Strategies to Achieve Alignment, Collaboration, and Synergy across Delivery and Financing Systems

Housing for Health: Cross-Sector Impacts of Supportive Housing for Homeless High Users of Health Care

Research In Progress Webinar
Wednesday, February 27, 2019
12:00-1:00 pm ET/ 9:00 am-10:00 am PT

Funded by the Robert Wood Johnson Foundation
Welcome: CB Mamaril, PhD, MS
Research Faculty, RWJF Systems for Action National Coordinating Center
University of Kentucky College of Public Health

Presenters: Ricardo Basurto-Davila, PhD, MS
Chief Executive Officer, Policy Analysis Unit
Los Angeles County Department of Public Health

Commentary: Whitney Lawrence, MPP
Director, Policy and Planning
Housing for Health

Q & A: Moderated by Dr. CB Mamaril.
Ricardo Basurto-Davila, PhD, MS
Chief Executive Officer
Policy Analysis Unit
Los Angeles County Department of Public Health
Commentary Speaker

Whitney Lawrence, MPP
Director
Policy and Planning
Housing for Health
Cross-Sector Impacts of Providing Permanent Supportive Housing for High-Utilizers of Health Care Services

Ricardo Basurto-Davila, PhD
Principal Analyst
Analytics Center of Excellence
Los Angeles County Chief Executive Office

Systems for Action Research-in-Progress Webinar
February 27, 2019
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The views expressed here do not necessarily reflect the views of the Foundation.
## Study Partners

**LAC Research Team**
- Corrin Buchanan
- Emily Caesar
- Lisa Greenwell
- William Nicholas
- Irene Vidyanti
- Faith Washburn

**UCLA Research Team**
- Kathryn Kietzman
- Adrian Bacon
- Brenda Gutierrez
- Elaine Miao
- Alina Palimaru
- Nadereh Pourat

**Other Collaborators**
- Housing for Health
- LAC CEO
- LAHSA
- DMH
- DHS
- 10 community partners
- 14 key informants
- 71 focus group participants
Outline

• Homelessness and its cross-sector impacts
• Permanent Supportive Housing
• Housing for Health Initiative
• Our study
  • Objectives
  • Methods
  • Results
  • Conclusions
Point-in-Time Homeless Estimates, 2010-2018

Sources: HUD, Annual Homeless Assessment Report, 2010-2018
Homelessness and Health

• homeless populations are at higher risk of...
  • Acute illness
  • Chronic diseases
  • Mental health disorders
  • Premature mortality
Homeless Utilization of Health Care Services

• Homeless individuals experience significant gaps in access to health care services

• Inadequate access to services leads to:
  • Heavy reliance on emergency department visits
  • High rates of hospitalizations for preventable conditions

⇒ High Health Care Costs
Homeless Have Contact with Multiple Public Sectors

In addition to health services, they also have frequent encounters with:

- Mental health treatment
- Substance use treatment
- Public social programs
  - Income support
  - Food support
- Criminal justice system
## High Utilizers’ Disproportionate Share of Costs

<table>
<thead>
<tr>
<th>LAC Department</th>
<th>Unique Homeless Individuals Served</th>
<th>Expenditures on Homeless, FY 2014</th>
<th>Avg. Cost per Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Services</td>
<td>114,037</td>
<td>$293.7 million</td>
<td>$2,600</td>
</tr>
<tr>
<td>Mental Health</td>
<td>39,073</td>
<td>291.7 million</td>
<td>7,500</td>
</tr>
<tr>
<td>Health Services</td>
<td>47,431</td>
<td>255.3 million</td>
<td>5,400</td>
</tr>
<tr>
<td>Sheriff</td>
<td>14,754</td>
<td>79.6 million</td>
<td>5,400</td>
</tr>
<tr>
<td>Public Health</td>
<td>6,939</td>
<td>32.2 million</td>
<td>4,600</td>
</tr>
<tr>
<td>Probation</td>
<td>2,795</td>
<td>12.1 million</td>
<td>4,300</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>148,815</strong></td>
<td><strong>$964.5 million</strong></td>
<td><strong>$6,500</strong></td>
</tr>
<tr>
<td>Most Costly 10%</td>
<td>14,882</td>
<td>$499.1 million</td>
<td>$33,500</td>
</tr>
</tbody>
</table>

