etc. (n=104)	Modified ACT model and health and mental health services	Not specified	During two-year follow up, substance use outcomes were largely unchanged within groups and over time.	No
Tsemberis, Kent, and Respress, 2012[o]	Co-occurring psychiatric and substance use disorders with at least five years of homelessness	Scattered-site apartments characterized as Housing First (n=36)	N/A	ACT model	N/A	After two years, there were reductions in alcohol impact and higher addiction recovery scores.	Yes
Collins, Malone, Clifasefi, et al., 2012[p]	Chronically homeless individuals with alcohol addiction	Studio apartments or semiprivate units in a single multifamily housing property characterized as Housing First (n=95)	N/A	24-hour onsite supportive services	N/A	Over two years, participants in the intervention group reported decreased alcohol intake both in the typical quantities and peak quantities (from 40 to 26 drinks) consumed. The percentage of participants reporting that they did not drink to intoxication at least one day in 30 grew from 54% to 73%. Self-reported experience of delirium tremens was reduced from 65% to 23%.	Yes for typical and peak alcohol intake and drinking to intoxication

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Tsai, Mares, and Rosenheck, May 2012[q]	Chronically homeless individuals	HUD-funded housing (n=550)	N/A	Supportive primary health care and mental health services	N/A	Over 12 months, there were small decreases in the number of participants reporting drug use over the previous month (from 41% to 39%) and in Addiction Severity Index (ASI) alcohol scores; ASI drug scores remained the same.	Yes
Appel, Tsemberis, Joseph, et al., 2012[r]	Homeless individuals with mental illness receiving methadone treatment	HUD-funded scattered-site apartments characterized as Housing First (n=31)	No direct housing assistance (n=30)	ACT model	Not specified	64.5% of the intervention group was retained in methadone treatment after about eight months compared to 33.3% of the comparison group. After about 24 months the numbers had fallen to 51.6% and 20.0%.	Yes
Davidson, Neighbors, Hall, et al., 2014[s]	Chronically homeless individuals with substance use issues	Scattered-site housing characterized as Housing First	Scattered-site housing characterized as Housing First	Services with high fidelity to consumer participation	Services with low fidelity to consumer participation	Researchers followed 358 residents in housing characterized as Housing First, but some of the nine housing providers exercised greater fidelity to the consumer participation component of Housing First (including consumer choice and harm reduction). Residents living in housing with greater fidelity to consumer participation were more likely to reduce use of opiates and stimulates compared to residents of housing with lower fidelity. However, there was no relationship between consumer participation and alcohol or marijuana use.	Yes for housing with consumer participation

Source: The citations for each study summarized by CRS are in the table notes.

a. Statistical significance protects against finding a relationship between variables in the study sample that does not exist in the population (known as type I error). Researchers establish a threshold for the maximum tolerable risk of type I error (by convention, not higher than 5%, written as $p \leq 0.05$). In this table, a "Yes" for statistically significant means $p \leq 0.05$.

b. Colleen Clark and Alexander R. Rich, "Outcomes of Homeless Adults With Mental Illness in a Housing Program and in Case Management Only," *Psychiatric Services*, vol. 54, no. 1 (January 2003), p. 82.

c. Robert Rosenheck, Wesley Kasprow, Linda Frisman, and Wen Liu-Mares, "Cost-effectiveness of Supported Housing for Homeless Persons with Mental Illness," *Journal of the American Medical Association*, vol. 60, no. 9 (September 2003), p. 945.

d. Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004), p. 654.

e. Until recently (with the publication of its 5th edition in 2013), the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders used an assessment system with multiple categories (called axes), in which Axis I included "clinical disorders" and "other conditions that may be a focus of clinical attention," and Axis II included "personality disorders" and "mental retardation."

f. Deborah K. Padgett, Leyla Gulcur, and Sam Tsemberis, "Housing First Services for People Who Are Homeless With Co-Occurring Serious Mental Illness and Substance Abuse," *Research on Social Work Practice*, vol. 26, no. 1 (January 2006), p. 79.

