NEW YORK STATE | Department of Health | AIDS Institute

2025

New York State HIV/AIDS Syndemic Surveillance Report

Division of HIV Epidemiology, Evaluation and Partner Services
AIDS Institute
New York State Department of Health

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"A syndemics approach recognizes that diseases in a population occur neither independent of social and ecological conditions, nor in isolation from other diseases."

– Merill Singer

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1. Executive Summary

The *New York State HIV/AIDS Syndemic Surveillance Report* provides a comprehensive overview of the epidemiologic indicators shaping HIV, STI, and hepatitis C co-infection patterns across New York State, outside of New York City. Building on the state's longstanding HIV surveillance infrastructure, this report introduces an integrated analytic approach that examines co-occurring infections and clinical characteristics to support more coordinated prevention and care strategies.

Since the initiatation of the End the HIV/AIDS Epidemic in 2014, New York State has made significant progress in reducing new HIV diagnoses, expanding access to treatment, and strengthening linkage to care. As part of this ongoing effort, the AIDS Institute developed this report to consolidate and analyze statewide data on HIV and related infectious diseases using a syndemic lens. This framework recognizes that HIV does not occur in isolation, but often intersects with other infections that influence transmission dynamics, clinical outcomes, and service needs.

Drawing on multiple surveillance systems, including HIV, STI, and hepatitis C case registries, this report summarizes demographic, geographic, and clinical characteristics of persons newly diagnosed with HIV in 2024. Quantitative analyses highlight co-infection patterns, care outcomes, and regional variation, offering a more complete picture of the infectious disease landscape across the state.

Findings demonstrate that HIV co-infections, particularly with STIs and hepatitis C, continue to play a meaningful role in shaping health outcomes due to their shared transmission pathways. Monitoring these intersections provides critical insight into evolving trends, supports targeted prevention strategies, and helps guide program planning and resource allocation.

By integrating these data sources and applying a syndemic framework to quantitative surveillance, New York State strengthens its ability to identify emerging patterns, understand co-occurring infectious disease burdens, and support evidence-based decision-making. This report reflects the AIDS Institute's ongoing commitment to data-driven strategies that advance public health and contribute to the long-term goal of ending the HIV epidemic.

2. Introduction

2.1 Overview

The New York State HIV/AIDS Syndemic Surveillance Report presents findings from the first statewide effort outside of New York City to integrate surveillance data across multiple overlapping infectious diseases and other health conditions that influence HIV outcomes. This report provides a descriptive summary of HIV and related co-infections, including sexually transmitted infections (STIs) and hepatitis C, using surveillance data. It is produced by the Division of HIV Epidemiology, Evaluation, and Partner Services within the AIDS Institute at the New York State Department of Health. The purpose of this report is to enhance understanding of the epidemiologic intersections between HIV and other infectious diseases and support coordinated prevention and care strategies across the state.

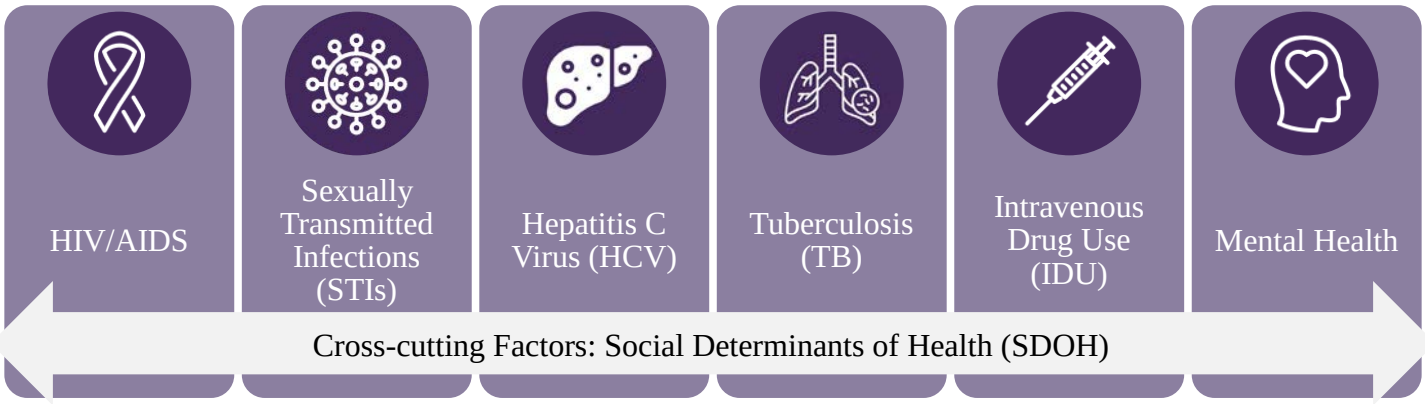
Purpose and Scope

This inaugural report introduces a syndemic framework as an organizing structure for analysis of HIV surveillance in New York State. The syndemic framework recognizes that HIV frequently intersects with other infectious diseases, and that these co-occurring conditions can influence transmission, clinical presentation, and care outcomes. While the annual New York State HIV/AIDS Surveillance Report focuses on HIV alone, this report expands the analytic scope to include selected co-infections and their patterns across regions and populations.

The report is organized to present the following:

1. Integrated analysis of HIV and co-infection (STI and hepatitis C) surveillance data;
2. Descriptive trends in co-occurring diagnoses and syndemic clustering; and
3. Quantitative characterization of demographic, geographic, and clinical patterns among persons newly diagnosed with HIV.

These findings are intended to inform prevention efforts, guide program planning, and strengthen New York State's capacity to monitor and respond to health conditions intersecting with social determinants of health.



3. Data Sources and Methodology

3.1 Data Sources

This report integrates four types of data from separate sources: HIV surveillance data, STI diagnosis records, hepatitis C exposure data, and measures of social health from the American Community Survey. Descriptions of the individual data sources and their use in this report are detailed below. This report only includes individuals who resided in New York State outside of New York City.

HIV Surveillance Data

The New York State HIV Surveillance System is maintained by the Bureau of HIV/AIDS Epidemiology. The system houses HIV laboratory results for individuals who reside or receive HIV-related care within the state. The system also contains demographic information on individuals living with HIV, such as race/ethnicity, age, and birth sex. Data was used to determine the scope of the epidemic and HIV-related care outcomes including viral load suppression among individuals living with HIV.

Sexually Transmitted Infection Surveillance Data

The New York State Department of Health's Office of Sexual Health and Epidemiology maintains records of STI diagnoses for individuals who resided in New York State outside of New York City at the time of their diagnosis. Suspected cases of chlamydia and gonorrhea are confirmed via PCR (polymerase chain reaction). A confirmed diagnosis of syphilis is defined as the patient having signs or symptoms consistent with the stage of syphilis (early and late) and laboratory test results (e.g., serology) that indicates the presence of Treponema pallidum. Laboratory confirmed diagnoses of chlamydia, gonorrhea, early syphilis, and late syphilis are matched to the New York State HIV Surveillance System for individuals living with HIV.

Hepatitis Elimination & Epidemiology Data

The New York Hepatitis Elimination and Epidemiology Dataset is a dataset containing laboratory reports of positive hepatitis C antibody tests, positive and negative hepatitis C RNA/genotype tests, and demographic information for New York State residents. The dataset is maintained by the New York State Department of Health, Office of Hepatitis Healthcare and Epidemiology and consists of data from both the New York State Department of Health and the New York City Department of Health and Mental Hygiene (New York City residents were not included in the current analysis). A positive hepatitis C antibody result indicates that an individual has ever been infected with hepatitis C, while a positive hepatitis C RNA or genotype test indicates that the individual is currently infected and confirms a diagnosis of hepatitis C.

American Community Survey Data

The American Community Survey collects information on a wide variety of topics from people around the country. This includes estimates of poverty, insurance coverage, employment rates, and other valuable

information on social determinants of health that provide insight into the well-being of people within a geographic area. To improve the accuracy of the estimates, the measures are calculated using a rolling five-year period.

3.2 Analytical Methods

3.2.1 Quantitative: Descriptive Analysis of HIV, STI, and Hepatitis C Surveillance Data

Data from the New York State HIV Surveillance System was used to identify individuals living with diagnosed HIV in New York State outside of New York City in 2024, as well as individuals newly diagnosed with HIV in 2024. Individuals were counted as living with HIV in New York State based on their last known address of residence in 2024. Only those who received care within the past five years (if diagnosed with AIDS), or within the past eight years (if diagnosed with HIV) were retained for analysis. Individuals were counted as newly diagnosed with HIV if they resided in New York State outside of New York City at the time of diagnosis.

Demographic data, including current gender, race/ethnicity, age group, region of residence at diagnosis in 2024, and HIV transmission risk group, were used to characterize individuals. HIV care and treatment outcomes were calculated using laboratory reports in the surveillance system for individuals aged 13 and older. For people living with diagnosed HIV, this report used measures including receipt of HIV care in 2024, viral suppression at the last viral load test in 2024, and sustained viral suppression for at least two years as of 2024. Analyses of sustained suppression were restricted to individuals who were living with diagnosed HIV in New York State since 2021 and were at least 13 years old in 2021. For individuals newly diagnosed with HIV, this report used measures including linkage to HIV care within 30 days of diagnosis and viral suppression within 91 days of diagnosis.

This report uses the American Community Survey's 2023 5-year estimates of percent living in poverty and percent unemployed at the zip code level. These measures were matched to individuals living with diagnosed HIV based on their zip code of residence in 2024. The percent living in poverty and percent unemployed were categorized into four groups based on distribution among the population of people living with diagnosed HIV in New York State. These data showed relative deprivation levels in the places where individuals resided and served as a proxy measure of the impact of these social determinants of health.

STI Co-infection Analysis

Records of confirmed diagnoses of gonorrhea, chlamydia, early syphilis, or late syphilis were matched to the HIV surveillance system using SAS DataFlux (SAS Institute Inc. Cary, North Carolina). This analysis included people living with diagnosed HIV in New York State outside of New York City in 2024 who received an STI diagnosis in 2024. Individuals who only had an STI diagnosis prior to 2024 were not counted as having an STI diagnosis. Individuals were only counted once, regardless of whether they had more than one STI diagnosis in 2024. The percentages of individuals living with HIV who were diagnosed with any STI, and with specific STIs, from 2017-2024 were calculated to identify trends in the prevalence of STI diagnoses. Among individuals newly diagnosed with HIV in 2024, we assessed differences in linkage to HIV care within 30 days of diagnosis and viral suppression within 91 days of diagnosis. The analysis was stratified by whether individuals were diagnosed with an STI in 2024 at or after their HIV diagnosis.

Hepatitis Co-infection Analysis

Laboratory reports of positive hepatitis C antibody, RNA, and genotype tests from the Hepatitis Elimination and Epidemiology Dataset were matched to the HIV surveillance registry using SAS DataFlux (SAS Institute Inc. Cary, North Carolina). This analysis included people living with diagnosed HIV in New York State outside of New York City in 2024. Individuals were defined as having evidence of a hepatitis C co-infection if they had a positive antibody or RNA/genotype test after or at the same time as their HIV diagnosis. Individuals were only counted once, regardless of whether they had multiple positive hepatitis C tests. Demographic factors and HIV health outcomes were stratified by evidence of hepatitis C infection. At the time of this analysis, laboratory data indicating evidence of hepatitis C infection was not available for 2024.

Data Limitations

The analyses in this report are subject to the following limitations. STI diagnoses among people living with diagnosed HIV were limited to people living in geographic areas outside of New York City; New York City maintains a standalone STI surveillance system and the data were unavailable for these analyses at the time of publication. Likewise, hepatitis C testing records were only included for people living outside of New York City.

Due to the timing of the HIV/hepatitis C data match, analyses could not be conducted among individuals newly diagnosed with HIV in 2024 who received a hepatitis C. diagnosis after their HIV diagnoses. Data from the American Community Survey was not available at the individual level, but as an average in each zip code. Values of variables taken from these data were assigned according to a person's last known zip code of residence in 2024.

4. Syndemic Trends and Findings

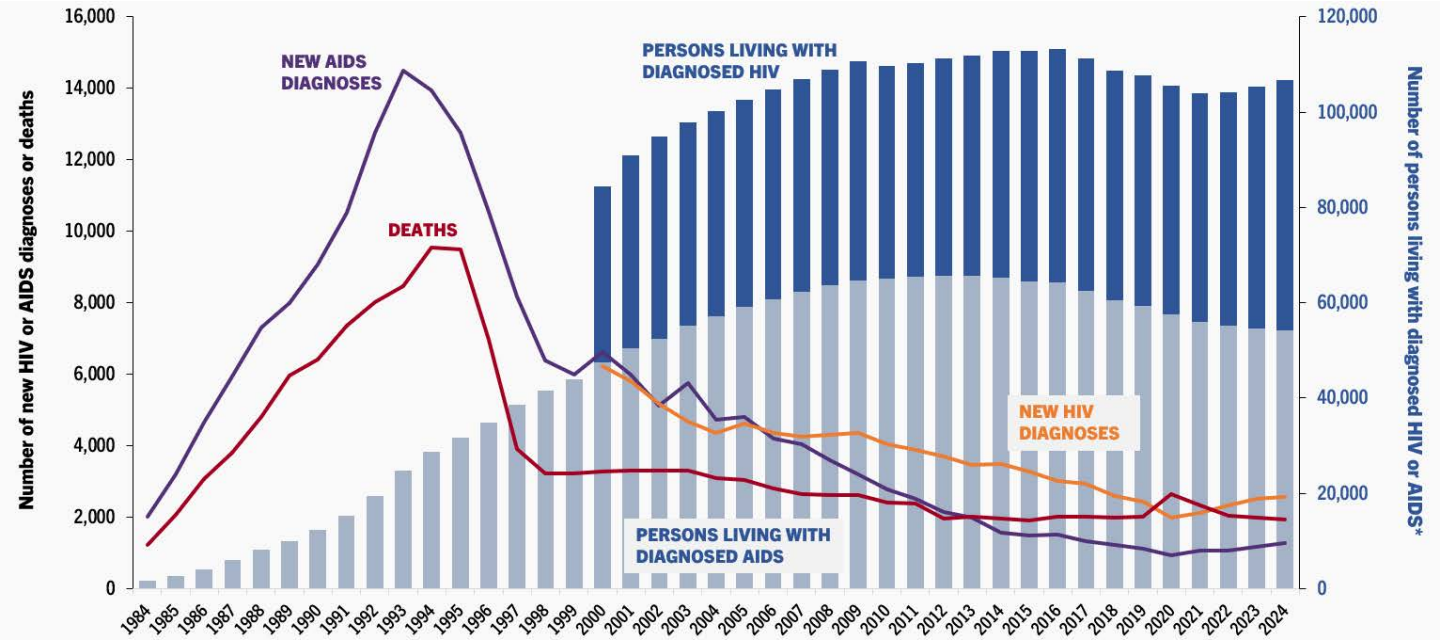
4.1 HIV/AIDS Epidemiology in New York State

Since the peak of New York State's HIV epidemic in the early 1990s, the number of persons newly diagnosed with HIV and the number of deaths among persons with diagnosed HIV have declined dramatically, while linkage to care and rates of viral suppression have steadily increased.

