

National HIV Behavioral  
Surveillance (NHBS) study of  
men who have sex with  
men  
in San Francisco, 2023  
Preliminary results

02/20/2024

# Venue Sampling for MSM cycle

- Venues identified through formative assessment
  - N=39 venues
- Total number of weeks recruiting = 25 weeks
  - Total months in the field = 6
- Total number of events = 81
  - An average of  $81/6 = 13.5$  events per month





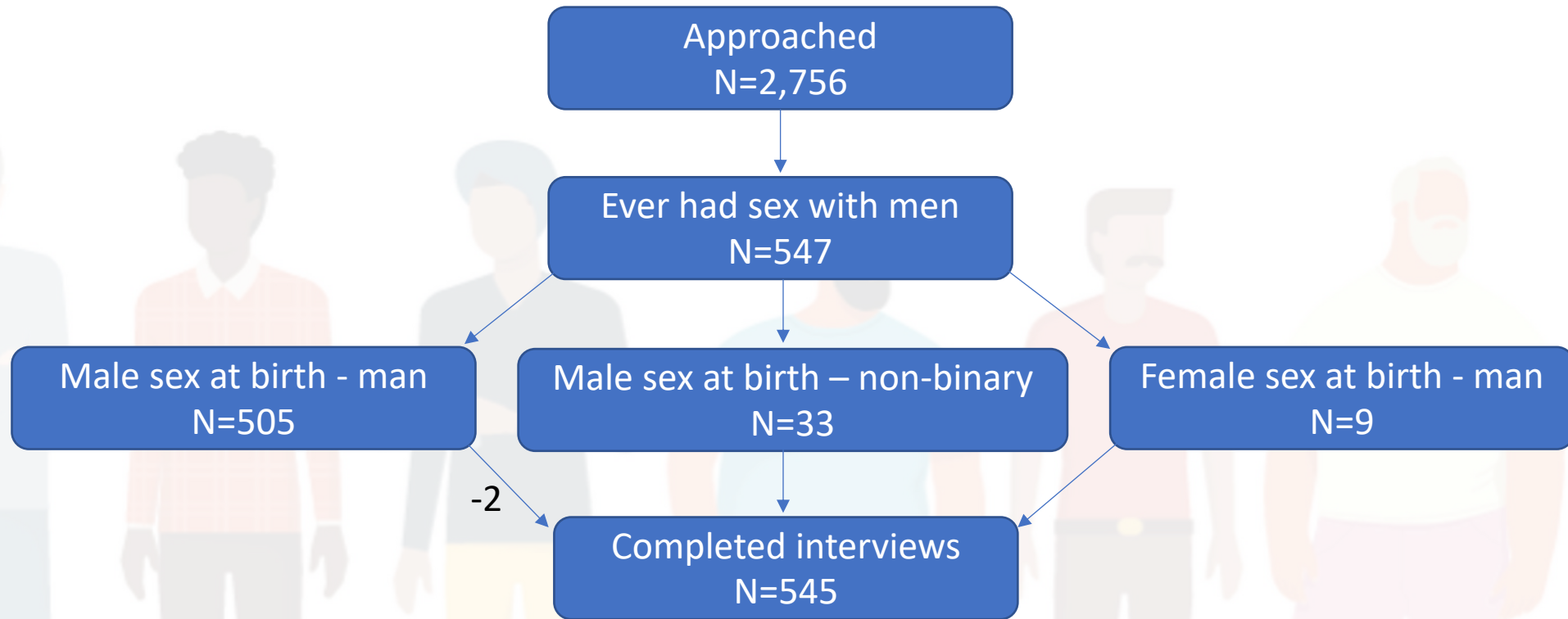
# Eligibility criteria

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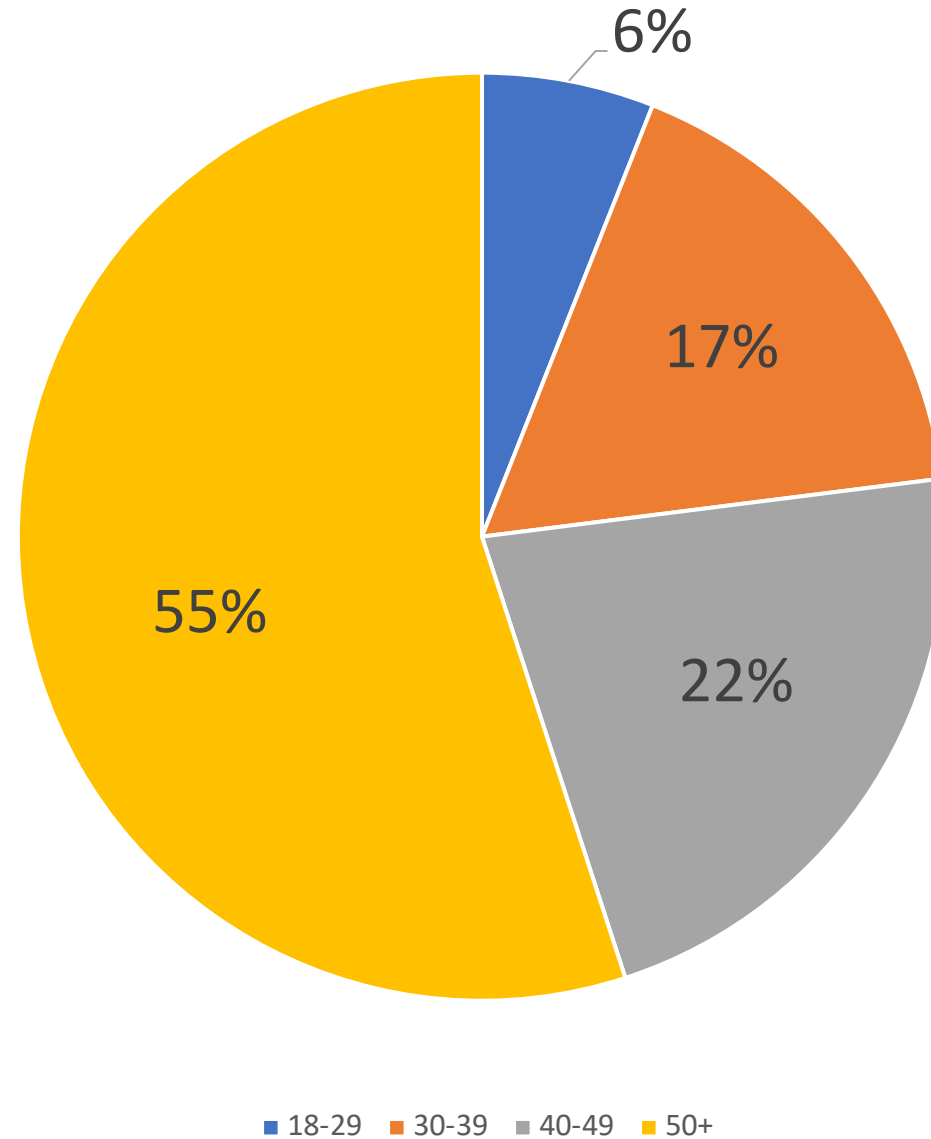
- 18 y/o +
- Resident of San Francisco or San Mateo counties
- Male sex at birth AND (identified as man or non-binary)
- (Female sex at birth or intersex at birth) AND identified as man
- Ever had sex with men
- Alert and capable of completing the survey in English or Spanish
- Had not participated in the study before



# Eligibility participants



# Age range of participants living with HIV, N=132



# Demographic characteristics of NHBS-MSM sample, 2021 vs. 2023 (N=1050)

Characteristics	NHBS 2021 N=505	NHBS 2023 N=545	P-value
Sex at birth and gender identity			--
MSM	505 (100)	503 (92)	
Male-nonbinary	--	33 (6)	
Transmen	--	9 (2)	
Sexual orientation			0.070
Heterosexual or "Straight"	2 (<1)	4 (1)	
Gay	464 (92)	468 (88)	
Bisexual	37 (7)	60 (11)	
Age group			0.982
18-29	101 (20)	110 (20)	
30-39	138 (27)	154 (28)	
40-49	93 (18)	104 (19)	
50-59	110 (22)	113 (21)	
60+	63 (13)	64 (12)	



# Characteristics of NHBS-MSM sample, 2021 vs. 2023 (N=1050)

Characteristics	NHBS 2021 N=505	NHBS 2023 N=545	P-value
<b>Race/ethnicity</b>			<0.001
Asian/Native Hawaiian/Pacific Islander	70 (14)	53 (10)	
Black/African American	26 (5)	42 (8)	
White	273 (54)	243 (45)	
Hispanic/Latino	105 (21)	171 (32)	
Other	28 (6)	30 (6)	
<b>Education</b>			<0.001
High school or less than	31 (6)	67 (12)	
Some college	103 (20)	154 (28)	
Bachelor's degree	207 (41)	210 (39)	
Post graduate studies	164 (32)	114 (21)	

# Characteristics of NHBS-MSM sample, 2021 vs. 2023 (N=1050)

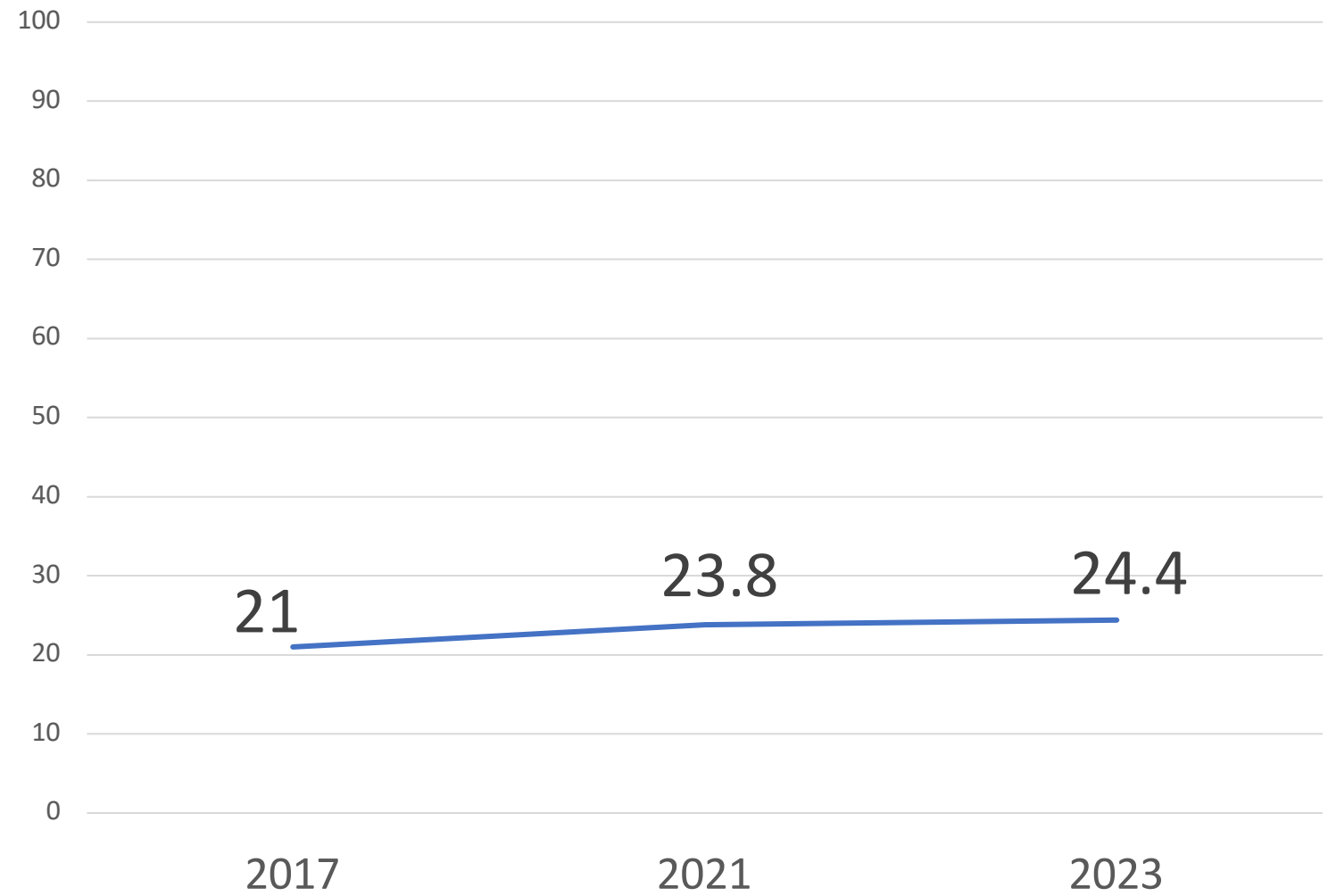
Characteristics	NHBS 2021 N=505	NHBS 2023 N=545	P-value
Occupation			0.721
Full-time	317 (63)	331 (61)	
Part-time	41 (8)	46 (8)	
Student	12 (2)	11 (2)	
Retired	32 (6)	47 (9)	
Unable to work (due to health reason)	22 (4)	19 (3)	
Unemployed	64 (13)	77 (14)	
Other	17 (3)	14 (3)	
Income			0.958
<40k	142 (29)	153 (29)	
40k-99k	181 (36)	188 (35)	
>100k	175 (35)	189 (36)	



