



# The Intersection of Housing and HIV Institute 101: Addressing Housing in HIV Prevention and Care

2022 National Ryan White Conference on HIV Care and Treatment

*August 23, 2022*

**Vision: Healthy Communities, Healthy People**



# Presenters

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- **Susan Robilotto, DO**, Director, Division of State HIV /AIDS Programs, HIV/AIDS Bureau (HAB)
- **Ruthanne Marcus, PhD, MPH**, Behavioral and Clinical Surveillance Branch, Division of HIV Prevention (DHP), Centers for Disease Control and Prevention (CDC)
- **Rashida Hassan, MSPH**, Detection and Response Branch, DHP, CDC
- **Rita Harcrow**, Director, Office of HIV/AIDS Housing, US Department of Housing and Urban Development (HUD)



# Disclosures

Susan Robilotto has no relevant financial interests to disclose.

Ruthanne Marcus has no relevant financial interests to disclose.

Rashida Hassan has no relevant financial interests to disclose.

Rita Harcrow has no relevant financial interests to disclose.

Disclosure will be made when a product is discussed for an unapproved use.

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There was no commercial support for this activity.

# Agenda

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- Impact of housing within the Ryan White HIV/AIDS Program (RWHAP)
- Data on homelessness and outcomes from National HIV Behavioral Surveillance (NHBS) and the Medical Monitoring Project (MMP)
- Relationship between unstable housing and HIV outbreaks
- Housing and risk factors for HIV

# Learning Objectives

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At the conclusion of this activity, participants will be able to:

- Describe the impact of unstable housing and homelessness on HIV health outcomes
- Identify ways to address barriers faced by people with HIV who are unstably housed or homeless
- Identify partnerships and resources that can be leveraged to maximize HIV health outcomes for people unstably housed or homeless



# Health Resources and Services Administration (HRSA)

## Overview



Supports more than 90 programs that provide health care to people who are geographically isolated, economically or medically challenged



HRSA does this through grants and cooperative agreements to more than 3,000 awardees, including community and faith-based organizations, colleges and universities, hospitals, state, local, and tribal governments, and private entities



Every year, HRSA programs serve tens of millions of people, including people with HIV/AIDS, pregnant women, mothers and their families, and those otherwise unable to access quality health care

# HRSA's HIV/AIDS Bureau Vision and Mission

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## Vision

Optimal HIV care and treatment for all to end the HIV epidemic in the U.S.

## Mission

Provide leadership and resources to advance HIV care and treatment to improve health outcomes and reduce health disparities for people with HIV and affected communities.



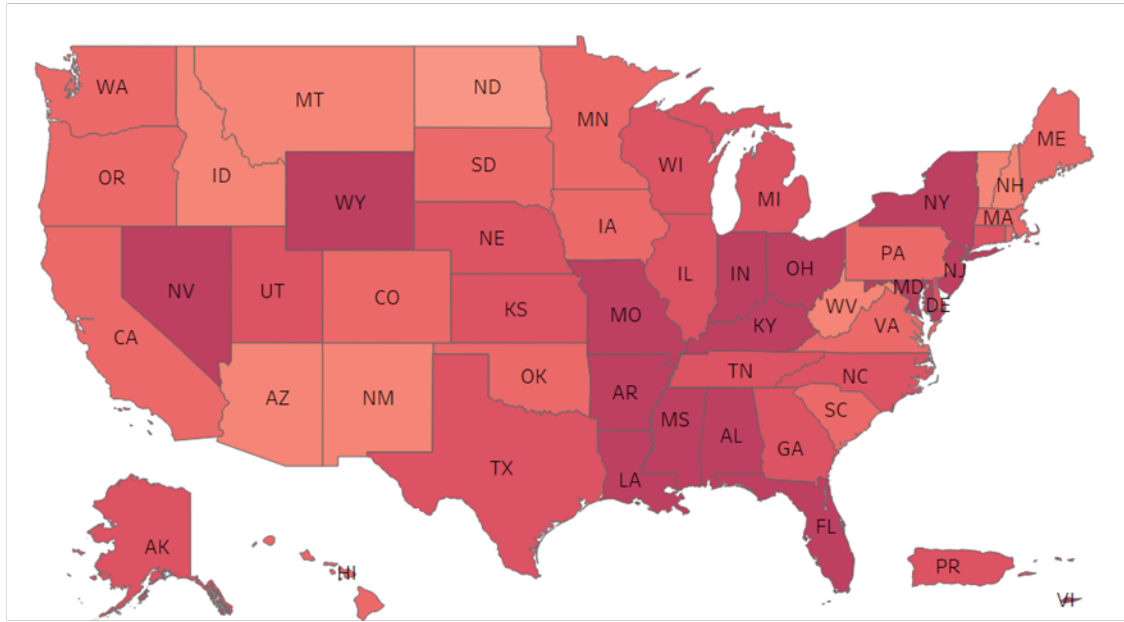
# HRSA's Ryan White HIV/AIDS Program (RWHAP) Overview

- Provides a comprehensive system of HIV primary medical care, medications, and essential support services for low-income people with HIV.
- Funds grants to states, cities, counties, and local community-based organizations to improve health outcomes and reduce HIV transmission.
  - Recipients determine service delivery and funding priorities based on local needs and planning process.
- Provided services to nearly 562,000 people in 2020—more than half of all people with diagnosed HIV in the United States.
- 89.4% of RWHAP clients receiving HIV medical care were virally suppressed in 2020, exceeding national average of 64.6%<sup>i</sup>.





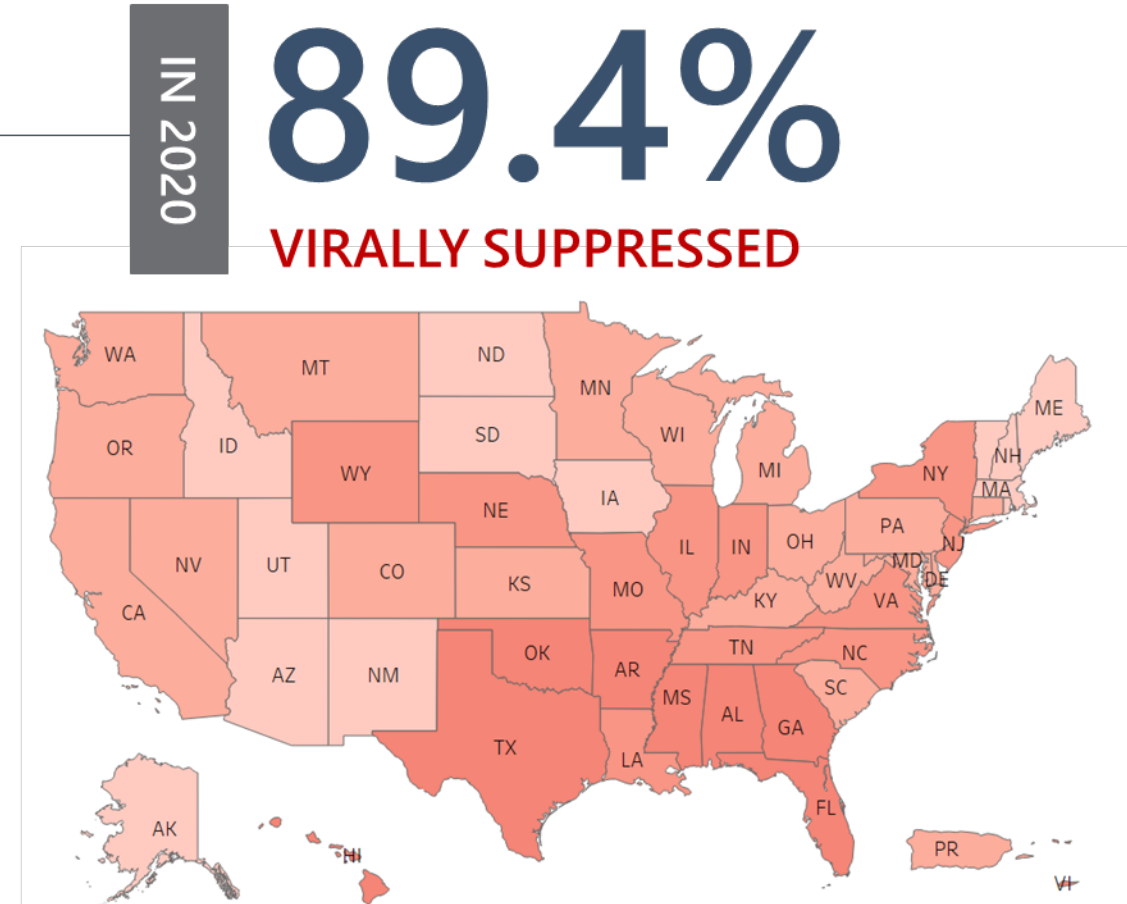
# Viral Suppression among RWHAP Clients, by State, 2010 and 2020— United States and 2 Territories<sup>a</sup>



**IN 2010**  
**69.5%**  
**VIRALLY SUPPRESSED**

Viral Suppression (%)

- 52.9-66.9
- 70.0-72.9
- 73.0-79.9
- 80.0-87.9
- 88.0-89.9
- 90.0-92.9
- 93.0-98.8



**IN 2020**

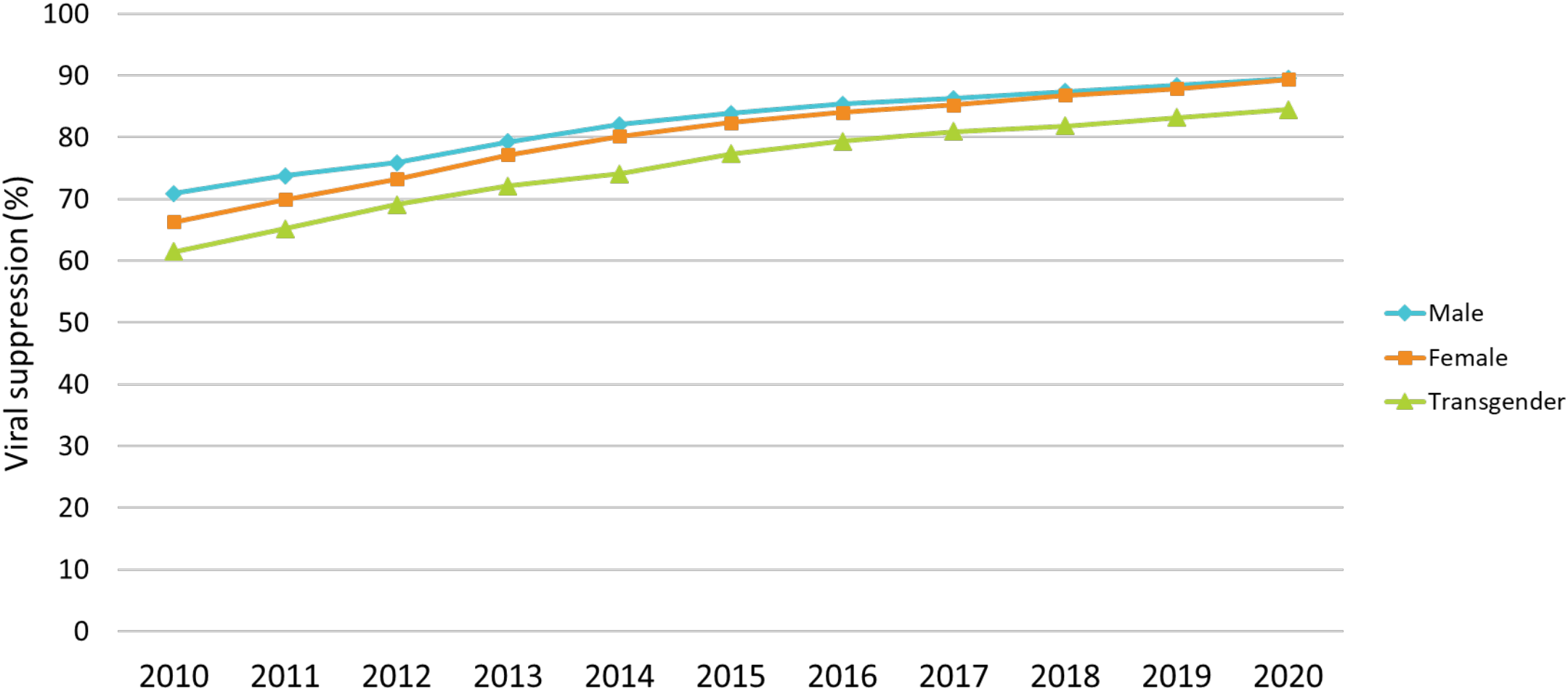
**89.4%**  
**VIRALLY SUPPRESSED**

*Viral suppression: ≥1 OAHS visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.*

<sup>a</sup> Puerto Rico and the U.S. Virgin Islands.



# Viral Suppression among Clients Served by the Ryan White HIV/AIDS Program, by Gender, 2010–2020—United States and 3 Territories<sup>a</sup>

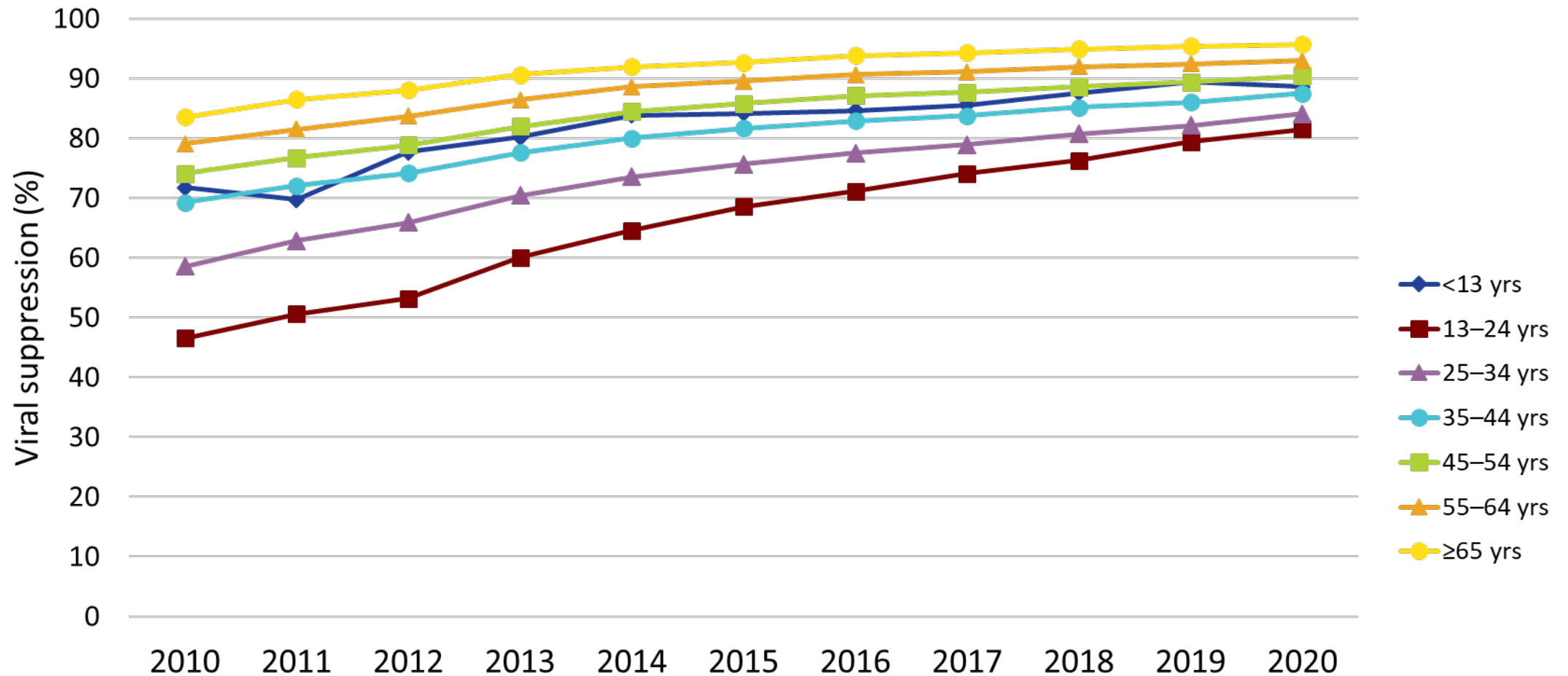


Viral suppression:  $\geq 1$  OAH visit during the calendar year and  $\geq 1$  viral load reported, with the last viral load result  $< 200$  copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