The impact of the introduction of protease inhibitors and non-nucleoside reverse transcriptase inhibitors (NNRTIs), in the mid-1990s, can be seen clearly in the graph below (Figure 1.). Together these are referred to as HAART – highly active antiretroviral therapy. In 2000 New York State's HIV reporting law took effect. In 2014, the Governor of New York State outlined the Ending the Epidemic (ETE) initiative, a plan to end the AIDS epidemic in New York State. As part of the three-point plan, increased efforts are being directed towards: 1) identifying persons with HIV who remain undiagnosed and linking them to care; 2) linking and retaining in healthcare persons diagnosed with HIV to maximize viral suppression; and 3) increasing access to Pre-Exposure Prophylaxis (PrEP) for persons who are at risk for acquiring HIV.

The steady progress in combatting the HIV epidemic since the introduction of highly active antiretroviral therapy and the ETE initiative has stalled somewhat after COVID-19 with some increases in new diagnoses in the last few years. As of December 31, 2024 there were over 100,000 people living with diagnosed HIV in New York State.

Figure 1. History of the HIV epidemic in New York State from 1984 - 2024

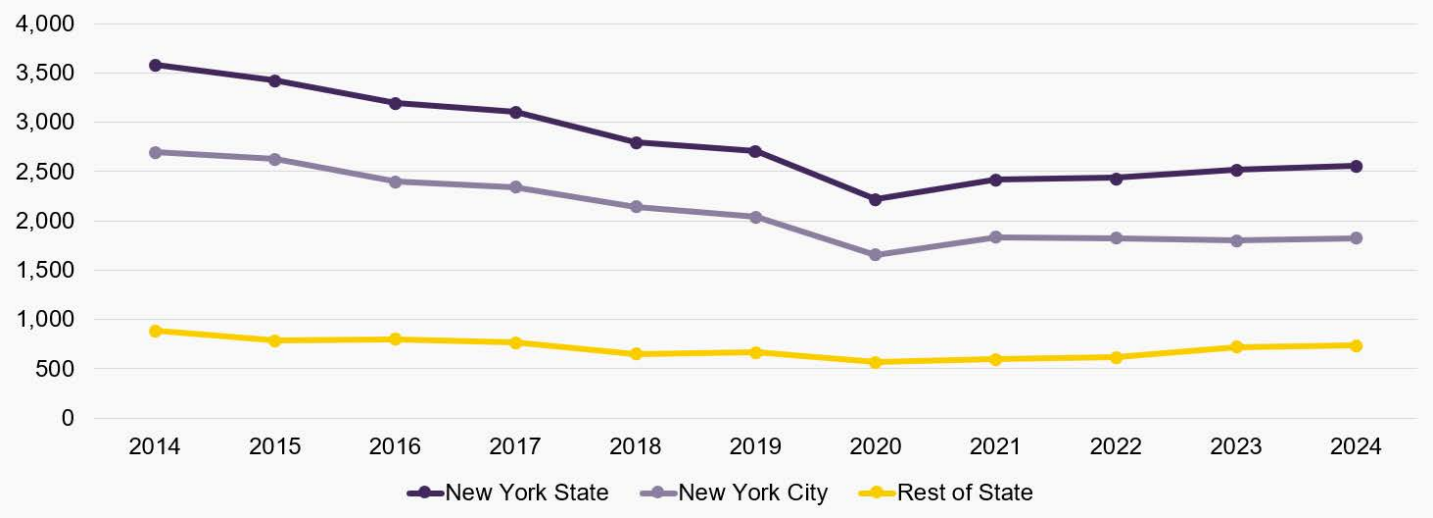


*Excludes persons diagnosed with AIDS with no evidence of care for 5 years and persons with diagnosed HIV (non-AIDS) with no evidence of care for 8 years.

The population of people recently diagnosed with HIV was composed predominantly of males in their 20's and 30's, with male-to-male sexual contact as the primary transmission risk, and Hispanic and non-Hispanic Black populations.

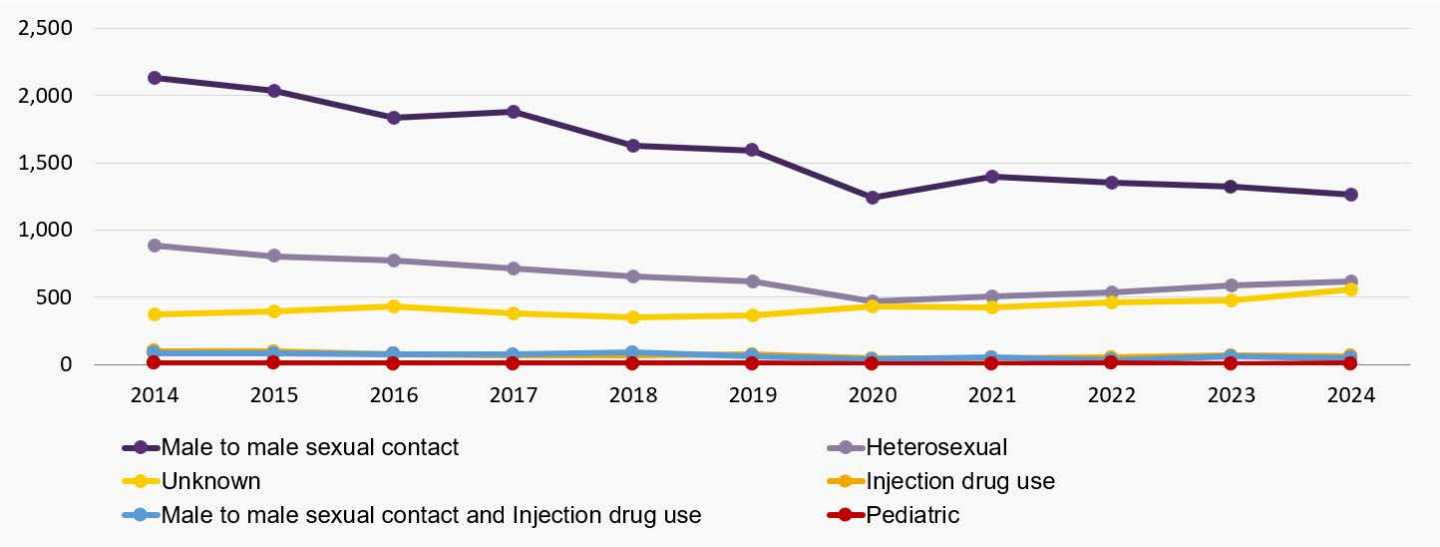
From 2014 to 2024, there was a 29% reduction in individuals newly diagnosed with HIV in New York State. The majority of new diagnoses were in New York City, where there was a 32% reduction during this time span. Outside of New York City, there was a 17% reduction. (Figure 2.)

Figure 2. Persons newly diagnosed with HIV by residence at diagnosis from 2014 - 2024



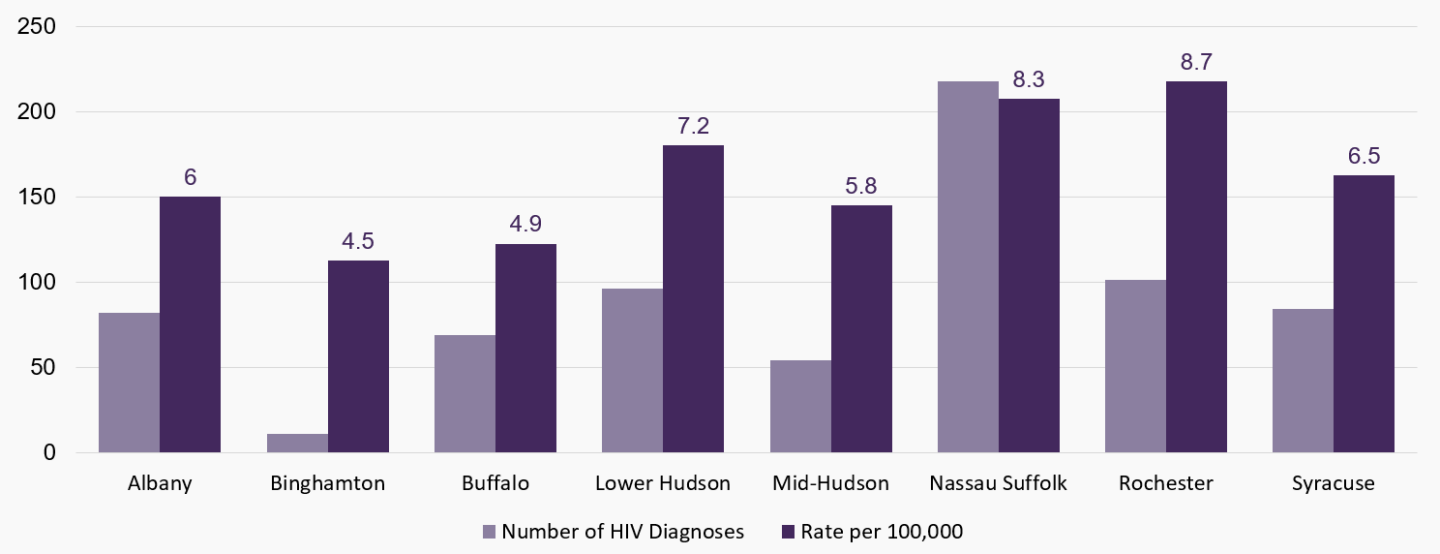
The number of individuals newly diagnosed with HIV has declined across all reported transmission risk categories since 2014, with the exception of unknown risk. (Figure 3.)

Figure 3. Persons newly diagnosed with HIV by transmission risk category, 2014-2024



Outside of New York City, the Ryan White Region with the largest number of individuals newly diagnosed with HIV in 2024 was Long Island (Nassau-Suffolk), but the highest rate of diagnosis was in Rochester, with a rate of 8.7 per 100,000 persons. The lowest rate was in the Binghamton Ryan White Region. (Figure 4.)

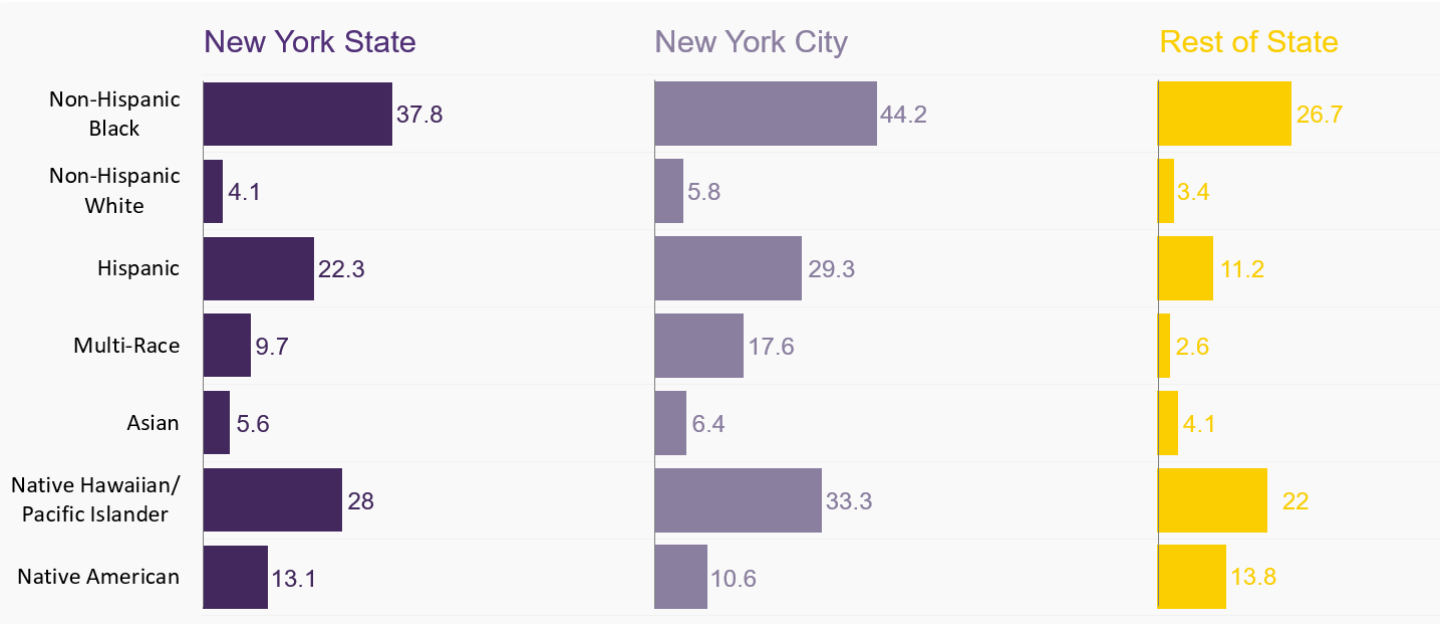
Figure 4. HIV diagnosis rates[1] per 100,000 persons and number of new HIV diagnoses[2] by Ryan White Region in New York State (excluding New York City), 2024



[1]HIV diagnosis rates are age-adjusted to the 2000 US Standard Population. [2]Excluding persons who are incarcerated.

Across all race/ethnicity groups, the rate of HIV diagnoses is higher in New York City than it is in the rest of the state, with the exception of Native American individuals. (Figure 5.)