*Source: Wu and Stevens, LAC CEO Report, 2016*
Permanent Supportive Housing (PSH)

• Combines three key elements
  • Permanent housing
  • Rental subsidies
  • Voluntary supportive services including:
    • Independent living skills
    • Tenancy skills
    • Connections to health, social, and other community-based services
Gaps in Literature on Permanent Supportive Housing

• Lack of studies analyzing impact of PSH programs across multiple public sectors

• National Academy of Sciences 2018:*
  • Inconsistent definitions and characteristics of PSH
  • Limited understanding of/standards for supportive services
  • Data systems do not integrate data on homelessness, health, and other outcomes
  • Need for better analytical methods than pre-post studies

* For much more on this see: National Academy of Sciences, 2018, “Permanent Supportive Housing: Evaluating the Evidence for Improving Health Outcomes Among People Experiencing Homelessness”.
Housing for Health Initiative (HFH)

• Created in 2012 by LA County Department of Health Services (DHS) to provide permanent supportive housing to high-utilizers of publicly funded health care services

• Program Objectives
  • To reduce homelessness
  • To improve health outcomes among homeless
  • To reduce inappropriate use of health care resources
How HFH is Different from Other PSH Programs

“Usual” PSH Implementation

• Uncoordinated administration of housing, supportive services, and rental subsidies
  • Little to no oversight of housing managers and service providers
  • Difficult to set standards for supportive services (e.g., client/case manager ratio, minimum skills, use of evidence-based approaches)
• Fragmentation in—and often lack of—funding for supportive services

Housing for Health Approach

• Centralized administration of housing provision, supportive services, and rental subsidies
  • Central oversight of housing and service providers; weekly reporting of activities
  • Standardized contracts for service providers; maximum 20:1 case ratio; minimum requirements for providers
• Pooling of multiple funding sources under single initiative
  • Flexible Housing Subsidy Pool
Permanent Supportive Housing

- Housing
- Financial Subsidies
- Supportive Services

Housing for Health

- Housing
- Financial Subsidies
- Supportive Services
Objectives of Our Study

• Compare HFH to other PSH programs in Los Angeles County
• Determine whether HFH’s implementation model
  • Improves housing outcomes
  • Improve health outcomes
  • Reduces inappropriate use of health care services
  • Affects utilization of services in other sectors
  • Improves outcomes in justice system
• Identify opportunities for program improvement
Mixed-Methods Approach

• Qualitative data collection and analysis
• Quantitative analysis of administrative data
• Simulation model development
Qualitative Analysis

- **Goal:** To better understand experiences, values, and perceptions of clients, service providers, and other stakeholders
- 9 focus groups
  - 42 clients of HFH and other PSH programs
  - 29 service providers for HFH and other PSH programs
- 14 key informant interviews
  - Senior staff of agencies that provide PSH programming
  - Senior staff of agencies in related public sectors
Key Informants Reported Significant Variation in Characteristics of PSH Programs

• Availability of resources
• Staff capacity and skills
• Funding sources and mechanisms
• Program elements and requirements
• Philosophical approaches (housing ready vs. housing first)
• Some programs may not meet SAMHSA fidelity requirements
What Distinguishes HFH from Other PSH Models

• **Vertical Integration**
  • HFH is heavily involved in all aspects and stages of the PSH process
  • Enables more streamlined processes
  • Enables more effective monitoring and reporting for program improvement

• **Program requirements**
  • 20:1 client/case manager ratio
  • Electronic reporting of all activities and services provided to each client

• **Funding**
  • Availability of funds exclusively dedicated to supportive services
  • Flexible subsidy pool reduces need for long and painful procurement process
Potentially Negative Aspects of HFH

