

Health Equity: Permanent Supportive Housing with Housing First (Housing First Programs)

Summary Evidence Table

This table outlines information from the studies included in the Community Guide systematic review of Housing First Programs to Promote Health Equity. It details study quality, population and intervention characteristics, and study outcomes considered in this review. Complete references for each study can be found in the Included Studies section of the [review summary](#).

Abbreviations Used in This Document:

- ACT: Assertive Community Treatment
- ED: emergency department
- ER: emergency room
- HF: housing first
- HHS: Health and Human Services
- HS: high school
- HUD: Housing and Urban Development
- HUD-VASH: Housing and Urban Development-Veterans Affairs Supported Housing
- ICM: Intensive Case Management
- Pct pts: percentage points
- PTSD: post traumatic syndrome disorder
- QOL: quality of life
- TF: treatment first
- VA: Veterans Affairs

Outcomes Reported for This Review:

- Housing stability
- Physical health
- Mental health
- Substance abuse
- Wellness: QOL; community integration
- Health Care Utilization
- ED
- Hospital
- Substance treatment

Outcomes Reported for Studies Recruiting People Living with HIV:

- Housing stability and homelessness
- Specific health outcomes
- mortality
- physical health
- mental health

Notes:

- **Suitability of design** includes three categories: greatest, moderate, or least suitable design. [Read more](https://www.thecommunityguide.org/about/glossary#suitability-of-design) [https://www.thecommunityguide.org/about/glossary#suitability-of-design]
- **Quality of Execution** – Studies are assessed to have good, fair, or limited quality of execution. [Read more](https://www.thecommunityguide.org/about/glossary#quality-of-execution) [https://www.thecommunityguide.org/about/glossary#quality-of-execution]
- **Race/ethnicity** of the study population: The Community Guide only summarizes race/ethnicity for studies conducted in the United States.

