CIRCUMSTANCES ASSOCIATED WITH HIV/HCV VIRAL SUPPRESSION AMONG RACIAL/ETHNIC MINORITIES ON COLLEGE CAMPUSES

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CME Disclosures:
Planning Committee And Speaker

Speaker: The following speaker has nothing to disclose in relation to this activity: Vladimir Berthaud, MD, MPH,FACP, FIDSA

☐ **His presentation does not conflict with his funding support.**

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Goulda A. Downer, PHD, FAND, RD, LN, CNS – Principal Investigator/Project Director

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Goulda A. Downer, PhD, FAND, RD, LN, CNS
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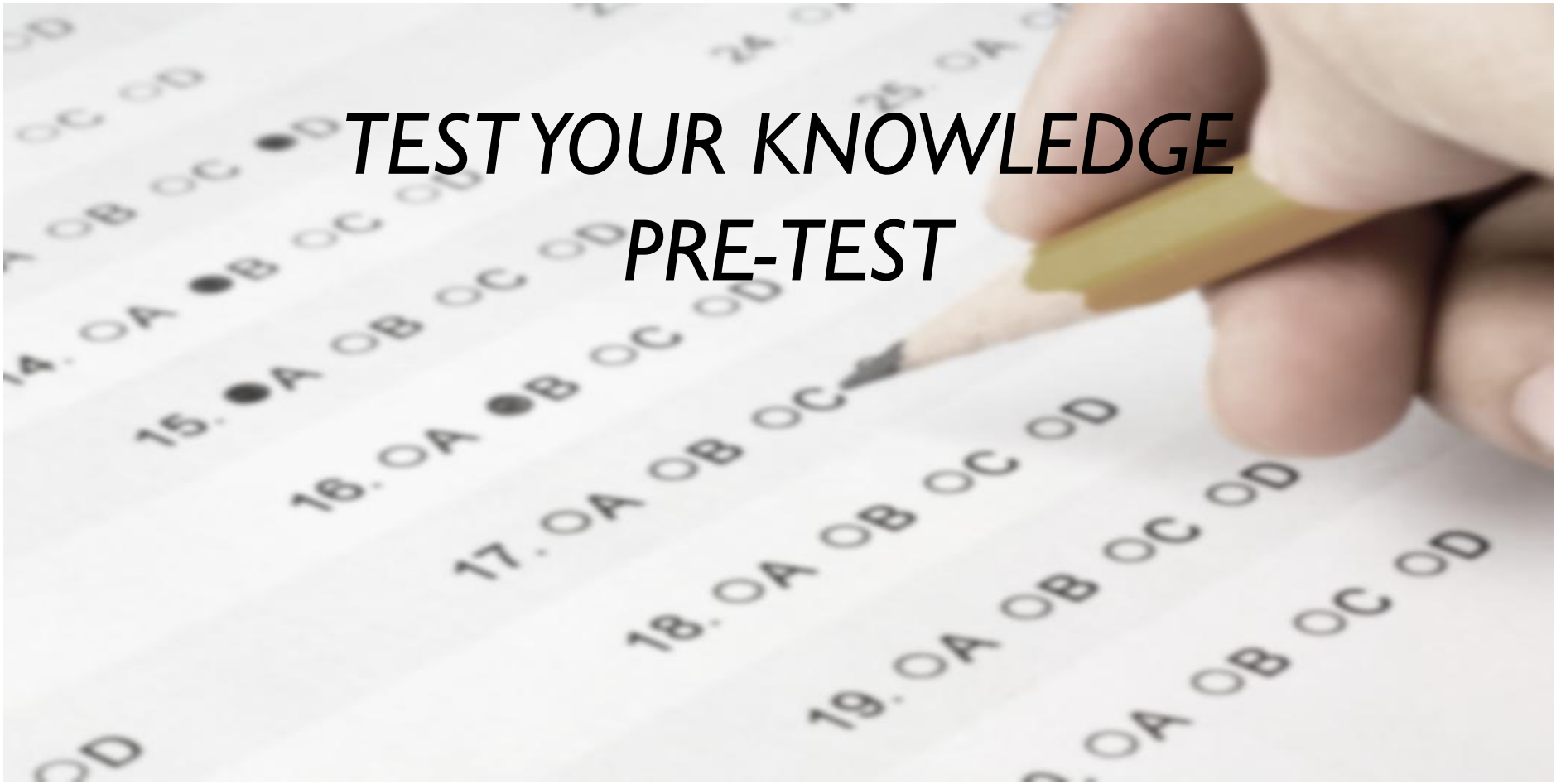
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TEST YOUR KNOWLEDGE
PRE-TEST

Test Your Knowledge
Question #1

In discussing major challenges to HIV viral suppression in minority populations, all but which of the following are correct?

A. Behavioral and substance use disorders

B. Healthcare expenditure

C. Misperceptions and misconceptions

D. Homelessness

Test Your Knowledge
Question #2

When identifying the impact of housing status on viral suppression, which of the following statements is incorrect?

A. HIV-positive clients who are homeless have higher CD4 counts than people with HIV who are not homeless
B. Individuals who are homeless or living in marginal conditions have an elevated burden of infection with HIV
C. Among people with HIV, being homeless is associated with poorer levels of medication access and sub-optimal treatment outcomes
D. There is an increased vulnerability for HIV infection among people who are homeless

Test Your Knowledge
Question #3

One challenge for people with HIV on the ACA is the cost sharing requirement.

A. True

B. False

Test Your Knowledge
Question #4

Blacks who are HIV positive have a ___ greater chance of remaining uninsured as compared to Whites.

A. 100- fold

B. 50 – fold

C. 10 –fold

D. 3-fold

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LEARNING OBJECTIVES

By the end of this session participants will be able to:

1. Define the meaning of undetectable and the importance of knowing one's HIV status
2. Discuss major challenges to HIV viral suppression in minority populations
3. Identify the impact of housing on viral suppression
4. List at least two challenges to people with HIV who use the Affordable Care Act (ACA)

BACKGROUND: HIV/ HCV AMONG VARIOUS POPULATIONS

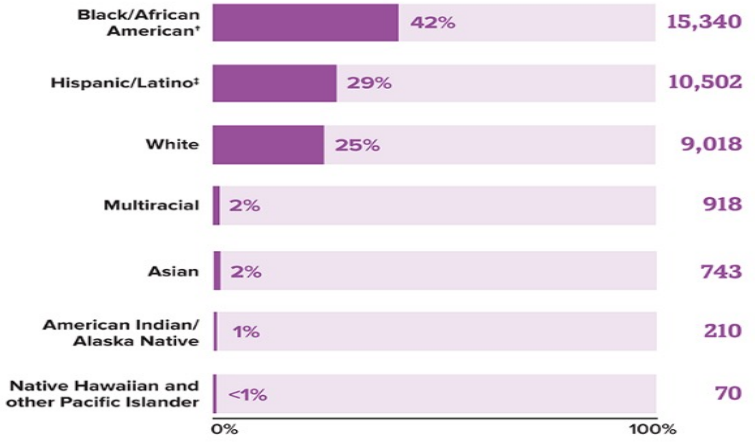
NEW HIV DIAGNOSES BY RACE/ETHNICITY AS OF 2019

In 2019, **36,801 people received an HIV diagnosis** in the US and dependent areas.

New HIV Diagnoses in the US and Dependent Areas by Race/Ethnicity, 2019*

Racial and ethnic differences in HIV diagnoses continue to exist.

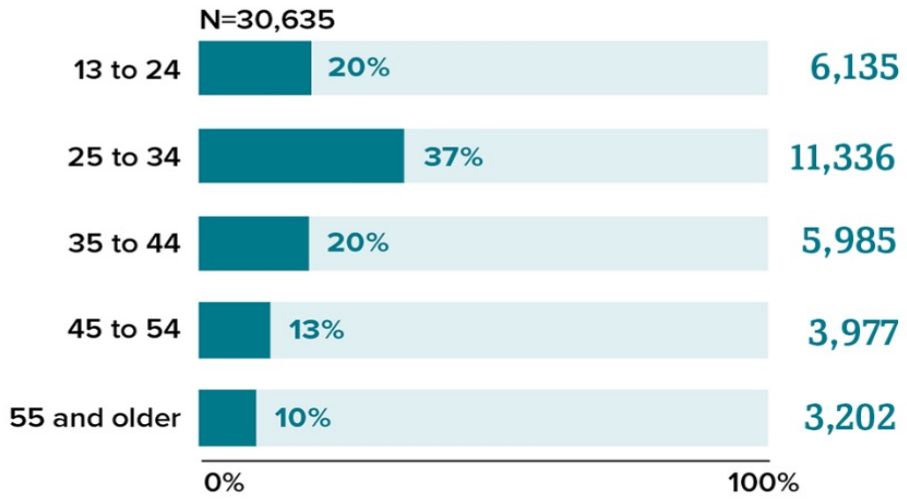




https://www.cdc.gov/hiv/group/racialethnic/other-races/diagnoses.html

DIFFERENCES IN NEW HIV DIAGNOSES BY AGE AS OF 2020

People aged 13 to 34 accounted for more than half (57%) of new HIV diagnoses in 2020.

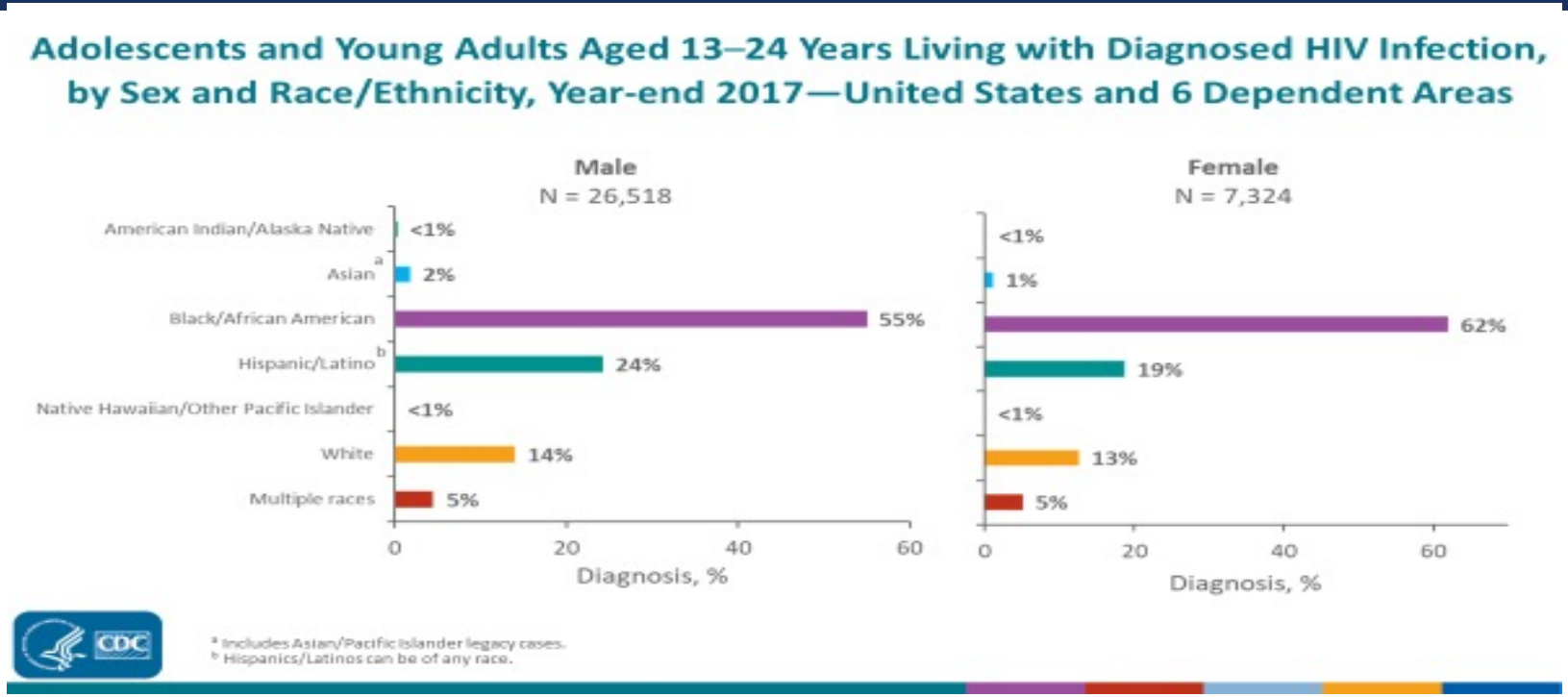


Data for 2020 should be interpreted with caution due to the impact of the COVID-19 pandemic. For more information, view the report commentary section.

