

# HIV IN OHIO

REGION 4



Department  
of Health

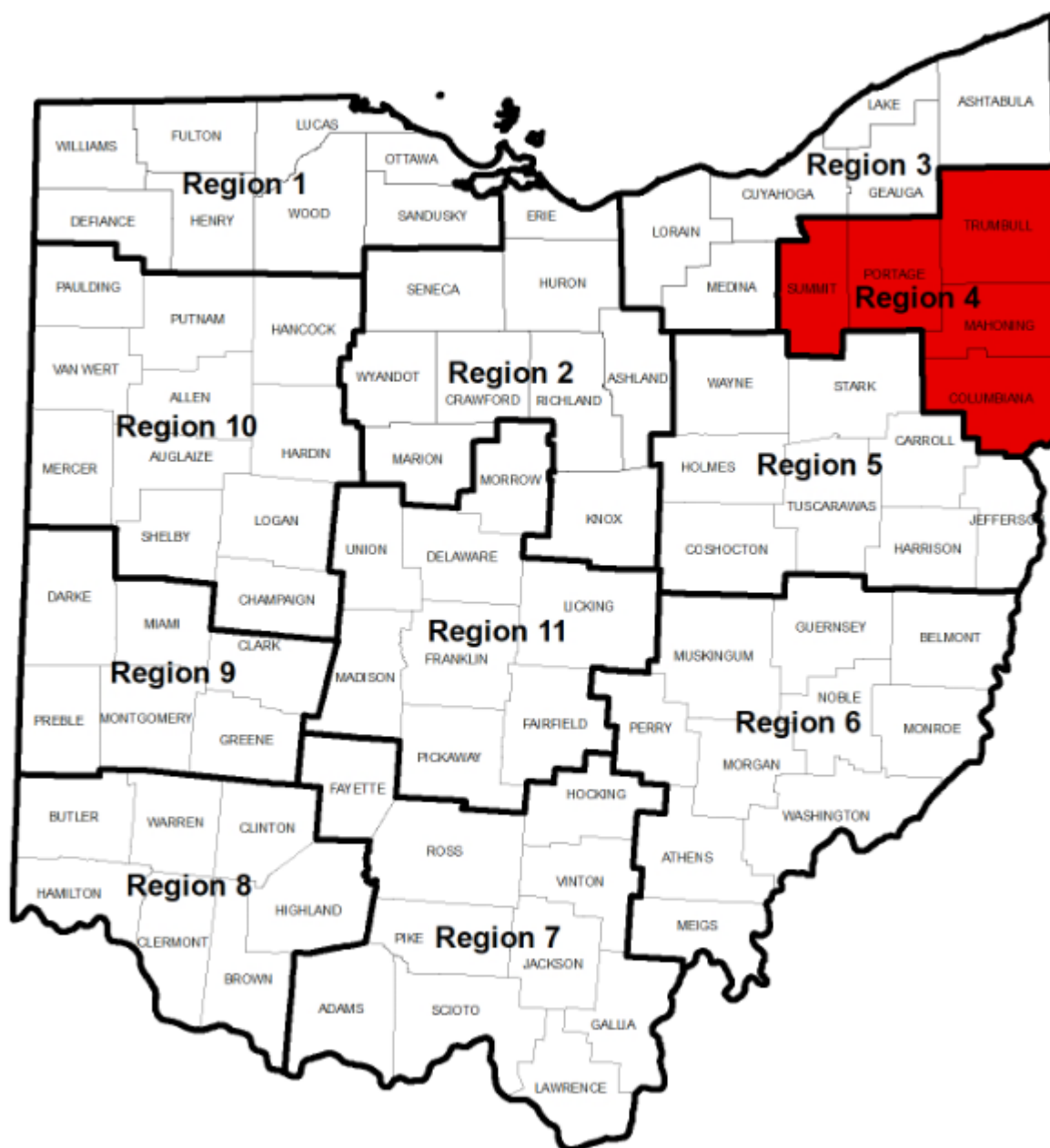
**HIV/AIDS** Integrated  
Epidemiologic Profile  
for Ohio, Region 4

Published Apr. 30, 2023

DIAGNOSE • TREAT • PREVENT • RESPOND

# Ohio HIV Prevention Regions

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## Region 4:

Columbiana County  
Mahoning County  
Portage County  
Summit County  
Trumbull County

# Acknowledgments

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# Executive Summary

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

**Population:** In 2021, according to the U.S. Census Bureau, Region 4 had a population of 1,229,422, 51% of which was female, and 49% of which was male.

**Reported new diagnoses of HIV infection:** In 2021, there were 85 new reported diagnoses of HIV infection in Region 4. Eighty-four percent of the new reported diagnoses of HIV in Region 4 in 2021 were among males, and 48% were among persons aged 20-34 years. Forty-eight percent were among Black/African American people, while 42% were among white people. Among males, the leading mode of transmission was male-to-male sexual contact, and among females, the leading mode of transmission was heterosexual contact.

**Coinfection:** Six percent (n=5) of the 77 persons residing in Region 4 who were diagnosed with HIV in 2020 were also diagnosed with chlamydia within 30 days of their HIV diagnosis. Three percent (n=2) were diagnosed with gonorrhea within 30 days of their HIV diagnosis, and 8% (n=6) were diagnosed with syphilis within 30 days of their HIV diagnosis. Three percent (n=2) of the 77 persons residing in Region 4 who were diagnosed with HIV in 2020 were also diagnosed with hepatitis C in 2020.

**HIV testing:** In Region 4 in 2020, 30.9% of adults (age 18 and older) reported having ever been tested for HIV, compared with 34% of adults in Ohio.

**Social determinants of health:** Of Region 4's population with income in the past 12 months, 14.1% was below the federal poverty level (FPL). In 2021, this equated to \$12,880 for families/households with one person, with an additional \$4,540 allowed for each additional person in the family/household.

## **Treat people with HIV rapidly and effectively to reach sustained viral suppression**

**Prevalence: Persons living with diagnosed HIV infection:** As of the end of 2021, there were 2,019 persons living with diagnosed HIV infection in Region 4. Seventy-eight percent of persons living with diagnosed HIV infection are males. Those who are aged 55-64 years have the highest number of persons living with diagnosed HIV in Region 4, compared to other age groups. Black/African American people make up 40% and white people make up 47% of persons living with diagnosed HIV infection. The rate for Black/African American people was nearly six times as high as that for white people.

**Ryan White Program:** The Ryan White Part B Program administers funds for states and territories to improve the quality, availability, and organization of HIV health care and support services. Recipients include all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the six U.S. Pacific territories/associated jurisdictions. ODH is a recipient of Ryan White Part B funds. In addition, Part B also includes grants for the Ohio AIDS Drug Assistance Program (OHDAAP), which enrolled 707 people in Region 4 in 2020.

**Linkage to care and continuum of care:** Seventy-one percent of adults/adolescents diagnosed with HIV infection in Region 4 in 2020 were linked to care within 30 days of diagnosis, compared with 46% in 2019. Of the persons living with diagnosed HIV in Region 4 at the end of 2020, 73% received care, 44% were retained in care, and 63% were virally suppressed (i.e., viral load  $\leq 200$  copies/mL).

**Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs)**

**Pre-Exposure Prophylaxis:** From 2017 to 2021, PrEP users in Region 4 increased from 224 (18.1 per 100,000) to 578 (47.0 per 100,000). In Ohio, the PrEP utilization rate was 88 per 100,000 in 2021.

**Syringe Services Programs:** There is at least one syringe services program (SSP) in each of the 11 HIV Prevention regions in Ohio. Ohio law gives communities the authority to pursue and operate SSPs (referred to in the law as a “bloodborne infectious disease prevention program”) through their local board of health following a prescribed process and operating requirements.

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

**Time-space reports:** Time-space analyses are conducted to monitor potential outbreaks of HIV. The number of new diagnoses is closely monitored to detect any potential increases in Region 4 and in particular populations in Region 4.

**Questions or comments:** Questions and/or comments about this report should be directed to the Ohio Department of Health (ODH) HIV Surveillance Program. Additional HIV surveillance data and reports are available on the ODH website:

<https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/hiv-aids-surveillance-program>.

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HIV Surveillance Program

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# Explanation of Terms

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**New diagnoses of HIV infection:** The term *diagnosis of human immunodeficiency virus (HIV) infection* is defined as a diagnosis of HIV infection, regardless of the stage of disease (stage 0, 1, 2, 3 [acquired immunodeficiency syndrome (AIDS)], or unknown) at the time of initial diagnosis, and refers to all persons diagnosed with HIV infection in Ohio, in a given year. New diagnoses of HIV infection do not necessarily represent all new infections (i.e., incidence or stage 0) as some individuals were infected recently, while others were infected at some time in the past but were unaware of their HIV status.

**Coinfection:** A match was performed with HIV and Sexually Transmitted Infections (STI) data to determine the number of persons residing in Ohio who were diagnosed with HIV and STIs in 2020, where coinfection was defined as having a STI diagnosis +/- 30 days from the HIV diagnosis. A match was performed with HIV and Hepatitis data to determine the number of persons residing in Ohio who were diagnosed with HIV and Hepatitis C from 2014 to 2020, where coinfection was defined as having a Hepatitis C diagnosis and HIV diagnosis in 2020.

**Persons living with diagnosed HIV infection:** The term *persons living with diagnosed HIV infection* (i.e., prevalence) represents all persons ever reported with an HIV infection in Ohio, regardless of stage of infection, who are not known to have died by the end of a calendar year. Some persons currently living with diagnosed HIV infection in Ohio received their HIV infection diagnosis while living outside of or prior to moving to Ohio.

**Rates:** Throughout this report, rates are presented to provide different measures of HIV disease burden. Disease rates account for differences in population size across demographic groups and geographic areas. All rates are presented per 100,000 population and are calculated using U.S. Census estimates. Rates are not calculated for case counts fewer than five due to unstable rates.

**Sex at Birth and Gender:** Sex refers to the biological sex the person was assigned at birth (male or female). Transgender is a term used to describe persons whose current gender identity is different than their sex (male or female) assigned at birth. Gender identity is used to describe a person's internal experience of their own gender.

**Age:** Age in years at the time of diagnosis is used when displaying newly reported diagnoses of HIV infection by age group. Age in years at the end of the calendar year (current age) is used when displaying persons living with diagnosed HIV infection by age group.

**Race/Ethnicity:** Except where noted, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; White; and Multi-Race. Persons of Hispanic/Latino descent may be of any race. Persons with a race of American Indian/Alaska Native, Asian/Pacific Islander, Black/African American, white, or multi-race are not Hispanic. Asian/Pacific Islander includes Native Hawaiians.

**Transmission Category:** Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC and system-calculated using sex at birth and risk factor history to determine mode of transmission. Transgender women are included in the male-to-male sexual contact transmission category if assigned male at birth, and risk factor history indicates sex with males. *Please note this is for the categorization of HIV transmission categories only and not to describe sexual orientation.*

# Abbreviations

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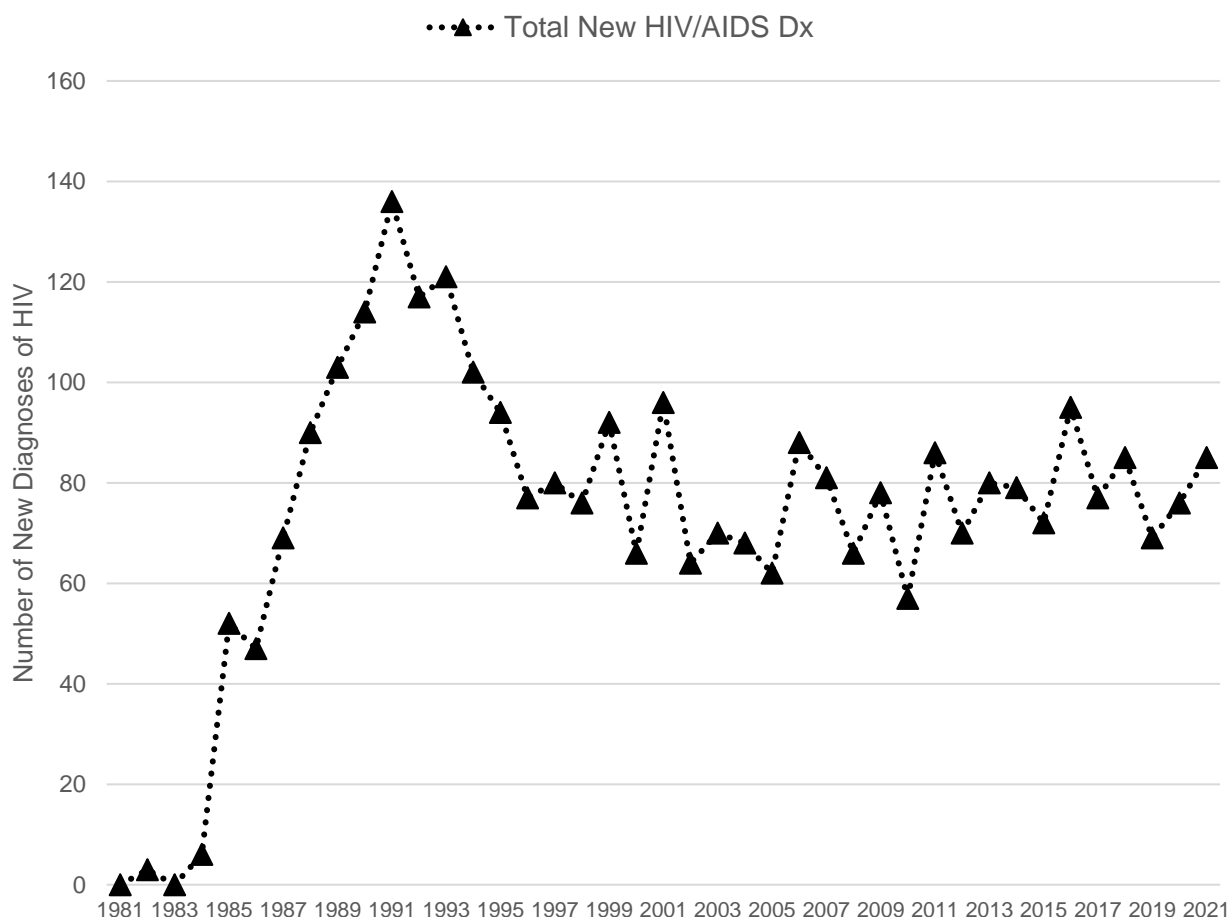
<b>AIDS</b>	Acquired Immunodeficiency Syndrome
<b>ART</b>	Anti-Retroviral Therapy
<b>BRFSS</b>	Behavioral Risk Factor Surveillance System
<b>CDC</b>	Centers for Disease Control and Prevention
<b>EIS</b>	Early Intervention Services
<b>ELR</b>	Electronic Laboratory Reporting
<b>FPL</b>	Federal Poverty Level
<b>HAART</b>	Highly Active Antiretroviral Therapy
<b>eHARS</b>	enhanced HIV/AIDS Reporting System
<b>HIV</b>	Human Immunodeficiency Virus
<b>HRSA</b>	Health Resources and Services Administration
<b>IDU</b>	Injection Drug Use
<b>MSM</b>	Men who have Sex with Men
<b>OHDAP</b>	Ohio HIV Drug Assistance Program
<b>PLWA</b>	People Living with AIDS
<b>PLWHA</b>	People Living with HIV/AIDS
<b>PLWH</b>	People Living with HIV (Not AIDS)
<b>PREP</b>	Pre-Exposure Prophylaxis
<b>PWID</b>	Persons Who Inject Drugs
<b>STI</b>	Sexually Transmitted Infection

# Introduction

## Background

The HIV/AIDS Integrated Epidemiologic Profile for Region 4 provides a detailed description of HIV/AIDS in Region 4 for public health programs funded to provide prevention, care services and surveillance. It is primarily based upon data collected and analyzed as part of HIV case surveillance activities conducted by the Ohio Department of Health (ODH), but also includes secondary sources of data collected and analyzed by other ODH programs, including the Ryan White Part B HIV Care Services Program. This profile can help inform HIV prevention and care planning initiatives at the regional level. This report describes Region 4's general population characteristics, persons with diagnosed HIV infections in Region 4, persons at risk for HIV infection in Region 4, as well as care service utilization patterns among HIV-infected persons in Region 4. The data presented in this report are used to support and help guide HIV prevention and care service efforts, support funding requests for HIV prevention and care service programs in Region 4, and evaluate associated HIV program(s) and related policies in Region 4.