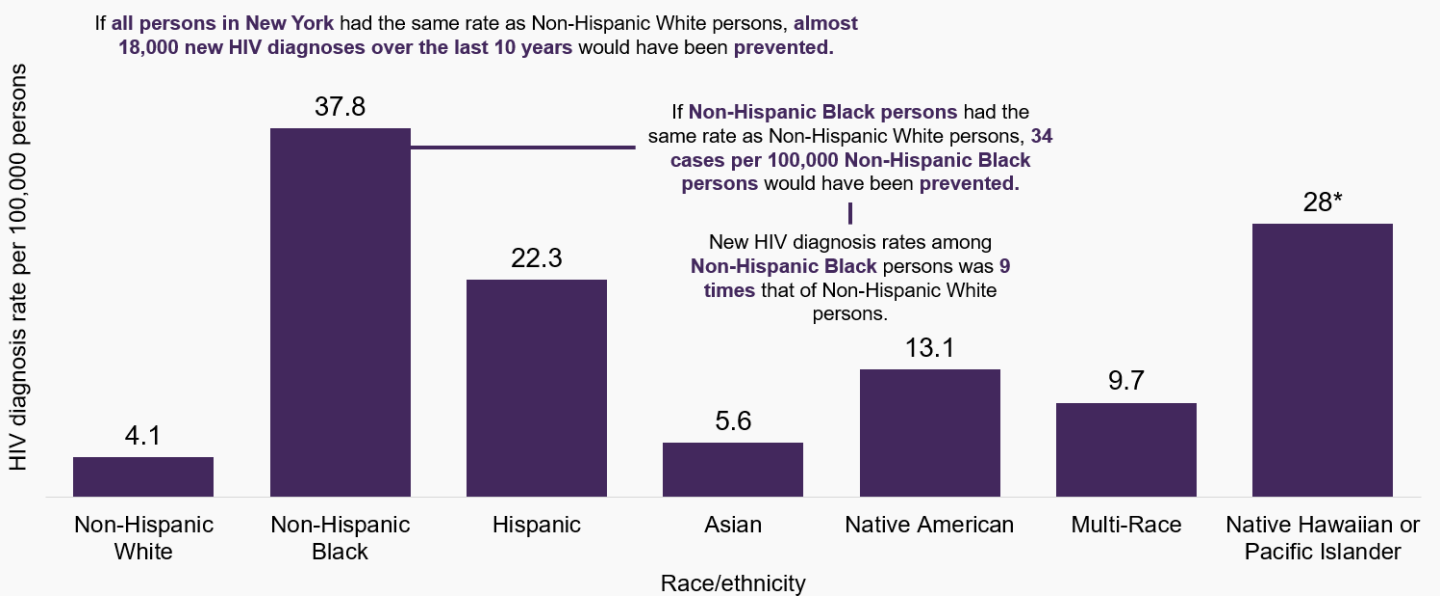
Figure 5. Age-adjusted HIV diagnosis rates[1] per 100,000 persons by race/ethnicity and residence at diagnosis in New York State, 2024



[1]HIV prevalence rates are age-adjusted to the 2000 US Standard Population.

The HIV diagnosis rate among Non-Hispanic Black persons in 2024 was 9 times that of Non-Hispanic White persons. (Figure 6.)

Figure 6. Absolute and relative disparities in HIV diagnosis rates[1] per 100,000 persons in New York State, 2024



*Rate should be interpreted with caution because of small population size. [1]HIV diagnosis rates are age-adjusted to the 2000 US Standard Population.

This data shows stark differences in HIV diagnosis rates between different race/ethnicities and regions of New York State. These disparities have remained stable for decades even as overall rates of HIV diagnosis have fallen considerably. As this report will show, the impact of HIV on communities within New York overlaps with the impact of other transmissible diseases as well as broader social determinants of health, including poverty, housing, stigma and access to healthcare. Understanding how these overlapping and interacting diseases and social factors synergistically create the conditions that hinder a true end to the HIV epidemic and inform what kinds of public health interventions might be employed to counter this syndemic is the purpose of this report.

4.2 HIV/STI Syndemic in New York State

4.2.1 Epidemiology of HIV & STIs in New York State

Prevalence of STI Diagnoses Among People Living with Diagnosed HIV

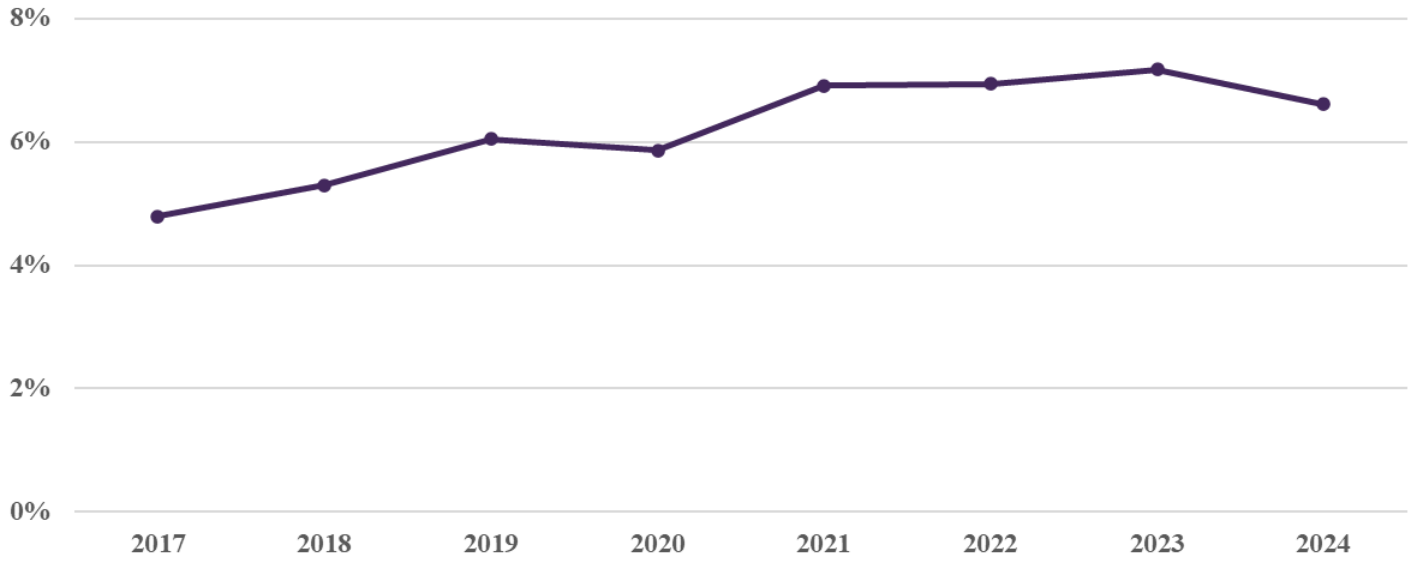
In 2024, there were 23,891 people living with diagnosed HIV in New York State outside of New York City. Of these, 1,576 (6.6%) had at least one diagnosis of gonorrhea, chlamydia, early syphilis, or late syphilis on or after their HIV diagnosis in 2024 (Table 1).

Table 1. STI Diagnoses Among People Living with HIV in 2024

People Living With Diagnosed HIV	No 2024 STI Diagnosis		2024 STI Diagnosis Concurrent or After HIV Diagnosis	
Total	Number	Percent	Number	Percent
23,891	22,290	93.3%	1,576	6.6%

The percentage of people living with diagnosed HIV who were diagnosed with an STI in a given year has increased by just under two percentage points from 2017 to 2024 (4.8% to 6.6%) but peaked in 2023 at approximately 7%. From 2023 to 2024, diagnoses of STIs decreased by over half a percentage point (7.2% to 6.6%), the most substantial decrease during this 8-year period (Figure 7).

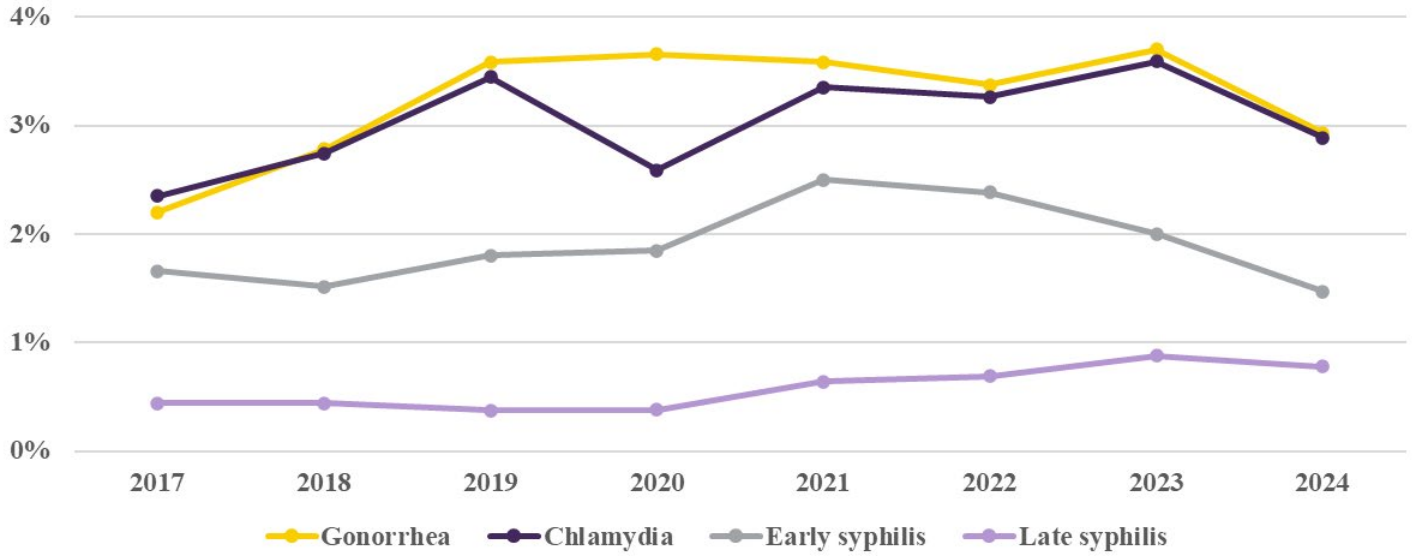
Figure 7. Percentage of people living with diagnosed HIV who were diagnosed with an STI, New York State excluding New York City, 2017 – 2024



When looking at diagnoses of specific STIs among people living with diagnosed HIV, different trends can be seen reflecting the unique characteristics of each (Figure 8). Gonorrhea diagnoses were the most common, and have remained fairly stable from 2019 until 2023, followed by a drop in 2024. Chlamydia diagnoses followed nearly the same trend as gonorrhea, except for a large decrease in 2020, likely driven by the impact of the COVID-19

pandemic. Early syphilis diagnoses peaked in 2021 at 2.5% but have decreased every year since. Diagnoses of late syphilis were steady until 2020, doubled from 2020-2023, but decreased in 2024.

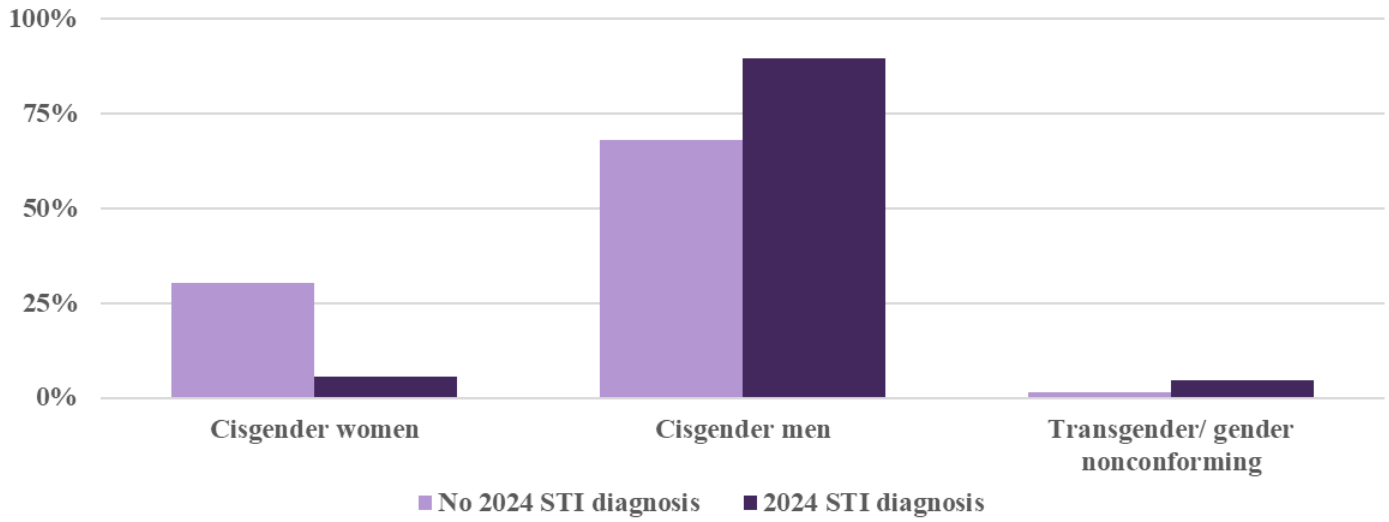
Figure 8. Percentage of people living with diagnosed HIV who were diagnosed with STIs, New York State excluding New York City, 2017 – 2024



4.2.2 Demographic Profile

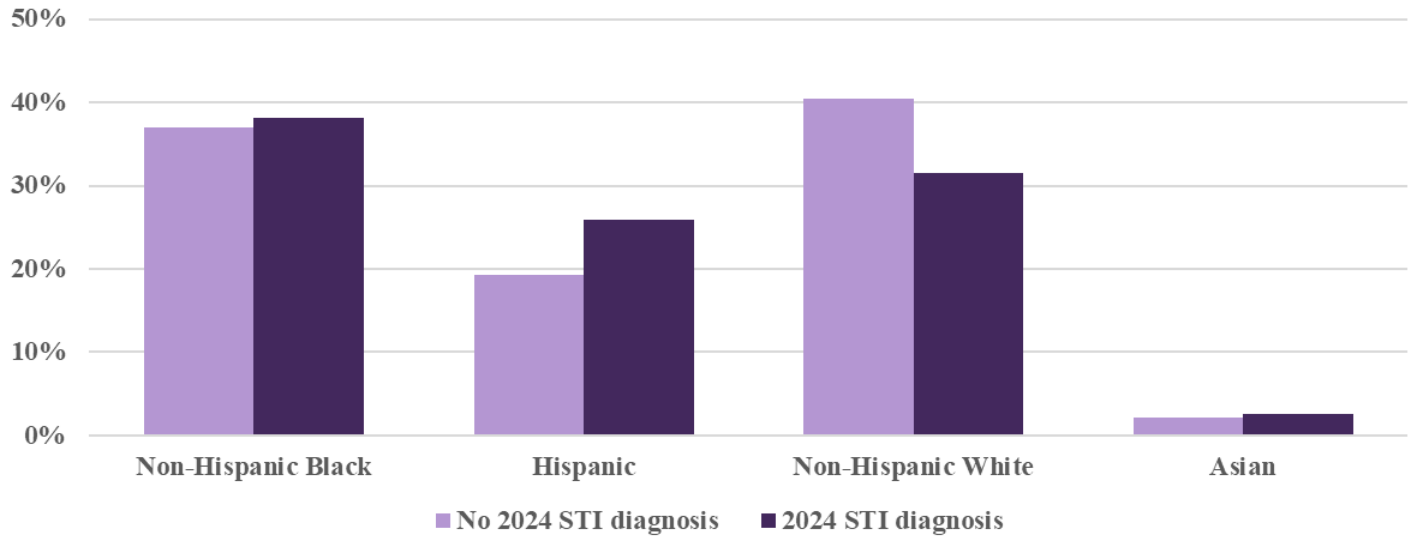
Approximately 90% of people living with diagnosed HIV who received a 2024 STI diagnosis were cisgender men, compared to only 68% among individuals without an STI diagnosis in 2024 (Figure 9). The proportion of transgender and gender non-conforming individuals was three times higher among those with an STI diagnosis compared to those without an STI diagnosis (4.6% versus 1.5%, respectively).