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|--|----------|---------------|--------|--------------|----|-------|-------------|------------|----|------|------------|--------------------------------|--|--|--|------------------------------|--|--|--|--|----------|---------------|--------|--------------|-------|-------|--------------|------------|------|-------|--------------|----------------------------------|--|--|--|
| <p>Author Year: Appel et al. 2012</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Good</p> | <p>Location: New York City, New York, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: January 2006 Grant of 25 apartments in 2003; placement started in Mar 2005; enrollment completed by 2006</p> <p>Intervention Details: Program description: <i>Keeping Home Project</i> addressed residential and service needs of homeless, dually diagnosed patients with recent criminal justice involvement</p> <p>Requirement for staying in housing: none</p> <p>Scattered or grouped housing: scattered housing</p> <p>Control arm: dually diagnosed persons with criminal justice status entered a methadone treatment program during 2005-2006 as a homeless person</p> <p>Services Provided: Assertive community treatment: services such as psychiatric, nursing, vocational, social, and peer</p> | <p>Eligibility Criteria: recruited from jail near their release, hospitals, drop-in centers, and other local sites</p> <p>Homelessness: need to be homeless</p> <p>Mental health: diagnosed as seriously and persistently mentally ill with a primary Axis I diagnosis</p> <p>Substance use: enrolled in community-based methadone treatment program</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 61 Intervention: 31 Control: 30</p> <p>Attrition: NR</p> <p>Demographics: Mean age: 42.9 Gender: 73.8% male Race/Ethnicity: 59.0% Hispanic; 24.6% white; 14.8% African American; 1.6% unknown Education: 52.5% < HS; 26.2% HS or some college; 14.8% college grad; 6.6% missing Substance abuse: 100% Mental health: 100% diagnosed; 32.2% major depression; 29.0% bipolar; 19.3% schizophrenia; 12.9% other; 6.4% missing Physical Health: 66.8% has physical health problem</p> | <p>Outcome Measure: Housing stability: sustained housing at assessment For intervention group: staying in HF apartment For control: living in a private residence/ single-room occupancy setting</p> <p>Healthcare use: retention in methadone treatment program</p> <p>Intervention Duration: 36 months</p> <p>Results: Housing stability</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>36m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>0%</td> <td>67.7%</td> <td>67.7pct pts</td> </tr> <tr> <td>Comparison</td> <td>0%</td> <td>3.7%</td> <td>3.7pct pts</td> </tr> <tr> <td colspan="4">Absolute difference: 64pct pts</td> </tr> <tr> <td colspan="4">Relative difference: 1729.7%</td> </tr> </tbody> </table> <p>Healthcare use</p> <p>Baseline: 83.9% (26/31) of intervention group in treatment, as mentioned on page 4 of 9; comparison group needs to be in a treatment group to be included</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>36m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>83.9%</td> <td>33.3%</td> <td>-50.6pct pts</td> </tr> <tr> <td>Comparison</td> <td>100%</td> <td>20.0%</td> <td>-80.0pct pts</td> </tr> <tr> <td colspan="4">Absolute difference: 29.4pct pts</td> </tr> </tbody> </table> | | Baseline | 36m Follow-up | Change | Intervention | 0% | 67.7% | 67.7pct pts | Comparison | 0% | 3.7% | 3.7pct pts | Absolute difference: 64pct pts | | | | Relative difference: 1729.7% | | | | | Baseline | 36m Follow-up | Change | Intervention | 83.9% | 33.3% | -50.6pct pts | Comparison | 100% | 20.0% | -80.0pct pts | Absolute difference: 29.4pct pts | | | |
| | Baseline | 36m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 0% | 67.7% | 67.7pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 0% | 3.7% | 3.7pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: 64pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Baseline | 36m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 83.9% | 33.3% | -50.6pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 100% | 20.0% | -80.0pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: 29.4pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|--|----------|---------------|--------|--------------|----|-------|-------------|------------|----|-------|-------------|----------------------------------|--|--|--|--|----------|---------------|--------|--------------|-------|------|--------|------------|-------|-------|-------|-----------------------------|--|--|--|--|----------|---------------|--------|--------------|------|-----|--------|------------|-----|------|-------|-----------------------------|--|--|--|
| | Methadone treatment program: community-based program | Shelter use (residence at admission): 67.7% on streets; 16.1% shelter; 9.7% hospital; 6.4% jail or other institution | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Brown et al. 2016</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Location: Seattle, Washington, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: NR</p> <p>Intervention Details: Program description: a 75-unit, single site HF program</p> <p>Requirement for staying in housing: none</p> <p>Scattered or grouped housing: single site</p> <p>Control arm: selected from a pool of individuals in the King County Mental Health, Chemical Abuse and Dependency Services Division admin database, never received services from the HF program, homeless at baseline</p> <p>Services Provided: Mental health services and substance abuse treatment provided on site; staff provides assertive engagement to residents to encourage participation in other services</p> | <p>Eligibility Criteria: Homelessness: 4 homeless episodes in past 3-years or 365 consecutive days of homelessness</p> <p>Mental health: chronic medical or psychiatric illness</p> <p>Substance use: not specified</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 182</p> <p>Attrition: N/A</p> <p>Demographics: Mean age: 42.8 Gender: 73.6% male Race/Ethnicity: 56% White, 24.8% African American, 6.6% Asian American, 12.7% other Employment: NR Income: NR Education: NR Insurance: NR Substance abuse: 75.8% Mental health: 70.9% with psychotic disorder diagnosis Physical health: NR Shelter use: 53.8% chronic homeless</p> | <p>Outcome Measure: Housing stability:</p> <ul style="list-style-type: none"> • Percent housed: housed at the time of assessment • Days of homelessness: mean days of homelessness <p>Healthcare use:</p> <ul style="list-style-type: none"> • Number of days of psychiatric hospitalization <p>Intervention Duration: 12 months</p> <p>Results: Percent housed</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>12m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>0%</td> <td>90.1%</td> <td>90.1pct pts</td> </tr> <tr> <td>Comparison</td> <td>0%</td> <td>35.2%</td> <td>35.2pct pts</td> </tr> <tr> <td colspan="4">Absolute difference: 54.9pct pts</td> </tr> </tbody> </table> <p>Days of homelessness</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>12m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>182.3</td> <td>21.8</td> <td>-88.0%</td> </tr> <tr> <td>Comparison</td> <td>220.4</td> <td>275.9</td> <td>25.2%</td> </tr> <tr> <td colspan="4">Relative difference: -90.4%</td> </tr> </tbody> </table> <p>Days of psychiatric hospitalization</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>12m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>11.9</td> <td>6.7</td> <td>-43.6%</td> </tr> <tr> <td>Comparison</td> <td>7.2</td> <td>12.2</td> <td>69.4%</td> </tr> <tr> <td colspan="4">Relative difference: -66.7%</td> </tr> </tbody> </table> | | Baseline | 12m Follow-up | Change | Intervention | 0% | 90.1% | 90.1pct pts | Comparison | 0% | 35.2% | 35.2pct pts | Absolute difference: 54.9pct pts | | | | | Baseline | 12m Follow-up | Change | Intervention | 182.3 | 21.8 | -88.0% | Comparison | 220.4 | 275.9 | 25.2% | Relative difference: -90.4% | | | | | Baseline | 12m Follow-up | Change | Intervention | 11.9 | 6.7 | -43.6% | Comparison | 7.2 | 12.2 | 69.4% | Relative difference: -66.7% | | | |
| | Baseline | 12m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 0% | 90.1% | 90.1pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 0% | 35.2% | 35.2pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: 54.9pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 12m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 182.3 | 21.8 | -88.0% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 220.4 | 275.9 | 25.2% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: -90.4% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 12m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 11.9 | 6.7 | -43.6% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 7.2 | 12.2 | 69.4% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: -66.7% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|---|--|--|--|
| <p>Author Year: Buchanan et al. 2009</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Good</p> | <p>Location: Chicago, Illinois, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: October 2003 through May 2006</p> <p>Intervention Details: Program description: Chicago Housing for Health Partnership, a housing and case management program for homeless persons living with HIV</p> <p>Requirement for staying in housing: NR</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: patients in the usual care group received the discharge planning usually provided to homeless individuals during a hospital stay; all usual care participants were eligible to receive case management through an existing Ryan White program in the hospital-affiliated HIV/AIDS clinic</p> <p>Services Provided: Case management: case manager provided referrals for interim housing and hospital discharge and a wide range of support to clients</p> | <p>Eligibility Criteria: individuals living with HIV who are homeless</p> <p>Homelessness: no source of housing</p> <p>Mental health: not specified</p> <p>Substance use: not specified</p> <p>Disability: seropositive for HIV</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 106</p> <p>Attrition: 10.3% Intervention: 12.9% Control: 7.8%</p> <p>Demographics: Mean age: 44 Gender: 77.3% male Race/Ethnicity: 3.7% Hispanic, 2.8% White, 87.7% African American, 4.7% other Employment: NR Income: NR Education: 13.2% >8 grade, 36.8% some HS, 31.1% HS, 18.0% beyond HS Insurance: NR Substance abuse: NR Mental health: NR Physical health: NR Shelter use: 8.4%</p> | <p>Outcome Measure: Housing stability: being housed for the study population</p> <p>Mortality: observed mortality rate among study population throughout the intervention and had intact immunity (CD4 cell count >200 and viral load <100000 at the time of their laboratory assessment)</p> <p>Physical health outcomes:</p> <ul style="list-style-type: none"> • CD4 cell count • Percent with detectable viral load <p>Follow-up Time: 12 months</p> <p>Results: Housing stability: only for intervention group at follow-up 35/54 (65%) reached permanent supportive housing</p> <p>Mortality Intervention: (47-26)/47 = 45% Control: (47-16)/47 = 66% Absolute difference: -19pct pts Relative difference: -32%</p> <p>CD4 cell count: the difference between the 2 groups was not statistically significant</p> <p>Percent with detectable viral load Intervention: 64% Control: 81% Absolute difference: -17pct pts Relative difference: -21%</p> |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|-------------------|--|--|--|----------|---------------|---------------|-----|-------|----------|-------|-------|----------------------|-------------|--|----------------------|--------|--|-----------------|--|--|--|----------|---------------|---------------|-------|-------|----------|-------|-------|
| | Discharge planning: referrals to overnight shelters or to interim housing providers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Cherner et al. 2017</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Location: Ottawa, Canada</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: clients admitted to program by end of October 2012</p> <p>Intervention Details: HF program as a partnership between a community mental health agency and a program for persons who use drugs</p> <p>Requirement for staying in housing: pay maximum of 30% of income toward rent</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: treatment as usual; all social and health services available in community other than the HF program; services scattered across city for people who are experiencing homelessness or in a shelter</p> <p>Services Provided: Primary care at community health center</p> <p>Access to opioid and substance use treatment</p> | <p>Eligibility Criteria: 18 years of age; those with the highest need were admitted first (criteria include female or transgender, mental health, substance use)</p> <p>Homelessness: homeless at baseline</p> <p>Mental health: persons having a mental illness categorized as having high need</p> <p>Substance use: persons with past substance use treatment, daily or binge drug use or alcohol use categorized as having high needs</p> <p>Disability: persons with mental or physical conditions that impact their daily functioning categorized as having high need</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 178 Intervention: 89 Control: 89</p> <p>Attrition: 24.8% Intervention: 12.4% Control: 37.1%</p> <p>Demographics: Mean age: 40.1</p> | <p>Outcome Measure: Housing stability:</p> <ul style="list-style-type: none"> Percent time housed in own place in previous 6 months; housing included own apartment, rooming house, supportive housing, group home, board and care, and living with family or friends longer than 6 months <p>Physical health: reported on a scale from 0 (poor health) to 100 (better health)</p> <p>Mental health: reported on a scale from 0 (poor health) to 100 (better health)</p> <p>Substance use:</p> <ul style="list-style-type: none"> Alcohol use problems on a scale from 0 (no problems) to 40 (more problems) Drug use problems on a scale from 0 (no problems) to 10 (severe) <p>Quality of life: standardized to range from 1 (terrible) to 7 (delighted)</p> <p>Follow-up Time: 24 months</p> <p>Results:</p> <table border="0"> <tr> <td colspan="3">Housing stability</td> </tr> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention:</td> <td>34%</td> <td>86.8%</td> </tr> <tr> <td>Control:</td> <td>20.7%</td> <td>62.0%</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="2">11.4pct pts</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">-14.9%</td> </tr> <tr> <td colspan="3">Physical health</td> </tr> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention:</td> <td>41.08</td> <td>43.50</td> </tr> <tr> <td>Control:</td> <td>42.55</td> <td>43.62</td> </tr> </table> | Housing stability | | | | Baseline | 24m follow-up | Intervention: | 34% | 86.8% | Control: | 20.7% | 62.0% | Absolute difference: | 11.4pct pts | | Relative difference: | -14.9% | | Physical health | | | | Baseline | 24m follow-up | Intervention: | 41.08 | 43.50 | Control: | 42.55 | 43.62 |
| Housing stability | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention: | 34% | 86.8% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control: | 20.7% | 62.0% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | 11.4pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | -14.9% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Physical health | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention: | 41.08 | 43.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control: | 42.55 | 43.62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|--|---|---|--|
| | | Gender: 51.7% male Race/Ethnicity: NR Income: NR Education: NR Insurance: NR Substance abuse: 15.2% with harmful level of alcohol use, 16.3% with problematic drug use severe Mental health: 24.7% depression, 15.7% PTSD, 11.2% generalized anxiety disorder, 15.2% bipolar disorder, 10.1% schizophrenia/ schizoaffective Physical health: mean number of chronic health conditions, 6 Shelter use: 46.7% of time in emergency shelter in previous 6 months | Relative difference: 3.3% Mental health Baseline 24m follow-up Intervention: 37.90 38.47 Control: 35.07 44.50 Relative difference: -20.0% Alcohol use problems Baseline 24m follow-up Intervention: 15.41 12.98 Control: 15.38 9.53 Relative difference: 35.9% Drug use problems Baseline 24m follow-up Intervention: 5.43 4.75 Control: 6.21 3.35 Relative difference: 62.2% Quality of life score, total Baseline 24m follow-up Intervention: 66.45 72.93 Control: 62.98 80.22 Relative difference: -13.8% |
| Author Year: Clark et al. 2003 Study Design: Pre-post with comparison group Design Suitability: Greatest Quality of Execution: Fair | Location: Pinellas County and Tampa, Florida, US Urbanicity: urban Date Intervention Implemented: participants for this study entered programs from December 97 to April 99 Intervention Details: Program description: Two programs served as intervention group Boley Centers for Behavioral | Eligibility Criteria: participants were individuals entering the two intervention programs or the control program from December 1997 to April 1999 Homelessness: were homeless or at immediate risk of homelessness Mental health: had diagnosis of serious mental illness Substance use: not specified Disability: not specified Unit of recruitment: individual | Outcome Measure: Housing stability: proportion of time in stable housing, stratified by level of participant’s impairment by substance use and psychiatric condition Follow-up Time: 12 months Results: Housing stability, low impairment Baseline 24m follow-up Intervention: 45% 78% Control: 17% 78% Absolute difference: -28pct pts Relative difference: -62.2% Housing stability, medium impairment Baseline 24m follow-up |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | |
|--|---|---|--|--|----------|---------------|---------------|-----|-----|----------|-----|-----|