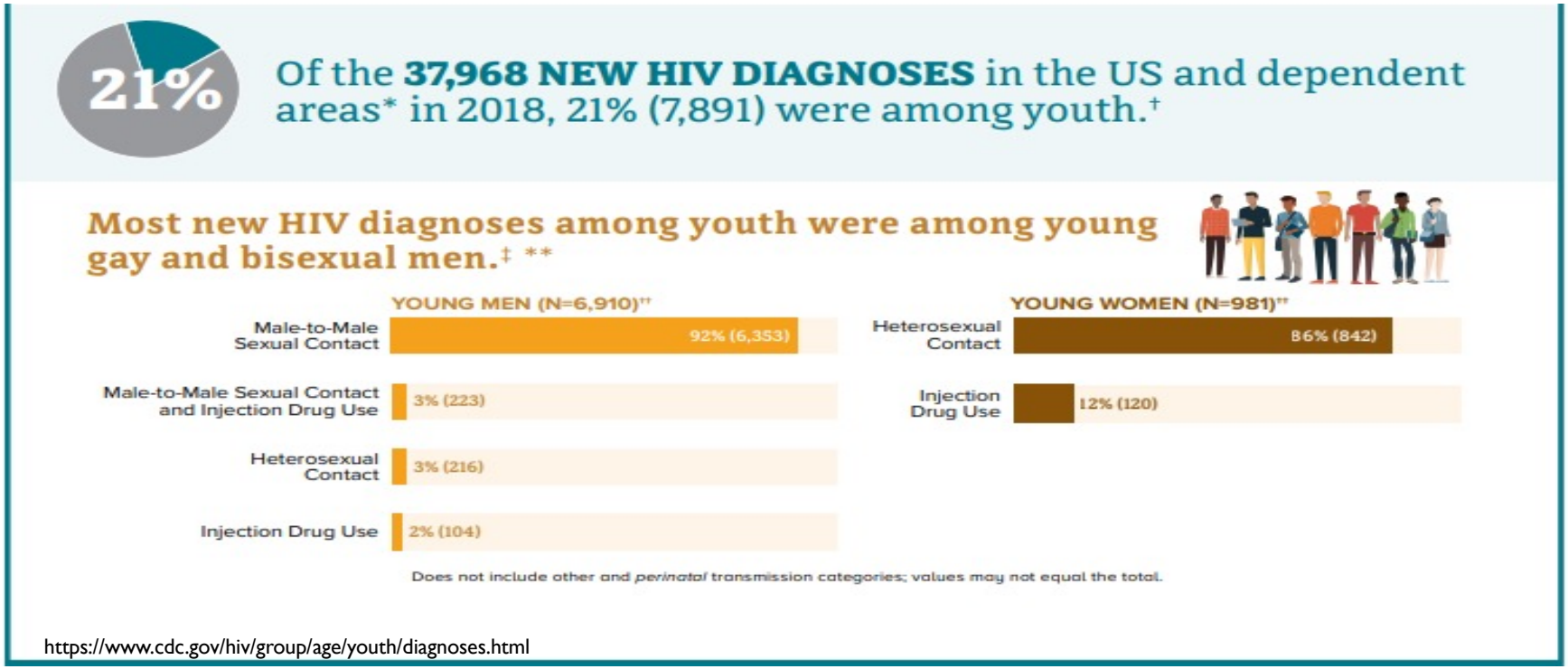
Source: CDC. Diagnoses of HIV infection in the United States and dependent areas, 2020. *HIV Surveillance Report* 2021;33.

https://www.cdc.gov/hiv/images/library/reports/hiv-surveillance/vol-33/infographics/cdc-hiv-diagnoses-by-age-infographic-1920x1080.png

YOUTH AND YOUNG ADULTS 13-24 YEARS LIVING WITH DIAGNOSED HIV INFECTION, BY SEX RACE AND ETHNICITY IN THE US AND DEPENDENT AREAS AS OF 2017

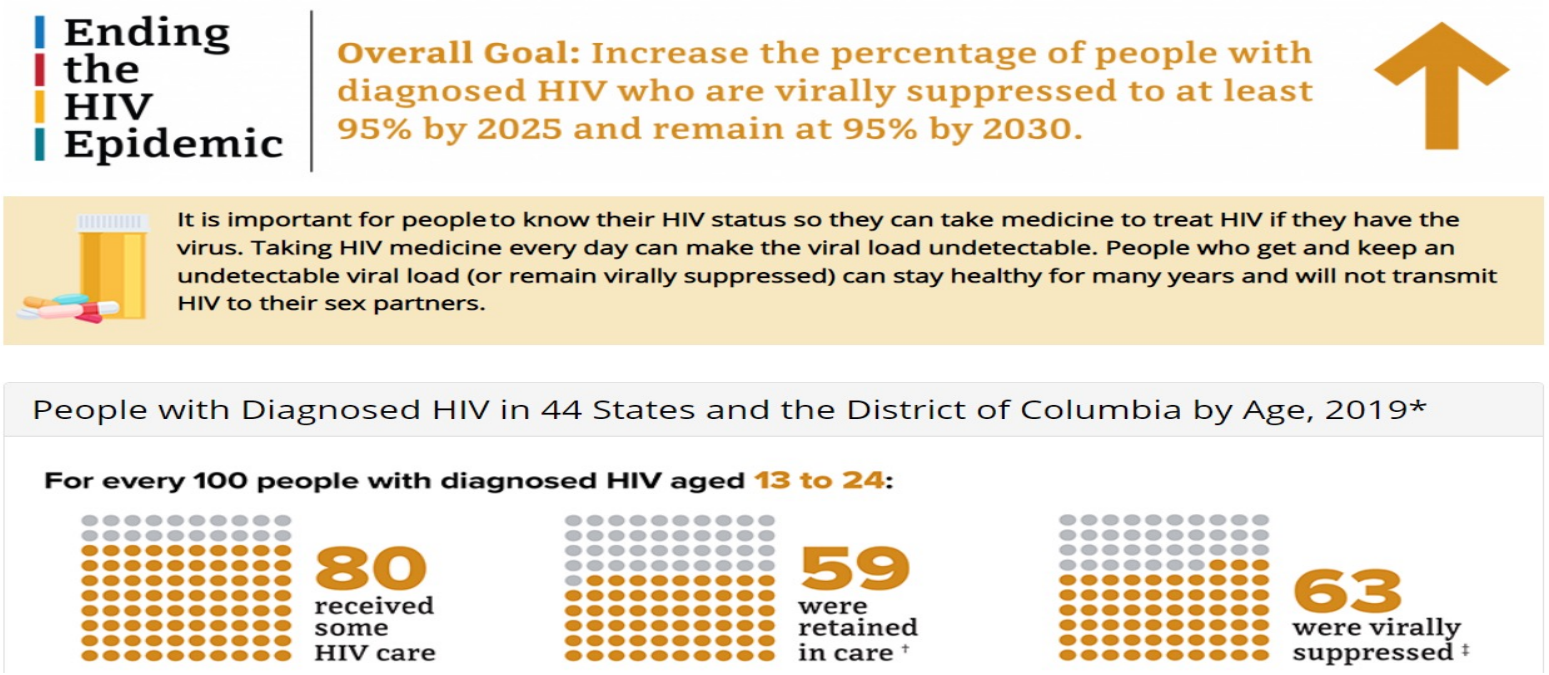


TRANSMISSION RATES OF NEW HIV CASES AMONG YOUTH AS OF 2018



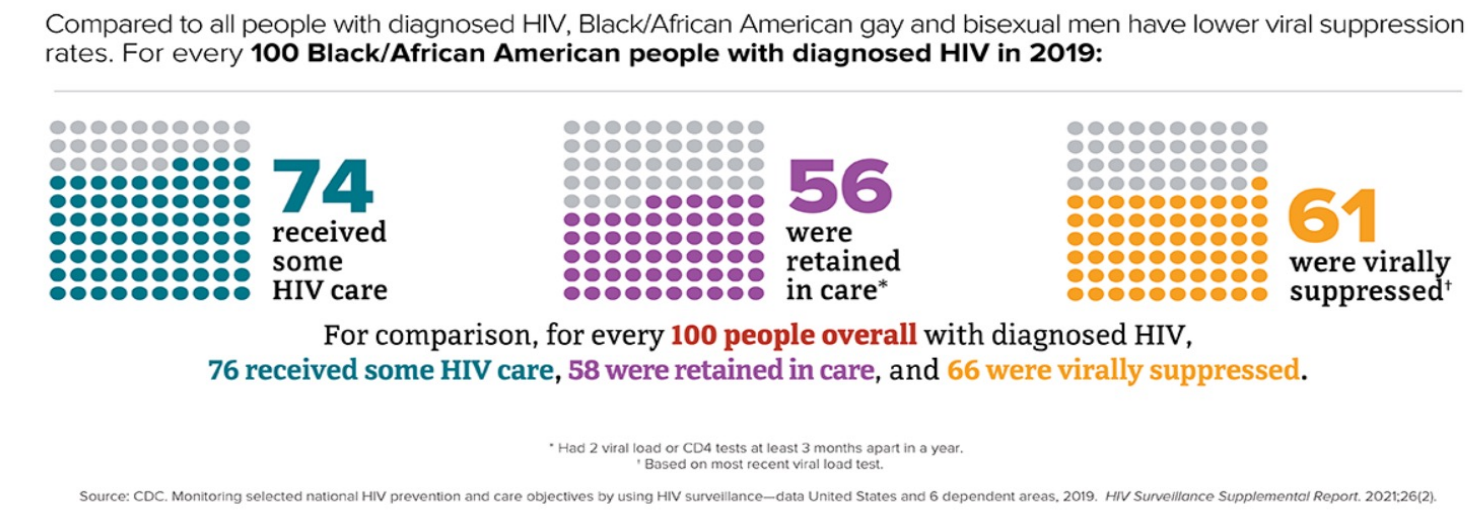
https://www.cdc.gov/hiv/group/age/youth/diagnoses.html