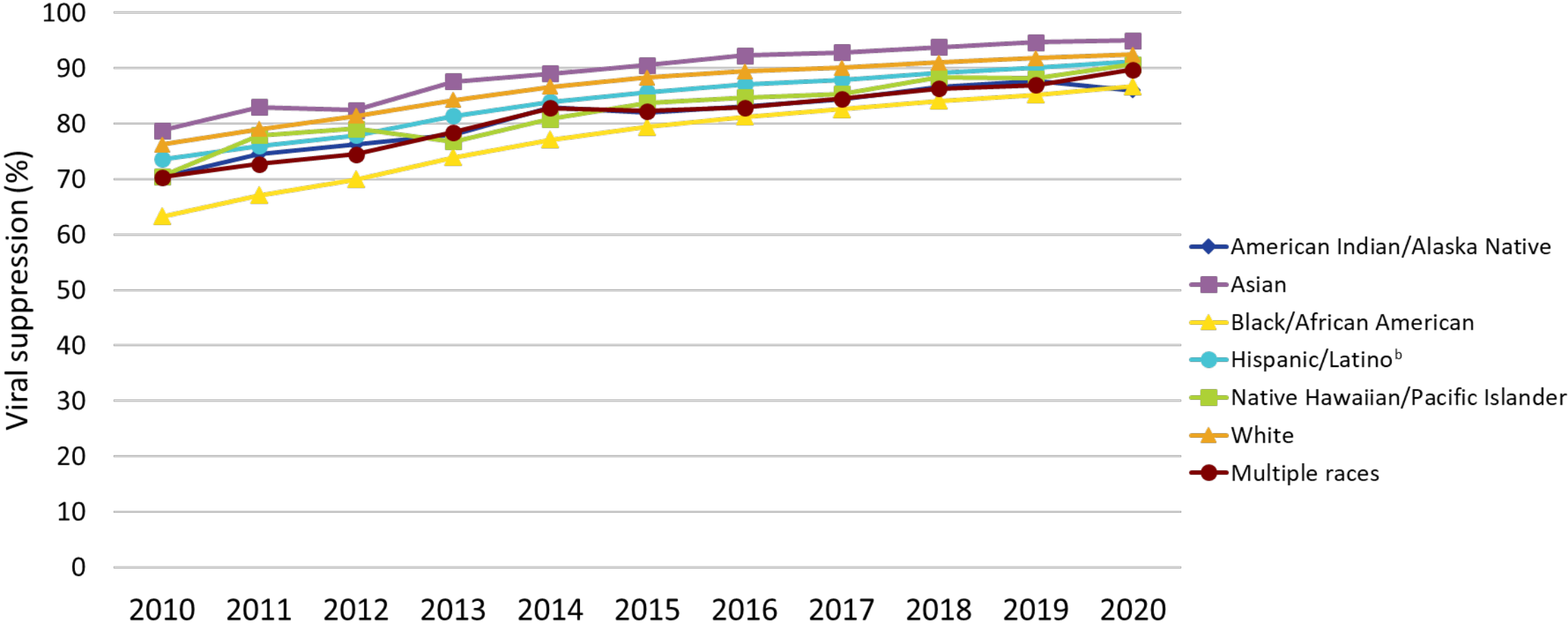
# Viral Suppression among Clients Served by the Ryan White HIV/AIDS Program, by Age Group, 2010–2020—United States and 3 Territories<sup>a</sup>



Viral suppression:  $\geq 1$  OAHs visit during the calendar year and  $\geq 1$  viral load reported, with the last viral load result  $< 200$  copies/mL.  
<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among Clients Served by the Ryan White HIV/AIDS Program, by Race/Ethnicity, 2010–2020—United States and 3 Territories<sup>a</sup>



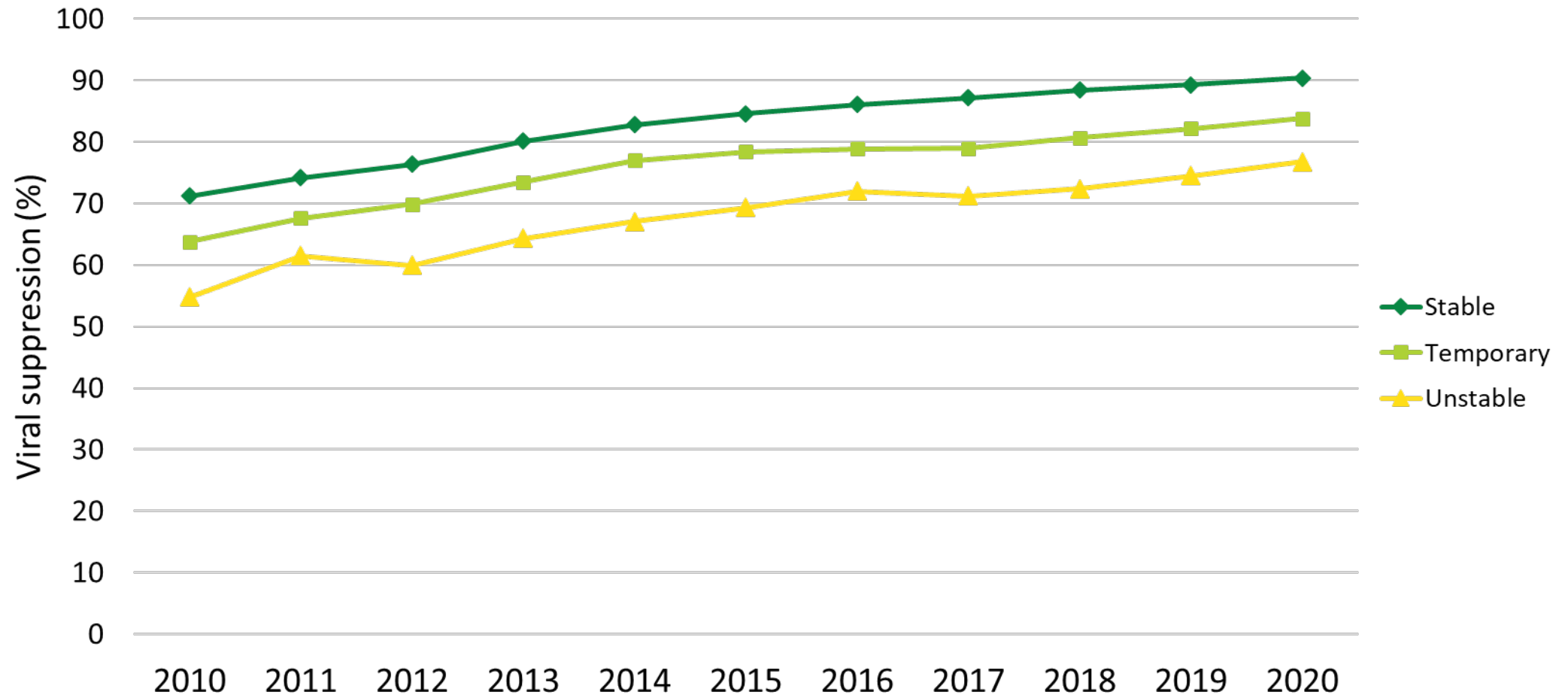
Viral suppression:  $\geq 1$  OAHS visit during the calendar year and  $\geq 1$  viral load reported, with the last viral load result  $< 200$  copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.

<sup>b</sup> Hispanics/Latinos can be of any race.



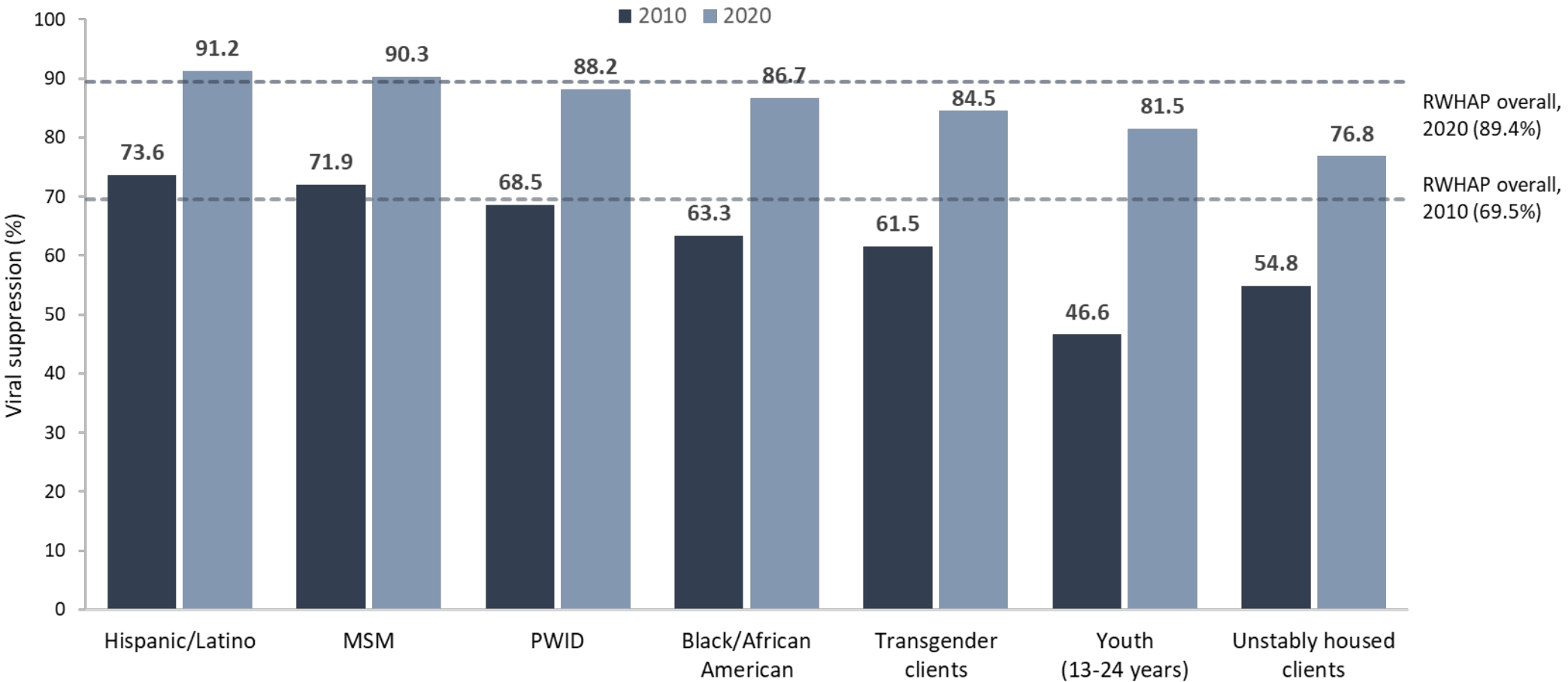
# Viral Suppression among Clients Served by the Ryan White HIV/AIDS Program, by Housing Status, 2010–2020—United States and 3 Territories<sup>a</sup>



Viral suppression:  $\geq 1$  OAHS visit during the calendar year and  $\geq 1$  viral load reported, with the last viral load result  $< 200$  copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.

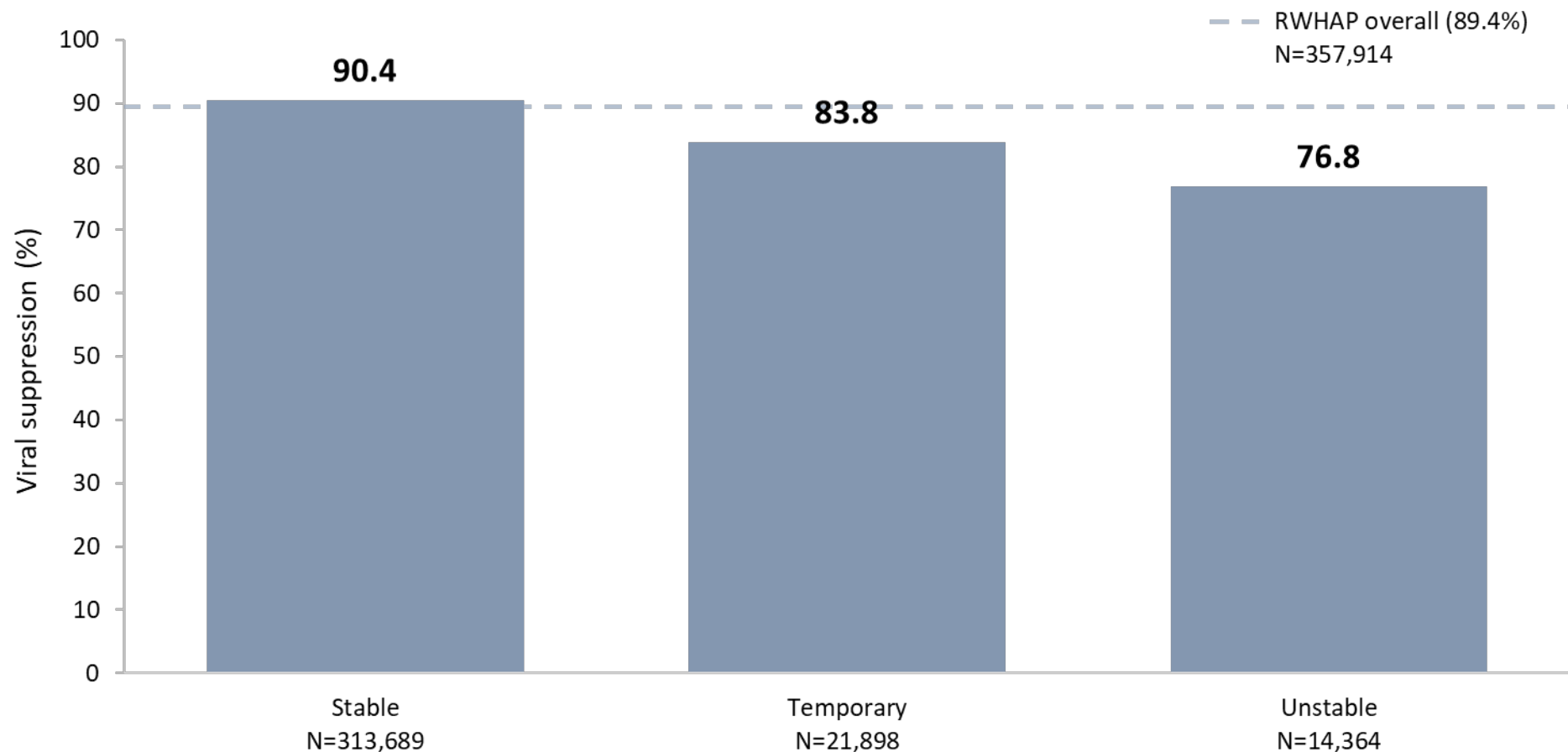
# Viral Suppression among Priority Populations Served by the Ryan White HIV/AIDS Program, 2010 and 2020—United States and 3 Territories<sup>a</sup>