| | <p>Healthcare in Pinellas County, Florida, provided housing and housing services to individuals with serious mental illness experiencing homelessness</p> <p>Project Return in Tampa, Florida, comprehensive housing services to homeless persons with severe mental illness</p> <p>Requirement for staying in housing: NR</p> <p>Scattered or grouped housing: both</p> <p>Control arm: Suncoast Center for Community Mental Health, a large community mental health center in Pinellas County, FL for homeless population, providing case management only</p> <p>Services Provided: Housing support services, Florida Assertive Community Treatment, and priority access to everything from medication management to vocational services</p> | <p>Sample Size: 152 Intervention: 83 Control: 69</p> <p>Attrition: 42% Intervention: 24% Control: 64%</p> <p>Demographics: Mean age: 38.6 Gender: 51.5% male Race/Ethnicity: 77% White, 19.7% Black, 3.3% Hispanic Employment: NR Income: average monthly income of \$405.7 Education: 28.9% less than HS education Insurance: NR Substance abuse: NR Mental health: NR Physical health: NR Shelter use: 69.1% homeless more than once</p> | <p>Intervention: 30% 61% Control: 35% 55% Absolute difference: 11pct pts Relative difference: 29.4%</p> <p>Housing stability, high impairment</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention:</td> <td>29%</td> <td>88%</td> </tr> <tr> <td>Control:</td> <td>28%</td> <td>56%</td> </tr> </table> <p>Absolute difference: 31pct pts Relative difference: 51.7%</p> | | Baseline | 24m follow-up | Intervention: | 29% | 88% | Control: | 28% | 56% |
| | Baseline | 24m follow-up | | | | | | | | | | |
| Intervention: | 29% | 88% | | | | | | | | | | |
| Control: | 28% | 56% | | | | | | | | | | |
| <p>Author Year: Crisanti et al. 2017</p> <p>Study Design: Pre-post with comparison group</p> | <p>Location: Santa Fe, New Mexico, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: May 2011 to October 2015</p> | <p>Eligibility Criteria: individuals meeting the following criteria</p> <p>Homelessness: homeless (homeless status determined based on where participants reported living most of time in 30 days before baseline)</p> | <p>Outcome Measure: Housing stability: individual stably housed during housing program; results not used in overall analysis due to data limiting to intervention group only</p> <p>Physical health:</p> <ul style="list-style-type: none"> • Self-reported as having good or excellent overall health • Botherome symptoms: self-reported by participants to the statement "My symptoms are not bothering me"; | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|---|---|---|--|
| <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Intervention Details: Program name: Healthy Homes program using HF approach to provide wrap-around services to persons experiencing homelessness who also had a mental illness and or a co-occurring substance use disorder</p> <p>Requirement for staying in housing: NR</p> <p>Scattered or grouped housing: both</p> <p>Control arm: treatment as usual, with no further detail provided</p> <p>Services Provided: Individual or group therapy: clinicians provided individual or group therapy based on need</p> <p>Case management: peer support workers were required to spend at least 50% of their working schedule providing direct services to clients</p> | <p>interview) or at risk of homelessness</p> <p>Mental health: must have mental illness according to DSM-IV</p> <p>Substance use: substance use disorder co-occurring with mental illness</p> <p>Disability: not specified</p> <p>Unit of recruitment: Individual</p> <p>Sample Size: 237</p> <p>Attrition: NR</p> <p>Demographics: Age: 64.1% 18-44, 35.9% 45-66 Gender: 40.9% male Race/Ethnicity: 46.8% Hispanic, 30.4% White, 4.6% African American, 0.9% Asian, 8.9% American Indian, 8.9% multiple races Employment: 87.3% unemployed Income: NR Education: 29.1% <HS, 28.7% HS/GED, 36.7% some college or vocational school, 5.5% ≥ college degree Insurance: NR Substance abuse: 62.0% use substances, 13.9% opioids, 7.6% polysubstance Mental health: 40.7% bipolar or major depressive Physical health: NR Shelter use: NR</p> | <p>individuals responding “strongly disagree, disagree, or undecided” are categorized as experiencing bothersome symptoms; those who responded “agree or strongly agree” categorized as not experiencing bothersome symptoms</p> <p>Mental health: psychological distress measured by K6, a screening tool to identify people with mental illness in as few questions as possible</p> <p>Follow-up Time: 12 months</p> <p>Results: Housing stability: for intervention group, 61.2% (145) of participants received housing</p> <p>Self-reported physical health: after controlling for demographic, psychosocial, and clinical variables, housing was significantly associated with good to excellent overall health at the 6-month reassessment (OR = 3.11, 95%CI 1.12, 8.66); the positive relationship remained at 12 months</p> <p>Bothersome symptoms: housing was associated with presence of bothersome symptoms at the 6- and 12-month reassessments</p> <p>Mental health: housing was associated with lower psychological distress at the 6-month reassessment and associated with higher psychological distress at the 12-month reassessment</p> |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|----------|-----------|--------------|----|------|------------|----|------|----------------------|-------|--|--|----------|-----------|--------------|----|------|------------|----|------|----------------------|--------|--|--|----------|-----------|--------------|----|-----|------------|----|-----|----------------------|----|--|--|----------|-----------|--------------|----|-----|------------|----|-----|----------------------|--------|--|
| <p>Author Year: Gabrielian et al. 2016</p> <p>Study Design: Prospective cohort</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Good</p> <p>Linked Publications: Gabrielian 2014</p> | <p>Location: Los Angeles, California, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: NR; participants were identified from a January 2011 roster</p> <p>Intervention Details: Program description: HUD-VASH program, a multi-site program that provides housing vouchers to qualifying veterans; program also helped with identifying and moving into housing, and supportive services</p> <p>Requirement for staying in housing: NR</p> <p>Scattered or grouped housing: scattered housing</p> <p>Control arm: treatment as usual; access to standard VA care available in their communities but not housing</p> <p>Services Provided: Case management, referred veterans to primary and mental health care and supportive services within and outside the VA system</p> | <p>Eligibility Criteria: U.S. veterans with at least one VA Greater Los Angeles outpatient visit between October 1, 2010 and September 30, 2011; meet HUD-specific income requirements for a Housing Choice voucher, have an identified need and willingness for case management</p> <p>Homelessness: homeless or on the verge of homelessness</p> <p>Mental health: not specified</p> <p>Substance use: not specified</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 3757 Intervention: 1997 Control: 1760</p> <p>Attrition: NR</p> <p>Demographics Mean age: 53.6 Gender: 92.9% male Race/Ethnicity: 9.8% Hispanic, 29.2% white, 52.2% African American, 7.2% other Employment: NR Income: NR Education: NR Insurance: NR Substance abuse: NR Mental health: NR Physical health: NR</p> | <p>Outcome Measure: Health care utilization:</p> <ul style="list-style-type: none"> • Hospitalization: percent of admitted patients with one or more preventable hospitalizations • Percent of medical/surgical admissions that are preventable hospitalizations • Percent mental health admissions that are preventable hospitalizations • Percent with multiple mental health admissions that are preventable hospitalizations • ED use: number of ED visits among patients visited ED • Percent of ED visitors who are frequent users (4 or more ED or urgent care visits) <p>Follow-up Time: NR (data from longitudinal database)</p> <p>Results:</p> <p>Hospitalization</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>Follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>NR</td> <td>23.3</td> </tr> <tr> <td>Comparison</td> <td>NR</td> <td>25.0</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">-6.8%</td> </tr> </tbody> </table> <p>Percent of medical or surgical admissions that are preventable hospitalizations</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>Follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>NR</td> <td>18.5</td> </tr> <tr> <td>Comparison</td> <td>NR</td> <td>21.5</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">-14.0%</td> </tr> </tbody> </table> <p>Percent mental health admissions that are preventable hospitalizations</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>Follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>NR</td> <td>3.5</td> </tr> <tr> <td>Comparison</td> <td>NR</td> <td>3.5</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">0%</td> </tr> </tbody> </table> <p>Percent with multiple mental health admissions that are preventable hospitalizations</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>Follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>NR</td> <td>0.6</td> </tr> <tr> <td>Comparison</td> <td>NR</td> <td>1.1</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">-45.5%</td> </tr> </tbody> </table> | | Baseline | Follow-up | Intervention | NR | 23.3 | Comparison | NR | 25.0 | Relative difference: | -6.8% | | | Baseline | Follow-up | Intervention | NR | 18.5 | Comparison | NR | 21.5 | Relative difference: | -14.0% | | | Baseline | Follow-up | Intervention | NR | 3.5 | Comparison | NR | 3.5 | Relative difference: | 0% | | | Baseline | Follow-up | Intervention | NR | 0.6 | Comparison | NR | 1.1 | Relative difference: | -45.5% | |
| | Baseline | Follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | NR | 23.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | NR | 25.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | -6.8% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | Follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | NR | 18.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | NR | 21.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | -14.0% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | Follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | NR | 3.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | NR | 3.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | 0% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | Follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | NR | 0.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | NR | 1.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | -45.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--|--|----------|---------------|--------------|--------------|-----|------------|------|---------|-----|----------|-----------|--------------|----------|---------------|------------|--------------|-------|-------|-------|---------|-------|-------|-------|--|----------|---------------|--------|--------------|--------|-------|--------|---------|--------|--------|-------|
| | | | <p>ED use</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>Follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>NR</td> <td>1.8</td> </tr> <tr> <td>Comparison</td> <td>NR</td> <td>1.5</td> </tr> </tbody> </table> <p>Relative difference: 20%</p> <p>Percent of ED visitors who are frequent users</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>Follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>NR</td> <td>7.3</td> </tr> <tr> <td>Comparison</td> <td>NR</td> <td>5.7</td> </tr> </tbody> </table> <p>Relative difference: 28.1%</p> | | Baseline | Follow-up | Intervention | NR | 1.8 | Comparison | NR | 1.5 | | Baseline | Follow-up | Intervention | NR | 7.3 | Comparison | NR | 5.7 | | | | | | | | | | | | | | | | | | |
| | Baseline | Follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | NR | 1.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | NR | 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | Follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | NR | 7.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | NR | 5.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Gilmer et al., 2009</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Location: San Diego, California, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: July 2002 to June 2005</p> <p>Intervention Details: Program description: Reaching Out and Engaging to Achieve Consumer Health (REACH); provided multiple housing options, assertive community treatment, and outpatient services to persons experiencing homelessness</p> <p>Requirement for staying in housing: clients need to meet with a case manager every two weeks</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: a comparison group of homeless clients with serious mental illness, similar</p> | <p>Eligibility Criteria: clients recruited from homeless shelters, homeless outreach team, and community-based mental health programs</p> <p>Homelessness: clients recruited from homeless shelters</p> <p>Mental health: program intended for clients with serious mental health issues</p> <p>Substance use: not specified</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 338 Intervention: 177 Control: 161</p> <p>Attrition: NR</p> <p>Demographics: Mean age: 41.5 Gender: 48% male</p> | <p>Outcome Measure: Mental health outcomes: costs for case management, outpatient care, inpatient or emergency department use</p> <p>Crime and violence: cost to criminal justice system</p> <p>Follow-up Time: 24 months</p> <p>Results:</p> <p>Mental health:</p> <p>Case management</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>24m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>412</td> <td>7423</td> <td>7011</td> </tr> <tr> <td>Control</td> <td>429</td> <td>1038</td> <td>609</td> </tr> </tbody> </table> <p>Absolute difference: \$6402 Relative difference: 645%</p> <p>Outpatient care</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>24m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>1,917</td> <td>5,430</td> <td>3,513</td> </tr> <tr> <td>Control</td> <td>1,662</td> <td>4,488</td> <td>2,826</td> </tr> </tbody> </table> <p>Absolute difference: \$687 Relative difference: 5%</p> <p>Inpatient care and ED use</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>24m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>12,291</td> <td>7,249</td> <td>-5,042</td> </tr> <tr> <td>Control</td> <td>12,696</td> <td>13,756</td> <td>1,060</td> </tr> </tbody> </table> <p>Absolute difference: -\$6102 Relative difference: -46%</p> | | Baseline | 24m Follow-up | Change | Intervention | 412 | 7423 | 7011 | Control | 429 | 1038 | 609 | | Baseline | 24m Follow-up | Change | Intervention | 1,917 | 5,430 | 3,513 | Control | 1,662 | 4,488 | 2,826 | | Baseline | 24m Follow-up | Change | Intervention | 12,291 | 7,249 | -5,042 | Control | 12,696 | 13,756 | 1,060 |
| | Baseline | 24m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 412 | 7423 | 7011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 429 | 1038 | 609 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 1,917 | 5,430 | 3,513 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 1,662 | 4,488 | 2,826 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m Follow-up | Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 12,291 | 7,249 | -5,042 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 12,696 | 13,756 | 1,060 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---|--|----------|---------------|--------|--------------|-----|-----|------|---------|-----|-----|----|----------------------|--------|--|--|----------------------|------|--|--|
| | <p>to those of REACH clients, and initiating regular services at the same time as REACH clients</p> <p>Services Provided: Case management: assertive community treatment team; no further detail provided</p> <p>Outpatient services: details not provided</p> <p>Inpatient and emergency: details not provided</p> | <p>Race/Ethnicity: 11.0% Hispanic, 58.6% white, 24.0% African American, 7.0% other</p> <p>Employment: NR</p> <p>Income: NR</p> <p>Education: NR</p> <p>Insurance: NR</p> <p>Substance abuse: NR</p> <p>Mental health: 53% schizophrenia, 18% bipolar disorder, 20% major depressive disorder, 4% other psychotic disorder, 5% other disorder</p> <p>Shelter use: NR</p> | <p>Crime and violence: cost to criminal justice system</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>24m Follow-up</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>713</td> <td>139</td> <td>-574</td> </tr> <tr> <td>Control</td> <td>431</td> <td>428</td> <td>-3</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="3">-\$571</td> </tr> <tr> <td>Relative difference:</td> <td colspan="3">-80%</td> </tr> </tbody> </table> | | Baseline | 24m Follow-up | Change | Intervention | 713 | 139 | -574 | Control | 431 | 428 | -3 | Absolute difference: | -\$571 | | | Relative difference: | -80% | | |
| | Baseline | 24m Follow-up | Change | | | | | | | | | | | | | | | | | | | | |
| Intervention | 713 | 139 | -574 | | | | | | | | | | | | | | | | | | | | |
| Control | 431 | 428 | -3 | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | -\$571 | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | -80% | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Goering et al., 2014</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> <p>Linked Studies: Adair et al., 2017; Aquin et al., 2017; Aubry et al., 2015a, b, 16, Bourque et al., 2015; Cheung et al., 2015; Chung et al., 2018; Currie et</p> | <p>Location: Vancouver, Winnipeg, Toronto, Montreal, and Moncton, Canada</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: NR; study period June 2009 to October 2013</p> <p>Intervention Details: Program description: based on Pathways HF Model</p> <p>Requirement for staying in housing: meet with ACT staff once a week; contribute 30% of income towards rent</p> <p>Scattered or grouped housing: Vancouver, both; Toronto, scattered; Winnipeg, Montreal, Moncton, NR</p> <p>Control arm: treatment as usual; homeless persons with</p> | <p>Eligibility Criteria: clients aged 18 or older (≥ 19 in Vancouver); not receiving ACT or ICM prior to enrolling in program; Canadian citizen, landed immigrant, or refugee claimant</p> <p>Homelessness: either absolutely homeless or precariously housed (such as lived in a rooming house, single-room occupancy unit, or hotel or motel room and had two episodes or more of homelessness in the past year)</p> <p>Mental health: currently diagnosed with a mental disorder</p> <p>Substance use: not specified</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 2221 Intervention: 1236 Control: 985</p> | <p>Outcome Measure: Housing stability: percent in stable housing</p> <p>Mental health:</p> <ul style="list-style-type: none"> • Mental health symptoms: assessed using the Colorado Symptom Index • Suicide attempts: proportion of study participants with suicide attempts <p>Substance abuse: combined alcohol use and drug use problems, stratified by congregated or scattered housing; alcohol use problems assessed using the Alcohol Use Disorders Identification Test; drug use screened by using the Drug Abuse Screening Tool</p> <p>Community functioning: integration score obtained through Multnomah Community Ability Scale</p> <p>Quality of life: score obtained through quality of life interview; a 20-item scale designed for use with people with severe mental illness</p> <p>Healthcare use: number of ER visits</p> <p>Follow-up Time: 24 months</p> | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|----------|---------------|--------------|-----|-----|------------|-----|-----|--|----------|---------------|--------------|------|------|------------|------|---|--|----------|---------------|--------------|------|------|------------|------|---|--|----------|---------------|--------------|------|------|------------|------|------|--|----------|---------------|--------------|------|------|------------|------|------|--|----------|---------------|--------------|-----|-----|------------|-----|-----|