HIV VIRAL SUPPRESSION AMONG THOSE 13-24 AS OF 2019

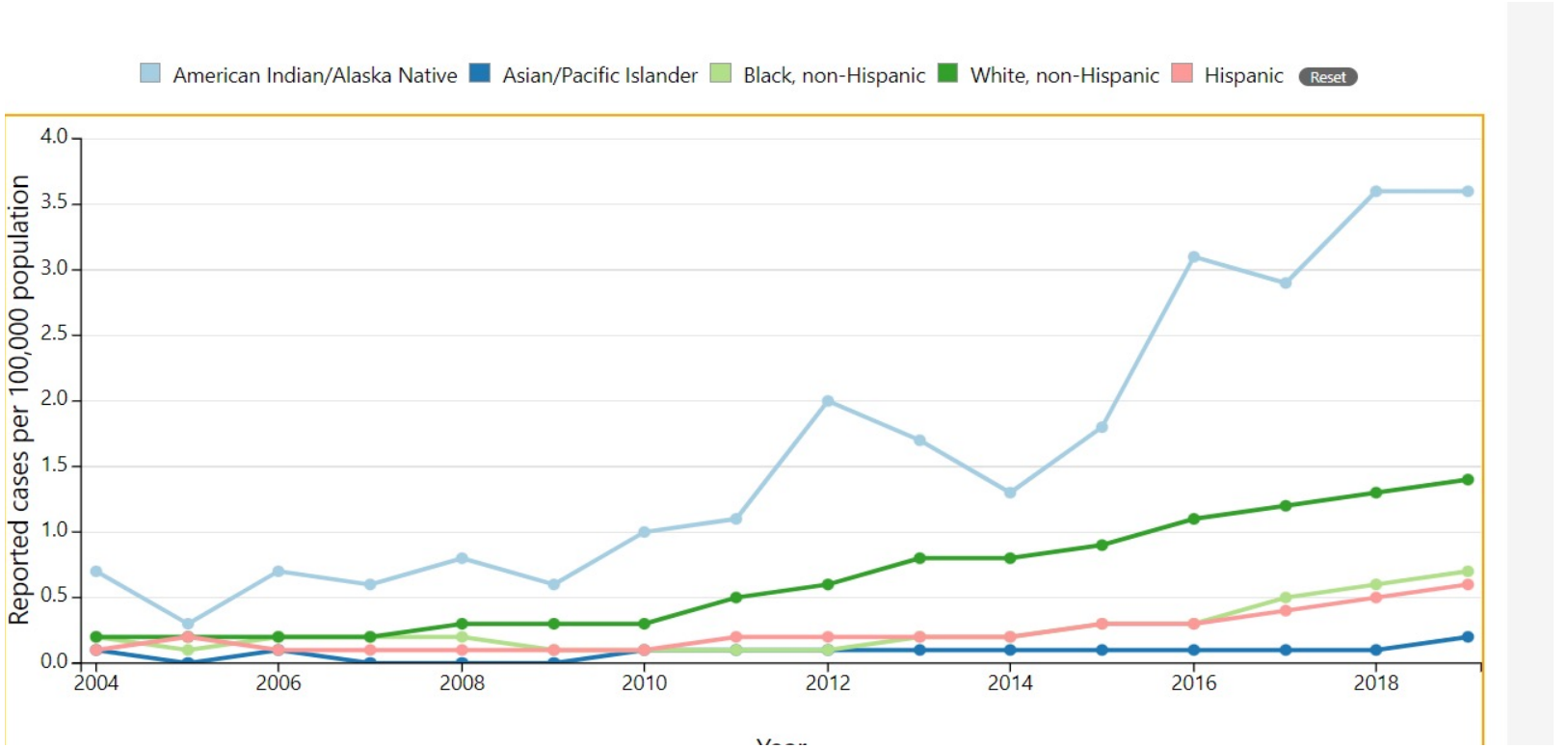


https://www.cdc.gov/hiv/group/age/viral-suppression.html

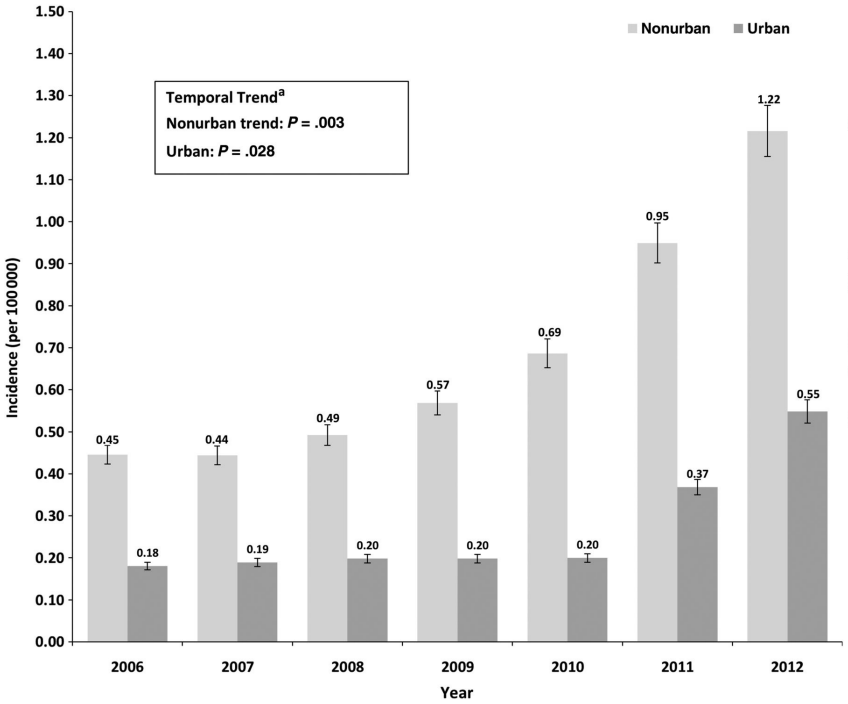
LOWEST RATES OF HIV VIRAL SUPPRESSION ARE AMONG BLACK MEN WHO HAVE SEX WITH MEN AS OF 2019



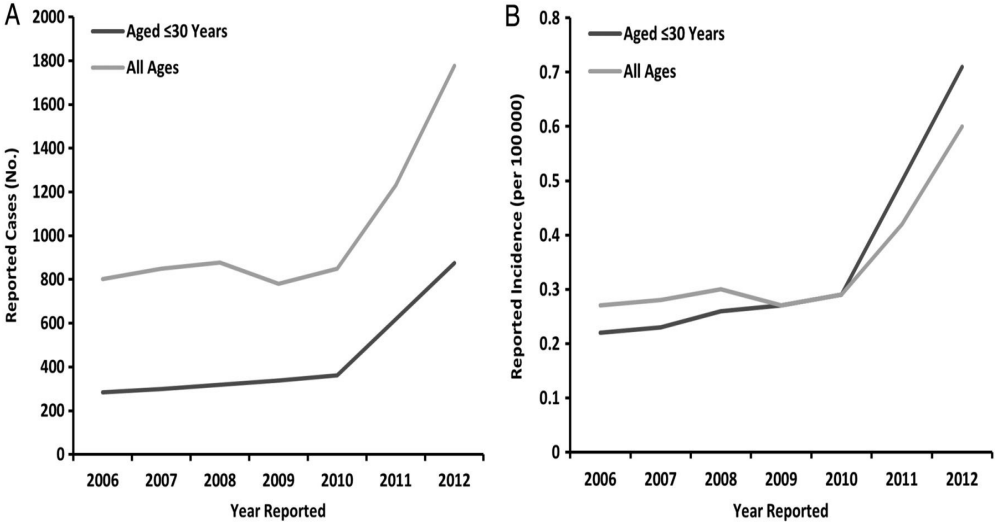
HCV RATES OF INFECTION BY RACE/ETHNICITY AS OF 2019



Trends in Incidence of Acute Hepatitis C among young persons reported to CDC, by urbanicity, 2006–2012



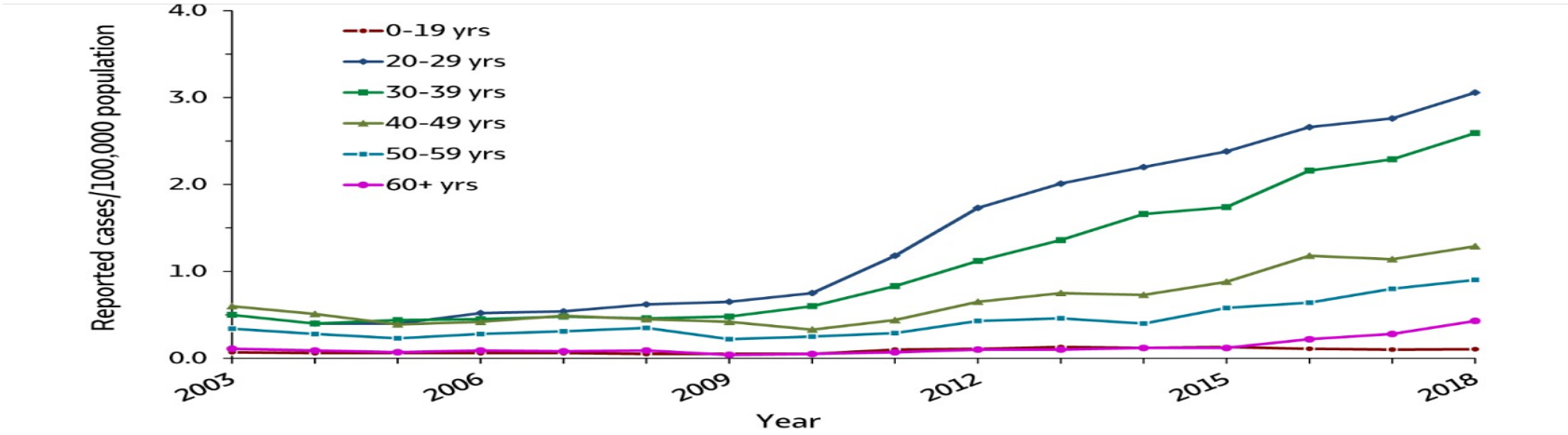
Number of cases (A) and incidence (B) of acute hepatitis C reported to CDC by year among young persons and all persons, United States, 2006-2012



Clin Infect Dis 2014:59;1411-19

berthaudvDec_2021

HCV BY AGE AS OF 2018



Age (years)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
0-19	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20-29	0.5	0.4	0.4	0.5	0.5	0.6	0.7	0.8	1.2	1.7	2.0	2.2	2.4	2.7	2.8	3.1
30-39	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.8	1.1	1.4	1.7	1.7	2.2	2.3	2.6
40-49	0.6	0.5	0.4	0.4	0.5	0.5	0.4	0.3	0.4	0.7	0.8	0.7	0.9	1.2	1.1	1.3
50-59	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.3	0.3	0.4	0.5	0.4	0.6	0.6	0.8	0.9
60+	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4