Hispanics/Latinos can be of any race.  
*Viral suppression:* ≥1 OAHs visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.  
<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among Clients Served by the Ryan White HIV/AIDS Program, by Housing Status, 2020—United States and 3 Territories<sup>a</sup>



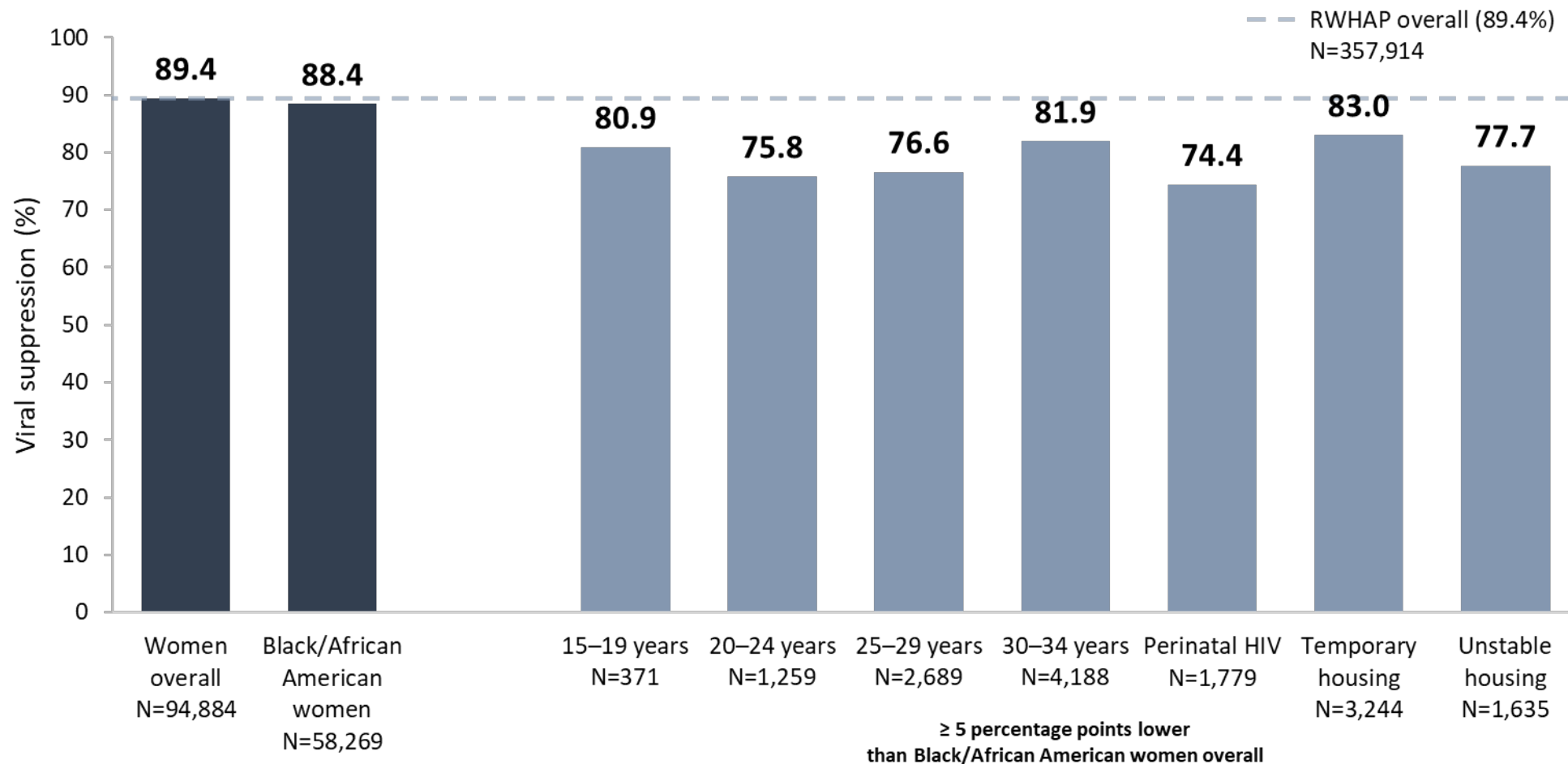
N represents the total number of clients in the specific population.

Viral suppression:  $\geq 1$  OAHS visit during the calendar year and  $\geq 1$  viral load reported, with the last viral load result  $< 200$  copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among Black/African American Women Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



N represents the total number of clients in the specific population.

Includes females aged 13 years and older.

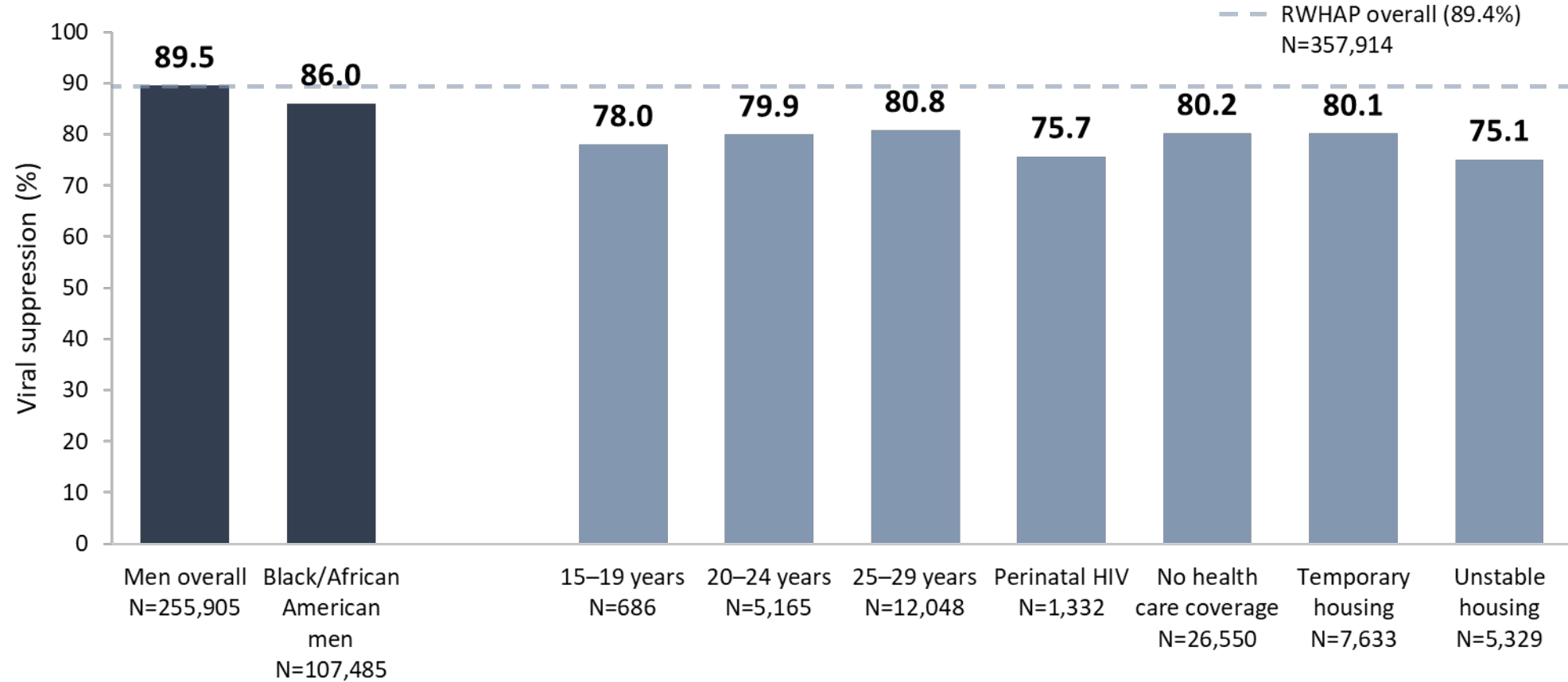
Viral suppression: ≥1 OAH visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.





# Viral Suppression among Black/African American Men Served by the Ryan White HIV/AIDS Program, 2020 — United States and 3 Territories<sup>a</sup>



≥ 5 percentage points lower than Black/African American men overall



N represents the total number of clients in the specific population.

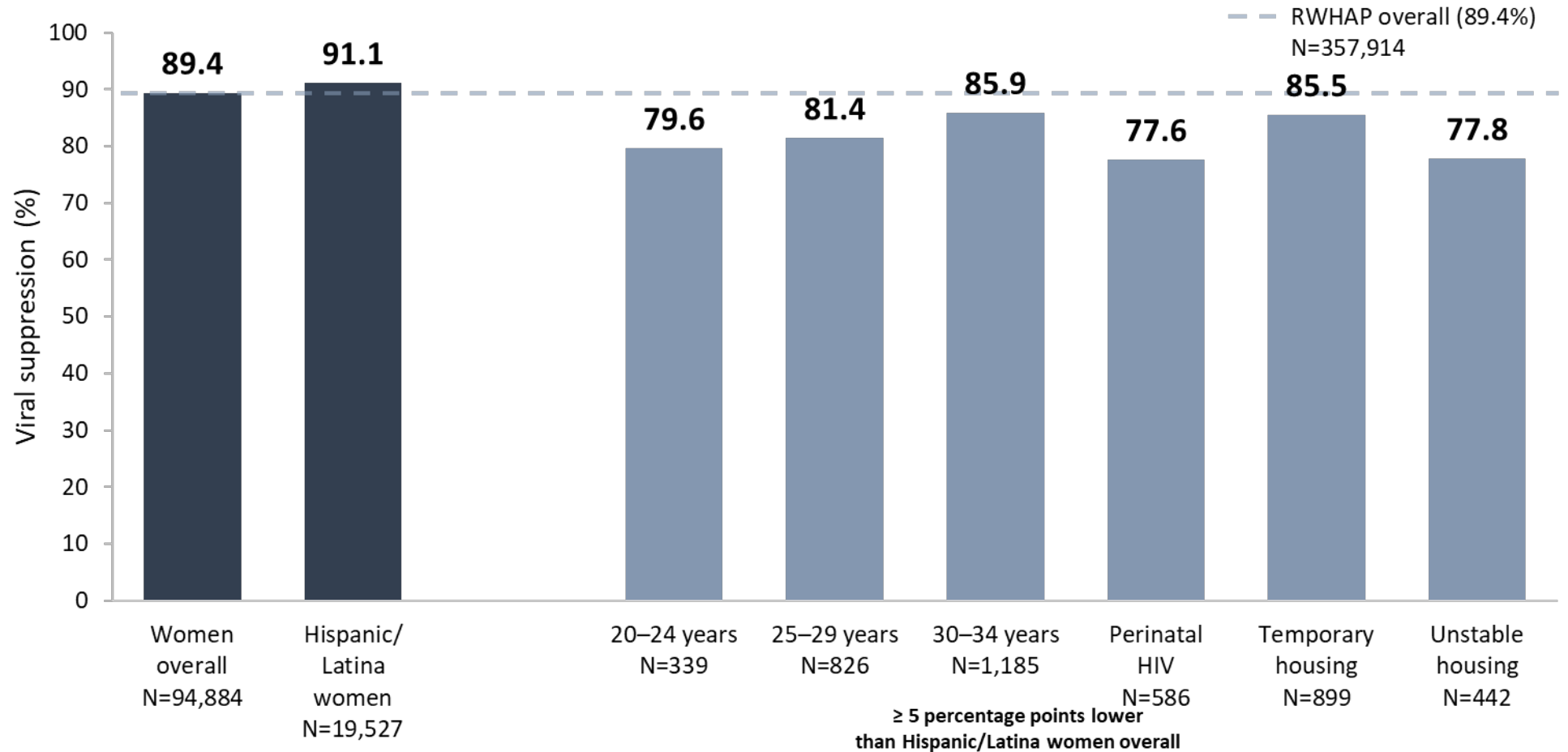
Includes males aged 13 years and older.

Viral suppression: ≥1 OAH visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among Hispanic/Latina Women Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



N represents the total number of clients in the specific population.

Includes females aged 13 years and older.

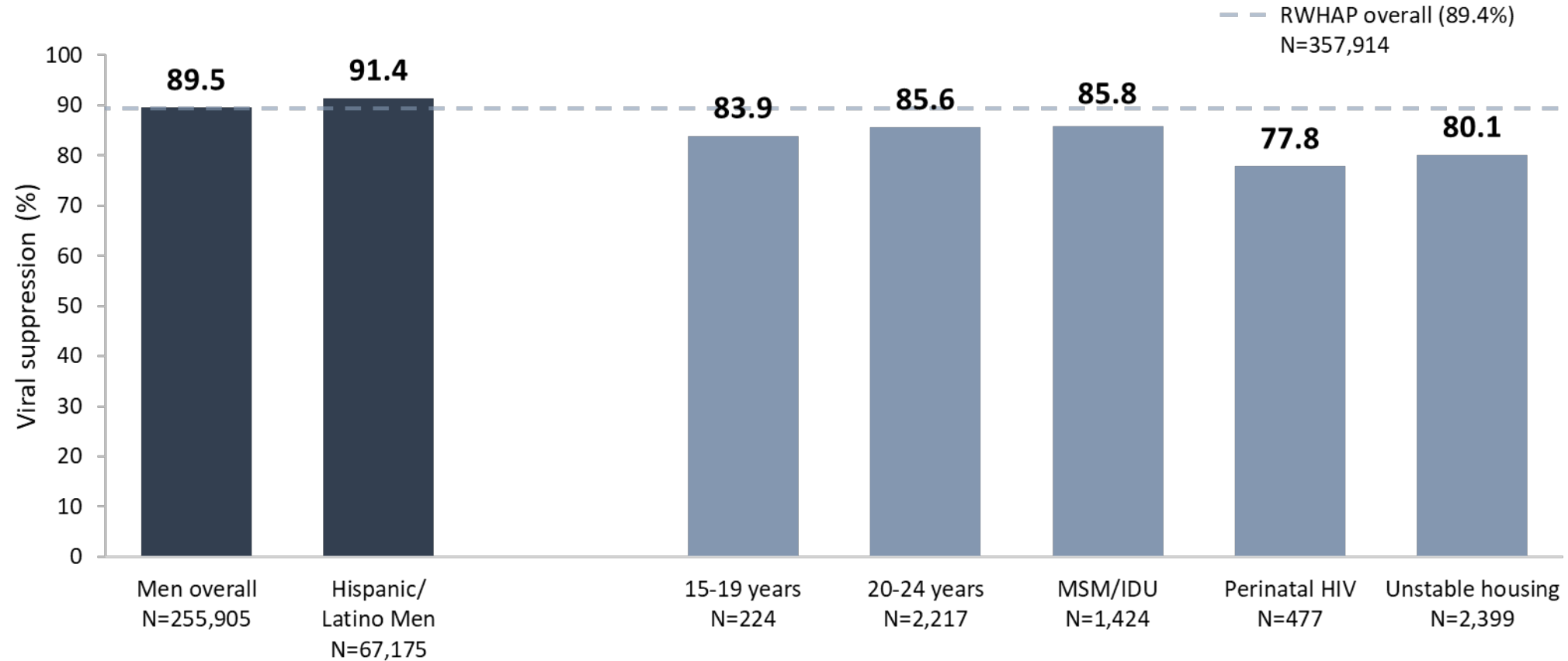
Hispanics/Latinos can be of any race.

*Viral suppression*: ≥1 OAH visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among Hispanic/Latino Men Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



≥ 5 Percentage points lower than Hispanic/Latino men overall

N represents the total number of clients in the specific population.

Hispanic/Latinos can be of any race.