| <p>al., 2018; Kirst et al., 2015; Kozloff et al., 2016; Macnaughton et al., 2016; Nelson et al., 2015; O'Campo et al., 2016; Parpouchi et al., 2016; Patterson et al., 2013a, b, Poremski et al., 2016; Rezanoff et al., 2017; Russolilo et al., 2014; Somers et al., 2013, 2015, 2017; Stergiopoulos et al., 2015a, b, 16, Urbanoski et al., 2017</p> | <p>access to the existing programs available in their communities</p> <p>Services Provided: ACT: multidisciplinary team members directly provide clinical and support services; members include psychiatrist and nurse, offering around-the-clock on-call services; teams meet daily and include at least one peer specialist</p> <p>ICM: less intensive compared to ACT; individual case managers broker necessary services to those available in the community; 7 day per week, 12 hours per day coverage; centralized assignment and monthly case conferences</p> | <p>Attrition: 15.0% Intervention: 10.9% Control: 20.2%</p> <p>Demographics: Mean age: 40.9 Gender: 67.9% male Race/Ethnicity: 49.2% White, 24.8% Aboriginal, 26.3% Other Employment: NR Income, monthly: 29.4% \$0–399.99; 33.3% \$400.00–799.99, 37.2% \$800+ Education: 55.9% no high school diploma Insurance: NR Substance abuse: 67.4% Mental health: 56.5% mood disorder, 29.0% PTSD, 23.0% panic disorder, 49.3% psychotic disorder Physical health: NR Shelter use: NR Lifetime duration of homelessness in months: 28.8% <12 months, 25.9% 12–36 months, 45.2% >36 months</p> | <p>Results:</p> <p>Housing stability</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>10%</td> <td>73%</td> </tr> <tr> <td>Comparison</td> <td>10%</td> <td>32%</td> </tr> </table> <p>Absolute difference: 41pct pts Relative difference: 128%</p> <p>Mental health symptoms: -2.5% (calculated from z score) Suicide attempts: OR 1.11; 11%</p> <p>Substance use in congregated housing</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>2.39</td> <td>1.34</td> </tr> <tr> <td>Comparison</td> <td>2.29</td> <td>1</td> </tr> </table> <p>Relative difference: 28.4%</p> <p>Substance use in scattered housing</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>2.09</td> <td>1.18</td> </tr> <tr> <td>Comparison</td> <td>2.29</td> <td>1</td> </tr> </table> <p>Relative difference: 29.3%</p> <p>Community functioning</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>60.5</td> <td>64.3</td> </tr> <tr> <td>Comparison</td> <td>59.5</td> <td>62.5</td> </tr> </table> <p>Relative difference: 1.2%</p> <p>Quality of life</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>72.0</td> <td>89.0</td> </tr> <tr> <td>Comparison</td> <td>72.0</td> <td>84.5</td> </tr> </table> <p>Relative difference: 5.3%</p> <p>Healthcare use: Number of ER visits</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>2.0</td> <td>0.9</td> </tr> <tr> <td>Comparison</td> <td>1.9</td> <td>0.9</td> </tr> </table> <p>Relative difference: -5.0%</p> | | Baseline | 24m follow-up | Intervention | 10% | 73% | Comparison | 10% | 32% | | Baseline | 24m follow-up | Intervention | 2.39 | 1.34 | Comparison | 2.29 | 1 | | Baseline | 24m follow-up | Intervention | 2.09 | 1.18 | Comparison | 2.29 | 1 | | Baseline | 24m follow-up | Intervention | 60.5 | 64.3 | Comparison | 59.5 | 62.5 | | Baseline | 24m follow-up | Intervention | 72.0 | 89.0 | Comparison | 72.0 | 84.5 | | Baseline | 24m follow-up | Intervention | 2.0 | 0.9 | Comparison | 1.9 | 0.9 |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 10% | 73% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 10% | 32% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 2.39 | 1.34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 2.29 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 2.09 | 1.18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 2.29 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 60.5 | 64.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 59.5 | 62.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 72.0 | 89.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 72.0 | 84.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 2.0 | 0.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 1.9 | 0.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Hanratty 2011</p> | <p>Location: Minneapolis, Minnesota, US</p> | <p>Eligibility Criteria:</p> | <p>Outcome Measure: Homelessness: average number of nights in a public shelter</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|----------|---------------|--------------|-------|-----|------------|------|------|--------------------------------------|--|--|--|----------|---------------|--------------|-------|-------|------------|-------|-------|--------------------------------------|--|--|
| <p>Study Design: Retrospective cohort</p> <p>Design Suitability: Moderate</p> <p>Quality of Execution: Fair</p> | <p>Urbanicity: urban</p> <p>Date Intervention Implemented: January 2006</p> <p>Intervention Details: Program description: Heading Home Hennepin’s HF program provides subsidies for housing in scattered site apartments to long-term homeless individuals</p> <p>Requirement for staying in housing: none</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: people staying in public shelters</p> <p>Services Provided: Case management services: help individuals locate and maintain stable housing; collaborations with nonprofit organizations to provide program outreach, enrollment, and case management services</p> | <p>Homelessness: people experiencing homelessness one continuous year or at least 4 times in past 3 years</p> <p>Mental health: not specified</p> <p>Substance use: not specified</p> <p>Disability: individuals with a disability that limits their ability to work for at least one month</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 528 Intervention: 264 Control: 264</p> <p>Attrition: NR</p> <p>Demographics Mean age: 46.2 Gender: 77.4% male Race/Ethnicity: NR Education: NR Substance abuse: NR Mental health: NR Physical Health: NR Other: 100% with a work limiting disability</p> | <p>Crime: proportion with any arrests</p> <p>Follow-up Time: 18 months</p> <p>Results: Homelessness</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>18m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>102.6</td> <td>9.4</td> </tr> <tr> <td>Comparison</td> <td>98.3</td> <td>87.1</td> </tr> <tr> <td colspan="3">Relative difference: -89.7% (p<0.05)</td> </tr> </tbody> </table> <p>Crime</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>18m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>39.5%</td> <td>29.8%</td> </tr> <tr> <td>Comparison</td> <td>39.5%</td> <td>37.7%</td> </tr> <tr> <td colspan="3">Relative difference: -21.0% (p<0.10)</td> </tr> </tbody> </table> | | Baseline | 18m follow-up | Intervention | 102.6 | 9.4 | Comparison | 98.3 | 87.1 | Relative difference: -89.7% (p<0.05) | | | | Baseline | 18m follow-up | Intervention | 39.5% | 29.8% | Comparison | 39.5% | 37.7% | Relative difference: -21.0% (p<0.10) | | |
| | Baseline | 18m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 102.6 | 9.4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 98.3 | 87.1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: -89.7% (p<0.05) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 18m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 39.5% | 29.8% | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comparison | 39.5% | 37.7% | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: -21.0% (p<0.10) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Kennedy et al., 2018</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> | <p>Location: Los Angeles, California, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: May 2015 to August 2016, residents recruited</p> <p>Intervention Details:</p> | <p>Eligibility Criteria: homeless persons with alcohol use issues</p> <p>Homelessness: homeless at baseline, must be housed within 1 month of recruitment</p> <p>Mental health: not specified</p> <p>Substance use: screened positive for past-year harmful alcohol use or drug use</p> | <p>Outcome Measure: Substance use: self-reported, alcohol or drug abstinence self-efficacy; assessed using a 5-item tool with scale score ranging from 1 to 5, higher score indicate higher efficacy to abstain</p> <p>Substance use within past 4 weeks:</p> <ul style="list-style-type: none"> • Total number of drinks • Total days binge drank • Total days marijuana use • Total days use other drugs | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|--|----------|--------------|--------------|-------------|-------------|---------|-------------|-------------|-----------------------------|--|--|---------------------------|--|--|--|----------|--------------|--------------|-------------|-------------|---------|-------------|-------------|------------------------------|--|--|---------------------------|--|--|--|----------|--------------|--------------|-------------|-------------|---------|-------------|-------------|-------------------------------|--|--|---------------------------|--|--|--|----------|--------------|--------------|--------------|--------------|---------|-------------|-------------|-------------------------------|--|--|---------------------------|--|--|--|----------|--------------|--------------|---------------|-------------|---------|---------------|---------------|-----------------------------|--|--|---------------------------|--|--|
| <p>Quality of Execution: Fair</p> | <p>Program description: Skid Row Housing Trust (SRHT) Single Room Occupancy Corporation (SRO), with services offered to homeless persons with alcohol use issues</p> <p>Requirement for staying in housing: meeting with case managers regularly for up to 60-90 days</p> <p>Scattered or grouped housing: grouped</p> <p>Control arm: participants receive usual case management support</p> <p>Services Provided: Case management: provide case management and coordination to clients</p> | <p>Alcohol use assessed by using Alcohol Use Disorders Identification Test (AUDITC), considered harmful use if score >4 for men and >3 for women Drug use assessed by Drug abuse Screen Test with score >2</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 41 Intervention: 21 Control: 20</p> <p>Attrition: 16.3% Intervention: 16.0% Control: 16%</p> <p>Demographics: Mean age: 48 Gender: Male 80%, Female 20% Race/Ethnicity: Hispanic 15%; white 12%; Black 56%; Other 17% Employment: NR Income: mean income \$471 in the most recent month Education: <HS 29%; HS 39%; Any college 32% Insurance: NR Substance abuse: 4.3% Mental health: NR Physical health: NR Shelter use: NR</p> | <p>Follow-up Time: 3 months</p> <p>Results: Alcohol or drug abstinence self-efficacy</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>3m follow-up</td> </tr> <tr> <td>Intervention</td> <td>3.24 ± 0.99</td> <td>3.33 ± 1.03</td> </tr> <tr> <td>Control</td> <td>2.97 ± 1.19</td> <td>2.95 ± 1.26</td> </tr> <tr> <td colspan="3">Unadjusted difference: 3.5%</td> </tr> <tr> <td colspan="3">Adjusted difference: -38%</td> </tr> </table> <p>Total number of drinks</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>3m follow-up</td> </tr> <tr> <td>Intervention</td> <td>3.24 ± 0.99</td> <td>3.33 ± 1.03</td> </tr> <tr> <td>Control</td> <td>2.97 ± 1.19</td> <td>2.95 ± 1.26</td> </tr> <tr> <td colspan="3">Unadjusted difference: 46.4%</td> </tr> <tr> <td colspan="3">Adjusted difference: -31%</td> </tr> </table> <p>Total days binge drank</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>3m follow-up</td> </tr> <tr> <td>Intervention</td> <td>1.62 ± 4.76</td> <td>0.49 ± 1.78</td> </tr> <tr> <td>Control</td> <td>1.66 ± 6.04</td> <td>2.34 ± 6.90</td> </tr> <tr> <td colspan="3">Unadjusted difference: -78.5%</td> </tr> <tr> <td colspan="3">Adjusted difference: -21%</td> </tr> </table> <p>Total days marijuana use</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>3m follow-up</td> </tr> <tr> <td>Intervention</td> <td>8.36 ± 11.10</td> <td>4.29 ± 11.16</td> </tr> <tr> <td>Control</td> <td>3.55 ± 7.08</td> <td>9.08 ± 9.76</td> </tr> <tr> <td colspan="3">Unadjusted difference: -79.9%</td> </tr> <tr> <td colspan="3">Adjusted difference: -47%</td> </tr> </table> <p>Total days using other drugs</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>3m follow-up</td> </tr> <tr> <td>Intervention</td> <td>14.03 ± 14.24</td> <td>8.8 ± 15.51</td> </tr> <tr> <td>Control</td> <td>10.08 ± 10.80</td> <td>10.90 ± 12.86</td> </tr> <tr> <td colspan="3">Unadjusted difference: -42%</td> </tr> <tr> <td colspan="3">Adjusted difference: -80%</td> </tr> </table> | | Baseline | 3m follow-up | Intervention | 3.24 ± 0.99 | 3.33 ± 1.03 | Control | 2.97 ± 1.19 | 2.95 ± 1.26 | Unadjusted difference: 3.5% | | | Adjusted difference: -38% | | | | Baseline | 3m follow-up | Intervention | 3.24 ± 0.99 | 3.33 ± 1.03 | Control | 2.97 ± 1.19 | 2.95 ± 1.26 | Unadjusted difference: 46.4% | | | Adjusted difference: -31% | | | | Baseline | 3m follow-up | Intervention | 1.62 ± 4.76 | 0.49 ± 1.78 | Control | 1.66 ± 6.04 | 2.34 ± 6.90 | Unadjusted difference: -78.5% | | | Adjusted difference: -21% | | | | Baseline | 3m follow-up | Intervention | 8.36 ± 11.10 | 4.29 ± 11.16 | Control | 3.55 ± 7.08 | 9.08 ± 9.76 | Unadjusted difference: -79.9% | | | Adjusted difference: -47% | | | | Baseline | 3m follow-up | Intervention | 14.03 ± 14.24 | 8.8 ± 15.51 | Control | 10.08 ± 10.80 | 10.90 ± 12.86 | Unadjusted difference: -42% | | | Adjusted difference: -80% | | |
| | Baseline | 3m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 3.24 ± 0.99 | 3.33 ± 1.03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 2.97 ± 1.19 | 2.95 ± 1.26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unadjusted difference: 3.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjusted difference: -38% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 3m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 3.24 ± 0.99 | 3.33 ± 1.03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 2.97 ± 1.19 | 2.95 ± 1.26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unadjusted difference: 46.4% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjusted difference: -31% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 3m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 1.62 ± 4.76 | 0.49 ± 1.78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 1.66 ± 6.04 | 2.34 ± 6.90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unadjusted difference: -78.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjusted difference: -21% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 3m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 8.36 ± 11.10 | 4.29 ± 11.16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 3.55 ± 7.08 | 9.08 ± 9.76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unadjusted difference: -79.9% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjusted difference: -47% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 3m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 14.03 ± 14.24 | 8.8 ± 15.51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 10.08 ± 10.80 | 10.90 ± 12.86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unadjusted difference: -42% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjusted difference: -80% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Kessell et al., 2006</p> | <p>Location: San Francisco, California, US</p> <p>Urbanicity: urban</p> | <p>Eligibility Criteria: Homelessness: individuals who are chronically homeless</p> | <p>Outcome Measure: Healthcare use: ambulatory non-emergency care, ambulance and emergency department use, inpatient hospitalizations, mental health and substance abuse services</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Study | Intervention Characteristics | Population Characteristics | Results |
|--|--|--|--|
| <p>Study Design: Retrospective cohort</p> <p>Design Suitability: Moderate</p> <p>Quality of Execution: Fair</p> | <p>Date Intervention Implemented: January 1, 1997 to July 1, 2001</p> <p>Intervention Details: Program description: San Francisco Department of Public Health (SFDPH) supportive housing</p> <p>Requirement for staying in housing: none</p> <p>Scattered or grouped housing: three supportive housing buildings used</p> <p>Control arm: usual care; people eligible for the housing program but did not receive housing due to space limitations; they can receive housing from other sources during the study period</p> <p>Services Provided: Ambulatory (non-emergency care): ambulatory generalist care and visits to a primary care provider</p> <p>Emergency services: ambulance and emergency department use (medical-surgical emergency department)</p> | <p>Mental health: dual or triply diagnosed with medical illness, substance use, and mental illness</p> <p>Substance use: dual or triply diagnosed with medical illness, substance use, and mental illness</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 249</p> <p>Attrition: 6.4% Intervention: 7.0% Control: 5.9%</p> <p>Demographics: Mean age: 51 Gender: 73% male Race/Ethnicity: 43% Black, 35% White, 10% Latino, 4% Asian, 5% other, 3% unknown Employment: NR Income: NR Education: NR Insurance: NR Substance abuse: NR Mental health: NR Physical health: NR Shelter use: NR</p> | <p>Follow-up Time: 24 months</p> <p>Results: Healthcare use: Intervention and usual care groups did not differ in their use of the following services: ambulatory non-emergency care, ambulance and emergency department use, inpatient hospitalizations, mental health and substance abuse services</p> |
| <p>Author Year: Larimer et al., 2009</p> <p>Study Design:</p> | <p>Location: Seattle, Washington, US</p> <p>Urbanicity: urban</p> | <p>Eligibility Criteria: targeted homeless adults with severe alcohol problems who use local crisis services at the highest levels</p> | <p>Outcome Measure: Healthcare use: care cost and services use</p> <p>Impact of length of time housed on the following outcomes:</p> <ul style="list-style-type: none"> Substance use: alcohol use and number of daily drinks |