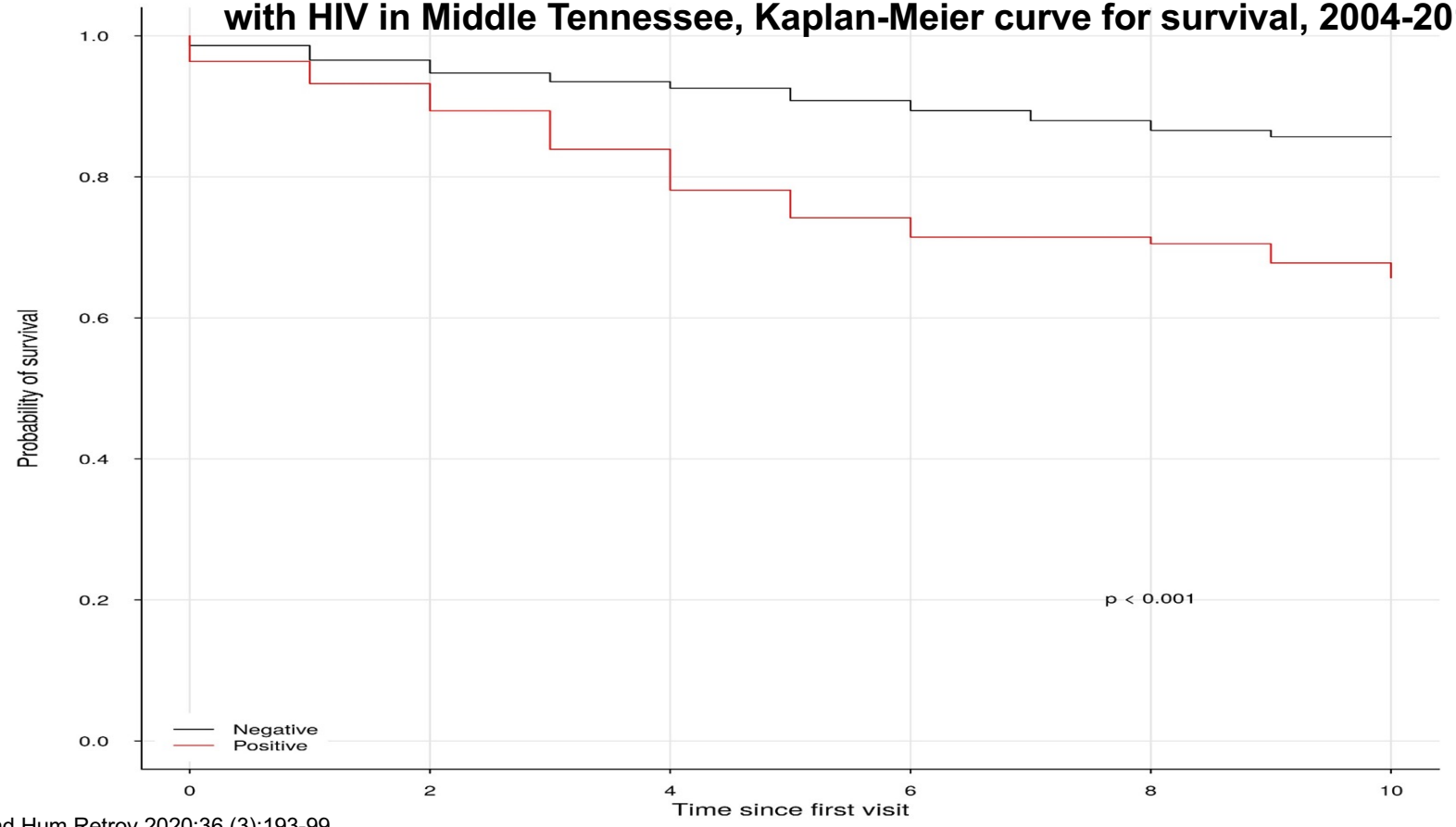
Source: CDC, National Notifiable Diseases Surveillance System.

Risk of Acute Hepatitis C among Young Persons

Characteristic or Risk Behavior	n/N (%)
Currently have health insurance	381/522 (73)
History of alcohol or drug treatment	272/359 (76)
Incarcerated in last year	96/283 (34)
Ever used drugs recreationally	456/543 **(84)**
Initiation of recreational drug use before age 20	386/398 **(97)**
Ever injected drugs	367/477 (77)
Injected drugs in past 6 months	160/398 (40)
Share needles or syringes	76/133 (57)
Share other drug preparation equipment	117/142 (82)

Clin Infect Dis 2014:59;1411-19

Hepatitis C Coinfection and Mortality in People Living with HIV in Middle Tennessee, Kaplan-Meier curve for survival, 2004-2013



AIDS Res and Hum Retrov 2020:36 (3);193-99

MAJOR CHALLENGES TO HIV VIRAL SUPPRESSION IN MINORITY POPULATIONS

THE CHANGING HIV LANDSCAPE

- Decreased incidence of opportunistic infections and deaths
- Effective and simplified HIV prevention and treatment
- Rising comorbidities in persons with HIV
- **Expansion of telemedicine**

MAJOR CHALLENGES TO VIRAL SUPPRESSION

Patient-related challenges

- Behavioral and substance use disorders
- Misperceptions and misconceptions
- Mistrust of the healthcare system
- **Homelessness**

MAJOR CHALLENGES TO VIRAL SUPPRESSION

Provider's related challenges:

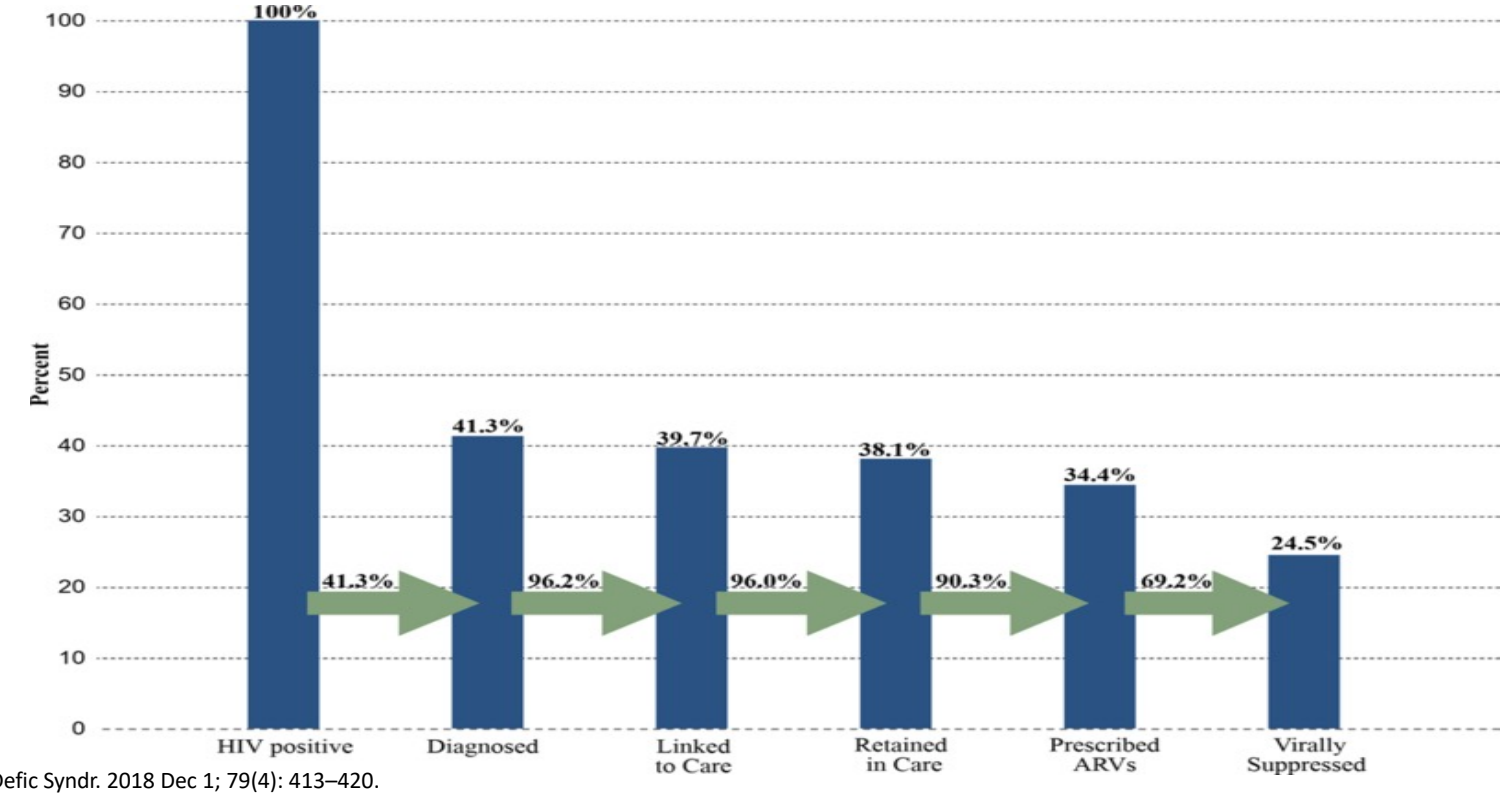
- Implicit biases and prejudices
- Lack of cultural competence and sensitivity
- Low level of social engagement

MAJOR CHALLENGES TO VIRAL SUPPRESSION

Systemic challenges:

- Structural racism
- Stigmatization and discrimination
- Mass incarceration
- **Unaffordable health insurance coverage**

HIV CARE CONTINUUM AMONG BLACK HIV-POSITIVE TRANS WOMEN IN POWER: UNITED STATES, 2014–2017



J Acquir Immune Defic Syndr. 2018 Dec 1; 79(4): 413–420.

STEPWISE HIV TELEMEDICINE IN PRISONS

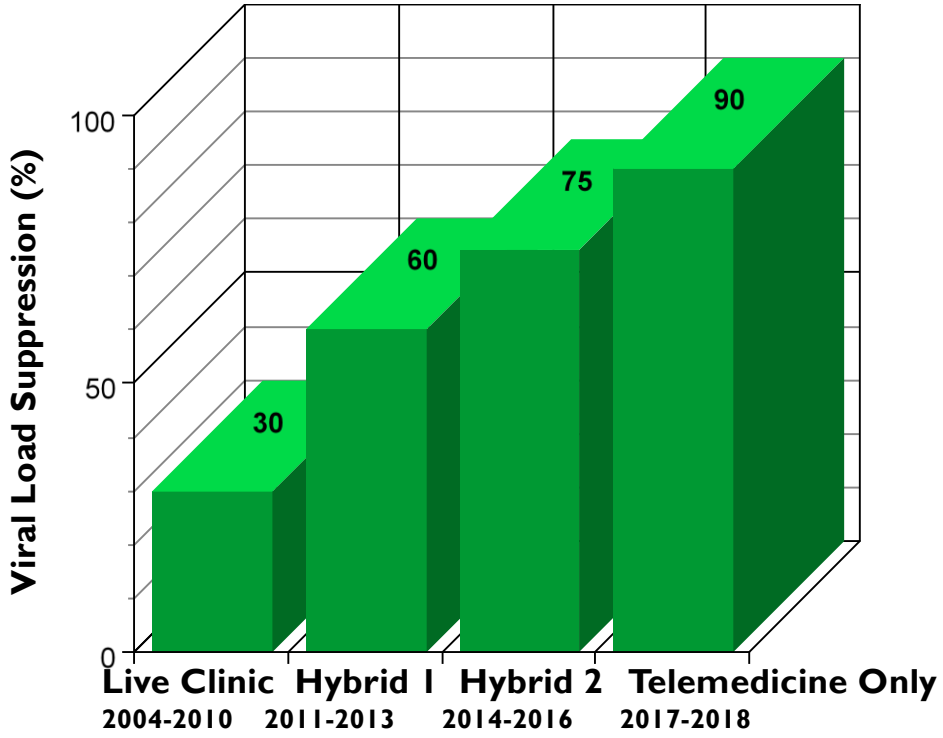
- **All live**, 2004-2010: 100% live clinic at the central prison
- **Hybrid 1**, 2011-2013: 50% live clinic followed by 50% telemedicine at the central prison on the same day
- **Hybrid 2**, 2014-2016: 50% live clinic at the central prison and 50% telemedicine at Meharry on alternate week
- **Tele only**, 2017-2018: 100% telemedicine at Meharry Medical College