g. An-Lin Cheng, Haiqun Lin, Wesley Kasprow, and Robert A. Rosenheck, "Impact of Supported Housing on Clinical Outcomes Analysis of a Randomized Trial Using Multiple Imputation Technique," *Journal of Nervous and Mental Disease*, vol. 195, no. 1 (January 2007), Table 2.

h. Mary E. Larimer, 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, "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*, vol. 301, no. 13 (April 2009), pp. 1354-1355.

i. Carol Pearson, Ann Elizabeth Montgomery, and Gretchen Locke, "Housing Stability Among Homeless Individuals with Serious Mental Illness Participating in Housing First Programs," *Journal of Community Psychology*, vol. 37, no. 3 (April 2009).

j. Jack Tsai, Alvin S. Mares, and Robert Rosenheck, "A Multisite Comparison of Supported Housing for Chronically Homeless Adults: 'Housing First' versus 'Residential Treatment First'," *Psychological Services*, vol. 7, no. 4 (November 2010), p. 229.

k. Ellen Lockard Edens, Alvin S. Mares, Jack Tsai, and Robert A. Rosenheck, "Does Active Substance Use at Housing Entry Impair Outcomes in Supported Housing for Chronically Homeless Persons?" *Psychiatric Services*, vol. 62, no. 2 (February 2011), pp. 175-177.

l. The ASI asks respondents questions meant to elicit the severity of substance addiction (from no problem to extreme problem).

m. Deborah K. Padgett, Victoria Stanhope, Ben F. Henwood, and Ana Stefancic, "Substance Use Outcomes Among Homeless Clients with Serious Mental Illness: Comparing Housing First with Treatment First Programs," *Community Mental Health Journal*, vol. 47, no. 2 (April 2011), p. 230.

n. Alvin S. Mares and Robert A. Rosenheck, "A Comparison of Treatment Outcomes Among Chronically Homeless Adults Receiving Comprehensive Housing and Health Care Services Versus Usual Local Care," *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 38, no. 6 (November 2011), pp. 470, 472.

o. Sam Tsemberis, Douglas Kent, and Christy Respress, "Housing Stability and Recovery Among Chronically Homeless Persons with Co-Occurring Disorders in Washington, DC," *American Journal of Public Health*, vol. 102, no. 1 (January 2012).

p. Susan E. Collins, Daniel K. Malone, Seema L. Clifasefi, et al., "Project-Based Housing First for Chronically Homeless Individuals With Alcohol Problems: Within-Subjects Analyses of 2-Year Alcohol Trajectories," *American Journal of Public Health* , vol. 102, no. 3 (March 2012), p. 514.

q. Jack Tsai, Alvin S. Mares, and Robert A. Rosenheck, "Does Housing Chronically Homeless Adults Lead to Social Integration?" *Psychiatric Services*, vol. 63, no. 5 (May 2012), p. 430.

r. Philip W. Appel, Sam Tsemberis, Herman Joseph, Ana Stefancic, and Dawn Lambert-Wacey, "Housing First for Severely Mentally Ill Homeless Methadone Patients," *Journal of Addictive Diseases*, vol. 31, no. 3 (October 2012), p. 274.

s. Clare Davidson, Charles Neighbors, Gerod Hall, et al., "Association of Housing First Implementation and Key Outcomes Among Homeless Persons with Problematic Substance Use," *Psychiatric Services*, vol. 65, no. 11 (November 2014), pp. 1321-1322.