**Figure 1: New reported diagnoses of HIV, Region 4, 1981-2021**



### Notes:

Total new HIV diagnoses include persons with a diagnosis of HIV, a diagnosis of HIV and an AIDS diagnosis within 12 months, and concurrent diagnoses of HIV and AIDS.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

The information included in this report aligns with two key strategic plans to end the HIV Epidemic – the [HIV National Strategic Strategy](#), and the [End the HIV Epidemic initiative](#).

The HIV National Strategic Plan focuses on four goals:

- 1) Prevent new HIV infections,
- 2) Improve HIV-related health outcomes of people with HIV,
- 3) Reduce HIV-related disparities and health inequities, and
- 4) Achieve integrated and coordinated efforts that address the HIV epidemic among all partners and stakeholders.

The End the HIV Epidemic initiative focuses on four pillars:

- 1) Diagnose,
- 2) Treat,
- 3) Prevent, and
- 4) Respond.

### **Organization of this Report**

The Epidemiologic Profile is organized into four sections:

#### **1) Diagnose all people with HIV as early as possible**

- Description of Region 4's population: includes tables, figures, and narrative about the general population of Region 4.
- Reported new diagnoses includes tables, figures, and narrative about diagnoses of HIV infection in Region 4.
- Sexually Transmitted Infections (STI) and HIV coinfection: includes narrative about coinfections of HIV and Chlamydia, Gonorrhea, and Syphilis in Region 4.
- Hepatitis and HIV coinfection: includes narrative about coinfections of HIV and Hepatitis in Region 4.
- HIV testing: includes tables, figures, and narrative about persons ever tested for HIV.
- Social determinants of health: includes tables, figures, and narrative about the social determinants of health among the general population, and persons diagnosed with HIV infection in Region 4.

#### **2) Treat people with HIV rapidly and effectively to reach sustained viral suppression**

- Prevalence: includes tables, figures, and narratives about persons living with diagnosed HIV infection in Region 4.
- Ohio AIDS Drug Assistance Program (OHDAP) utilization: includes tables, figures, and narrative about persons receiving assistance for HIV treatment through the Ryan White Part B program in Region 4.
- Linkage to care and continuum of care: includes tables, figures, and narrative describing the continuum of HIV care in Region 4.

**3) Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs)**

- PrEP: includes tables and narratives about PrEP utilization in Region 4.
- SSPs: includes narrative about SSPs in Region 4.

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

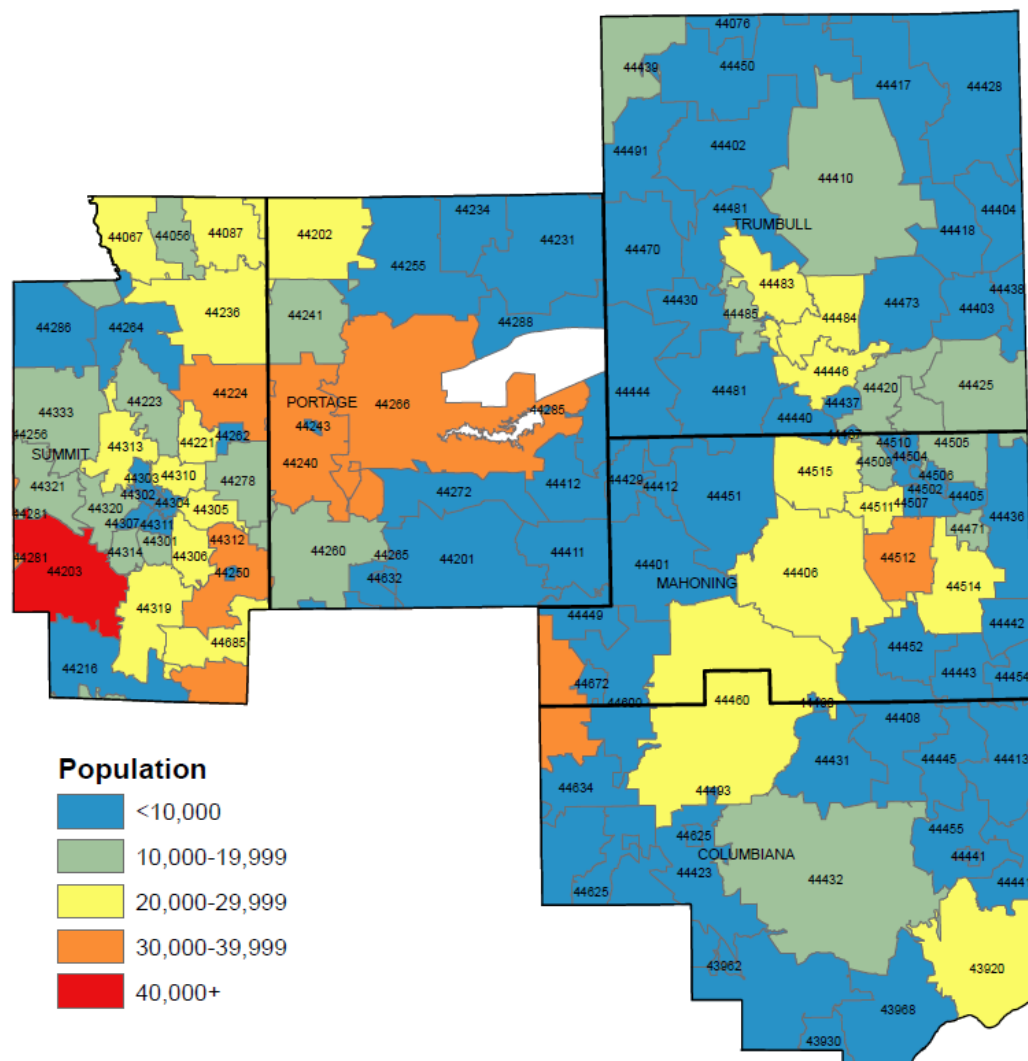
- Time-space analysis: includes tables and narratives about time-space analyses conducted to detect and monitor potential outbreaks of HIV.

# DIAGNOSE: Diagnose all people with HIV as early as possible

## Description of Region 4's Population

In 2021, Region 4 had a population of 1,229,422. The proportion of females (51%) is slightly higher than the proportion of males (49%). Twenty-nine percent of Region 4's population is less than 25 years of age, while 36% is between the ages of 25 and 54 years. Eighty percent of Region 4's residents are white, 12% are black/African American, 3% are Hispanic/Latino, 2% are Asian/Pacific Islanders, and 2% are multi-racial. American Indian/Alaska Natives comprise less than 1% of Region 4's population.

**Figure 2: Population by ZIP Code, Region 4, 2021**



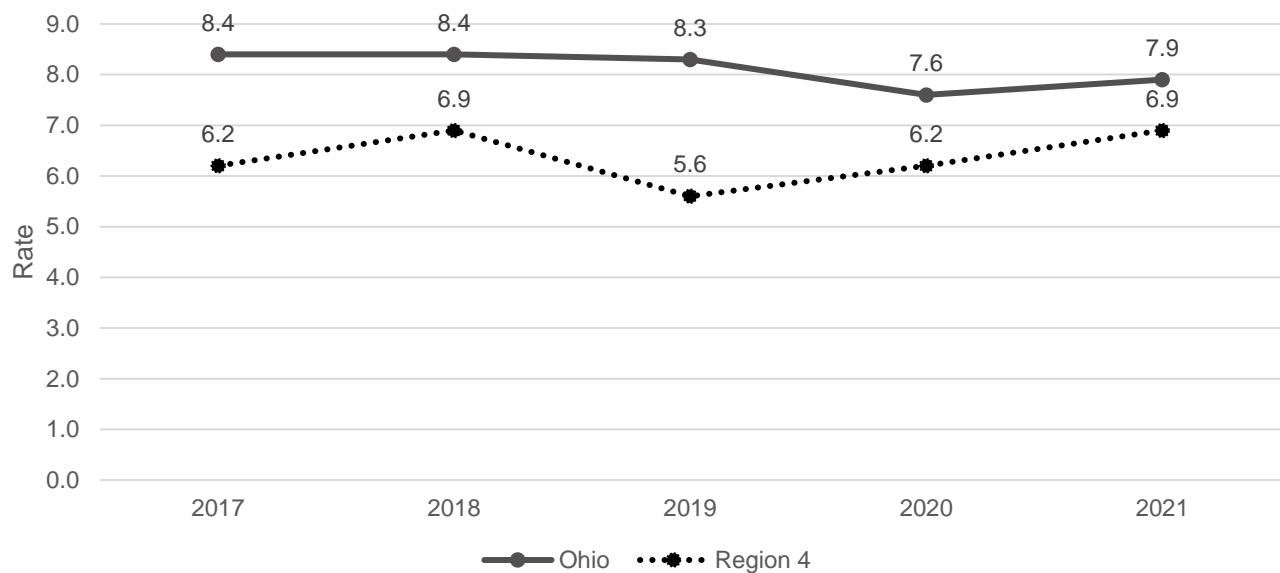


# Reported New Diagnoses of HIV Infection

There were 85 reported new diagnoses of HIV infection in Region 4 in 2021, which equates to a rate of 6.9 individuals per 100,000 population. This represents an increase since 2017, when there were 77 new reported diagnoses of HIV infection in Region 4. It is unknown whether the COVID-19 pandemic may have affected the diagnosis and reporting of new cases in 2020.

**Consequently, a decrease in newly reported diagnoses of HIV in 2020 may not represent a true decline.** In 2021, the rate of reported new diagnoses of HIV in Ohio was 7.7 per 100,000 population.

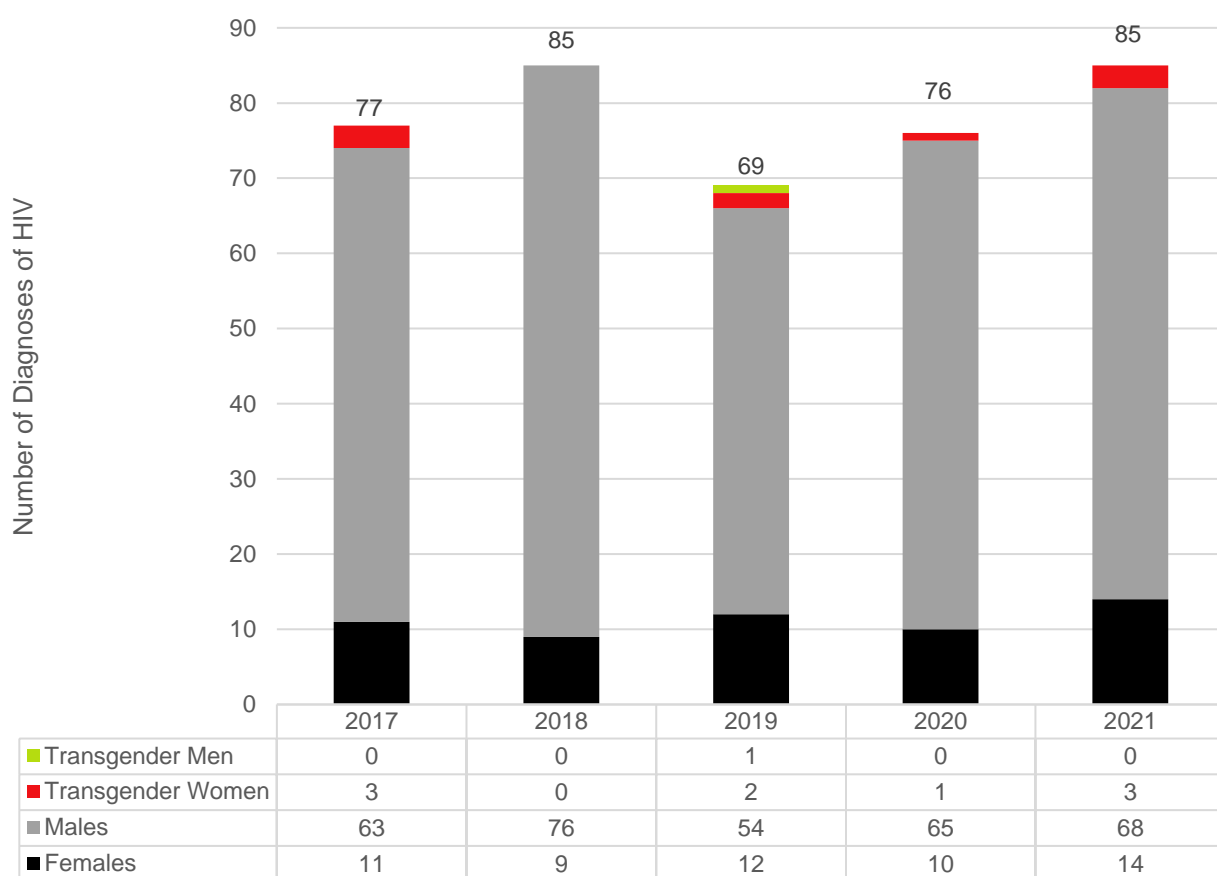
**Figure 3: Trends in reported new diagnoses of HIV infection, Region 4 and Ohio, 2017-2021**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Current gender:** The majority of diagnoses of HIV infection were, and continue to be, among males. In each of the past five years, males accounted for 78-89% of diagnoses. In 2021, the rate for males (11.7), was more than five times as high as that for females (2.2).