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|---|--|----------|--------------|--------------|-----|-----|---------|-----|-----|----------------------|--------|--|----------------------|------|--|--|----------|--------------|--------------|-----|---|---------|-----|---|----------------------|-------|--|----------------------|---------------|--|--|----------|--------------|--------------|-----|-----|---------|-----|-----|----------------------|-------|--|----------------------|-----|--|--|----------|--------------|--------------|------|------|---------|------|------|----------------------|---------|--|----------------------|------|--|
| <p>Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Date Intervention Implemented: recruitment occurred between November 2005 and March 2007</p> <p>Intervention Details: Program description: single site HF program in Seattle</p> <p>Requirement for staying in housing: none Scattered or grouped housing: grouped</p> <p>Control arm: people who also qualify to be housed in the program, but were put on wait-list due to limited number of rooms</p> <p>Services Provided: Case Management: engage residents about substance use and life goals Meals: provide food Healthcare services: no detailed description</p> | <p>Homelessness: chronically homeless</p> <p>Mental health: not specified</p> <p>Substance use: individuals who incurred highest total costs in 2004 for use of alcohol-related hospital emergency services, sobering center, and King County jail</p> <p>Disability: not specified</p> <p>Unit of recruitment: Individual</p> <p>Sample Size: 134</p> <p>Attrition: 21.6% Intervention: 20% Control: 25.6%</p> <p>Demographics: Mean age: 48 Gender: 94% male Race/Ethnicity: 6% Hispanic, 39% Black, 28% American Indian, 1% Asian, 2% Native Hawaiian or Pacific Islander, 10% multiracial, 4% other Employment: NR Income: NR Education: 33% < HS or GED, 11% with GED, 19% HS grad, 8% some vocational school, 5% college grad, 2% some graduate education or higher Insurance: NR Substance abuse: 100% alcohol use Mental health: NR Physical health: NR</p> | <ul style="list-style-type: none"> Violence: jail days and bookings <p>Follow-up Time: 6 months</p> <p>Results: Healthcare use: Medicaid cost</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>6m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>612</td> <td>204</td> </tr> <tr> <td>Control</td> <td>345</td> <td>107</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="2">-\$170</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">7.5%</td> </tr> </tbody> </table> <p>Hospital cost, Harborview Medical Center</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>6m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>139</td> <td>0</td> </tr> <tr> <td>Control</td> <td>743</td> <td>0</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="2">\$640</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">no difference</td> </tr> </tbody> </table> <p>Emergency medical services</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>6m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>505</td> <td>512</td> </tr> <tr> <td>Control</td> <td>553</td> <td>438</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="2">\$122</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">28%</td> </tr> </tbody> </table> <p>Total cost</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>6m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>4066</td> <td>1492</td> </tr> <tr> <td>Control</td> <td>3318</td> <td>1932</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="2">-\$1188</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">-37%</td> </tr> </tbody> </table> | | Baseline | 6m follow-up | Intervention | 612 | 204 | Control | 345 | 107 | Absolute difference: | -\$170 | | Relative difference: | 7.5% | | | Baseline | 6m follow-up | Intervention | 139 | 0 | Control | 743 | 0 | Absolute difference: | \$640 | | Relative difference: | no difference | | | Baseline | 6m follow-up | Intervention | 505 | 512 | Control | 553 | 438 | Absolute difference: | \$122 | | Relative difference: | 28% | | | Baseline | 6m follow-up | Intervention | 4066 | 1492 | Control | 3318 | 1932 | Absolute difference: | -\$1188 | | Relative difference: | -37% | |
| | Baseline | 6m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 612 | 204 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 345 | 107 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | -\$170 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | 7.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 6m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 139 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 743 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | \$640 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | no difference | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 6m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 505 | 512 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 553 | 438 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | \$122 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | 28% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 6m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 4066 | 1492 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 3318 | 1932 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | -\$1188 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | -37% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | |
|--|--|---|---|--|----------|---------------|--------------|------|------|---------|------|------|--|----------|---------------|--------------|----|-----|---------|----|------|
| | | Shelter use: most common place to spend the night in past three years, 84% in the open, 84% sobering center, 75% hospital, 65% in shelter, 64% motel or hotel | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Mares et al., 2011</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Location: 5 US sites nationwide</p> <ul style="list-style-type: none"> • Los Angeles, California • Chattanooga, Tennessee • Martinez/Contra Costa County, California • New York, New York • Portland, Oregon <p>Urbanicity: urban</p> <p>Date Intervention Implemented: participants recruited Jan 2004—April 2006</p> <p>Intervention Details: Program description: Collaborative Initiative to Help End Chronic Homelessness (CICH); national demonstration program funded by HUD, HHS, and VA, designed based on previous HF models</p> <p>Each site set up its program using the same principles</p> <p>Requirement for staying in housing: none</p> <p>Scattered or grouped housing: both</p> <p>Control arm: usual care; no details provided</p> | <p>Eligibility Criteria: chronically homeless adults; recruited by local program staff</p> <p>Homelessness: chronically homeless</p> <p>Mental health: not specified</p> <p>Substance use: not specified</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 385 Intervention: 281 Control: 104</p> <p>Attrition: 35.1% Intervention: 31.3% Control: 45.2%</p> <p>Demographics: Mean age: 45.7 Gender: 76.0% male Race/Ethnicity: 59.5% racial or ethnic minority Education: mean 11.7 years of education Substance abuse: 76.4% has substance abuse problem, 52.2% alcohol problem, 57.9% drug problem Mental health: 69.9% have mental health problem, 16.1% schizophrenia, 27.5%</p> | <p>Outcome Measure: Housing stability:</p> <ul style="list-style-type: none"> • Number of days housed <ul style="list-style-type: none"> ○ For intervention group: day staying in HF apartment ○ For control: days living in a private residence/ single-room occupancy setting, could include couch surfing • Homelessness: number of days homeless <p>Physical health: SF-12 scale scores</p> <p>Mental health: SF-12 scale scores</p> <p>Substance use, assessed using items from addition severity index</p> <ul style="list-style-type: none"> • Proportion with substance use problems • Proportion with alcohol use problems <p>Wellness, community integration: community integration score</p> <p>Follow-up Time: 24 months</p> <p>Results:</p> <p>Number days housed</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>24m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>14.8</td> <td>76.5</td> </tr> <tr> <td>Control</td> <td>17.4</td> <td>58.5</td> </tr> </tbody> </table> <p>Absolute difference: 20.6 days Relative difference: 53.7%</p> <p>Number days homeless</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>24m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>60</td> <td>4.6</td> </tr> <tr> <td>Control</td> <td>57</td> <td>23.3</td> </tr> </tbody> </table> <p>Absolute difference: -21.7 days</p> | | Baseline | 24m follow-up | Intervention | 14.8 | 76.5 | Control | 17.4 | 58.5 | | Baseline | 24m follow-up | Intervention | 60 | 4.6 | Control | 57 | 23.3 |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | |
| Intervention | 14.8 | 76.5 | | | | | | | | | | | | | | | | | | | |
| Control | 17.4 | 58.5 | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | |
| Intervention | 60 | 4.6 | | | | | | | | | | | | | | | | | | | |
| Control | 57 | 23.3 | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|---|---|--|---|
| | <p>Services Provided: Modified ACT included comprehensive primary health, mental health, and substance abuse treatment services linked to housing</p> | <p>depression, 14.0% bipolar depression, 6.2% PTSD Shelter use: NR Homelessness: mean of 7.7 years</p> | <p>Relative difference: -81.2%</p> <p>Physical health status 24m follow-up Intervention 43.3 Control 43.4 Relative difference: -0.2%</p> <p>Mental health status score 24m follow-up Intervention 40.4 Control 41 Relative difference: -1.5%</p> <p>Proportion with substance abuse problem Baseline 24m follow-up Intervention 74% 74% Control 81% 82% Absolute difference: -1.0pct pts Relative difference: -1.2%</p> <p>Proportion with alcohol abuse problem Baseline 24m follow-up Intervention 51% 50% Control 56% 61% Absolute difference: -6.0pct pts Relative difference: -10%</p> <p>Community integration 24m follow-up Intervention 7.2 Control 7.1 Relative difference: 1.4%</p> |
| <p>Author Year: Montgomery et al., 2013</p> <p>Study Design: Prospective cohort</p> | <p>Location: major metropolitan areas in the United States</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: intervention started in 2009</p> | <p>Eligibility Criteria: veterans experiencing homelessness</p> <p>Homelessness: required</p> <p>Mental health: with serious mental illness</p> <p>Substance use: not specified</p> | <p>Outcome Measure: Housing stability: proportion of participants retained in housing</p> <p>Healthcare use:</p> <ul style="list-style-type: none"> • Number of visits to urgent care • Number of inpatient days for mental health treatment |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|--|---------------|--------------|-----|---------|-----|----------------------|-----------|----------------------|-----|--|---------------|--------------|------|---------|------|----------------------|------------|--|---------------|--------------|------|---------|------|----------------------|-----------|
| <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Intervention Details: Program description: HUD-VASH program; multi-site program for veterans based on HF model, providing housing and consumer driven case management</p> <p>Requirement for staying in housing: none reported</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: veterans experiencing homelessness and receiving regular services from VA</p> <p>Services Provided: ACT team that included social workers, vocational trainers, medical, mental health or psychiatry staff</p> | <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 177 Intervention: 107 Control: 70</p> <p>Attrition: Overall: 7% Intervention: 2% Control: 14%</p> <p>Demographics: Mean age: 53.1 Gender: 85.9% male Race/Ethnicity: 3.4% Hispanic, 6.8% white, 88.1% African American, 1.7% other Employment: 21.5% employed Income: NR Education: NR Insurance: NR Substance abuse: 49.7% with major psychological issue or substance use Mental health: see above Physical health: NR Shelter use: NR</p> | <p>Follow-up Time: 12 months</p> <p>Results: Percent housed</p> <table border="0"> <tr> <td></td> <td>12m follow-up</td> </tr> <tr> <td>Intervention</td> <td>98%</td> </tr> <tr> <td>Control</td> <td>86%</td> </tr> <tr> <td>Absolute difference:</td> <td>12pct pts</td> </tr> <tr> <td>Relative difference:</td> <td>14%</td> </tr> </table> <p>Number of visits to urgent care</p> <table border="0"> <tr> <td></td> <td>12m follow-up</td> </tr> <tr> <td>Intervention</td> <td>-66%</td> </tr> <tr> <td>Control</td> <td>-18%</td> </tr> <tr> <td>Absolute difference:</td> <td>-48pct pts</td> </tr> </table> <p>Number of inpatient days for mental health treatment</p> <table border="0"> <tr> <td></td> <td>12m follow-up</td> </tr> <tr> <td>Intervention</td> <td>-39%</td> </tr> <tr> <td>Control</td> <td>-98%</td> </tr> <tr> <td>Absolute difference:</td> <td>59pct pts</td> </tr> </table> | | 12m follow-up | Intervention | 98% | Control | 86% | Absolute difference: | 12pct pts | Relative difference: | 14% | | 12m follow-up | Intervention | -66% | Control | -18% | Absolute difference: | -48pct pts | | 12m follow-up | Intervention | -39% | Control | -98% | Absolute difference: | 59pct pts |
| | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 98% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 86% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | 12pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | 14% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | -66% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | -18% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | -48pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | -39% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | -98% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | 59pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Padgett et al., 2011</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> | <p>Location: New York City, New York, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: program has been in place; data collection from 2005-2007</p> <p>Intervention Details:</p> | <p>Eligibility Criteria: new enrollees of programs in the intervention and control arms</p> <p>Homelessness: homeless adults</p> <p>Mental health: DSM-IV Axis I diagnosed</p> <p>Substance use: history of substance abuse</p> | <p>Outcome Measure: Substance use: any illicit drug use and or frequent and heavy alcohol use</p> <p>Wellness: size of social network</p> <p>Healthcare use: substance abuse treatment, admission to detoxification and rehab facilities</p> <p>Follow-up Time: 12 months</p> | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|---|--|--|--|
| <p>Quality of Execution: Fair</p> <p>Linked Studies: Henwood 2015</p> | <p>Program description: HF program for homeless persons with dual diagnosis</p> <p>Requirement for staying in housing: none described Scattered or grouped housing: scattered</p> <p><i>Control arm:</i> TF programs; two sites provided temporary congregate shelter and services for 6 to 12 months until a less-structured placement could be secured; one day program serving dually diagnosed homeless adults with temporary housing placement</p> <p>Services Provided: ACT mentioned but no details provided</p> | <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 75 Intervention: 27 Control: 48</p> <p>Attrition: 9.6%</p> <p>Demographics: Mean age: 41.3 Gender: 68% male Race/Ethnicity: 17.3% Hispanic, 16% white, 52% African American, 14.7% other Employment: NR Income: 33.3% low income family, 36.1% working class family, 23.6% middle or upper class, 6.9% unknown Education: 53.3% <HS, 10.7% HS diploma, 13.3% HS equivalent certificate, 17.3% some college, 5.3% associate degree or other Insurance: NR Substance abuse: NR Mental health: 28.6% schizophrenia, 31.4% bipolar disorder, 18.6% schizoaffective, 20% major depression, 1.4% other Physical health: NR Shelter use: NR</p> | <p>Results: Substance use: intervention vs. control, OR of 0.29, controlling for gender, age, race, and baseline substance use</p> <p>Size of social network: HF participants: 12.67 people in their networks TF participants: 8.13 people in their networks HF participants had statistically significantly larger network, suggesting that HF participants did not experience more social isolation than TF participants</p> <p>Substance use treatment: intervention vs. control, OR of 0.1, controlling for gender, age, race, and baseline substance use</p> |
| <p>Author Year: Pankratz et al. 2017</p> <p>Study Design: Pre-post with nonequivalent</p> | <p>Location: Waterloo region, Ontario, Canada</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: rent</p> | <p>Eligibility Criteria: clients need to be 16 or older and scored high on vulnerability scale, connected to STEP home worker and living in Waterloo region</p> | <p>Outcome Measure: Housing stability: number of days housed</p> <p>Wellness: QOL score; community functioning score</p> <p>Follow-up Time: 6 months</p> |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|--|--|--|----------|--------------|--------------|----|-----|---------|----|----|--|----------|--------------|--------------|-------|-------|---------|-------|-------|--|----------|--------------|--------------|-------|-------|---------|------|-------|
| <p>comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>assistance implemented in 2014</p> <p>Intervention Details: Program description: Housing Assistance with Support (HAWS); rent assistance provides participants with up to \$350 for rent (amount is flexible and dependent on participant income, cost of rent, and specific housing needs)</p> <p>Requirement for staying in housing: none reported</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: participants receiving services but no housing assistance</p> <p>Services Provided: Home support services provided through Support to End Persistent Homelessness (STEP) included street outreach, housing liaison support, intensive support, peer support, and informal circle of friend support</p> | <p>Homelessness: persons experiencing homelessness</p> <p>Mental health: not specified</p> <p>Substance use: not specified</p> <p>Disability: scored high on vulnerability scale</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 60 Intervention: 28 Control: 32</p> <p>Attrition: 15% Intervention: 22% Control: 7%</p> <p>Demographics: Mean age: NR Gender: 66.7% male Race/Ethnicity: 10% Aboriginal, 65% Canadian, 1.7% Jamaican, 15% European Employment: 8.3% employed or volunteer work, 90% unemployed or retired Income: mean monthly income of 675.33 Education: mean of 10.9 years of education completed Insurance: NR Substance abuse: NR Mental health: 81.7% diagnosed with mental health condition or substance dependence issue Physical health: NR Shelter use: NR</p> | <p>Results:</p> <p>Number of days housed</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>6m follow-up</td> </tr> <tr> <td>Intervention</td> <td>20</td> <td>146</td> </tr> <tr> <td>Control</td> <td>70</td> <td>43</td> </tr> </table> <p>Absolute difference: 153 days Relative difference: 1088.4%</p> <p>QOL score</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>6m follow-up</td> </tr> <tr> <td>Intervention</td> <td>69.27</td> <td>92.83</td> </tr> <tr> <td>Control</td> <td>74.08</td> <td>81.04</td> </tr> </table> <p>Relative difference: 1088.4%</p> <p>Community functioning score</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>6m follow-up</td> </tr> <tr> <td>Intervention</td> <td>37.64</td> <td>41.68</td> </tr> <tr> <td>Control</td> <td>36.4</td> <td>38.48</td> </tr> </table> <p>Relative difference: 5.1%</p> | | | | Baseline | 6m follow-up | Intervention | 20 | 146 | Control | 70 | 43 | | Baseline | 6m follow-up | Intervention | 69.27 | 92.83 | Control | 74.08 | 81.04 | | Baseline | 6m follow-up | Intervention | 37.64 | 41.68 | Control | 36.4 | 38.48 |
| | Baseline | 6m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 20 | 146 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 70 | 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 6m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 69.27 | 92.83 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 74.08 | 81.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 6m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 37.64 | 41.68 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 36.4 | 38.48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | |
|--|---|---|--|--------------|------|---------|------|--------------|------|---------|------|--------------|------|---------|------|--------------|-----|---------|------|--------------|------|
| <p>Author Year: Rosenheck et al., 2003</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> <p>Linked Studies: Cheng et al., 2007, O’Connell et al., 2008, 2009, 2012, 2017</p> | <p>Location: VA medical centers in San Francisco, San Diego, California; New Orleans, Louisiana; Cleveland, Ohio, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: recruitment from June 1992 to December 1995</p> <p>Intervention Details: Program description: HUD-VASH program; a multisite housing program for veterans that included housing vouchers, assistance with identifying and moving into housing, and supportive services</p> <p>Requirement for staying in housing: none reported</p> <p>Scattered or grouped housing: both</p> <p>Control arm: control group received standard VA care</p> <p>Services Provided: Case management: provided by experienced social workers and nurses, with access to community-based services, crisis assistance, substance use and employment counseling; social workers also facilitated linkage with other VA services</p> | <p>Eligibility Criteria: veterans identified at initial outreach assessment</p> <p>Homelessness: homeless for one month or longer at the time of assessment</p> <p>Mental health: diagnosed with a major psychiatric disorder</p> <p>Substance use: diagnosed with alcohol or drug use disorder</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 370 Intervention: 182 Control: 188</p> <p>Attrition: 44.5% Intervention: 30.2% Control: 63.3%</p> <p>Demographics: Mean age: 42 Gender: 95.9% male Race/Ethnicity: 64% African American Employment: 18.9% employed Income: mean income of \$717 Education: NR Insurance: NR Substance abuse: NR Mental health: NR Physical health: NR Shelter use: 17.5 days homeless within past 90 days</p> | <p>Outcome Measure: Housing stability:</p> <ul style="list-style-type: none"> • Number of days housed • Number of days homeless <p>Mental health:</p> <ul style="list-style-type: none"> • Psychiatric index score assessed using Addiction Severity Index • Psychological distress score assessed using Brief Symptom Index <p>Substance abuse: days drank to intoxication</p> <p>Wellness: overall QOL score</p> <p>Follow-up Time: 36 months</p> <p>Results:</p> <p>Number of days housed</p> <table border="0"> <tr> <td>Intervention</td> <td>59.4</td> </tr> <tr> <td>Control</td> <td>47.6</td> </tr> </table> <p>Absolute difference: 11.8 days Relative difference: 24.8%</p> <p>Number of days homeless</p> <table border="0"> <tr> <td>Intervention</td> <td>13.1</td> </tr> <tr> <td>Control</td> <td>20.5</td> </tr> </table> <p>Absolute difference: -7.4 days Relative difference: -36.2%</p> <p>Psychiatric index score</p> <table border="0"> <tr> <td>Intervention</td> <td>0.25</td> </tr> <tr> <td>Control</td> <td>0.24</td> </tr> </table> <p>Relative difference: 4.2%</p> <p>Psychological distress score</p> <table border="0"> <tr> <td>Intervention</td> <td>1.2</td> </tr> <tr> <td>Control</td> <td>1.16</td> </tr> </table> <p>Relative difference: 3.4%</p> <p>Days intoxicated</p> <table border="0"> <tr> <td>Intervention</td> <td>1.46</td> </tr> </table> | Intervention | 59.4 | Control | 47.6 | Intervention | 13.1 | Control | 20.5 | Intervention | 0.25 | Control | 0.24 | Intervention | 1.2 | Control | 1.16 | Intervention | 1.46 |
| Intervention | 59.4 | | | | | | | | | | | | | | | | | | | | |
| Control | 47.6 | | | | | | | | | | | | | | | | | | | | |
| Intervention | 13.1 | | | | | | | | | | | | | | | | | | | | |
| Control | 20.5 | | | | | | | | | | | | | | | | | | | | |
| Intervention | 0.25 | | | | | | | | | | | | | | | | | | | | |
| Control | 0.24 | | | | | | | | | | | | | | | | | | | | |
| Intervention | 1.2 | | | | | | | | | | | | | | | | | | | | |
| Control | 1.16 | | | | | | | | | | | | | | | | | | | | |
| Intervention | 1.46 | | | | | | | | | | | | | | | | | | | | |