Table B-4. Mental Health

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Clark and Rich, 2003[b]	Homeless individuals with severe mental illness classified as "high" "medium" or "low" impairment	Unspecified guaranteed housing (n=83)	No direct housing assistance (n=69)	Housing support services and case management including priority access to a range of services	Case management from mental health services provider	Over 12 months, there was no significant difference between groups for psychiatric symptoms reported using the Colorado Symptom Index (CSI).[c]	No
Gulcur, Stefancic, Shinn, et al., 2003[d]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[e]	Independent apartments characterized as Housing First (n=99)	Sobriety and mental health treatment were prerequisites to housing (n=126)	Modified ACT model	Not specified	The comparison group spent more time in psychiatric hospitals than the intervention group, with individuals who had previously been in psychiatric hospitals spending more time hospitalized than those who had been living on the street.	Yes
Rosenheck, Kasprow, Frisman, et al., 2003[f]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=182)	Two groups, neither with direct housing assistance (n=278)	Modified ACT model	Group 1: Modified ACT, Group 2: short-term case management	There were no significant differences between groups in terms of psychiatric outcomes using the Brief Symptom Inventory (BSI).[g]	No

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Tsemberis, Gulcur, and Nakae, 2004[h]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[e]	Independent apartments characterized as Housing First (n=87)	Sobriety and mental health treatment were prerequisites to housing (n=119)	Modified ACT model	Not specified	After 24 months, there were no significant differences in psychiatric symptoms between the intervention and comparison groups.	No
Greenwood, Schaefer-McDaniel, Winkel, et al., 2005[i]	Individuals who were homeless for 15 of last 30 days or with "unsteady" housing history over previous six months and with Axis I psychiatric diagnosis[e]	Scattered-site apartments characterized as Housing First (n=93)	Sobriety and mental health treatment were prerequisites to housing (n=104)	Modified ACT model	Not specified	There was a decrease in psychiatric symptoms based on the Colorado Symptom Index[c] over the six assessment periods; program assignment was not associated with decreased symptoms.	No
Padgett, Gulcur, and Tsemberis, 2006[j]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[e]	Independent apartments characterized as Housing First (n=99)	Sobriety and mental health treatment were prerequisites to housing (n=126)	Modified ACT model	Not specified	Comparison group members used mental health treatment at higher rates than those in the intervention group.	Yes but only at 48 months

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Cheng, Lin, Kasprow, et al., 2007[k]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=182)	Two groups, neither with direct housing assistance (n=278)	Modified ACT model	Group 1: Modified ACT, Group 2: short-term case management	Psychiatric symptom improvements were not found using the BSI.[g]	No
Pearson, Montgomery, and Locke, 2009[l]	Primarily chronically homeless individuals with serious mental illness and history of substance abuse	Sample from three Housing First programs with a range of scattered-site apartments in dedicated multifamily properties, SROs, and safe havens (n=80)	N/A	ACT or modified ACT model	N/A	Over the first 12 months in housing, there were no trends in psychiatric symptoms among participants.	No
Gilmer, Stefancic, Ettner, et al., 2010[m]	Chronically homeless with severe mental illness	Independent apartments or congregate housing characterized as Housing First (n=209)	No direct housing assistance; shelters, the street, psychiatric hospitals, jail, etc. (n=154)	ACT model	Public mental health services	Intervention group participants increased case management, medication management, and therapy relative to the comparison group.	Yes
Wolitski, Kidder, Pals, et al., 2010[n]	Homeless or at severe risk and living with HIV/AIDS	Own room, apartment, or house funded through HUD HOPWA assistance (n=315)	Housing search assistance (n=314)	Case management	Case management	Over 18 months, both groups saw improvements in depression (based on the Center for Epidemiologic Studies Depression Scale)[o] and perceived mental health (based on three different assessments).	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Edens, Mares, Tsai, et al., 2011[p]	Chronically homeless individuals	Moved from homelessness to HUD-funded housing characterized as Housing First (n=120 high-frequency substance, users and n=290 abstainers)	N/A	Services consistent with intensive case management or Housing First	N/A	Over 24 months, high-frequency substance users had poorer scores on three measures of mental health status—the SF-12, BSI,[g] and observed psychosis scale—than abstainers. They also showed less improvement on the BSI than abstainers. There were no significant differences in mental health service use between groups.	Yes
Mares and Rosenheck, 2011[q]	Chronically homeless individuals	HUD-funded housing (n=281)	No direct housing assistance; shelters, the street, campgrounds, SRO hotels, etc. (n=104)	Modified ACT model and health and mental health services	Not specified	During two-year follow up, there were no significant differences in mental health outcomes, measured on three scales, between groups and over time.	No
Tsemberis, Kent, and Respress, 2012[r]	Co-occurring psychiatric and substance use disorders with at least five years of homelessness	Scattered-site apartments characterized as Housing First (n=36)	N/A	ACT model	N/A	Self-reports of psychological distress were reduced among intervention group members.	Yes at six months and two years, but no at one year.
Tsai, Mares, and Rosenheck, May 2012[s]	Chronically homeless individuals	HUD-funded housing (n=550)	N/A	Supportive primary health care and mental health services	N/A	Over 12 months, there were small increases in SF-12 mental health scores (representing improvement) and decreases in BSI scores[g] (representing improvement).	Yes