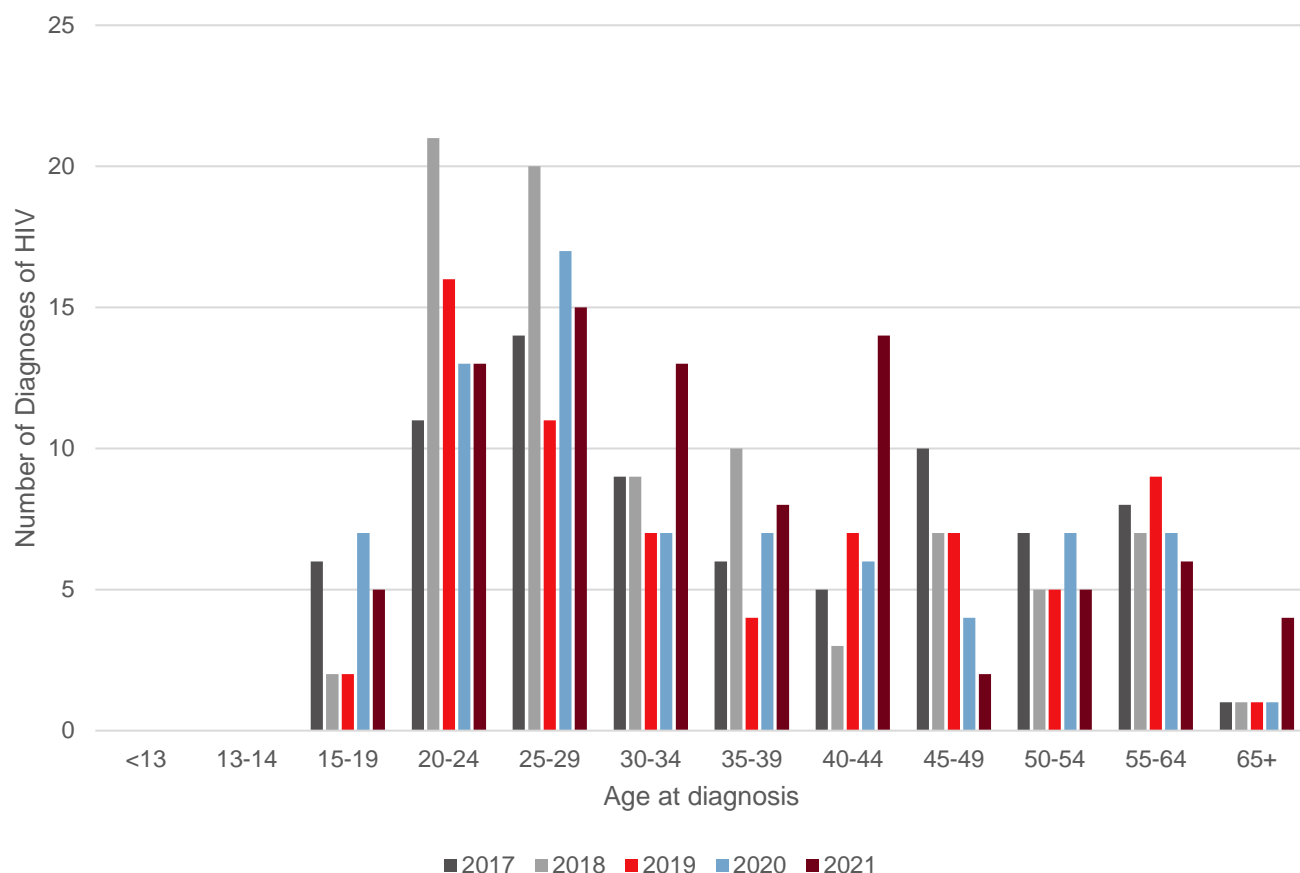
**Figure 4: Trends in reported new diagnoses of HIV infection by current gender, Region 4, 2017-2021**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Age at diagnosis:** Forty-eight percent of all diagnosed HIV infections reported in Region 4 in 2021 occurred among persons 20-34 years of age (n=41). The rate of diagnosed HIV infections was highest among persons 40-44 years of age (19.6), followed by those 25-29 years of age (19.2).

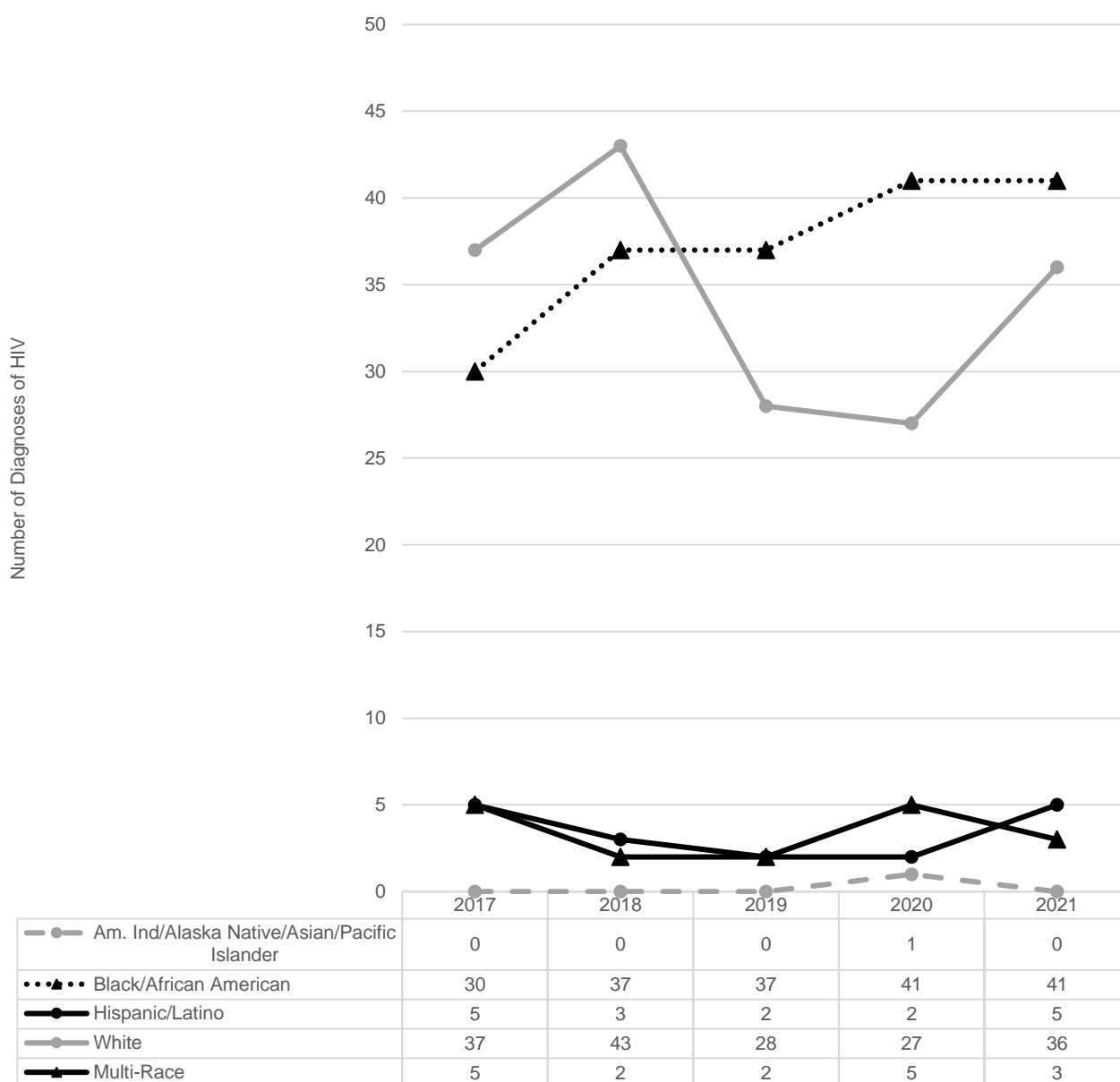
**Figure 5: Trends in reported new diagnoses of HIV infection by age at diagnosis, Region 4, 2017-2021**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

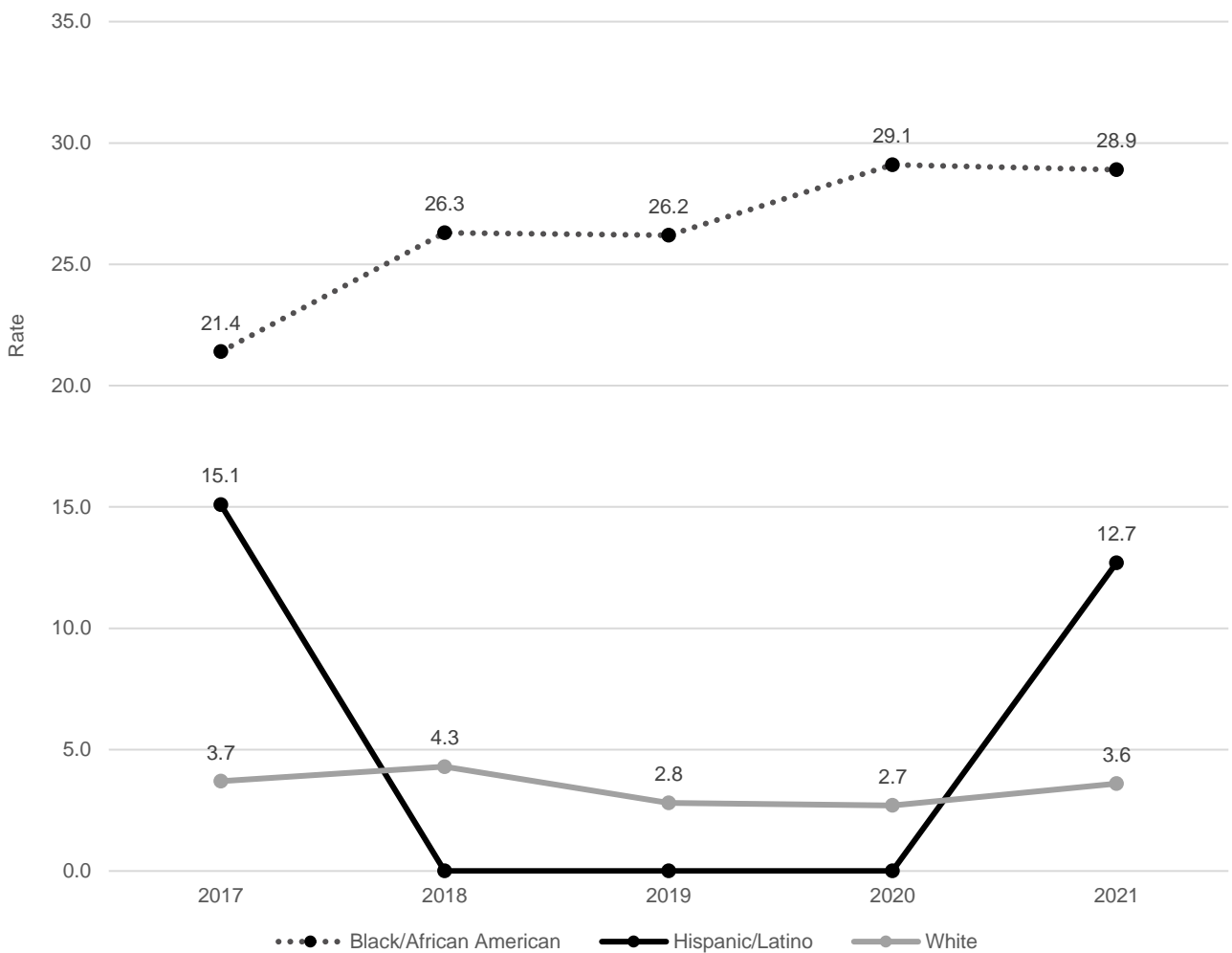
**Race/ethnicity:** In 2021, Black/African American people accounted for 48% of all reported new diagnoses of HIV in Region 4. This was followed by white people (42%) and Hispanic/Latino people (6%). Region 4's Black/African American and Hispanic/Latino populations continue to be disproportionately impacted by HIV compared to other race/ethnicity groups. The rate of diagnoses among Black/African American people was more than eight times higher than that for white people, and the rate in Hispanic/Latino people was more than three times as high, as that for white people.

