

# 2021 CT DPH Funded HIV Testing Events Summary

By

Ramon Rodriguez-Santana, MBA, MPH  
CT DPH HIV Prevention Program

**February 2023**

# Presentation Outline

## 2021 HIV testing events by:

- Intervention
- Race/Ethnicity
- Gender Identity
- Age Group
- County of Residence
- Ryan White Services Area
- Top 20 Zip Codes
- Month of the Year
- Ever heard of PrEP
- Screened for PrEP
- Referred to PrEP Provider
- HIV test results
- HCV test results

## HIV testing trends:

- HIV tests events by Year
- HIV newly diagnosed by Year
- HIV newly diagnosed identified

## Exploratory of Data Analysis (EDA) for...

- HIV Newly diagnosed
- Screened for PrEP Eligibility
- Heard about PrEP
- Given a Referral to PrEP Provider

## Measuring how well observed sample data correspond to expected population data:

- HIV Newly diagnosed cases
- County of residence
- **Conclusion and Next Steps**

# Data Notes and Limitations

- Data analyzed was for 2021 calendar year and reflects information obtained from the Connecticut DPH ***EvaluationWeb*** data collection system.
- 2021 Data Analyzed in January 2023.  
**(Note. HIV testing numbers for some testing categories possibly changed from previously reported 2021 HIV testing numbers)**
- All data is self-reported by the client, unless specified.
- Data was analyzed using the 'R Programming Language' software (Packages: tidyverse, gtsummary, summarytools)
- Data limitations: Intentional reporting bias (e.g., the participant wants to be seen in a positive way), and/or unintentional reporting bias (e.g., the participant simply forgot that they had engaged in a risk behavior).
- PrEP related data does not represent the actual number of individuals who were **screened for PrEP eligibility, referred to PrEP provider** or **heard about PrEP**. This was due to lack of PrEP information extracted from EMRs and uploaded to ***EvaluationWeb***.

# Special Thanks to:

DPH Funded	Intervention	Agency
Direct	OTL	A Place to Nourish your Health
Direct	OTL	AIDS Connecticut, Inc.
Direct	SSP-OTL	Alliance For Living, Inc.
Direct	RTS	Anchor Health Initiative
Direct	OTL	APEX Community Care, INC
Supplies	RTS	CARE NET - Pregnancy Resource Center of SE Connecticut
Direct	OTL	City of Waterbury Health Department
Direct	RTS	Community Health Center
Supplies	RTS	Community Health Services, Inc.
Direct	RTS	Connecticut Dept. of Correction
Supplies	RTS	Connecticut Dept. of Health-STD Clinics
Direct	RTS	Cornell Scott-Hill Health Center
Direct	RTS	CT Children's Specialty Group/UConn
Direct	SSP-OTL	CT Harm Reduction Alliance
Direct	SSP-OTL	Family Centers-Stamford CARES
Supplies	RTS	Generations Family Health Center
Direct	SSP-OTL	GBAPP
Direct	OTL	Hartford Gay and Lesbian Health Collective
Direct/Subcontract	SSP-OTL	Mid-Fairfield AIDS Project, Inc.
Supplies	RTS	Optimus Health Care, Inc.
Direct	SSP-OTL	Perception Programs, Inc.
Direct	RTS	Planned Parenthood of Southern New England, Inc.
Direct	RTS	Southwest Community Health Center
Direct	RTS	StayWell Health Care, Inc.
Supplies	RTS	William W. Backus Hospital
Supplies	RTS	World Health Clinicians, Inc.
Direct	RTS	Yale New Haven Hospital
Direct	SSP-OTL	Yale University AIDS Program (CHCV)

Direct = **21 Agencies**

Supplies ( i.e., HIV test kits) = **7 Agencies**

Routine Testing Services (RTS) = **16 Agencies**

*(Routine HIV Testing in Healthcare Settings)*

Outreach, Testing and Linkage (OTL) = **5 Agencies**

*(Focused HIV Testing in Non-Healthcare Settings)*

Syringe Services Program (SSP)/OTL = **7 Agencies**

# How to interpret percentages (%)?

To find the number of HIV testing events conducted for a specific category...

- **First**, convert the percentage to decimal number by moving decimal point to your left:

**25% Black/AA females -> .25**

- **Second**, multiply decimal point with total number of HIV testing events:

**.25 x 77,295 = 19,324 Black/AA females**

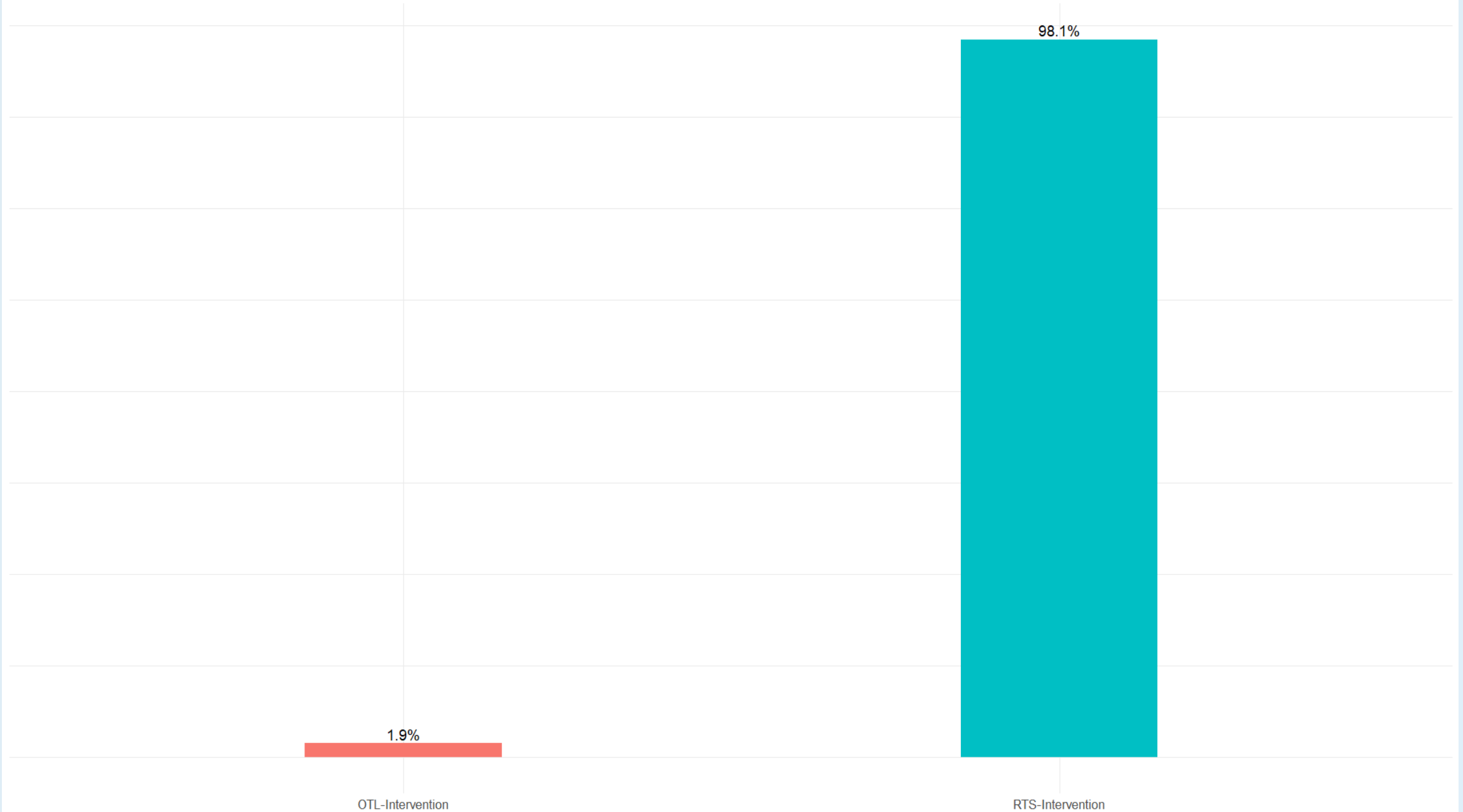
If you need assistance calculating the number for specific categories, please contact

Ramon Rodriguez-Santana, MBA, MPH at:

[ramon.rodriquez-santana@ct.gov](mailto:ramon.rodriquez-santana@ct.gov)

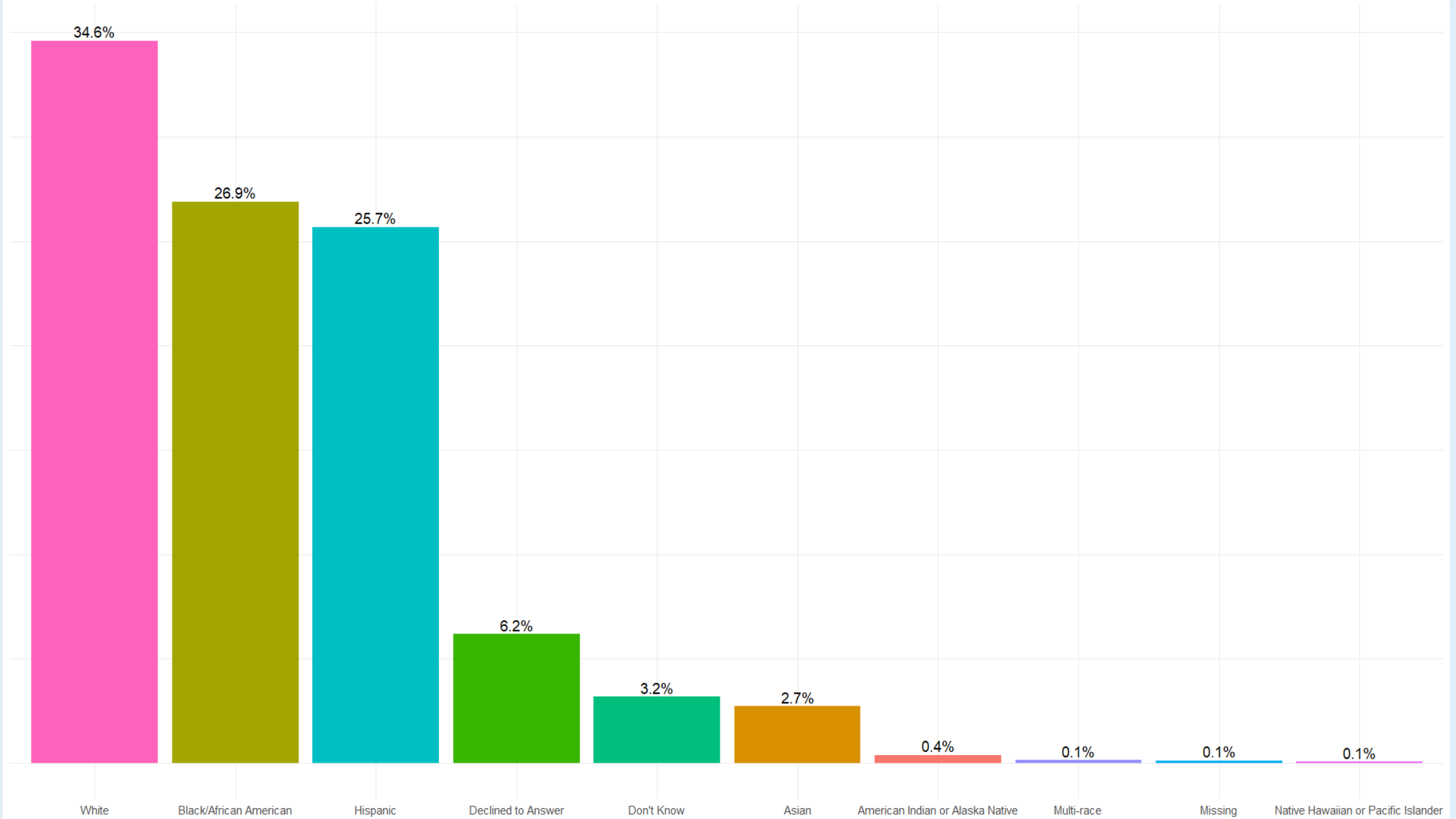
# CT DPH Funded HIV Testing Events by Routine Test Service (RTS) and Outreach, Testing and Linkage (OTL) Interventions, 2021

RTS = (n= 75,790) OTL = (n= 1,505)