| Study | Intervention Characteristics | Population Characteristics | Results |
|---|---|--|--|
| | | | <p>Control 1.71 Absolute difference: -0.25 days Relative difference: -14.6%</p> <p>QOL Intervention 4.31 Control 4.18 Relative difference: 3.1%</p> |
| <p>Author Year: Schwarcz et al., 2009</p> <p>Study Design: Prospective Cohort</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Good</p> | <p>Location: San Francisco, California, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: program ongoing since 1992; participants in program from 1996 to 2006, ranging from 0 to 120 months by the time of analysis</p> <p>Intervention Details: Program description: Direct Access Housing (DAH); program provided housing to people directly from shelters, living on street or institutions</p> <p>Requirement for staying in housing: must pay rent on a sliding scale of 30% to 50% of participants income</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: controls were people experiencing homelessness living with HIV/AIDS without housing services</p> <p>Services Provided:</p> | <p>Eligibility Criteria: all adult and adolescent (aged ≥13 years) San Francisco residents who were diagnosed with AIDS from January 1, 1996 through December 31, 2006 and reported to the San Francisco Department of Public Health (SFDPH) by November 30, 2007</p> <p>Homelessness: housing status collected at diagnosis; considered to be homeless if the medical record noted that patient was homeless or if the address recorded was a known homeless shelter, a health care clinic, or a free postal address not connected to a residence</p> <p>Mental health: not specified</p> <p>Substance use: not specified</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 676 Int (received housing): 70 Control (no housing): 606</p> <p>Attrition: N/A</p> <p>Demographics:</p> | <p>Outcome Measure: Mortality: survival rate</p> <p>Follow-up Time: NR</p> <p>Results: Obtaining supportive housing was independently associated with an 80% reduction in mortality Adjusted relative hazard: 0.20 95% confidence limits: 0.05, 0.81</p> |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | |
|---|--|---|---|--|----------|---------------|--------------|----|-----|
| | <p>Medical services: care provided by an on-site, full-time nurse, a part-time, mid-level clinician (e.g. nurse practitioner), and at designated health care facilities located near the DAH residences</p> <p>Case management: no details provided</p> | <p>Age: 13.3% 13-29, 39.3% 30-39, 35.4% 40-49, 12.0% 50+</p> <p>Gender: 76.9% male, 15.1% female, 8% transgender</p> <p>Race/Ethnicity: 16.1% Hispanic, 47% white, 39.2% Black, 4% Asian Pacific Islander, Native American, other</p> <p>Employment: NR</p> <p>Income: NR</p> <p>Education: NR</p> <p>Insurance: 34.2% public, 1.2% private, 62.6% not insured, 2.1% unknown</p> <p>Substance abuse: 73.4% injection drug user</p> <p>Mental health: NR</p> <p>Physical health: NR</p> <p>Shelter use: NR</p> | | | | | | | |
| <p>Author Year: Shinn et al., 2015</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Location: New York City, New York, US</p> <p>Urbanicity: urban and suburban</p> <p>Date Intervention Implemented: NR</p> <p>Intervention Details: Program description: Family Critical Time Intervention (FCTI) targeting homeless families with mental health problems</p> <p>Requirement for staying in housing: none reported</p> <p>Scattered or grouped housing: both</p> <p>Control arm: families receiving</p> | <p>Eligibility Criteria: mothers at risk for recurrent homelessness and caring for at least one child aged 1.5 to 16 years; spoke English or Spanish</p> <p>Homelessness: at risk for recurrent homelessness</p> <p>Mental health: diagnosed with mental illness or substance use</p> <p>Substance use: diagnosed with substance use or mental illness</p> <p>Disability: not specified</p> <p>Unit of recruitment: family</p> <p>Sample Size: 200 Intervention: 97 Control: 103</p> | <p>Outcome Measure: Housing stability: proportion housed; proportion of time spent in permanent housing for each observation period based on Residential Timeline Follow-back Calendar</p> <p>Mental health:</p> <ul style="list-style-type: none"> • Depressive symptoms: youth 6-10 completed Children’s Depression Inventory <p>Community Integration: mothers of children ages 6-10 reported on frequency of their child’s involvement in school, neighborhood, and religious institutions in the previous 3 months on a 17-item index; children 11-16 reported for themselves</p> <p>Follow-up Time: 24 months (additional data points at 3, 9, and 15 months)</p> <p>Results:</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>0%</td> <td>86%</td> </tr> </table> | | Baseline | 24m follow-up | Intervention | 0% | 86% |
| | Baseline | 24m follow-up | | | | | | | |
| Intervention | 0% | 86% | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|--|--|----------|---------------|--------------------------|--|--|--------------|-----|-----|---------|------|-----|----------------------|------------|--|----------------------|------|--|--|----------|---------------|-----------------------|--|--|--------------|-----|----|---------|-----|-----|----------------------|------------|--|
| | <p>regular services but no housing assistance; regular services included caseworkers during and after shelter stays, access to subsidized housing after meeting standards for housing readiness</p> <p>Services Provided: Case management: provide active linkages to other services and resources including establishing community integration, skill attainment, restoration of functional ability</p> | <p>Attrition: 27.5%</p> <p>Demographics of mother: Mean age: 30.8 Gender: 100% female Race/Ethnicity: 26% Hispanic, 25% white, 65% African American, 1% Asian, 10% American Indian/ Alaskan Native Education: NR Substance abuse: NR Mental health: NR Physical health: NR Shelter use: all had been in the homeless shelter system</p> | <p>Control 0% 73%</p> <p>Absolute difference: 13pct pts Relative difference: 17.8%</p> <p>Depressive symptoms: self-reported by children; no difference between intervention and control groups; however, both groups had significant improvements over time.</p> <p>Community integration: no difference between intervention and control groups for children 6-10 or children 11-16; however, the 11-16 group saw improvements over time for the intervention and control group</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Srebnik et al., 2013</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Location: Seattle, Washington, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: June 2006 to November 2011</p> <p>Intervention Details: Program description: Begin at Home program set aside 20 units at a newly renovated downtown building for people with long-term homelessness coupled with chronic medical conditions, chemical dependency, or both</p> <p>Requirement for staying in housing: none reported</p> <p>Scattered or grouped housing: grouped</p> | <p>Eligibility Criteria: aged 18 or older and meet the federal definition of chronic homelessness; be referred either from Seattle—King County Public Health’s REACH homeless outreach team or from medical respite with incurred inpatient paid claims of at least \$10000 within the prior year</p> <p>Homelessness: chronically homeless, with 12 consecutive months of homelessness or 4 homeless episodes in prior 3 year</p> <p>Mental health: not specified</p> <p>Substance use: with 60 or more sobering sleep-off center visits within the prior year</p> <p>Disability: with significant disabling physical or psychiatric conditions</p> | <p>Outcome Measure: Health care use:</p> <ul style="list-style-type: none"> • Percent of participants with ED contacts • Number of ED contacts • Percent of participants with inpatient admissions • Number of admissions <p>Crime:</p> <ul style="list-style-type: none"> • Jail use: proportion of participants with jail bookings <p>Follow-up Time: 12 months</p> <p>Results:</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>12m follow-up</td> </tr> <tr> <td>Percent with ED contacts</td> <td></td> <td></td> </tr> <tr> <td>Intervention</td> <td>97%</td> <td>55%</td> </tr> <tr> <td>Control</td> <td>100%</td> <td>81%</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="2">-22pct pts</td> </tr> <tr> <td>Relative difference:</td> <td colspan="2">-29%</td> </tr> </table> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>12m follow-up</td> </tr> <tr> <td>Number of ED contacts</td> <td></td> <td></td> </tr> <tr> <td>Intervention</td> <td>234</td> <td>60</td> </tr> <tr> <td>Control</td> <td>369</td> <td>272</td> </tr> <tr> <td>Absolute difference:</td> <td colspan="2">-77 visits</td> </tr> </table> | | Baseline | 12m follow-up | Percent with ED contacts | | | Intervention | 97% | 55% | Control | 100% | 81% | Absolute difference: | -22pct pts | | Relative difference: | -29% | | | Baseline | 12m follow-up | Number of ED contacts | | | Intervention | 234 | 60 | Control | 369 | 272 | Absolute difference: | -77 visits | |
| | Baseline | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Percent with ED contacts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 97% | 55% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 100% | 81% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | -22pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: | -29% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of ED contacts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 234 | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 369 | 272 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: | -77 visits | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---|--|----------|---------------|--------------|-----|-----|---------|-----|-----|--|----------|---------------|--------------|----|----|---------|----|----|--|----------|---------------|--------------|-----|-----|---------|-----|-----|
| | <p>Control arm: comparison group was recruited using same selection criteria as intervention group from January – July 2008, received usual care and an incentive of \$10 Starbucks gift card</p> <p>Services Provided: Onsite care through a comprehensive team providing integrated medical, psychiatric, and chemical dependency services that were voluntary, intensive, and easily accessible; also helped participants with applying for food assistance and obtaining income</p> | <p>Unit of recruitment: individual</p> <p>Sample Size: 60 Intervention: 29 Control: 31</p> <p>Attrition: NR</p> <p>Demographics: Mean age: NR Gender: NR Race/Ethnicity: NR Employment: NR Income: NR Education: NR Insurance: NR Substance abuse: NR Mental health: NR Physical health: NR Shelter use: NR</p> | <p>Relative difference: -65%</p> <p>Percent with inpatient admissions</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>12m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>97%</td> <td>35%</td> </tr> <tr> <td>Control</td> <td>94%</td> <td>55%</td> </tr> </tbody> </table> <p>Absolute difference: -23pct pts Relative difference: -38%</p> <p>Number of admissions</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>12m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>68</td> <td>18</td> </tr> <tr> <td>Control</td> <td>50</td> <td>26</td> </tr> </tbody> </table> <p>Absolute difference: -26 visits Relative difference: -49%</p> <p>Jail use: Percent participants with jail bookings</p> <table border="1"> <thead> <tr> <th></th> <th>Baseline</th> <th>12m follow-up</th> </tr> </thead> <tbody> <tr> <td>Intervention</td> <td>24%</td> <td>38%</td> </tr> <tr> <td>Control</td> <td>26%</td> <td>32%</td> </tr> </tbody> </table> <p>Absolute difference: 7.3pct pts Relative difference: 26%</p> | | Baseline | 12m follow-up | Intervention | 97% | 35% | Control | 94% | 55% | | Baseline | 12m follow-up | Intervention | 68 | 18 | Control | 50 | 26 | | Baseline | 12m follow-up | Intervention | 24% | 38% | Control | 26% | 32% |
| | Baseline | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 97% | 35% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 94% | 55% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 68 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 50 | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 12m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 24% | 38% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 26% | 32% | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Stefancic et al., 2007</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Location: New York City, New York, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: participants recruited in early 2001</p> <p>Intervention Details: Program description: County Department of Social Services (DSS) contracted two organizations to provide HF services to consumers with psychiatric disabilities and often substance abuse disorders; each program expected to house 60 people; two organizations are</p> | <p>Eligibility Criteria: individuals 18 or older, chronic shelter users, referred by county with the longest histories of shelter use and with the most frequent interruptions in stay</p> <p>Homelessness: chronic shelter users</p> <p>Mental health: Axis I diagnosis of mental illness</p> <p>Substance use: individuals could be dual diagnosed with a substance use disorder</p> <p>Disability: excluded if diagnosed primarily with a developmental disability</p> | <p>Outcome Measure: Housing stability: percent in permanent housing</p> <p>Follow-up Time: 20 months</p> <p>Results: Pathways (long term implementer of HF): 91.9% Control: 33.3% Absolute difference: 58.6pct pts Relative difference: 176%</p> <p>Consortium (new implementer of HF): 88.5% Control: 33.3% Absolute difference: 55.2pct pts Relative difference: 165.8%</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|---|--|--|---|
| | <p>Pathways and a newly formed Consortium of treatment and housing agencies from within the county</p> <p>Requirement for staying in housing: contributing 30% of income towards rent; tenants only risk eviction for same reasons as other building tenants including nonpayment of rent, creating unacceptable disturbances to neighbors, or violations of a standard lease</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: treatment as usual; chronic shelter users with psychiatric disabilities remained in shelter system</p> <p>Services Provided: ACT: services provided in a client’s natural environment, recovery-oriented practice</p> <p>Assistance with issues including housing, health care, mediation, employment, family relations, and recreational opportunities</p> <p>Periodic apartment visits to ensure tenants’ safety and wellbeing</p> | <p>Unit of recruitment: individual</p> <p>Sample Size: 260 Program 1, Pathways: 105 Program 2, Consortium: 104 Control: 51</p> <p>Attrition: N/A</p> <p>Demographics: Mean age: NR Gender: 74.2% male Race/Ethnicity: 28.1% White, 56.5% African American, 1.2% other, 10.8% Hispanic Employment: NR Income: NR Education: NR Insurance: NR Substance abuse: 40.4% alcohol dependence, 13.5% alcohol dependence in remission, 3.1% unspecified alcohol use, 41.1% drug dependence, 13.5% drug dependence in remission, 3.5% unspecified drug use Mental health: 41.9% schizophrenia, 12.7% major depressive disorder, 18.8% bipolar disorder, 5.8% schizoaffective disorder, 13.8% other, 6.9% info unavailable Physical health: NR Shelter use: NR</p> | |
| <p>Author Year: Tsemberis 1999</p> <p>Study Design:</p> | <p>Location: New York City, New York, US</p> <p>Urbanicity: urban</p> | <p>Eligibility Criteria: priorities given to the most vulnerable people, including those living outside shelters, women, people</p> | <p>Outcome Measure: Housing stability: proportion of clients living in permanent housing during the study period</p> <p>Follow-up Time: 30 months</p> |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|---|---|--|---|
| <p>Pre-post with comparison</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> | <p>Date Intervention Implemented: program was established in early 1990s</p> <p>Intervention Details: Program description: Pathways program for homeless persons in NYC; does not rent more than 10% of the units in any one apartment building</p> <p>Requirement for staying in housing: 3 requirements strongly recommended but not required; agree to visit with their service coordinator at least 2 times a month; pay 30% of their income for rent; participate in a money-management program</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: TF programs where clients need to be housing ready before assigned housing</p> <p>Services Provided: ACT: services to increase clients' self-sufficiency, meet their basic needs, enhance social skills, increase employment opportunities, enhance QOL</p> <p>Service coordinators assist tenants in selecting their apartments, match the tenant's choice of neighborhood or special</p> | <p>over age of 65, or with physical health problems</p> <p>Homelessness: individuals must be homeless</p> <p>Mental health: with psychiatric disability</p> <p>Substance use: co-occurring psychiatric disability and substance use disorder</p> <p>Disability: people with physical health problems given priority</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 3950 Intervention: 139 Control: 3811</p> <p>Attrition: N/A</p> <p>Demographics: Mean age: 39.9 for intervention group Gender: 66.3% male Race/Ethnicity: NR Employment: NR Income: NR Education: NR Insurance: NR Substance abuse: 49.5% with co-occurring substance use disorder Mental health: 48% schizophrenia, 38.6% mood disorders, 7.2% other psychotic disorders, 7.2% other disorders Physical health: NR Shelter use: NR</p> | <p>Results: Housing stability Intervention: 84.2% Control: 59.6% Absolute difference: 24.6pct pts Relative difference: 41.3%</p> |