Source: The citations for each study summarized by CRS are in the table notes.

a. Statistical significance protects against finding a relationship between variables in the study sample that does not exist in the population (known as type I error). Researchers establish a threshold for the maximum tolerable risk of type I error (by convention, not higher than 5%, written as $p \leq 0.05$). In this table, a "Yes" for statistically significant means $p \leq 0.05$.

b. Colleen Clark and Alexander R. Rich, "Outcomes of Homeless Adults With Mental Illness in a Housing Program and in Case Management Only," *Psychiatric Services*, vol. 54, no. 1 (January 2003), p. 82.

c. The CSI asks respondents to rate the frequency of various psychiatric symptoms during the past month.

d. Leyla Gulcur, Ana Stefancic, Marybeth Shinn, et al., "Housing, Hospitalization, and Cost Outcomes for Homeless Individuals with Psychiatric Disabilities Participating in Continuum of Care and Housing First Programmes," *Journal of Community and Applied Social Psychology*, vol. 13, no. 2 (March/April 2003), p. 179.

e. Until recently (with the publication of its 5th edition in 2013), the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders used an assessment system with multiple categories (called axes), in which Axis I included "clinical disorders" and "other conditions that may be a focus of clinical attention," and Axis II included "personality disorders" and "mental retardation."

f. Robert Rosenheck, Wesley Kasprow, Linda Frisman, and Wen Liu-Mares, "Cost-effectiveness of Supported Housing for Homeless Persons with Mental Illness," *Journal of the American Medical Association*, vol. 60, no. 9 (September 2003), p. 945.

g. The BSI asks respondents 53 items about the presence and intensity of psychiatric symptoms.

h. Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004).

i. Ronni M. Greenwood, Nicole J. Schaefer-McDaniel, Gary Winkel, and Sam J. Tsemberis, "Decreasing Psychiatric Symptoms by Increasing Choice in Services for Adults with Histories of Homelessness," *American Journal of Community Psychology*, vol. 36, nos. 3/4 (December 2005), p. 234.

j. Deborah K. Padgett, Leyla Gulcur, and Sam Tsemberis, "Housing First Services for People Who Are Homeless With Co-Occurring Serious Mental Illness and Substance Abuse," *Research on Social Work Practice*, vol. 26, no. 1 (January 2006), p. 79.

k. An-Lin Cheng, Haiqun Lin, Wesley Kasprow, and Robert A. Rosenheck, "Impact of Supported Housing on Clinical Outcomes Analysis of a Randomized Trial Using Multiple Imputation Technique," *Journal of Nervous and Mental Disease*, vol. 195, no. 1 (January 2007), p. 6.

l. Carol Pearson, Ann Elizabeth Montgomery, and Gretchen Locke, "Housing Stability Among Homeless Individuals with Serious Mental Illness Participating in Housing First Programs," *Journal of Community Psychology*, vol. 37, no. 3 (April 2009), p. 414.

