Housing stability is associated with HIV viral suppression in a housing placement RCT
Yaoyu Zhong1, Ellen Wiewel1, Vivian Towe2, Rachel Johnson1, Laura McAllister-Hollod3, Joanne Hsu1, Sarah Braunstein1, John Rojas1
1. New York City Department of Health and Mental Hygiene 2. RAND Corporation

Abstract #1013

Background

Homeless or unstably housed people living with HIV (PLWH) may have low rates of retention in HIV care and viral suppression. Providing stable housing is complex. A randomized controlled trial of rapid rehousing, Enhanced Housing Placement Assistance, tested whether at-residence case management could improve housing stability and health outcomes among low-income, homeless PLWH in New York City (NYC).

Study Design

- Between April 2012 and April 2013, a total of 236 PLWH from 22 emergency housing facilities were randomly sampled and assigned to treatment group and control group.
- Case managers visited treatment group persons at their emergency housing weekly up to 1 year, to help them find stable housing.
- Control group persons received in-office supportive services up to 3 months, which was the standard for housing placement assistance.
- Housing status and health outcomes of the 235 PLWH were tracked at each 6-month period up to 2 years after enrollment.

Data analysis

- Outcomes
  - In HIV care (Yes or No): At least one CD4 count or viral load test during the period of interest.
  - HIV viral suppression (Yes or No): Last HIV viral load ≤200 copies/mL during the period of interest.
- Exposures
  - Group: Treatment group or control group.
  - Housing stability levels:
    1) High: Person continuously resided in stable housing (independent housing or supportive housing) during the given period.
    2) Medium: Person in transit between stable housing and unstable housing (emergency housing, institutional program or missing housing status) during the given period.
    3) Low: Person continuously resided in unstable housing during the given period.
  - Time: Months post-enrollment.
- Statistical Analysis
  - Chi square test.
  - Multi-level logistic regression:
    - Level 1: time(5 points), housing stability level; Time was treated as a continuous variable.
    - Level 2: group, age, race/ethnicity, and gender.

Results

- Out of 236 participants, 74% were male, 93% Black or Latino, mean age was 46, 95% were disabled for work or unemployed, and 66% were chronically homeless.
- Most characteristics were balanced between treatment group and control group, except incarceration history in past two years, and baseline viral suppression.
- The treatment group had better housing stability than the control group. At 1 year post-enrollment, the treatment group had 34 (31%) participants with high housing stability while the control group had 17 (15%). Chi square test p-value <0.01 at 6 months and 1 year post-enrollment.(Figure)
- Among people with high housing stability in the treatment group, 97% were in HIV care during 7-12 months post-enrollment, but the percentage decreased to 80% during 19-24 months.

Conclusions

Compared with standard housing placement services, enhanced housing stabilization services with at-residence case management were associated with improved housing stability and viral suppression for PLWH.

Contact

Yaoyu Zhong, MS
Housing Services Unit, Division of Disease Control
NYC Department of Health and Mental Hygiene
yzhong@health.nyc.gov