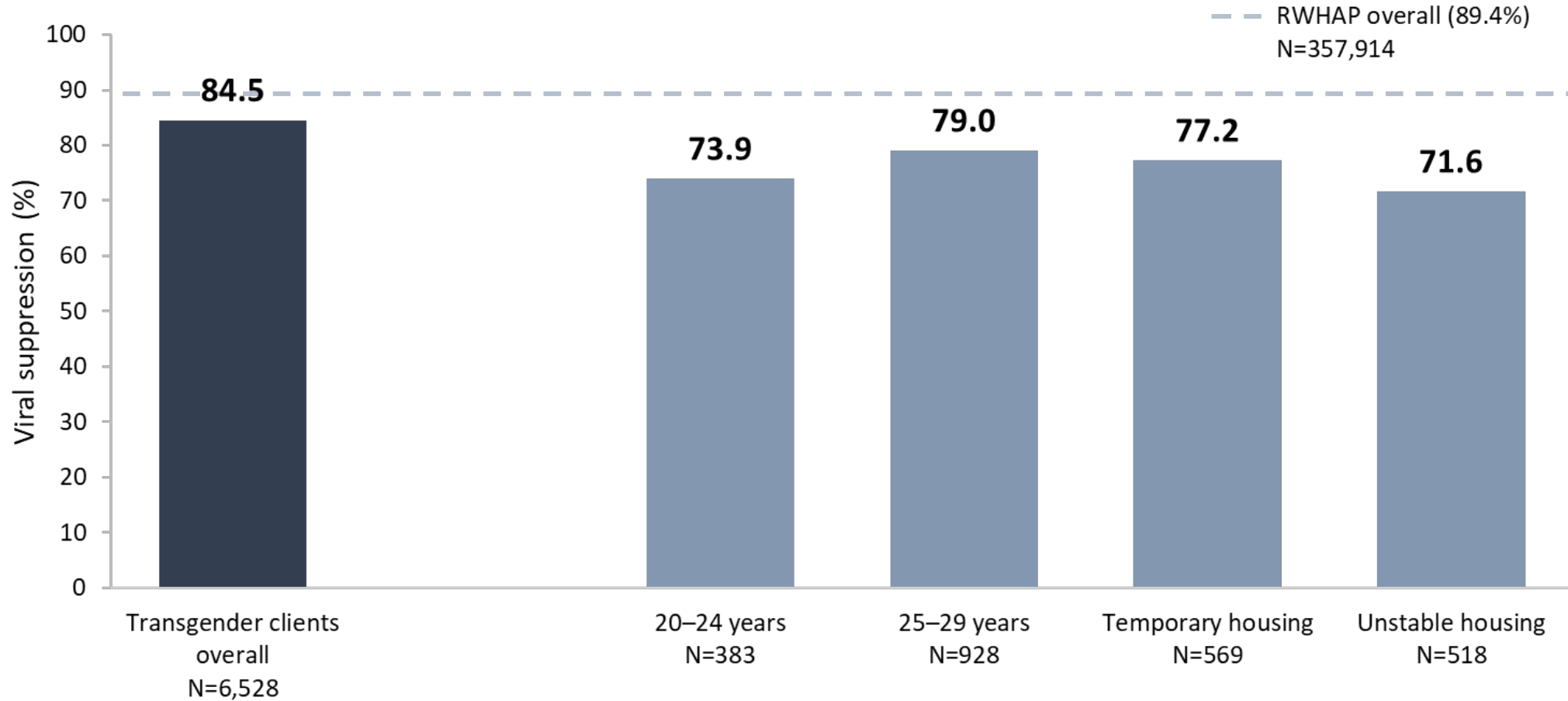
Only includes men aged 13 years and older.

*Viral suppression*: ≥1 OAHS visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among Transgender Adults and Adolescents Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



≥ 5 percentage points lower  
than transgender clients overall

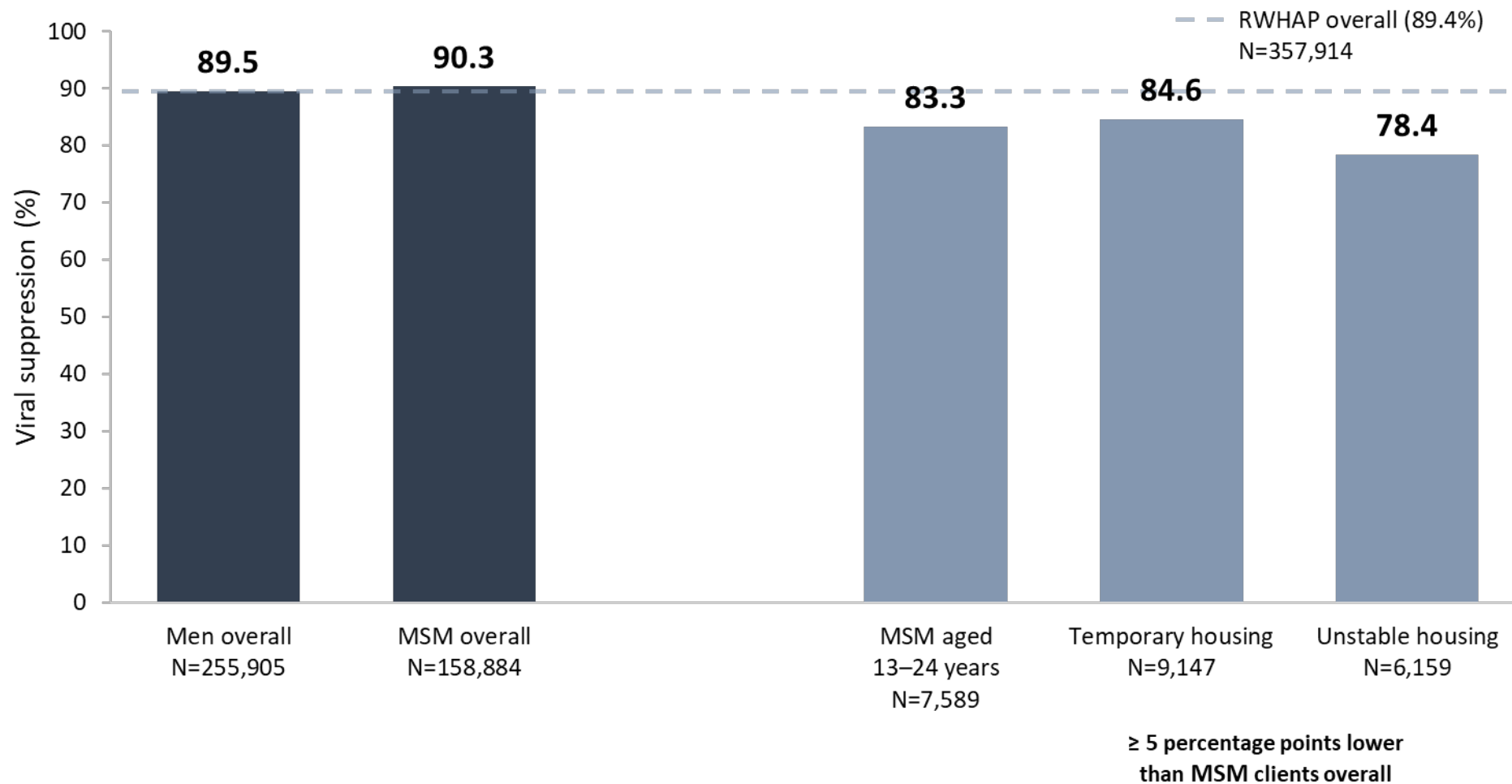


N represents the total number of clients in the specific population.  
Includes transgender clients aged 15 years and older.

Viral suppression: ≥1 OAHS visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

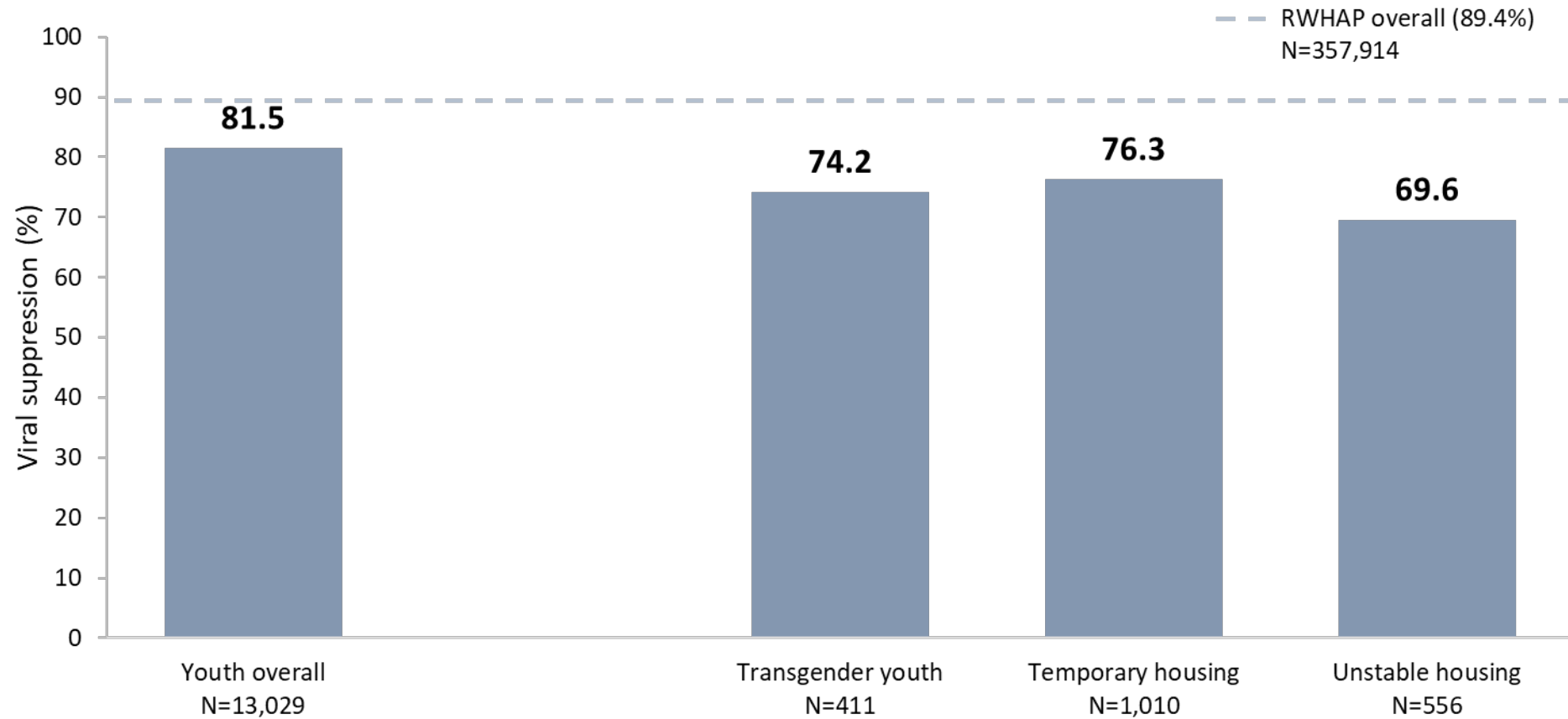
<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.

# Viral Suppression among Men Who Have Sex With Men (MSM) Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



N represents the total number of clients in the specific population.  
Includes males aged 13 years and older.  
Viral suppression: ≥1 OAH visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.  
<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.

# Viral Suppression among Youth Aged 13–24 Years Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



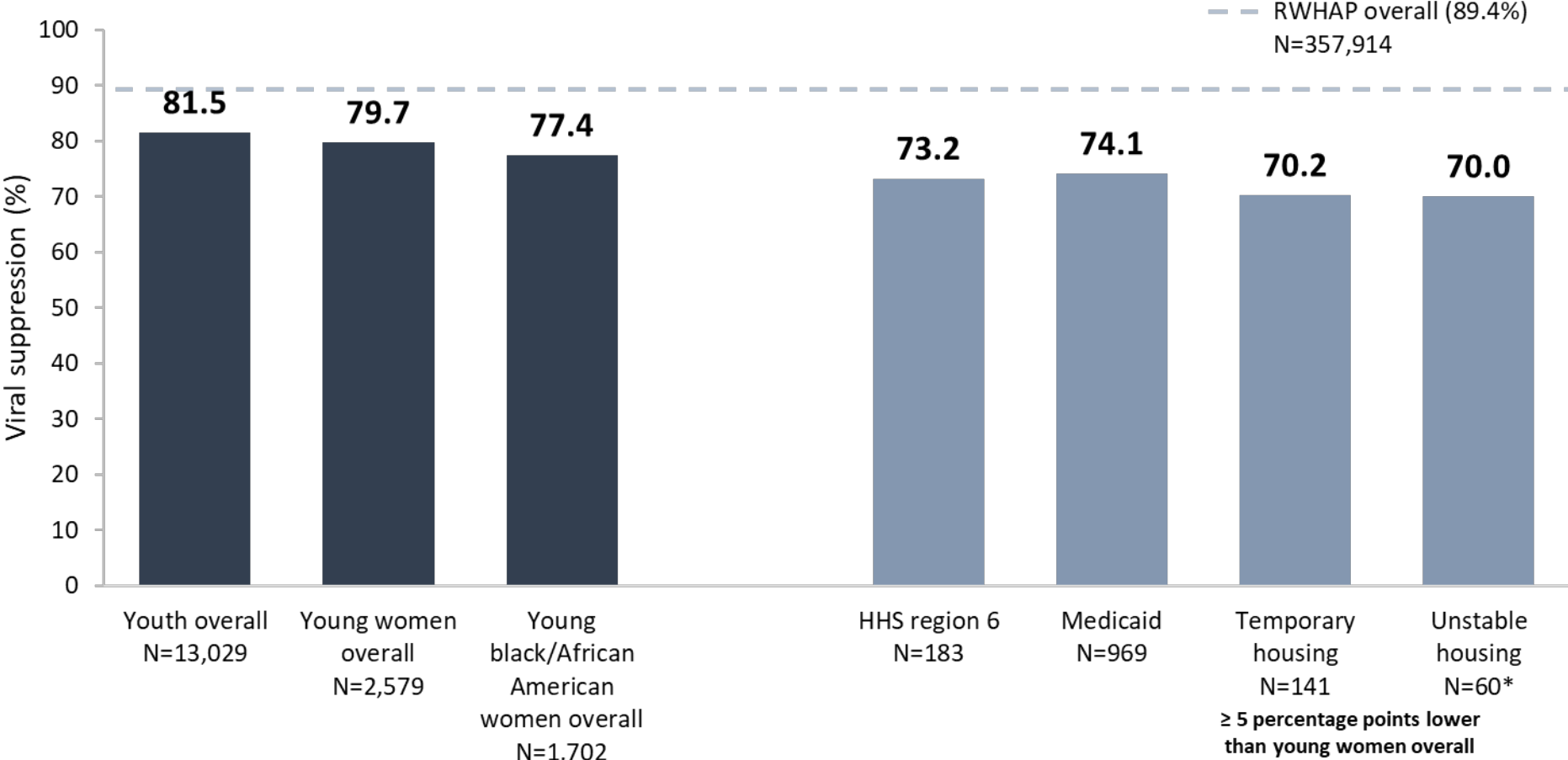
≥ 5 percentage points lower  
than youth aged 13-24 overall



N represents the total number of clients in the specific population.  
Viral suppression: ≥1 OAHHS visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.  
<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