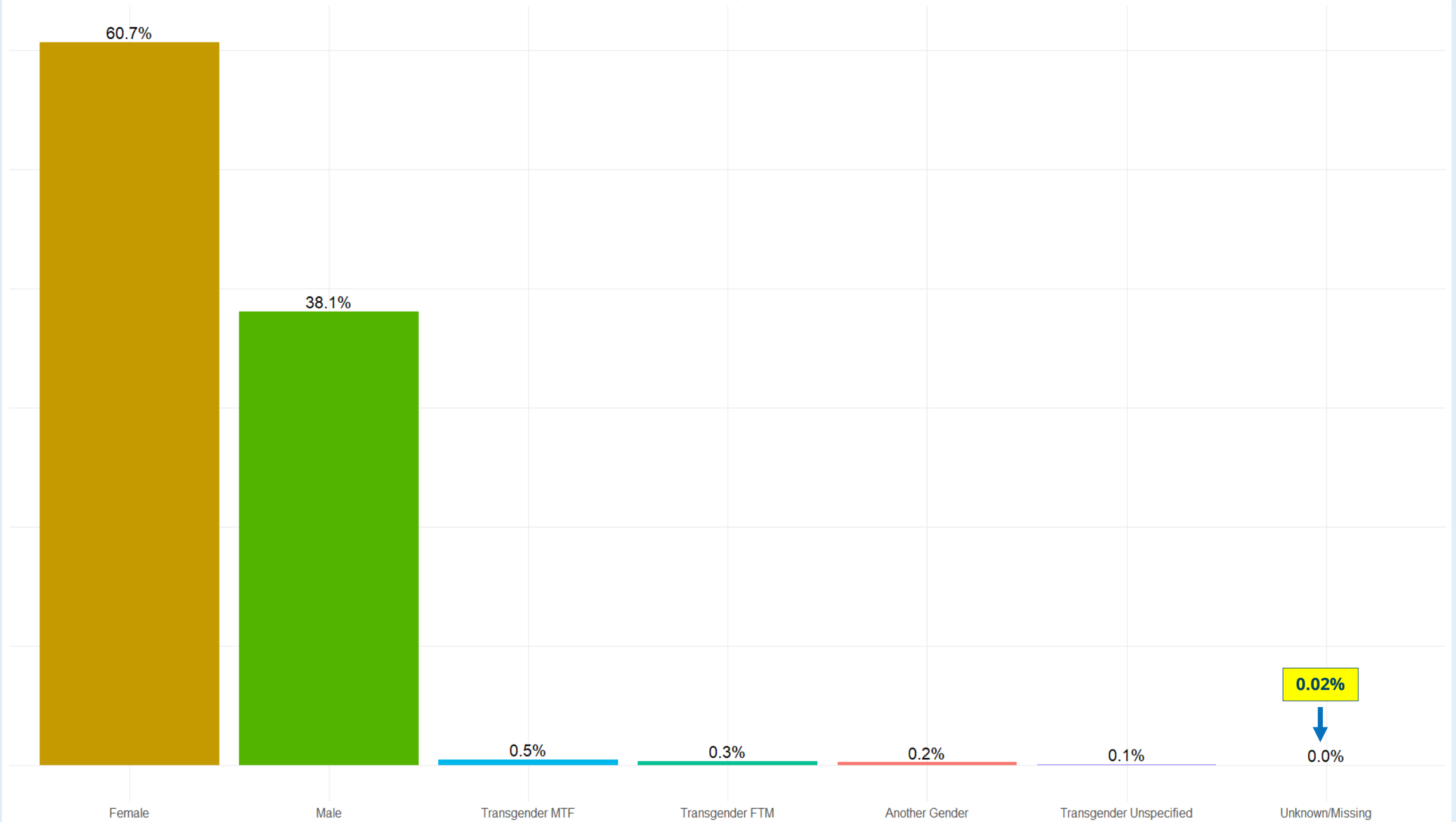
# CT DPH Funded HIV Testing Events by Race/Ethnicity, 2021

N = 77,295



# CT DPH Funded HIV Testing Events by Gender Group, 2021

N = 77,295



0.02%

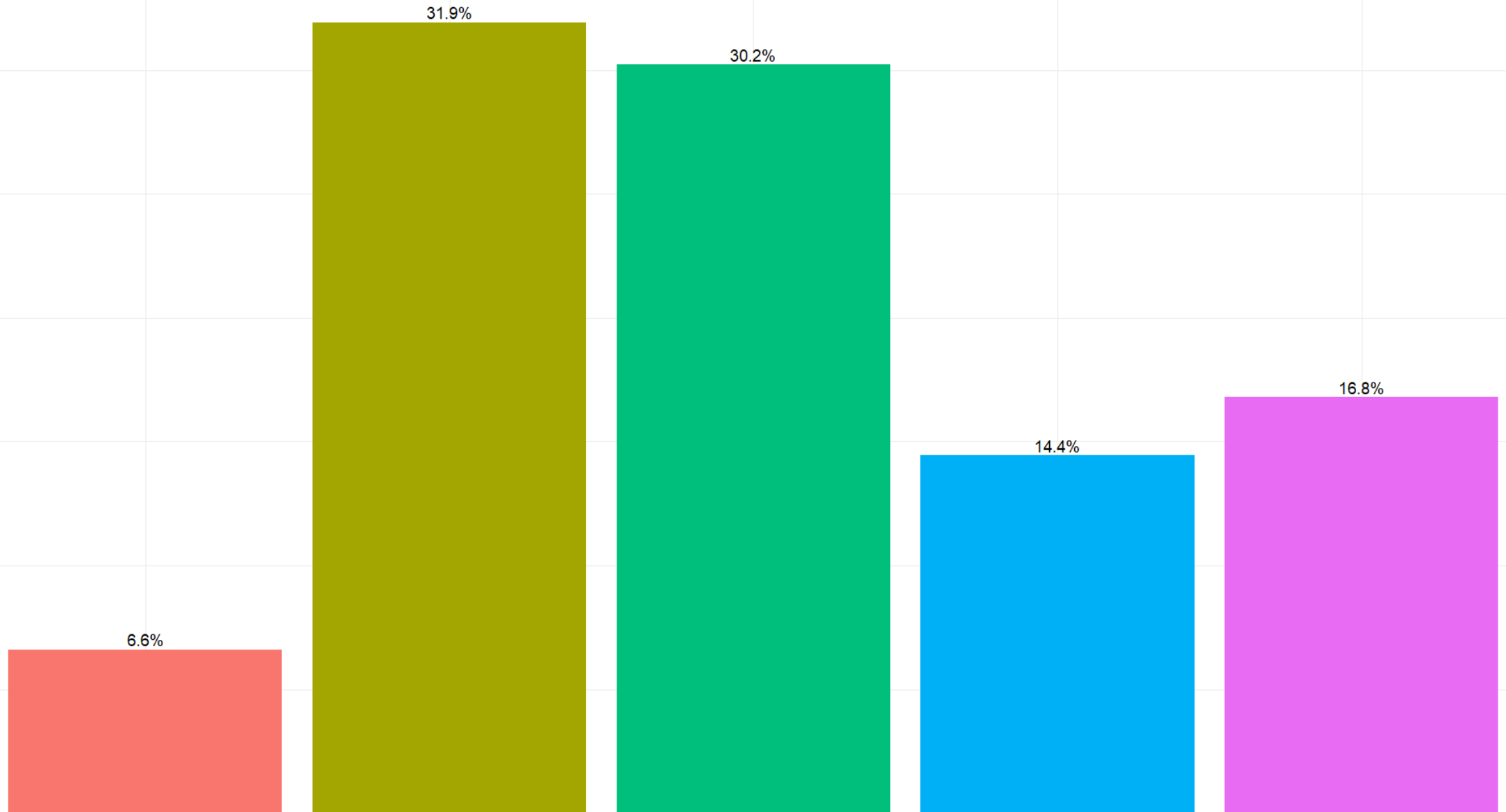


0.0%



# CT DPH Funded HIV Testing Events by Age Range, 2021

N = 77,295



13-19 Years

20-29 Years

30-39 Years

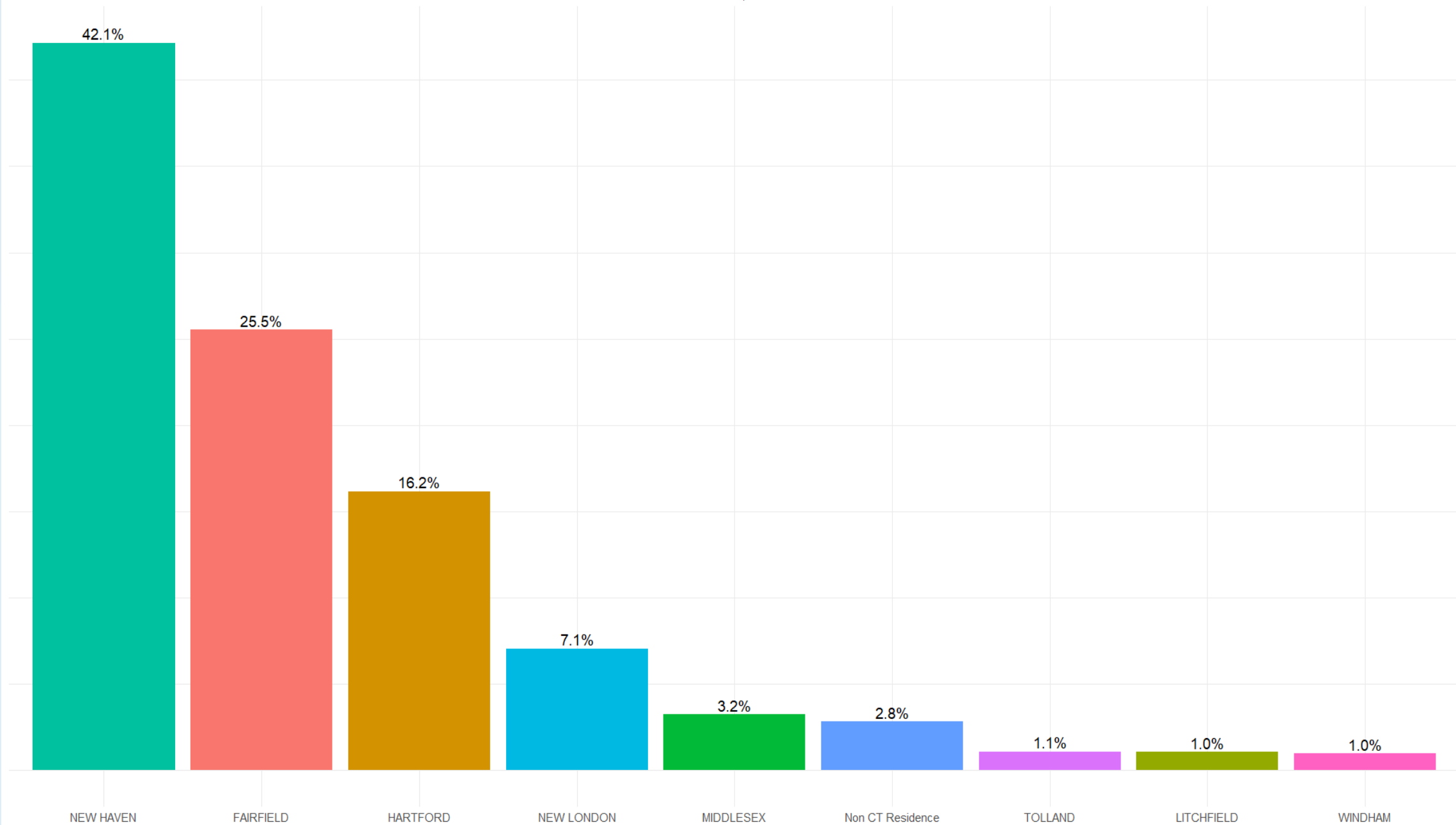
40-49 Years

Over 50 Years



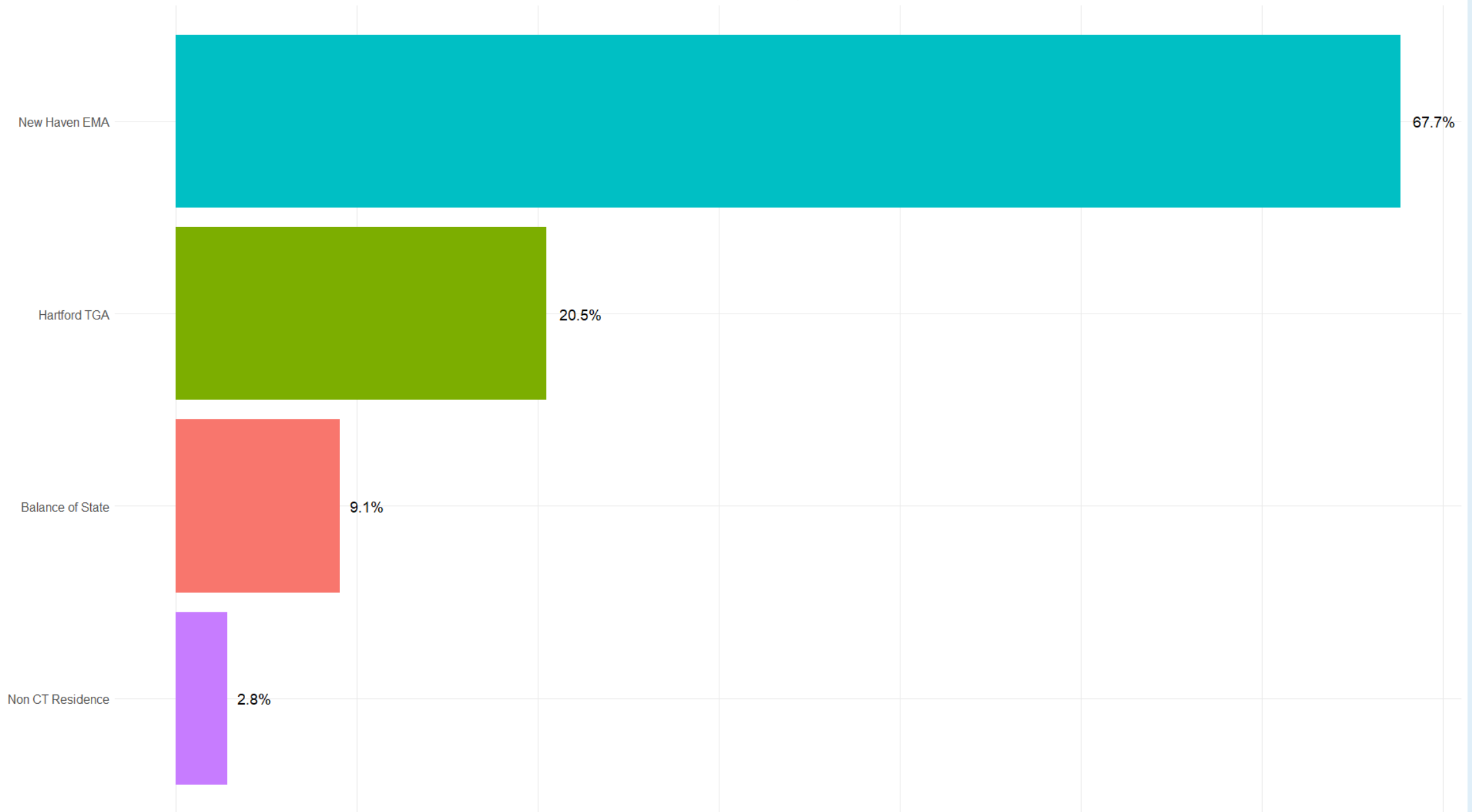
# CT DPH Funded HIV Testing Events by Client's County, 2021