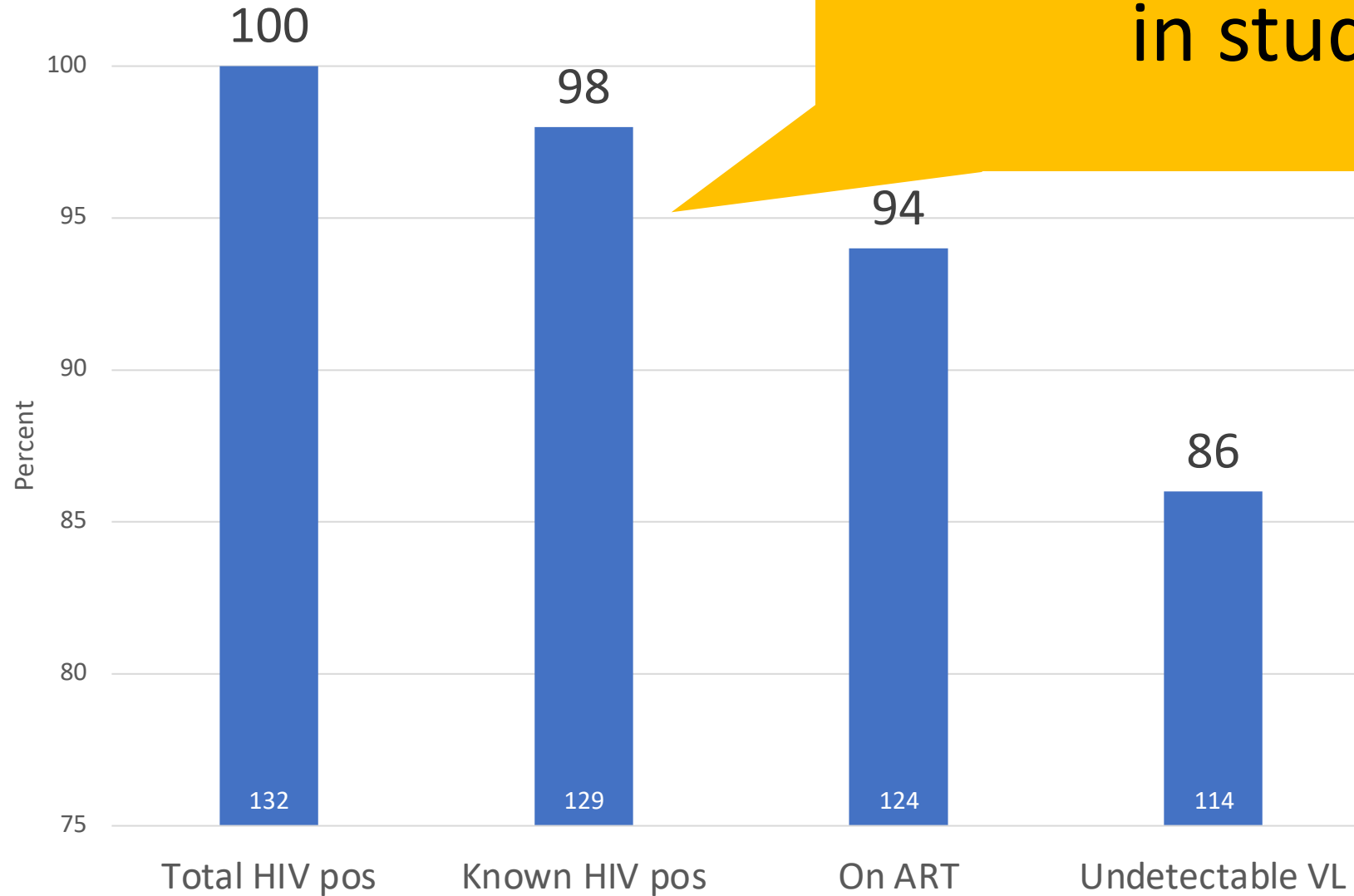
# Access to healthcare among MSM in San Francisco, NHBS 2021 vs. 2023 (N=1050)

Characteristics	NHBS 2021 N=505	NHBS 2023 N=545	P-value
Have health insurance			0.053
No	25 (5)	43 (8)	
Yes	480 (95)	502 (92)	
Had a usual source of care			0.021
No	35 (7)	60 (11)	
Yes	470 (93)	485 (89)	
Saw a healthcare provider, past 12 months			0.206
No	43 (9)	59 (11)	
Yes	462 (91)	486 (89)	
Provider offered HIV test, past 12 months (among HIV negative or unknown, N=825)			0.202
No	136 (33)	156 (37)	
Yes	273 (67)	260 (63)	

# HIV Prevalence

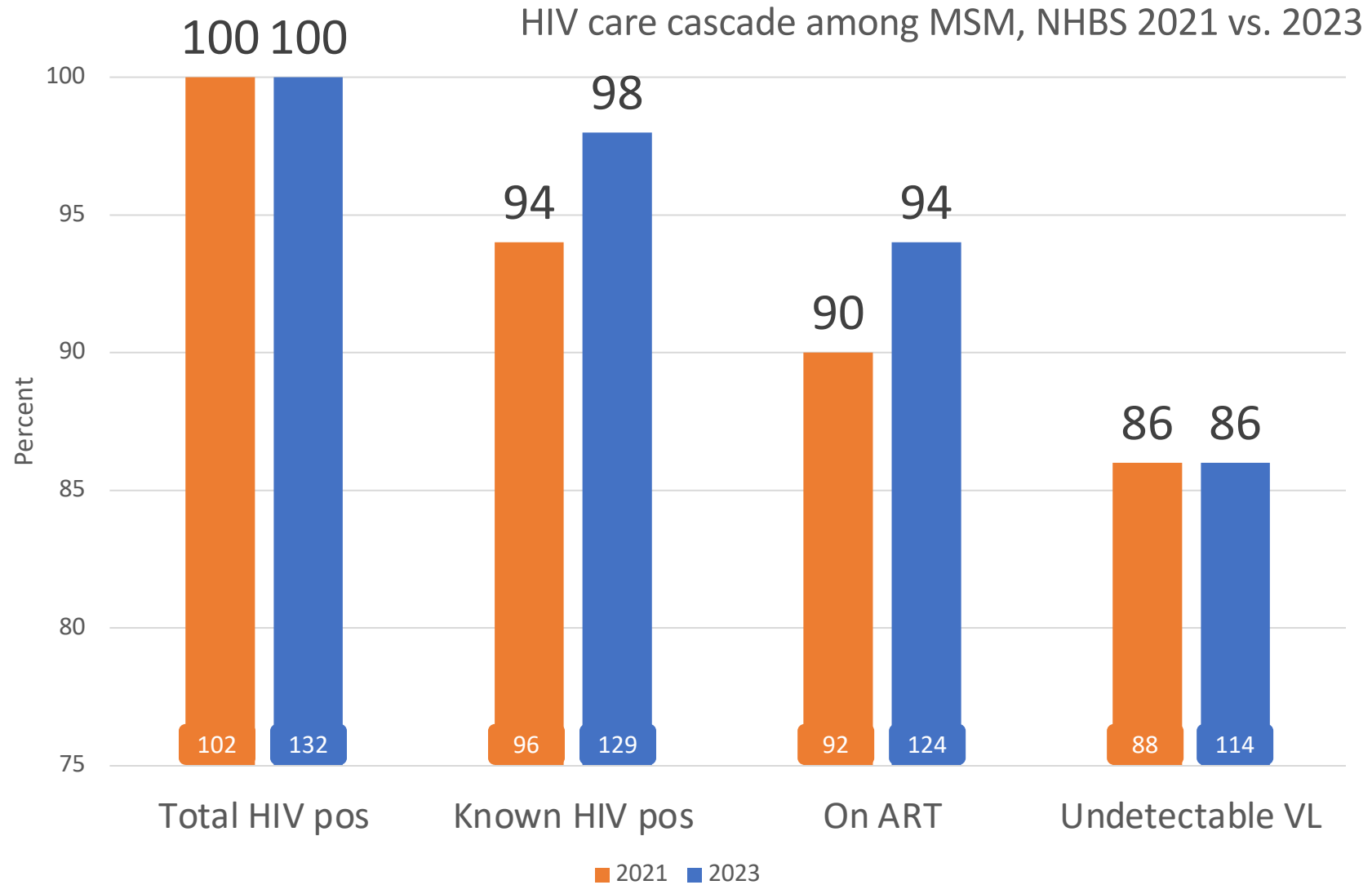


# HIV care cascade, 2023



3 first tested positive  
in study

# HIV care cascade trends



# Demographic characteristics among MSM living with HIV, 2023 (N=545)

Characteristics	N=129 (%)	P-value
Sex at birth and gender identity		0.060
MSM	125 (97)	
Male-nonbinary	4 (3)	
Transmen	0	
Sexual orientation		0.203
Heterosexual or "Straight"	0 (0)	
Gay	116 (90)	
Bisexual	10 (10)	
Age group		<0.001
18-29	7 (5)	
30-39	22 (17)	
40-49	28 (22)	
50-59	45 (35)	
60+	27 (21)	