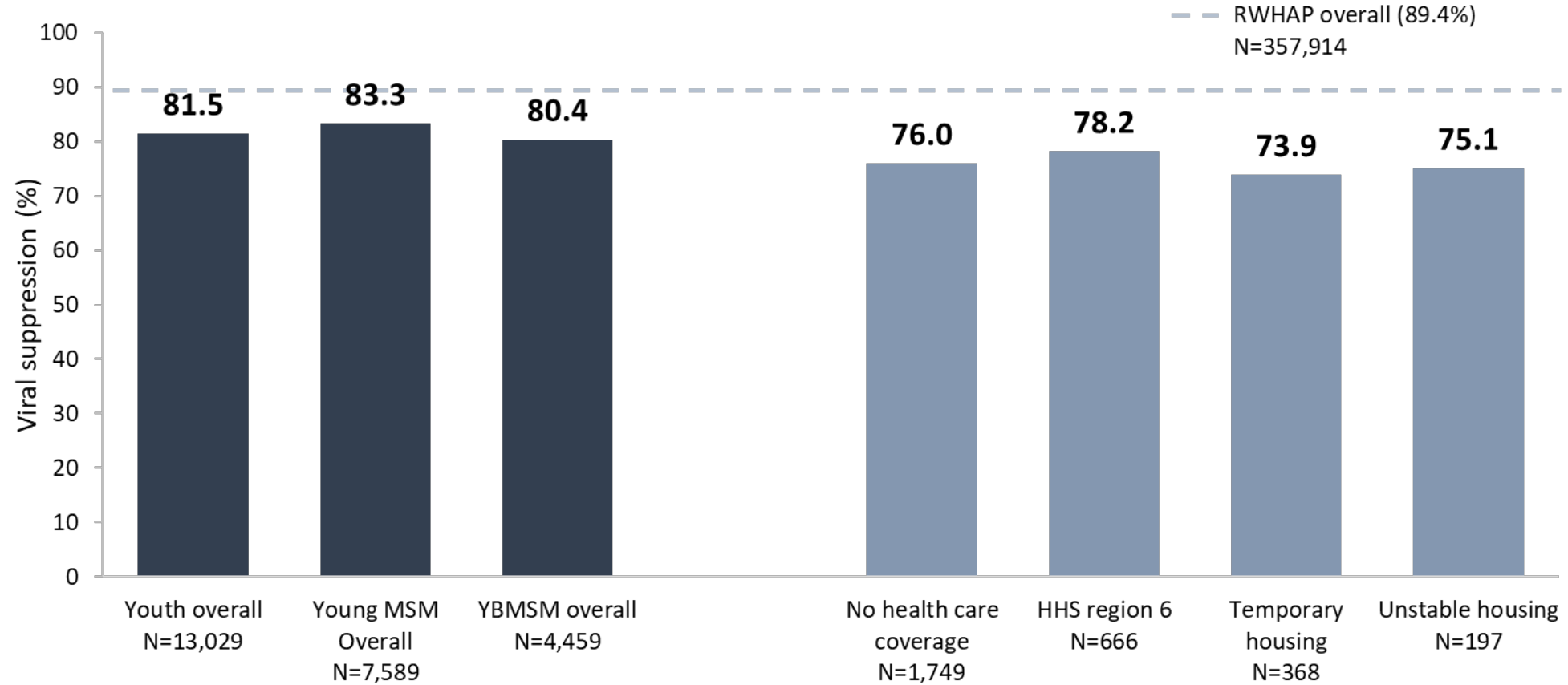
# Viral Suppression among Young, Black/African American Women Aged 13–24 Years Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



N represents the total number of clients in the specific population.  
*Viral suppression:* ≥1 OAHs visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.  
 \* Use caution when interpreting results based on small numbers.  
<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among Young, Black/African American MSM (YBMSM) Aged 13–24 Years Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



≥ 5 percentage points lower than young MSM overall

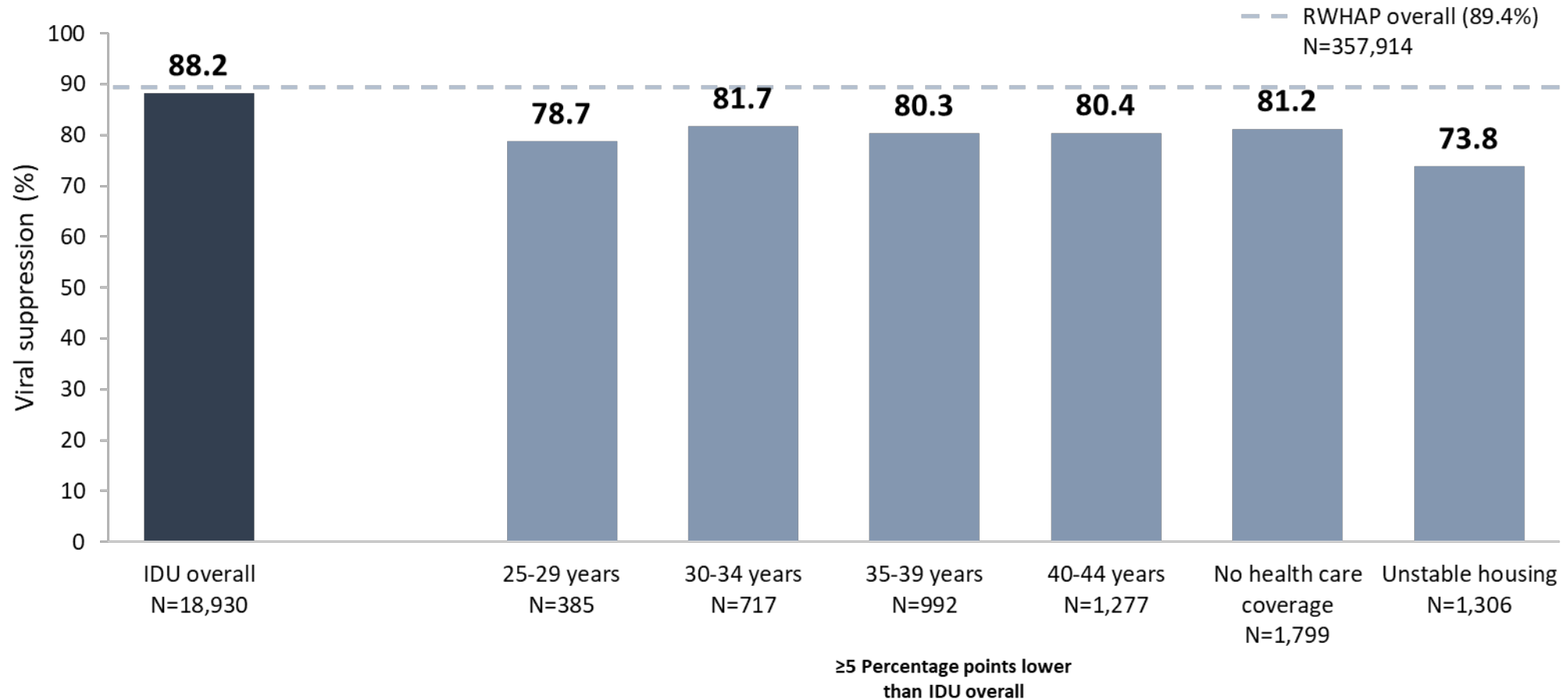


N represents the total number of clients in the specific population.  
*Viral suppression*: ≥1 OAHS visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.  
<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.





# Viral Suppression among Clients with HIV Attributed to Injection Drug Use Aged ≥13 Years Served by the Ryan White HIV/AIDS Program, 2020—United States and 3 Territories<sup>a</sup>



IDU, injection drug use.

Includes clients aged 13 years and older. Data represent clients who reported injection drug use as their transmission risk category; data may not reflect current behavior. Data do not include male-to-male sexual contact *and* injection drug use among male clients nor sexual contact *and* injection drug use among transgender clients.

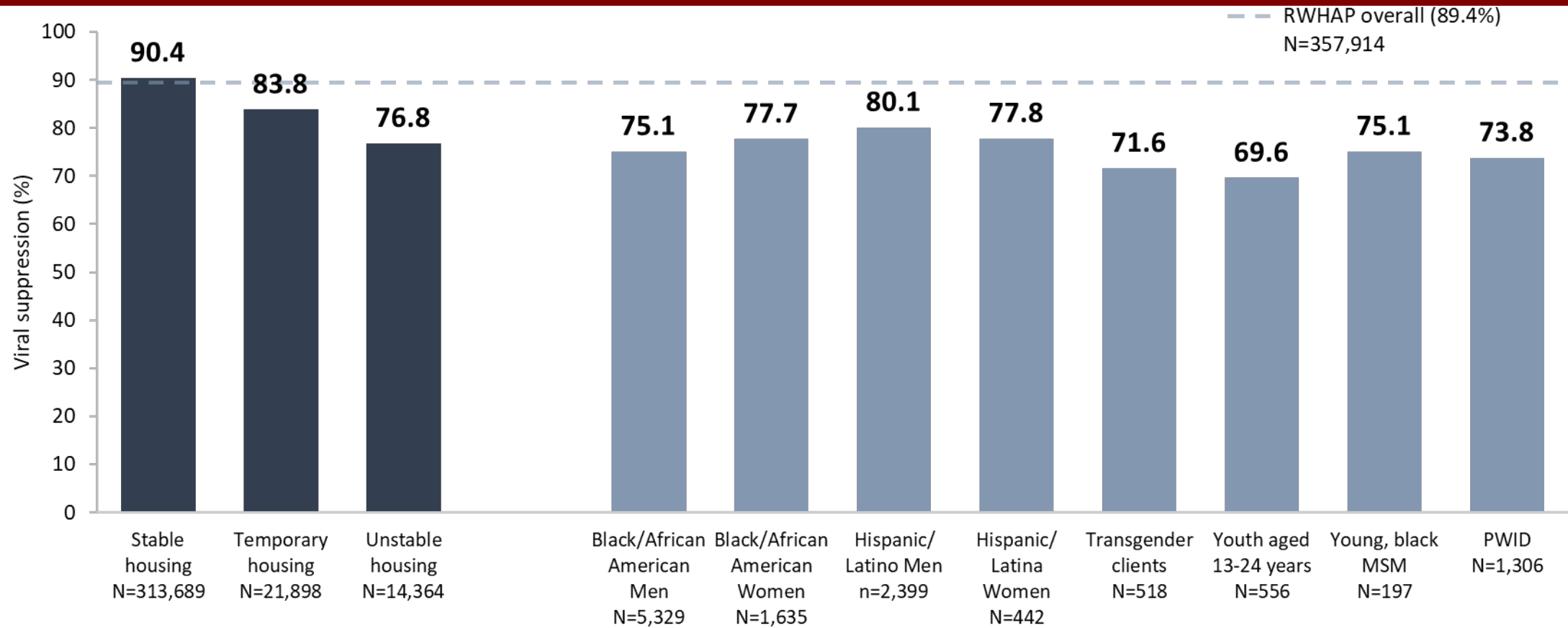
N represents the total number of clients in the specific subpopulation.

Viral suppression is defined as ≥1 OAH visit during the calendar year and ≥1 viral load reported, with the last viral load result <200 copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Viral Suppression among RWHAP Clients, by Housing Status and among Key Populations with Unstable Housing, 2020—United States and 3 Territories<sup>a</sup>



Viral suppression among priority populations with unstable housing



PWID, people who inject drugs (i.e., HIV attributed to injection drug use).

N represents the total number of clients in the specific population.

Viral suppression:  $\geq 1$  OAHS visit during the calendar year and  $\geq 1$  viral load reported, with the last viral load result  $< 200$  copies/mL.

<sup>a</sup> Guam, Puerto Rico, and the U.S. Virgin Islands.



# Housing: Technical Expert Panel

- In November 2019, HRSA HAB convened a one-day consultation on housing services for RWHAP clients
- The purpose of this consultation was to understand the breadth of housing resources, identify barriers and supports to leveraging these resources across programs, and assess strategies that address the housing needs of people with HIV while engaging them in care and treatment.
- Panel participants included:
  - RWHAP recipients
  - Stakeholders with lived experience
  - National organizations focused on housing
  - Federal partners
  - Housing and homelessness providers and experts



# Defining Housing Issues for RWHAP Clients

- Multilevel Factors Affecting Housing
  - Incarceration history
  - Lack of documents needed for acquiring housing
  - Economic insecurity
  - Limited housing options in metropolitan areas
  - Limited transportation to healthcare centers
  - Limited availability of housing support services
  - Lack of staff preparation
  - Inconsistent case management as individuals move through systems
  - Increasing housing expense and dislocation caused by gentrification
  - Lack of comprehensive, universal definitions of homelessness
  - System fragmentation and inconsistent processes
  - Lack of representation in policy- and decision-making settings
  - Criminalization of homelessness



# National Estimates of HIV Risk and Outcomes among Persons Experiencing Homelessness

**Ruthanne Marcus, PhD, MPH**

Behavioral and Clinical Surveillance Branch

Division of HIV Prevention

Centers for Disease Control and Prevention (CDC)

National Ryan White Conference, August 2022



# Disclaimer

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

# Outline of Presentation

- **Background of data sources:**
  - National HIV Behavioral Surveillance (NHBS)
  - Medical Monitoring Project (MMP)
- **Findings from NHBS and MMP**
- **Conclusions**
- **Implications for housing and HIV risks and outcomes**
- **Future analyses**



# NHBS Background



# NHBS Objectives

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- Among the populations at high risk for HIV infection in the US, monitor prevalence and trends:
  - HIV infection
  - HIV risk behaviors (sex, drug use)
  - HIV testing and use of prevention services



# NHBS Populations

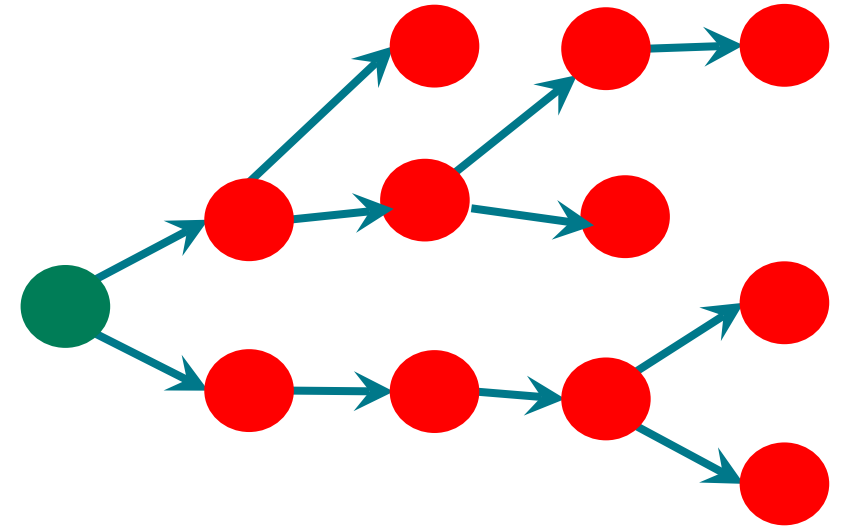
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- Men who have sex with men - MSM cycle
- Persons who inject drugs - PWID cycle
- Heterosexually active persons at increased risk of HIV infection - HET cycle

# NHBS-PWID Methods

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- Respondent-driven sampling (RDS)
  - Initial recruits or 'seeds'
  - Peer-to-peer recruitment using coupons
- Target sample size:
  - 500 PWID per project area
- Biobehavioral interview and HIV Testing



# 23 Metropolitan Statistical Areas in 2018



# NHBS Definition of Homelessness

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In the past 12 months, living:

- on the street
- in a shelter
- in a single room occupancy (SRO) hotel
- in a car