N = 77,295



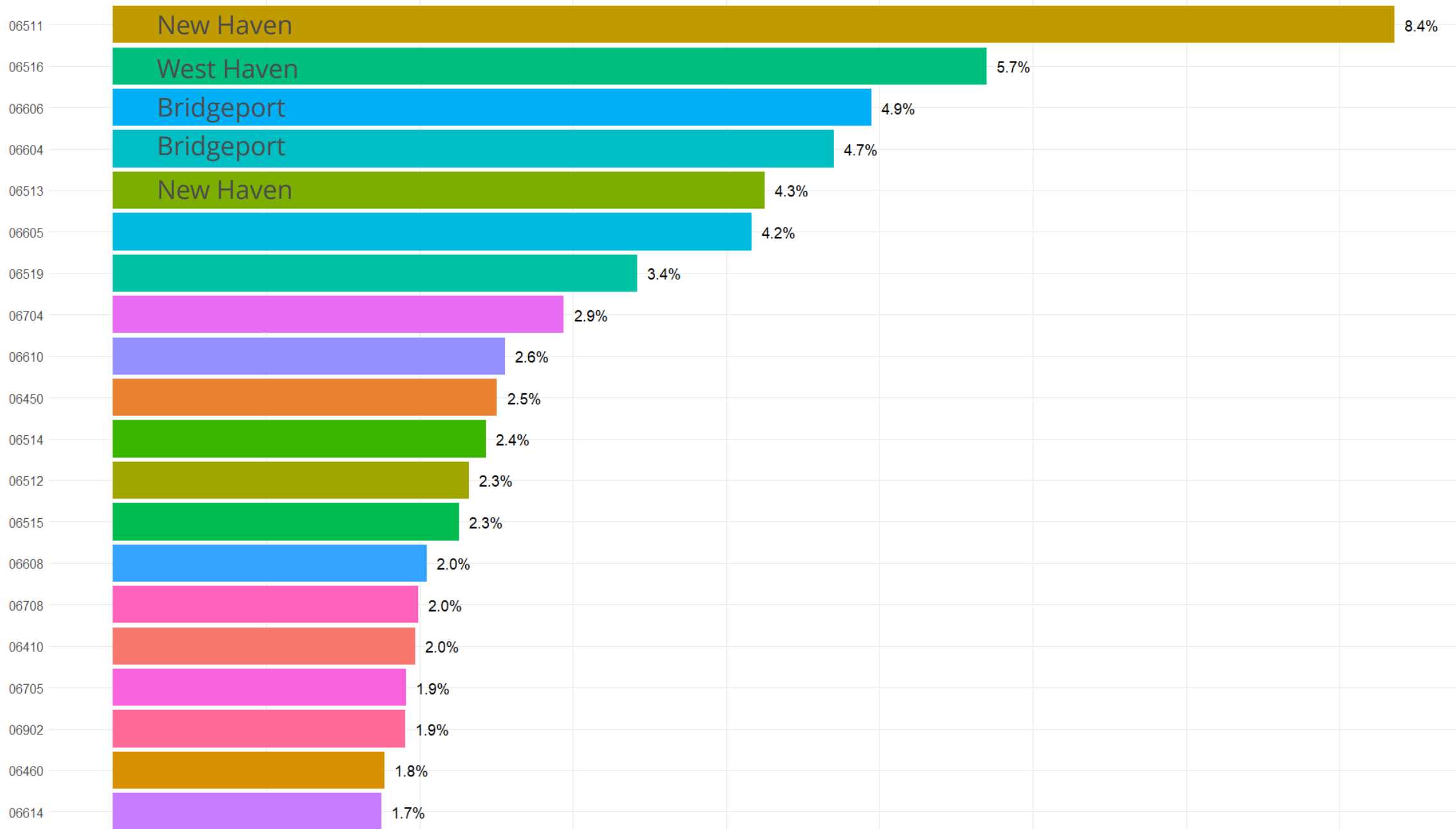
# CT DPH Funded HIV Testing Events by Ryan White Service Area, 2021

N = 77,295



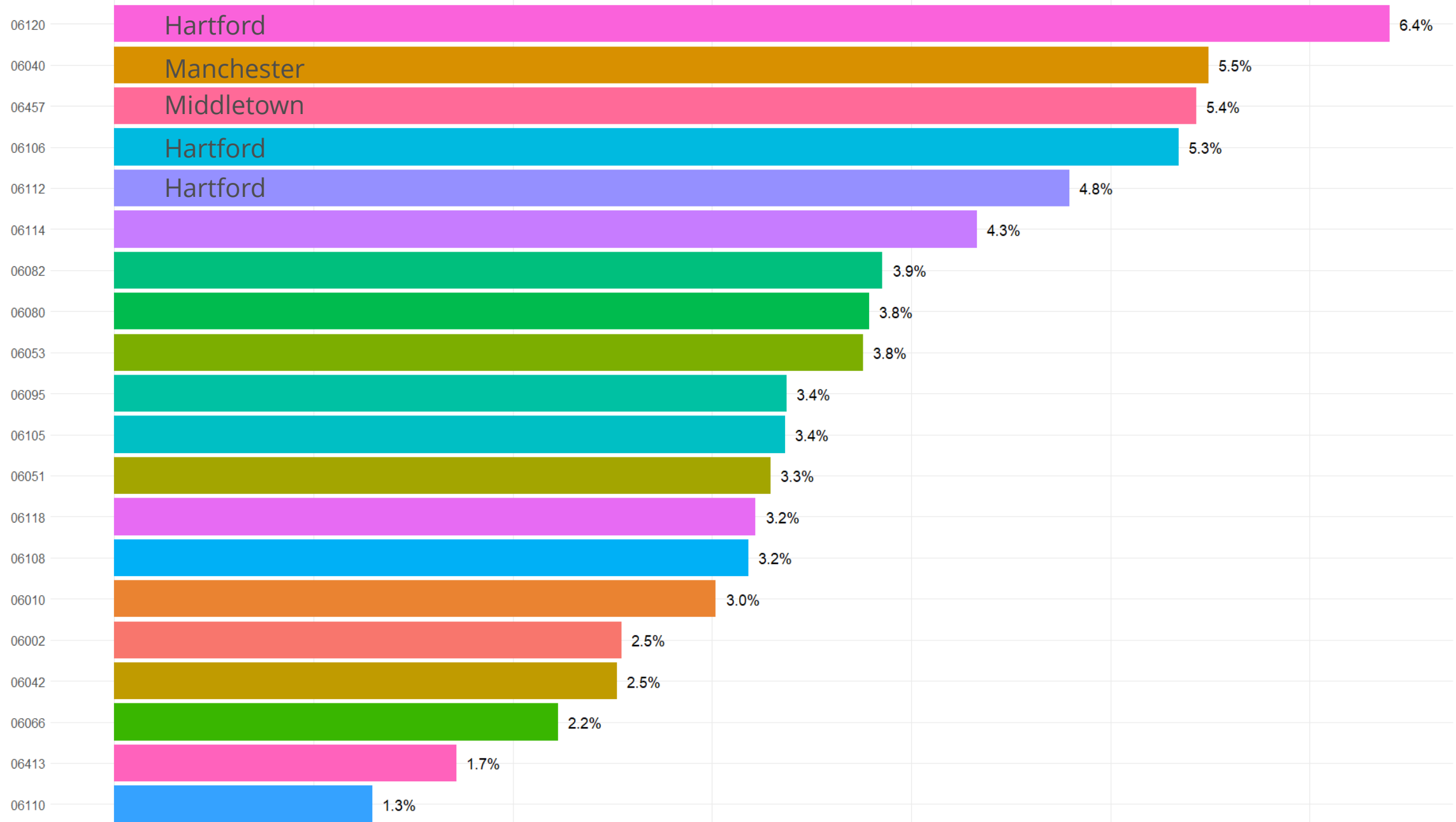
# New Haven EMA Ryan White Service Area: HIV Testing Events by Client's Top 20 Zip Codes, 2021

n = 50,190 (\*2,139 HIV tests missing client zip code information)



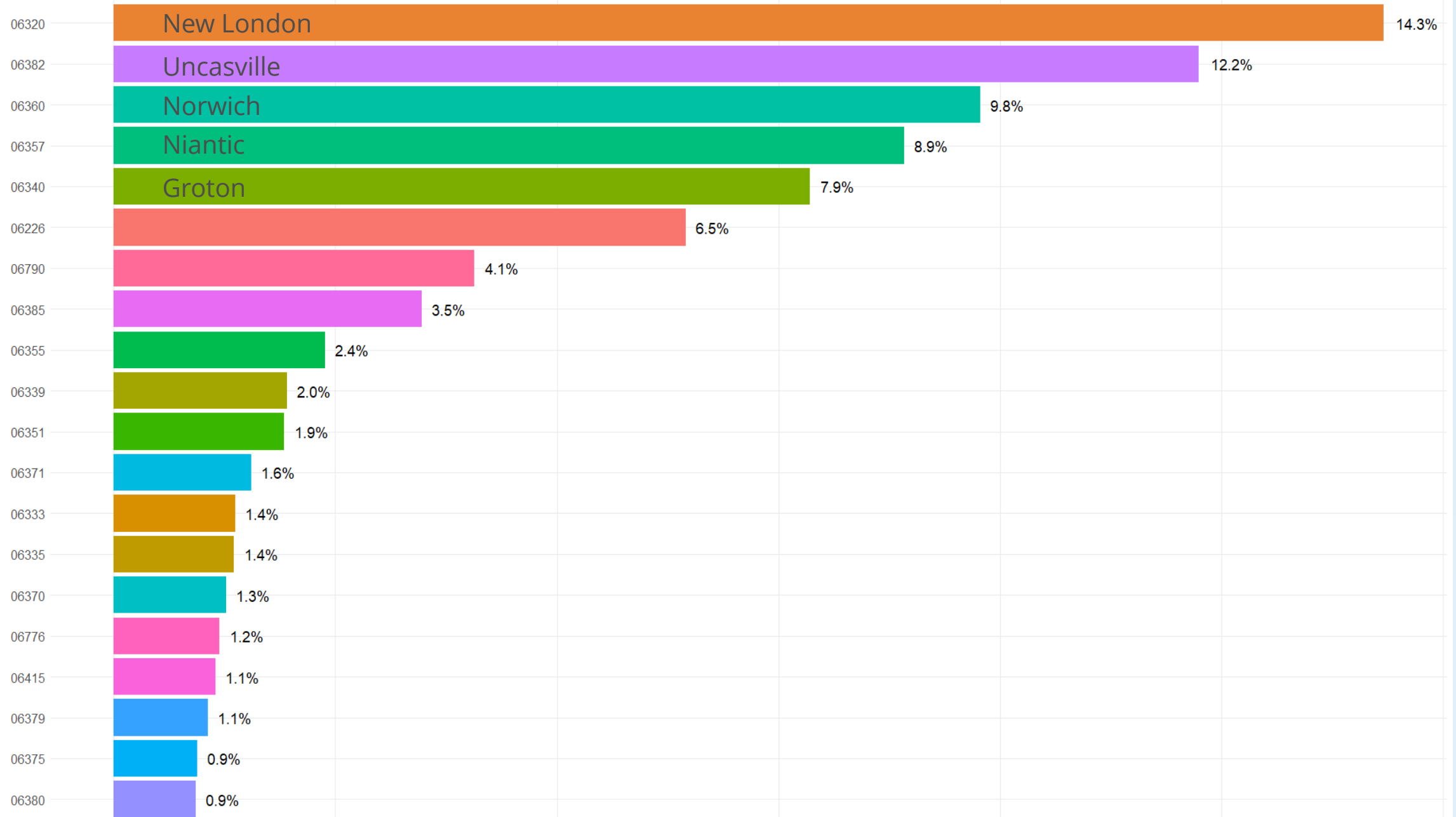
# Hartford TGA Ryan White Service Area: HIV Testing Events by Client's Top 20 Zip Codes, 2021

n = 13,515 (\*2,330 HIV tests missing client zip code information)



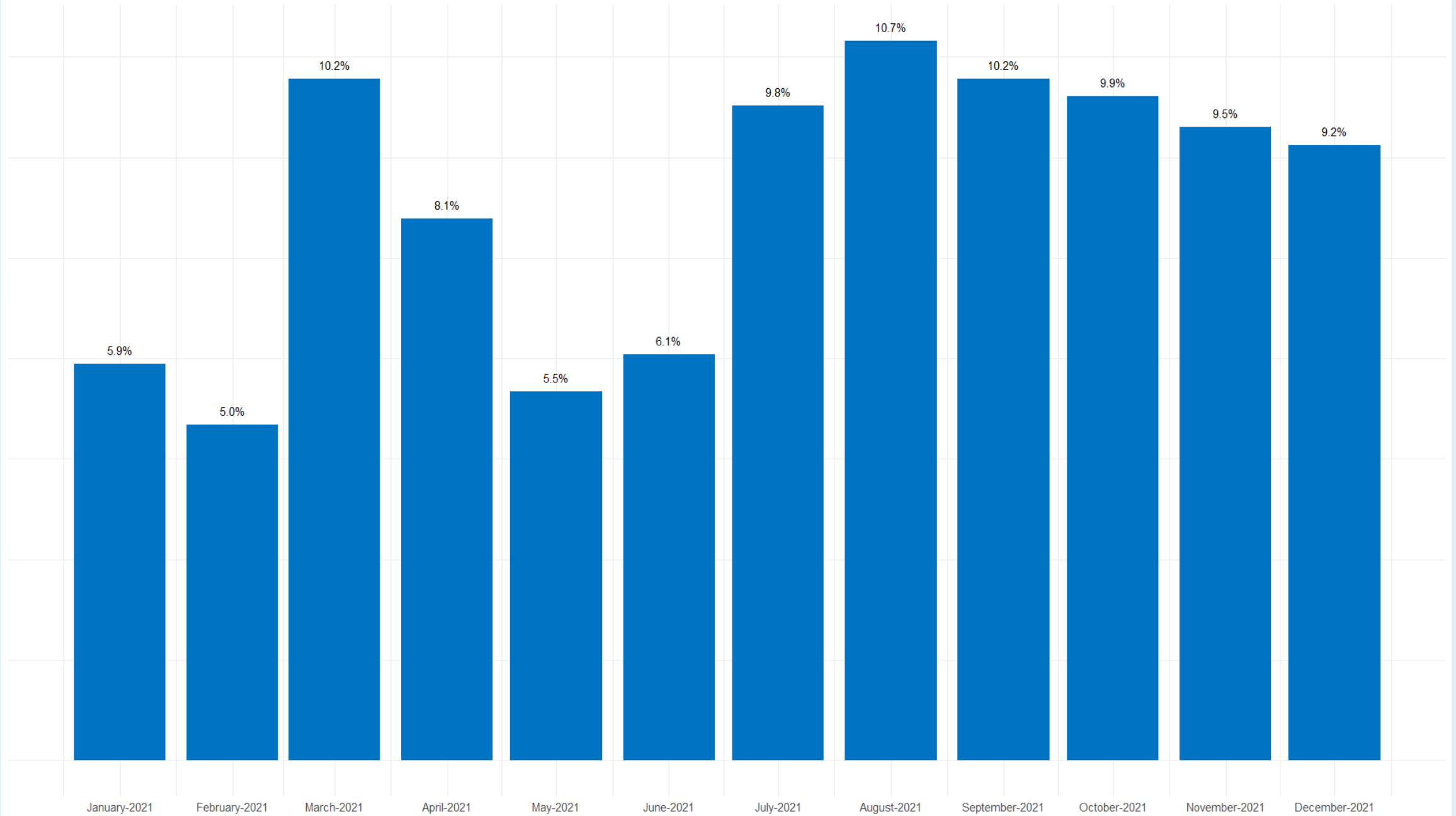
# Balance of State Ryan White Service Area: HIV Testing Events by Client's Top 20 Zip Codes, 2021

n = 6,706 (\*328 HIV tests missing client zip code information)