- Rapid growth may have created tensions and strains on the County’s homeless services system
  - Service providers may have trouble meeting HFH’s requirements under constant growth
  - Lack of workforce capacity to keep up with growth in number of clients
- Not all providers may implement HFH’s model with fidelity
Impact of HFH on Client Outcomes

• Large-scale impact on homelessness in Los Angeles County in terms of number of individuals placed in housing

• Program facilitates access to medical care, mental health services, and income benefits

• Decreases in detrimental behaviors (e.g., substance use, criminal activity)

• Other intangible benefits
  • Family reunification
  • Dying with dignity
Quantitative Analysis: Linked Administrative Data

**ADMINISTRATIVE DATA**
- 2013-2017
- HOUSING FOR HEALTH

**LAC ENTERPRISE LINKAGES PROJECT**
- 2010-2017
- HEALTH SERVICES
- MENTAL HEALTH
- SUBSTANCE USE TREATMENT
- PUBLIC SOCIAL SERVICES
- SHERIFF DEPARTMENT
- HOMELESS MGMT. INF. SYSTEM

**LAC CHIEF EXECUTIVE OFFICE**
- PROBABILISTIC LINKAGE

**RESEARCH TEAM**
- RECEIVED
- DE-IDENTIFIED LONGITUDINAL DATASET
Quantitative Analysis Approach

• **Goal:** To estimate impact of HFH on utilization of public services and on involvement with the justice system

• Difference-in-Differences (DiD) regression models comparing:
  • HFH clients to sample of clients of other PSH programs
  • One year before vs. one year after housing move-in dates
  • Better than pre-post comparison, reduces biases due to:
    • Pre-existing differences in outcomes between the two groups
    • Changes in outcomes that are due to factors independent of the intervention
Number of HFH Clients Has Grown Rapidly
Retention in Housing was Higher for HFH Clients

<table>
<thead>
<tr>
<th>Program</th>
<th># Housed by July 31, 2016</th>
<th>Still Housed by July 31, 2017*</th>
<th>1-Year Housing Retention Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing for Health</td>
<td>1,948</td>
<td>1,871</td>
<td>96%</td>
</tr>
<tr>
<td>Other PSH</td>
<td>899</td>
<td>827</td>
<td>92%</td>
</tr>
</tbody>
</table>

* Excludes individuals who died or moved to other independent/permanent housing
HFH Clients Reduced Their Use of Health Care Services More than Clients of Other PSH Programs

<table>
<thead>
<tr>
<th>Type of Visit</th>
<th>HFH Impact on % of Clients w/Visits, Compared to Other PSH Programs</th>
<th>HFH Impact on Number of Visits, Compared to Other PSH Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHS Emergency Room</td>
<td>- 54% ***</td>
<td>- 52% ***</td>
</tr>
<tr>
<td>DHS Inpatient</td>
<td>- 46% ***</td>
<td>- 44% ***</td>
</tr>
<tr>
<td>DHS Outpatient</td>
<td>- 21% ***</td>
<td>- 8%</td>
</tr>
<tr>
<td>All DHS Visits</td>
<td>- 38% ***</td>
<td>- 29% ***</td>
</tr>
</tbody>
</table>

*** Statistically significant at 0.001 confidence level
HFH Clients Improve Their Use of Mental Health Services Compared to Clients of Other PSH Programs

<table>
<thead>
<tr>
<th>Type of Service Episode</th>
<th>HFH Impact on % of Clients w/Visits, Compared to Other PSH Programs</th>
<th>HFH Impact on Number of Visits, Compared to Other PSH Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMH Emergency</td>
<td>- 47% ***</td>
<td>- 46% ***</td>
</tr>
<tr>
<td>DMH Inpatient</td>
<td>- 53% ***</td>
<td>- 47% ***</td>
</tr>
<tr>
<td>DMH Outpatient</td>
<td>+ 5%</td>
<td>+ 20%</td>
</tr>
<tr>
<td>All DMH Service Episodes</td>
<td>- 4%</td>
<td>+ 9%</td>
</tr>
</tbody>
</table>