| Study | Intervention Characteristics | Population Characteristics | Results |
|--|--|--|---|
| | accommodations to the degree possible | | |
| <p>Author Year: Tsemberis et al., 2000</p> <p>Study Design: Pre-post with comparison group</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Good</p> | <p>Location: New York City, New York, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: program started in early 1990s; clients from January 1, 1993 to September 30, 1997</p> <p>Intervention Details: Program description: Pathways program</p> <p>Requirement for staying in housing: encourage participants to seek appointment with healthcare professionals, and participate in money management</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: NYC TF program</p> <p>Services Provided: ACT: services to increase clients' self-sufficiency, meet their basic needs, enhance social skills, increase employment opportunities, enhance QOL</p> | <p>Eligibility Criteria: clients housed by Pathways; clients recruited through outreach team, drop-in centers, shelters, and reception centers</p> <p>Homelessness: homeless individuals who live on the streets</p> <p>Mental health: with severe psychiatric disabilities</p> <p>Substance use: concurrent addiction disorders</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 1841 Intervention: 241 Control: 1600</p> <p>Attrition: 47.6% Intervention: 12% Control: 53%</p> <p>Demographics: Mean age: 41.4 Gender: 72% male Race/Ethnicity: 18% Hispanic, 21.3% White, 55% African American, 2% other Employment: NR Income: NR Education: NR Insurance: NR Substance abuse: 50% with substance abuse problems</p> | <p>Outcome Measure: Housing stability: housing retention</p> <p>Follow-up Time: 60 months</p> <p>Results: Housing stability Intervention: 88% Control: 47% Absolute difference: 41pct pts Relative difference: 87.2%</p> |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|---------------------|--|--|--|----------|---------------|--------------|----|-----|---------|----|-----|--------------------------------|--|--|----------------------------|--|--|-----------------------|--|--|--|----------|---------------|--------------|-----|----|---------|-----|-----|---------------------------------|--|--|-----------------------------|--|--|
| | | Mental health: 40% schizophrenia, 44% mood disorders, 8% other psychosis, 8% other Physical health: NR Shelter use: NR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Tsemberis et al., 2004</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> <p>Linked Studies: Fisher2008, Greenwood 2005, Gulcur 2003, 2007, Padgett 2006</p> | <p>Location: New York City, New York, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: program started in early 1990s; data collected between December 1997 and January 2001</p> <p>Intervention Details: Program description: Pathways program</p> <p>Requirement for staying in housing: encourage participants to seek appointment with healthcare professionals, and participate in money management</p> <p>Scattered or grouped housing: scattered</p> <p>Control arm: NYC TF program</p> <p>Services Provided: ACT: services to increase clients' self-sufficiency, meet their basic needs, enhance social skills, increase employment opportunities, enhance QOL</p> | <p>Eligibility Criteria: clients of Pathways program</p> <p>Homelessness: spent 15 of the past 30 days on the street or in other public places, exhibited a history of homelessness over the past 6 months</p> <p>Mental health: Axis I diagnosis of severe mental illness</p> <p>Substance use: not specified</p> <p>Disability: not specified</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 225 Intervention: 99 Control: 126</p> <p>Attrition: 22%</p> <p>Demographics: Mean age: 42 Gender: 77% male Race/Ethnicity: 14% Hispanic, 31% White, 48% African American, 8% other Employment: 10.7% employed Income: NR Education: 10% 8th grade or less, 32% some HS, 17% finished HS, 8% GED, 2% vocational, trade, or business</p> | <p>Outcome Measure: Housing stability:</p> <ul style="list-style-type: none"> Percent time housed: proportion of time spent living in one's own place Percent homeless: proportion of time spent as homeless <p>Substance use:</p> <ul style="list-style-type: none"> Percent heavy drug use (used more than 4 days in past 6 months) Percent heavy alcohol use (used more than 28 days in past 6 months) <p>Mental health: psychiatric symptoms</p> <p>Follow-up Time: Housing stability: 24 months Substance use: 48 months Mental health: 36 months</p> <p>Results:</p> <table border="0"> <tr> <td colspan="3">Percent time housed</td> </tr> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>9%</td> <td>80%</td> </tr> <tr> <td>Control</td> <td>5%</td> <td>34%</td> </tr> <tr> <td colspan="3">Absolute difference: 42pct pts</td> </tr> <tr> <td colspan="3">Relative difference: 30.7%</td> </tr> <tr> <td colspan="3">Percent time homeless</td> </tr> <tr> <td></td> <td>Baseline</td> <td>24m follow-up</td> </tr> <tr> <td>Intervention</td> <td>54%</td> <td>3%</td> </tr> <tr> <td>Control</td> <td>50%</td> <td>24%</td> </tr> <tr> <td colspan="3">Absolute difference: -25pct pts</td> </tr> <tr> <td colspan="3">Relative difference: -88.4%</td> </tr> </table> | Percent time housed | | | | Baseline | 24m follow-up | Intervention | 9% | 80% | Control | 5% | 34% | Absolute difference: 42pct pts | | | Relative difference: 30.7% | | | Percent time homeless | | | | Baseline | 24m follow-up | Intervention | 54% | 3% | Control | 50% | 24% | Absolute difference: -25pct pts | | | Relative difference: -88.4% | | |
| Percent time housed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 9% | 80% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 5% | 34% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: 42pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: 30.7% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Percent time homeless | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 24m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 54% | 3% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 50% | 24% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: -25pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: -88.4% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|----------|---------------|--------------|-------|-------|---------|-------|-------|---------------------------------|--|--|----------------------------|--|--|--|----------|---------------|--------------|-------|-------|---------|-------|------|---------------------------------|--|--|----------------------------|--|--|
| | | <p>school, 24% some college, 5% college degree, 2% graduate Insurance: NR Substance abuse: 40% alcohol use in past 6 months Mental health: 58% schizophrenia, 16% major depression, 15% bipolar, 6% other, 5% unknown Physical health: NR Shelter use: 51% lived on street, subways, parks, abandoned building, or drop-in centers, 6% in shelter, 36% in psychiatric hospital</p> | <p>Percent heavy drug use</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>48m follow-up</td> </tr> <tr> <td>Intervention</td> <td>22.3%</td> <td>20.8%</td> </tr> <tr> <td>Control</td> <td>18.9%</td> <td>15.9%</td> </tr> <tr> <td colspan="3">Absolute difference: 1.5pct pts</td> </tr> <tr> <td colspan="3">Relative difference: 10.9%</td> </tr> </table> <p>Percent heavy alcohol use</p> <table border="0"> <tr> <td></td> <td>Baseline</td> <td>48m follow-up</td> </tr> <tr> <td>Intervention</td> <td>16.3%</td> <td>14.2%</td> </tr> <tr> <td>Control</td> <td>15.3%</td> <td>8.5%</td> </tr> <tr> <td colspan="3">Absolute difference: 4.7pct pts</td> </tr> <tr> <td colspan="3">Relative difference: 56.8%</td> </tr> </table> <p>Mental health: participants experienced a decrease in psychiatric symptoms over the follow-up period; but no difference between intervention and control groups</p> | | Baseline | 48m follow-up | Intervention | 22.3% | 20.8% | Control | 18.9% | 15.9% | Absolute difference: 1.5pct pts | | | Relative difference: 10.9% | | | | Baseline | 48m follow-up | Intervention | 16.3% | 14.2% | Control | 15.3% | 8.5% | Absolute difference: 4.7pct pts | | | Relative difference: 56.8% | | |
| | Baseline | 48m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 22.3% | 20.8% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 18.9% | 15.9% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: 1.5pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: 10.9% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Baseline | 48m follow-up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intervention | 16.3% | 14.2% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control | 15.3% | 8.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Absolute difference: 4.7pct pts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relative difference: 56.8% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Author Year: Wolitski et al., 2010</p> <p>Study Design: RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Good</p> | <p>Location: Baltimore, Maryland, Chicago, Illinois, Los Angeles, California, US</p> <p>Urbanicity: urban</p> <p>Date Intervention Implemented: baseline assessments conducted from July 2004- May 2005</p> <p>Intervention Details: Housing Opportunities for People with AIDS (HOPWA) funded program providing long-term rental assistance, assistance varied depending on Fair Market Rent determined by HUD</p> <p>Requirement for staying in housing: pay 30% of household adjusted income</p> | <p>Eligibility Criteria: 18 years or older, persons living with HIV who were experiencing homelessness or at risk for homelessness, with income <50% of area median income, could complete materials in English or Spanish</p> <p>Homelessness: homeless persons living in shelters or in places not fit for human habitation, normally homeless but in institutions</p> <p>Mental health: not specified Substance use: not specified</p> <p>Disability: living with HIV</p> <p>Unit of recruitment: individual</p> <p>Sample Size: 630 Intervention: 315 Control: 315</p> | <p>Outcome Measure:</p> <p>Physical health:</p> <ul style="list-style-type: none"> Physical health summary score using SF-36 questionnaire Percent with detectable viral load Percent of participants with any opportunistic infection <p>Mental health: summary score using SF-36 questionnaire</p> <p>Risky behavior:</p> <ul style="list-style-type: none"> Percent of participants traded sex in past three months Percent with any unprotected sex with negative/unknown status partner in past three months <p>Healthcare use: percent of participants with one or more ER visits in past 6 months</p> <p>Follow-up Time: 18 months</p> <p>Results: Physical health summary score Intervention: 44.0% Control: 41.5% Absolute difference: 2.5pct pts</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Permanent Supportive Housing with Housing First (Housing First Programs)—Summary Evidence Table