# MMP Background



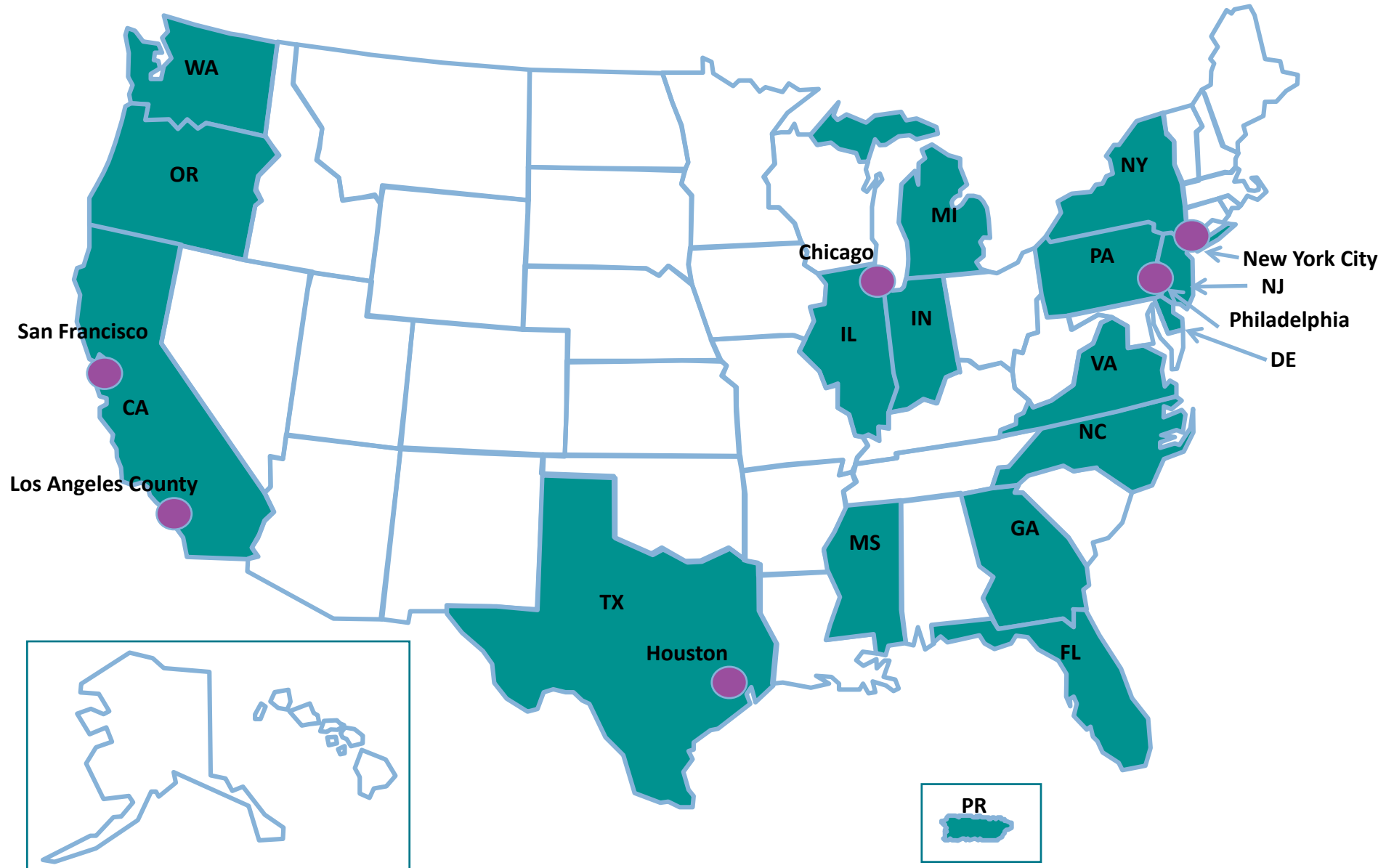
# MEDICAL MONITORING PROJECT BACKGROUND

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- Produces representative estimates of behavioral and clinical characteristics among U.S. adults with diagnosed HIV
- Cross-sectional design
- Interviews and medical record abstractions



# MMP PROJECT AREAS







## MMP 2018 CYCLE

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- June 1, 2018 – May 31, 2019
- Persons with diagnosed HIV aged 18 years and older
- Living in one of the 17 MMP-funded jurisdictions
- Interviews and medical record abstraction



# MMP Definition of Homelessness

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In the past 12 months, living:

- on the street
- in a shelter
- in a single room occupancy (SRO) hotel
- in a car

# 2018 MMP expanded definition of unstable housing

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In the past 12 months:

- Moving in with others due to financial issues (“doubling up”)
- Moving  $\geq 2$  times
- Being evicted



## Data Analysis

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- Adults with diagnosed HIV (n=4,050)
- Social determinants of health and HIV outcomes
- People experiencing homelessness (original definition)
- People who were unstably housed independent of homelessness (new definition)
- Calculated weighted percentages and 95% CI
- Reported prevalence ratios with predicted marginal means
- Weighted data based on selection probabilities and nonresponse



# Findings

# NHBS and MMP articles

Research Article

## Characteristics of Adults With Diagnosed HIV Who Experienced Housing Instability: Findings From the Centers for Disease Control and Prevention Medical Monitoring Project, United States, 2018

Ruthanne Marcus, PhD, MPH\* • Yunfeng Tie, PhD • Sharoda Dasgupta, PhD, MPH • Linda Beer, PhD • Mabel Padilla, MPH • Jennifer Fagan, MA • Joseph Prejean, PhD


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<https://doi.org/10.1080/10530789.2021.1892931>



### HIV Injection Risk Behaviors among HIV-Negative People Who Inject Drugs Experiencing Homelessness, 23 U.S. Cities

Ruthanne Marcus , Susan Cha, Catlainn Sionean, Dafna Kanny for the National HIV Behavioral Surveillance Study Group

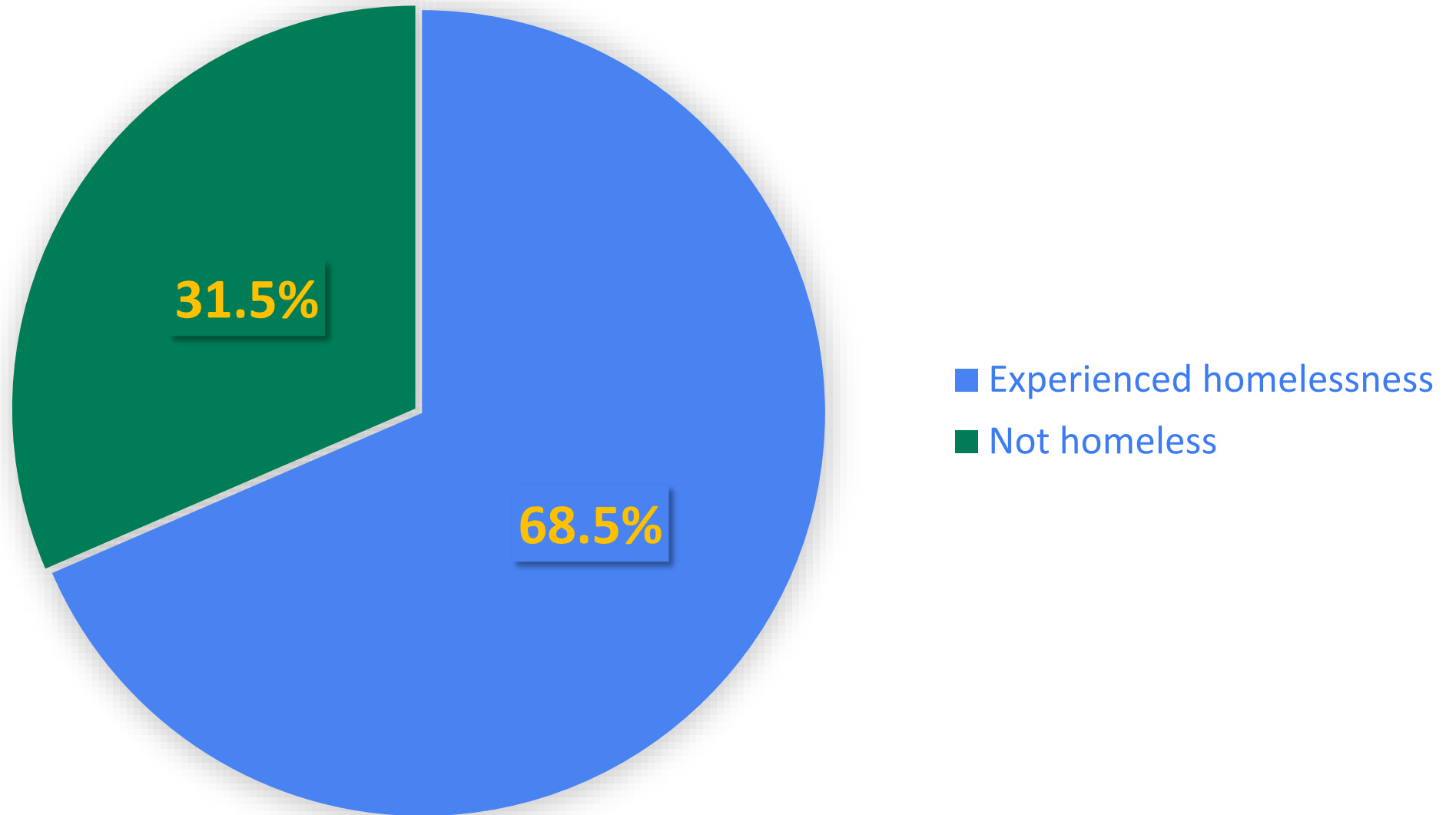
Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, GA, USA



# NHBS Findings



# NHBS-PWID (N=10,614)





# Table 1: Characteristics of HIV-Negative persons who inject drugs by housing status

National HIV Behavioral Surveillance, 23 U.S. cities, 2018

	Housing status						<i>P</i> value <sup>c</sup>
	Homeless <sup>a</sup> (n = 7275)		Not Homeless (n = 3339)		Total (n = 10,614)		
	No.	Col. %	No.	Col. %	No. <sup>b</sup>	Col. %	
Age (years)							<.0001
18–29	1256	17.3	298	8.9	1554	14.6	
30–39	2231	30.7	630	18.9	2861	27.0	
40–49	1754	24.1	676	20.3	2430	22.9	
≥50	2034	28.0	1735	52.0	3769	35.5	
Race/ethnicity							<.0001
Black	1883	25.9	1527	45.8	3410	32.2	
Hispanic/Latino <sup>d</sup>	1571	21.6	599	17.9	2170	20.5	
White	3220	44.3	1065	31.9	4285	40.4	
Other <sup>e</sup>	595	8.2	147	4.4	742	7.0	

# Table 1 (continued)

	Housing status						P value <sup>c</sup>
	Homeless <sup>a</sup> (n = 7275)		Not Homeless (n = 3339)		Total (n = 10,614)		
	No.	Col. %	No.	Col. %	No. <sup>b</sup>	Col. %	
Employment status							<.0001
Unemployed	4133	56.8	1145	34.3	5278	49.7	
Employed (full or part time)	953	13.1	677	20.3	1630	15.4	
Not in labor force/other <sup>f</sup>	2189	30.1	1517	45.4	3706	34.9	
Health insurance							<.0001
No insurance	2090	28.9	699	21.0	2789	26.4	
Private plan	131	1.8	156	4.7	287	2.7	
Public plan	4904	67.8	2398	72.2	7302	69.2	
Public and private plans	38	0.5	26	0.8	64	0.6	
Other health insurance	68	0.9	44	1.3	112	1.1	
Poverty status							<.0001
At or below federal poverty level	5586	77.2	2321	70.2	7907	75.0	
Above federal poverty level	1653	22.8	984	29.8	2637	25.0	

# Table 1 (continued) 2

	Housing status						P value <sup>c</sup>
	Homeless <sup>a</sup> (n = 7275)		Not Homeless (n = 3339)		Total (n = 10,614)		
	No.	Col. %	No.	Col. %	No. <sup>b</sup>	Col. %	
Injection substance use past 12 months							
Heroin	6510	89.5	3061	91.7	9571	90.2	0.4261
Speedball <sup>g</sup>	4097	56.3	1523	45.6	5620	53.0	<.0001
Powder or Crack Cocaine	3468	47.7	1226	36.7	4694	44.2	<.0001
Methamphetamine	3118	42.9	589	17.6	3707	34.9	<.0001
Prescription opioids <sup>h</sup>	1693	23.3	499	14.9	2192	20.7	<.0001
Binge drinking (past 30 days)	2082	28.9	793	24.0	2875	27.4	<.0001
Non-injection drug <sup>i</sup> use past 12 months							
No	1323	18.2	923	27.7	2246	21.2	<.0001
Yes	5952	81.8	2415	72.4	8367	78.8	

## Table 2: Injection risk and prevention behaviors among HIV-negative persons who inject drugs by housing status

National HIV Behavioral Surveillance, 23 U.S. cities, 2018

	Housing status						Prevalence ratios PR (95% CI) <sup>b</sup>	Adjusted prevalence ratios aPR (95% CI) <sup>c</sup>
	Homeless <sup>a</sup>			Not homeless				
	Total	<i>n</i>	%	Total	<i>n</i>	%		
<i>Injection risk behaviors</i>								
Shared syringes or other equipment <sup>d</sup>	7272	4772	65.6	3336	1576	47.2	<b>1.35 (1.28–1.42)</b>	<b>1.26 (1.20–1.33)</b>
Non-fatal opioid overdose	6962	2305	33.1	3235	573	17.7	<b>1.77 (1.63–1.94)</b>	<b>1.64 (1.49–1.79)</b>
<i>Prevention behaviors</i>								
Tested for HIV in past 12 months	7206	4245	58.9	3301	1590	48.2	<b>1.18 (1.12–1.24)</b>	<b>1.18 (1.12–1.24)</b>
Obtained sterile syringes from an SSP	7268	4198	57.8	3337	1406	42.1	<b>1.12 (1.06–1.19)</b>	<b>1.09 (1.03–1.16)</b>
Safe syringe disposal only	7273	1537	21.1	3337	617	18.5	0.89 (0.80–1.00)	0.91 (0.80–1.01)
Medication-assisted treatment <sup>e</sup>	6965	3743	53.7	3237	1735	53.6	0.96 (0.92–1.00)	0.96 (0.92–1.00)

# MMP Findings



**Table 1. Prevalence of Housing Instability Among Persons With Diagnosed HIV-Medical Monitoring Project, United States, 2018 (*n* = 4,050)**

Housing Status	n	Weighted Row %	95% CI
Unstably housed <sup>a</sup>	870	21.0	19.5-22.6
Experienced unstable housing but not homelessness	471	55.2	50.6-59.8
Experienced homelessness and other forms of unstable housing	272	31.6	27.3-35.9
Experienced homelessness without other forms of housing instability	123	13.2	10.6-15.9

**Table 2. Prevalence of Housing Instability During the Past 12 Months, Overall and by Selected Characteristics, Among Persons With Diagnosed HIV by Sociodemographic Characteristics, 2018 (*n* = 4,050)**