**Figure 6: Trends in reported new diagnoses of HIV infection by race/ethnicity, Region 4, 2017-2021**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

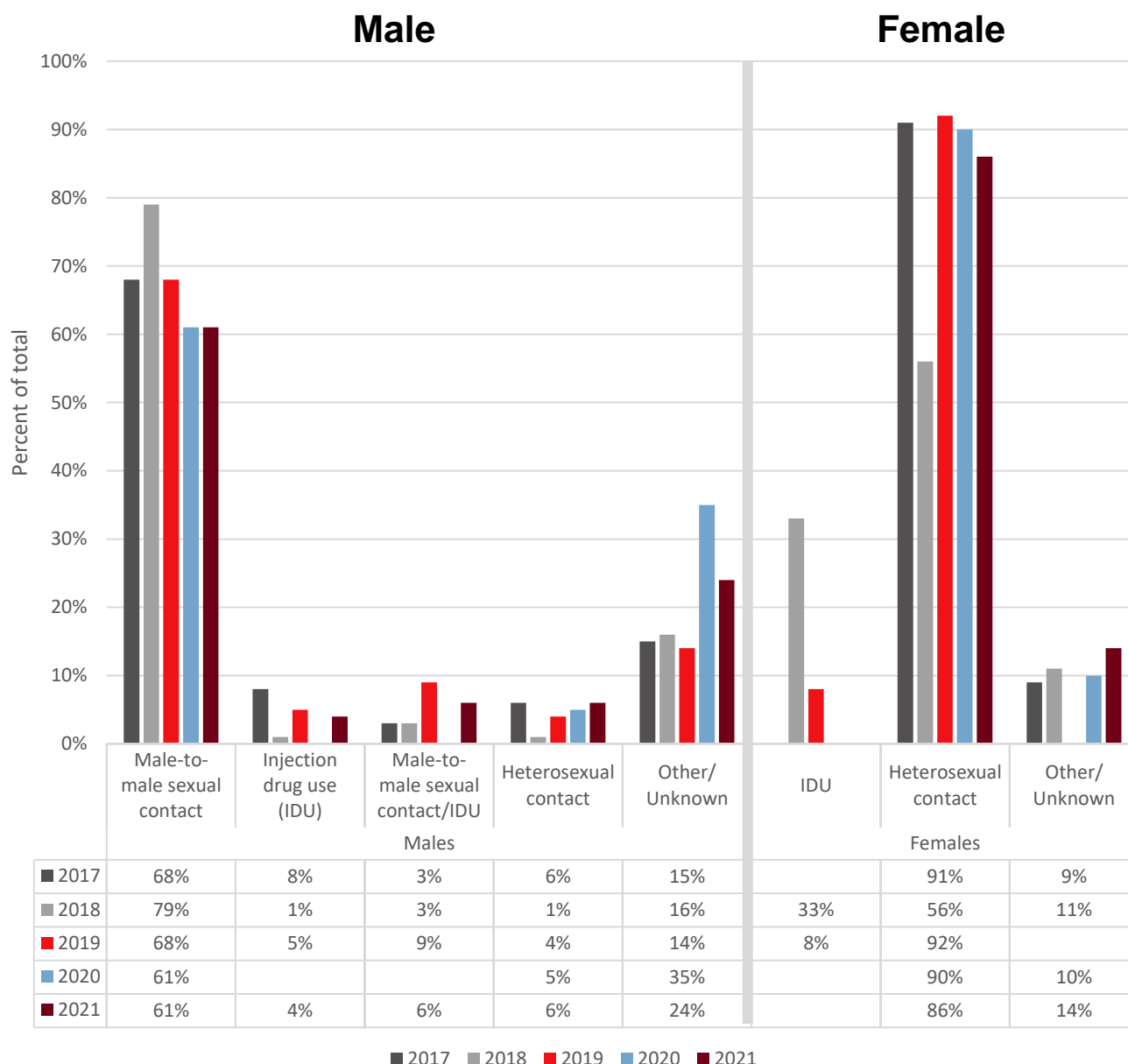
**Figure 7: Trends in rates of reported new diagnoses of HIV infection by selected race/ethnicity, Region 4, 2017-2021**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Transmission and exposure categories:** A transmission category is assigned to a hierarchy based on risks, with the highest category being the most likely route of HIV transmission. Male-to-male sexual contact (51%) was the leading mode of transmission reported among all persons diagnosed with an HIV infection in Region 4 in 2021. Injection drug use (IDU) accounted for 4%, male-to-male sexual contact/IDU accounted for 5%, heterosexual contact accounted for 19%, and the transmission category was unknown for 22% of persons diagnosed with HIV infection in 2021.

**Figure 8: Trends in percentage of reported new diagnoses of HIV infection by transmission, Region 4, 2017-2021**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.



**Table 1: Trends in reported new diagnoses of HIV infection by selected characteristics, Region 4, 2017-2021**

Characteristic	Diagnoses of HIV Infection by Year														
	2017			2018			2019			2020			2021		
	Rate <sup>a</sup>	No.	%	Rate <sup>a</sup>	No.	%	Rate <sup>a</sup>	No.	%	Rate <sup>a</sup>	No.	%	Rate <sup>a</sup>	No.	%
<b>Sex at birth</b>															
Males	10.9	66	86%	12.6	76	89%	9.3	56	81%	11.0	66	87%	11.7	71	84%
Females	1.7	11	14%	1.4	9	11%	2.1	13	19%	1.6	10	13%	2.2	14	16%
<b>Age at diagnosis (yr)</b>															
<13	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-
13-14	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-
15-19	7.6	6	8%	*	2	2%	*	2	3%	9.5	7	9%	6.6	5	6%
20-24	13.2	11	14%	25.4	21	25%	19.6	16	23%	16.3	13	17%	16.3	13	15%
25-29	17.3	14	18%	24.5	20	24%	13.6	11	16%	21.2	17	22%	19.2	15	18%
30-34	12.7	9	12%	12.6	9	11%	9.6	7	10%	9.4	7	9%	17.0	13	15%
35-39	8.4	6	8%	14.0	10	12%	*	4	6%	9.9	7	9%	11.1	8	9%
40-44	7.3	5	6%	*	3	4%	10.2	7	10%	8.7	6	8%	19.6	14	16%
45-49	12.7	10	13%	9.1	7	8%	9.4	7	10%	*	4	5%	*	2	2%
50-54	8.3	7	9%	6.1	5	6%	6.3	5	7%	8.9	7	9%	6.3	5	6%
55-64	4.4	8	10%	3.8	7	8%	5.0	9	13%	3.9	7	9%	3.4	6	7%
65+	*	1	1%	*	1	1%	*	1	1%	*	1	1%	*	4	5%
<b>Race/Ethnicity<sup>b</sup></b>															
American Indian/Alaska Native	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-
Asian/Pacific Islander	*	-	-	*	-	-	*	-	-	*	1	1%	*	-	-
Black/African American	21.4	30	39%	26.3	37	44%	26.2	37	54%	29.1	41	54%	28.9	41	48%
Hispanic/Latino	15.1	5	6%	*	3	4%	*	2	3%	*	2	3%	12.7	5	6%
White	3.7	37	48%	4.3	43	51%	2.8	28	41%	2.7	27	36%	3.6	36	42%
Multi-Race	19.8	5	6%	*	2	2%	*	2	3%	18.1	5	7%	*	3	4%
<b>Race/Ethnicity<sup>b</sup> and Sex at birth</b>															
Am. Indian/Alaska Native Males	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-
Am. Indian/Alaska Native Females	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-
Asian/Pacific Islander Males	*	-	-	*	-	-	*	-	-	*	1	1%	*	-	-
Asian/Pacific Islander Females	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-
Black/African American Males	35.9	24	31%	51.0	34	40%	41.7	28	41%	50.8	34	45%	48.7	33	39%
Black/African American Females	8.1	6	8%	*	3	4%	12.1	9	13%	9.5	7	9%	10.8	8	9%
Hispanic/Latino Males	28.5	5	6%	*	3	4%	*	-	-	*	2	3%	*	4	5%
Hispanic/Latino Females	*	-	-	*	-	-	*	2	3%	*	-	-	*	1	1%
White Males	6.7	33	43%	7.5	37	44%	5.3	26	38%	5.0	24	32%	6.6	32	38%
White Females	*	4	5%	1.2	6	7%	*	2	3%	*	3	4%	*	4	5%
Multi-Race Males	*	4	5%	*	2	2%	*	2	3%	36.8	5	7%	*	2	2%
Multi-Race Females	*	1	1%	*	-	-	*	-	-	*	-	-	*	1	1%
<b>Total</b>	<b>6.2</b>	<b>77</b>		<b>6.9</b>	<b>85</b>		<b>5.6</b>	<b>69</b>		<b>6.2</b>	<b>76</b>		<b>6.9</b>	<b>85</b>	

**Notes:**

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS) who were residents of Ohio at time of initial diagnosis.

Asterisk (\*) indicates rate not calculated for case count <5 due to unstable rates. Dash (-) indicates no cases were reported for the given category.

<sup>a</sup> The rate is the number of persons with a reported diagnosis of HIV infection per 100,000 population calculated using 2021 U.S. Census estimates.

<sup>b</sup> In this data, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; white; and multi-race. Those of Hispanic/Latino descent are included in the Hispanic/Latino category, regardless of race. They are not included in a race category. Asian/Pacific Islander includes Native Hawaiians.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Table 2: Trends in reported new diagnoses of HIV infection by transmission category, Region 4, 2017-2021**

**Diagnoses of HIV Infection by Year**

Transmission Category <sup>a</sup>	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Male adult or adolescent</b>										
Male-to-male sexual contact	45	68%	60	79%	38	68%	40	61%	43	61%
Injection drug use (IDU)	5	8%	1	1%	3	5%	-	-	3	4%
Male-to-male sexual contact and IDU	2	3%	2	3%	5	9%	-	-	4	6%
Heterosexual contact	4	6%	1	1%	2	4%	3	5%	4	6%
Other/unknown	10	15%	12	16%	8	14%	23	35%	17	24%
<b>Subtotal</b>	<b>66</b>	<b>100%</b>	<b>76</b>	<b>100%</b>	<b>56</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>71</b>	<b>100%</b>
<b>Female adult or adolescent</b>										
Injection drug use	-	-	3	33%	1	8%	-	-	-	-
Heterosexual contact	10	91%	5	56%	12	92%	9	90%	12	86%
Other/unknown	1	9%	1	11%	-	-	1	10%	2	14%
<b>Subtotal</b>	<b>11</b>	<b>100%</b>	<b>9</b>	<b>100%</b>	<b>13</b>	<b>100%</b>	<b>10</b>	<b>100%</b>	<b>14</b>	<b>100%</b>
<b>Child (&lt;13 yrs. at diagnosis)</b>										
Perinatal	-	-	-	-	-	-	-	-	-	-
Other/unknown	-	-	-	-	-	-	-	-	-	-
<b>Subtotal</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total</b>	<b>77</b>		<b>85</b>		<b>69</b>		<b>76</b>		<b>85</b>	

**Notes:**

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS) who were residents of Ohio at time of initial diagnosis.

Dash (-) indicates no cases were reported for the given category.

<sup>a</sup> Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC and system-calculated using sex at birth and risk factor history to determine mode of transmission. A person with multiple risks is only represented in the highest category based on the CDC hierarchical algorithm. Thus, transgender women are included in the male-to-male sexual contact transmission category if assigned male at birth and risk factor history indicates sex with males. Please note this is for the categorization of HIV transmission categories only and not to describe sexual orientation.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Table 3: Trends in reported new diagnoses of HIV infection by exposure category, Region 4, 2017-2021**

Diagnoses of HIV Infection by Year										
Exposure Category <sup>a</sup>	2017		2018		2019		2020		2021	
	No.	%	No.	%	No.	%	No.	%	No.	%
Male-to-male sexual contact only	45	58%	60	71%	38	55%	40	53%	41	48%
Injection drug use (IDU) only	4	5%	2	2%	2	3%	-	-	-	-
Heterosexual contact only	14	18%	6	7%	14	20%	12	16%	16	19%
Male-to-male sexual contact & IDU	1	1%	-	-	4	6%	-	-	4	5%
IDU & Heterosexual contact	1	1%	2	2%	2	3%	-	-	3	4%
Male-to-male sexual contact & Heterosexual contact	-	-	-	-	-	-	-	-	2	2%
Male-to-male sexual contact & IDU & Heterosexual contact	1	1%	2	2%	1	1%	-	-	-	-
Perinatal exposure	-	-	-	-	-	-	-	-	-	-
Other/unknown	11	14%	13	15%	8	12%	24	32%	19	22%
<b>Total</b>	<b>77</b>		<b>85</b>		<b>69</b>		<b>76</b>		<b>85</b>	

Notes:

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS) who were residents of Ohio at time of initial diagnosis.

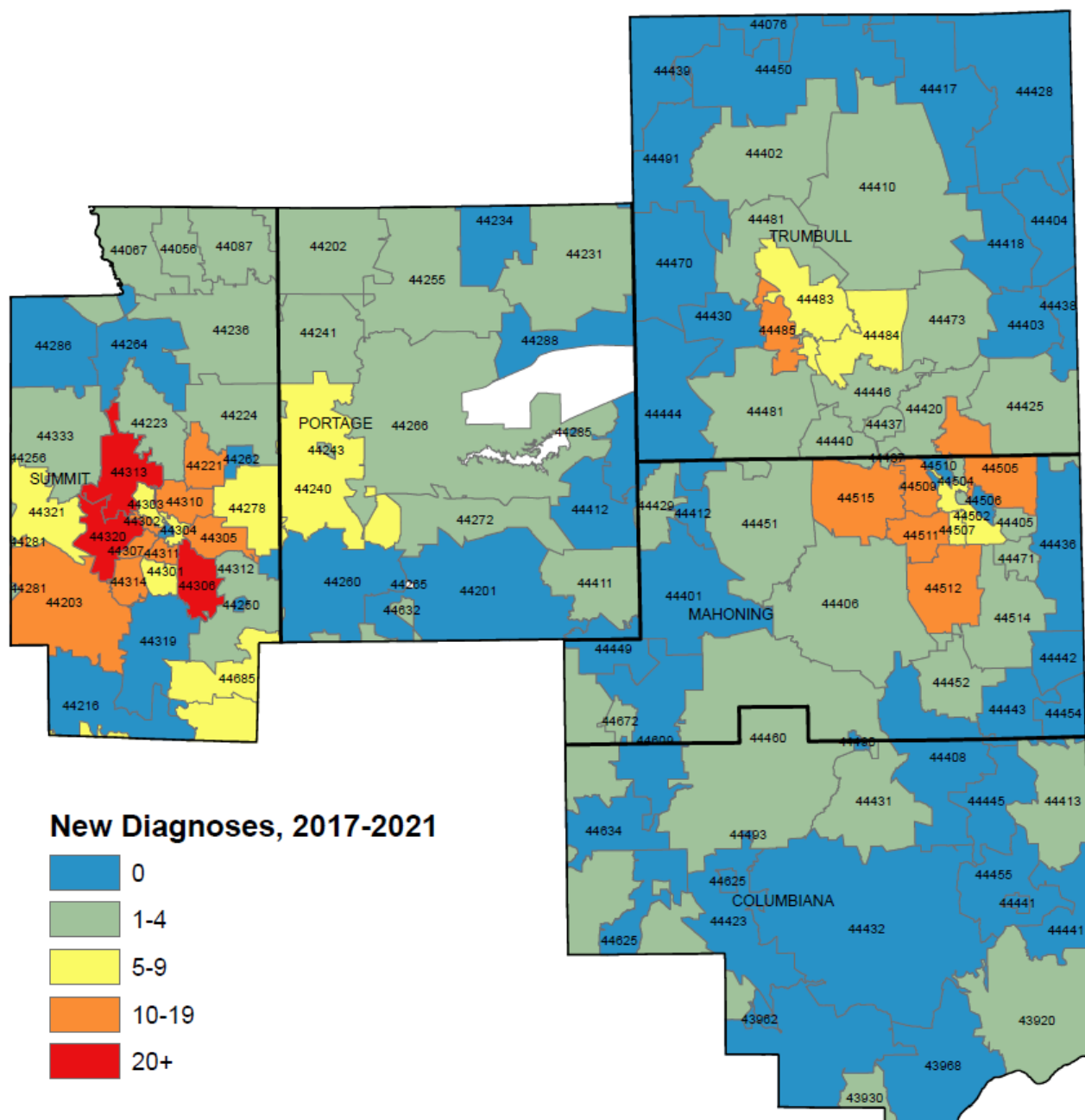
Dash (–) indicates no cases were reported for the given category.