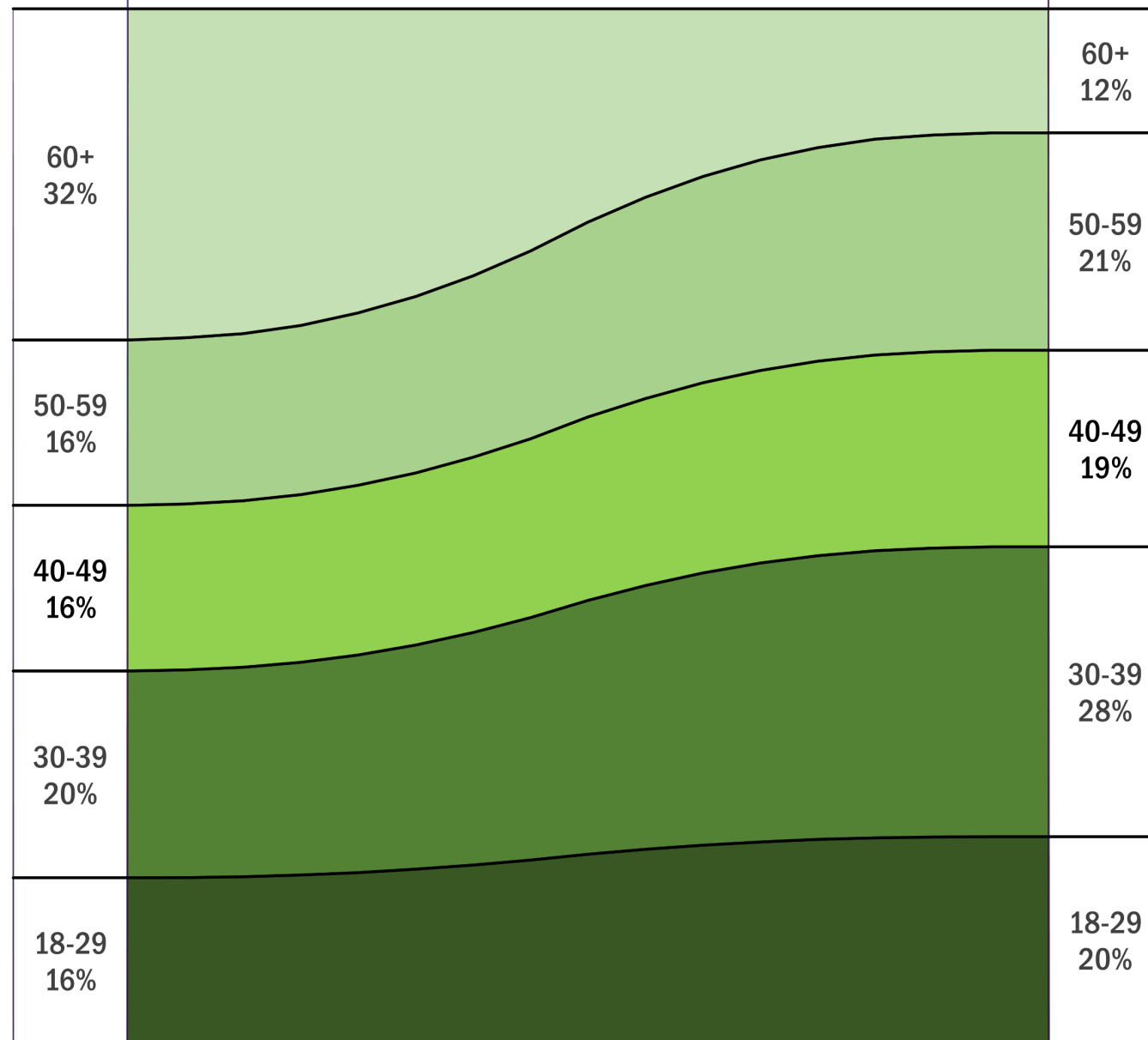




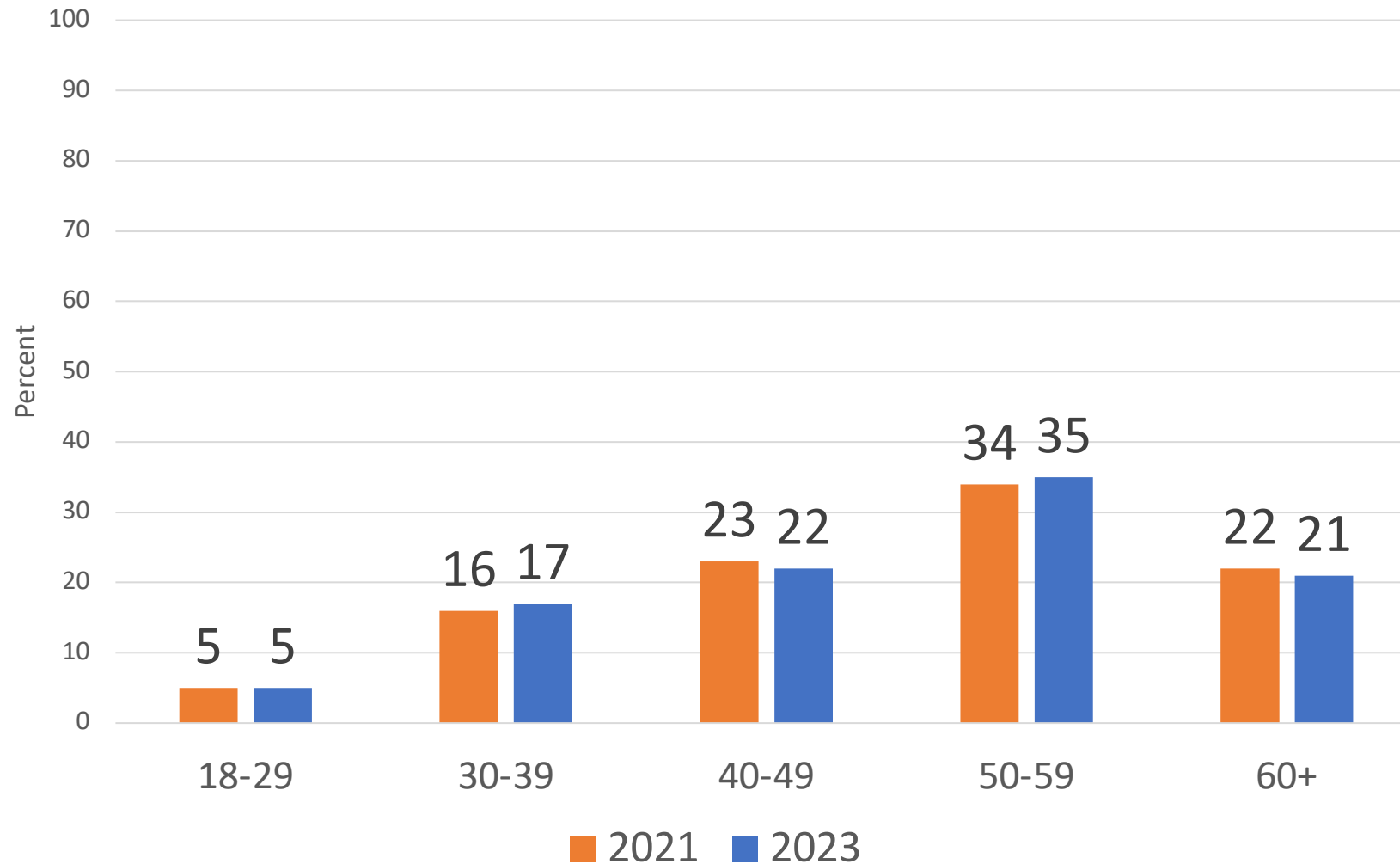
# Who are impacted by HIV in San Francisco?

San Franciscan Population,  
ACS PUM 2022

MSM living with HIV,  
NHBS-MSM 2023



# MSM living with HIV 2021 vs. 2023: age group



# Social Determinants among MSM living with HIV, 2023

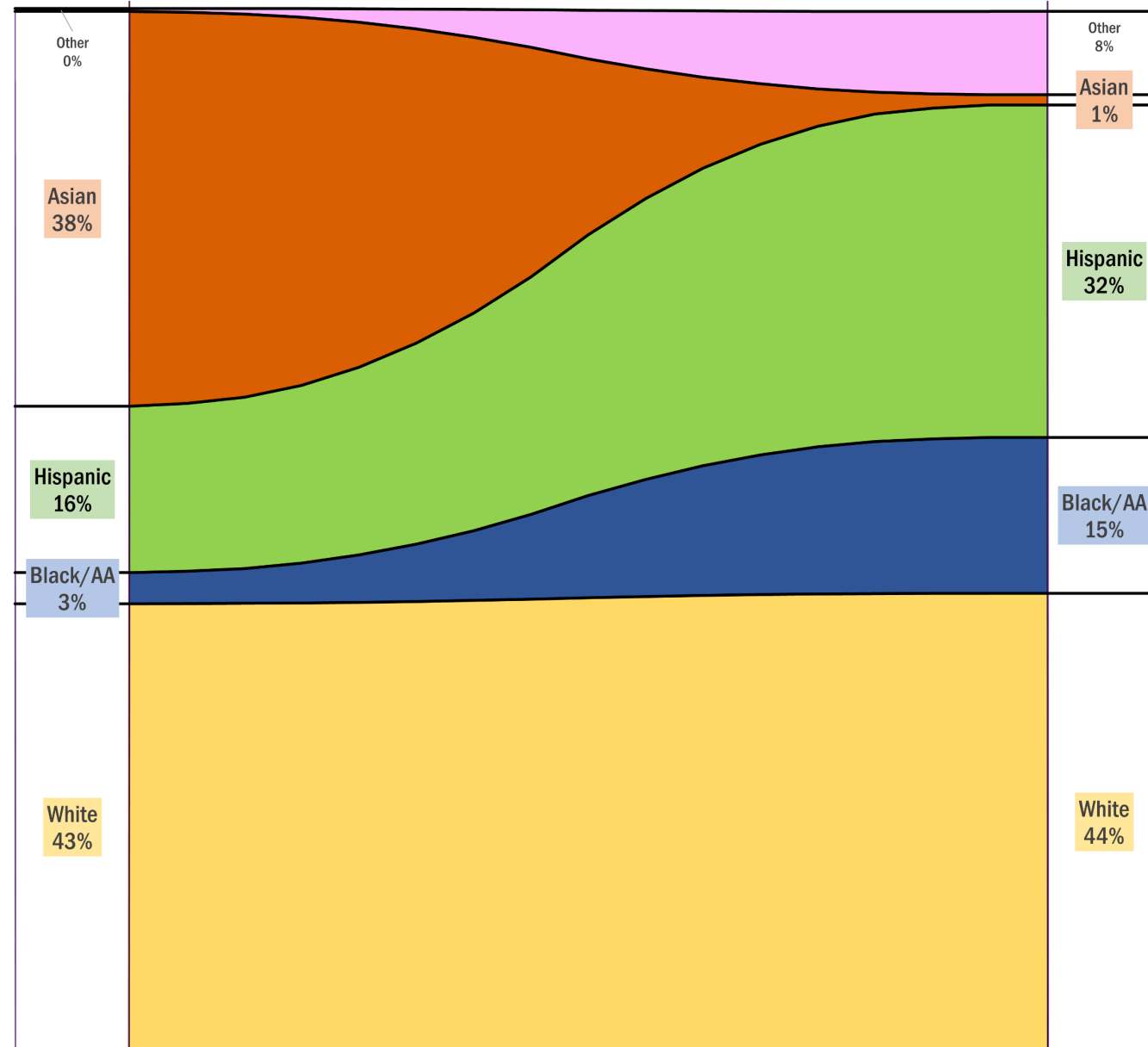
Characteristics	N=129 (%)	P-value
Race/ethnicity		<0.001
Asian/Native Hawaiian/Pacific Islander	2 (2)	
Black/African American	19 (15)	
White	55 (43)	
Hispanic	40 (33)	
Other	10 (8)	
Education		<0.001
High school or less than	22 (17)	
Some college	55 (43)	
Bachelor's degree	30 (23)	
Post graduate studies	22 (2)	
Income		<0.001
<40k	56 (43)	
40k-99k	41 (32)	
>100k	29 (22)	