Characteristic	Unstably Housed Only (Not Homeless)		No <i>n</i> <sup>a</sup>	Row% (CI) <sup>b</sup>	PR (95% CI)	<i>p</i>
	Yes <i>n</i> <sup>a</sup>	Row% (CI) <sup>b</sup>				
Total	471	11.5 (10.0–13.1)	3,552	88.5 (86.9–90.0)		
Gender						
Male	335	11.4 (9.8–13.1)	2,571	88.6 (86.9–90.2)	Reference	
Female	124	11.3 (9.2–13.4)	914	88.7 (86.6–90.8)	0.99 (0.82–1.18)	0.894
Transgender	12	18.7 (8.8–28.7)	66	81.3 (71.3–91.2)	1.64 (0.98–2.74)	0.073
Race/ethnicity						
Black, non-Hispanic	243	13.8 (11.2–16.4)	1,488	86.2 (83.6–88.8)	1.59 (1.30–1.95)	< 0.001
White, non-Hispanic	97	8.7 (6.7–10.7)	1,025	91.3 (89.3–93.3)	Reference	
Hispanic/Latino	96	10.8 (8.6–12.9)	784	89.2 (87.1–91.4)	1.24 (0.92–1.67)	0.154
Other/multiracial <sup>c</sup>	35	12.8 (9.5–16.0)	255	87.2 (84.0–90.5)	1.47 (1.09–1.99)	0.013
Age at the time of interview (year)						
18–29	75	23.5 (16.4–30.7)	261	76.5 (69.3–83.6)	2.97 (2.09–4.22)	< 0.001
30–39	100	16.8 (12.6–20.9)	498	83.2 (79.1–87.4)	2.11 (1.56–2.87)	< 0.001
40–49	106	11.5 (9.3–13.7)	779	88.5 (86.3–90.7)	1.45 (1.20–1.76)	< 0.001
≥50	190	7.9 (6.5–9.4)	2,014	92.1 (90.6–93.5)	Reference	

**Table 2. Prevalence of Housing Instability During the Past 12 Months, by Social Determinants of Health, Among Persons With Diagnosed HIV, 2018 (*n* = 4,050)**

Characteristic	Unstably Housed				PR (95% CI)	<i>p</i>
	Yes		No			
	<i>n</i> <sup>a</sup>	Row% (CI) <sup>b</sup>	<i>n</i> <sup>a</sup>	Row% (CI) <sup>b</sup>		
Incarcerated >24 hr, past 12 months						
<u>Yes</u>	97	49.9 (42.6–57.1)	84	50.1 (42.9–57.4)	<u>2.55 (2.21–2.94)</u>	<u>&lt; 0.001</u>
No	772	19.6 (18.2–21.0)	3,068	80.4 (79.0–81.8)	Reference	
Any disability <sup>d</sup>						
<u>Yes</u>	505	27.1 (24.8–29.3)	1,301	72.9 (70.7–75.2)	<u>1.66 (1.49–1.85)</u>	<u>&lt; 0.001</u>
No	365	16.3 (14.8–17.9)	1,853	83.7 (82.1–85.2)	Reference	
Poverty level, past 12 months <sup>e</sup>						
Above poverty level	305	14.9 (13.0–16.7)	1,750	85.1 (83.3–87.0)	Reference	
<u>At or below poverty level</u>	487	28.4 (25.4–31.4)	1,163	71.6 (68.6–74.6)	<u>1.91 (1.62–2.26)</u>	<u>&lt; 0.001</u>
Median stigma scores	870	45.0 (42.2–47.8)	3,157	36.2 (35.1–37.3)		



**Table 3. Prevalence of Clinical Outcomes, by Housing Instability During the Past 12 Months Among Persons With Diagnosed HIV, 2018 (*n* = 4,050)**

Characteristic <sup>a</sup>	Unstably Housed				PR (95% CI)	<i>p</i>
	Yes		No			
	<i>n</i> <sup>b</sup>	Col% (CI) <sup>c</sup>	<i>n</i> <sup>b</sup>	Col% (CI) <sup>c</sup>		
Retained in care						
Yes	651	72.4 (68.0–76.9)	2,567	80.0 (77.8–82.2)	0.91 (0.85–0.96)	< 0.001
<u>No</u>	173	27.6 (23.1–32.0)	435	20.0 (17.8–22.2)	<u>1.38 (1.16–1.63)</u>	< 0.001
ART prescription						
Yes	730	78.3 (75.0–81.6)	2,740	82.0 (79.9–84.1)	0.95 (0.92–0.99)	0.014
<u>No</u>	140	21.7 (18.4–25.0)	417	18.0 (15.9–20.1)	<u>1.21 (1.04–1.40)</u>	0.014
100% ART dose adherence, past 30 days						
Yes	377	45.1 (40.3–49.9)	1,900	62.7 (60.7–64.7)	0.72 (0.65–0.79)	< 0.001
<u>No</u>	411	54.9 (50.1–59.7)	1,130	37.3 (35.3–39.3)	<u>1.47 (1.36–1.59)</u>	< 0.001
Sustained viral suppression <sup>d</sup>						
Yes	441	46.3 (42.4–50.3)	2,248	66.6 (63.8–69.3)	0.70 (0.65–0.75)	< 0.001
<u>No</u>	429	53.7 (49.7–57.6)	909	33.4 (30.7–36.2)	<u>1.61 (1.49–1.73)</u>	< 0.001



# Conclusions

# In Conclusion

- **HIV-negative homeless PWID vs. PWID who are not experiencing homelessness:**
  - are younger, white, unemployed, without insurance, and living below the federal poverty level
  - engage in behaviors that put them at risk for HIV including using more substances
  - sharing syringe equipment
- **People with HIV who are unstably housed have worse HIV outcomes than people not unstably housed**



# Implications & Future Analyses

# Implications

- **People who inject drugs who experience homelessness are at-risk for HIV and need housing, financial, and social support**
- **Need for expanding the definition of homelessness to include people who are unstably housed, independent of homelessness, to:**
  - Address housing needs
  - Integrate housing, health care, and behavioral health care needs (one-stop shop)
  - Potentially prevent literal homelessness

# Future Analyses

- **Homelessness among transgender women in NHBS-Trans**
- **Unmet need for shelter and housing assistance**
- **Federal programs to address housing needs among people with and at-risk for HIV**
- **Definitions of homelessness**

# HIV Outbreaks and Unstable Housing in the United States

Ras hida Has s an, MSPH  
Detection and Response Branch  
Division of HIV Prevention  
August 23, 2022



# Disclosures

Rashida Hassan has no relevant financial interests to disclose



# Overview of this presentation

- Recent HIV outbreaks in the United States
- CDC's role in HIV outbreak response
- Current work and future directions



# Ending the HIV Epidemic in the U.S.



**Diagnose** all people with HIV as early as possible.

**Treat** HIV rapidly after diagnosis, and effectively in all people who have HIV, to help them get and stay virally suppressed.

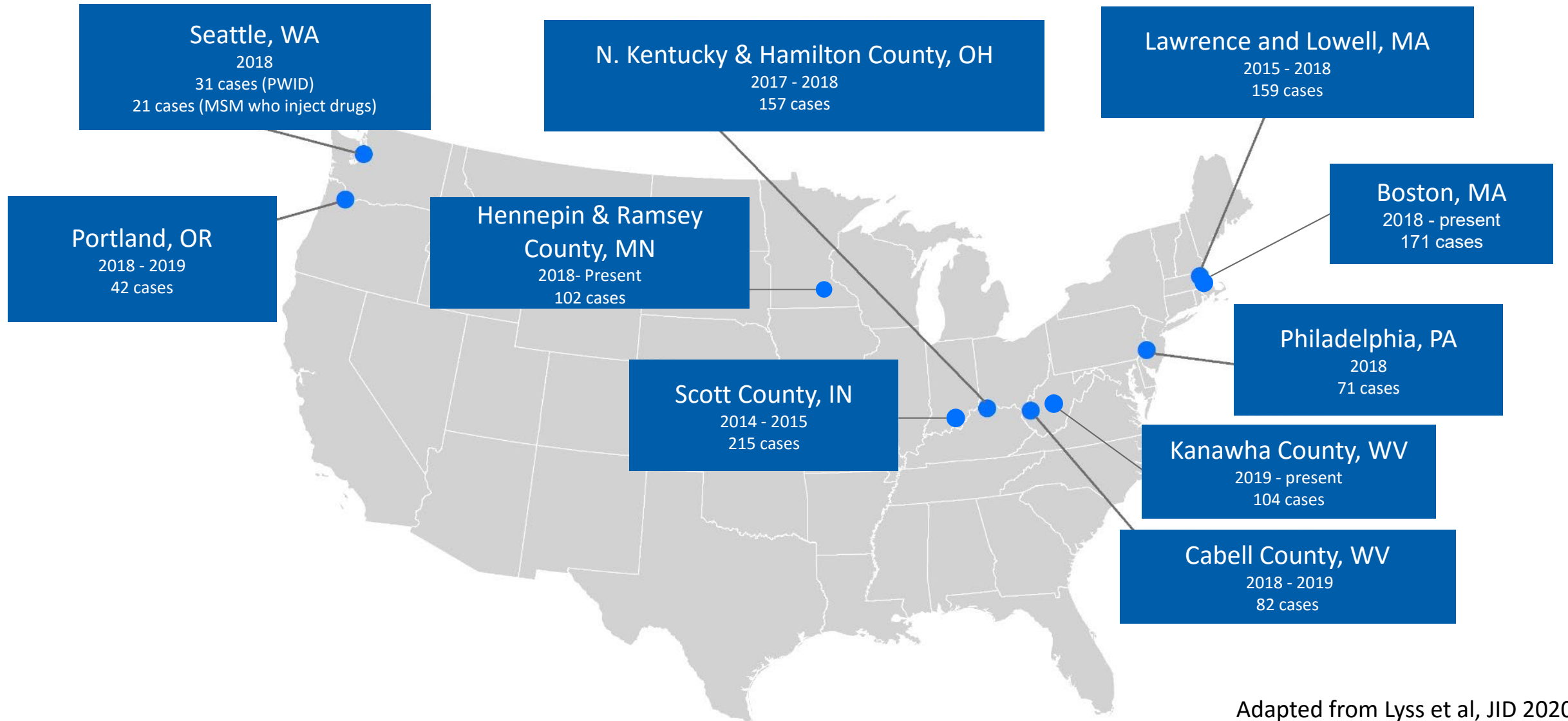


**Protect** people at risk for HIV using proven prevention interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs).

**Respond** quickly to potential HIV outbreaks to get prevention and treatment services to people who need them.



# Recent HIV Outbreaks among People Who Inject Drugs



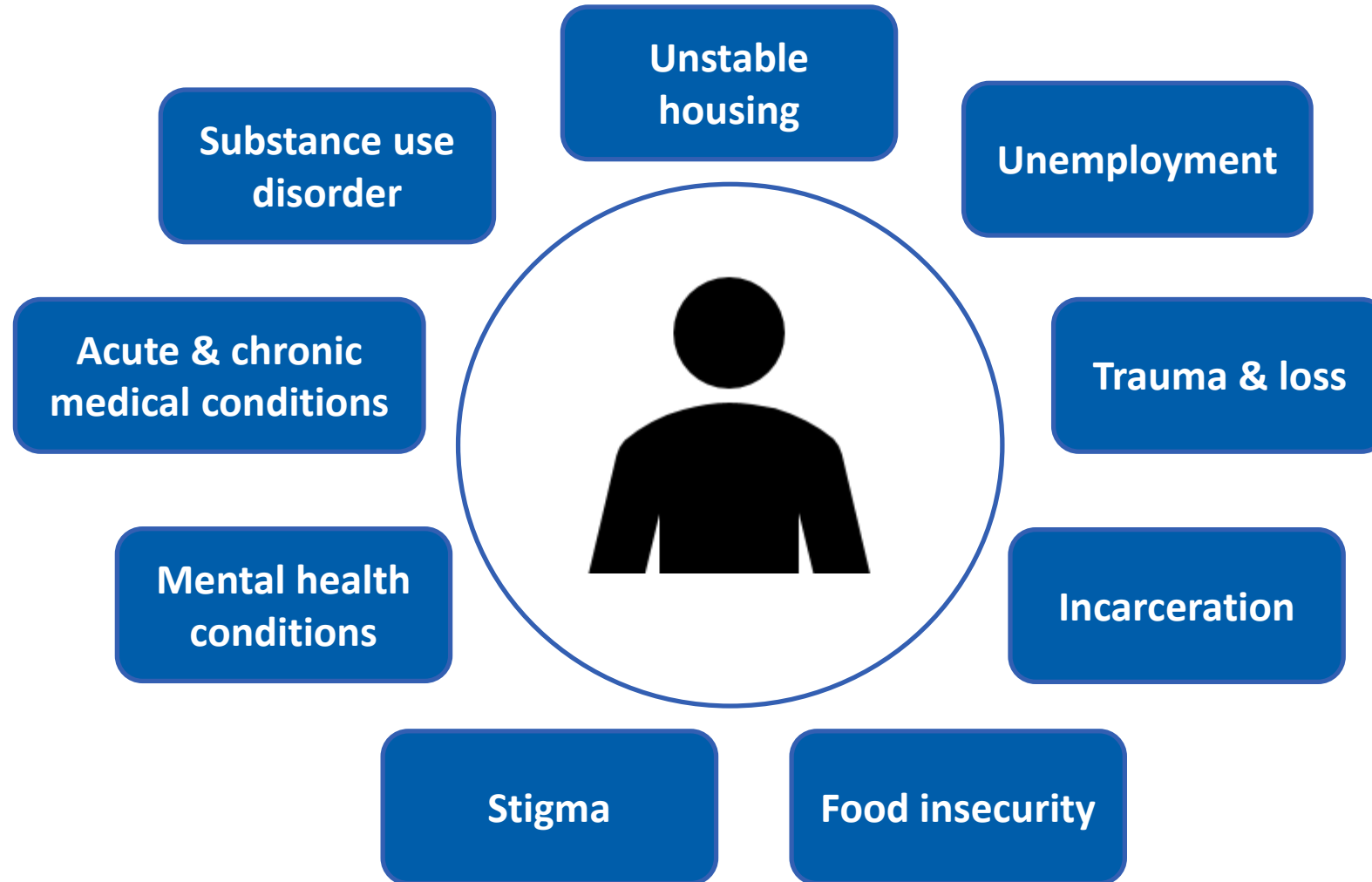
# HIV outbreaks and unstable housing: 2017–2021

Outbreak location (dates)	Cases	Unstable housing	Definition of unstable housing
<b>Cincinnati, OH area</b> (2017–18)	135	<b>65%</b>	Ever homeless (self-report)
<b>Cabell County, WV</b> (2018–19)	82	<b>80%</b>	Unstable housing at time of partner services interview
<b>Boston, MA</b> (2019–21)	128	<b>79%</b>	Unspecified
<b>Minneapolis-St. Paul, MN</b> (2020–21)	81	<b>63%/43%</b>	Encounter in HMIS/Encampment or unsheltered living
<b>Kanawha County, WV</b> (2019–21)	85	<b>50%</b>	Unstable housing at time of partner services interview

# Components of an HIV outbreak response

- Major goals:
  - **Diagnose** all people with HIV as early as possible
  - **Treat** people with HIV rapidly and effectively to reach sustained viral suppression
  - **Prevent** new HIV transmission by using proven interventions, including PrEP and SSPs
- Major activities focus on:
  - Expanding access
  - Improving outreach
  - Engaging community members
  - Building partnerships
  - Integrating services
  - Improving acceptability

# People who inject drugs have complex medical and social service needs



# Insights from recent HIV outbreak response experiences



Health departments: Limited staff capacity and siloed programs



Community engagement essential for planning and implementation



Must address services for people with HIV and those at risk for HIV



Policy barriers can limit the reach of needed services



Need to “bend” our services to meet people where they are

# CDC support for HIV outbreak response

- Division of HIV Prevention (NCHHSTP)
- Funding for U.S. health departments to plan and conduct detection and response activities
  - Includes capacity-building assistance
- Technical assistance or surge support for specific outbreaks
- Coordination with other federal agencies





# HIV outbreaks & housing: ongoing federal action

- Ongoing collaboration with HUD (HOPWA), HRSA (HIV/AIDS Bureau)
- Improve awareness at the federal level and among all grantees
- Promote increased collaboration at the state/local level
  - Encourage sharing and analysis of local housing services data
- Identify, disseminate “best practices” for HIV outbreaks & housing
  - Improve integration with other social services and behavioral health services
  - Ensure housing services reach both people with and without HIV

# HIV outbreaks & housing: improvements needed

1. Improved partnerships at the federal, state, and local level
2. Uses of data related to housing and HIV outcomes
3. Creative approaches to delivering integrated services

***Housing services are essential to addressing HIV outbreaks***

**and**

***Lasting changes help to prevent future outbreaks***

# Thank you!

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



# NRWC Intersection of Housing and HIV Institute

## 101: Addressing Housing in HIV Prevention and Care

Rita Harcrow, Director

HUD Office of HIV/AIDS Housing

20  
22

NATIONAL  
**RYAN WHITE**  
CONFERENCE  
ON HIV CARE & TREATMENT

# Why Housing?

- An estimated 40% to 70% of all people living with HIV in the U.S. experience homelessness or housing instability at some point following their diagnosis.<sup>1</sup>
- The estimated prevalence of homelessness among all people with HIV in the U.S. is 9%.<sup>2</sup>
- Data from the Medical Monitoring Project for 2015-2017 showed people with HIV experiencing homelessness were >3 times as likely to have needed and not received shelter or housing services; >4 times as likely to inject drugs; and >7 times as likely to engage in exchange sex; compared with people with HIV who did not experience homelessness.<sup>3</sup>

1 Aidala, A., & Sumartojo, E (2007). Why housing? *AIDS & Behavior* , 11 (6)/Supp 2: S1-S6.

2 Centers for Disease Control and Prevention (2021). Behavioral and Clinical Characteristics of Persons with Diagnosed HIV Infection—Medical Monitoring Project, United States, 2019 Cycle (June 2019–May 2020). HIV Surveillance Special Report 28. <https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>.