<sup>a</sup> Exposure categories are mutually exclusive risk categories. All possible combinations of risks are represented among exposure categories. A person with multiple risks is represented in the exposure category identifying all the reported ways in which that person may have been exposed to HIV.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**ZIP Code:** Twenty or more new reported diagnoses of HIV were reported from 2017 to 2021 among persons residing in the following ZIP Codes in Region 4, which are in descending order of the number of new reported diagnoses of HIV: 44320, 44306, and 44313.

**Figure 9: Reported new diagnoses of HIV infection by ZIP Code, Region 4, 2017-2021**



**Notes:**

ZIP Code reflects ZIP Code of residence at time of initial diagnosis. Cases diagnosed while in a state or federal correctional facility or whose residence at time of diagnosis is unknown are not included.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through January 25, 2023.

**Table 4: Trends in reported new diagnoses of HIV infection by county, Region 4, 2017-2021**

County <sup>a</sup>	2017		2018		2019		2020		2021	
	Rate <sup>b</sup>	No.	Rate <sup>b</sup>	No.	Rate <sup>b</sup>	No.	Rate <sup>b</sup>	No.	Rate <sup>b</sup>	No.
Columbiana	*	3	*	3	*	1	*	-	*	3
Mahoning	6.1	14	7.4	17	2.6	6	8.4	19	11.9	27
Portage	4.3	7	3.1	5	3.7	6	*	4	*	2
Summit	8.1	44	9.0	49	8.7	47	8.5	46	8.6	46
Trumbull	4.5	9	5.5	11	4.5	9	3.6	7	3.5	7
Region 4	6.2	77	6.9	85	5.6	69	6.2	76	6.9	85
<b>Ohio</b>	<b>8.4</b>	<b>978</b>	<b>8.4</b>	<b>983</b>	<b>8.3</b>	<b>969</b>	<b>7.6</b>	<b>887</b>	<b>7.7</b>	<b>912</b>

**Notes:**

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS) who were residents of Ohio at time of initial diagnosis.

Asterisk (\*) indicates rate not calculated for case count <5 due to unstable rates. (–) Indicates no cases were reported for the given category.

<sup>a</sup> County reflects county of residence at time of initial diagnosis. Cases diagnosed while in a state or federal correctional facility or whose county is unknown are included in No County.

<sup>b</sup> The rate is the number of persons with a reported diagnosis of HIV infection per 100,000 population calculated using U.S. Census estimates for that year.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Table 5: Reported new diagnoses of HIV infection by race/ethnicity and age at diagnosis, Region 4, 2021**

**2021 diagnosis of HIV infection**

Age at diagnosis (yr.)	American Indian/Alaska Native				Asian/Pacific Islander				Black/African American				Hispanic/Latino <sup>a</sup>				White				Multi-Race		
	Rate <sup>b</sup>	No.	%		Rate <sup>b</sup>	No.	%		Rate <sup>b</sup>	No.	%		Rate <sup>b</sup>	No.	%		Rate <sup>b</sup>	No.	%		Rate <sup>b</sup>	No.	%
<13	*	-	-		*	-	-		*	-	-		*	-	-		*	-	-		*	-	-
13-14	*	-	-		*	-	-		*	-	-		*	-	-		*	-	-		*	-	-
15-19	*	-	-		*	-	-		*	4	10%		*	-	-		*	-	-		*	-	-
20-24	*	-	-		*	-	-		83.0	9	22%		*	1	20%		*	2	6%		*	1	33%
25-29	*	-	-		*	-	-		52.2	6	15%		*	1	20%		13.7	8	22%		*	1	33%
30-34	*	-	-		*	-	-		77.8	8	20%		*	-	-		*	3	8%		*	1	33%
35-39	*	-	-		*	-	-		*	2	5%		*	1	20%		8.8	5	14%		*	-	-
40-44	*	-	-		*	-	-		*	3	7%		*	1	20%		17.5	10	28%		*	-	-
45-49	*	-	-		*	-	-		*	1	2%		*	1	20%		*	1	3%		*	-	-
50-54	*	-	-		*	-	-		*	1	2%		*	-	-		*	4	11%		*	-	-
55-64	*	-	-		*	-	-		*	4	10%		*	-	-		*	2	6%		*	-	-
65+	*	-	-		*	-	-		*	3	7%		*	-	-		*	1	3%		*	-	-
<b>Total</b>	*	-	-		*	-	-		<b>28.9</b>	<b>41</b>			<b>12.7</b>	<b>5</b>			<b>3.6</b>	<b>36</b>			*	<b>3</b>	

**Notes:**

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS) who were residents of Ohio at time of initial diagnosis.

Asterisk (\*) indicates the rate not calculated for case count <5 due to unstable rates. Dash (-) indicates no cases were reported for the given category.

<sup>a</sup> In this data, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; white; and multi-race. Those of Hispanic/Latino descent are included in the Hispanic/Latino category, regardless of race. They are not included in a race category. Asian/Pacific Islander includes Native Hawaiians.

<sup>b</sup> The rate is the number of persons with a reported diagnosis of HIV infection per 100,000 population calculated using 2020 U.S. Census estimates.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.



**Table 6: Reported new diagnoses of HIV infection by race/ethnicity and transmission category, Region 4, 2021**

Transmission Category <sup>c</sup>	2021 diagnosis of HIV infection											
	American Indian/Alaska Native		Asian/Pacific Islander		Black/African American		Hispanic/Latino <sup>a</sup>		White		Multi-Race	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male adult or adolescent												
Male-to-male sexual contact	-	-	-	-	21	64%	4	100%	16	50%	2	100%
Injection drug use (IDU)	-	-	-	-	-	-	-	-	3	9%	-	-
Male-to-male sexual contact and IDU	-	-	-	-	1	3%	-	-	3	9%	-	-
Heterosexual contact	-	-	-	-	2	6%	-	-	2	6%	-	-
Other/unknown	-	-	-	-	9	27%	-	-	8	25%	-	-
Subtotal	-	-	-	-	33	100%	4	100%	32	100%	2	-
Female adult or adolescent												
Injection drug use	-	-	-	-	-	-	-	-	-	-	-	-
Heterosexual contact	-	-	-	-	6	75%	1	100%	4	100%	1	100%
Other/unknown	-	-	-	-	2	25%	-	-	-	-	-	-
Subtotal	-	-	-	-	8	100%	1	100%	4	100%	1	100%
Child (<13 yrs. at diagnosis)												
Perinatal	-	-	-	-	-	-	-	-	-	-	-	-
Other/unknown	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	41	-	5	-	36	-	3	-

**Notes:**

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS), who were residents of Ohio at time of initial diagnosis.

(-) Indicates no cases were reported for the given category.

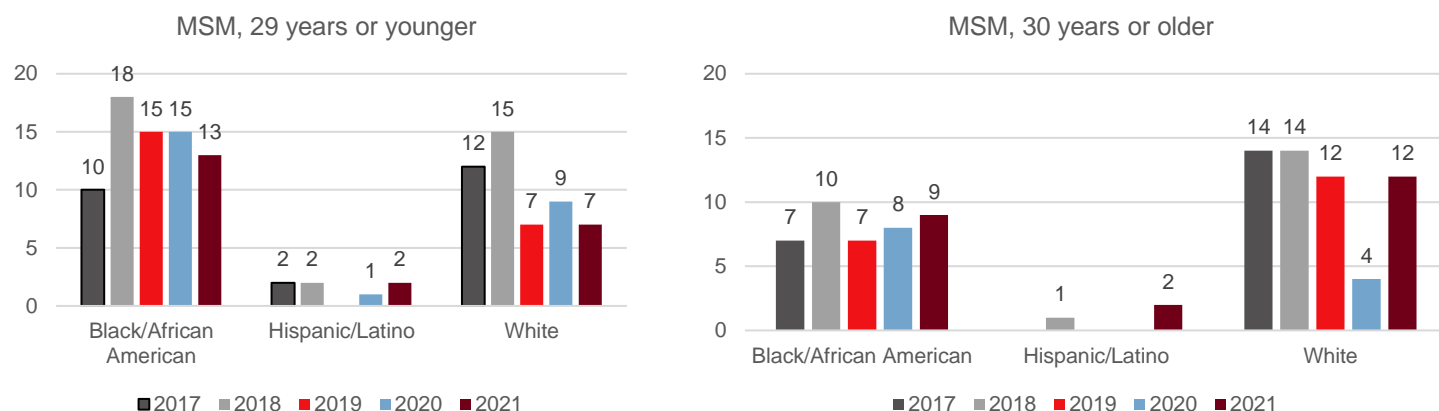
<sup>a</sup> In this data, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; white; and multi-race. Those of Hispanic/Latino descent are included in the Hispanic/Latino category, regardless of race. They are not included in a race category. Asian/Pacific Islander includes Native Hawaiians.

<sup>b</sup> Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC and system-calculated using sex at birth and risk factor history to determine mode of transmission. A person with multiple risks is only represented in the highest category based on the CDC hierarchical algorithm. Thus, transgender women are included in the male-to-male sexual contact transmission category if assigned male at birth and risk factor history indicates sex with males. Please note this is for the categorization of HIV transmission categories only and not to describe sexual orientation.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Communities of focus—MSM:** In this report, MSM is defined as persons assigned male at birth who have a transmission category of “male-to-male sexual contact” or “male-to-male sexual contact/IDU.” Among MSM aged 29 years or younger, the number of reported new diagnoses of HIV was highest among Black/African American MSM. Among MSM aged 30 years or older, the number of reported new diagnoses of HIV was highest among white MSM.

**Figure 10: Trends in reported new diagnoses of HIV infection by race/ethnicity and age at diagnosis among MSM, Region 4, 2017-2021**



**Notes:**

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS) who were residents of Ohio at time of initial diagnosis.

(-) Indicates no cases were reported for the given category.

<sup>a</sup> In this data, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; white; and multi-race. Those of Hispanic/Latino descent are included in the Hispanic/Latino category, regardless of race. They are not included in a race category. Asian/Pacific Islander includes Native Hawaiians.

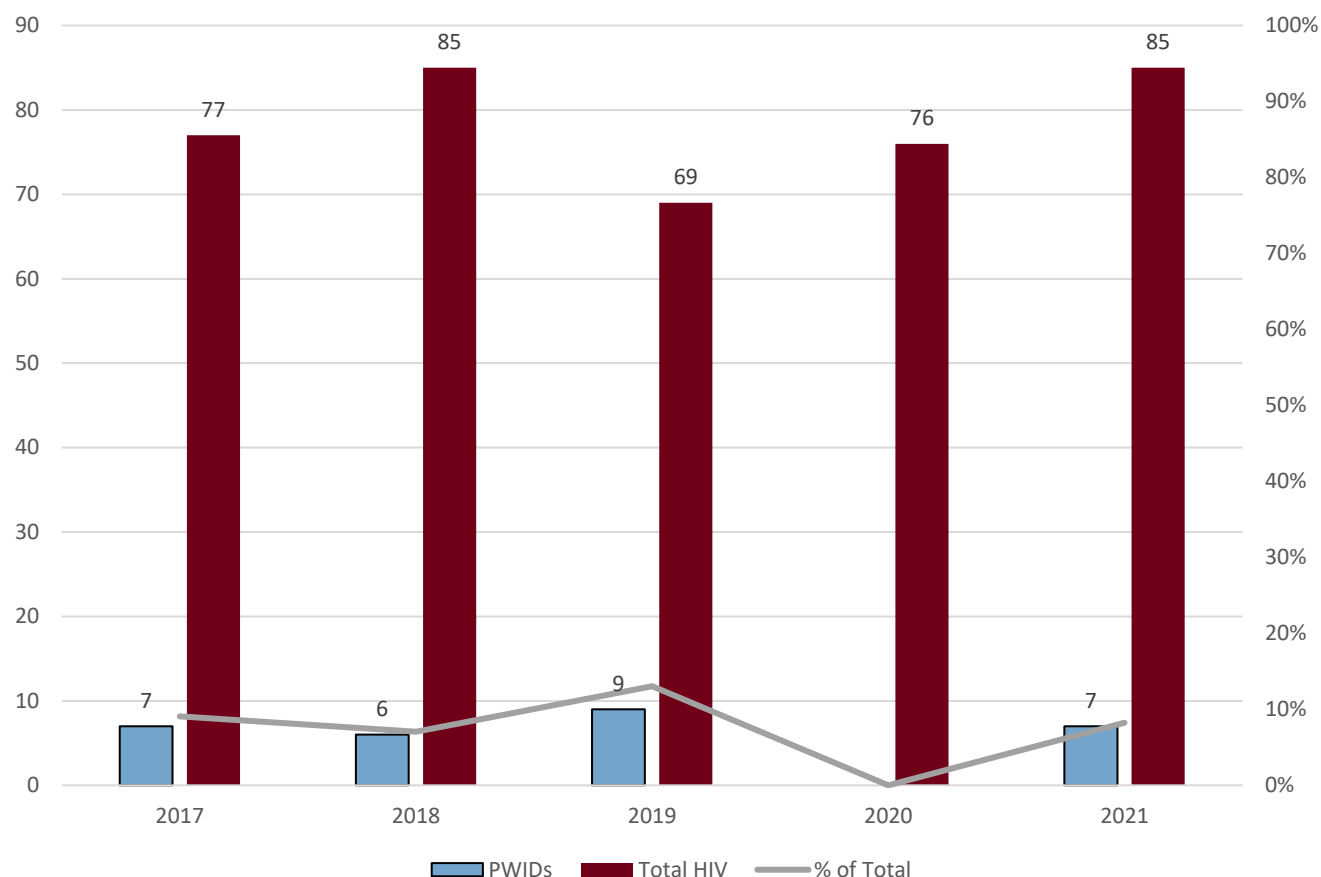
The term MSM is defined as persons assigned male at birth, and who have a transmission category of ‘male-to-male sexual contact’ or ‘male-to-male sexual contact/IDU.’