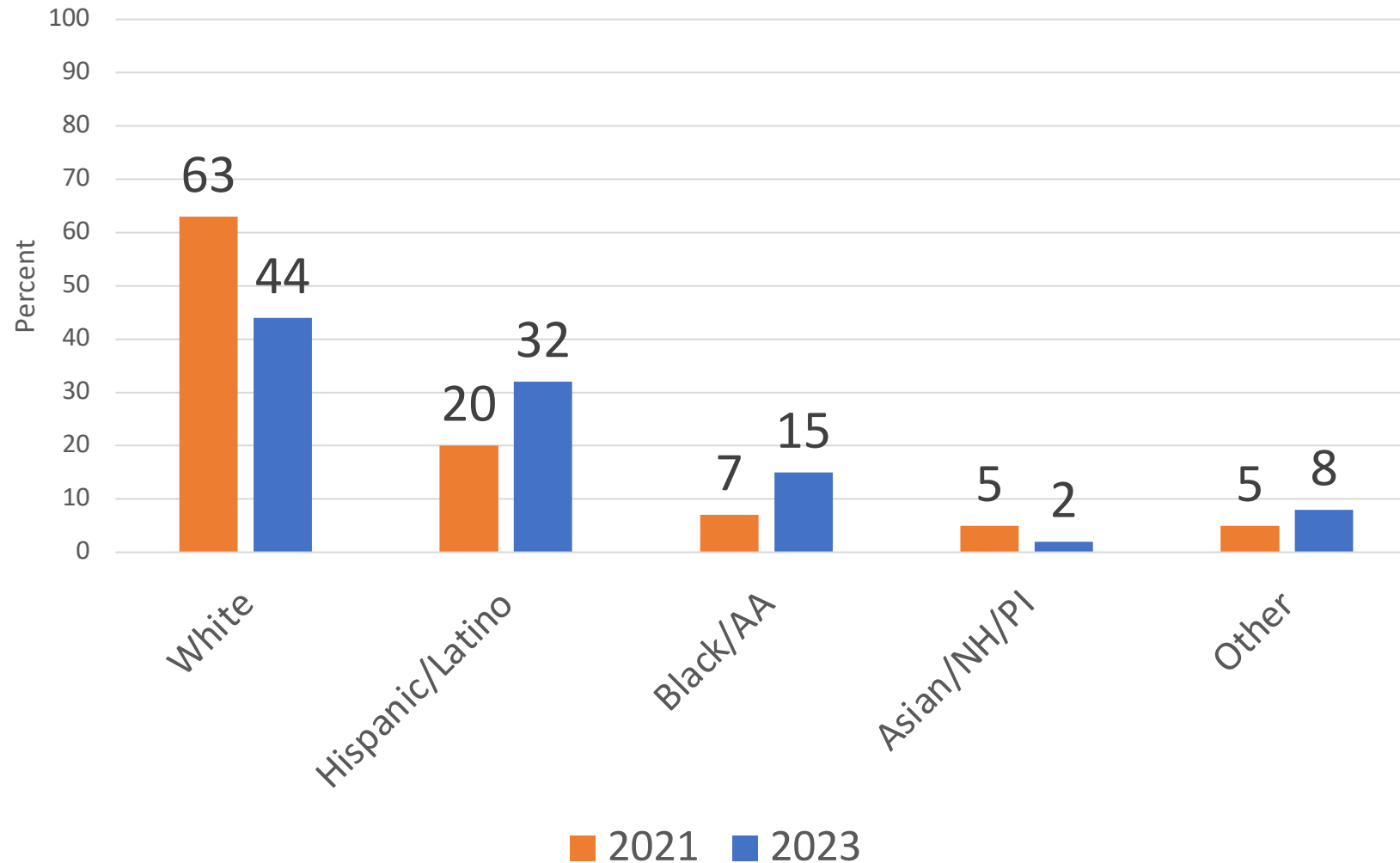
# Who are impacted by HIV in San Francisco?

San Franciscan Population,  
ACS PUM 2022

MSM living with HIV,  
NHBS-MSM 2023



# MSM living with HIV 2021 vs. 2023: race/ethnicity





# Who are impacted by HIV in San Francisco?

San Franciscan Population, ACS  
PUM 2022

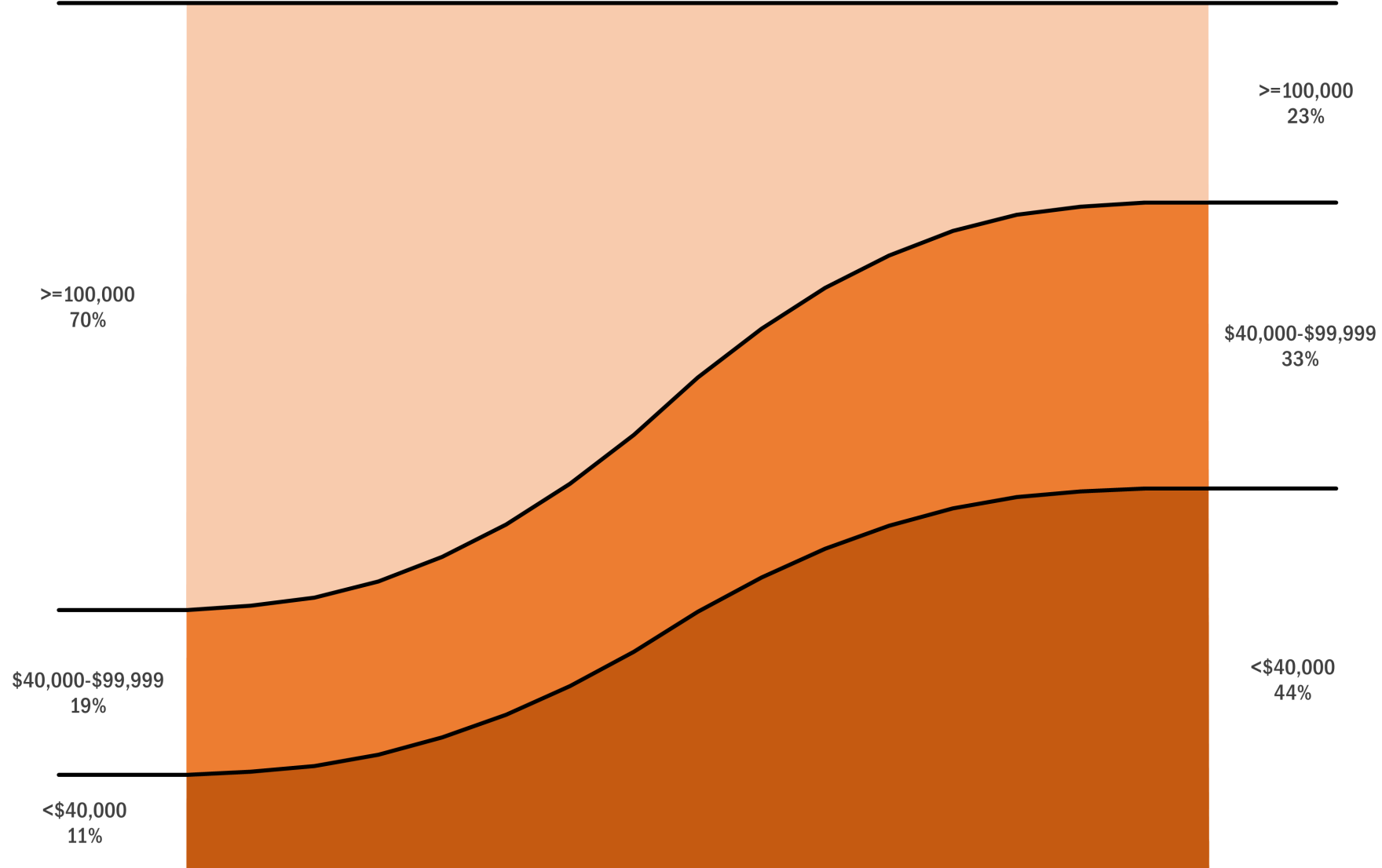
MSM living with HIV,  
NHBS-MSM 2023



# Who are impacted by HIV in San Francisco?

San Franciscan Population, ACS  
PUM 2022

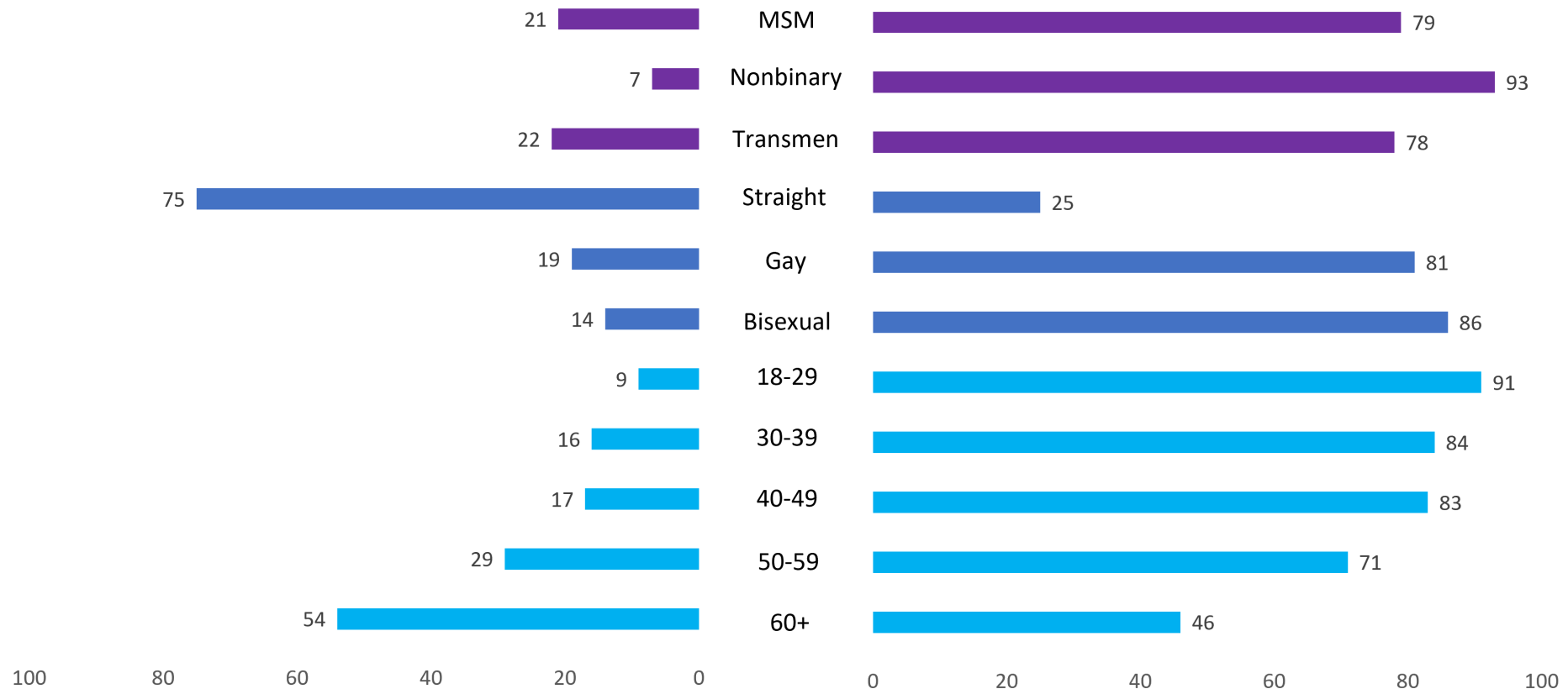
MSM living with HIV,  
NHBS-MSM 2023



# HIV testing by demographics in 2023, overall

Did not get an HIV test

Had an HIV test



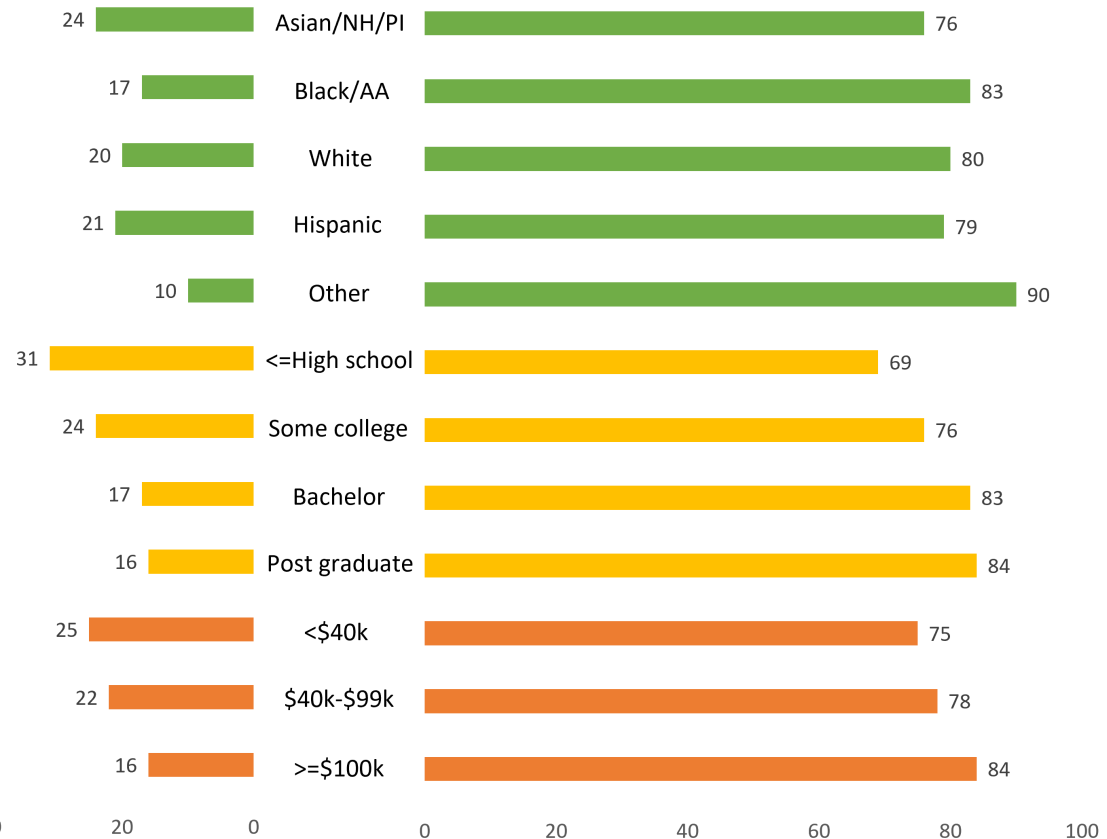
# HIV testing among participants not living with HIV, 2023 (N=416)

