CD4 count and HIV viral suppression improve after housing program enrollment, 2013-16

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Abstract # 1121

Background

- What is the HOPWA program?
The U.S. Housing Opportunities for Persons with AIDS (HOPWA) program provides housing assistance and related supportive services for low-income persons living with HIV (PLWH) and their families. By stabilizing housing and addressing other basic needs, the HOPWA program aims to reduce homelessness, connect and retain clients in medical care, improve adherence to antiretroviral therapies and reduce HIV transmission.

- What services we are delivering?
The New York City (NYC) Department of Health and Mental Hygiene directly oversees 37 HOPWA contracts in NYC across three service categories: housing placement assistance (HPA), supportive permanent housing (SPH), and rental assistance (REN).

Method

Population & eligibility

- Target population
  - Low-income PLWH
  - Single adults and/or families who are homeless or at serious risk of homelessness
  - Single adults and/or families who meet the income eligibility for HASA but are ineligible for rental assistance (i.e., welfare) due to administrative requirements
  - Single adults with mental illness or substance use disorder
  - Single adults who were released from a correctional or institutional facility and are at serious risk of homelessness.
- Low-income PLWH who are ineligible for HASA-based rental assistance (i.e., welfare) due to administrative requirements.

- Method - Matching
  - Administrative requirements.

Population Characteristics

- Baseline characteristics
  - Among 574 eligible HOPWA consumers, 666 were male; 95% were Black or Hispanic; median age was 46 years old; 31% were reported as men who have sex with men (MSM); 32% had heterosexual contact; 16% had injection drug use history.
  - 63% were diagnosed as AIDS; 33% were foreign-born; 39% lived in very-high-poverty (≥30% below federal poverty level) area; 71% were diagnosed before 2006; 70% were enrolled other housing assistance program.

- Viral Suppression
  - Among 574 eligible HOPWA consumers, proportion virally suppressed significantly increased from 79% to 87% among HOPWA long-term consumers (P=0.003).

- Engagement in care
  - Among 574 eligible HOPWA consumers, proportion virally suppressed significantly increased from 79% to 87% among HOPWA long-term consumers (P=0.003).

Table: Baseline characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Overall (%)</th>
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<tbody>
<tr>
<td>Age 18 years or older</td>
<td>82%</td>
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<tr>
<td>Diagnosed as HIV-positive before 2013</td>
<td>70%</td>
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<tr>
<td>Lived in the five boroughs of New York City in 2014, 2015, and 2016</td>
<td>94%</td>
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<tr>
<td>Alive through December 31, 2016</td>
<td>93%</td>
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<tr>
<td>HIV viral suppression</td>
<td>99%</td>
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<td>CD4 count in the given period</td>
<td>51%</td>
</tr>
<tr>
<td>Proportion virally suppressed</td>
<td>87%</td>
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</tbody>
</table>

Result

- Viral Suppression
  - Among 574 eligible HOPWA consumers, proportion virally suppressed significantly increased from 79% to 87% among HOPWA long-term consumers (P=0.003).

- Engagement in care
  - Among 574 eligible HOPWA consumers, proportion virally suppressed significantly increased from 79% to 87% among HOPWA long-term consumers (P=0.003).

Conclusion

- Providing HOPWA housing services to PLWH resulted in improved CD4 count and VL within 1 year compared to matched controls.
- Compared to short-term consumers, improvements in viral suppression and CD4 count were greater among long-term consumers for all service categories, especially for SPH consumers who need more supportive services.
- Improvements in viral suppression for short-term HOPWA consumers were not significant, suggesting benefits are greater for long-term consumers.

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Figure 1. Proportion virally suppressed among people in care at 1 year pre-enrollment and 1 year post-enrollment by service category and enrollment duration.

Figure 2. Proportion of people who improved or maintained optimal CD4 count at 1 year post-enrollment, and odds ratio (and 95% confidence interval) of CD4 count improvement among HOPWA consumers compared to controls, by service category and enrollment duration.

CD4 Count

- Significant improvement in CD4 count can be seen among both short-term and long-term HOPWA consumers, compared to respective controls.