RACIAL AND HIV DISPARITIES IN HYPERTENSION CASCADE AMONG WOMEN

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BACKGROUND

Management of hypertension to prevent cardiovascular and renal disease has emerged as a priority among women living with HIV (WLHIV). Our goal was to evaluate cross-sectional associations of race/ethnicity and HIV status across the hypertension treatment cascade (prevalence, awareness, treatment, and control of hypertension) among women participating in the Women's Interagency HIV Study (WIHS).

Hypotheses:

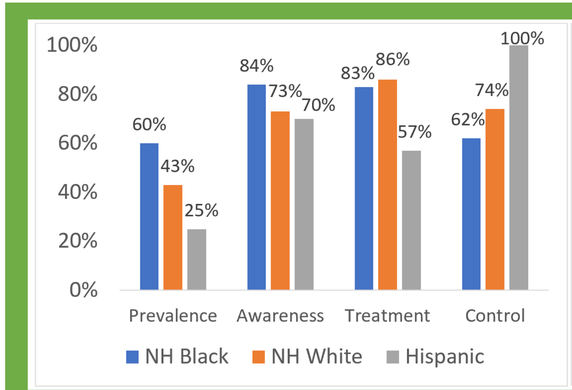
- Prevalence, awareness, and treatment of hypertension are higher in non-Hispanic (NH) Black women than in NH White and Hispanic women. Control of hypertension is lower in NH Black women.
- WLHIV will have higher prevalence, awareness, treatment, and control of hypertension compared to demographically similar women living without HIV.

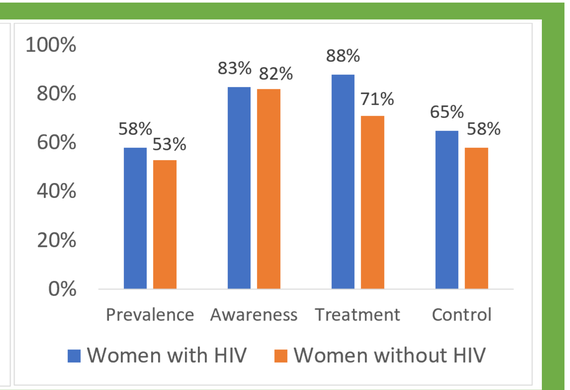
METHODS

We included cis-gender women recruited into WIHS between 2013-2015 from Atlanta, GA; Miami, FL; Birmingham, AL/Jackson, MS; and Chapel Hill, NC with available data (N=712). Prevalence ratios for each outcome in the hypertension treatment cascade were estimated using Poisson regression models with robust variance estimates adjusted for behavioral, sociodemographic, and clinical risk factors.

Hypertension treatment cascade outcomes:

- Prevalence – blood pressure ≥140/90 mmHg or medical history of hypertension diagnosis
- Awareness – self-reported as "Have you ever had high blood pressure or hypertension that required medical care?"
- Treatment – currently taking antihypertension medication
- Control – mean blood pressure <140/90 mmHg





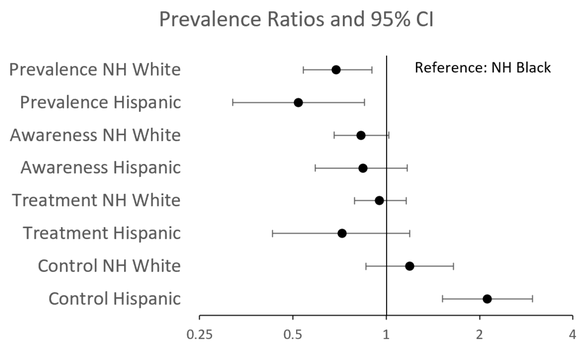
	Prevalence	Awareness	Treatment	Control		Prevalence	Awareness	Treatment	Control
NH Black	361/602	302/361	252/302	156/252	Women with HIV	286/493	237/286	208/237	135/208
NH White	30/70	22/30	19/22	14/19					
Hispanic	10/40	7/10	4/7	4/4	Women without HIV	115/219	94/115	67/94	39/67

