# Sociodemographic, clinical, and housing factors associated with a lack of viral suppression among HIV-positive clients of a federally funded housing program, New York City, 2014

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Abstract #354567; Session 4039.0: HIV Prevention in Distinctive Populations; APHA 2016



#### Presenter Disclosures

#### **Christopher Beattie**

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose



## BACKGROUND



## HIV and Unstable Housing

- Compared to those who are stably housed, people who are unstably housed are more likely to:
  - Be diagnosed with HIV
  - Delay entry into HIV care
  - Die of an HIV-related illness



#### Treatment (and Housing) as Prevention

The NEW ENGLAND TOURNAL of MEDICIN





The North American Housing & HIV/AIDS Research Summit Series

#### **HOUSING IS HIV PREVENTION & CARE**

AIDS Behav (2007) 11:S172-S181 DOI 10.1007/s10461-007-9305-9

M.S. Cohen, Y.Q. Chen, M. McC.

Published in final edited for Curr Opin HIV AIDS. 20 ORIGINAL PAPER

Moving from Fact to Policy: Housing is HIV Prevention and Health Care

#### HIV treatment as

Virginia Shubert · Nancy Bernstine

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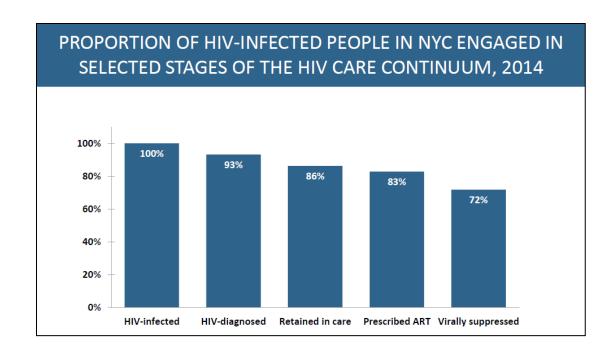
Myron S. Cohena, Marybeth McCauleyb, and Theresa R. Gamblec

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#### HIV and Homelessness in NYC

 Approximately 87,000 individuals living with HIV in New York City in 2014

 In FY 2015, over 109,000 individuals accessed the city shelter system



# Housing Opportunities for Persons with HIV/AIDS (HOPWA)

#### **Rental Assistance**

Housing Placement Assistance (HPA)

**Supportive Housing** 

- Rent subsidies to help establish and/or maintain affordable permanent housing
- Assistance to locate, acquire, finance, and maintain affordable permanent housing
- Affordable permanent housing and comprehensive support services

Support services promote health & housing stability, emphasizing engagement in HIV primary care

- Case management
- Escorts to clinical/social services visits
- Mental health counseling
- Substance abuse counseling

#### NYC HOPWA

AIDS Behav DOI 10.1007/s10461-015-1003-4

ORIGINAL PAPER

#### Effect of HIV Housing Services on Engagement in Care and Treatment, New York City, 2011

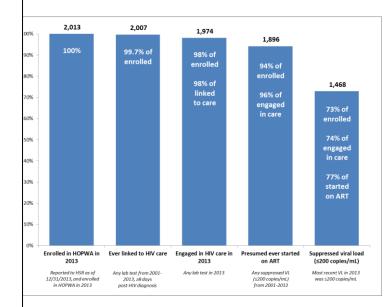
Arpi S. Terzian · Mary K. Irvine · Laura M. Hollod · Sungwoo Lim · John Rojas · Colin W. Shepard

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Abstract The federal Housing Opportunities for Persons with AIDS (HOPWA) program addresses housing needs of low-income persons living with HIV/AIDS (PLWHA). The New York City (NYC) Department of Health and Mental Hygiene oversees 22 HOPWA contracts for over 2,400 clients, and manager the NYC HIV, Pagistra, HOPWA

#### Introduction

Public funds are spent each year to address the needs of homeless and unstably housed persons living with HIV/ AIDS (PLWHA). In fiscal year 2012, \$332 million dollars





## Research Question

 What are the sociodemographic and clinical factors associated with a lack of viral load suppression among in-care NYC HOPWA consumers?