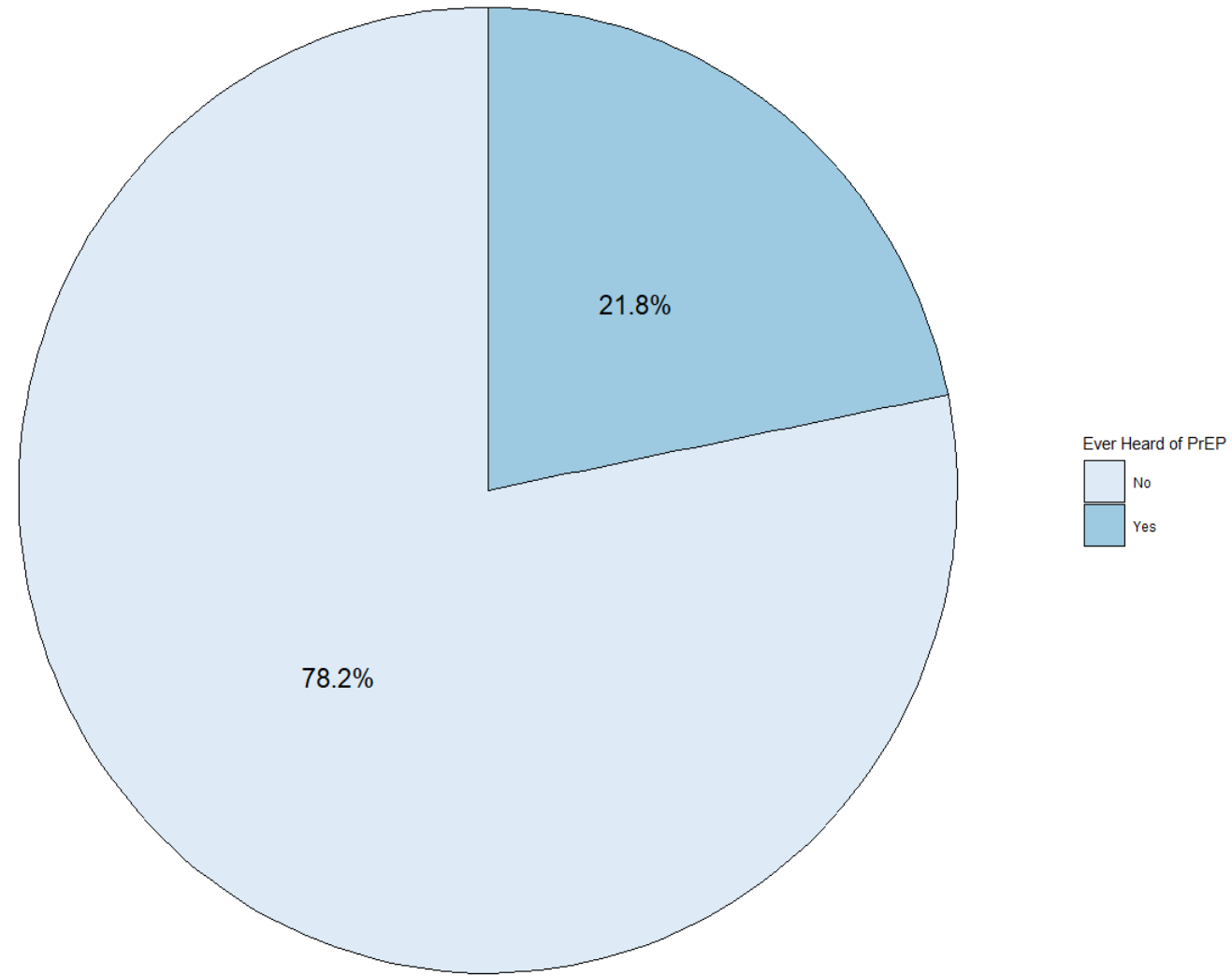
# CT DPH Funded HIV Testing Events by Month, 2021

N = 77,295



# CT DPH Funded HIV Testing Events by Ever Heard of PrEP

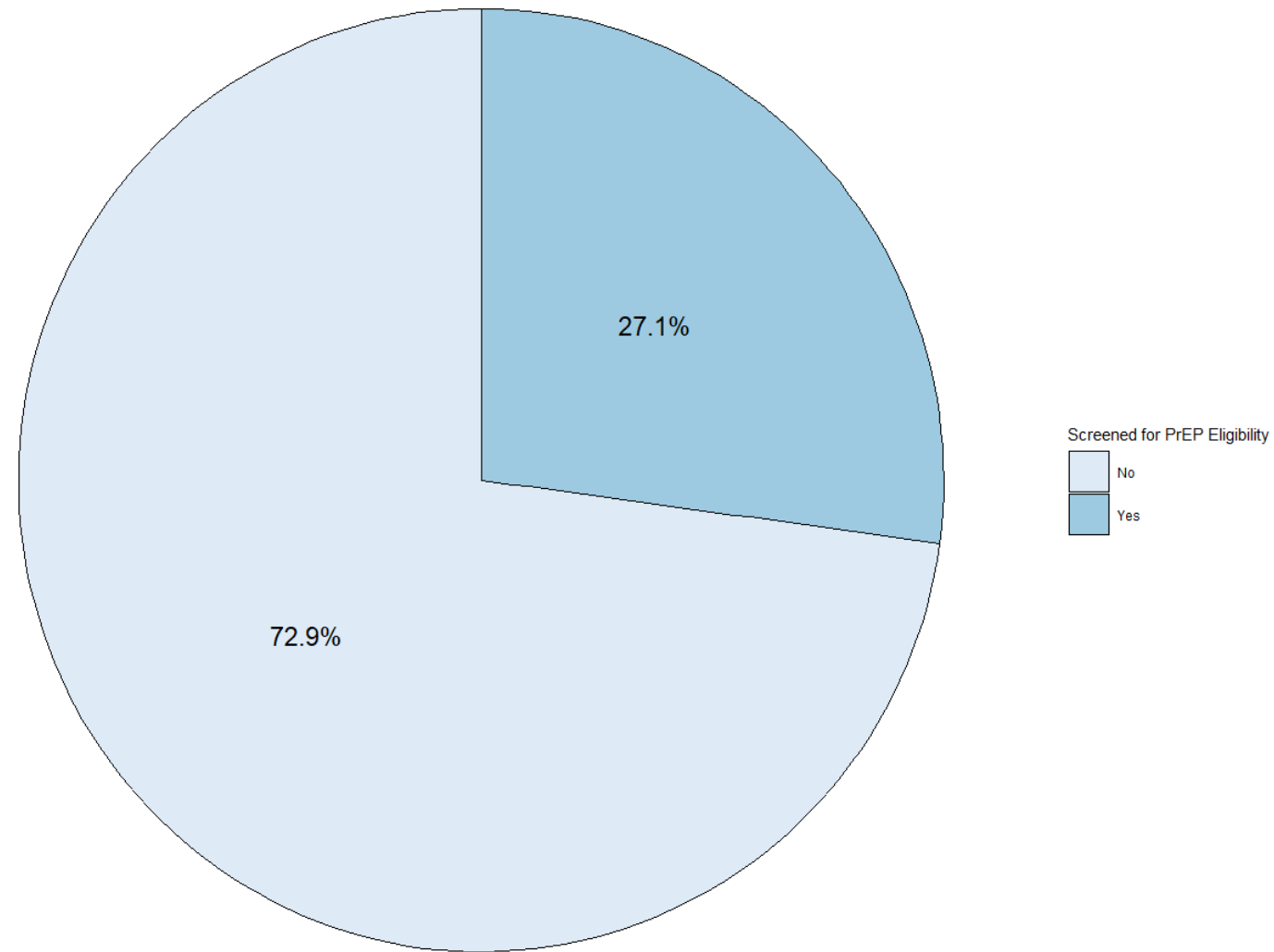
n = 14,018 (18.1% of all HIV testing events)





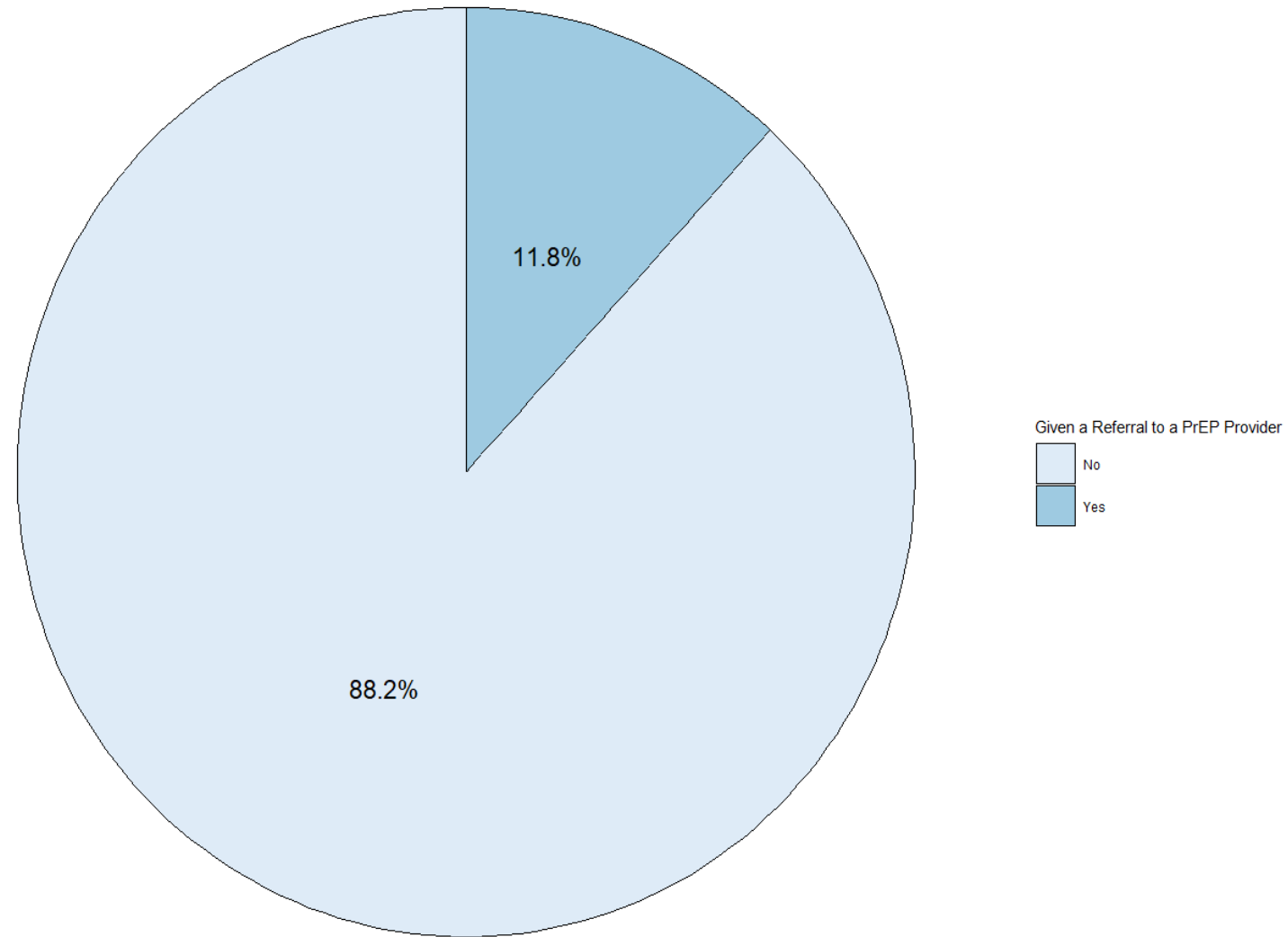
# CT DPH Funded HIV Testing Events by Screened for PrEP Eligibility

n = 14,177 (18.3% of all HIV testing events)