Figure 9. Gender breakdown of people living with diagnosed HIV, stratified by 2024 STI diagnosis, New York State excluding New York City, 2024



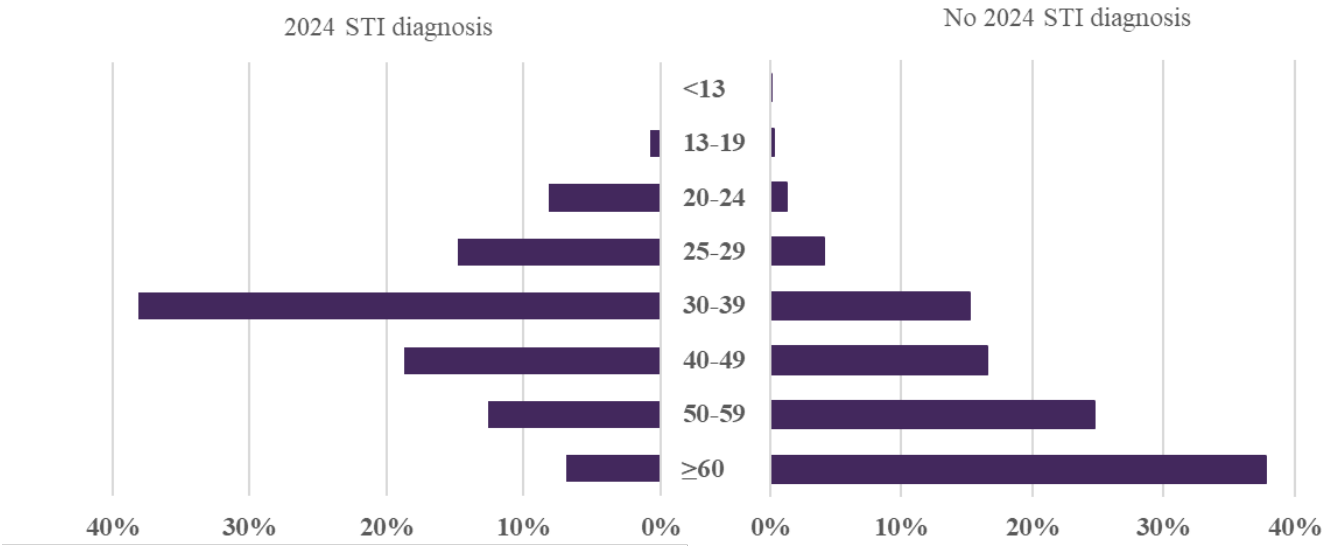
Among people living with diagnosed HIV in 2024, a greater percentage of people with an STI diagnosis in 2024 were Hispanic and a smaller percentage of people with an STI diagnosis were Non-Hispanic White compared to people without a 2024 STI diagnosis (Figure 10). The percentages of Non-Hispanic Black and Asian people were similar among those with and without an STI diagnosis. Native American, multi-racial, and Native Hawaiian/Pacific Islander people each represented less than one percent of the population, and the percentages of each were similar between people with and without an STI diagnosis.

Figure 10. Racial/ethnic distribution of people living with diagnosed HIV, stratified by 2024 STI diagnosis, New York State excluding New York City, 2024



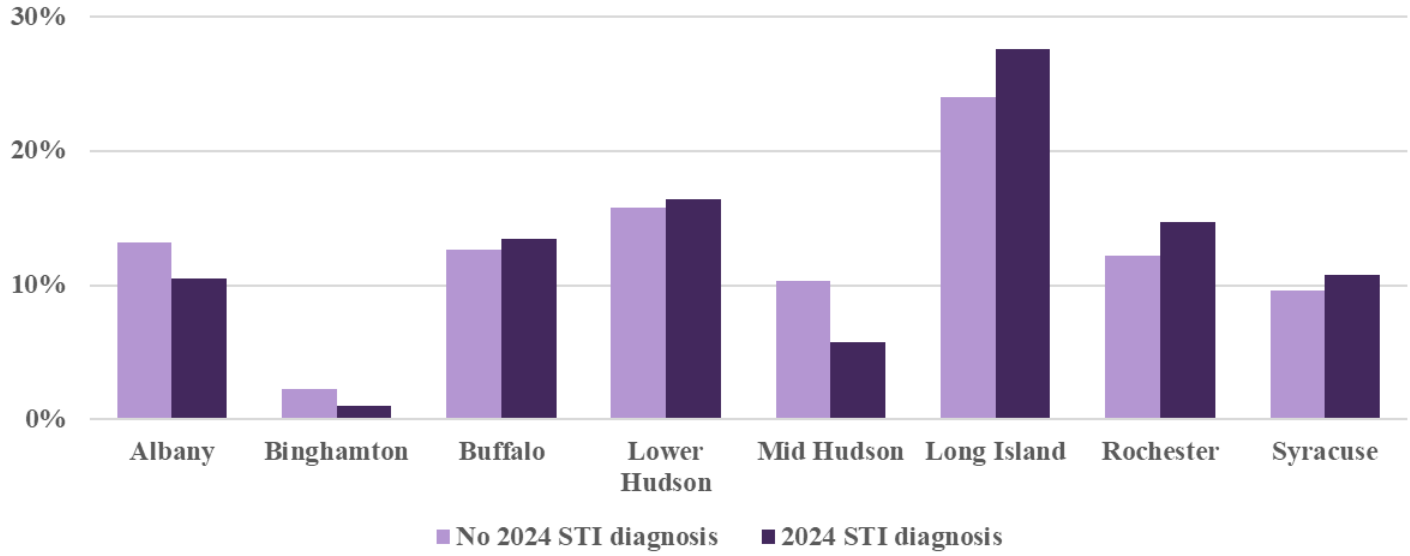
The age distribution among people living with diagnosed HIV differed substantially compared those with an STI diagnosis in 2024 and those without (Figure 11). People diagnosed with an STI in 2024 tended to be younger than people not diagnosed with an STI. Among people with a 2024 STI diagnosis, age was normally distributed with a median of 36 year and among those without, age was skewed left with a median age of 55 years.

Figure 11. Age distribution of people living with diagnosed HIV, stratified by 2024 STI diagnosis, New York State excluding New York City, 2024



The geographic distributions of people living with diagnosed HIV with and without a 2024 STI diagnosis were similar overall, with a few notable differences (Figure 12). A slightly greater percentage of people with an STI diagnosis lived in the Long Island Ryan White region (Nassau and Suffolk counties) than those without an STI diagnosis. The percentage of individuals who had an STI diagnosis who were living in the Mid-Hudson Ryan White region (Dutchess, Orange, Sullivan, and Ulster counties) was approximately half that of individuals without an STI diagnosis. The percentage of people who were living in the Binghamton Ryan White region (Broome, Chenango, and Tioga counties) was twice as high among people without a STI diagnosis compared to people with a STI diagnosis (2.3% vs 1.0%), although this was the least common region of residence in both populations.

Figure 12. Ryan White Region of residence among people living with diagnosed HIV stratified by 2024 STI diagnosis, New York State excluding New York City, 2024

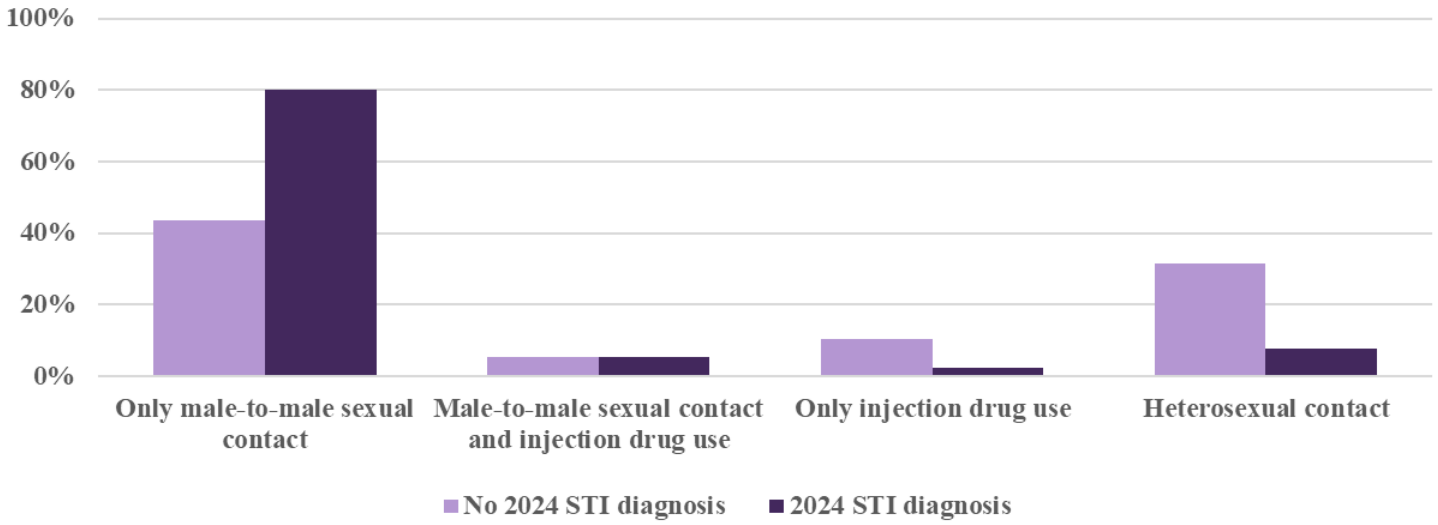


4.2.3 Drivers of the HIV/STI Syndemic

Shared Risk Factors

There were major differences in the distribution of HIV transmission risk groups depending on whether an individual had an STI diagnosis or not (Figure 13). Among people living with diagnosed HIV in 2024, a history of male-to-male sexual contact was reported almost twice as often among people with a 2024 STI diagnosis compared to people without a 2024 STI diagnosis (80% vs 43%). In contrast, injection drug use only and heterosexual contact were much less common among people with a 2024 STI diagnosis. These differences highlight how syndemic factors are relevant to understanding who is impacted by both HIV and STIs, and can help identify shared risk factors like unprotected sexual contact. Addressing shared risk factors could reduce HIV and other STI infections.

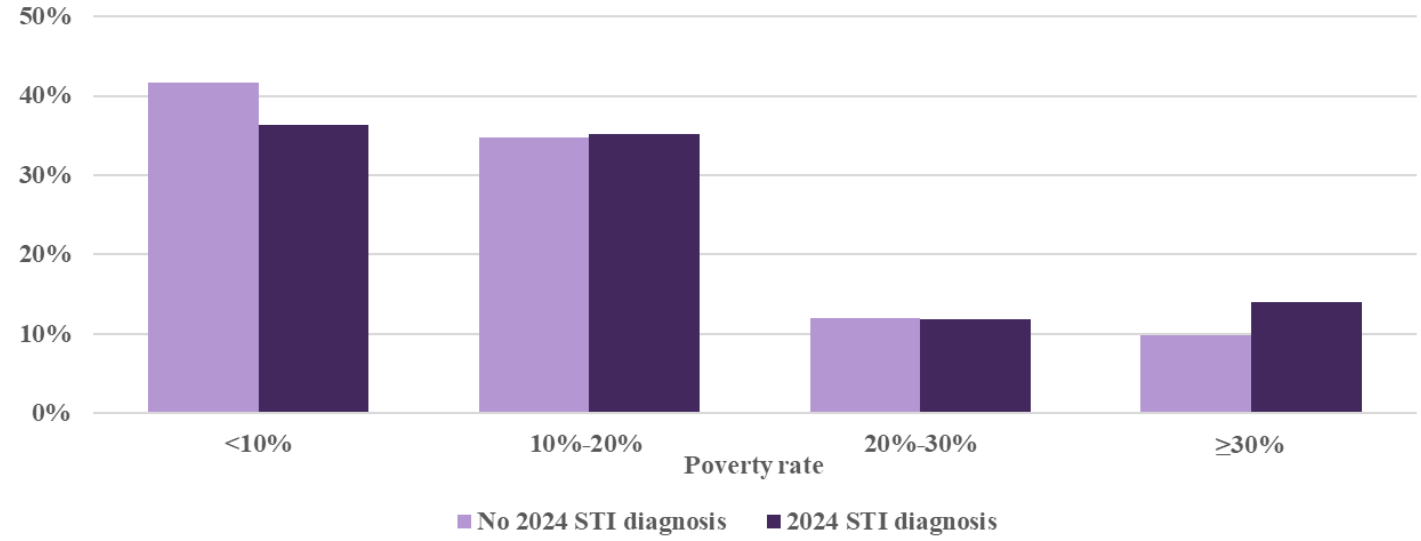
Figure 13. Reported HIV transmission risk factors among people living with diagnosed HIV stratified by 2024 STI diagnosis, New York State excluding New York City, 2024



Social & Structural Determinants

Among people living with diagnosed HIV who had an STI diagnosis in 2024, a greater percentage were living in zip codes where at least 30% of residents were living in poverty compared to people with no STI diagnosis (Figure 14). Conversely, a greater percentage of those without an STI diagnosis lived in the lowest poverty zip codes (<10% living in poverty). The percentage of people living in zip codes of moderate poverty (10% to 30%) was similar among those with and without an STI diagnosis.