m. Todd Gilmer, Ana Stefancic, Susan L. Ettner, Willard G. Manning, and Sam Tsemberis, "Effect of Full-Service Partnerships on Homelessness, Use and Costs of Mental Health Services, and Quality of Life Among Adults With Serious Mental Illness," *Archives of General Psychiatry*, vol. 67, no. 6 (June 2010), p. 649.

n. Richard J. Wolitski, Daniel P. Kidder, Sherri L. Pals, et al., "Randomized Trial of the Effects of Housing Assistance on the Health and Risk Behaviors of Homeless and Unstably Housed People Living with HIV," *AIDS and Behavior*, vol. 14, no. 3 (June 2010), pp. 498-499.

o. The Center for Epidemiological Studies Depression Scale asks respondents to rate how often they experienced each of 20 symptoms over the past week.

p. Ellen Lockard Edens, Alvin S. Mares, Jack Tsai, and Robert A. Rosenheck, "Does Active Substance Use at Housing Entry Impair Outcomes in Supported Housing for Chronically Homeless Persons?" *Psychiatric Services*, vol. 62, no. 2 (February 2011), pp. 175-176.

q. Alvin S. Mares and Robert A. Rosenheck, "A Comparison of Treatment Outcomes Among Chronically Homeless Adults Receiving Comprehensive Housing and Health Care Services Versus Usual Local Care," *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 38, no. 6 (November 2011), p. 470.

r. Sam Tsemberis, Douglas Kent, and Christy Respress, "Housing Stability and Recovery Among Chronically Homeless Persons with Co-Occurring Disorders in Washington, DC," *American Journal of Public Health*, vol. 102, no. 1 (January 2012), p. 14.

s. Jack Tsai, Alvin S. Mares, and Robert A. Rosenheck, "Does Housing Chronically Homeless Adults Lead to Social Integration?" *Psychiatric Services*, vol. 63, no. 5 (May 2012), p. 430.

Table B-5. Resident Satisfaction and Quality of Life

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Rosenheck, Kasprow, Frisman, et al., 2003[b]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=182)	Two groups, neither with direct housing assistance (n=278)	Modified ACT model	Group 1: Modified ACT, Group 2: short-term case management	The intervention group reported larger social networks (people they felt close to), a higher level of satisfaction in their family relationships, higher levels of satisfaction with housing than those who found housing in the other two groups; and experiencing fewer housing problems. However, in measures of housing quality group 1 participants had higher reported housing quality than intervention and group 2 participants.	Yes
Tsemberis, Gulcur, and Nakae, 2004[c]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[d]	Independent apartments characterized as Housing First (n=87)	Sobriety and mental health treatment were prerequisites to housing (n=119)	Modified ACT model	Not specified	Intervention participants reported higher levels of consumer choice than the comparison group.	Yes
Yanos, Barrow, and Tsemberis, 2004[e]	Individuals leaving psychiatric institutions and homeless individuals from the street with Axis I psychiatric diagnosis[d]	Independent apartments characterized as Housing First (n=46)	Sobriety and mental health treatment were prerequisites to housing (n=34)	Modified ACT model	Not specified	The majority of both groups had an overall positive reaction to housing (80.8% for intervention and 69.6% for comparison) and to their sense of safety (62.3% for intervention and 69.6% for comparison). As to "Sense of Fitting in Community," 41.2% of the intervention group and 31.8% of the comparison group reported having a problem fitting in.	Not measured