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Communities of focus—Transgender people:** Gender identity is used to describe a person’s internal experience of their own gender, while gender expression is how that person outwardly exhibits their gender. A person’s gender identity may be different from their gender expression. There have been 15 new reported diagnoses of HIV documented among transgender people in Region 4 since the beginning of the epidemic in 1981. Of these, 93% (n=14) were among transgender women, 40% (n=6) were among transgender people aged 30 years or older, and 60% (n=9) were among Black/African American transgender women. However, it is important to note that data related to current gender may be underestimated due to underreporting and the recency of which these data were collected.

**Communities of focus—PWID:** There were 85 reported new diagnoses of HIV in Region 4 in 2021. Of these, 8% (n=7) were among PWIDs (defined as persons who inject drugs or persons reported with a transmission category of male-to-male sexual contact/injection drug use).

**Figure 11: Trends in reported new diagnoses of HIV infection among PWIDs by year of diagnosis and selected characteristics, Region 4, 2017-2021**



**Notes:**

Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS) who were residents of Ohio at time of initial diagnosis. The term PWID is defined as a person who has a transmission category of 'injection drug use (IDU)' or 'male-to-male sexual contact/IDU.'

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

# Sexually Transmitted Infections (STI) and HIV Coinfection

---

A match was performed with HIV and STI data to determine the number of persons residing in Region 4 who were diagnosed with HIV and STIs in 2020.

**Chlamydia:** Of the 77 persons with a reported new diagnosis of HIV in 2020, 20 (26%) had a chlamydia diagnosis. The chlamydia diagnosis was more than one year prior to the HIV diagnosis in 14% (n=11) of persons with a reported new diagnosis of HIV in 2020, between one and 12 months prior to the HIV diagnosis in 5% (n=4), and within 30 days of the HIV diagnosis for 6% (n=5).

**Gonorrhea:** Of the 77 persons with a reported new diagnosis of HIV in 2020, 15 (19%) had a gonorrhea diagnosis. The gonorrhea diagnosis was more than one year prior to the HIV diagnosis in 3% (n=2) of persons with a reported new diagnosis of HIV in 2020, between one and 12 months prior to the HIV diagnosis in 5% (n=4), and within 30 days of the HIV diagnosis for 12% (n=9).

**Syphilis:** Of the 77 persons with a reported new diagnosis of HIV in 2020, 13 (17%) had a syphilis diagnosis. The syphilis diagnosis was more than one year prior to the HIV diagnosis in 8% (n=6) of persons with a reported new diagnosis of HIV in 2020, between one and 12 months prior to the HIV diagnosis in 3% (n=2), and within 30 days of the HIV diagnosis for 6% (n=5).

# Hepatitis C and HIV Coinfection

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A match was performed with HIV and hepatitis data to determine the number of persons residing in Region 4 who were diagnosed with HIV and hepatitis C from 2014 to 2020, where coinfection was defined as having a hepatitis C diagnosis and HIV diagnosis in 2020.

Of the 77 persons with a reported new diagnosis of HIV in 2020, two (3%) had a hepatitis C diagnosis. The hepatitis C diagnosis was during 2020 for both persons with a reported new diagnosis of HIV in 2020.

# HIV Testing

In Region 4, from 2018 through 2020, 32.2% of adults (age 18 and older) reported having ever been tested for HIV, compared with 35.2% of adults in Ohio. The prevalence of HIV testing is highest among adults aged 35 to 44 years, followed by adults aged 25 to 34 years. Hispanic/Latino people have a higher prevalence of HIV testing than any other race/ethnicity group. Among adults in Region 4 in 2020, 6.1% participated in risky behaviors including: injecting any drug other than those prescribed for you, being treated for a sexually transmitted disease, or giving/receiving money or drugs in exchange for sex in the past year.

**Table 7: Percentage of adults who reported having ever been tested for HIV, Region 4, 2018-2020**

HIV Testing Prevalence (%)	
Age	2018-2020
18-24	24.7
25-34	46.2
35-44	50.0
45-54	46.0
55-64	28.6
65+	12.2
Sex	
Male	32.4
Female	32.0
Race/Ethnicity	
White, Non-Hispanic	28.6
Black, Non-Hispanic	52.0
Hispanic	53.2
Other, Non-Hispanic	16.6
Multi-Racial	63.5
Annual Household Income	
<\$15,000	48.9
\$15,000-\$24,999	37.8
\$25,000-\$34,999	29.2
\$35,000-\$49,999	31.5
\$50,000-\$74,999	29.0
\$75,000+	31.1
Education	
Less than High School	33.4
High School Diploma	33.9
Some College	32.6
College Graduate	29.0
<b>Total</b>	<b>32.2</b>

Notes: The Ohio Behavioral Risk Factor Surveillance System (BRFSS) was not designed to stratify by HIV prevention planning regions, therefore estimates should be interpreted with caution.

Source: 2018-2020 BRFSS. Chronic Disease Epidemiology and Evaluation Section, Bureau of Health Improvement and Wellness, Ohio Department of Health, 2022.

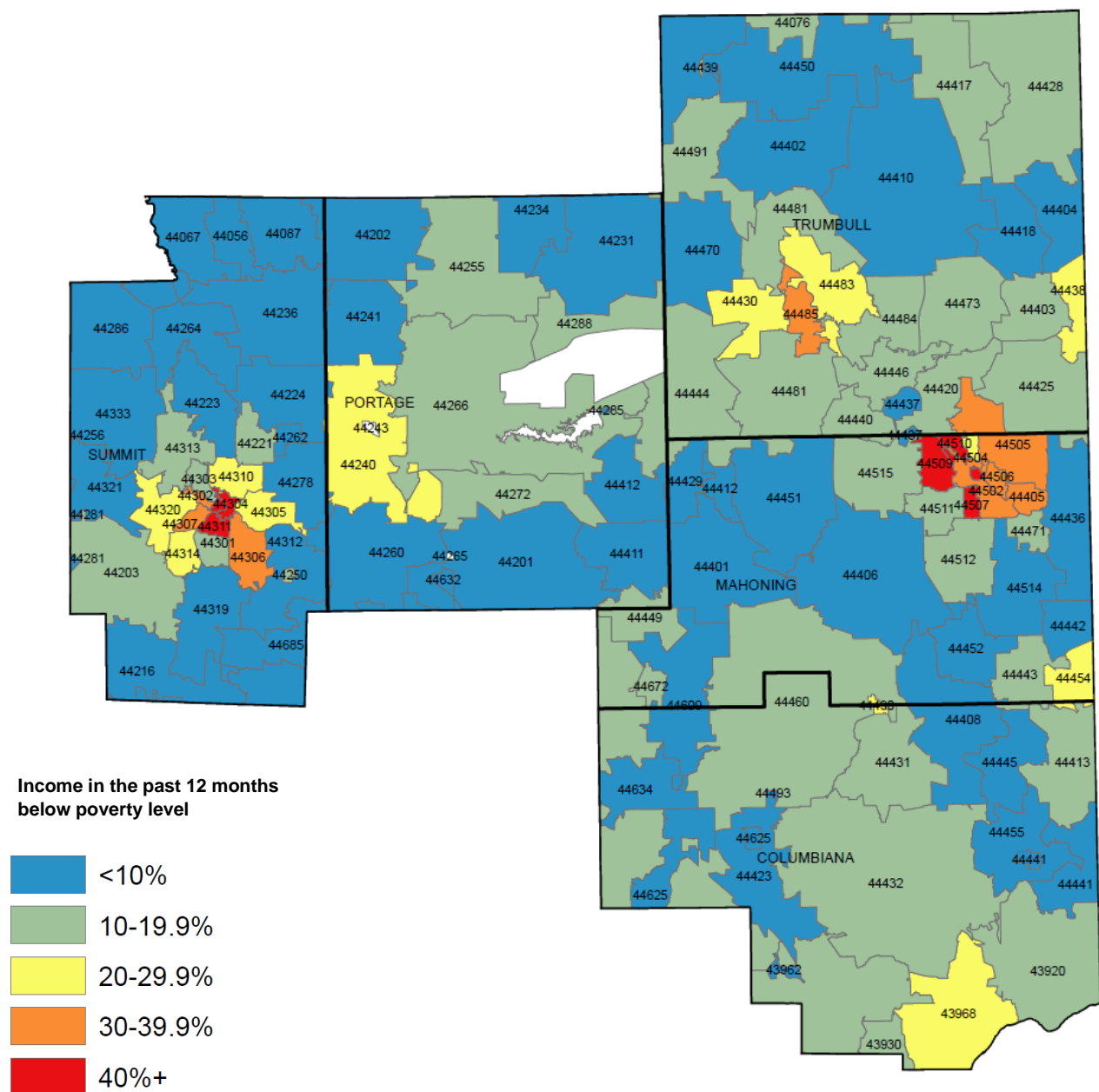


# Social Determinants of Health

There are many factors, including place and type of residence, income, educational level, employment status, and access to healthcare, among many others, that contribute to a person's health status. It is critical to understand how social determinants may affect the health of individuals and populations.

**Poverty level:** A U.S. Census report of Region 4's population with income in the past 12 months showed 14.1% was below the federal poverty level (FPL). In 2021, this equated to \$12,880 for families/households with one person, with an additional \$4,540 allowed for each additional person in the family/household. The map below depicts each ZIP Code in Region 4 and what percentage of the population is below the FPL.

**Figure 12: Percentage of population with income in the past 12 months below poverty level by ZIP Code, Region 4, 2017-2021**



Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

**Table 8: Reported new diagnoses of HIV infection in 2021 by area-based poverty level and county, Region 4**

Area-Based Poverty Level	2021 diagnosis of HIV infection										Area-Based Poverty Level not Available	Total	
	<10% below FPL		10% to 19.9% below FPL		20% to 29.9% below FPL		30% to 39.9% below FPL		>40% below FPL				
	No.	% of County Total	No.	% of County Total	No.	% of County Total	No.	% of County Total	No.	% of County Total	No.	% of County Total	No.
COLUMBIANA CO.	-	-	2	67%	1	33%	-	-	-	-	-	-	3
MAHONING CO.	1	4%	12	44%	-	-	13	48%	1	4%	-	-	27
PORTAGE CO.	1	50%	1	50%	-	-	-	-	-	-	-	-	2
SUMMIT CO.	13	28%	5	11%	22	48%	1	2%	4	9%	1	2%	46
TRUMBULL CO.	1	14%	3	43%	2	29%	1	14%	-	-	-	-	7
Region 4	16	19%	23	27%	25	29%	15	18%	5	6%	1	1%	85
Ohio	157	17%	345	38%	212	23%	131	14%	49	5%	18	2%	912

Notes:

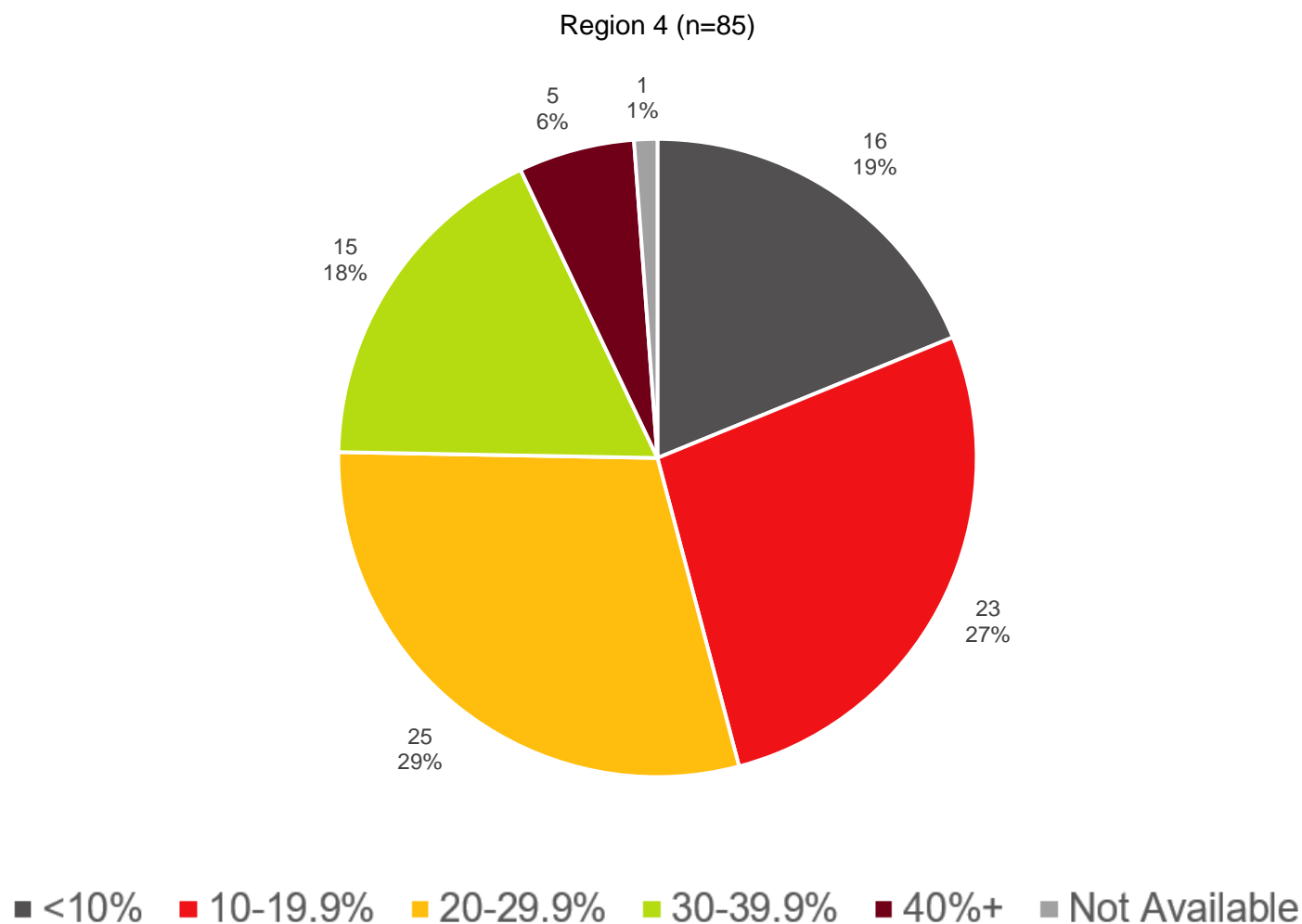
Reported new diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS), who were residents of Ohio at time of initial diagnosis.

