

Housing stability patterns among HIV-positive persons enrolling in a supportive housing program: Data for action from New York City 2006-2012

Ellen Wiewel, Tejinder Singh, Sungwoo Lim, Sarah Walters, Gerod Hall, Christopher Beattie, Joanne Hsu, Yaoyu Zhong, Sarah Braunstein, John Rojas Divisions of Disease Control and Epidemiology, New York City Department of Health and Mental Hygiene, New York, NY

Contact: Ellen Weiss Wiewel,
DrPH, MHS
Director of Research and
Evaluation
Housing Services Unit, Division of
Disease Control
New York City Department of
Health and Mental Hygiene
ewiewel@health.nyc.gov

Background

- Stably housed persons living with HIV (PLWH) are more likely than homeless PLWH to adhere to HIV treatment and achieve viral suppression
- NY/NY III is a joint New York City and State supportive housing program for populations at risk of homelessness, including PLWH
- Little is known about the effects of the NY/NY III program on housing stability and medical outcomes among PLWH

Study Aims and Population

- Aim: Investigate housing stability patterns pre- and post-enrollment in NY/NY III among persons with HIV
- Population: NYC PLWH enrolled in NY/NY III during 2008-2010 (N = 880)
- Outcome: Stable housing
- Exposure: Placement in NY/NY III housing

Statistical Methods

- Distribution of population by pre-baseline demographic characteristics, overall and by placement, and Chi-square test of association comparing unplaced and placed
- P Sequence analysis to identify housing patterns one year pre- and two post-enrollment, overall and by NY/NY III placement
- Characterization of housing patterns after enrollment
- Distribution of housing patterns after enrollment, by placement, and Chi-square test of association comparing unplaced and placed



Figure I. Housing stability patterns

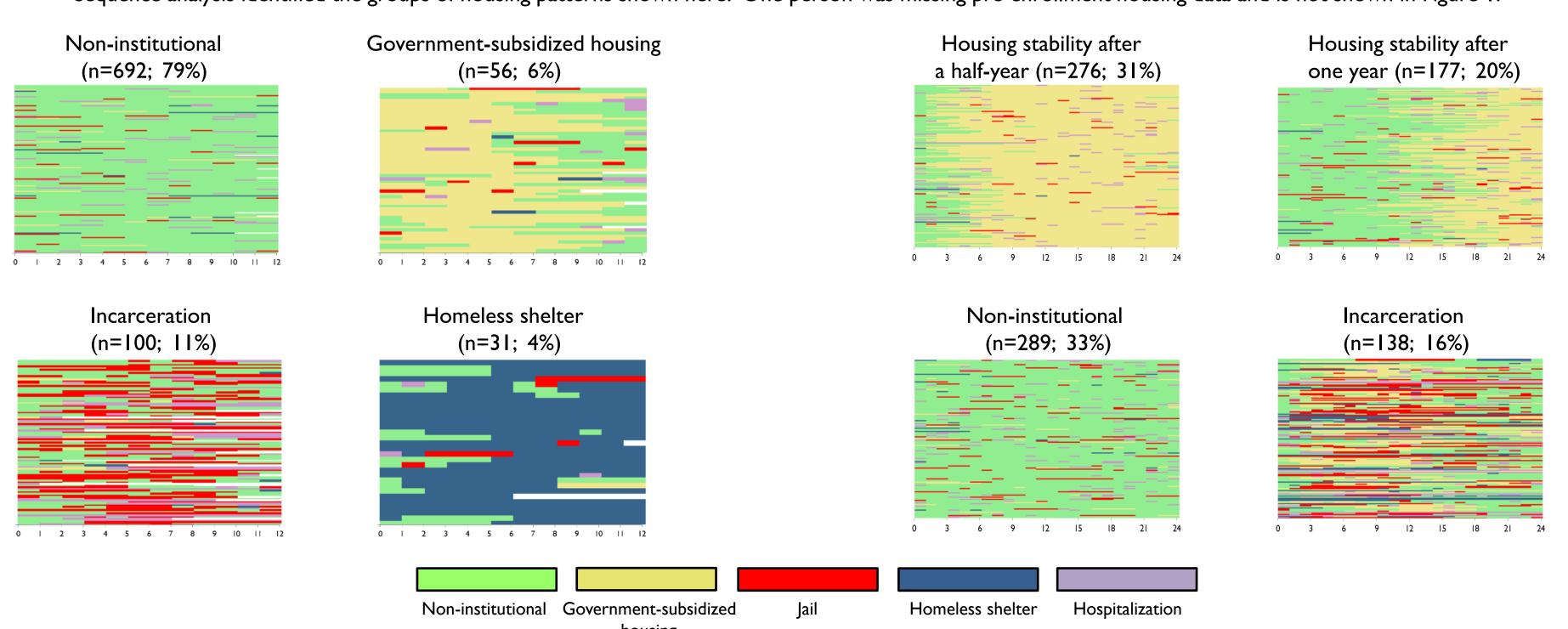
in the I year prior to enrollment

Figure 2. Housing stability patterns in the 2 years after enrollment

Results

Tips for reading Figures I and 2: Each color represents a housing type. Each horizontal row of color(s) represents one person's housing types over time (in months).