| Study | Intervention Characteristics | Population Characteristics | Results |
|-------|--|--|--|
| | <p>Scattered or grouped housing: scattered</p> <p>Control arm: usual care; customary and usual services from the housing agencies and received referrals to case management</p> <p>Services Provided: Supportive services and case management: referrals to other supportive services (e.g. health, mental health, drug, alcohol abuse treatment and counseling, nutritional services, home care)</p> <p>Drop-in center offering meals and outreach services</p> <p>Medical and dental clinic providing free services</p> <p>Mental health and community support services organization that provided onsite support to assist tenants with mental illness to transition into the housing program as well as providing ongoing help with living skills, counseling, and advocacy</p> | <p>Attrition: 15.3% Intervention: 13.0% Control: 17.8%</p> <p>Demographics: Age: 48.3% between 40-49 years of age Gender: NR Sexual orientation: 70% men having sex with men Race/Ethnicity: 78.4% Black, 21.6% other Employment: 82.2% unemployed Income: NR Education: 35.5% <HS diploma, 28.9% HS diploma or GED, 35.6% >HS or GED Insurance: NR Substance abuse: 41.2% used 1 or more drugs; 24.1% used 2 or more drugs; 51.8% alcohol abuse Mental health: NR Physical health: 39.1% diagnosed to be HIV seropositive Shelter use: NR</p> | <p>Relative difference: 6.0%</p> <p>Detectable viral load Intervention: 61.4% Control: 79.1% Absolute difference: -17.7pct pts Relative difference: -22.4%</p> <p>Percent with any opportunistic infection Intervention: 16.1% Control: 23.6% Absolute difference: -7.5pct pts Relative difference: -31.8%</p> <p>Mental health summary score Intervention: 43.5 Control: 38.5 Relative difference: 13.0%</p> <p>Percent traded sex Intervention: 4.6% Control: 5.6% Absolute difference: -1pct pts Relative difference: -17.9%</p> <p>Percent with unprotected sex Intervention: 13.1% Control: 16.1% Absolute difference: -3pct pts Relative difference: -18.6%</p> <p>Percent with one or more ER visit in past 6 months Intervention: 28.9% Control: 48.6% Absolute difference: -19.7pct pts Relative difference: -40.5%</p> |