Figure 1. Proportions of hypertension treatment cascade outcomes by race/ethnicity and HIV for women enrolled at Southern sites of the Women's Interagency HIV Study (WIHS) (N=712)

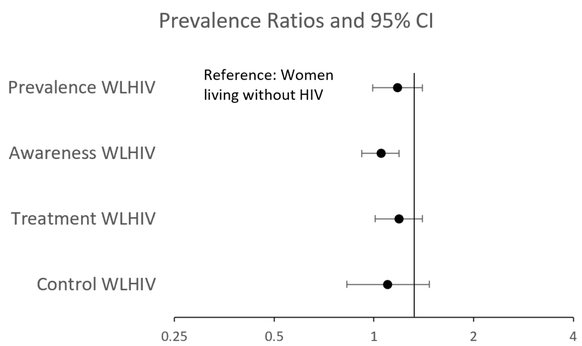
Main result: NH Black women had higher prevalence of hypertension compared to NH White and Hispanic women, although prevalence ratios of awareness and treatment did not differ.

RESULTS

Figure 2. Adjusted prevalence ratios and 95% confidence intervals (CI) for the association between hypertension outcomes and race/ethnicity and HIV status for women enrolled at Southern sites of the Women's Interagency HIV Study (WIHS)



Fully adjusted Poisson model includes the following variables: age, education, health insurance, smoking, alcohol, substance use, BMI, history of CVD, diabetes, eGFR, FIB-4, APRI, hepatitis C, depressive symptoms, CD4 count, HIV, and interactions between HIV and ART, time in care at HIV clinic, and AIDS



Fully adjusted Poisson model includes the following variables: race/ethnicity, age, education, health insurance, smoking, alcohol, substance use, BMI, history of CVD, diabetes, eGFR, FIB-4, APRI, hepatitis C, depressive symptoms, and CD4 count

Table 1. Characteristics of study population for women enrolled at Southern sites of the Women's Interagency HIV Study (WIHS) (N=712)

	NH Black (N=602)	NH White (N=70)	Hispanic (N=40)
Health insurance, %			
Uninsured	21.9	28.6	35.0
Medicaid only	37.5	34.3	27.5
ADAP only	14.0	15.7	30.0
Other	26.6	21.4	7.5
Smoking status, %			
Former	12.6	20.0	7.5
Current	45.9	55.7	37.5
Substance use, %			
None	32.7	18.6	57.5
Marijuana only	16.5	20.0	10.0
Non-intravenous drug use	46.2	41.4	22.5
Intravenous drug use	4.7	20.0	10.0
History of CVD, %	9.3	7.1	7.5
Diabetes, %	12.6	7.1	7.5
Hepatitis C, %	10.3	27.1	7.5
eGFR, mean	102.3	86.4	103.4
HIV, %			
Negative	30.7	30.0	32.5
Unsuppressed	18.1	14.3	27.5
Suppressed	51.2	55.7	40.0
Current ART usage, %			
None	6.0	4.1	3.7
INSTIs	31.2	44.9	37.0
Non-INSTIs	62.8	51.0	59.3
AIDS diagnosis, %	7.1	8.6	12.5

CONCLUSIONS

- Hispanic women had 48% and NH White women had 30% lower prevalence of hypertension compared to NH Black women.
- WLHIV were 19% more likely to be on antihypertension medication compared to women living without HIV, which may reflect better access to care associated with HIV treatment programs.
- Disparities in hypertension prevalence between WLHIV and women living without HIV were attenuated compared to prior studies; this may be because women living without HIV in WIHS were socio-demographically matched to WLHIV, including risk factors for HIV infection that overlap with risk factors for hypertension. Additionally, healthcare provided to WLHIV likely explains the greater proportion treated for hypertension compared to women living without HIV.