Characteristics	Did not get an HIV test N=83 (%)	Had an HIV test N=333 (%)	P-value
Sex at birth and gender identity			0.189
MSM	79 (21)	299 (79)	
Male-nonbinary	2 (7)	27 (93)	
Transmen	2 (22)	7 (78)	
Sexual orientation			0.011
Heterosexual or "Straight"	3 (75)	1 (25)	
Gay	67 (19)	285 (81)	
Bisexual	7 (14)	43 (86)	
Age group			<0.001
18-29	9 (9)	94 (91)	
30-39	21 (16)	111 (84)	
40-49	13 (17)	63 (83)	
50-59	20 (29)	48 (71)	
60+	20 (54)	17 (46)	

# HIV testing by social determinants , overall

Did not get an HIV test

Had an HIV test

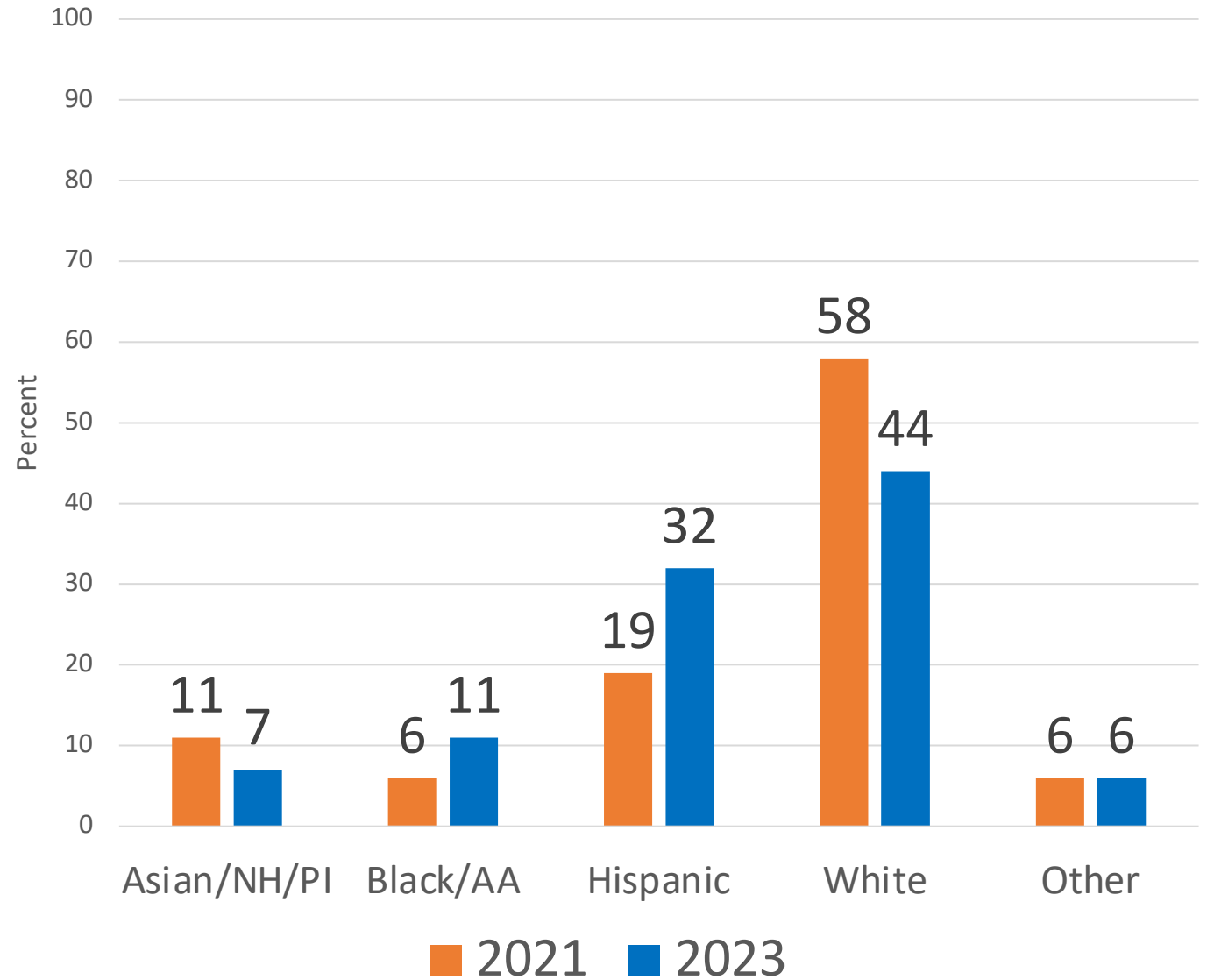




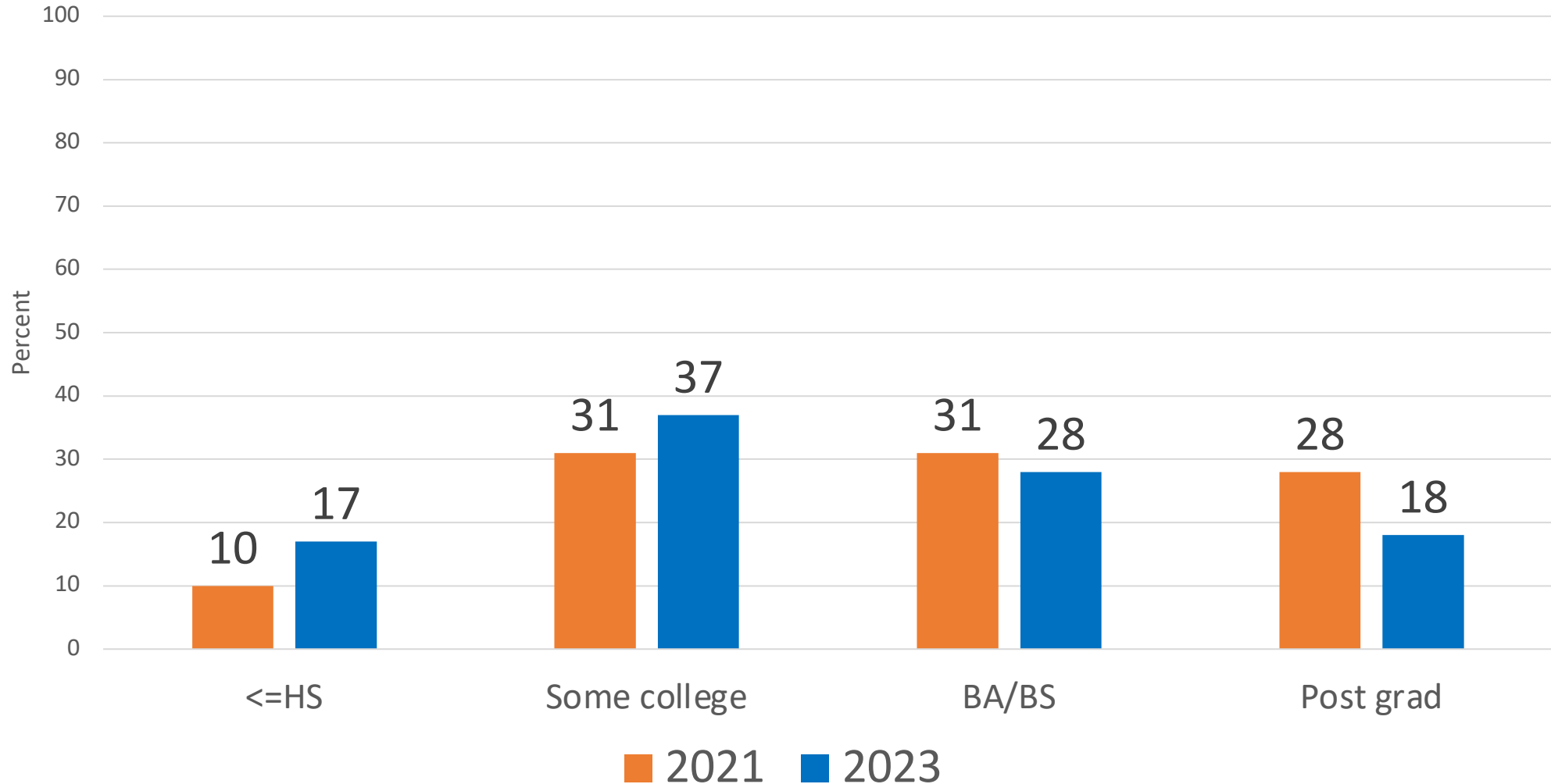
# HIV testing among participants not living with HIV, 2023 (N=416)

Characteristics	Did not get an HIV test N=83 (%)	Had an HIV test N=333 (%)	P-value
<b>Race/ethnicity</b>			<b>0.774</b>
Asian/Native Hawaiian/Pacific Islander	12 (24)	39 (76)	
Black/African American	4 (17)	19 (83)	
White	37 (20)	151 (80)	
Hispanic	27 (21)	104 (79)	
Other	2 (10)	18 (90)	
<b>Education</b>			<b>0.085</b>
High school or less than	14 (31)	31 (69)	
Some college	24 (24)	75 (76)	
Bachelor's degree	30 (17)	150 (83)	
Post graduate studies	15 (16)	77 (84)	
<b>Income</b>			<b>0.223</b>
<40k	24 (25)	73 (75)	
40k-99k	32 (22)	115 (78)	
>100k	26 (16)	134 (84)	