Sequence analysis identified the groups of housing patterns shown here. One person was missing pre-enrollment housing data and is not shown in Figure I.



Prior to enrollment, four housing patterns were identified: non-institutional (79%), government-subsidized housing (6%), incarceration (11%), and homeless shelter (4%).

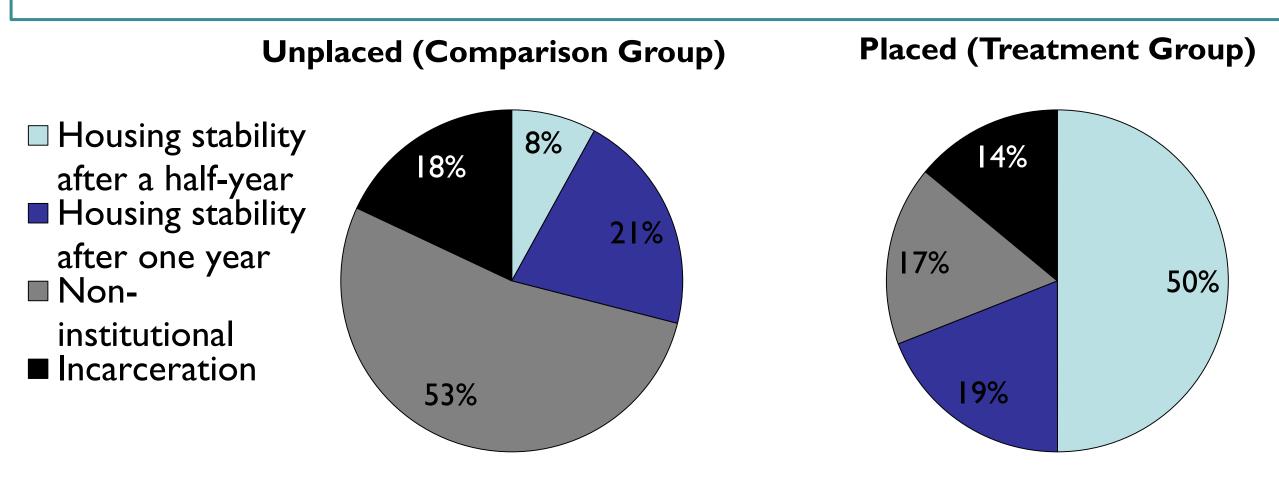
After enrollment, four housing patterns were identified: housing stability after a half-year (31%), housing stability after one year (20%), non-institutional (33%), and incarceration (16%).

Table 2. Frequencies of housing types (mean), by housing stability patterns after enrollment

	Total (n=880)	Housing stability after a half-year (n=276)	Housing stability after one year (n=177)	Non- institutional (n=289)	Incarceration (n=138)
Government-subsidized housing placements	1.1	1.5	1.7	0.5	1.1
Homeless shelter uses	0.5	0.1	0.1	0.3	2.2
Jail incarcerations	0.7	0.2	0.4	0.7	1.8
Hospitalizations	3.6	1.9	3.9	4.5	4.5

After enrollment, enrollees had a mean of 1.1 government-subsidized housing placements, 0.5 homeless shelter uses, 0.7 jail incarcerations, and 3.6 hospitalizations.

Figure 3. Housing stability patterns after enrollment, by placement



- Post-enrollment housing patterns differed by placement (p<0.01).
- Placed persons were more likely than unplaced to be stably housed after a half-year (50% vs. 8%).
- Placed persons were less likely to be non-institutionalized (17% vs. 53%) or incarcerated (14% vs. 18%).

Table I. Selected baseline demographic characteristics, by housing placement

	Total (n=880)	Unplaced (Comparison Group; n=385)	Placed (Treatment Group; n=495)	p-value
Sex				0.34
Female	28%	29%	26%	
Male	72%	71%	74%	
Race/Ethnicity				0.84
Black	63%	64%	62%	
Hispanic	28%	27%	28%	
White	7%	7%	6%	
Other	3%	3%	3%	
Active Substance Use				<0.01
No	15%	18%	12%	
Yes	85%	82%	88%	
Mental Illness				0.07
No	2%	3%	1%	
Yes	98%	97%	99%	
Highest Education				0.24
Less than high school	51%	53%	49%	
High school & higher	48%	45%	50%	
Other/Unknown	1%	2%	1%	

- 880 PLWH enrolled in the program in 2008-2010
- The 495 placed persons (56%) were similar to unplaced on most demographic and clinical characteristics and preenrollment housing patterns.
- Mean age = 45 years
- 79% lived in non-institutional housing pre-enrollment

Strengths and Limitations

- Used multiple matched administrative databases
- Placement in NY/NY III is not randomized
- Health outcomes not yet analyzed

Conclusions

- All PLWH had greater housing stability after enrolling in NY/NY III
 - Increased government-subsidized housing
 - Decreased non-institutional residence
- Housing stability increased most for the placed subset