*** Statistically significant at 0.001 confidence level
HFH Had Mixed Impact on Other Public Sectors

<table>
<thead>
<tr>
<th>Type of Event</th>
<th>HFH Impact on % of Clients, Compared to Other PSH Programs</th>
<th>HFH Impact on Number of Episodes/Days, Compared to Other PSH Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance Use Treatment</td>
<td>- 17%</td>
<td>- 27%</td>
</tr>
<tr>
<td>Received Income Support</td>
<td>- 12%</td>
<td>+ 6%</td>
</tr>
<tr>
<td>Days in Jail</td>
<td>- 35% *,</td>
<td>- 52% **</td>
</tr>
</tbody>
</table>

* Statistically significant at 0.05 confidence level
*** Statistically significant at 0.001 confidence level
Participatory Simulation Model Development

• **Goal:** To develop a **holistic** description of how the systems of care for the homeless affect service utilization and outcomes across public sectors

• **Problem:** This is a complex system
  • Crosses multiple public sectors
  • Multiple “moving pieces”
  • Actions in one sector may affect others
  • Potential feedback loops

• We used a **participatory approach** to rely on stakeholders with strong subject matter expertise
Fuzzy Cognitive Map Systems Model
Provision of Supportive Services Can Help Break the “Revolving Door” in the Criminal Justice System

Vicious cycle (“Revolving door of criminal justice”) – a reinforcing loop that keeps increasing the size of the population with uncontrolled health, mental health, and substance abuse issues

Case management and service delivery coordination provides a balancing loop that breaks the vicious cycle and keeps the size of the population with uncontrolled health, mental health, and substance abuse issues in check
Example of Simulation Results:
Impact of Increasing Permanent Housing and Rental Subsidies

- Chronically homeless population on the street
- Population in temporary housing
- Population in PSH
- Housing stability

- Stress/trauma
- Self-management of disease
- Population with chronic / MH / SA issues

- Contact with law enforcement
- Arrests
- Incarceration

- Cost to health agency
- Cost to probation & sheriff

Housing Outcomes
Health Outcomes
Justice Outcomes
Costs
Summary

• Homelessness is an important social determinant of health and a significant driver of utilization of public services

• Permanent supportive housing...
  • Is a promising approach to combat homelessness
  • Can be subject to implementation issues that limit its effectiveness

• Our findings suggest that Housing for Health’s centralized implementation model...
  • Reduces the use of health and mental health services and involvement with the criminal justice system
  • Creates mechanisms that could help some individuals escape the vicious cycles that make it difficult for them to live stable lives
Thank You!

Ricardo Basurto-Davila
rbasurto@ceo.lacounty.gov

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http://systemsforaction.org/our-research
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Upcoming Webinars

Archives

http://systemsforaction.org/research-progress-webinars

Upcoming

March 13, 2019, 12 p.m. ET
Systems for Action Individual Research Project
Community Complex Care Response Team to Improve Geriatric Public Health Outcomes
Carolyn E. Z. Pickering, PhD, RN, School of Nursing, U.of Texas Health Science Center at San Antonio and Christopher D. Maxwell, PhD, School of Criminal Justice, Michigan State University

March 27, 2019, 12 p.m. ET
Systems for Action Individual Research Project
Integrating Behavioral Health with TANF to Build a Culture of Health
Mariana Chilton, PhD, MPH, Associate Professor, and Sandra Bloom, MD, Department of Health Management & Policy, Drexel University Dornsife School of Public Health

April 10, 2019, 12 p.m. ET
Systems for Action Individual Research Project
Optimizing Governmental Health and Social Spending Interactions
Beth Resnick, DrPH, MPH, and David Bishai, MD, MPH, PhD, Johns Hopkins Bloomberg School of Public Health
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