PROGRAM RESULTS

- 516 HIV+ inmates served: Black 332 (**64%**), White 159, Latinx 9, not specified 16
  Gender: male 463 (**90%**), female 51, transgender 2
  Age group: 13-24: 3; 25-44: 140; 45-64: 342 (**66%**); 65+: 31
- Clinic attendance: 50% during live clinic only and 90% during telemedicine only
- Improved communication, patient-provider relationship, and continuity of care
- Improved linkage and engagement of inmates in transition

Opportunity to train medical students and residents

STEPWISE TELEMEDICINE IMPLEMENTATION AND VIRAL SUPPRESSION



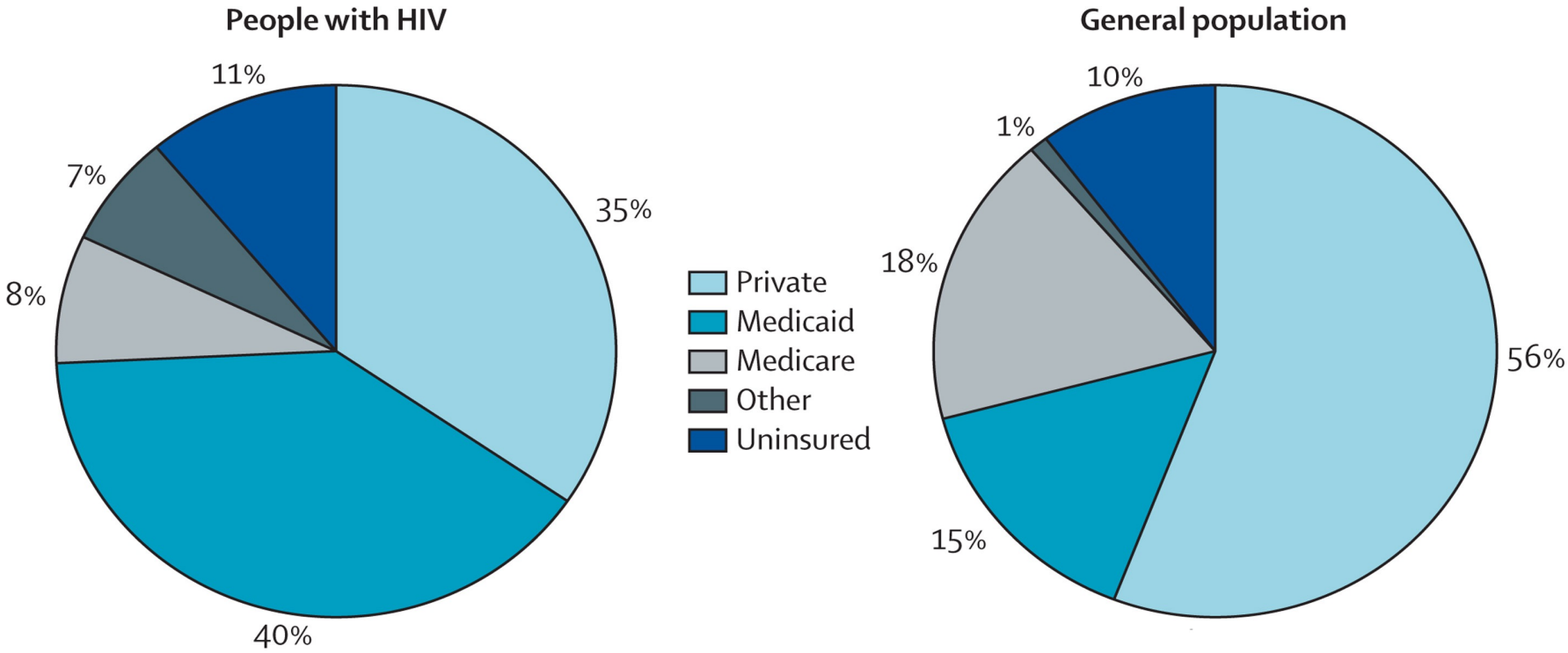
Source: CAREWare

THE IMPACT OF HOUSING AND INSURANCE ON HIV VIRAL LOAD SUPPRESSION

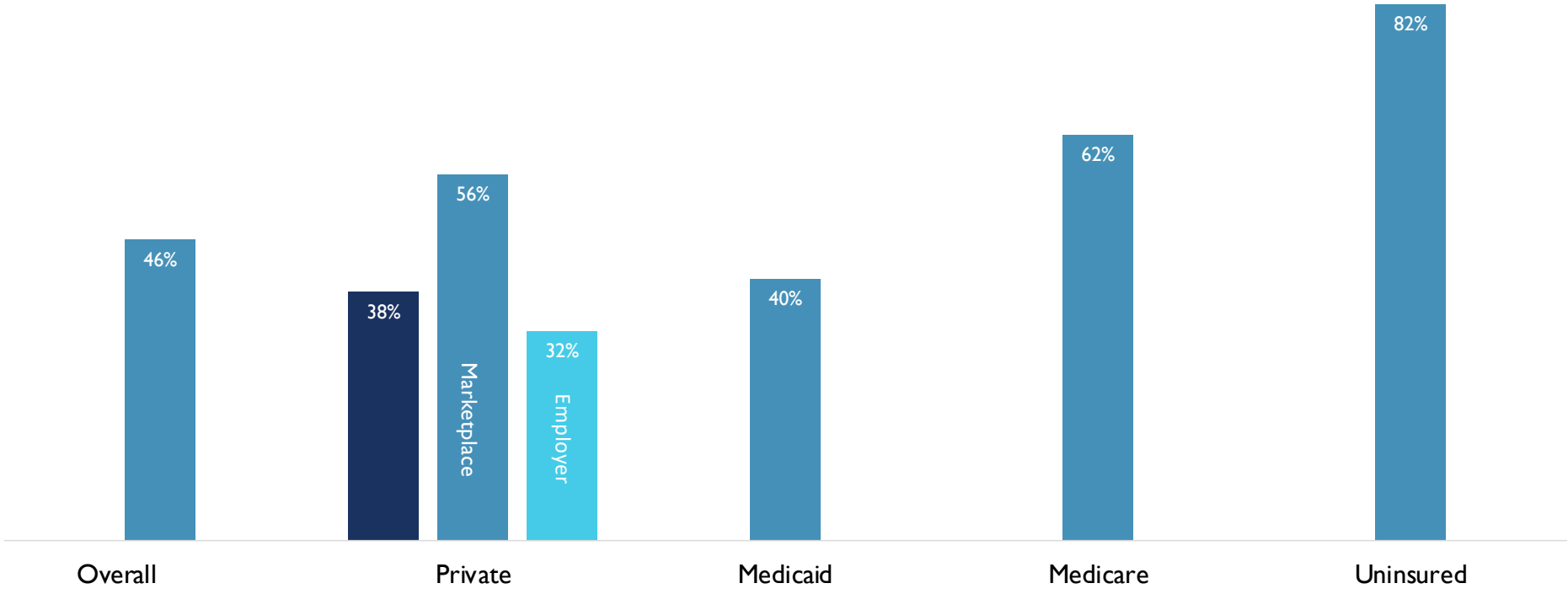
DESCRIPTIVE CHARACTERISTICS OF HIV-POSITIVE CLIENTS AND BIVARIATE CHI-SQUARE ODDS RATIO BY HOUSING STATUS

	Total	Permanently Housed	Homeless	p-value	Odds Ratio 95% CI
Unweighted N	692	500	192		
CD4 Cell Count				0.013	
<500	315	42.6%	53.1%		1.527 (1.09, 2.13)
≥500	377	57.4%	46.9%		(Ref)
HIV Viral Load					
Suppressed	477	78%	22%	<0.001	2.41 (1.70, 3.41)
Not Suppressed	215	25.6%	45.3%	(Ref)	(Ref)

INSURANCE COVERAGE AMONG ADULTS WITH HIV AND THE GENERAL POPULATION



UTILIZATION OF RWHAP BY INSURANCE STATUS, 2018



CDC/KFF 2018

RACIAL/ETHNIC AND GENDER DISPARITIES IN ACCESS TO MEDICAL INSURANCE COVERAGE

- Blacks who are HIV-positive (14%) and Hispanics (15%) have a 3-fold greater chance of remaining uninsured compared with Whites (4%)

- Compared with women (23%) and Blacks (31%) or Hispanics (28%), men who are HIV-positive (39%) and White adults (45%) are more likely to have private insurance and Medicare

- Compared with men, women who are HIV are more likely to have Medicaid: 54% vs 36%

Ryan White Services

- HIV care and insurance coverage
- Core medical services:
- Oral health care; home health care, home-based and community-based health services; medical case management; substance abuse outpatient care
- Support services:
- Non-medical case management, housing, food banks or home-delivered meals; linguistic services; and residential substance abuse services

ACA Essential Health Benefits

- Ambulatory/outpatient patient services
- Emergency services and hospitalization
- Maternity, neonate, and children's services
- Mental/behavioral health, substance use disorder services
- Prescription drugs
- Rehabilitative services and devices
- Laboratory services
- Preventive and wellness services and chronic disease management

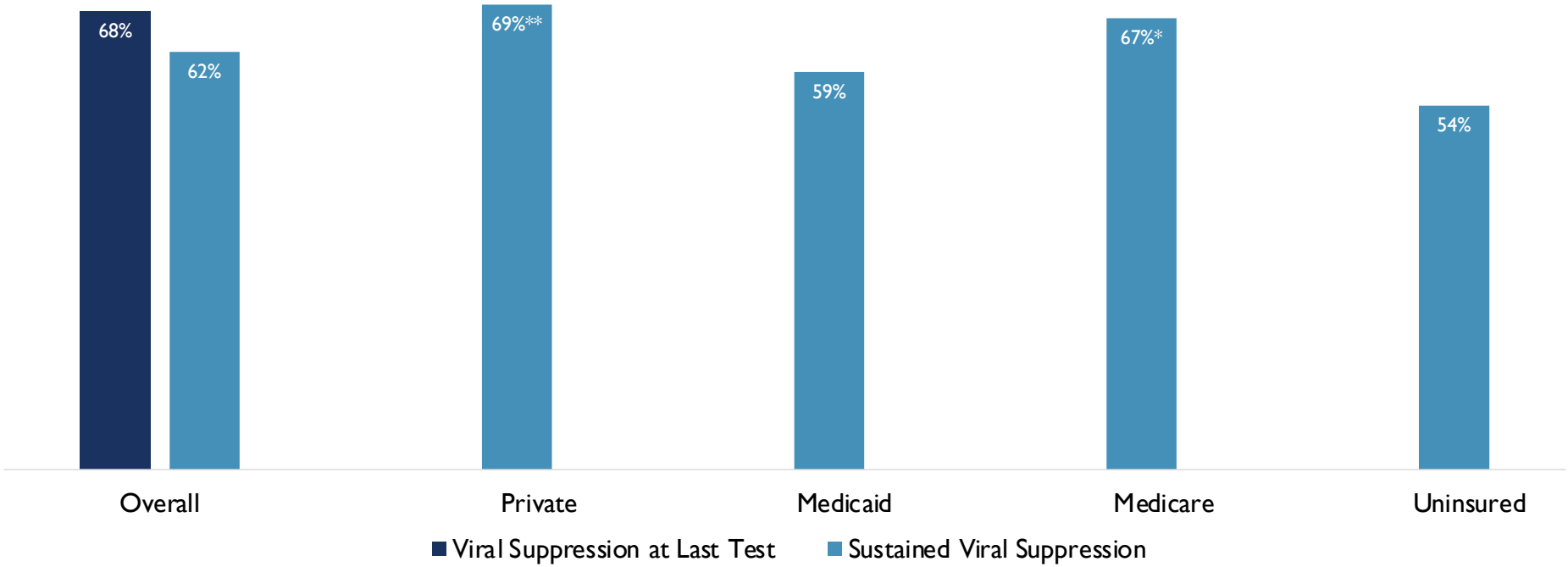
THE AFFORDABLE CARE ACT (ACA)