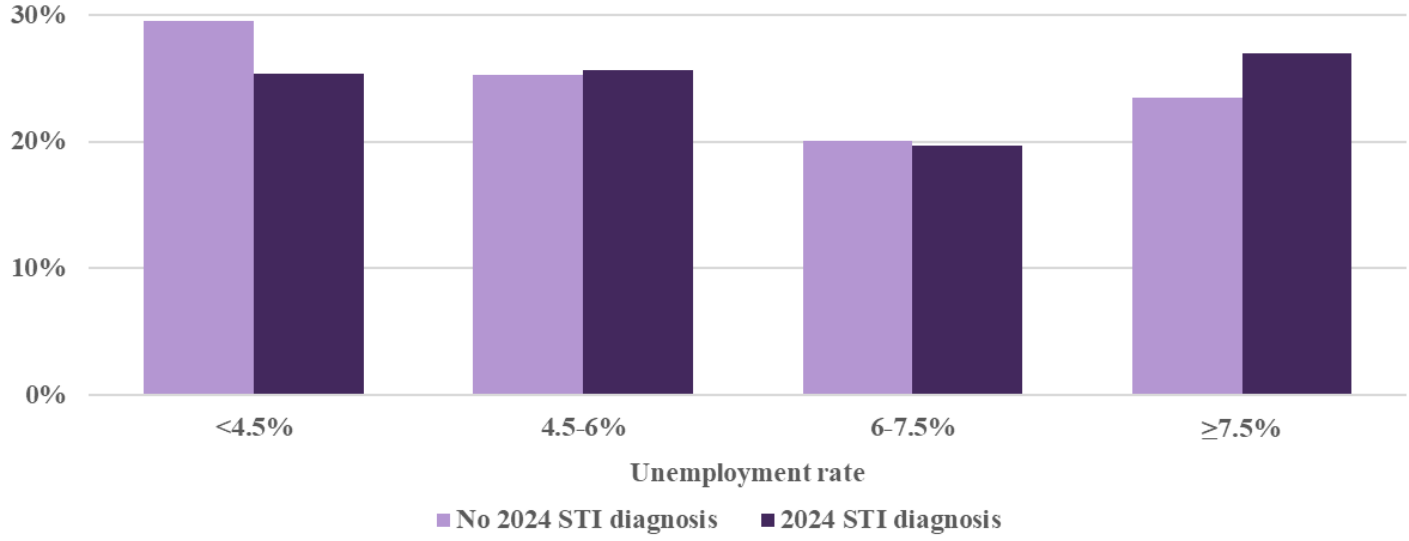
Figure 14. Poverty rate of zip code of residence of people living with diagnosed HIV, stratified by 2024 STI diagnosis, New York State excluding New York City, 2024



The unemployment rate followed a similar trend to poverty rate (Figure 15). A slightly smaller percentage of people with a 2024 STI diagnosis lived in zip codes with low unemployment (<4.5%), and a slightly higher

percentage lived in high unemployment zip codes (≥7.5%). The percentage of people living in zip codes with moderate unemployment (4.5% to 7.5%) was similar between people with and without a 2024 STI diagnosis.

Figure 15. Unemployment rate of zip code of residence of people living with diagnosed HIV, stratified by 2024 STI diagnosis, New York State excluding New York City, 2024



4.2.4 Syndemic Impact on HIV Care & Treatment Outcomes

HIV Care Continuum – Receiving Care and Viral Suppression

A greater percentage of people with a 2024 STI diagnosis received HIV care in 2024 compared to people without an STI diagnosis (97% vs 89%) (Figures 16 and 17). However, among people who received HIV care, viral suppression was slightly lower among people who received an STI diagnosis compared to people who did not receive an STI diagnosis (90% vs 93%).

Figure 16. HIV care continuum among people who had a 2024 STI diagnosis, excluding New York City, 2024

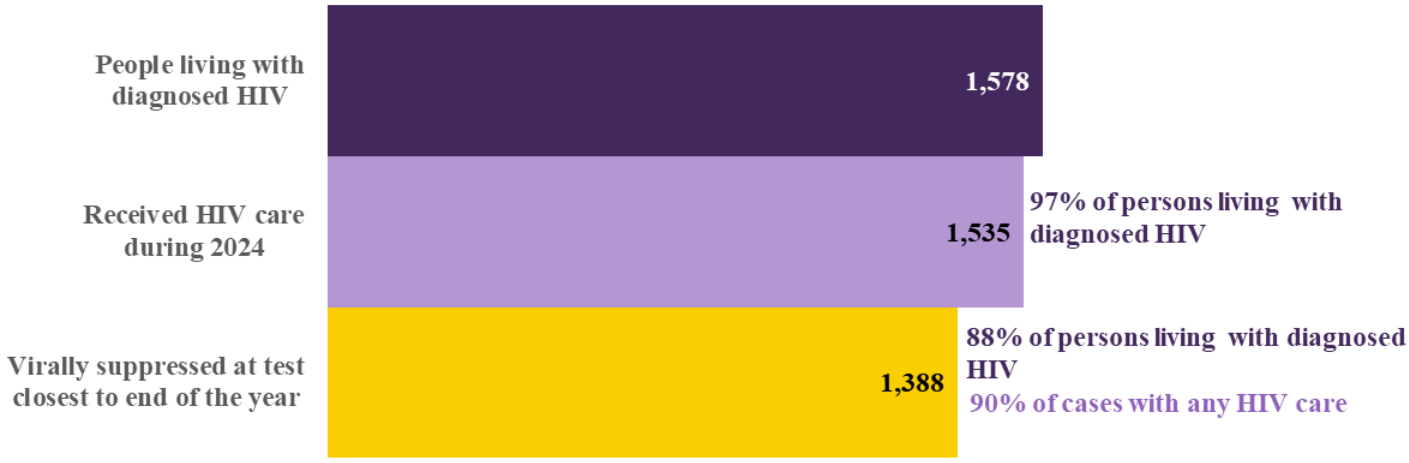
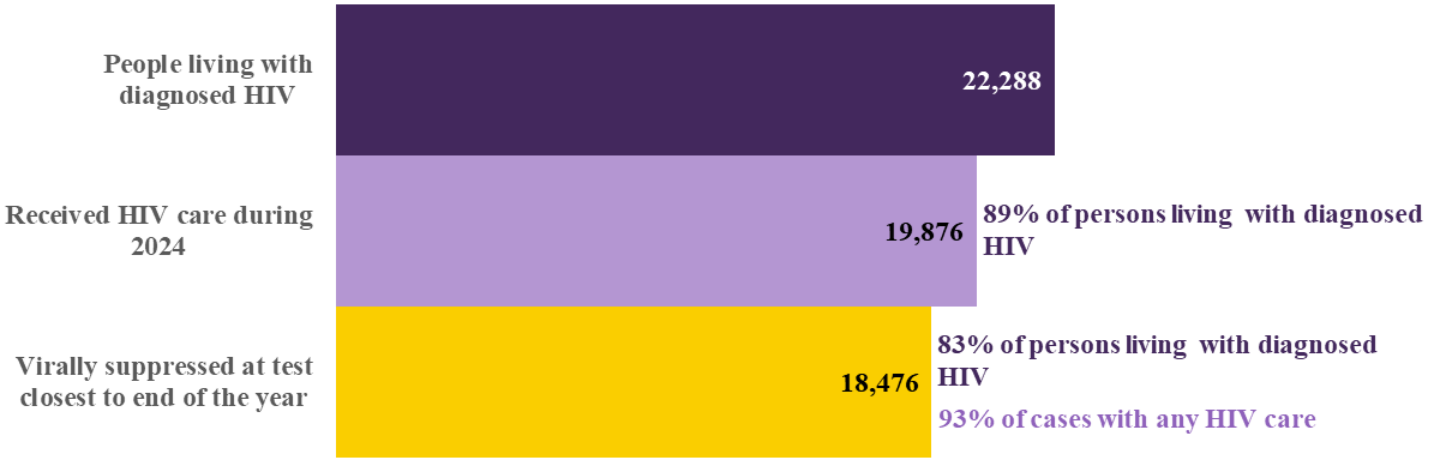


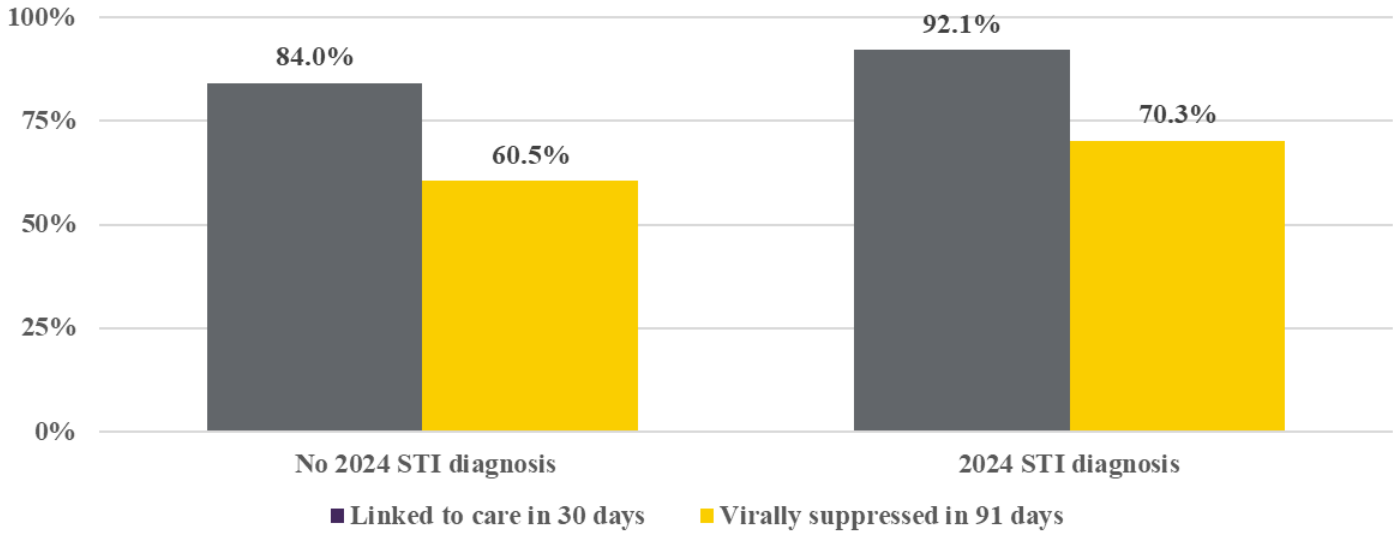
Figure 17. HIV care continuum among people without a 2024 STI diagnosis, excluding New York City, 2024



Linkage to Care & Viral Suppression

Among people newly diagnosed with HIV in 2024, linkage to care within 30 days and viral suppression within 91 days were both higher among people who were also diagnosed with an STI in 2024 compared to people who were not diagnosed with an STI (Figure 18), indicating rapid engagement in HIV care among people also diagnosed with an STI.

Figure 18. Care and treatment outcomes among people newly diagnosed with HIV, New York State excluding New York City, 2024

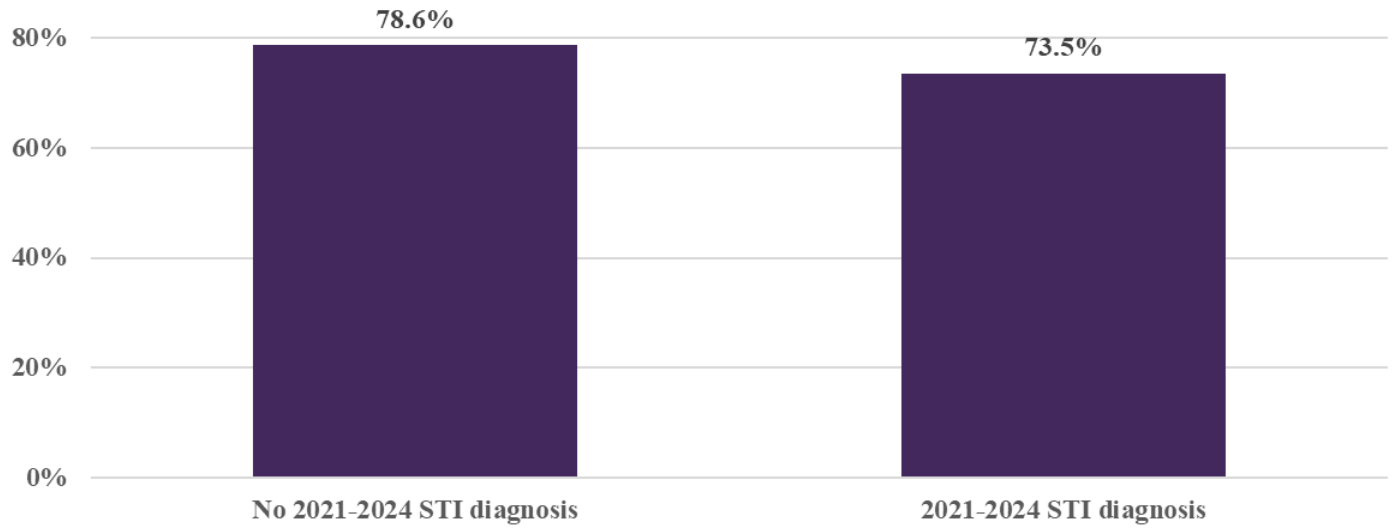


Sustained Viral Suppression

Sustained viral suppression is a measure of successful, long-term engagement in HIV care. Viral suppression sustained for at least two years was measured among people living with diagnosed with HIV for at least three years who lived in New York State from 2021 to 2024. People living with diagnosed HIV without an STI diagnosis from 2021 to 2024 had a higher rate of sustained viral suppression compared to people who received at least one STI diagnosis during the same timeframe (Figure 19). These results, in combination with linkage to care and viral

suppression among those newly diagnosed and those living with HIV, indicate that although people with an STI diagnosis tend to engage in HIV care relatively quickly, they have poorer long-term HIV outcomes compared to people who do not receive an STI diagnosis.