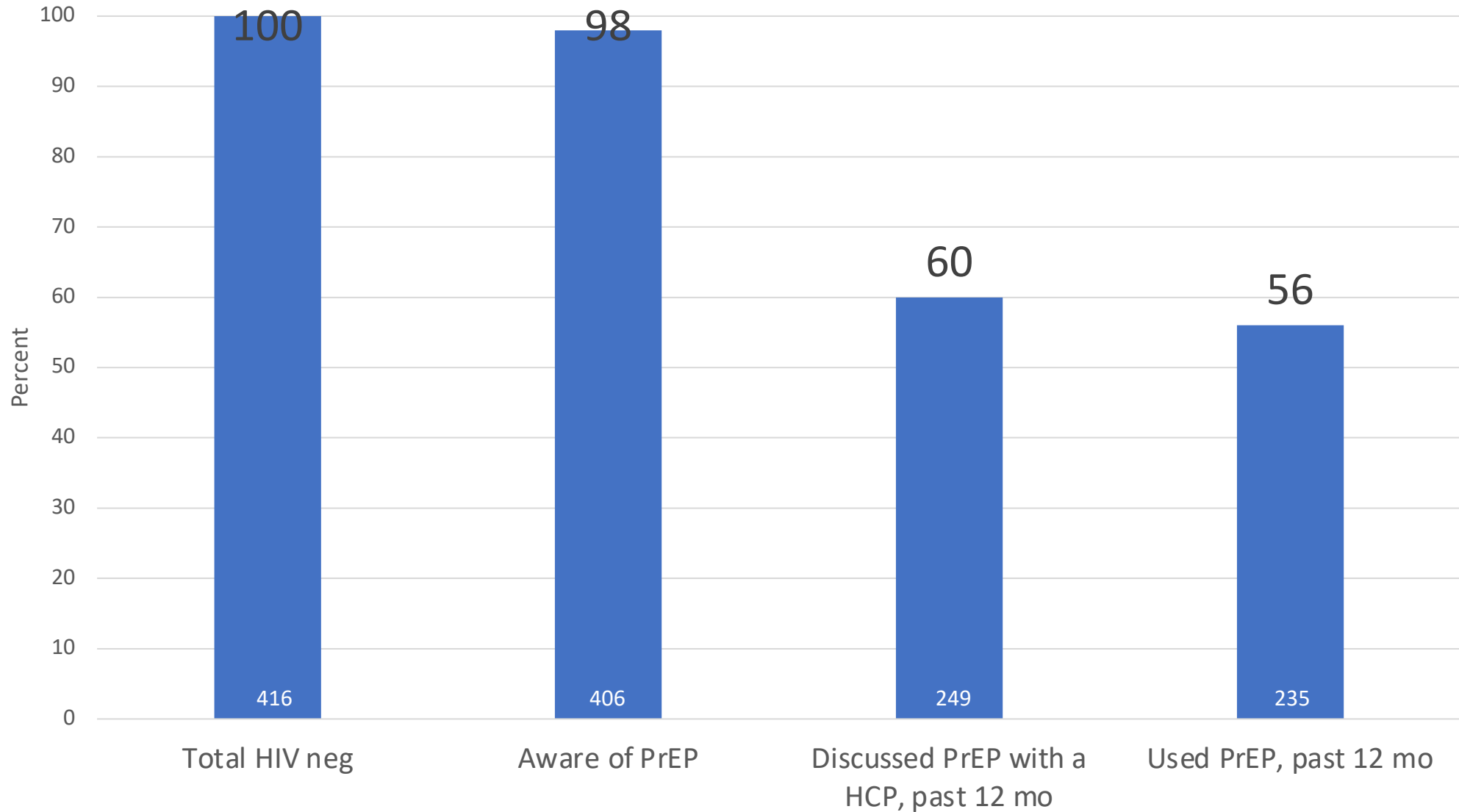
Not tested for  
HIV in the  
past 12  
months by  
race/ethnicity



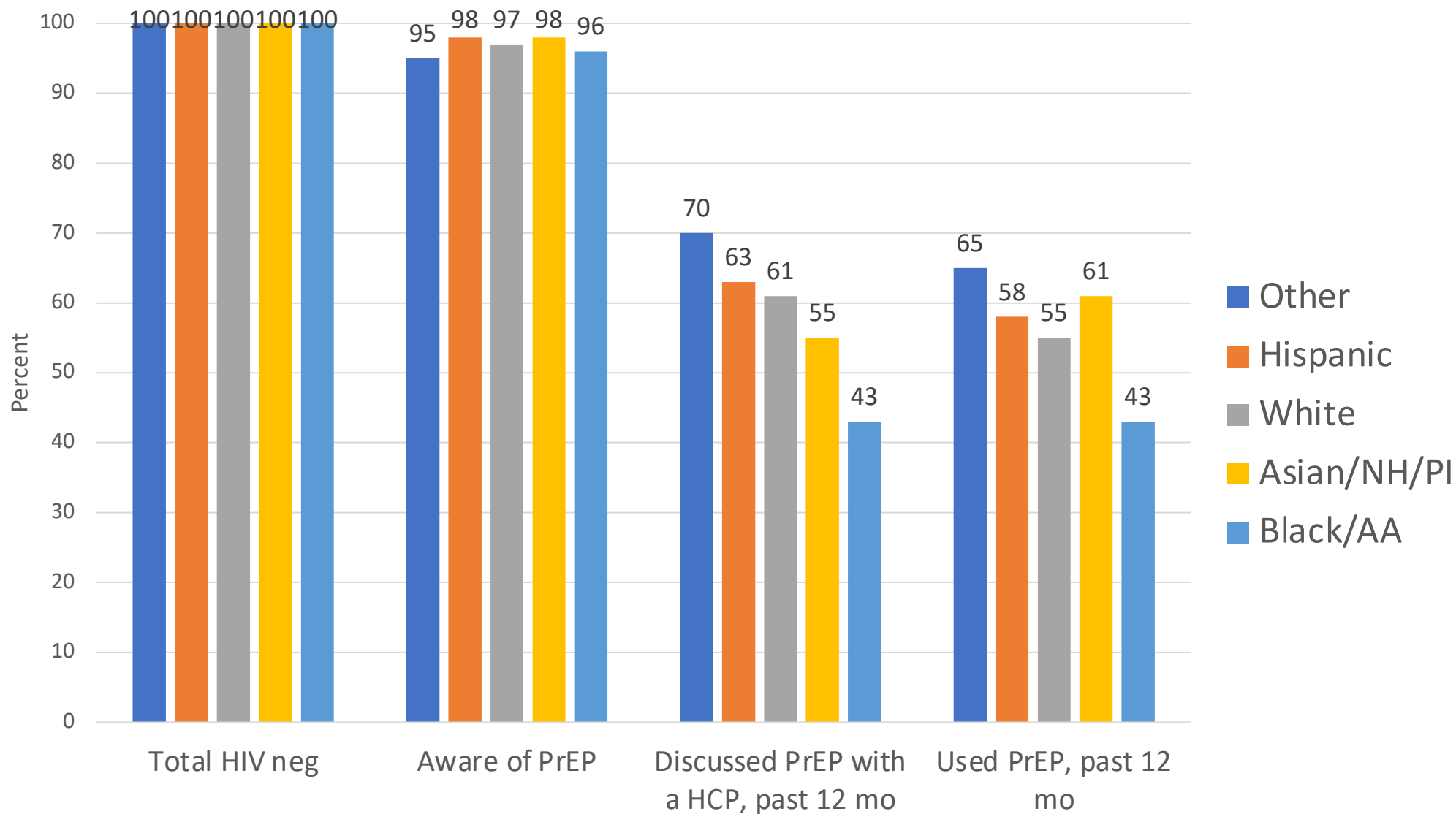
# Not tested for HIV test in the past 12 months by educational attainment