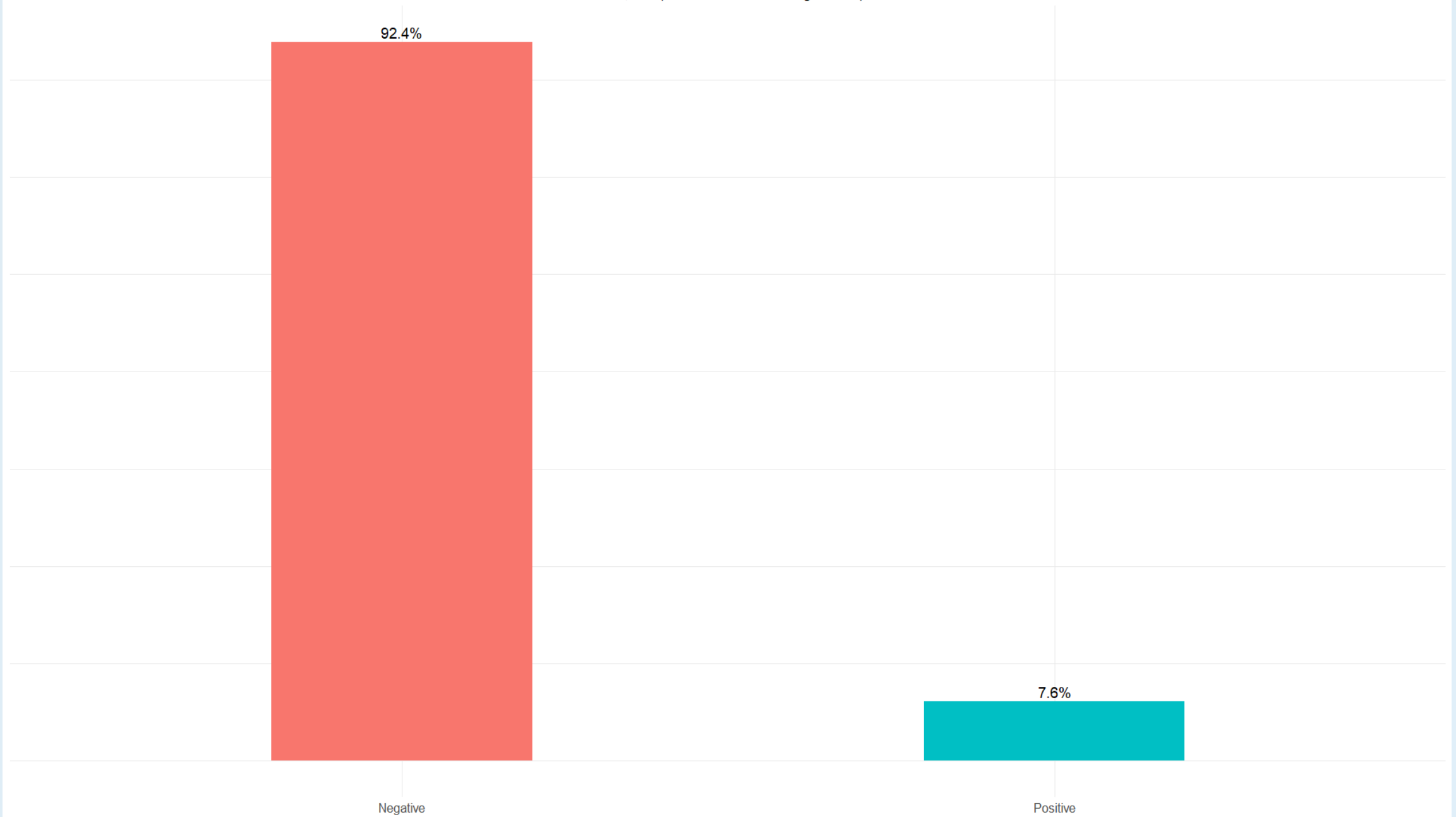
# CT DPH Funded HIV Testing Events by Given a Referral to a PrEP Provider

n = 14,168 (18.3% of all HIV testing events)



# CT DPH Funded HIV Testing Events by HCV Test Result, 2021

n = 4,235 (5.5% of all HIV testing events)

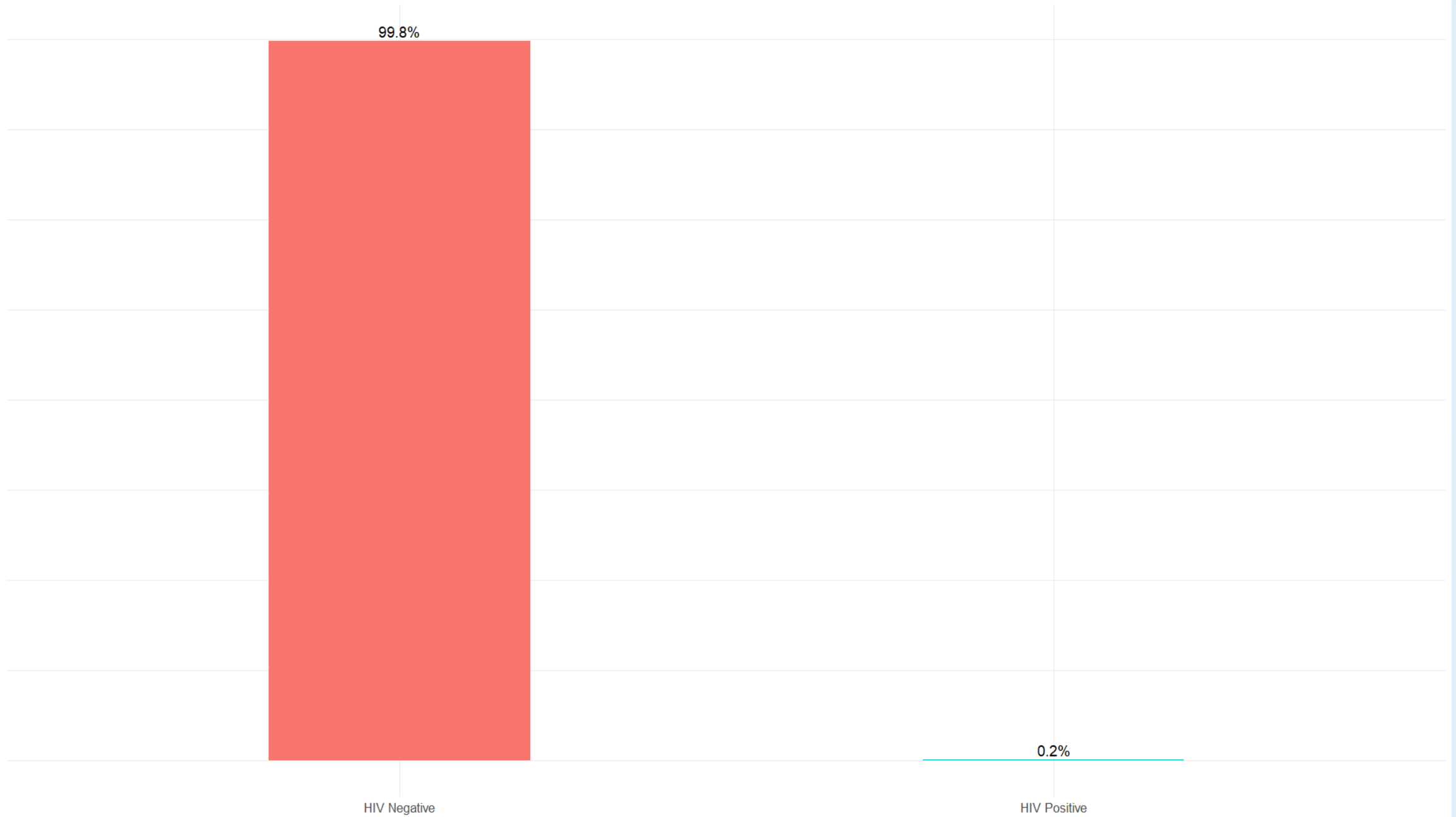


Negative

Positive

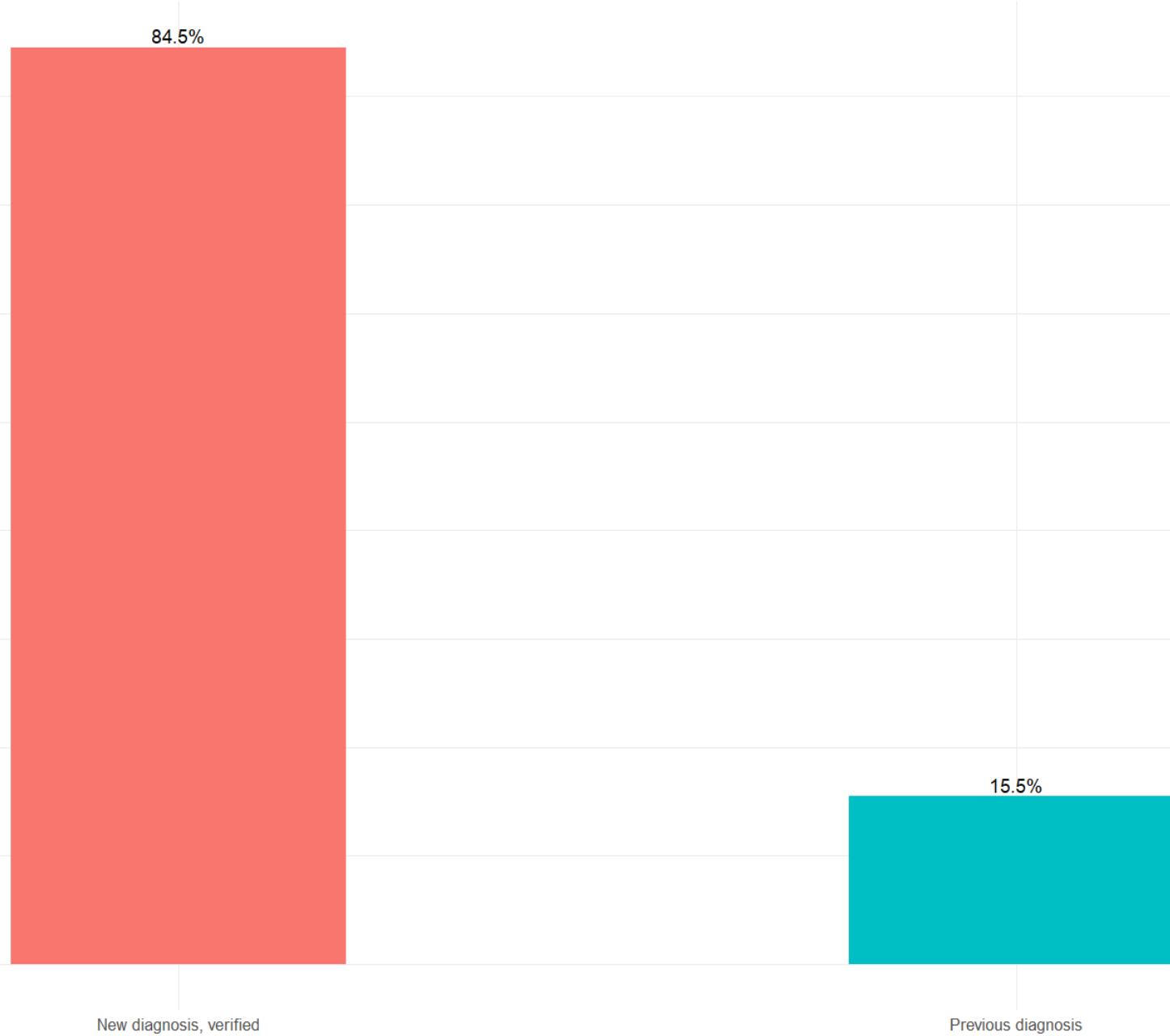
# CT DPH Funded HIV Testing Events by HIV Test Result, 2021