Area-based poverty level is based on the census tract of residence at the time of initial diagnosis. Cases diagnosed while in a correctional facility are included in the county where the correctional facility is located.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

Figure 13 depicts the number of new diagnoses of HIV infection in Region 4 in 2021, by area-based poverty level. Sixteen of the 85 new diagnoses of HIV in Region 4 in 2021 were among persons who resided in ZIP Codes where less than 10% of the population had income in the past 12 months below the FPL. There were 23 new diagnoses of HIV in Region 4 in 2021 among persons who resided in ZIP Codes where 10-19.9% of the population had income in the past 12 months below the FPL, 25 among persons residing in ZIP Codes where 20-29.9% were below the FPL, 15 among persons residing in ZIP Codes where 30-39.9% were below the FPL, and five among persons residing in ZIP Codes where more than 40% were below the FPL.

**Figure 13: Number and percentage of new diagnoses of HIV infection in 2021 by area-based percentage of the population with income in the past 12 months below the federal poverty level, Region 4**



Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates  
Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

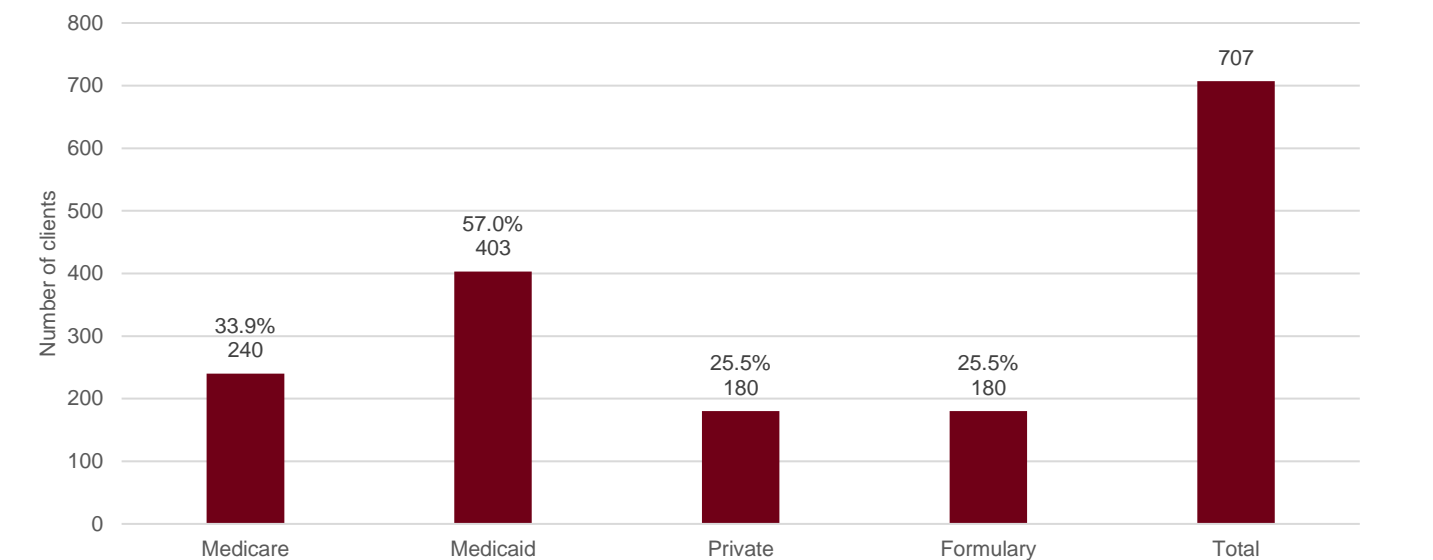
In 2020, the federal poverty level (FPL) for a single person was \$12,760 and increased by \$4,480 for each member of the household. Income data is collected to determine eligibility for all clients enrolled in the Ryan White Part B program. Forty-nine percent of Ryan White Part B clients in Region 4 were below 100% of the FPL in 2020, compared with 43% of Ryan White Part B clients in Ohio.

**Table 9: Number and percentage of Ryan White Part B clients by the percentage of FPL, Region 4, 2020**

Percent of Federal Poverty Level								
	<100%	100-138%	139-200%	201-250%	251-400%	401-500%	>500%	Total
Region 4 Part B	347 (49%)	99 (14%)	115 (16%)	55 (8%)	73 (10%)	18 (3%)	0 (0%)	707
Ohio Part B	3,445 (43%)	982 (12%)	1,334 (17%)	733 (9%)	1,215 (15%)	250 (3%)	5 (<1%)	7,964

Note: Clients enrolled in the Ryan White Part B Program may also receive services from other pay sources (e.g., other Ryan White Parts, Medicaid). Clients with FPL >500% were initially below the FPL, but saw their income increase during the year.  
Source: Ryan White Application Database. Data reported through Feb. 14, 2022.

**Figure 14: Percentage of Part B clients by health insurance coverage, Region 4, 2020**



Note: Clients enrolled in the Ryan White Part B Program may also receive services from other pay sources (e.g., other Ryan White Parts, Medicaid). Clients may be represented in more than one category as they may have had more than one type of insurance during the calendar year. Clients with FPL >500% were initially below the FPL, but saw their income increase during the year.  
Source: Ryan White Application Database. Data reported through Feb. 14, 2022.

**Housing status:** In 2020, 83% of Ryan White Part B clients in Region 4 had stable housing. Eight percent had temporary housing, and 4% were homeless. In 2020, 74% of Ryan White Part B clients in Ohio had stable housing. Eight percent had temporary housing, and 2% were homeless.

**Table 10: Percentage of Ryan White Part B clients by selected characteristics and housing status, Region 4, 2020**

	Housing Status									
			Homeless		Stable		Temporary		Unknown	
	Total Clients	%	Clients	%	Clients	%	Clients	%	Clients	%
<b>Gender</b>										
Female	140	20%	4	15%	123	21%	10	19%	3	7%
Male	560	79%	21	81%	457	78%	44	81%	38	93%
Transgender	7	<1%	1	4%	6	1%	-	-	-	-
Unknown	-	-	-	-	-	-	-	-	-	-
<b>Race/Ethnicity</b>										
American Indian or Native Alaskan	2	<1%	-	-	1	<1%	1	2%	-	-
Asian	4	<1%	-	-	3	<1%	-	-	1	2%
Black/African American	291	41%	16	62%	240	41%	25	46%	10	24%
Hispanic/Latino	50	7%	-	-	42	7%	6	11%	2	5%
Native Hawaiian or Pacific Islander	1	<1%	-	-	-	-	1	2%	-	-
White	348	49%	10	38%	290	49%	20	37%	28	68%
More than One Race	11	2%	-	-	10	2%	1	2%	-	-
Unknown	-	-	-	-	-	-	-	-	-	-
<b>FPL Value</b>										
<100%	347	49%	22	85%	280	48%	40	74%	5	12%
100%-138%	99	14%	3	12%	89	15%	1	2%	6	15%
139%-200%	115	16%	-	-	105	18%	1	2%	9	22%
201%-250%	55	8%	1	4%	44	8%	3	6%	7	17%
251%-400%	73	10%	-	-	56	10%	7	13%	10	24%
401%-500%	18	3%	-	-	12	2%	2	4%	4	10%
>500%	-	-	-	-	-	-	-	-	-	-
<b>Age (years)</b>										
0-12	1	<1%	-	-	-	-	-	-	1	2%
13-24	14	2%	1	4%	12	2%	1	2%	-	-
24-44	227	32%	14	54%	180	31%	27	50%	6	15%
45-64	366	52%	10	38%	310	53%	26	48%	20	49%
65 or Older	99	14%	1	4%	84	14%	-	-	14	34%
<b>Total</b>	<b>707</b>		<b>26</b>		<b>586</b>		<b>54</b>		<b>41</b>	

Note: Clients enrolled in the Ryan White Part B Program may also receive services from other pay sources (e.g., other Ryan White Parts, Medicaid).  
Source: Ryan White Application Database. Data reported through Feb. 14, 2022.

# TREAT: Treat people with HIV rapidly and effectively to reach sustained viral suppression

## Prevalence: Persons Living with Diagnosed HIV Infection

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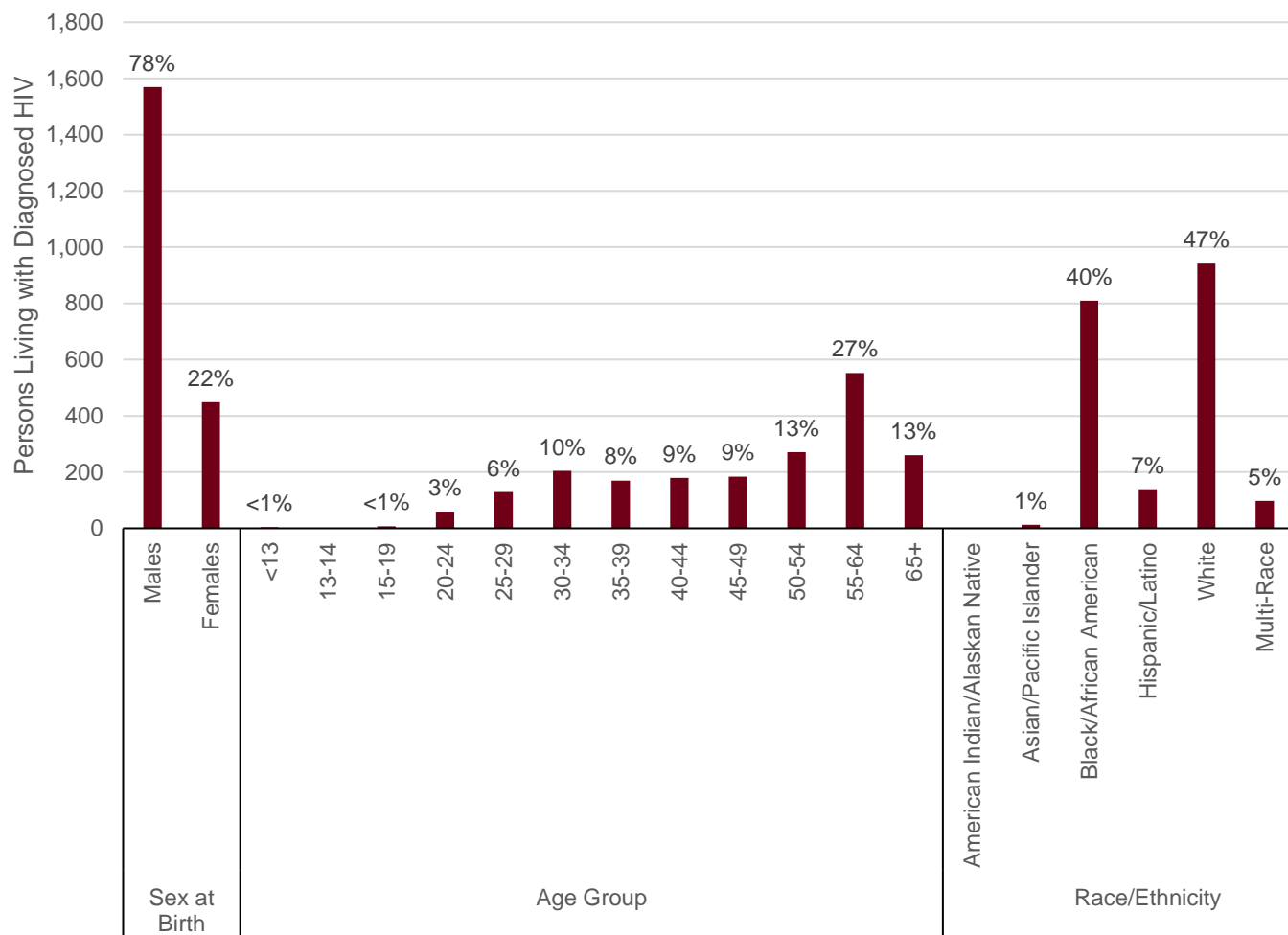
As of December 31, 2021, there were 2,019 persons living with diagnosed HIV infection in Region 4. Of these, 55% were living with an HIV (not AIDS) diagnosis, and 45% were living with a stage 3 (AIDS) diagnosis. The rate of persons living with diagnosed HIV infection in Region 4 in 2021 was 164.2 per 100,000 population. In comparison, there were 25,568 persons living with diagnosed HIV in Ohio at the end of 2021, which equates to a rate of 217.0 per 100,000 population.

**Sex at birth:** Males accounted for 78% of persons living with diagnosed HIV infection in Region 4 at the end of 2021, while females accounted for 22%. The rate of males living with diagnosed HIV infection was nearly four times higher in 2021, than that of females.

**Current age:** At the end of 2021, over half of all persons living with diagnosed HIV in Ohio were 50 years of age and older. Rates of persons living with diagnosed HIV infection were highest among persons aged 50-54, 55-64, and 45-49 (339.6, 312.6, and 263.8, respectively). These age group-specific rates will continue to rise as persons age and live longer as a result of treatment adherence and related retention in care intervention successes.

**Race/ethnicity:** Black/African American people make up 40% of persons living with diagnosed HIV in Region 4, while white people make up 47%. The rate for Black/African American people (570.6) was nearly six times as high, as that for white people (95.4).

**Figure 15: Persons living with diagnosed HIV infection, Region 4, 2021**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of June 30, 2022.

**Table 11: Reported persons living with diagnosed HIV infection by current disease status and selected characteristics, Region 4, 2021**

Characteristic	Living With Diagnosed HIV Infection in 2021			Current Disease Status			
	Rate <sup>a</sup>	No.	%	HIV (not AIDS)		AIDS	
				No.	%	No.	%
<b>Sex at birth</b>							
Males	259.7	1,570	78%	863	78%	707	77%
Females	71.9	449	22%	241	22%	208	23%
<b>Age at end of year</b>							
<13	*	4	<1%	3	<1%	1	<1%
13-14	*	-	-	-	-	-	-
15-19	9.3	7	<1%	7	1%	-	-
20-24	74.1	59	3%	49	4%	10	1%
25-29	165.1	129	6%	100	9%	29	3%
30-34	267.3	204	10%	144	13%	60	7%
35-39	265.1	170	8%	114	10%	56	6%
40-44	250.6	179	9%	103	9%	76	8%
45-49	263.8	184	9%	100	9%	84	9%
50-54	339.6	271	13%	124	11%	147	16%
55-64	312.6	552	27%	250	23%	302	33%
65+	105.7	260	13%	110	10%	150	16%
<b>Race/Ethnicity<sup>b</sup></b>							
American Indian/Alaska Native	*	-	-	-	-	-	-
Asian/Pacific Islander	43.1	13	1%	6	1%	7	1%
Black/African American	570.6	810	40%	449	41%	361	39%
Hispanic/Latino	353.7	139	7%	65	6%	74	8%
White	95.4	942	47%	518	47%	424	46%
Multi-Race	341.9	98	5%	49	4%	49	5%
Unknown	*	17	1%	17	2%	-	-
<b>Race/Ethnicity<sup>b</sup> and Sex at birth</b>							
American Indian/Alaska Native Males	*	-	-	-	-	-	-
American Indian/Alaska Native Females	*	-	-	-	-	-	-
Asian/Pacific Islander Males	67.6	10	<1%	6	1%	4	<1%
Asian/Pacific Islander Females	*	3	<1%	-	-	3	<1%
Black/African American Males	853.0	578	29%	330	30%	248	27%
Black/African American Females	312.7	232	11%	119	11%	113	12%
Hispanic/Latino Males	472.8	99	5%	45	4%	54	6%
Hispanic/Latina Females	217.9	40	2%	20	2%	20	2%
White Males	164.4	799	40%	434	39%	365	40%
White Females	28.5	143	7%	84	8%	59	6%
Multi-Race Males	522.6	74	4%	38	3%	36	4%
Multi-Race Females	165.5	24	1%	11	1%	13	1%
Unknown	*	17	1%	17	2%	-	-
<b>Total</b>	<b>164.2</b>	<b>2,019</b>		<b>1,104</b>		<b>915</b>	

**Notes:**

Living with diagnosed HIV infection represents all persons ever diagnosed and reported with HIV and/or AIDS who have not been reported as having died, as of Dec. 31, 2021. Persons living with diagnosed HIV infection represent persons living in Ohio as of Dec. 31, 2021, regardless of whether the person was a resident of Ohio at the time of initial HIV and/or AIDS diagnosis.