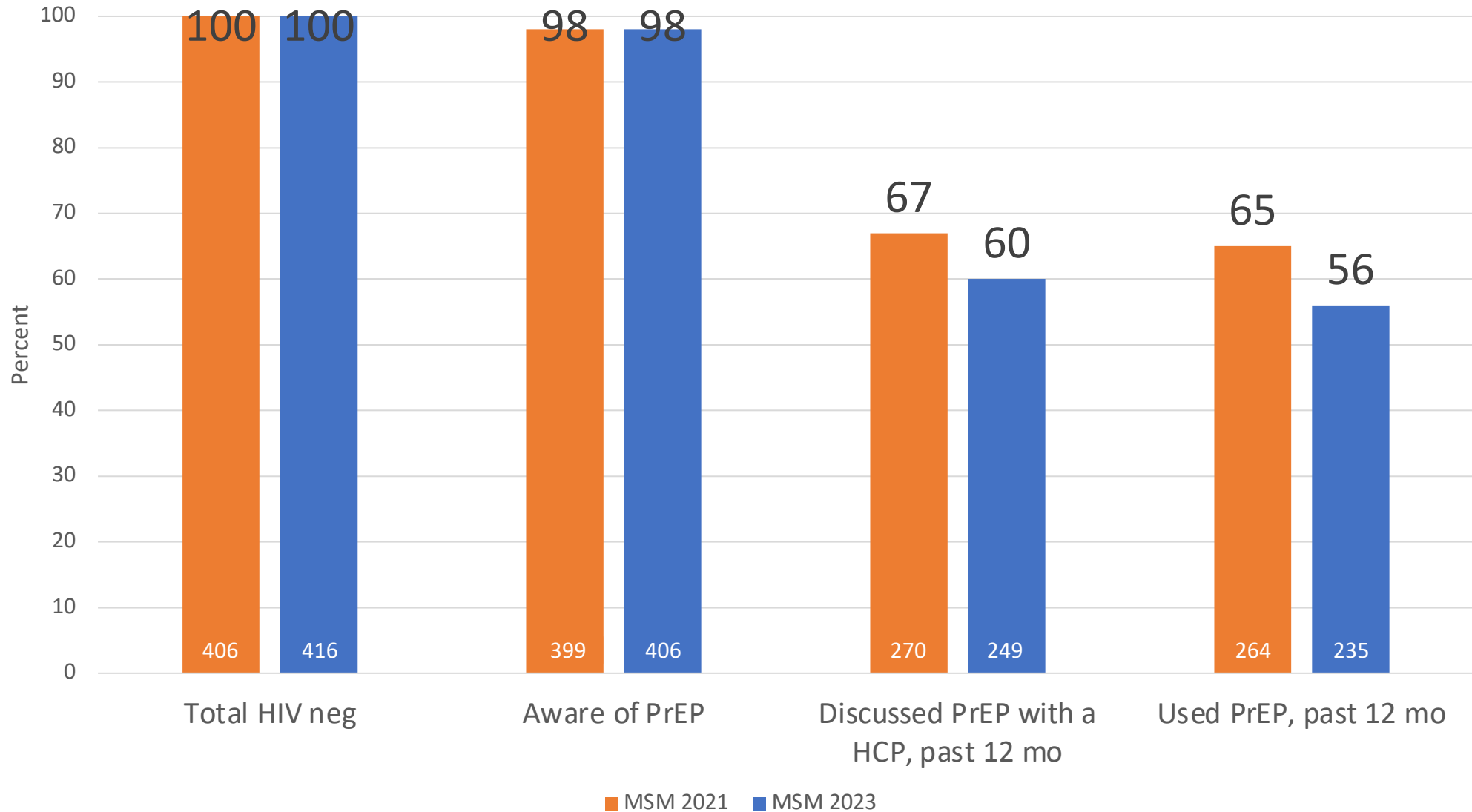
# PrEP cascade, 2023



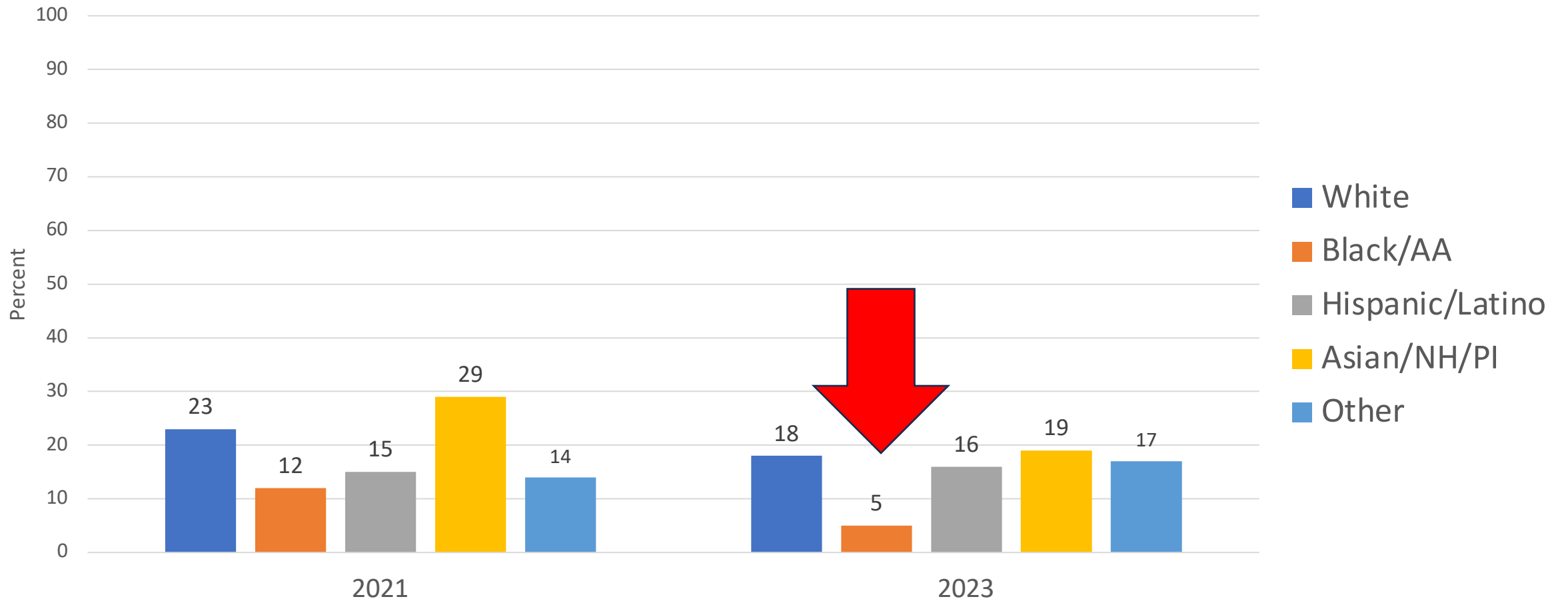
# PrEP cascade by race/ethnicity, 2023



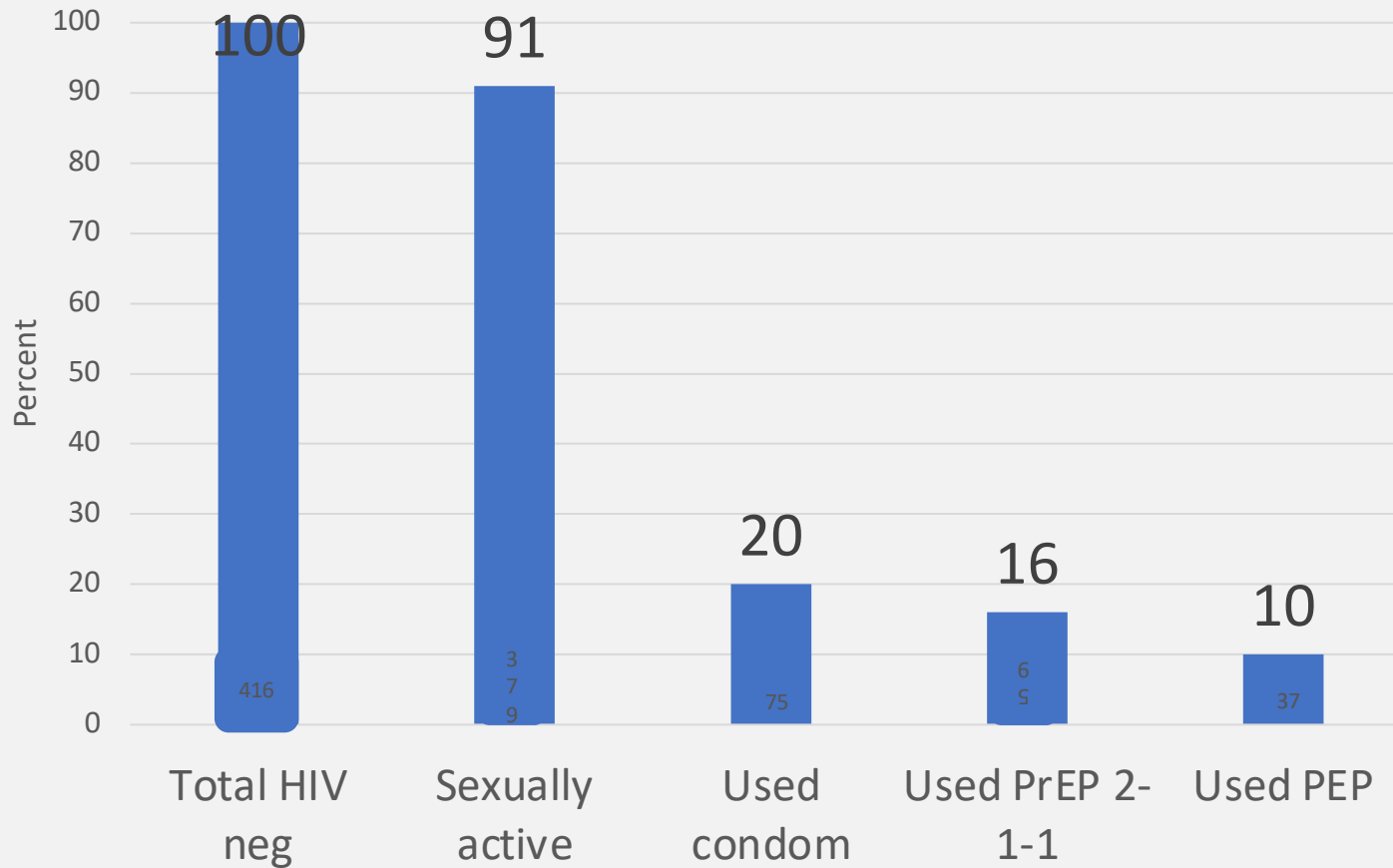
# PrEP cascade 2021 vs. 2023



# Currently on PrEP by race/ethnicity 2021 vs. 2023



# Other HIV prevention engagement, past 12 months

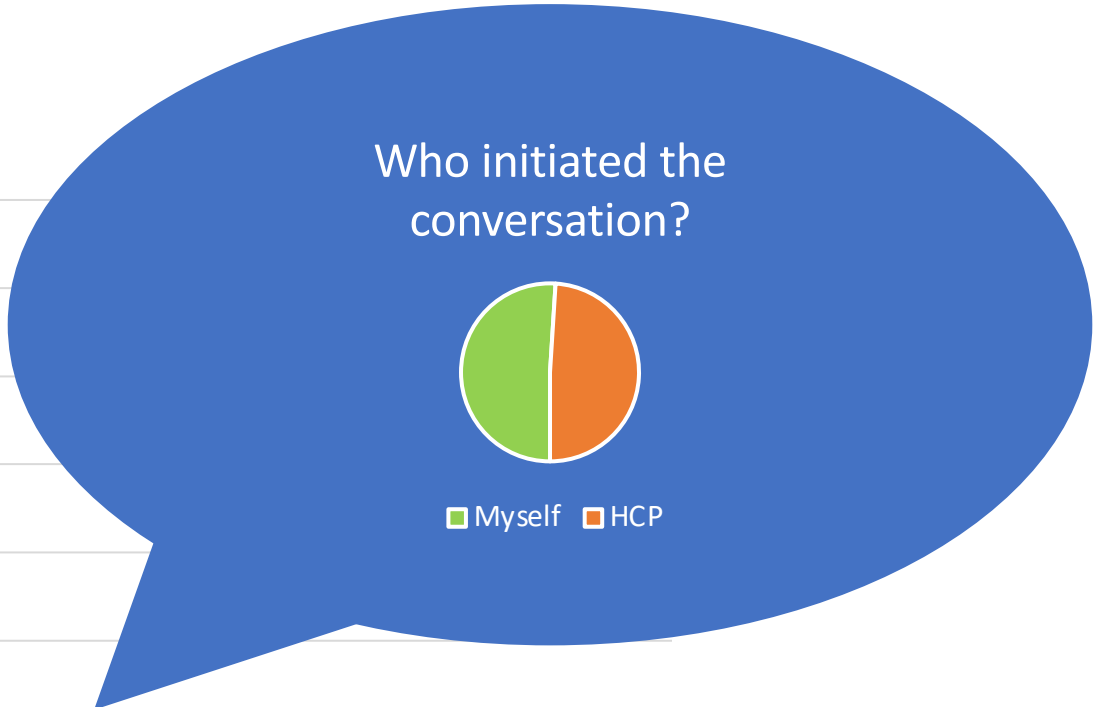
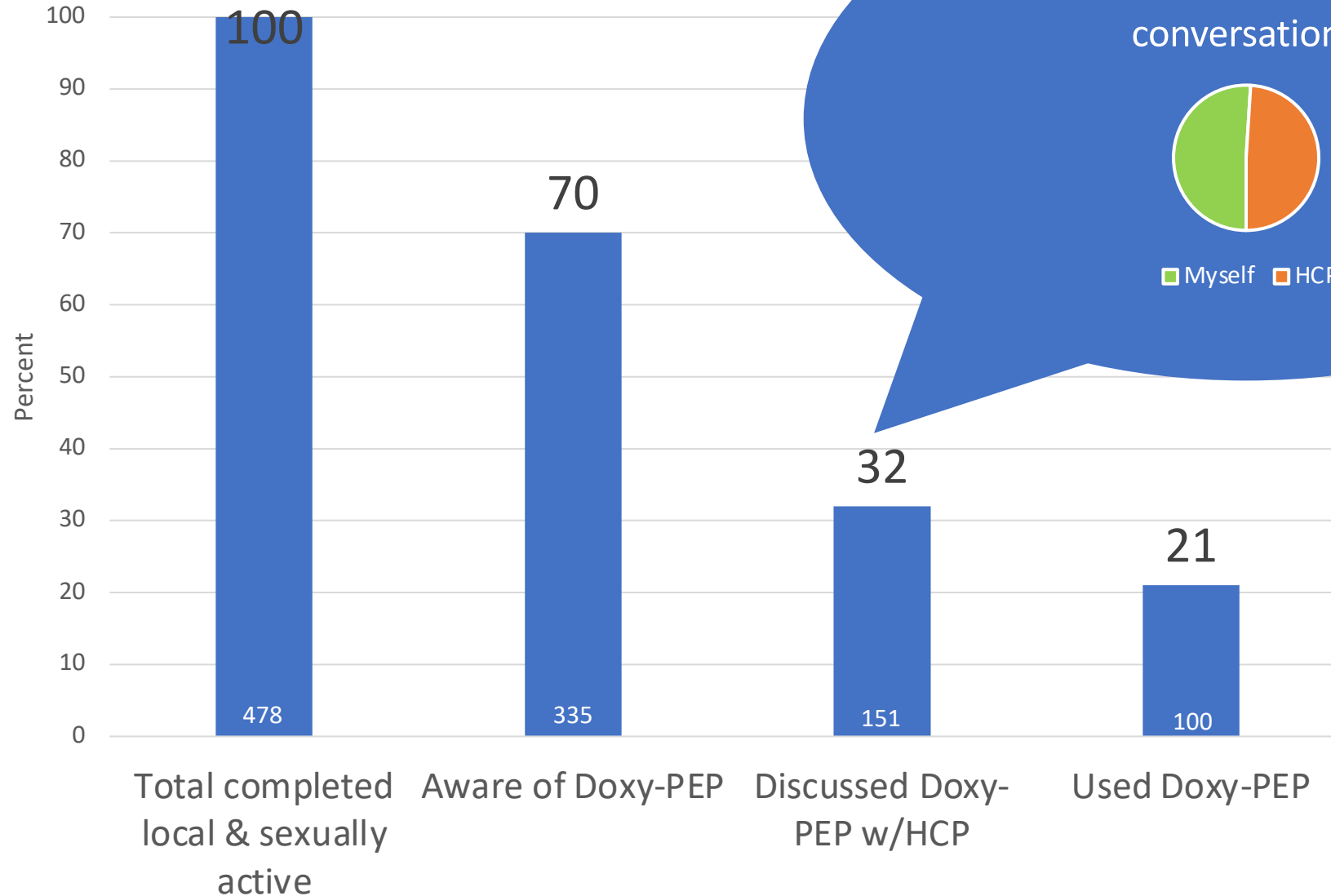