HIV Negative = 77,166   HIV Positive = 129

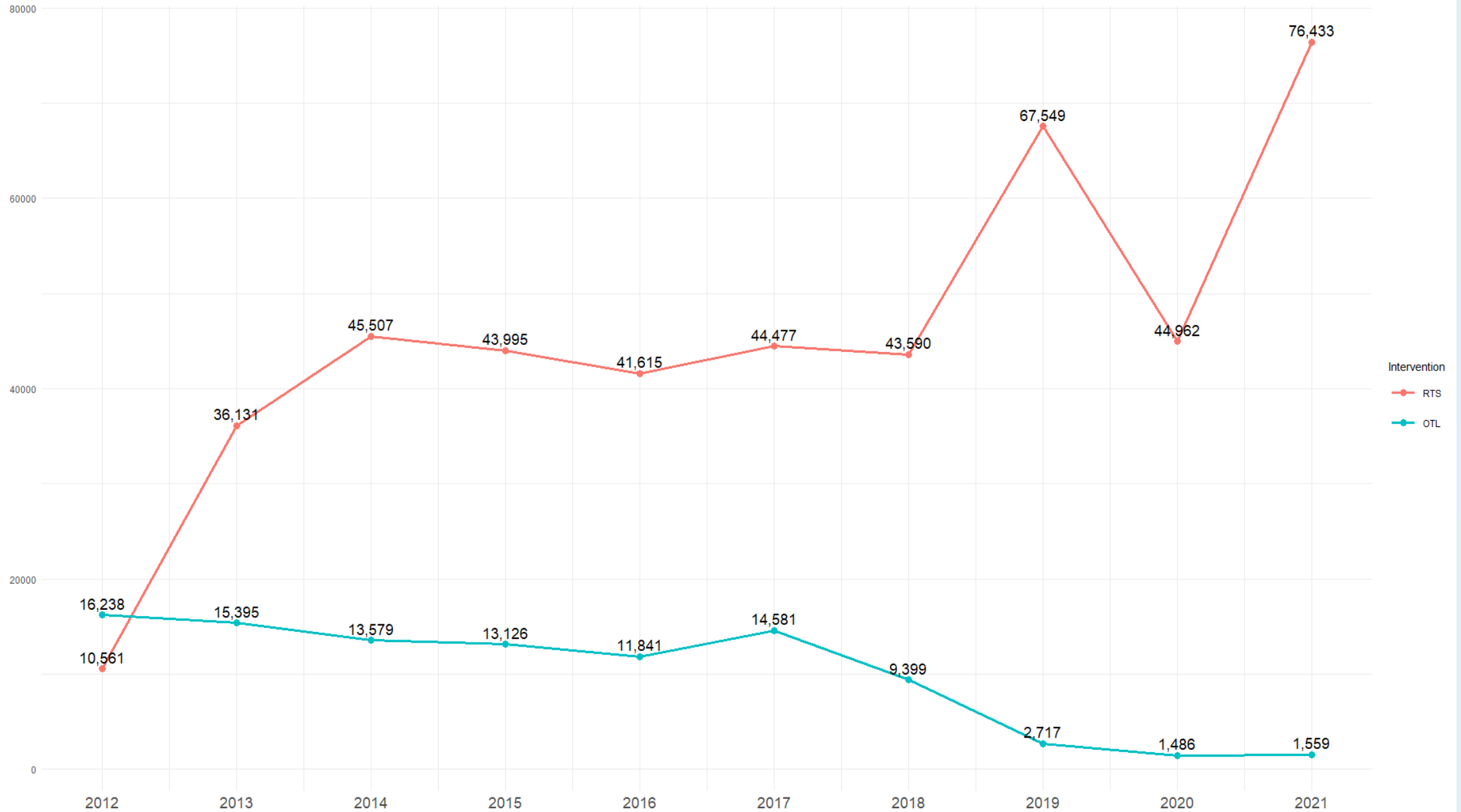


# CT DPH Funded HIV Testing Events by New or Previous HIV Diagnosis, 2021

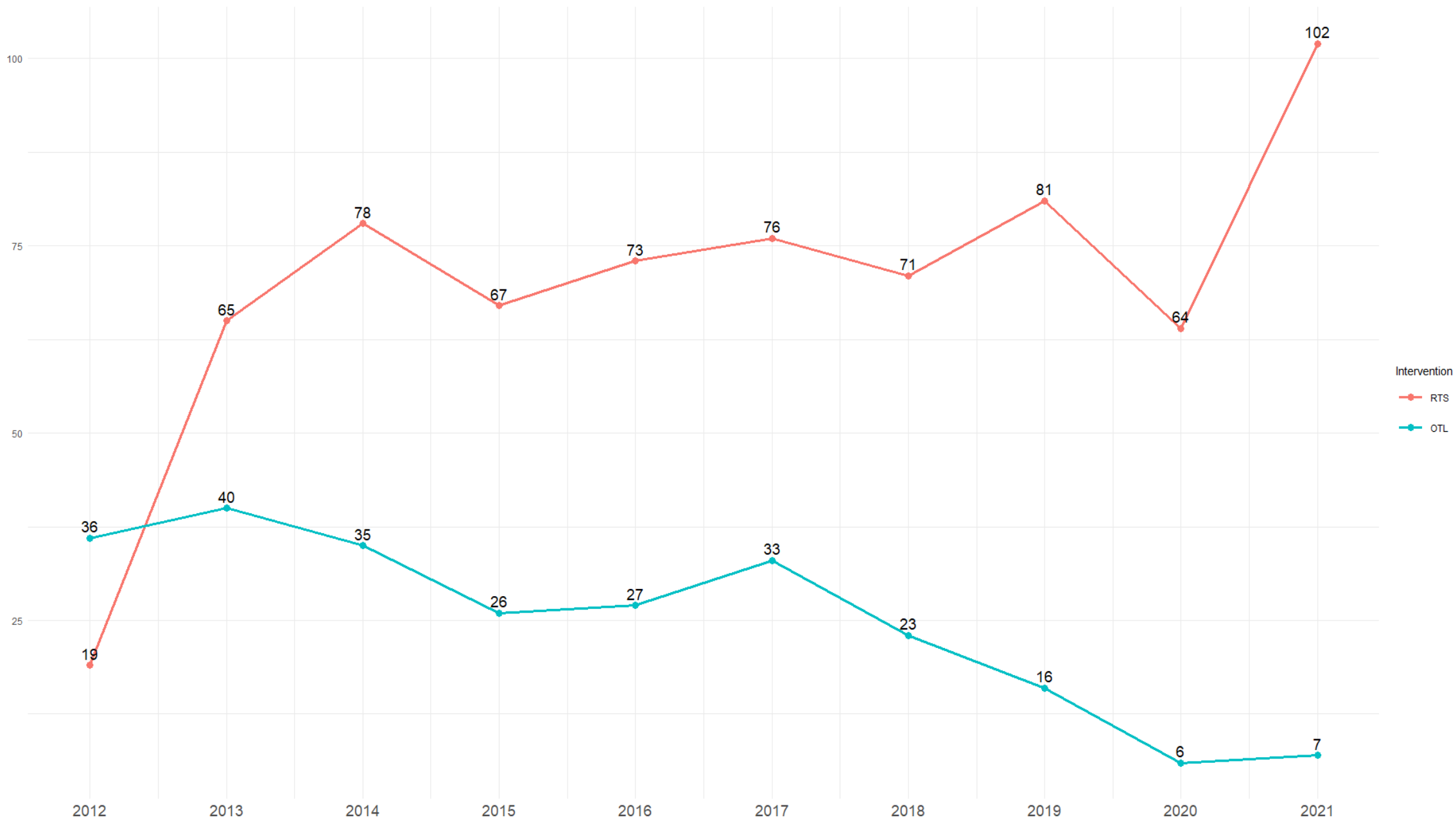
n = 129 (0.2% of all HIV testing events)



# Trend of CT DPH Funded HIV Testing Events, 2012-2021

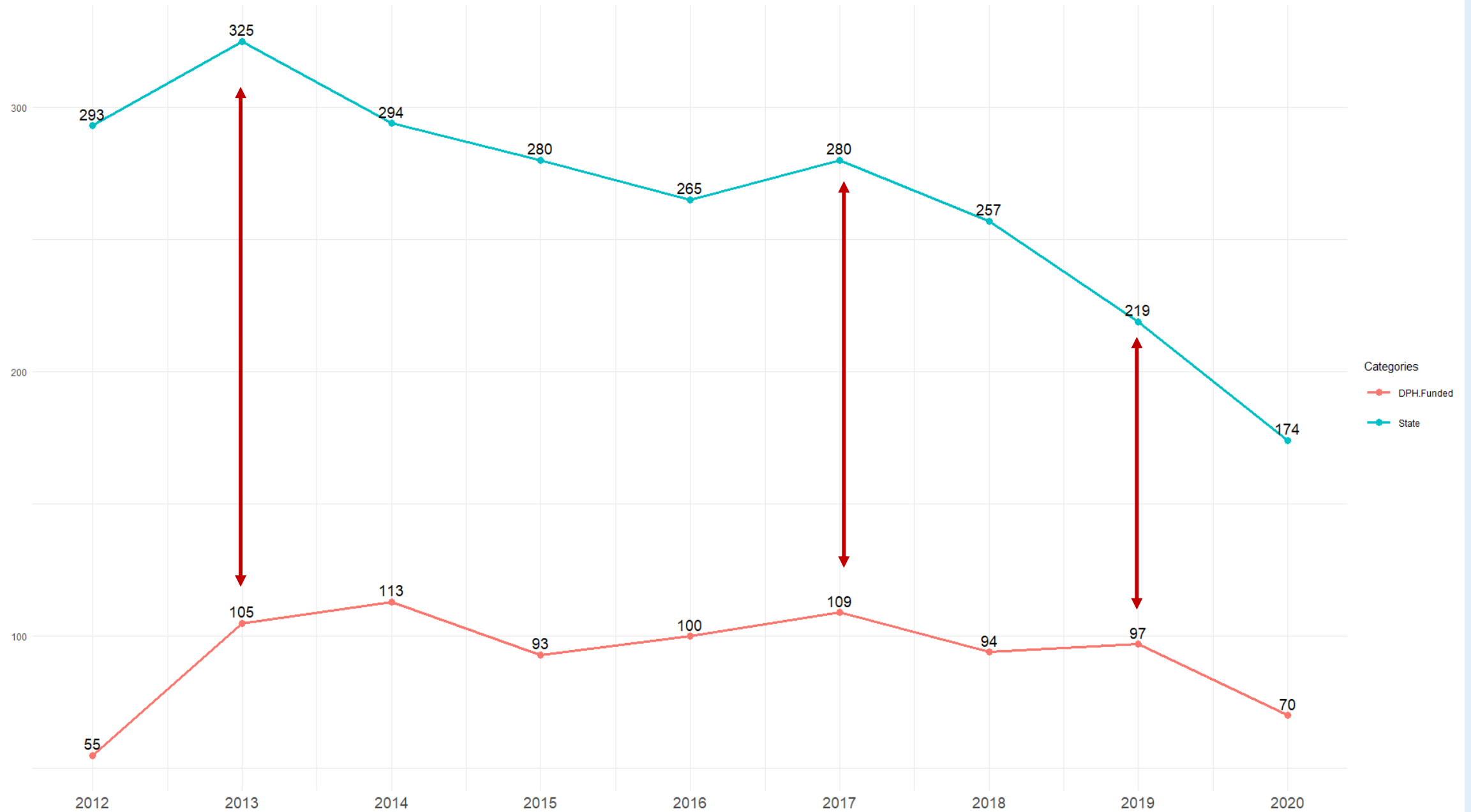


# Trend of CT DPH Funded HIV Newly Disgnosed Cases, 2012-2021



Data source: EvaluationWeb, 2021

# Trend of CT DPH Funded HIV Newly Diagnosed Cases Identified, 2012-2020





# 2021 HIV Newly Diagnosed Positives: Exploratory Data Analysis (EDA)

# HIV Newly Diagnosed Positives EDA (n = 109)

Variable	N = 109 <sup>1</sup>
<b>Race &amp; Ethnicity</b>	
Asian	3 (2.8%)
Black/African American	46 (42%)
Hispanic	36 (33%)
Multi-race	1 (0.9%)
Native Hawaiian or Pacific Islander	1 (0.9%)
White	22 (20%)
<b>Gender</b>	
Female	23 (21%)
Male	81 (74%)
Transgender FTM	1 (0.9%)
Transgender MTF	4 (3.7%)
<b>Age Range</b>	
13-19 Years	5 (4.6%)
20-29 Years	51 (47%)
30-39 Years	22 (20%)
40-49 Years	16 (15%)
Over 50 Years	15 (14%)

<b>Hep C Test Result</b>	
Negative	71 (93%)
Positive	5 (6.6%)
Unknown	33
<b>Priority Population</b>	
Heterosexual females	19 (17%)
Heterosexual males	9 (8.3%)
MSM	65 (60%)
MSM/IDU	1 (0.9%)
Population group unknown	4 (3.7%)
PWID	6 (5.5%)
Transgender	5 (4.6%)
<b>Client County</b>	
FAIRFIELD	32 (29%)
HARTFORD	17 (16%)
LITCHFIELD	3 (2.8%)
NEW HAVEN	52 (48%)
NEW LONDON	5 (4.6%)

<b>Ryan White Services Areas</b>	
Balance of State	8 (7.3%)
Hartford TGA	17 (16%)
New Haven EMA	84 (77%)
<b>Interviewed for PS</b>	
No	2 (1.8%)
Yes, by health department staff	107 (98%)
<b>Linked to MD Care</b>	
No	4 (3.7%)
Yes, confirmed	105 (96%)
<b>HIV Testing Intervention</b>	
OTL-Intervention	7 (6.4%)
RTS-Intervention	102 (94%)
<sup>1</sup> n (%)	

# 2021 Screened for PrEP: Exploratory Data Analysis

# Screened for PrEP Eligibility EDA (n = 14,177)

Variable	No, N = 10,330 <sup>†</sup>	Yes, N = 3,847 <sup>†</sup>
<b>Race &amp; Ethnicity</b>		
American Indian or Alaska Native	20 (62%)	12 (38%)
Asian	200 (65%)	107 (35%)
Black/African American	3,974 (81%)	946 (19%)
Declined to Answer	56 (49%)	58 (51%)
Don't Know	22 (36%)	39 (64%)
Hispanic	4,051 (77%)	1,217 (23%)
Multi-race	59 (58%)	43 (42%)
Native Hawaiian or Pacific Islander	5 (42%)	7 (58%)
White	1,943 (58%)	1,418 (42%)
<b>Gender</b>		
Another Gender	0 (0%)	73 (100%)
Female	4,455 (84%)	824 (16%)
Male	5,834 (70%)	2,547 (30%)
Transgender FTM	13 (7.7%)	155 (92%)
Transgender MTF	12 (5.4%)	209 (95%)
Transgender Unspecified	4 (11%)	34 (89%)
Unknown/Missing	12 (71%)	5 (29%)
<b>Age Range</b>		
13-19 Years	1,027 (83%)	204 (17%)
20-29 Years	2,439 (66%)	1,264 (34%)
30-39 Years	2,900 (73%)	1,061 (27%)
40-49 Years	1,831 (76%)	590 (24%)
Over 50 Years	2,133 (75%)	728 (25%)

Variable	No, N = 10,330 <sup>†</sup>	Yes, N = 3,847 <sup>†</sup>
<b>Priority Population</b>		
Heterosexual females	4,094 (89%)	503 (11%)
Heterosexual males	2,675 (82%)	601 (18%)
MSM	127 (11%)	1,068 (89%)
MSM/IDU	11 (16%)	57 (84%)
Population group unknown	2,797 (76%)	866 (24%)
PWID	597 (63%)	354 (37%)
Transgender	29 (6.8%)	398 (93%)
<b>Client County</b>		
FAIRFIELD	6,466 (83%)	1,305 (17%)
HARTFORD	1,362 (62%)	851 (38%)
LITCHFIELD	6 (8.8%)	62 (91%)
MIDDLESEX	11 (13%)	72 (87%)
NEW HAVEN	1,126 (46%)	1,310 (54%)
NEW LONDON	1,317 (92%)	107 (7.5%)
Non CT Residence	13 (20%)	53 (80%)
TOLLAND	8 (26%)	23 (74%)
WINDHAM	21 (25%)	64 (75%)
<b>Ryan White Services Areas</b>		
Balance of State	1,344 (85%)	233 (15%)
Hartford TGA	1,381 (59%)	946 (41%)
New Haven EMA	7,592 (74%)	2,615 (26%)
Non CT Residence	13 (20%)	53 (80%)
<sup>†</sup> n (%)		

