HOUSING FOR HEALTH: USING LINKED ADMINISTRATIVE DATA TO STUDY THE CROSS-SECTOR IMPACTS OF A HOUSING PROGRAM

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Homelessness in Los Angeles County

- In 2015, LAC had largest local population in the country of:
  - Homeless individuals (41,174; 7% of US)
  - Chronically homeless (14,173; 15% of US)
- Between 2014-15 LAC experienced largest increase in chronically homeless in the US

Sources: HUD, Annual Homeless Assessment Report, 2010-2015
Homelessness and Health

- Homeless populations are at higher risk of
  - Acute and chronic illness
  - Mental health disorders
  - Mortality
- Significant gaps in access to health services
- Heavily reliant on emergency department visits
- High rates of hospitalizations for preventable conditions
# Homelessness Also Costly to Other Public Sectors

<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><strong>Most Costly 10%</strong></td>
<td><strong>14,882</strong></td>
<td><strong>$499.1 million</strong></td>
<td><strong>$33,500</strong></td>
</tr>
</tbody>
</table>

*Source: Wu and Stevens, LAC CEO Report, 2016*
Housing for Health Initiative (HFH)

- Created in 2012 by Department of Health Services
- Provides *permanent supportive housing (PSH)* and *rental subsidies* to homeless individuals who are high-utilizers of DHS services

**Program Objectives:**
- To reduce homelessness
- To improve health outcomes among homeless
- To reduce inappropriate use of expensive health care resources

- HFH grew from 1,200 to >2,000 clients in 2016
Housing for Health Client Process

- **REFERRAL FROM:**
  - DHS Facility
  - Clinical Partners

- **HFH Eligible?**
  - Yes: **Needs Rental Subsidies?**
    - Yes: **REFER TO:**
      - Permanent Housing
      - Supportive Services
      - Flexible Housing Subsidy Pool
    - No: **END**
      - (Refer to other services if applicable)
  - No: **END**

- **REFER TO:**
  - Permanent Housing Supportive Services
HFH’s Unique Approach to PSH

• By focusing on DHS high-utilizers, program aligns goals of health care and housing sectors
  – Probably other sectors as well
  – Clients likely high-utilizers of other agencies
• Reduces fragmentation in service delivery
  – Centralized contracting with providers
  – More intense oversight than typical PSH model
• Reduces fragmentation and uncertainty in financing mechanisms
  – Housing, supportive services, and rental subsidies financed through DHS general fund
Previous Studies Have Found That PSH

- Increases housing stability
- Reduces:
  - Use of shelters
  - Use of acute care services
  - Hospital admissions
  - Hospital length of stay
  - Incarcerations
Limitations of Existing Evidence

- Most studies focused on impacts on single sectors (e.g., healthcare only OR criminal justice only)
- A few recent studies have used administrative data linked across sectors but they:
  - Compared PSH to individuals who did not receive housing, did not compare different PSH approaches
  - Have not explored dynamic aspects of program impacts:
    - Spillover effects/synergies
    - Feedback effects (e.g., health -> employment -> health)
Our Research Questions

• Does HFH improve health outcomes?
• Does HFH improve the quality of healthcare received by its clients?
• How does the effectiveness of HFH compare to other PSH programs?
• How does HFH affect service utilization and costs across public sectors when compared to other PSH programs?
• Do client linkages to other sectors create synergies, thus improving system-wide outcomes and lowering costs?
Mixed-Methods: Qualitative Analysis

• Between four and eight focus groups with:
  – HFH clients
  – HFH service provider staff
  – Non-HFH PSH clients
  – Non-HFH PSH service provider staff

• Semi-structured interviews with key informants
  – Senior HFH and non-HFH staff
  – Senior staff at other LAC agencies (e.g., DHS, DPSS, …)
Big Data: Linkage of Multiple Data Sources

- **ADMIN DATA:** 2012-2016
  - HFH

- **ELECTRONIC HEALTH RECORDS:** 2010-2016
  - DHS

- **ENTERPRISE LINKAGE PROJECT:** 2010-2016
  - DHS
  - DMH
  - DPH
  - DPSS
  - PROBATION
  - SHERIFF
  - HMIS

- **LAC CEO:** PROBABILISTIC LINKAGE

- **STUDY TEAM WILL RECEIVE:**
  - DE-IDENTIFIED LONGITUDINAL DATASET
Comparison Groups

**Homeless Throughout Study Period**

**Non-HFH Permanent Supportive Housing**

**Housing for Health Permanent Supportive Housing**

- **Health Outcomes**
- **Housing Outcomes**
- **Service Utilization and Costs**
  - SAPC
  - DHS
  - DMH
  - DPSS
  - Probation
  - Sheriff
System Dynamics Simulation Model
Significance: This Study Will Help Us…

- Assess whether HFH is achieving its goals
- Understand the spillover effects and synergies created by providing PSH to the homeless
- Learn whether there is a financial case for similar programs, which would make them **sustainable**
  - From the perspective of health agencies
  - From perspective of other agencies (e.g., DPSS)
  - Opportunity for cross-subsidizing negatively affected agencies
THANK YOU!

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