# Other HIV Prevention engagement among sexually active & HIV negative or unknown MSM, 2023 (N=379)

Preventive behaviors	Used condom N=75 (%)	Did not use condom N=304 (%)	P-value
Used PrEP			<0.001
No	56 (75)	93 (31)	
Yes	19 (25)	<b>211 (69)</b>	
Used PrEP 2-1-1			0.096
No	68 (91)	252 (83)	
Yes	7 (9)	52 (17)	
Used PEP			0.588
No	68 (92)	273 (90)	
Yes	6 (8)	31 (10)	

# Doxy-PEP cascade



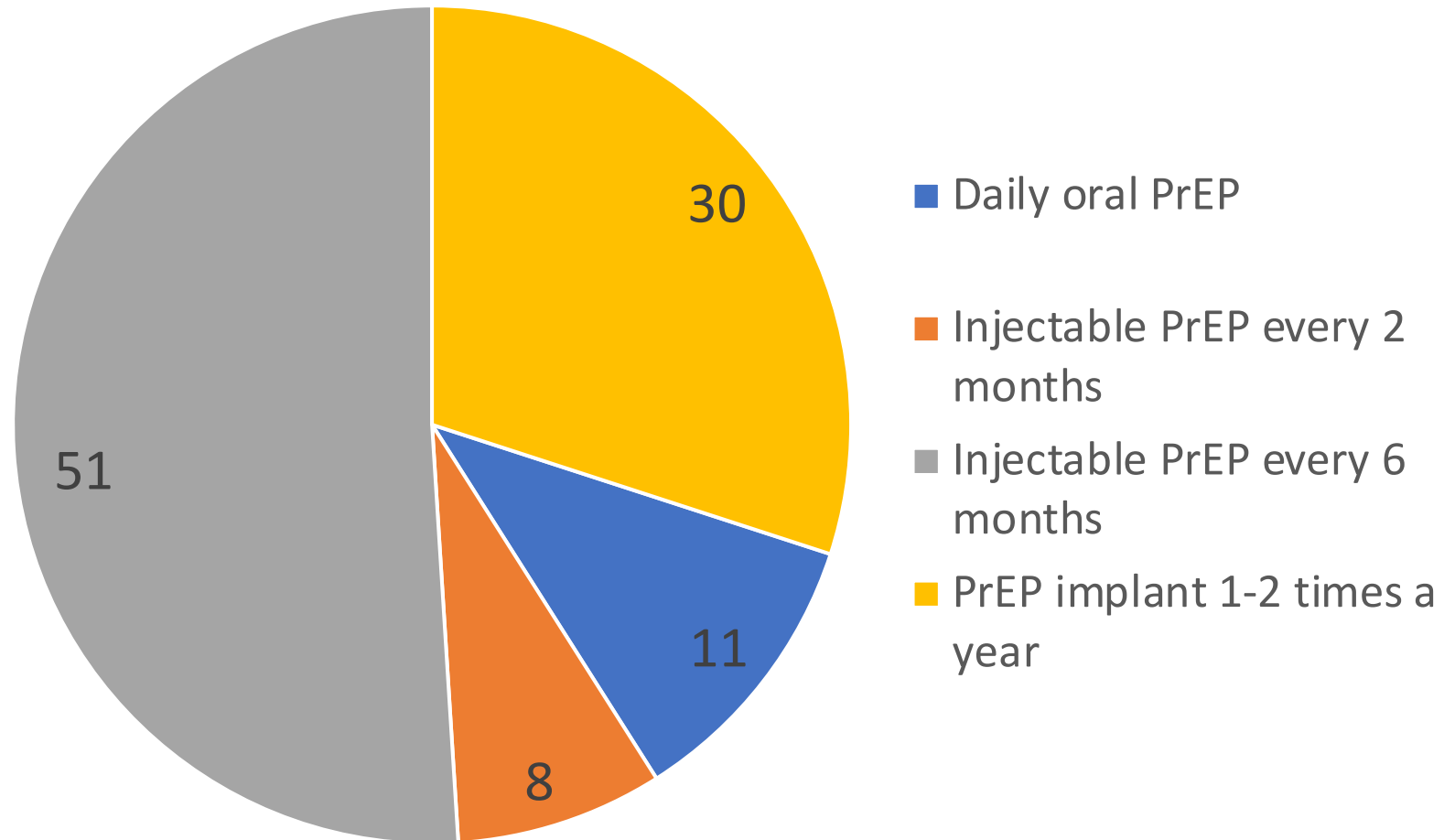
# Interest in taking doxy-PEP among MSM, 2023



- \*Out of 42 who were HIV negative or unknown HIV status and answered they are not at risk for STIs (as a reason for not taking Doxy-PEP), 7 were on PrEP (17%).

Preventive behaviors	N (%)
Interest in taking doxy-PEP (N=230)	125 (54)
Reasons against taking doxy-PEP (N=105)	
Not at risk for STIs	59 (56)
Not enough information to make a decision	31 (30)
Concern about side effects	10 (10)
Fear of antibiotic drug resistance	7 (7)
Already took too many medications	5 (5)
Other	8 (8)

# PrEP preferences among MSM, 2023



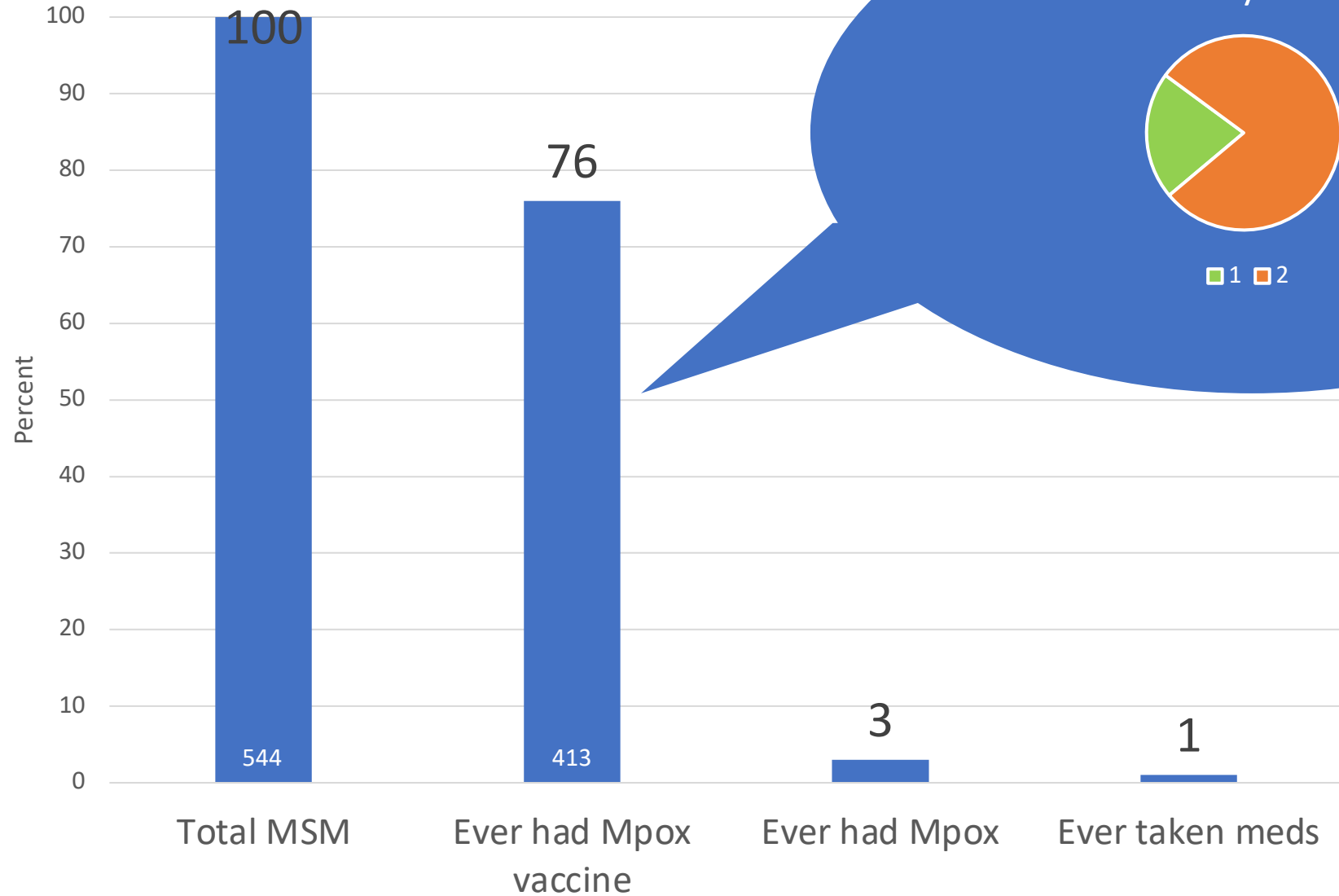
# Awareness and interest in injectable PrEP among MSM, 2023

Preventive behaviors	N (%)
Heard of injectable PrEP (N=537)	
No	181 (34)
Yes	356 (66)
Took injectable PrEP	5 (1)
Interest in taking long-acting PrEP every 2 months (asked among HIV negative or unknown, N=320)	
Very interested	129 (40)
Somewhat interested	77 (24)
Neutral	20 (6)
Somewhat uninterested	22 (7)
Very uninterested	72 (23)

# Awareness and interest in injectable PrEP among MSM, 2023

Preventive behaviors	N (%)
Reasons in favor of taking long-acting PrEP every 2 months (asked among HIV negative or unknown, N=377)	
I would not have to remember to take a pill every day	262 (70)
Injections provide a longer duration of protection than taking a daily pill	120 (32)
I would not have to worry about losing my pills or having them stolen	53 (14)
Injections would be more discreet than taking pills	34 (9)
Other	19 (5)
Reasons against taking long-acting PrEP every 2 months (asked among HIV negative or unknown, N=377)	
Possible side effects associated with the injections (e.g., pain, swelling)	103 (27)
It would be too hard to go to a clinical site for an injection every 2 months	96 (25)
I do not want something injected into my body	83 (22)
Once the injection is administered, it cannot be reversed immediately/PrEP will stay in my body for a long time	19 (5)
Other	24 (6)

# Mpox cascade



# Reasons against taking MPOX vax among MSM, 2023

Preventive behaviors	N (%)
Reasons against receiving the Mpox vaccine (Jynneos) (N=128)	
Not at risk for Mpox or not concerned about Mpox	66 (52)
Could not make an appointment	16 (13)
Not enough information to make a decision	15 (12)
Concern about side effects	11 (9)
Already took too many vaccines	9 (7)
Concerned about safety	8 (6)
Inconvenient (e.g., too far, time off from work, waiting time too long, too busy)	8 (6)
I am not eligible for the Mpox vaccine	5 (4)
I have a medical reason that makes me ineligible to get vaccinated (e.g., I have had a severe allergy to vaccines in the past).	4 (3)
Concerned about the vaccine being effective in preventing Mpox	2 (2)
Other	20 (16)



In summary  
– Much progress but there is work to do

- Among 545 MSM participants, HIV prevalence was 24.4%.
  - Almost all participants were aware of their HIV status
  - Almost all participants living with HIV were on ART.
  - More than 90% of MSM living with HIV were virally suppressed
- 
- Racial disparities in HIV persist as almost half of Black/African American MSM were living with HIV while this group only comprised 8% of the overall sample.
  - MSM in 30-39 age group were the least likely to report viral suppression
  - Less than half of MSM participants were on PrEP last time they had sex.
  - Black/African American MSM had the least discussions about PrEP with a provider and the lowest PrEP use among racial/ethnic groups
  - PrEP use has declined over time
  - PrEP persistence is a challenge



# Thanks!

- Bow for organizing these data and developing slides for this presentations
- Moranda for stewarding us through the data cleaning process
- Robert and the summer and fall NHBS MSM data and data collection teams, especially!



A 3D rendering of a field of dark grey question marks. In the center, one question mark is highlighted in a bright yellow color. The word "Questions!" is written in white, sans-serif font across the yellow question mark.

Questions!