- Expands access to primary care services
- Improves clinical outcomes and health disparities

CHALLENGES FOR PEOPLE WITH HIV ON ACA

- Coverage opportunities vary substantially across the country
- Changes in plans and primary care providers
- New cost sharing requirements
- Variable access to pharmacies and prescription drugs

SUSTAINED VIRAL SUPPRESSION AMONG ADULTS WITH HIV, BY INSURANCE COVERAGE, 2018



CDC/KFF 2018

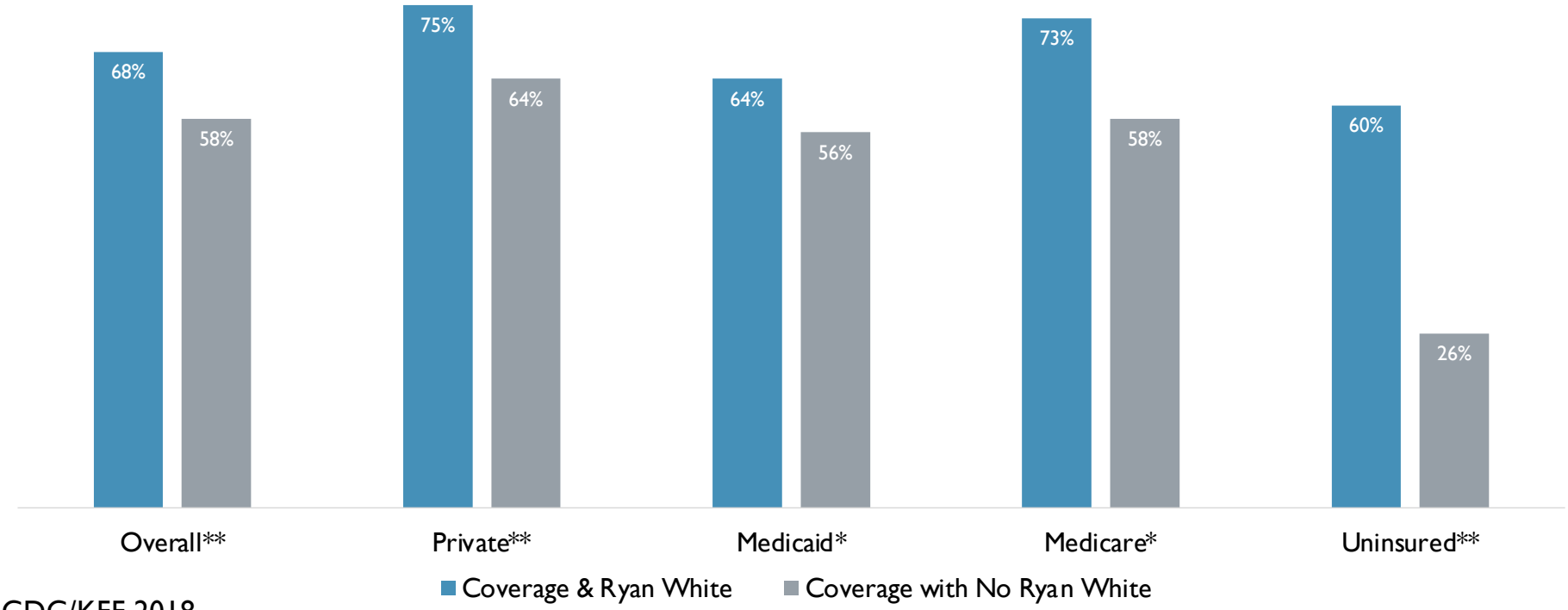
MEDICAL INSURANCE TYPE AND VIRAL SUPPRESSION

PLWH enrolled in RWHAP are significantly more likely to achieve sustained viral suppression compared to those without RWHAP support and this trend was observed across all coverage types.

- Private insurance: 75% vs 69%
- Medicaid: 64% vs 59%
- Medicare: 73% vs 67%
- Uninsured: 60% vs 54%

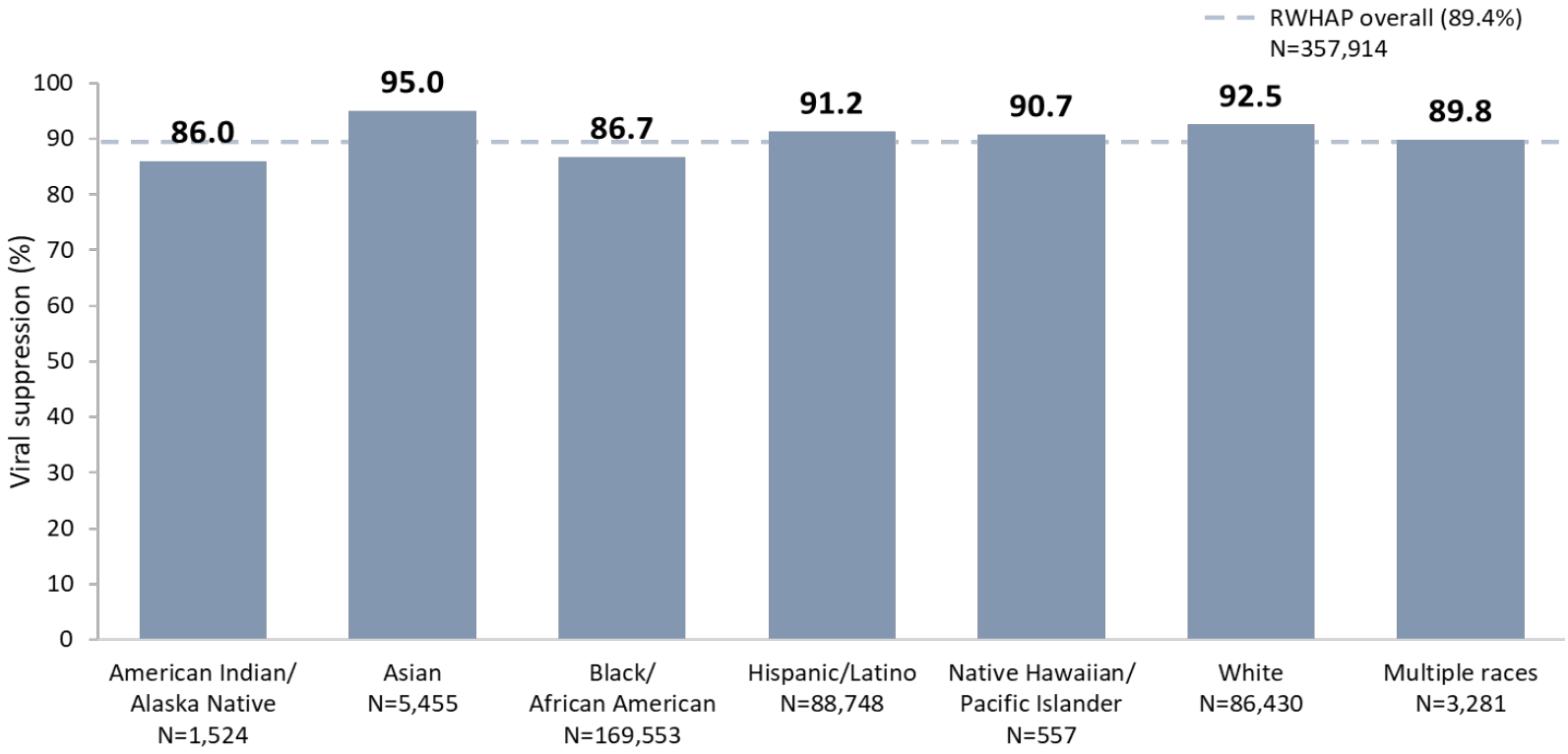
CDC/KFF 2018

RYAN WHITE SUPPORT AND SUSTAINED VIRAL SUPPRESSION AMONG ADULTS WITH HIV, BY INSURANCE COVERAGE

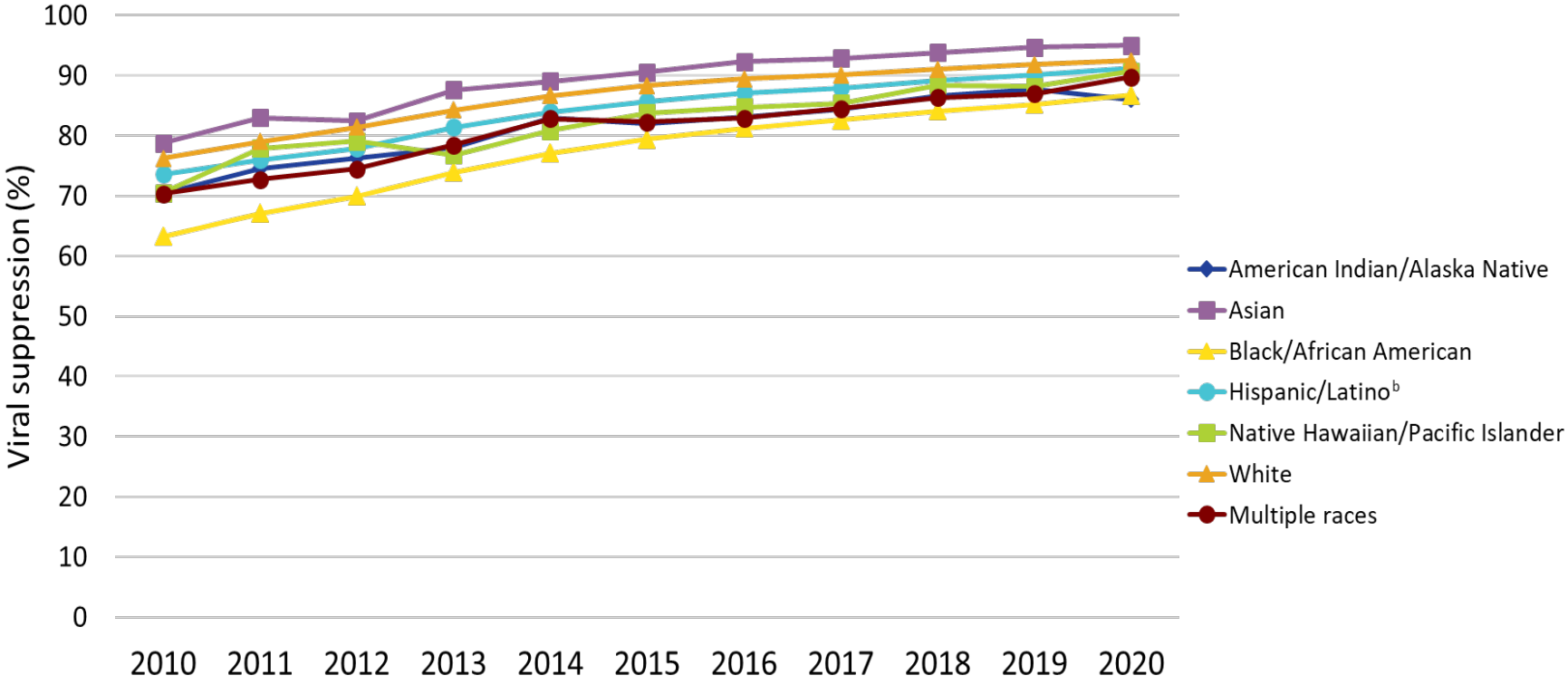


CDC/KFF 2018

VIRAL SUPPRESSION AMONG CLIENTS SERVED BY THE RYAN WHITE HIV/AIDS PROGRAM, BY RACE/ETHNICITY, 2020—UNITED STATES AND 3 TERRITORIES