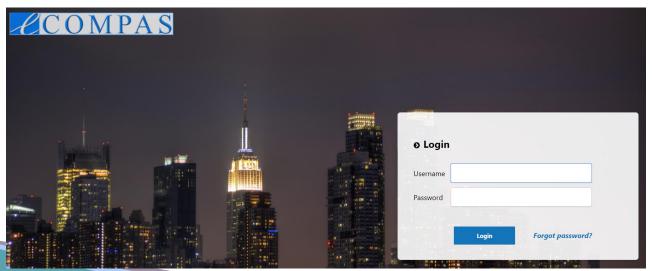


## METHODS



#### **Data Sources**

- eCOMPAS is a web-based platform that houses NYC HOPWA data, entered by housing providers
- Psychosocial assessments carried out every 90 days





#### **Data Sources**

- New York City DOHMH HIV Surveillance Registry
  - Legally mandated
  - Electronically reported

 HOPWA NYC consumers are routinely matched from eCOMPAS to the surveillance registry



## Eligibility Criteria

- Engaged in HIV primary care in 2014
- Enrolled and received ≥1 service from a NYC HOPWA housing services provider in 2014
- Matched to HIV surveillance registry



## Statistical Analysis

- Outcome variable
  - Lack of viral load suppression (VL >200 copies/mL at last HIV viral load test in 2014)



## Statistical Analysis

#### Predictor variables

- Age
- Gender
- Race/ethnicity
- HIV risk factor
- Housing status

- Employment
- Neighborhood poverty
- Mental health history
- Substance use
- Treatment for substance use issues



## Statistical Analysis

- $\chi^2$  test used for bivariate association between individual predictor variables and lack of viral load suppression
- Multivariable logistic regression to examine the association between predictor variables and lack of viral load suppression while controlling for other factors



# RESULTS



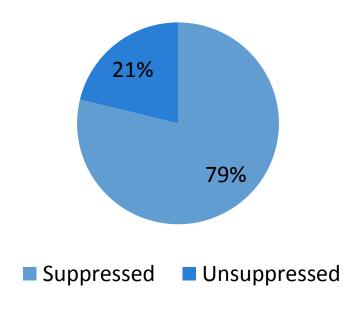
## Study Population

- N = 1,665
- The study population is primarily:
  - Older than 45 (57%)
  - Male (60%)
  - Black and Hispanic (92%)
  - Unemployed (57%)
  - High/very high neighborhood poverty (79%)
  - History of mental health diagnosis or hospitalization (52%)
  - No current substance use (57%)