# 2021 Ever Heard about PrEP: Exploratory Data Analysis

# Ever Heard of PrEP EDA (n = 14,018)

Variable	No, N = 10,957 <sup>†</sup>	Yes, N = 3,061 <sup>†</sup>
<b>Race &amp; Ethnicity</b>		
American Indian or Alaska Native	20 (71%)	8 (29%)
Asian	229 (75%)	75 (25%)
Black/African American	4,078 (84%)	773 (16%)
Declined to Answer	52 (49%)	55 (51%)
Don't Know	27 (46%)	32 (54%)
Hispanic	4,422 (85%)	783 (15%)
Multi-race	56 (55%)	46 (45%)
Native Hawaiian or Pacific Islander	6 (46%)	7 (54%)
White	2,067 (62%)	1,282 (38%)
<b>Gender</b>		
Another Gender	2 (2.7%)	71 (97%)
Female	4,708 (90%)	531 (10%)
Male	6,202 (75%)	2,056 (25%)
Transgender FTM	16 (9.5%)	152 (90%)
Transgender MTF	10 (4.4%)	215 (96%)
Transgender Unspecified	4 (11%)	34 (89%)
Unknown/Missing	15 (88%)	2 (12%)
<b>Age Range</b>		
13-19 Years	1,144 (93%)	91 (7.4%)
20-29 Years	2,578 (70%)	1,102 (30%)
30-39 Years	2,944 (76%)	940 (24%)
40-49 Years	1,912 (80%)	485 (20%)
Over 50 Years	2,379 (84%)	443 (16%)

Variable	No, N = 10,957 <sup>†</sup>	Yes, N = 3,061 <sup>†</sup>
<b>Priority Population</b>		
Heterosexual females	4,331 (93%)	305 (6.6%)
Heterosexual males	2,691 (82%)	604 (18%)
MSM	180 (14%)	1,088 (86%)
MSM/IDU	17 (24%)	53 (76%)
Population group unknown	3,112 (93%)	241 (7.2%)
PWID	596 (62%)	369 (38%)
Transgender	30 (7.0%)	401 (93%)
<b>Client County</b>		
FAIRFIELD	6,665 (88%)	887 (12%)
HARTFORD	1,629 (73%)	592 (27%)
LITCHFIELD	24 (34%)	46 (66%)
MIDDLESEX	21 (29%)	52 (71%)
NEW HAVEN	1,294 (52%)	1,203 (48%)
NEW LONDON	1,256 (87%)	180 (13%)
Non CT Residence	14 (22%)	51 (78%)
TOLLAND	11 (35%)	20 (65%)
WINDHAM	43 (59%)	30 (41%)
<b>Ryan White Services Areas</b>		
Balance of State	1,323 (84%)	256 (16%)
Hartford TGA	1,661 (71%)	664 (29%)
New Haven EMA	7,959 (79%)	2,090 (21%)
Non CT Residence	14 (22%)	51 (78%)

<sup>†</sup> n (%)

# 2021 Given a Referral to a PrEP Provider: Exploratory Data Analysis

# Given a Referral to a PrEP Provider EDA (n = 14,168)

Variable	No, N = 12,491 <sup>1</sup>	Yes, N = 1,677 <sup>1</sup>
<b>Race &amp; Ethnicity</b>		
American Indian or Alaska Native	30 (91%)	3 (9.1%)
Asian	262 (85%)	46 (15%)
Black/African American	4,586 (93%)	331 (6.7%)
Declined to Answer	89 (79%)	23 (21%)
Don't Know	36 (59%)	25 (41%)
Hispanic	4,825 (92%)	444 (8.4%)
Multi-race	90 (88%)	12 (12%)
Native Hawaiian or Pacific Islander	8 (67%)	4 (33%)
White	2,565 (76%)	789 (24%)
<b>Gender</b>		
Another Gender	5 (6.8%)	68 (93%)
Female	4,992 (95%)	284 (5.4%)
Male	7,388 (88%)	989 (12%)
Transgender FTM	41 (24%)	127 (76%)
Transgender MTF	38 (17%)	182 (83%)
Transgender Unspecified	11 (30%)	26 (70%)
Unknown/Missing	16 (94%)	1 (5.9%)
<b>Age Range</b>		
13-19 Years	1,172 (95%)	62 (5.0%)
20-29 Years	3,057 (83%)	640 (17%)
30-39 Years	3,500 (88%)	461 (12%)
40-49 Years	2,169 (90%)	249 (10%)
Over 50 Years	2,593 (91%)	265 (9.3%)

Variable	No, N = 12,491 <sup>1</sup>	Yes, N = 1,677 <sup>1</sup>
<b>Priority Population</b>		
Heterosexual females	4,425 (96%)	172 (3.7%)
Heterosexual males	3,139 (96%)	145 (4.4%)
MSM	583 (49%)	607 (51%)
MSM/IDU	27 (39%)	42 (61%)
Population group unknown	3,471 (95%)	179 (4.9%)
PWID	756 (79%)	197 (21%)
Transgender	90 (21%)	335 (79%)
<b>Client County</b>		
FAIRFIELD	7,308 (94%)	458 (5.9%)
HARTFORD	1,851 (84%)	354 (16%)
LITCHFIELD	39 (57%)	29 (43%)
MIDDLESEX	45 (54%)	38 (46%)
NEW HAVEN	1,746 (72%)	692 (28%)
NEW LONDON	1,381 (97%)	45 (3.2%)
Non CT Residence	32 (48%)	34 (52%)
TOLLAND	21 (68%)	10 (32%)
WINDHAM	68 (80%)	17 (20%)
<b>Ryan White Services Areas</b>		
Balance of State	1,488 (94%)	91 (5.8%)
Hartford TGA	1,917 (83%)	402 (17%)
New Haven EMA	9,054 (89%)	1,150 (11%)
Non CT Residence	32 (48%)	34 (52%)

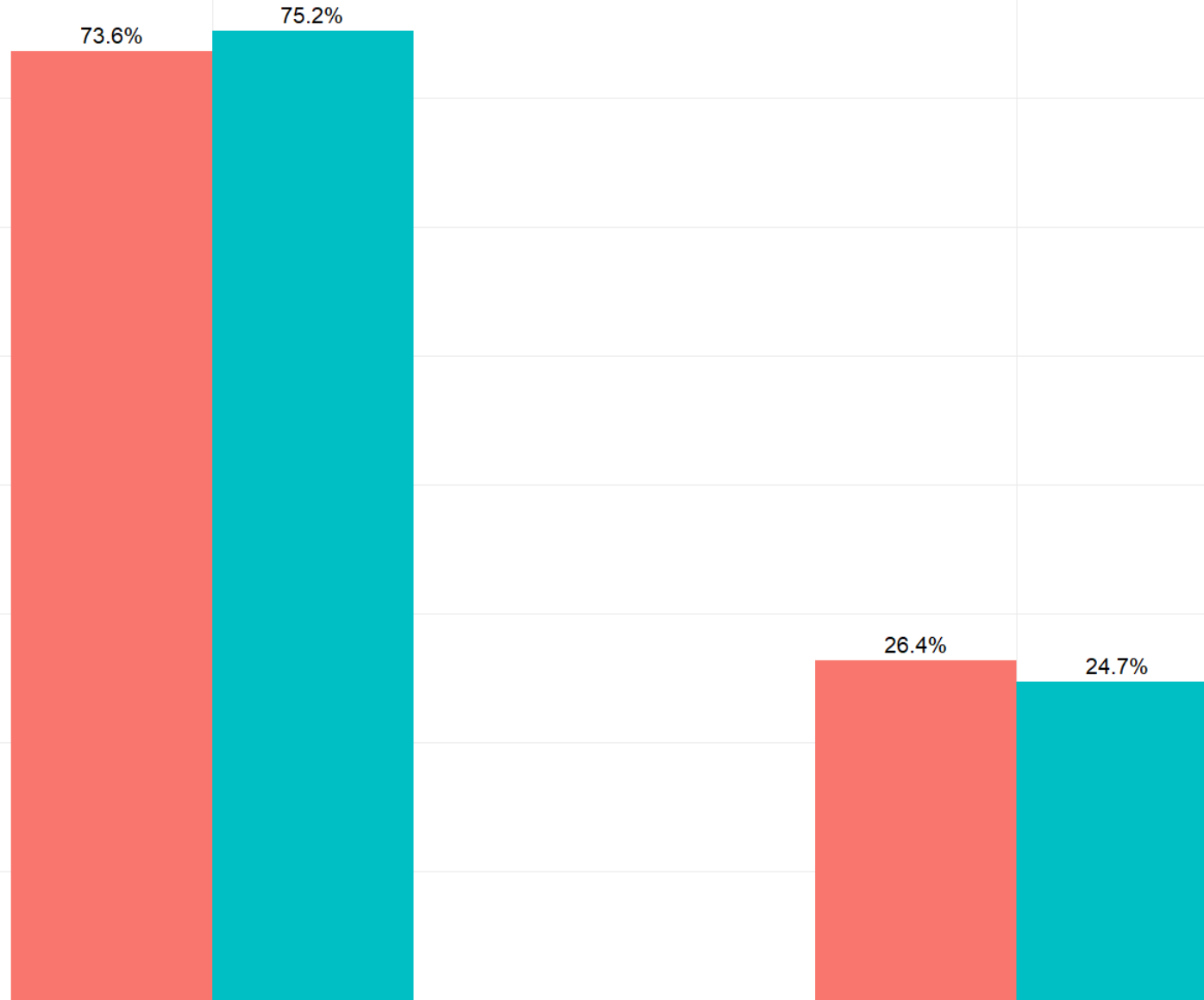
<sup>1</sup> n (%)



# Measuring how well CT DPH Funded 2021 HIV Newly Diagnosed observed data correspond to 2020 Statewide HIV Newly Diagnosed Distribution

# HIV Newly Diagnosed: Expected-Population (2020) and CT DPH Funded Observed-Sample (2021) by Gender

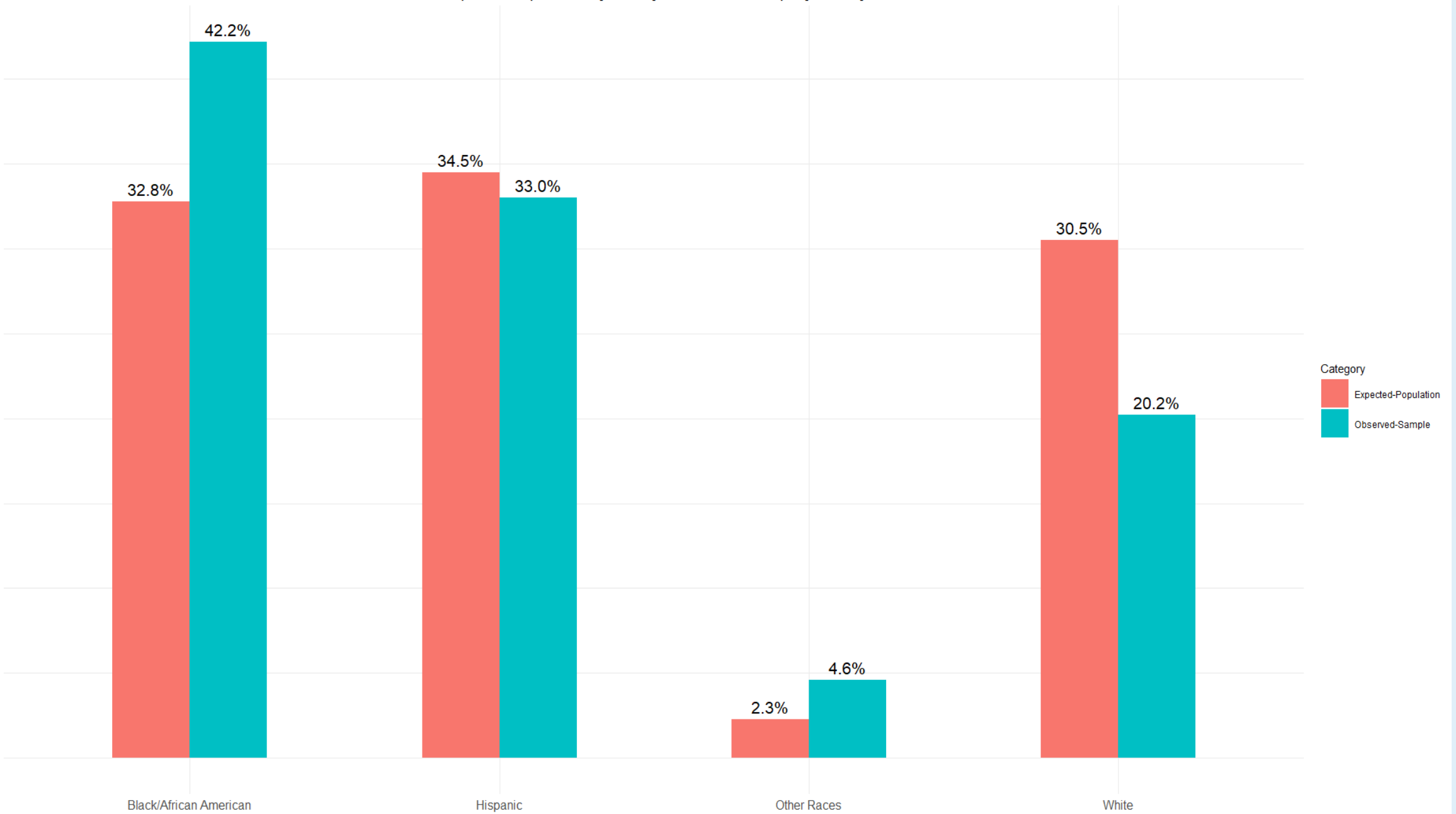
Expected-Population = [N= 174]    Observed-Sample [n = 109]