VIRAL SUPPRESSION AMONG CLIENTS SERVED BY THE RYAN WHITE HIV/AIDS PROGRAM, BY RACE/ETHNICITY, 2010–2020—UNITED STATES AND 3 TERRITORIES



TYPE OF INSURANCE AND VIRAL SUPPRESSION UNIVARIATE LOGISTIC REGRESSION

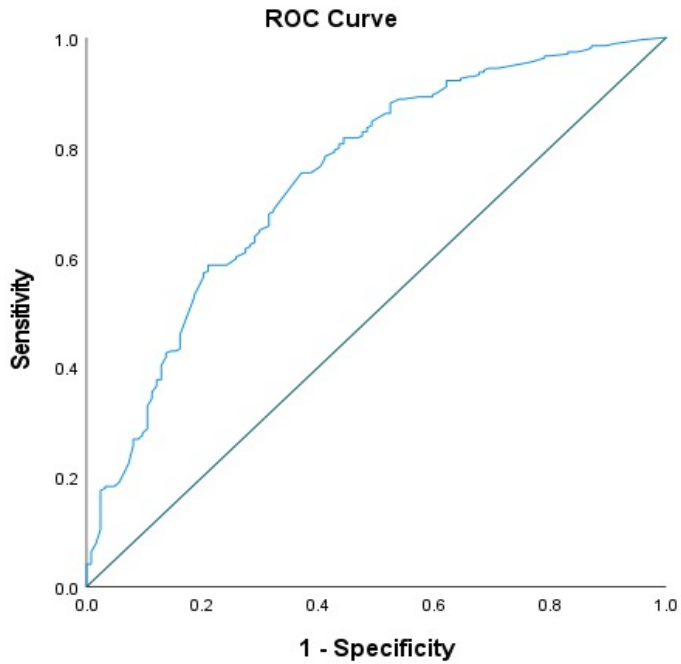
							95% C.I. for OR	
	B	**S.E.**	**Wald**	**df**	**p-value**	**OR**	**Lower**	**Upper**
Insurance			6.733	2	.035			
Medicare/Medicaid	.516	.258	4.002	1	.045	1.675	1.011	2.776
Private	.630	.273	5.343	1	.021	1.878	1.101	3.204
Insurance Intercept	.433	.167	6.721	1	.010	1.542		

METHODS AND RESULTS

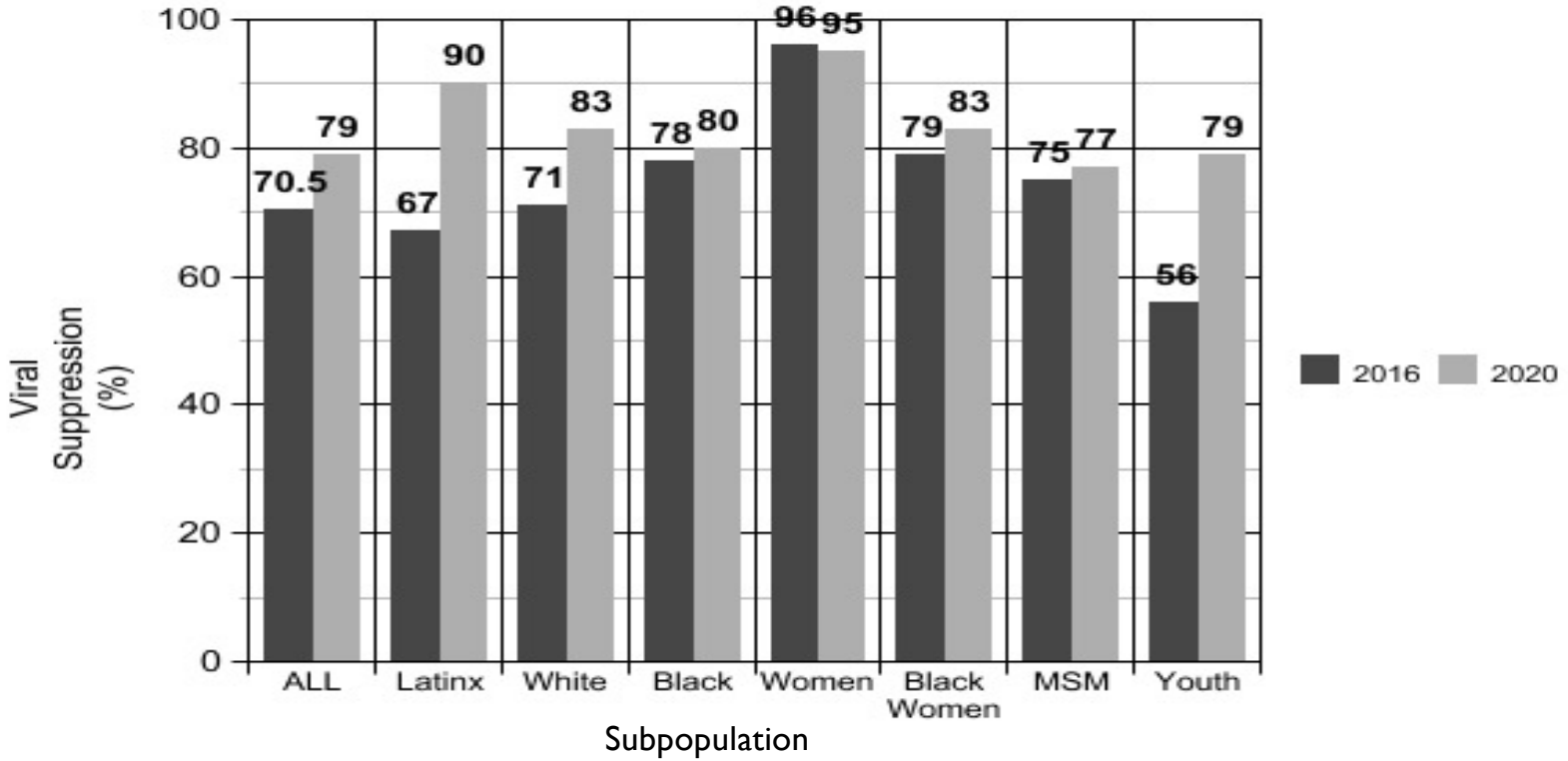
Multivariable Logistic Regression

- Insurance, sex, race/ethnicity, age, HIV risk, housing status, and CD4 status were used to predict viral load status
- Insurance was not a significant contributor to the multivariable model; however CD4 count was (P-Value < 0.001).

The area under the ROC curve was 0.747 with a standard error 0.027 and P-Value < 0.001



MCWC VIRAL SUPPRESSION BY SUBPOPULATION 2016-2020 SUBPOPULATION



PATHWAY CLASSIFICATION

A: **Virally suppressed** patients who **attend clinical appointments regularly** and have no or low-level comorbidity, and stable social determinants of health.

B: **Mostly virally suppressed** patients who **do not attend clinical appointments regularly**, have no to moderate level of comorbidity, and moderately stable social determinants of health.

C: Patients with variable rates of viral suppression, who do not attend clinic appointments regularly, have **challenging social determinants of health**, and variable levels of comorbidity.

D: Patients with variable rates of viral suppression, who do not attend clinic appointments regularly, have variable degrees of social determinants of health, and **high level of comorbidity**.

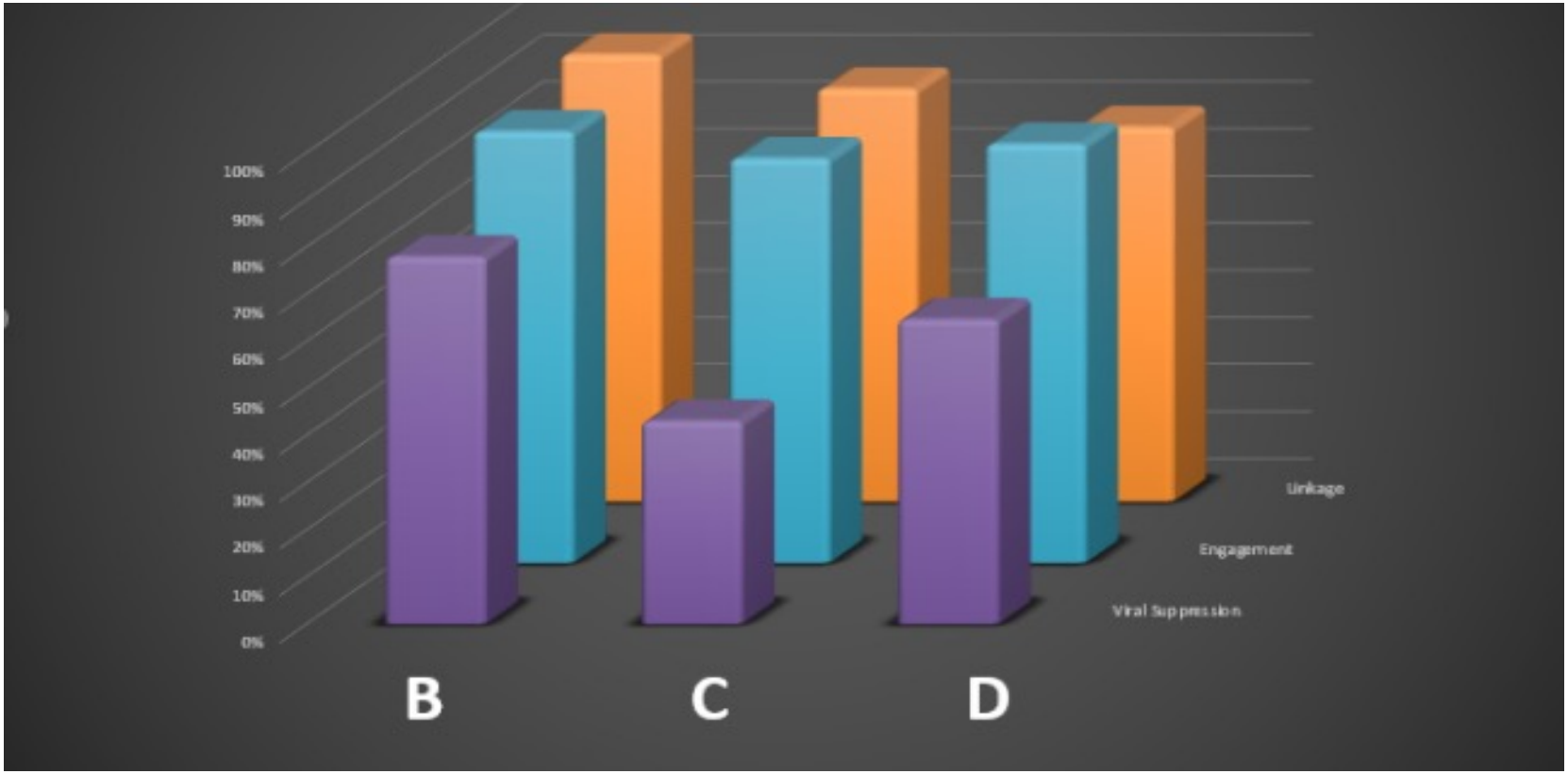
Clients	Tracking Pathways, MCWC, Q2_2020				Total
	A	B	C	D	
Total	106 (29%)	77 (21%)	153 (41%)	34 (9%)	370
Gender					
Female	23	22	42	10	97
Male	81	55	106	24	266
Transgender	2	0	4	0	6
Age Group					
13 - 24	9	9	7	0	25
25 - 44	53	32	77	8	170
45 - 64	40	34	62	21	157
65+	4	2	6	5	17
Race/Ethnicity					
Black or African-American	79	63	116	27	285
White (non-Hispanic)	14	6	28	6	54
Hispanic	9	8	6	0	23
Medical Insurance					
Ryan White	36 (29%)	30 (25%)	53 (43%)	3 (2%)	122
Medicaid	16 (18%)	15 (17%)	44 (50%)	13 (15%)	88
Medicare Part A/B	6	3	15	10	34
Private	42 (40%)	27 (26%)	27 (26%)	8 (8%)	104
Other	6	2	14	0	22
Homeless	22 (25%)	13 (15%)	47 (54%)	5 (6%)	87
Unemployed	32 (23%)	23 (16%)	71 (50%)	16 (11%)	142