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Greenwood, Schaefer-McDaniel, Winkel, et al., 2005[f]	Individuals who were homeless for 15 of last 30 days or with "unsteady" housing history over previous six months and with Axis I psychiatric diagnosis[d]	Scattered-site apartments characterized as Housing First (n=93)	Sobriety and mental health treatment were prerequisites to housing (n=104)	Modified ACT model	Not specified	Intervention group participants reported higher levels of choice. Perceived choice and "mastery" (feelings of control) were related to decreased psychiatric symptoms.	Yes
O'Connell, Rosenheck, Kasprow, et al., 2006[g]	Homeless veterans with mental health or substance abuse problems	HUD-funded Section 8 housing (n=523)	N/A	Modified ACT model	N/A	After one year, the percentage of preferred housing features obtained by residents was significantly associated with quality of life. However, the percentage of preferred housing outcomes was not associated with clinical outcomes (psychiatric symptoms, alcohol and drug use, medical problems, days in an inpatient psychiatric hospital).	Yes
Siegel, Samuels, Tang, et al., 2006[h]	Individuals with a history of homelessness and severe mental illness	Scattered-site studio or one-bedroom apartments (n=67)	Studio apartments in one building; housing contingent on abstinence (n=72)	ACT model	Onsite crisis services and case management available but voluntary	After 18 months, among participants who stayed in their initial housing placement at least 365 days, those in the intervention group reported greater housing satisfaction. However, some participants in the intervention group reported greater feelings of isolation, and some also reported feeling less empowered compared to those in the comparison group. Participants with high baseline scores on depression-anxiety, regardless of housing type, were more likely to have less housing satisfaction, higher levels of crisis intervention, more isolation, less empowerment, and a lower quality of life. Participants who used both alcohol and drugs (compared to alcohol users alone) had less community integration and less housing satisfaction in terms of autonomy and social aspects.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Gilmer, Stefancic, Ettner, et al. 2010[i]	Chronically homeless individuals with severe mental illness	Independent apartments or congregate housing characterized as Housing First (n=209)	No direct housing assistance; shelters, the street, psychiatric hospitals, jail, etc. (n=154)	ACT model	Public mental health services	When surveyed about satisfaction with various life circumstances (e.g., living situation, family and social relationships), intervention group participants had more favorable responses in all categories than the comparison group.	Yes
Tsai, Mares, and Rosenheck, 2010[j]	Chronically homeless individuals	Moved from homelessness to HUD-funded housing characterized as Housing First (n=570)	Spent time in residential treatment prior to HUD-funded housing (n=121)	Not specified	Not specified	Among those with substance use disorders, the group that spent time in residential treatment prior to housing reported greater satisfaction than the group that immediately moved to permanent housing (other community integration items not significant).	Yes
Tsai, Mares, and Rosenheck, May 2012[k]	Chronically homeless individuals	HUD-funded housing (n=550)	N/A	Supportive primary health care and mental health services	N/A	Community participation increased overall and in many subcategories, as did civic activity overall and in all subcategories. Responses regarding reliance on resources for social support increased for service providers but not for other categories (e.g., clergy and neighbors).	Yes
Tsai, Mares, and Rosenheck, June 2012[l]	Chronically homeless individuals	HUD-funded housing (n=756)	N/A	Not specified	N/A	Over 24 months, participants reported slight declines in satisfaction with the quality of housing and positive case management contacts. There was an increase in satisfaction with landlord interaction. Housing satisfaction did not predict improvements in mental health, substance use, or duration in housing.	Yes

Study	Population	Housing Type		Services Type		Outcomes	Statistically Significant?[a]
		Intervention Group	Comparison Group	Intervention Group	Comparison Group		
O'Connell, Kasprow, and Rosenheck, 2012[m]	Homeless veterans with a major psychiatric disorder and/or substance use disorder	HUD-funded Section 8 housing (n=119)	Two groups, neither with direct access to housing (Modified ACT n=52, short-term case management n=88)	Modified ACT model	Group 1: Modified ACT, Group 2: short-term case management	Veterans without co-occurring mental disorders had better quality of life scores and more social contacts than those with co-occurring disorders (vs. substance use alone).	Yes

Source: The citations for each study summarized by CRS are in the table notes.

a. Statistical significance protects against finding a relationship between variables in the study sample that does not exist in the population (known as type I error). Researchers establish a threshold for the maximum tolerable risk of type I error (by convention, not higher than 5%, written as $p \leq 0.05$). In this table, a "Yes" for statistically significant means $p \leq 0.05$.