3 Wainwright, J. J., Beer, L., Tie, Y., Fagan, J. L., Dean, H. D., & Medical Monitoring Project (2020). Socioeconomic, Behavioral, and Clinical Characteristics of Persons Living with HIV Who Experience Homelessness in the United States, 2015-2016. *AIDS and behavior*, 24(6), 1701–1708. <https://doi.org/10.1007/s10461-019-02704-4>

# What is HOPWA?

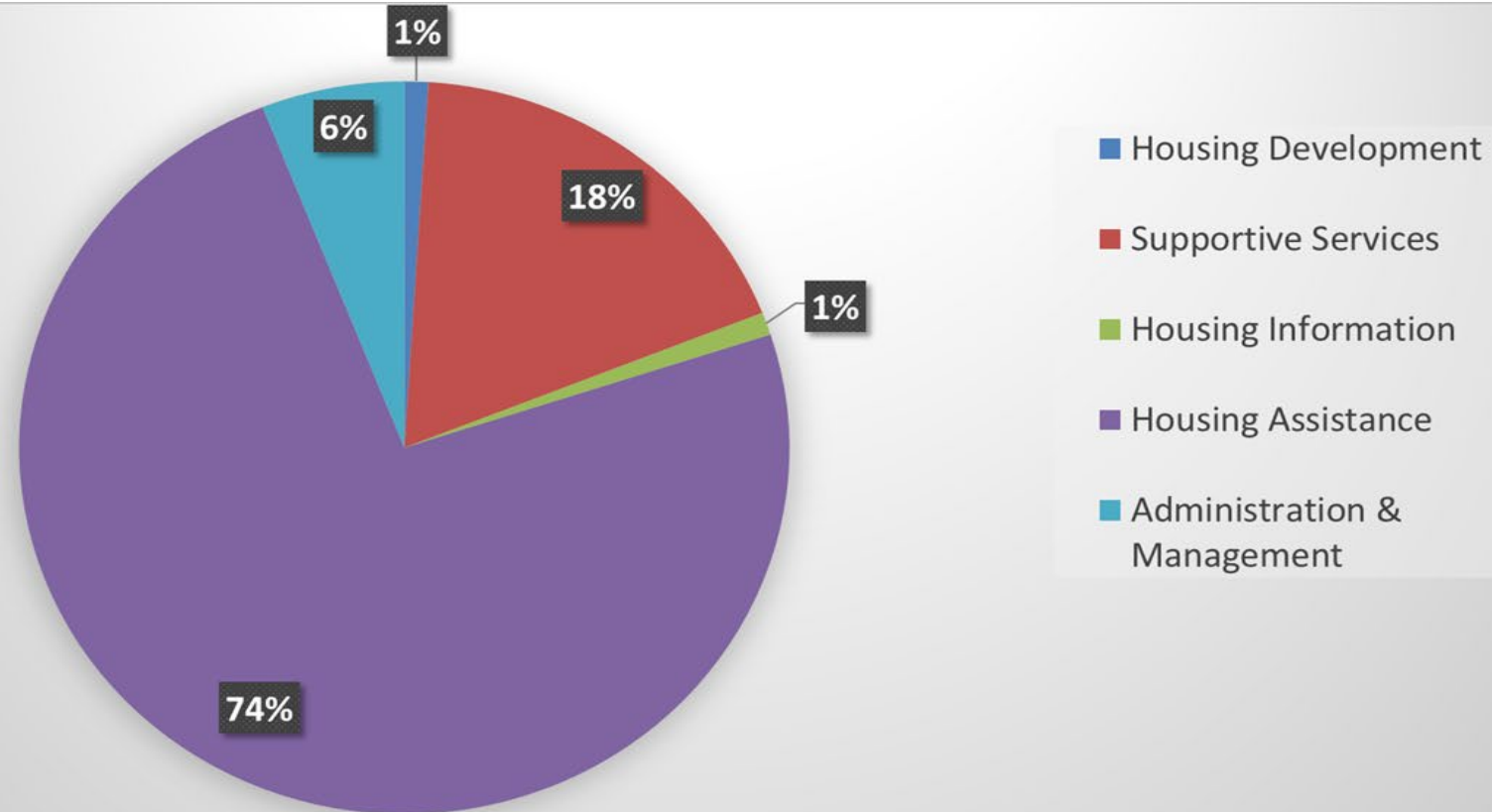


- The only federal program dedicated to the housing needs of low-income people living with HIV and their families
- Under HOPWA, HUD provides grants to eligible cities, states, and nonprofit organizations
- HOPWA helps people living with HIV enter and remain in housing, which improves health outcomes

# Who HOPWA Serves

- Over **100,000** households receive HOPWA housing assistance and/or supportive services annually
- **77%** of HOPWA beneficiaries are extremely low income
- Among new clients served last year, approximately **3,456** (16%) were experiencing homelessness at program entry
- **63%** of the HOPWA-eligible individuals served under the program are male
- **43%** are between the ages of 31 and 50; and **45%** are 51 or older
- **54%** are Black or African American, **37%** are White, and **19%** have Hispanic/Latino ethnicity

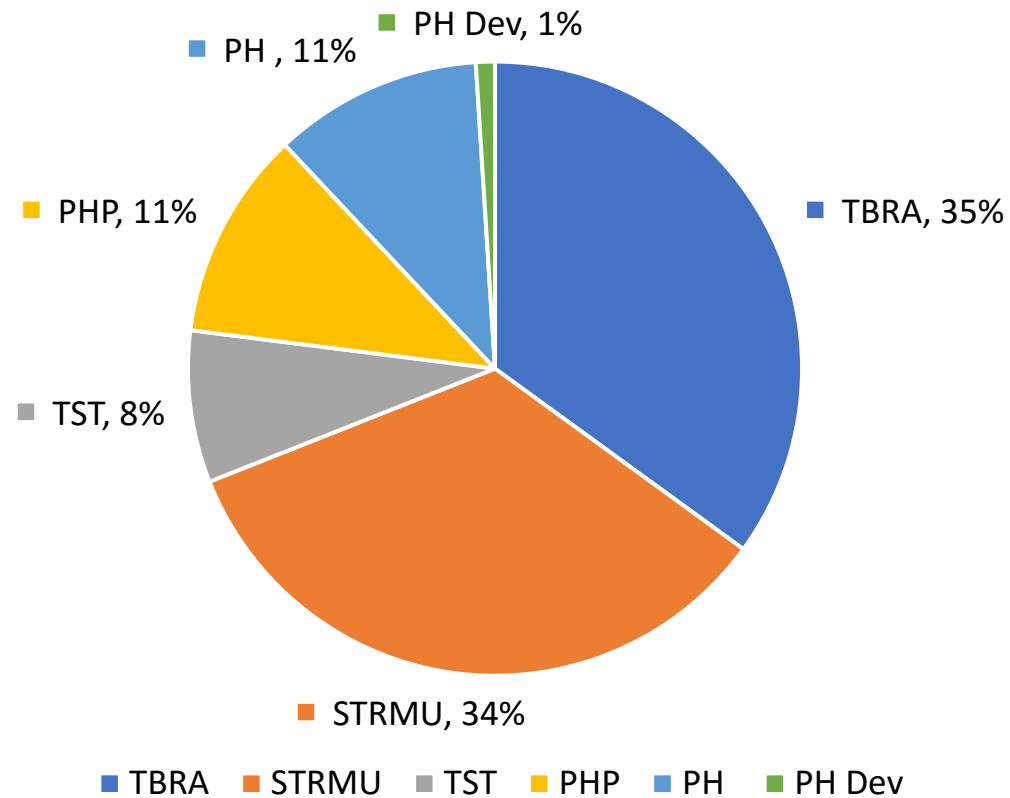
# Expenditures by HOPWA Eligible Activity





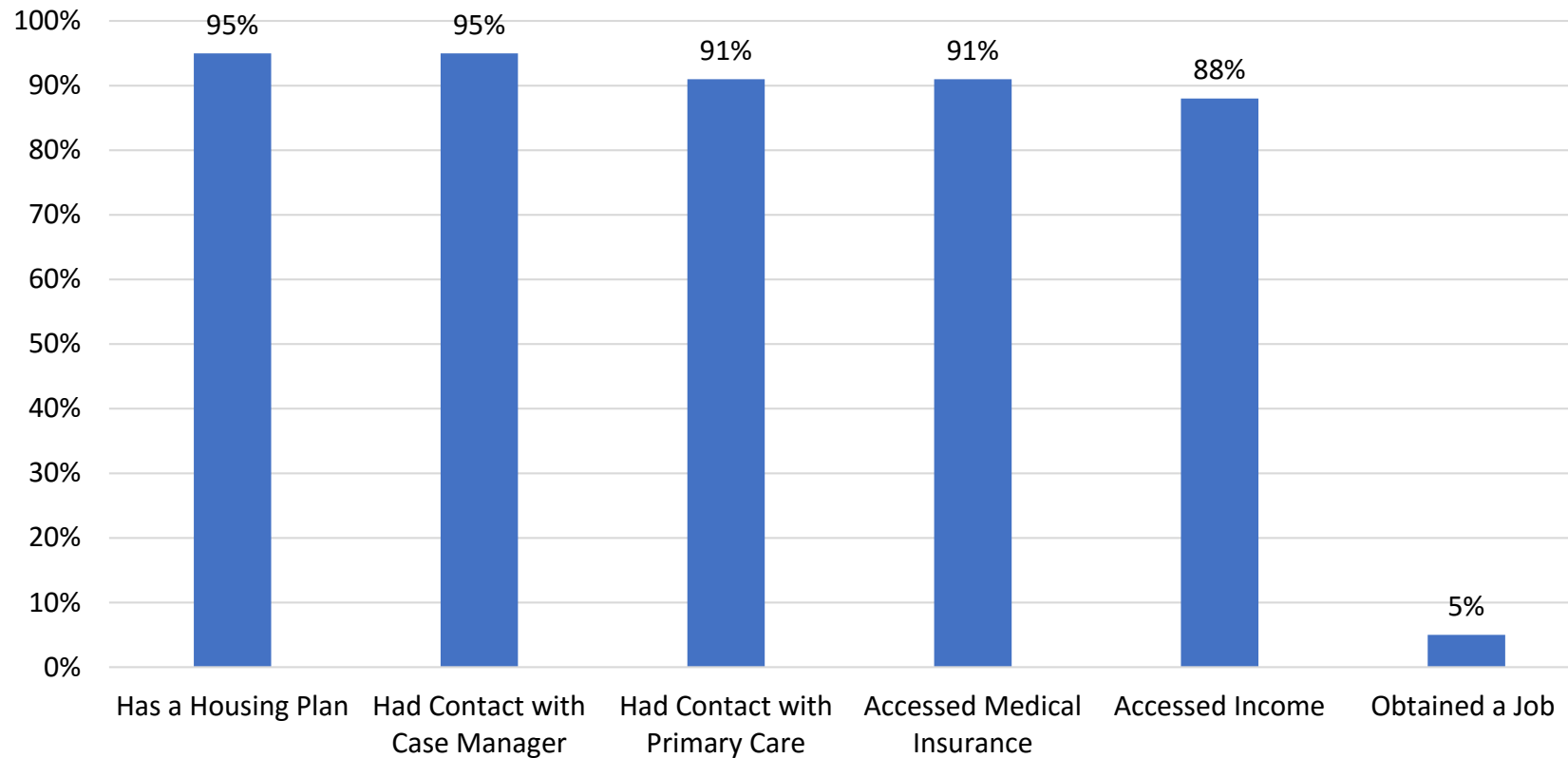
# HOPWA-Assisted Households by Housing Activity

Percentage of Households Served by Type of Housing Assistance



# HOPWA Access to Care Outcomes

Percentage of Households who Accessed or Maintained Access to Care



# MN TA overview

- In October 2021, after coordinating with the CDC, HUD directed its disaster technical assistance team to engage with local and state public health agencies, housing providers, and other stakeholders in Hennepin County, MN in response to an HIV outbreak which includes people experiencing homelessness and housing instability.
- In November and December 2021, the disaster TA team met with:
  - State and City ESG and HOPWA grantees and sub grantees
  - State and County Health Departments
  - Ryan White Recipients
  - Healthcare for the Homeless Grantees
  - County Homeless Continuum of Care

Healthcare for the Homeless maintained data on people in Hennepin County, Ramsey County, St. Louis County and Anoka County encampments:

- 131 people were frequenting, but not residing in, the encampments where the HIV outbreaks were occurring,
- 29 people were identified as unhoused which included both sheltered and unsheltered people who are homeless,
- 19 of the 29 reported were unhoused and included in the outbreak
- 10 of the 29 were unhoused and outbreak adjacent

# Key Takeaways

- Local data and assessment are necessary to gain insight into the outbreak
- Drivers:
  - In this locality, the encampment population majority was non-homeless based on HUD definitions
  - COVID
- Solutions:
  - Focus on HOPWA and other HUD programs
  - Creative housing solutions like shared housing and overleasing
  - SSP and harm reduction
  - Further support models that deliver PrEP and outreach within encampments regardless of housing status

# HOPWA Resources

- **HOPWA page on HUD.gov:**  
[https://www.hud.gov/program\\_offices/comm\\_planning/hopwa](https://www.hud.gov/program_offices/comm_planning/hopwa)
- **HOPWA page on the HUD Exchange TA Portal:**  
<https://www.hudexchange.info/programs/hopwa/>
- **HOPWA Performance Profiles:**  
<https://www.hudexchange.info/programs/hopwa/hopwa-performance-profiles/>

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# Contact Information

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**Susan Robilotto, D.O.**

**Director, Division of State HIV/AIDS Programs**

**HIV/AIDS Bureau (HAB)**

**Health Resources and Services Administration (HRSA)**

**Email: [srobilotto@hrsa.gov](mailto:srobilotto@hrsa.gov)**

**Phone: 301.443.6554**

**Web: [ryanwhite.hrsa.gov](http://ryanwhite.hrsa.gov)**





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# Questions and Answers