MEHARRY COMMUNITY WELLNESS CENTER

	TRACKING PATHWAYS, Q2_2020									
	A		B		C		D			
	#	%	#	%	#	%	#	%		
Total Clients	106	29%	77	21%	153	41%	34	9%	370	**(%)**
Linkage	103	97%	73	95%	134	88%	27	79%	337	91%
Clients scheduled	99	96%	71	97%	134	100 %	27	100 %	331	98%
Engagement	93	94%	65	92%	115	86%	24	89%	297	90%
Viral Suppression	93	**100 %**	65	**78%**	53	**43%**	17	**65%**	228	62%

vberthaud07_28_2022

HIV CARE CONTINUUM BY TRACKING PATHWAY, MCWM, Q2_2020



CASE STUDY #1

CASE STUDY: ENRIQUE

The healthcare provider at the on-campus clinic could not understand why Enrique was not doing better in keeping up with his medications for HIV. This clearly impacted his viral load. He was a good student; he was always conscientious about his dress and his attendance for his appointments at the health clinic. He was able to get a supply of medication through the AIDS Drug Assistance Program (ADAP), so that was not the issue.

One day, a nurse overheard friends talking with him. They mentioned that he could never give them a ride in his car since he slept and lived in it. At first, the nurse thought they were joking, but she stopped and wondered if this was true, that he had no stable address. If this were the case, he had no way to store his HIV medications, which would affect his viral load.

DISCUSSION

1. Given privacy issues, what can the nurse say or do to confirm if Enrique was homeless?

2. What other health concerns should be considered if he was homeless?

3. How can the clinic staff help him to manage his medications and thus increase his viral suppression rates?

PROPOSED SOLUTION FOR HEALTHCARE PROVIDERS ON CAMPUSES OF MINORITY SERVING INSTITUTIONS

PROPOSED SHORT-TERM SOLUTIONS

- Eliminate medical insurance coverage gaps
- Apply cost sharing on a sliding scale
- Expand Medicaid in southern states
- Rein in high-cost prescription drugs
- Provide need-based funding for RWHAP and HDAP

PROPOSED SHORT-TERM SOLUTIONS

- Universal/equitable health insurance focusing on social determinants and comorbidities
- Create a more transparent and user-friendly healthcare system that works for everyone
- Apply solutions at the granular level

WAYS MSI ON-CAMPUS HEALTH PROVIDERS CAN HELP INCREASE HIV VIRAL LOAD SUPPRESSION AMONG THEIR PATIENTS

1. Ensure that HIV education is available at the local health center

2. Make sure that the center is welcoming for all and staff have trained on bias and discrimination prevention.

3. Develop and expand the referrals and resource lists. Make sure to include the following:
   - ✓ HIV specialty care and other providers (such as primary care and other health care providers
   - ✓ community organizations
   - ✓ health departments
   - ✓ community-based substance use and harm reduction programs

1. https://www.whitehouse.gov/wp-content/uploads/2021/11/National-HIV-AIDS-Strategy.pdf

CASE STUDY #2

CASE STUDY: JEWELS

When Jewels got up, she realized that she had missed her telehealth appointment. Since starting this form of visit it really helped her with her ability to manage her HIV. She did not have to go into the clinic where people often stared at her. Even though she was taking hormones, her facial hair continued to grow more rapidly than she liked. When she shaved, she always got knicks. Even so, at her Community College, she was one of only a few openly trans women, which still made her feel uncomfortable, particularly when she went to the health center.

Now she had a choice to make. Put up with the negativity that she felt would be at the health center or miss getting her medication prescription. She had heard that some people were getting off of HIV medications-sort of. A guy she had heard of was giving injectable HIV medication to people who would pay him. A transwoman that she knew had taken it and had not gone into a doctor's office for meds for more than two months. Jewels was not sure if she trusted this form of medication, but in two months, she would be a graduate. So, if she got this now, she would never have to visit the health center again. She wondered who she could call to get the number of the guy with the injectable HIV medication?

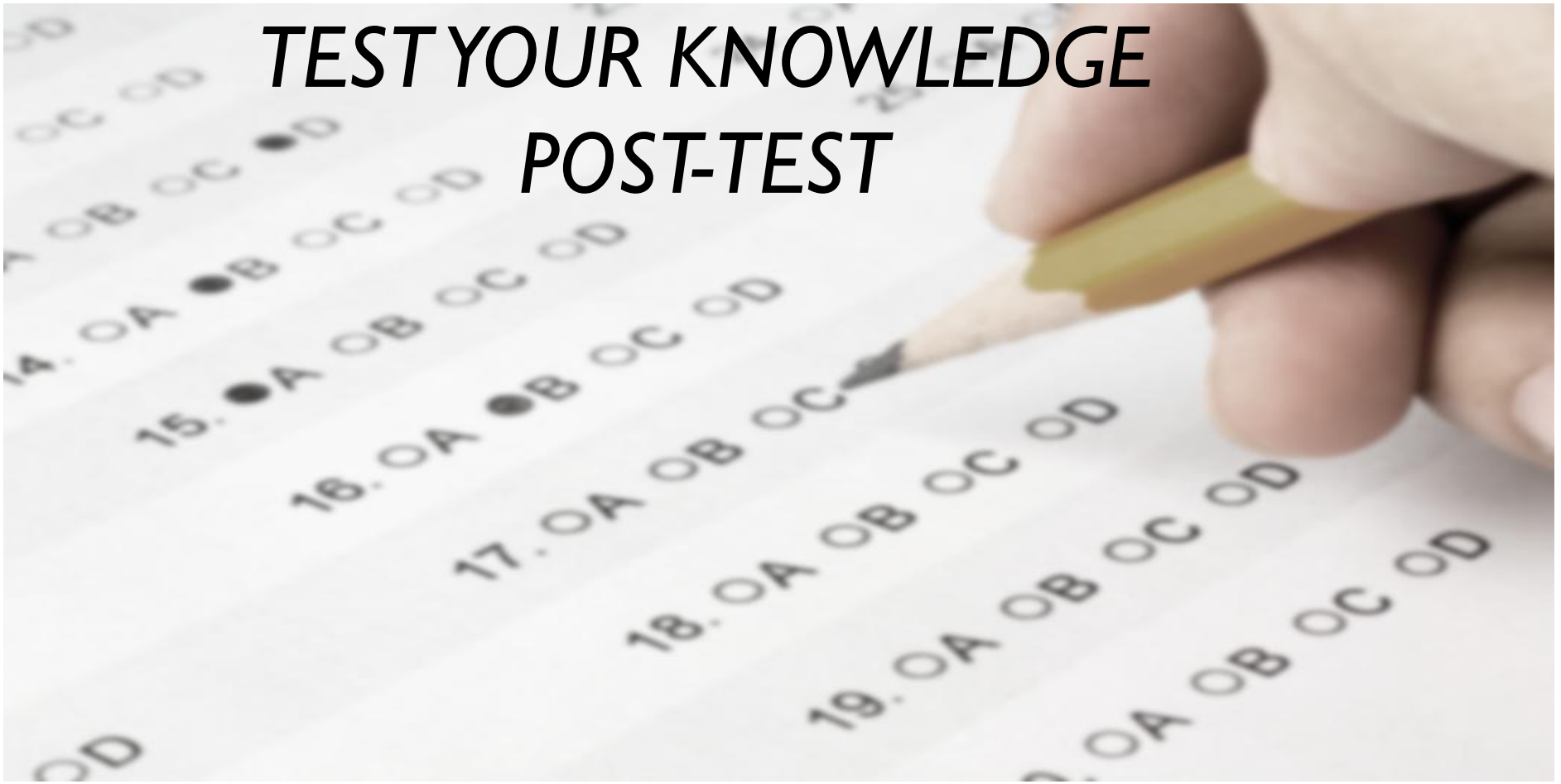
DISCUSSION

1. Should the clinic follow-up with Jewels to find out why she missed her appointment? If so, what should they say?
2. Do you think the health care staff knows how Jewels feels about her visits there? What kind of training could they have to make them sensitive to their own biases?
3. What is another resource that Jewels can turn to for HIV medications and care?

QUESTIONS & ANSWERS

Thank You

TEST YOUR KNOWLEDGE
POST-TEST



Test Your Knowledge
Question #5

In discussing major challenges to HIV viral suppression in minority populations, all but which of the following are correct?

A. Behavioral and substance use disorders

B. Healthcare expenditure

C. Misperceptions and misconceptions

D. Homelessness

Test Your Knowledge
Question #6

When identifying the impact of housing status on viral suppression, which of the following statements is incorrect?

A. HIV-positive clients who are homeless have higher CD4 counts than people with HIV who are not homeless
B. Individuals who are homeless or living in marginal conditions have an elevated burden of infection with HIV
C. Among people with HIV, being homeless is associated with poorer levels of medication access and sub-optimal treatment outcomes
D. There is an increased vulnerability for HIV infection among people who are homeless

Test Your Knowledge
Question #7

One challenge for people with HIV on the ACA is the cost sharing requirement.

A. True

B. False

Test Your Knowledge
Question #8

Blacks who are HIV positive have a ___ greater chance of remaining uninsured as compared to Whites.

A. 100- fold

B. 50 – fold

C. 10 –fold

D. 3-fold

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