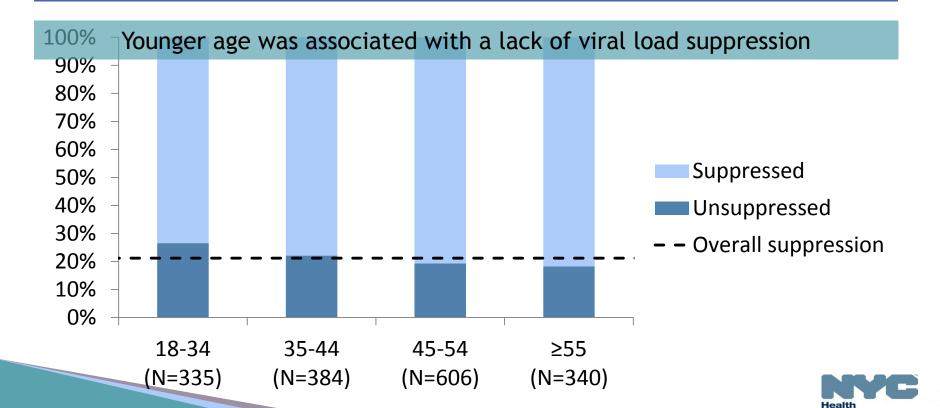
## **Primary Outcome**

#### **Overall Viral Suppression in 2014**

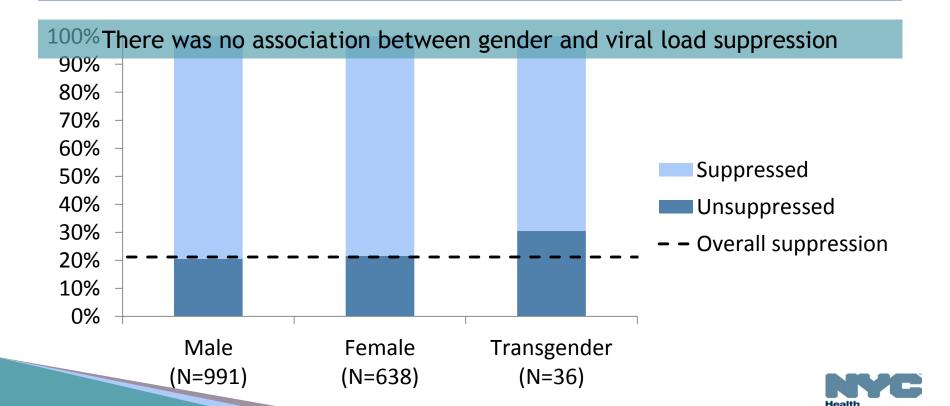




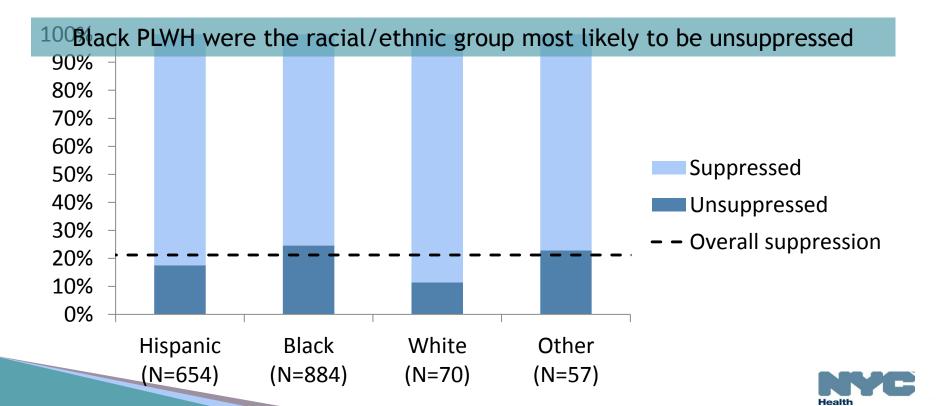
## Age



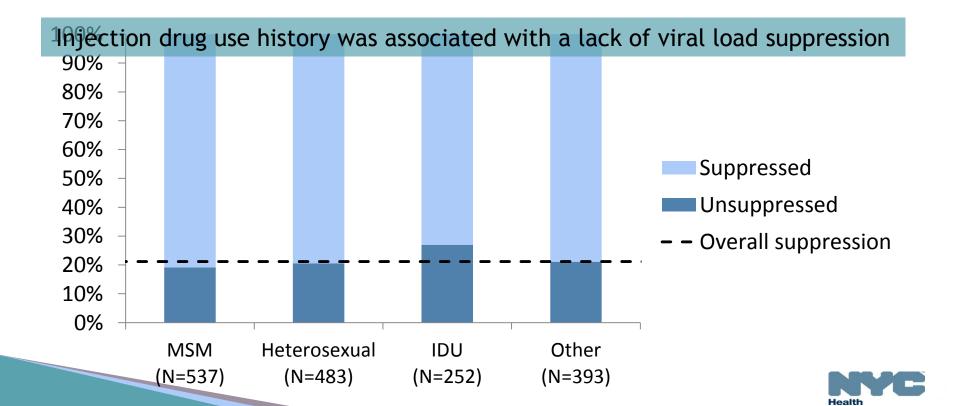
#### Gender



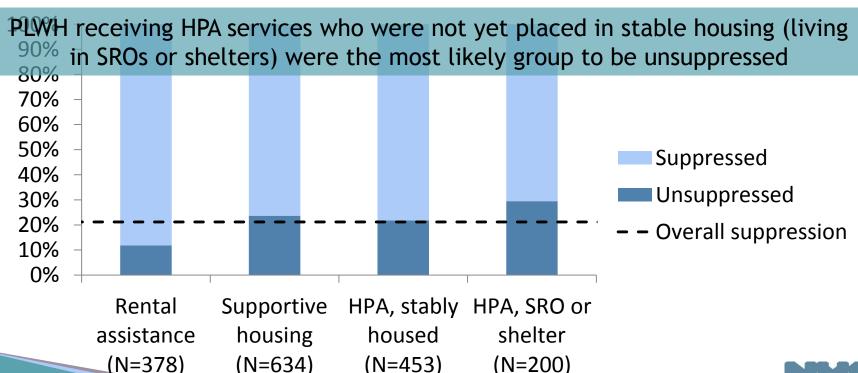
## Race/Ethnicity



#### **HIV Risk Factor**

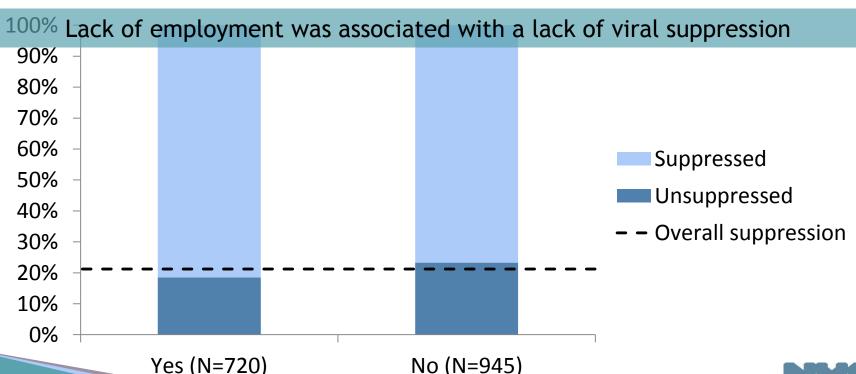


# Current Living Situation



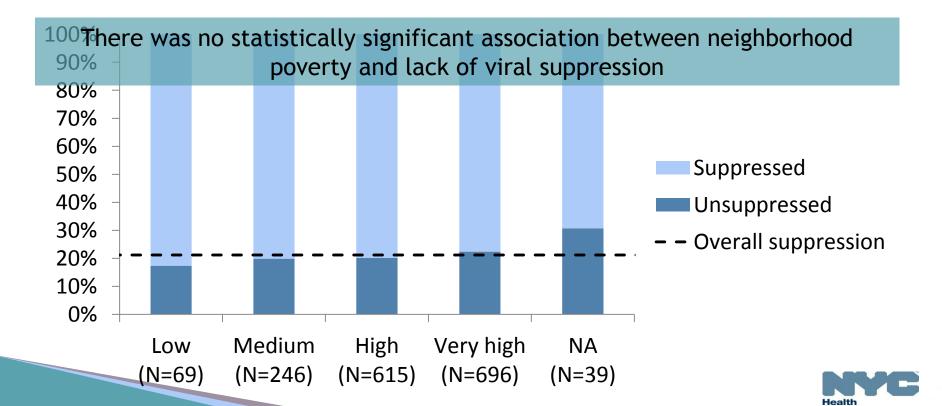


## **Employment Status**

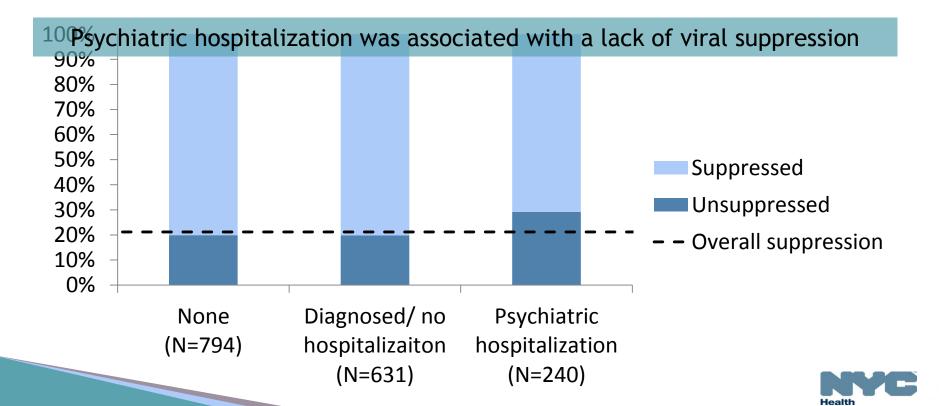




## Neighborhood Poverty

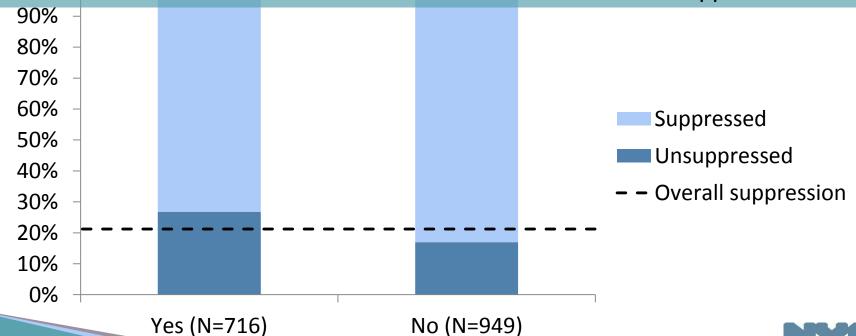


## Mental Health History



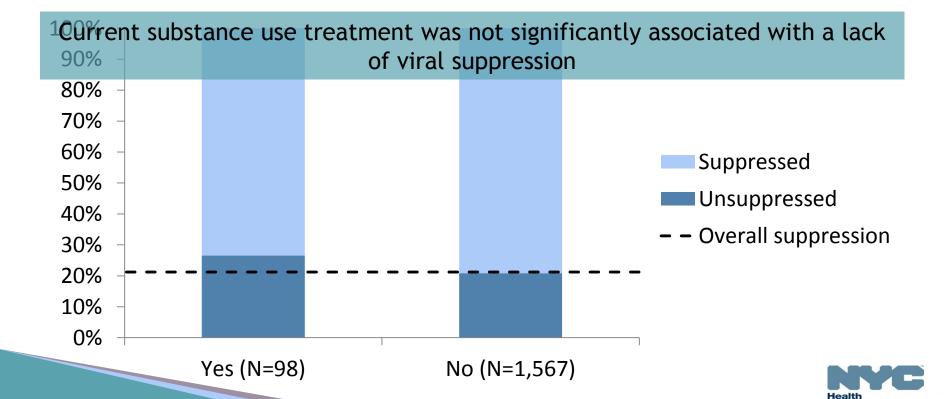