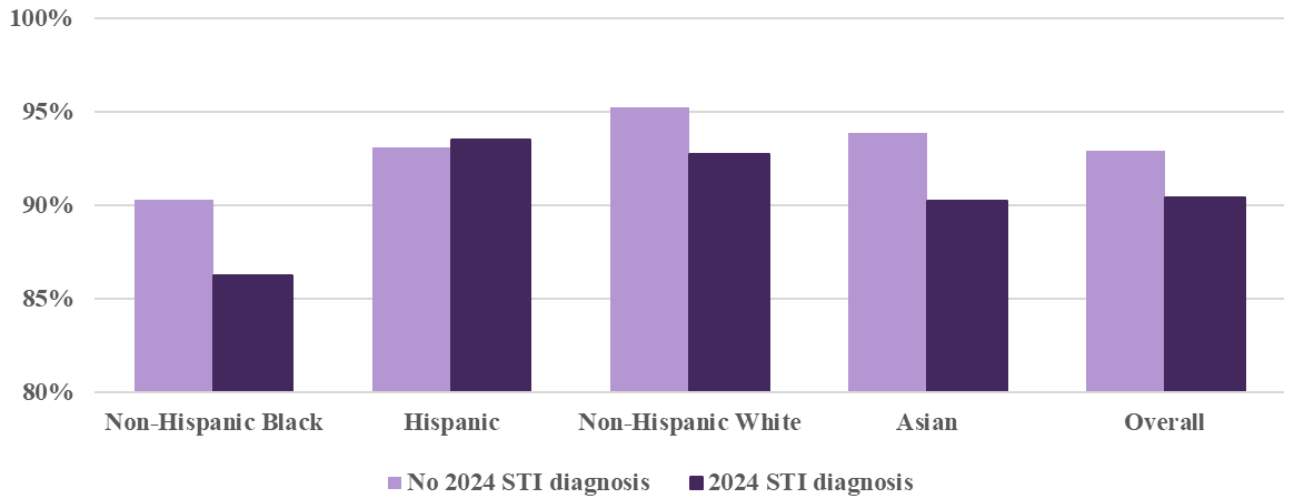
Figure 19. Sustained viral suppression among people living with diagnosed HIV, New York State excluding New York City, 2024



Viral Suppression by Race & Ethnicity

In general, patterns in viral suppression among different racial/ethnic groups stratified by 2024 STI diagnosis followed the trend of the overall rest of state population. The suppression rate among those who received HIV care was slightly higher among people without a 2024 STI diagnosis compared to people with a 2024 STI diagnosis (93% vs 90%). Non-Hispanic Black, Non-Hispanic White, and Asian people exhibited a similar pattern, although suppression was lower among Non-Hispanic Black people and higher among Non-Hispanic White people compared to the overall population. Among Hispanic people, suppression was approximately the same regardless of 2024 STI diagnosis (93% of those without, 94% of those with) (Figure 20).

Figure 20. Viral suppression stratified by race/ethnicity and 2024 STI diagnosis



4.3 HIV/Hepatitis C Syndemic in New York State

4.3.1 Epidemiology of HIV and Hepatitis C in New York State

Prevalence of hepatitis C exposure among people living with diagnosed HIV

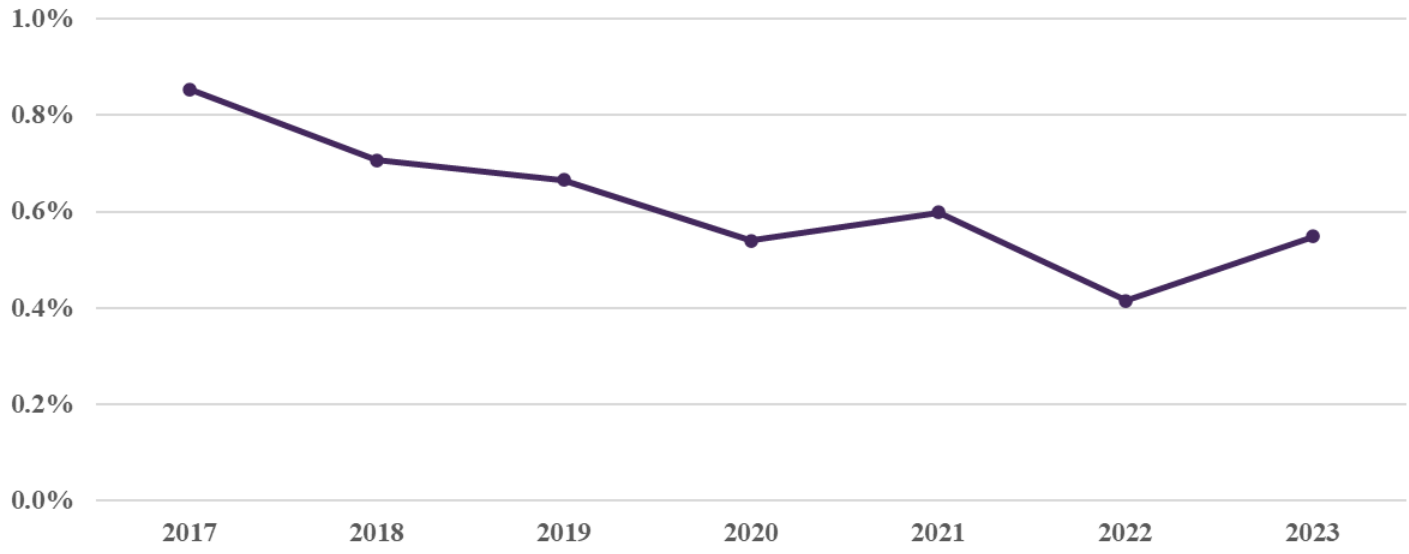
In 2024, there were 23,891 people living with diagnosed HIV in New York State outside of New York City. Of these, 2,554 (10.7%), had evidence of hepatitis C infection between 2010 and 2023 after their HIV diagnosis, and 21,145 did not have evidence of hepatitis C infection. The remaining 192 people had evidence of hepatitis C infection between 2010 and 2023 before diagnosed with HIV and were excluded from these analyses (Table 1).

Table 2. Hepatitis C Infection Among People Living with HIV

People Living With Diagnosed HIV	No Evidence of Hepatitis C Infection from 2010-2023		Evidence of Hepatitis C Infection from 2010-2023 Concurrent or After HIV Diagnosis	
Total	Number	Percent	Number	Percent
23,891	21,145	88.5%	2,554	10.7%

Since 2017, the percentage of people with newly reported evidence of hepatitis C infection during the year has decreased among people living with diagnosed HIV. From 2017 to 2022, the percentage of these individuals with evidence of hepatitis C infection dropped by half. However, the percentage with hepatitis C infection increased from 2022 to 2023 by the largest margin in this seven-year period (Figure 21).

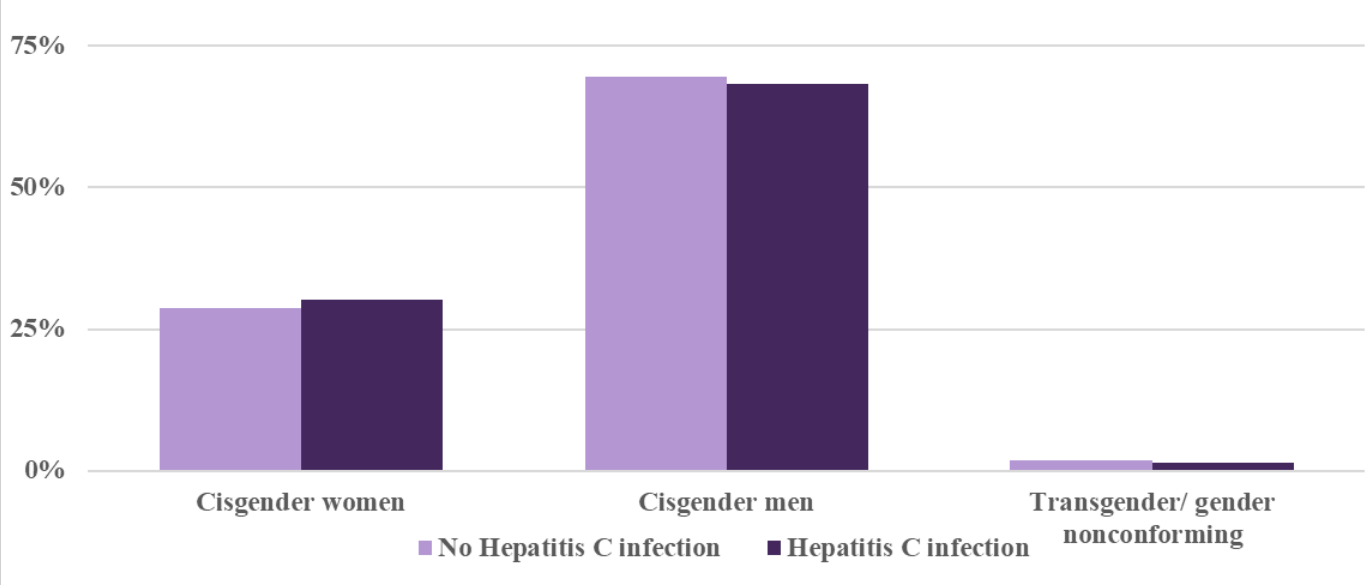
Figure 21. Percentage of people living with diagnosed HIV with a hepatitis C infection each year, New York State excluding New York City, 2017 – 2023



4.3.2 Demographic Profile

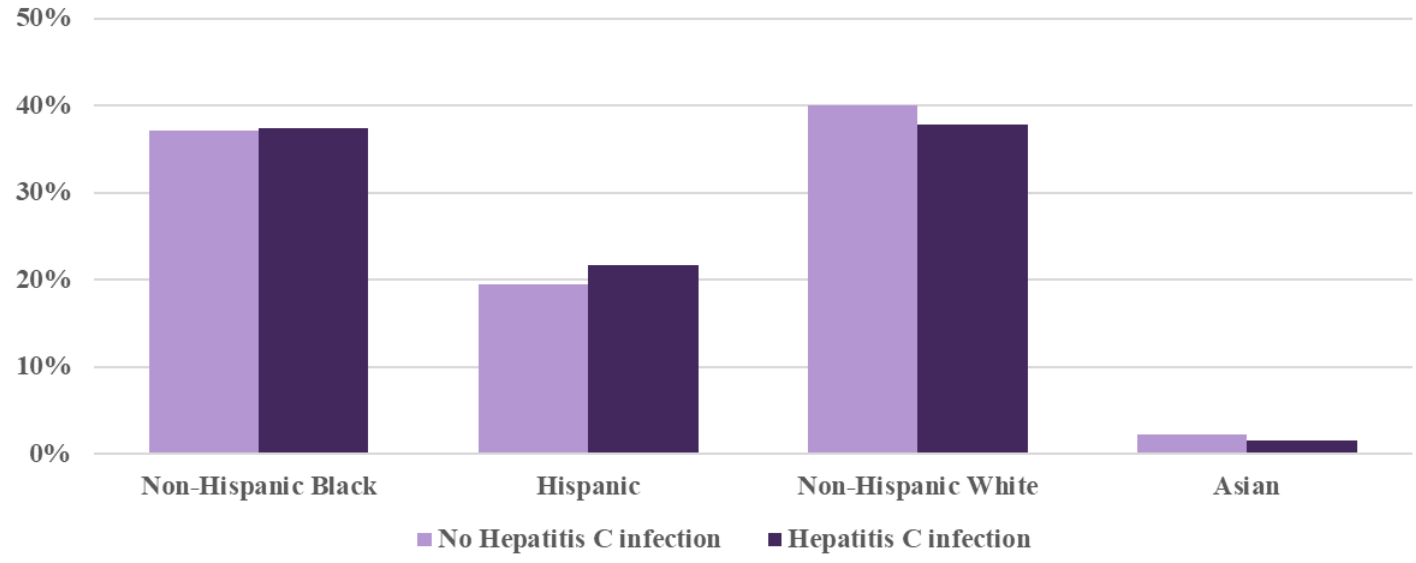
The distribution of sex assigned at birth and current gender was the same between people with and without a hepatitis C infection. About 70% of people were cisgender men, and most of the remaining 30% were cisgender women. Less than 2% of people were transgender or gender nonconforming (Figure 22).

Figure 22. Gender distribution of people living with diagnosed HIV stratified by hepatitis C infection, New York State excluding New York City, 2024



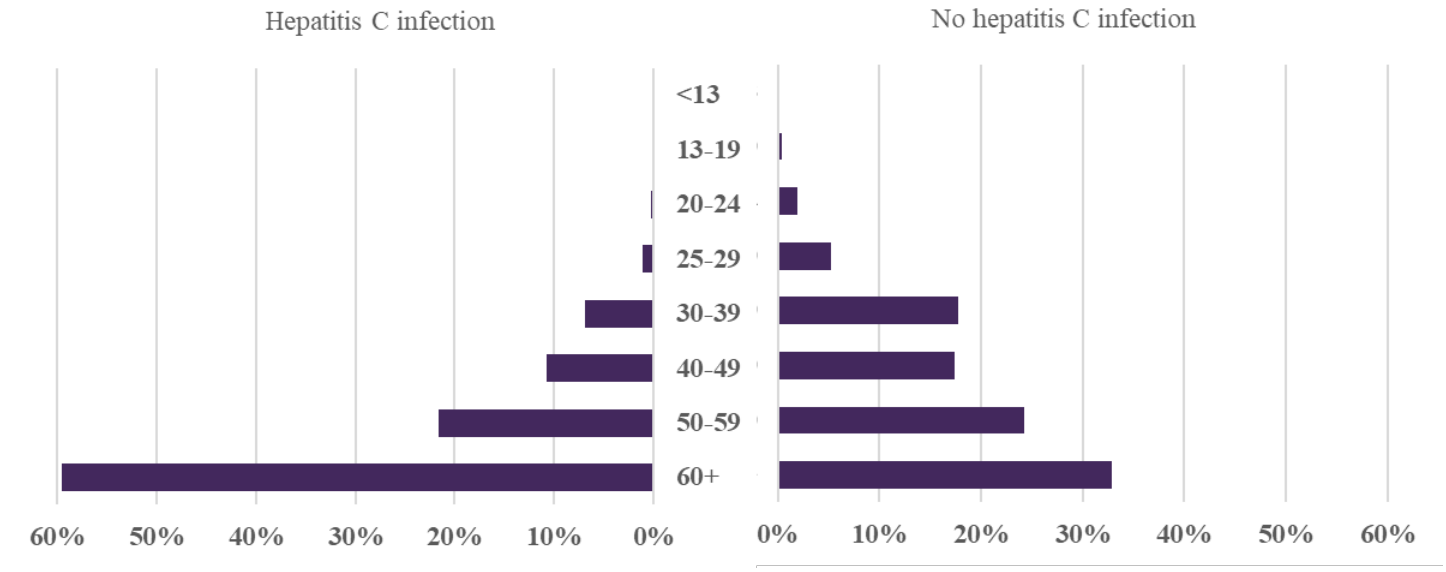
Racial/ethnic distribution was also similar between people with and without a hepatitis C infection. The majority of people living with diagnosed HIV were split approximately equally between Non-Hispanic White and Non-Hispanic Black people. Hispanic people composed about one-fifth of each population, and less than 3% of people were Asian (Figure 23). The percentage of Native American, multi-racial, and Native American/Pacific Islander people each represented less than one percent of the population and did not differ between people with and without a hepatitis C infection.

