Housing Status and HIV Outcomes Among Reproductive-Age Women Living With HIV in the Southern US

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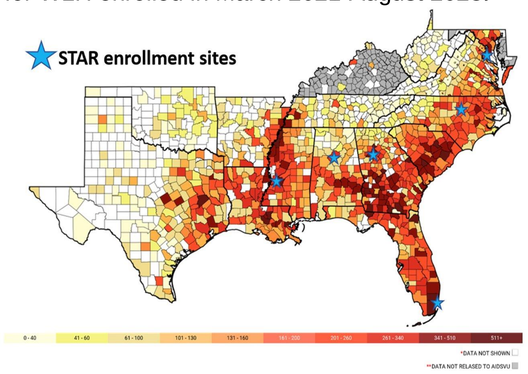
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BACKGROUND

Reproductive-age women are uniquely affected by HIV across their life course. Housing instability has been identified as a modifiable risk factor for worse health outcomes among people living with HIV but is not well examined among reproductive-age women. We evaluated associations between housing status and HIV outcomes among reproductive-age women living with HIV (WLH).

METHODS

The Study of Treatment And Reproductive outcomes (STAR) examines cisgender women aged 18-45 years old with and without HIV in six Southern US sites. We analyzed baseline data for WLH enrolled in March 2021-August 2023.



Using logistic regression models, we assessed the associations between housing status (Table 1) and a) viral non-suppression and b) missed HIV care visits, adjusting for age, race, socioeconomic status, depressive symptoms, and illicit drug use.

Table 1. Study Definitions

Study Term	Study Definition
Stably housed	Self-reported housing status in: • Own house • Own apartment
Unstably housed	Self-reported housing status in: • Parent's house • Someone else's house • Rooming/halfway house • Shelter/welfare hotel • On the street(s)/beach • Jail or other correctional facility • Residential drug/treatment facility • Car • Assisted Living • Parent's house • Someone else's house/apartment • Other place
Viral non-suppression	HIV RNA ≥200 copies/mL
Missed HIV care visit	Self-reported missed HIV care visit in the past year

Housing instability was associated with over two times the odds of adverse HIV outcomes, emphasizing its role as a key social determinant of health that must be addressed.

RESULTS

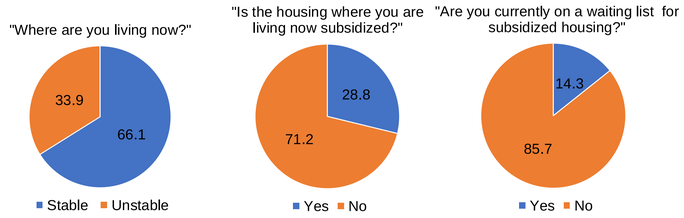
- Among 473 WLH, **<u>33.9% reported unstable housing</u>** (Figure 1)
- Unstably housed WLH were less likely to see a healthcare provider (p=0.013) and more likely to experience lack of health insurance in the past year (p=0.002)
- **Unstably housed WLH were:**
  - **<u>More likely to be virally non-suppressed</u> (OR 2.92; CI: 1.08-7.87)**

Table 2. Characteristics associated with non-viral suppression and missed HIV visits among women living with HIV in the Southern US (n=473).

	Viral Non-Suppression				Missed HIV Care Visit			
Characteristics	**HIV RNA <200c/mL N=198 N (%)**	**HIV RNA ≥200c/L N=48 N (%)**	**Unadjusted OR (95% CI)**	**Adjusted OR* (95% CI)**	**No missed visit N=392 N (%)**	**Missed visit N=76 N (%)**	**Unadjusted OR (95% CI)**	**Adjusted OR* (95% CI)**
Median (IQR) age (years)[1]	36.4 (30.4-40.9)	37.9 (29.4-41.5)	0.87 (0.53-1.45)	0.91 (0.52-1.61)	37.5 (31.6-41.4)	36.6 (29.9-42.0)	0.99 (0.95-1.0)	0.99 (0.53-1.87)
Non-Hispanic Black Race (vs else)	155 (78.3)	37 (77.1)	0.93 (0.44-1.98)	1.10 (0.49-2.48)	313 (79.9)	61 (80.3)	1.03 (0.55-1.90)	0.99 (0.53-1.87)
Unstably Housed	12 (6.1)	9 (18.8)	3.58 (1.41-9.07)	**2.92 (1.08-7.87)**	23 (5.9)	10 (13.2)	2.43 (1.11-5.34)	**2.35 (1.02-5.42)**
Socioeconomic Status[2]								
Level 1	68 (34.3)	24 (50.0)	1.84 (0.81-4.17)	1.62 (0.69-3.81)	113 (28.8)	34 (44.7)	2.63 (1.30-5.35)	2.44 (1.18-5.04)
Level 2	32 (16.2)	7 (14.6)	1.14 (0.39-3.29)	0.86 (0.27-2.68)	83 (21.2)	18 (23.7)	1.90 (0.87-4.16)	1.67 (0.75-3.74)
Level 3	46 (23.2)	7 (14.6)	0.79 (0.28-2.25)	0.76 (0.26-2.22)	91 (23.2)	12 (15.8)	1.15 (0.49-2.69)	1.05 (0.44-2.48)
Depressive symptoms[3]	73 (37.4)	28 (59.6)	1.13 (0.59-2.17)	1.01 (0.51-2.01)	142 (36.4)	40 (53.3)	1.53 (0.93-2.52)	1.35 (0.80-2.72)
Illicit drug use in past year[4]	14 (7.2)	38 (80.9)	3.06 (1.24-7.59)	2.05 (0.76-5.53)	354 (90.8)	68 (90.7)	1.01 (0.43-2.37)	0.66 (0.27-1.64)

* Models include age, race, housing, socioeconomic status, depressive symptoms, and illicit drug use
[1] Odds ratio per 10 years of age
[2] Level based on education, employment, and income (vs. reference Level 4 ≥high school education, employed, and ≥150% below federal poverty level)
[3] Defined as Center for Epidemiological Studies-Depression Scale (CES-D) ≥16 (vs. reference < 16)
[4] Defined as non-medical drug use (crack/cocaine, methamphetamines, other stimulants, opioids, tranquilizers, or other drugs; excludes use of only marijuana)

Figure 1. Results of Housing Survey



CONCLUSIONS

Housing instability was associated with adverse social determinants of health, including access to healthcare and viral non-suppression. Further research to assess the potential pathways for this association, such as neighborhood factors or comorbid conditions, will inform acceptable and scalable housing interventions to improve outcomes for WLH.

The Housing Opportunities for Persons with AIDS (HOPWA) is a federally funded program which offers housing assistance for low-income people living with HIV and their families. Given the caregiving responsibilities and health needs faced by WLH, it is imperative that housing interventions address the unique needs of reproductive-aged WLH, including those that expand awareness, eligibility, accessibility, utilization, and funding for HOPWA.

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