Category  
Expected-Population  
Observed-Sample

# HIV Newly Diagnosed: Expected-Population (2020) and CT DPH Funded Observed-Sample (2021) by Race/Ethnicity

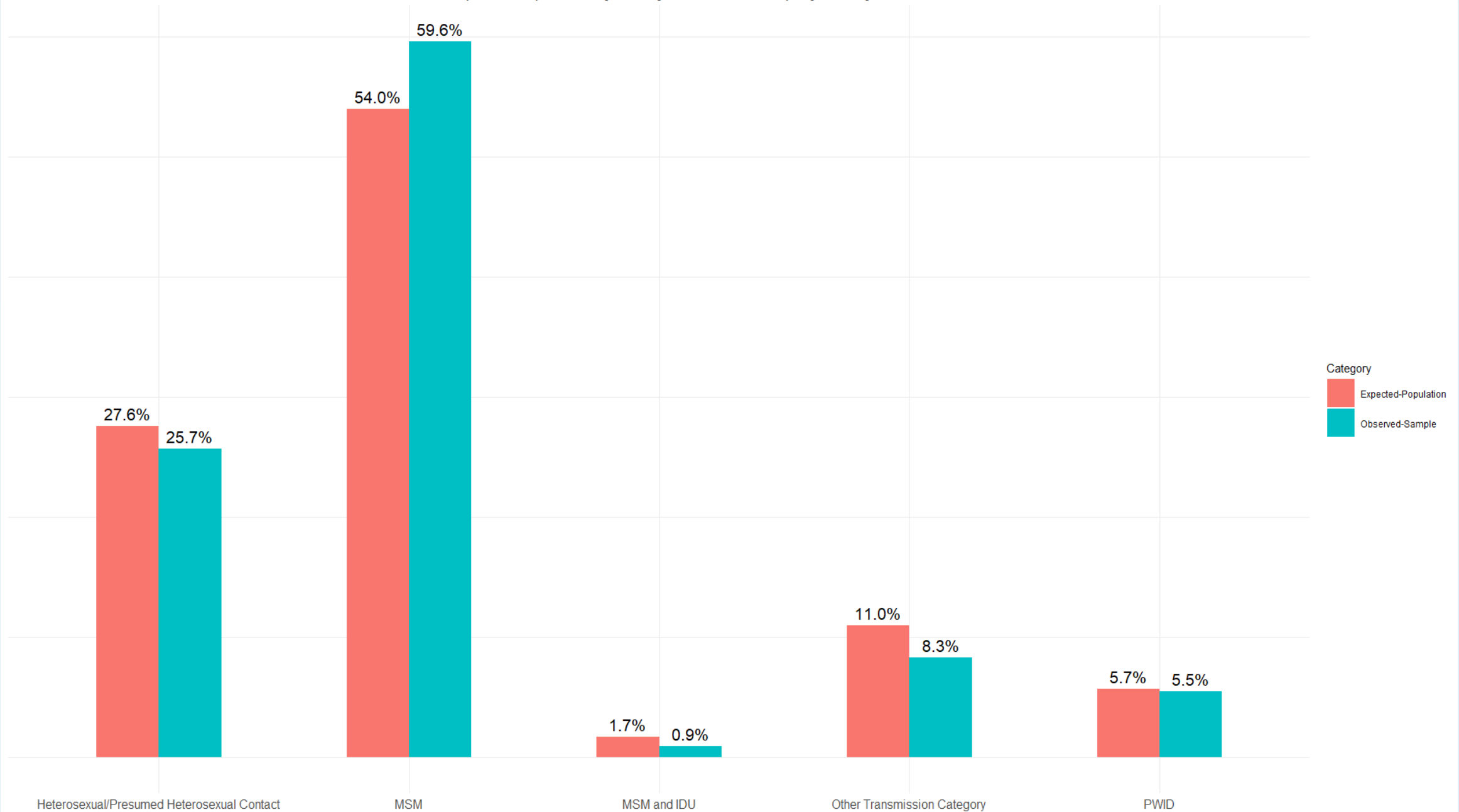
Expected-Population = [N= 174]    Observed-Sample [n = 109]



Data source: CT DPH HIV Surveillance, 2020; EvaluationWeb, 2021; p-value = 0.02

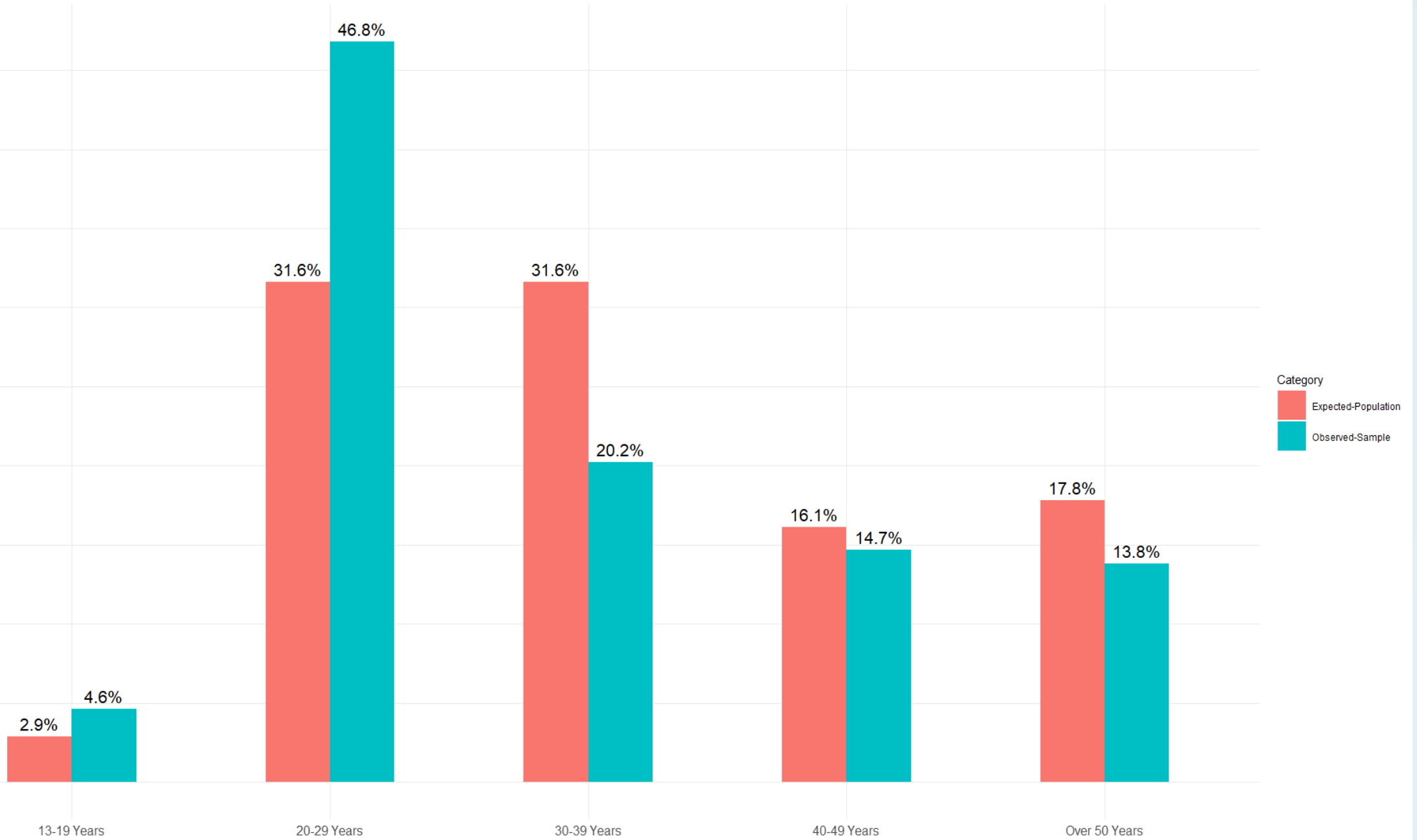
# HIV Newly Diagnosed: Expected-Population (2020) and CT DPH Funded Observed-Sample (2021) by Transmission Category (Priority Population)

Expected-Population = [N= 174]    Observed-Sample [n = 109]



# HIV Newly Diagnosed: Expected-Population (2020) and CT DPH Funded Observed-Sample (2021) by Age Group

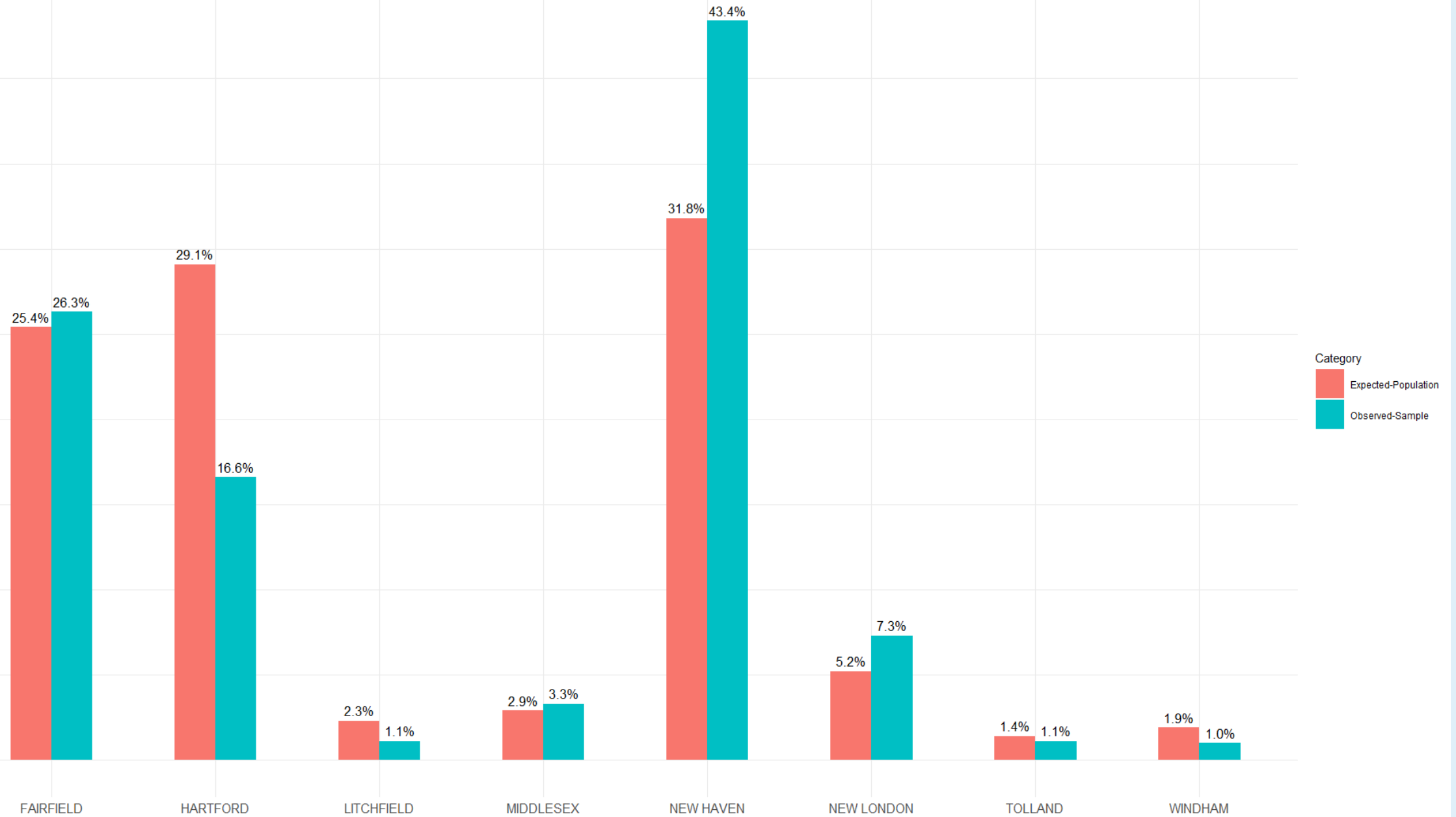
Expected-Population = [N= 174]    Observed-Sample [n = 109]



Measuring how well CT DPH Funded 2021 HIV testing events by county of residence observed data correspond to Connecticut 2020 PLWH population distribution

# PLWH in CT Expected-Population (2020) and CT DPH Funded HIV Tested Observed-Sample (2021) by County of Residence

Expected-Population = [N= 10,665]    Observed-Sample [N = 75,113]



Data source: CT DPH HIV Surveillance, 2020; EvaluationWeb, 2021; p-value < 0.00

# Conclusion

- HIV testing events do not represent all HIV testing conducted in the State of Connecticut.
- Almost all HIV testing events were conducted in a healthcare setting (i.e., 98%).
- Most of the people HIV tested were White (34.6%), Black (26.9%) and Hispanic (25.7%).
- About 6 in 10 (60.7%) people HIV tested were Females and almost 4 in 10 (38.1%) were Males.
- Age groups 20-29 years and 30-39 years had the largest proportion of people HIV tested at (31.9%) and (30.2%), respectively.



# Conclusion (Cont.)

- The largest proportion of HIV testing events conducted were among people who reside in New Haven and Fairfield counties (42.1% and 25.5%, respectively).
- One-in-six (16.2%) HIV testing events conducted were from people who reside in Hartford County.
- About 2 in 3 (67.7%) HIV testing events were conducted in the New Haven EMA, and 1 in 5 (20.5%) were conducted in the Hartford TGA.
- The months with the highest proportions of HIV testing events conducted were March (10.2%), August (10.7%) and September (10.2%).

# Conclusion (Cont.)

- **Out of the 109 HIV newly diagnosed cases identified:**
  - 3 in 4 (75%) were Black/AA (42%) or Hispanic (33%)
  - almost 1 in 2 (47%) 20-29 Years old
  - 6 in 10 (60%) were MSM
  - almost 1 in 2 (48%) reside in New Haven County
  - almost all were Interviewed for PS (98%) and linked to MD care (96%)
- 42% of White individuals, 19% of Black/AAs and 23% of Hispanic individuals **were screened for PrEP eligibility (n = 14,177).**
- 38% of White individuals, 16% of Black/AAs and 15% of Hispanic individuals **ever heard of PrEP (n = 14,018).**
- 24% of White individuals, 6.7% of Black/AAs and 8.4% of Hispanic individuals **were given a referral to a PrEP provider (n = 14,168).**

# Next Steps and Recommendations

- Opportunities for Integrated Plan activities
- Implement a PrEP Advisory Group for Black/ AA Women.  
**Led by Black Women with lived experience.**

## **Future RFP for HIV Prevention Services:**

- Regional Model
- Emphasis on Education, HIV & HCV Testing, PrEP Navigation and Harm Reduction

# The End

Thank you!