Figure 23. Racial/ethnic distribution of people living with diagnosed HIV stratified by hepatitis C infection, New York State excluding New York City, 2024



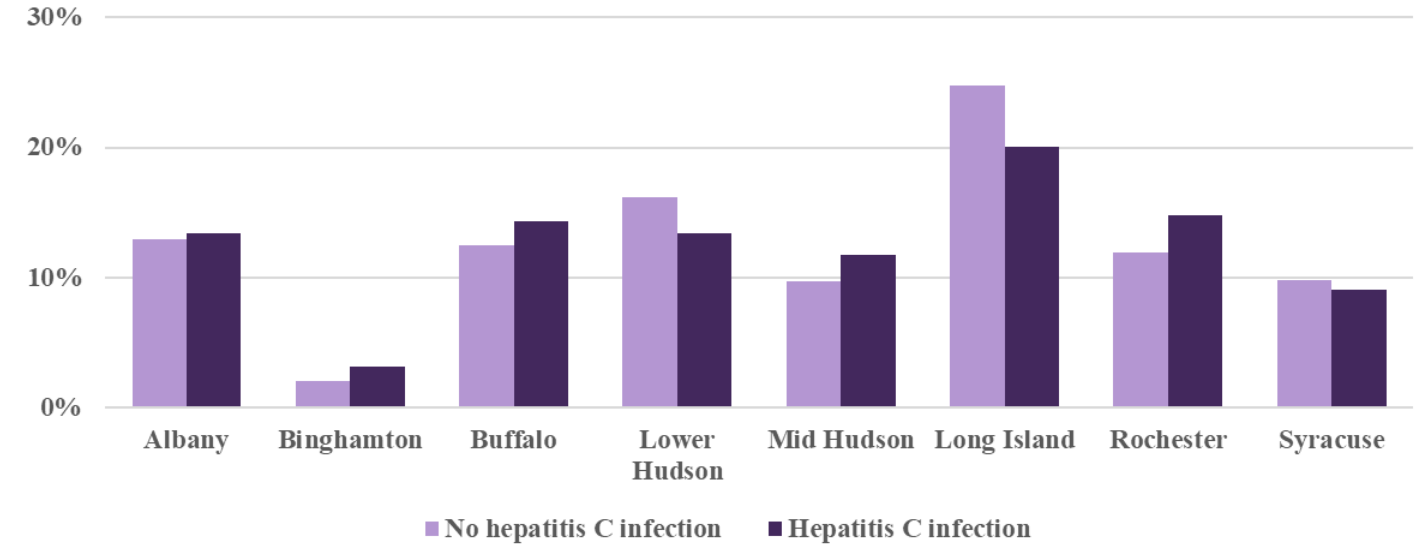
The age distributions differed between people living with diagnosed HIV who did and did not have a hepatitis C infection. Both distributions were skewed, but it was more pronounced for those with a hepatitis C infection. Over half of people infected with hepatitis C were 60 or older with a median age of 60 years, whereas among people not infected with hepatitis C, a third of people were 60 or older with a median age of 51 years (Figure 24).

Figure 24. Age distribution among people living with diagnosed HIV stratified by hepatitis C infection, New York State excluding New York City, 2024



The geographic distributions of people with and without a hepatitis C infection were, overall, similar. Among both populations, the largest percentage of people lived in the Long Island Ryan White region (Nassau and Suffolk counties), although a slightly greater percentage of people without evidence of hepatitis C exposure lived in this region (24.8% vs 20.0%). The smallest percentage of people lived in the Binghamton Ryan White region (Tioga, Chenango, and Broome counties) and was about 1.5 times higher among people with a hepatitis C infection compared to people without a hepatitis C infection (3.1% vs 2.1%) (Figure 25).

Figure 25. Ryan White Region of residence among people living with diagnosed HIV stratified by hepatitis C infection, New York State excluding New York City, 2024



4.3.3 Drivers of the HIV/Hepatitis C Syndemic

Risk Factors & Modes of Transmission

Incarceration and injection drug use are shared risk factors for HIV and hepatitis C infection. Among people living with diagnosed HIV in 2024, both risk factors were more common among people with a hepatitis C infection. 57% of people who were later infected with hepatitis C indicated injection drug use as a possible mechanism for HIV infection, compared to 10% of people without a hepatitis C infection (Figure 26). The percentage of people with a history of incarceration was over three times higher among people with a hepatitis C infection compared to people without a hepatitis C infection (16% vs 5%) (Figure 27).

Figure 26. Injection drug use as an HIV risk factor among people living with diagnosed HIV stratified by hepatitis C infection, New York State excluding New York City, 2024

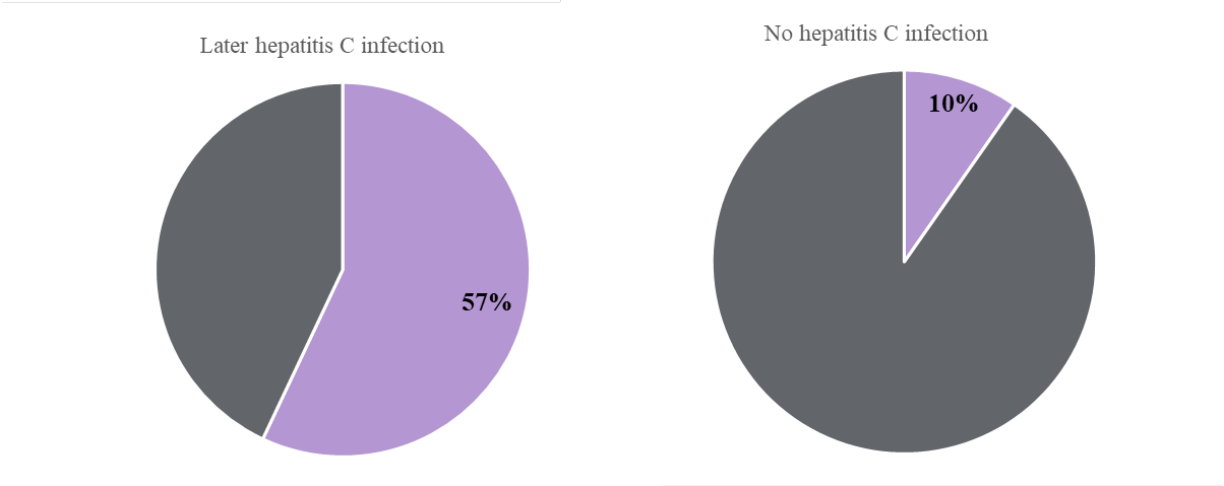
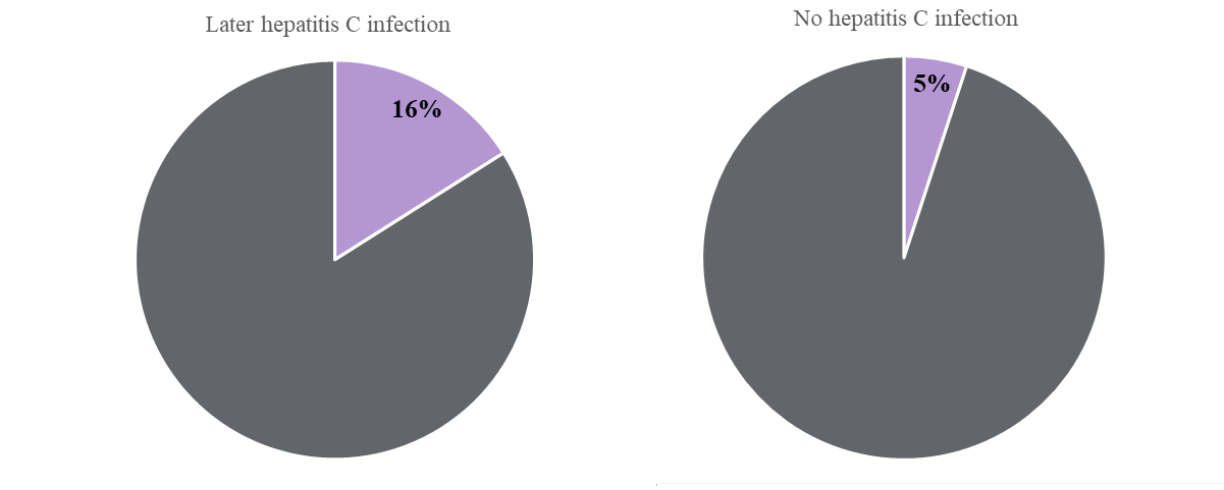


Figure 27. History of incarceration among people living with diagnosed HIV stratified by hepatitis C infection, New York State excluding New York City, 2024

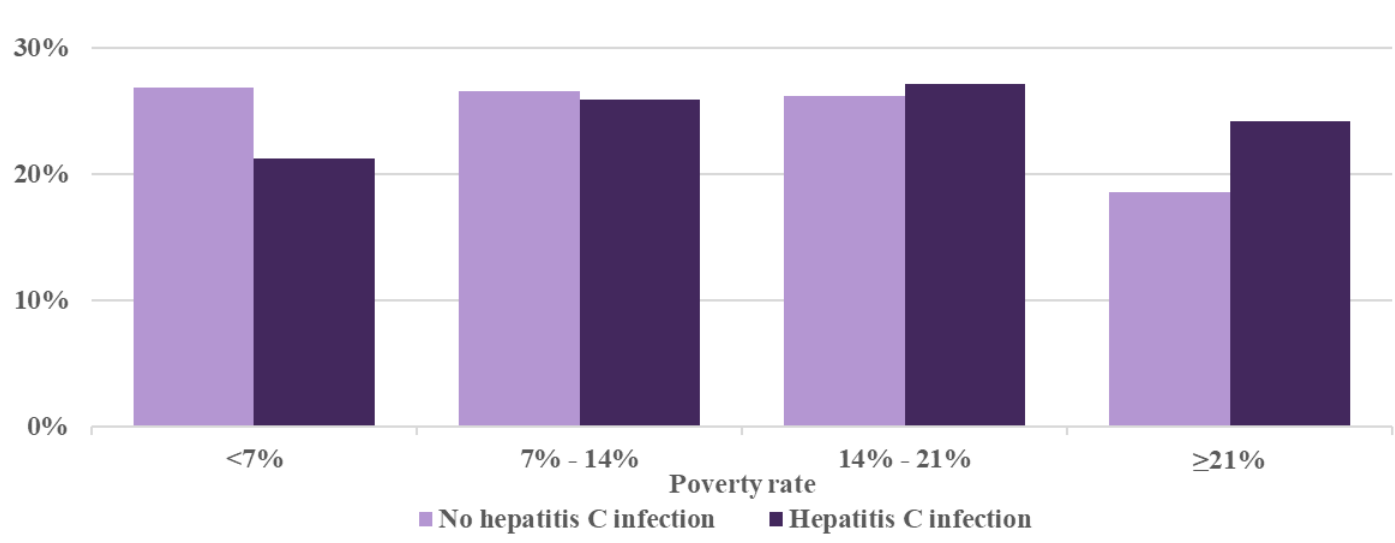


Overlapping Social Determinants

The distribution of poverty rate and unemployment rate when stratified by hepatitis C infection followed similar trends. Among people living with diagnosed HIV in 2024, a greater percentage of people later diagnosed with hepatitis C lived in areas with a poverty rate of at least 21%. The same percentage of people with and without a

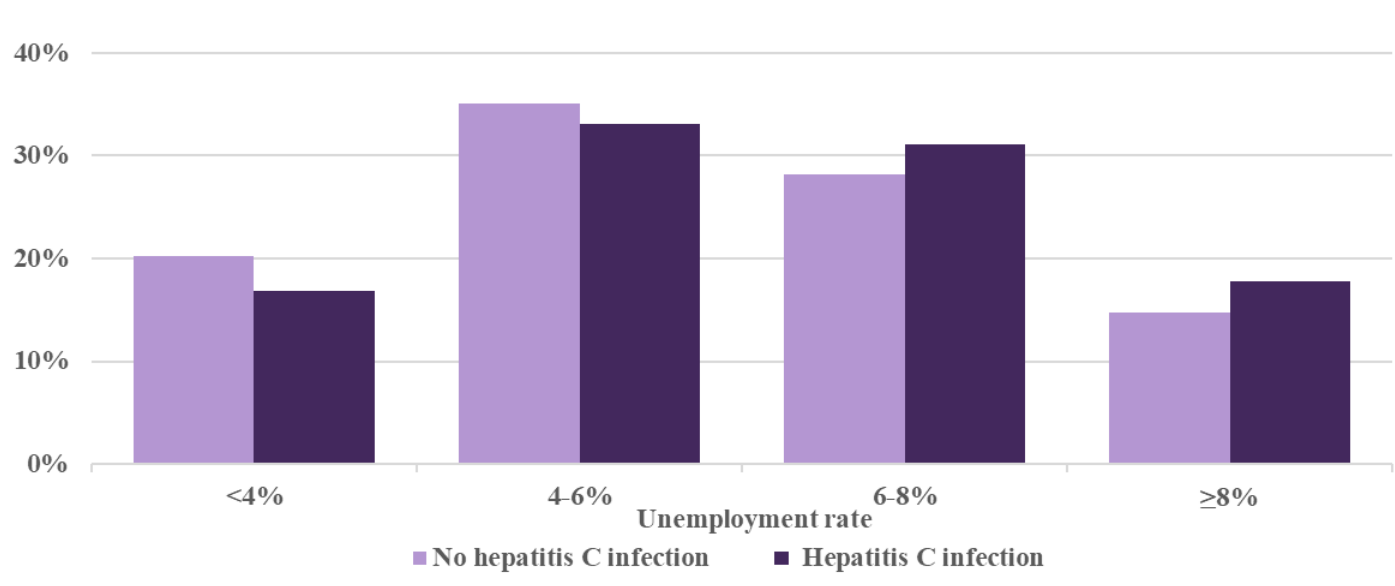
hepatitis C infection lived in zip codes with intermediate poverty levels (7%-21%). However, about one-quarter of people infected with hepatitis C lived in an area with a poverty rate of at least 21%, compared to under one-fifth of people not infected with hepatitis C (Figure 28).