b. Robert Rosenheck, Wesley Kasprow, Linda Frisman, and Wen Liu-Mares, "Cost-effectiveness of Supported Housing for Homeless Persons with Mental Illness," *Journal of the American Medical Association*, vol. 60, no. 9 (September 2003), p. 945.

c. Sam Tsemberis, Leyla Gulcur, and Maria Nakae, "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals With a Dual Diagnosis," *American Journal of Public Health*, vol. 94, no. 4 (April 2004), p. 654.

d. Until recently (with the publication of its 5th edition in 2013), the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders used an assessment system with multiple categories (called axes), in which Axis I included "clinical disorders" and "other conditions that may be a focus of clinical attention," and Axis II included "personality disorders" and "mental retardation."

e. Philip T. Yanos, Susan M. Barrow, and Sam Tsemberis, "Community Integration in the Early Phase of Housing Among Homeless Persons Diagnosed with Severe Mental Illness: Successes and Challenges," *Community Mental Health Journal*, vol. 40, no. 2 (April 2004), pp. 139-140.

f. Ronni M. Greenwood, Nicole J. Schaefer-McDaniel, Gary Winkel, and Sam J. Tsemberis, "Decreasing Psychiatric Symptoms by Increasing Choice in Services for Adults with Histories of Homelessness," *American Journal of Community Psychology*, vol. 36, nos. 3/4 (December 2005), p. 234.

g. Maria O'Connell, Robert Rosenheck, Wesley Kasprow, and Linda Frisman, "An Examination of Fulfilled Housing Preferences and Quality of Life among Homeless Persons with Mental Illness and/or Substance Use Disorders," *The Journal of Behavioral Health Services and Research*," vol. 33, no. 3 (July 2006), pp. 361-363.

h. Carole E. Siegel, Judith Samuels, Dei-In Tang, Ilyssa Berg, Kristine Jones, and Kim Hopper, "Tenant Outcomes in Supported Housing and Community Residences in New York City," *Psychiatric Services*, vol. 57, no. 7 (July 2006), pp. 986, 989.

i. Todd Gilmer, Ana Stefancic, Susan L. Ettner, Willard G. Manning, and Sam Tsemberis, "Effect of Full-Service Partnerships on Homelessness, Use and Costs of Mental Health Services, and Quality of Life Among Adults With Serious Mental Illness," *Archives of General Psychiatry*, vol. 67, no. 6 (June 2010), p. 650.

j. Jack Tsai, Alvin S. Mares, and Robert Rosenheck, "A Multisite Comparison of Supported Housing for Chronically Homeless Adults: 'Housing First' versus 'Residential Treatment First'," *Psychological Services*, vol. 7, no. 4 (November 2010), p. 228.

k. Jack Tsai, Alvin S. Mares, and Robert A. Rosenheck, "Does Housing Chronically Homeless Adults Lead to Social Integration?" *Psychiatric Services*, vol. 63, no. 5 (May 2012), p. 432.

l. Jack Tsai, Alvin S. Mares, and Robert A. Rosenheck, "Housing Satisfaction Among Chronically Homeless Adults: Identification of its Major Domains, Changes Over Time, and Relation to Subjective Well-being and Functional Outcomes," *Community Mental Health Journal*, vol. 48, no. 3 (June 2012), pp. 259-260.

m. Maria J. O'Connell, Wesley J. Kasprow, and Robert A. Rosenheck, "Differential Impact of Supported Housing on Selected Subgroups of Homeless Veterans with Substance Abuse Histories," *Psychiatric Services*, vol. 63, no. 12 (December 2012), p. 1199.

Author Contact Information

(name redacted)
Specialist in Housing Policy
[redacted]@crs.loc.gov, 7-....

(name redacted)
Analyst in Health Policy
[redacted]@crs.loc.gov , 7-....

Acknowledgments

We are indebted to Taryl Crabtree, an intern at CRS in 2013, who provided valuable assistance by searching for articles, writing a literature review, categorizing research findings, and developing a detailed chart of resident outcomes. Without her assistance this report may never have been written.