#### **Current Substance Use**





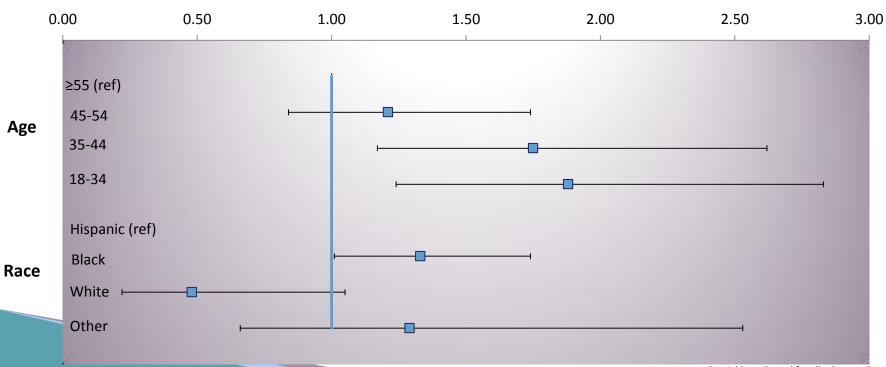


#### Current Substance Use Treatment



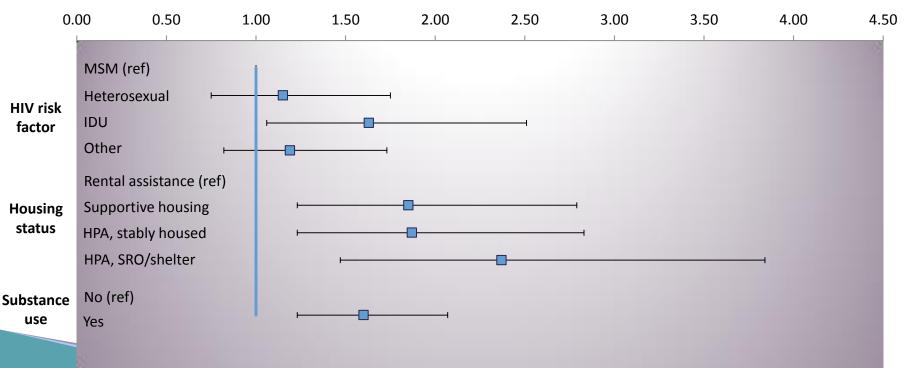
### Multivariable Results

Lack of viral suppression in 2014: adjusted odds ratios and 95% confidence intervals



### Multivariable Results

Lack of viral suppression in 2014: adjusted odds ratios and 95% confidence intervals



## DISCUSSION



#### Conclusions

- Factors independently associated with a lack of viral load suppression among NYC HOPWA consumers were:
  - Younger age
  - Black race
  - Intravenous drug use history
  - Active substance use
  - Living in a SRO or shelter
- HIV housing programmatic data can be combined with surveillance data to identify factors related to a lack of viral suppression, improving treatment as prevention efforts



#### Limitations

- Reliance on self-report for key predictor variables (e.g. current substance use)
- Cross-sectional



## Strengths

- Mandated reporting of HIV-related lab tests
  - No reliance on self-report for primary outcome
- Routine program assessments used as a rich source of data



## Next Steps

- Getting to 90 initiative
- Qualitative research to explore factors influencing suppression not asked in routine psychosocial assessments
- Multilevel analysis to explore effect of neighborhood and other contextual factors on suppression



## Citations

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