Figure 28. Poverty rate in zip code of residence among people living with diagnosed HIV, stratified by hepatitis C infection, New York State excluding New York City, 2024



Among people living with diagnosed HIV in 2024, people with a later hepatitis C infection lived in areas with higher rates of unemployment. Among people with a hepatitis C infection, there was an even split between people who lived in zip codes with an unemployment rate less than 6% and people who lived in zip codes with an unemployment rate of 6% or more. Among people without a hepatitis C infection, less than 45% of people lived in zip codes with an unemployment rate of 6% or more (Figure 29).

Figure 29. Unemployment rate in zip code of residence among people living with diagnosed HIV, stratified by hepatitis C infection, New York State excluding New York City, 2024



The distribution of insurance rate in zip code of residence was not different among people with and without a hepatitis C infection. Overall, most people lived in zip codes where 95% to 98% of people were insured, regardless of hepatitis C infection status.

4.3.4 Syndemic Impact on HIV Outcomes

HIV Care Continuum

Among people with a later hepatitis C infection, receipt of HIV care was slightly higher, but among people who received HIV care during the year, viral suppression at the end of the year was the same regardless of hepatitis C infection (Figures 30 and 31).

Figure 30. New York State cascade of HIV care among people with a hepatitis C infection, excluding New York City, 2024

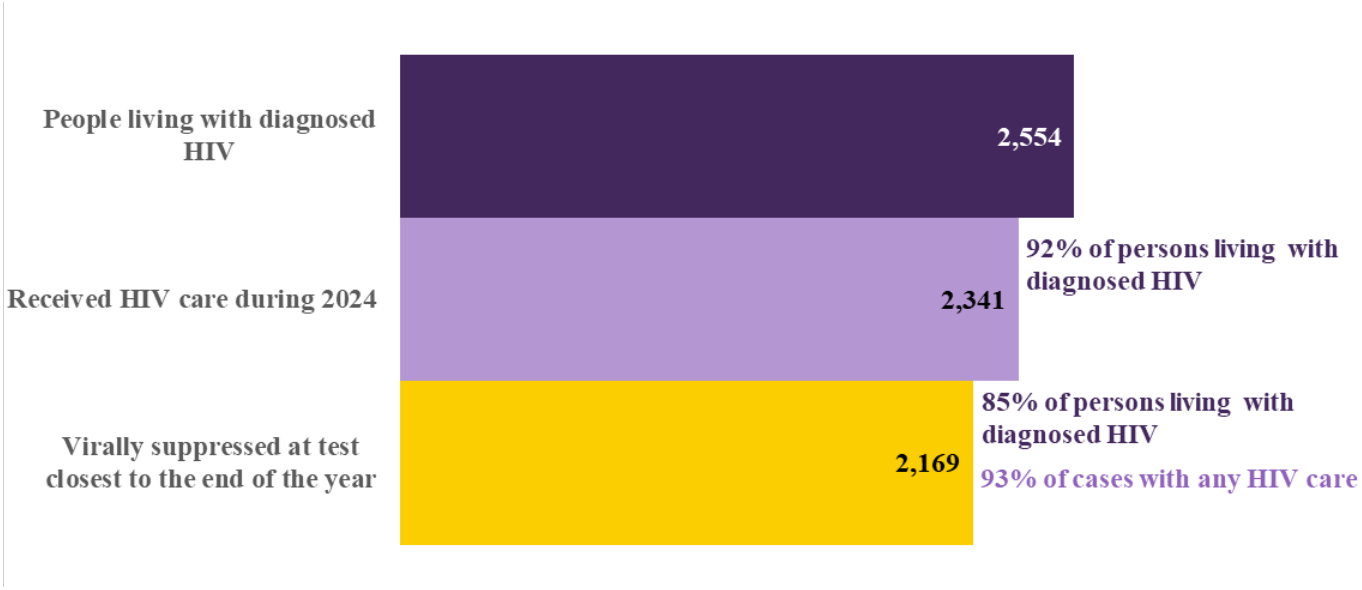
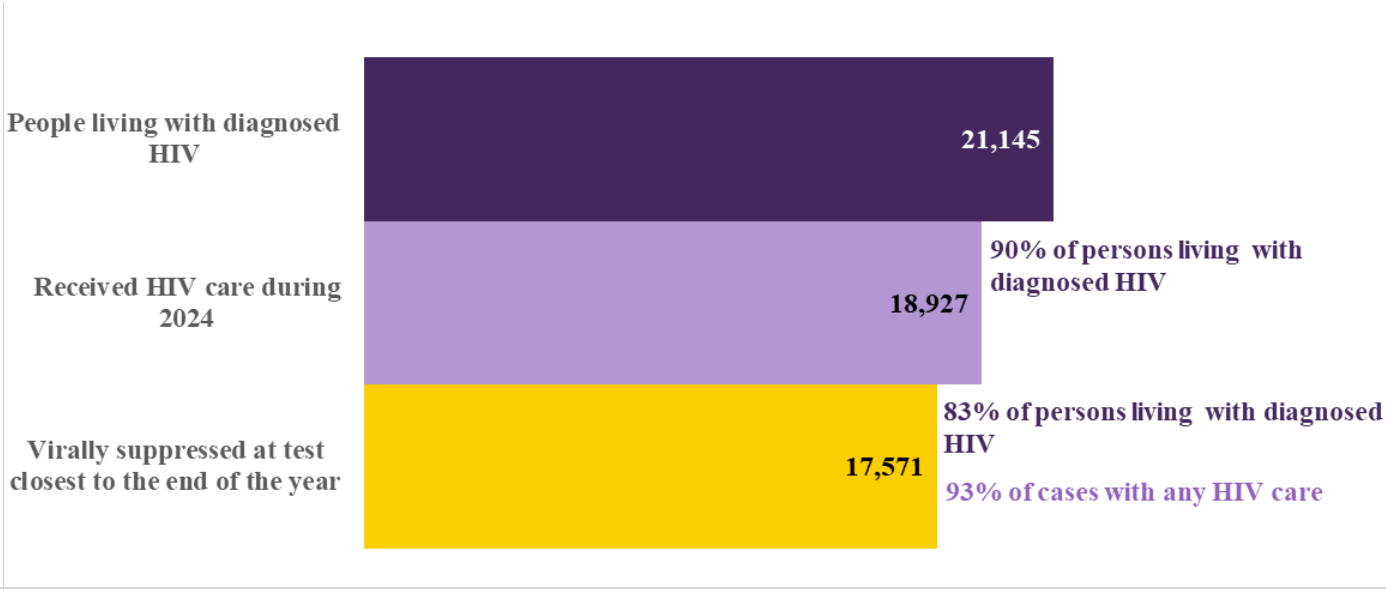
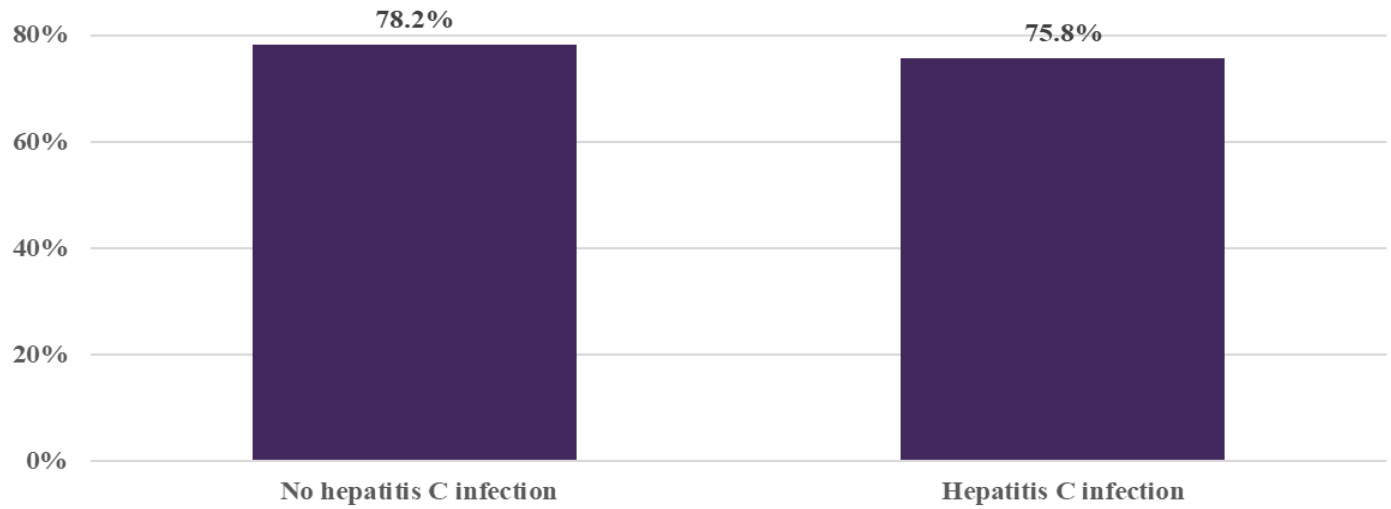


Figure 31. New York State cascade of HIV care among people without a hepatitis C infection, excluding New York City, 2024



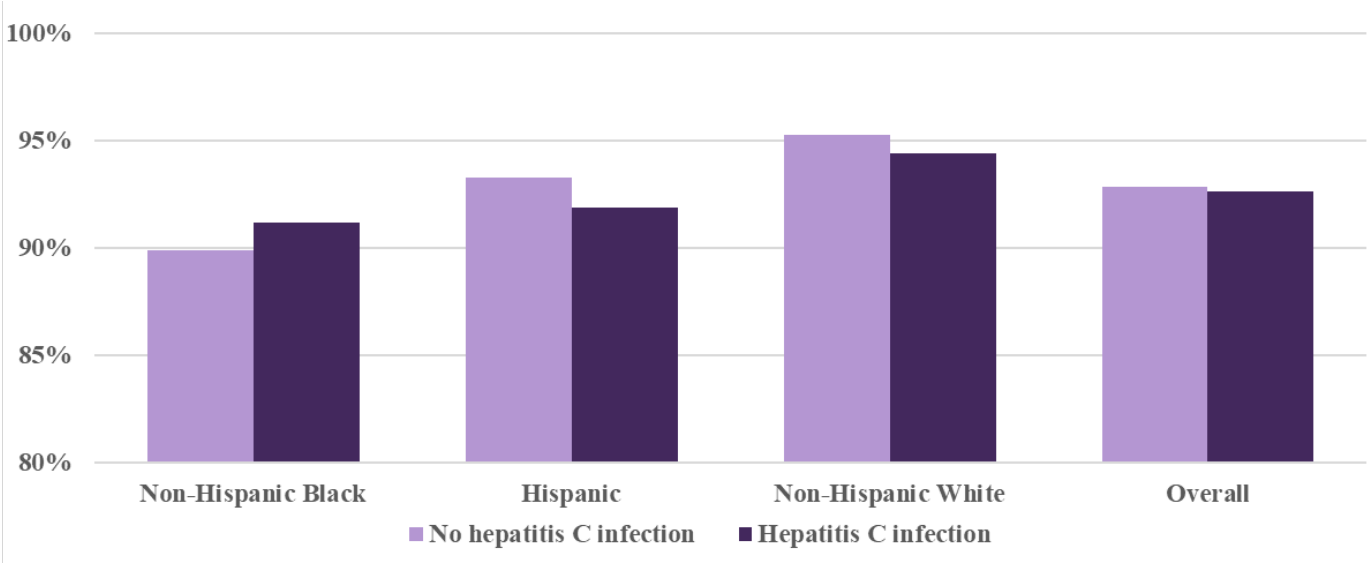
The percentage of people who sustained viral suppression for at least two years was higher among people not infected with hepatitis C (Figure 32). This suggests that people living with diagnosed HIV who are not infected with hepatitis C have better long-term HIV care outcomes, although people with a hepatitis C infection tend to engage in HIV care more quickly.

Figure 32. Sustained viral suppression among people living with diagnosed HIV, New York State excluding New York City, 2024



Trends in viral suppression among people who received HIV care differed between racial/ethnic groups, but were similar between people who did and did not have a hepatitis C infection (Figure 33). Among Hispanic, Non-Hispanic White, and Native American people, viral suppression was slightly lower among people with a later hepatitis C infection. However, among Non-Hispanic Black, Asian, multi-racial, and Native Hawaiian/Pacific Islander people, suppression was higher among people with a later hepatitis C infection. There were small numbers of Asian, multi-racial, Native American, and Native Hawaiian/Pacific Islander people who were infected with hepatitis C and engaged in HIV care outside of New York City, so trends should be interpreted with caution.

Figure 33. Viral suppression at the end of 2024 among people who received HIV care in 2024, stratified by race/ethnicity and hepatitis C infection, New York State excluding New York City



4.4 HIV/Tuberculosis Syndemic in New York State

Tuberculosis (TB) remains an important opportunistic infection among people with HIV globally; however, in New York State, the burden of HIV/TB co-infection has become exceptionally low due to sustained public health investments, strong clinical management, and robust TB control programs. Over the past decade, the number of individuals living with diagnosed HIV who also had a diagnosis of active TB was fewer than 20 per year (range: 5–11 cases). This represents a decline of more than 70% compared with the mid-2000s, when annual co-infection counts ranged from approximately 30 cases in 2005 and 2007 to 36 cases in 2006.

5. Conclusions

The findings of the New York State HIV/AIDS Syndemic Surveillance Report reaffirm the significant progress New York State has achieved in reducing new HIV diagnoses, expanding access to treatment, and improving clinical outcomes over the past decade. Through sustained investment in prevention, testing, and care, particularly under the Ending the Epidemic initiative, New York has built one of the strongest HIV surveillance and public health infrastructures in the nation. This report demonstrates that these efforts continue to drive improvements across the HIV care continuum and have contributed to historically high levels of linkage to care and viral suppression statewide.

At the same time, the report highlights how the epidemiology of HIV increasingly reflects broader patterns in the social determinants of health. The distribution of co-infections such as STIs and hepatitis C shows that HIV often overlaps with economic hardship, housing instability, behavioral health challenges, and other community-level factors that influence health and well-being. Recognizing these intersections does not diminish the progress made; rather, it underscores the importance of continuing to align HIV prevention and care efforts with ongoing statewide initiatives focused on behavioral health, economic security, and community wellness

Looking ahead, the syndemic framework provides a strong foundation for future public health action. Continued collaboration with regional partners, community organizations, healthcare providers, and state agencies will help ensure that prevention and care strategies remain responsive to local needs and informed by the lived experiences of New Yorkers. By sustaining a comprehensive approach that integrates epidemiologic, social, and structural information, New York State remains well-positioned to further reduce new HIV infections, support long-term viral suppression, and advance the broader goal of health equity for all communities.