Asterisk (\*) indicates the rate not calculated for case count <5 due to unstable rates. Dash (-) indicates no cases were reported for the given category.

<sup>a</sup> The rate is the number of persons living with diagnosed HIV infection per 100,000 population calculated using 2021 U.S. Census estimates.

<sup>b</sup> In this data, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; white; and multi-race. Those of Hispanic/Latino descent are included in the Hispanic/Latino category, regardless of race. They are not included in a race category. Asian/Pacific Islander includes Native Hawaiians.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.



**Table 12: Reported persons living with diagnosed HIV infection by current disease status and transmission category, Region 4, 2021**

Transmission Category <sup>a</sup>	Current Disease Status					
	Living With Diagnosed HIV Infection in 2021		HIV (not AIDS)		AIDS	
	No.	%	No.	%	No.	%
<b>Male adult or adolescent</b>						
Male-to-male sexual contact	1,052	68%	573	67%	479	68%
Injection drug use (IDU)	55	4%	23	3%	32	2%
Male-to-male sexual contact and IDU	90	6%	40	5%	50	7%
Heterosexual contact	98	6%	48	6%	50	7%
Other/unknown	259	17%	169	20%	90	13%
<b>Subtotal</b>	<b>1,554</b>	<b>100%</b>	<b>853</b>	<b>100%</b>	<b>701</b>	<b>100%</b>
<b>Female adult or adolescent</b>						
Injection drug use	50	11%	18	8%	32	16%
Heterosexual contact	338	77%	172	73%	166	81%
Other/unknown	53	12%	45	19%	8	4%
<b>Subtotal</b>	<b>441</b>	<b>100%</b>	<b>235</b>	<b>100%</b>	<b>206</b>	<b>100%</b>
<b>Child (&lt;13 years at diagnosis)</b>						
Perinatal	19	79%	11	69%	8	100%
Other/unknown	5	21%	5	31%	-	-
<b>Subtotal</b>	<b>24</b>	<b>100%</b>	<b>16</b>	<b>100%</b>	<b>8</b>	<b>100%</b>
<b>Total</b>	<b>2,019</b>		<b>1,104</b>		<b>915</b>	

**Notes:**

Living with diagnosed HIV infection represents all persons ever diagnosed and reported with HIV and/or AIDS who have not been reported as having died, as of Dec. 31, 2021. Persons living with diagnosed HIV infection represent persons living in Ohio as of Dec. 31, 2021, regardless of whether the person was a resident of Ohio at the time of initial HIV and/or AIDS diagnosis.

Dash (-) indicates no cases were reported for the given category

<sup>a</sup> Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC and system-calculated using sex at birth and risk factor history to determine mode of transmission. A person with multiple risks is only represented in the highest category based on the CDC hierarchical algorithm. Thus, transgender women are included in the male-to-male sexual contact transmission category if assigned male at birth and risk factor history indicates sex with males. Please note this is for the categorization of HIV transmission categories only and not to describe sexual orientation.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Table 13: Reported persons living with diagnosed HIV infection by current disease status and exposure category, Region 4, 2021**

Exposure Category <sup>a</sup>	Living With Diagnosed HIV Infection in 2021		Current Disease Status			
			HIV (not AIDS)		AIDS	
	No.	%	No.	%	No.	%
Male-to-male sexual contact only	1,002	50%	555	50%	447	49%
Injection drug use (IDU) only	58	3%	25	2%	33	4%
Heterosexual contact only	436	22%	220	20%	216	24%
Male-to-male sexual contact and IDU	69	3%	30	3%	39	4%
IDU and Heterosexual contact	47	2%	16	1%	31	3%
Male-to-male sexual contact and Heterosexual contact	50	2%	18	2%	32	3%
Male-to-male sexual contact and IDU and Heterosexual contact	21	1%	10	1%	11	1%
Perinatal exposure	19	1%	11	1%	8	1%
Other/unknown	317	16%	219	20%	98	11%
<b>Total</b>	<b>2,019</b>		<b>1,104</b>		<b>915</b>	

**Notes:**

Living with diagnosed HIV infection represents all persons ever diagnosed and reported with HIV and/or AIDS who have not been reported as having died, as of Dec. 31, 2021. Persons living with diagnosed HIV infection represent persons living in Ohio as of Dec. 31, 2021, regardless of whether the person was a resident of Ohio at the time of initial HIV and/or AIDS diagnosis.

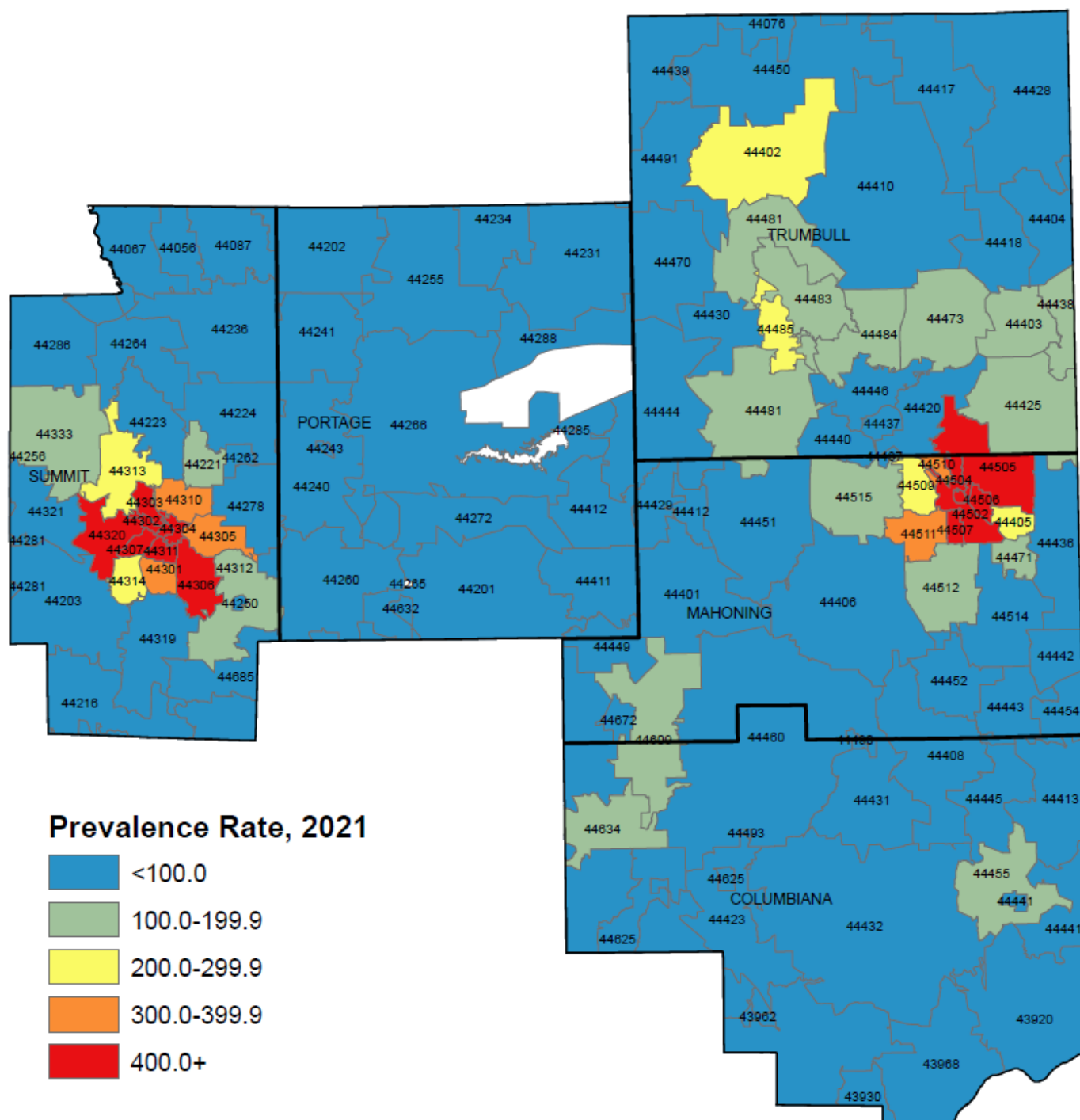
Dash (–) indicates no cases were reported for the given category.

<sup>a</sup> Exposure categories are mutually exclusive risk categories. All possible combinations of risks are represented among exposure categories. A person with multiple risks is represented in the exposure category identifying all the reported ways in which that person may have been exposed to HIV.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**ZIP Code:** The top three ZIP Codes in Region 4 where the most persons with diagnosed HIV reside at the end of 2021 are (in descending order) 44320, 44310, and 44306.

**Figure 16: Reported persons living with diagnosed HIV infection by ZIP Code, Region 4, 2021**



**Notes:**

Living with diagnosed HIV infection represents all persons ever diagnosed and reported with HIV and/or AIDS who have not been reported as having died, as of December 31, 2021. Persons living with diagnosed HIV infection represent persons living in Ohio as of December 31, 2021, regardless of whether the person was a resident of Ohio at time of the initial HIV and/or AIDS diagnosis.

ZIP Code reflects current ZIP Code of residence. Cases currently residing in a state or federal correctional facility or whose current ZIP Code of residence is unknown, are not included. The rate is the number of persons living with diagnosed HIV infection per 100,000 population, calculated using 2021 U.S. Census estimates.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through January 25, 2023.

**Table 14: Reported persons living with diagnosed HIV infection by current disease status and county, Region 4, 2021**

County <sup>a</sup>	Living with diagnosed HIV infection in 2021		Current Disease Status			
			HIV (not AIDS)		AIDS	
	Rate <sup>b</sup>	No.	No.		No.	
Columbiana	56.3	57	32		25	
Mahoning	225.3	511	275		236	
Portage	75.1	122	69		53	
Summit	201.3	1,082	596		486	
Trumbull	122.7	247	132		115	
Region 4	164.2	2,019	1,104		915	
<b>Ohio</b>	<b>214.6</b>	<b>25,096</b>	<b>13,323</b>		<b>11,773</b>	

**Notes:**

Living with diagnosed HIV infection, represents all persons ever diagnosed and reported with HIV and/or AIDS, who have not been reported as having died as of Dec. 31, 2021. Persons living with diagnosed HIV infection, represent persons living in Ohio as of Dec. 31, 2021, regardless of whether the person was a resident of Ohio at time of the initial HIV and/or AIDS diagnosis.

Asterisk (\*) indicates rate not calculated for case count <5 due to unstable rates. Dash (–) indicates no cases were reported for the given category.

<sup>a</sup> County reflects current county of residence. Cases in a state or federal correctional facility or whose county is unknown are included in 'No County.'

<sup>b</sup> The rate is the number of persons living with diagnosed HIV infection per 100,000 population, calculated using 2021 U.S. Census estimates.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Table 15: Reported persons living with HIV infection by race/ethnicity and current age, Region 4, 2021**

Age at end of year	American Indian/Alaska Native			Asian/Pacific Islander			Black/African American			Hispanic/ Latino <sup>a</sup>			White			Multi-Race			Unknown	
	Rate <sup>b</sup>	No.	%	Rate <sup>b</sup>	No.	%	Rate <sup>b</sup>	No.	%	Rate <sup>b</sup>	No.	%	Rate <sup>b</sup>	No.	%	Rate <sup>b</sup>	No.	%	No.	%
<13	*	-	-	*	1	8%	*	3	<1%	*	-	-	*	-	-	*	-	-	-	-
13-14	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-	*	-	-	-	-
15-19	*	-	-	*	-	-	59.1	6	1%	*	1	1%	*	-	-	*	-	-	-	-
20-24	*	-	-	*	-	-	396.6	43	5%	*	2	1%	16.7	10	1%	*	4	4%	-	-
25-29	*	-	-	*	1	8%	530.6	61	8%	309.7	10	7%	83.8	49	5%	339.8	8	8%	-	-
30-34	*	-	-	*	1	8%	1,021.7	105	13%	353.2	11	8%	122.7	72	8%	965.3	15	15%	-	-
35-39	*	-	-	*	4	31%	908.4	76	9%	330.9	10	7%	121.1	69	7%	912.4	10	10%	1	6%
40-44	*	-	-	*	1	8%	874.0	70	9%	389.4	11	8%	152.2	87	9%	1,008.1	10	10%	-	-
45-49	*	-	-	*	1	8%	985.0	75	9%	959.3	21	15%	135.3	77	8%	830.4	7	7%	3	18%
50-54	*	-	-	*	1	8%	1,136.8	91	11%	1,128.2	22	16%	209.9	141	15%	2,011.5	14	14%	2	12%
55-64	*	-	-	*	3	23%	1,209.7	196	24%	1,210.5	36	26%	188.2	288	31%	1,823.5	25	26%	4	24%
65+	*	-	-	*	-	-	418.9	84	10%	527.1	15	11%	68.1	149	16%	355.1	5	5%	7	41%
<b>Total</b>	<b>*</b>	<b>-</b>		<b>43.1</b>	<b>13</b>		<b>570.6</b>	<b>810</b>		<b>353.7</b>	<b>139</b>		<b>95.4</b>	<b>942</b>		<b>341.9</b>	<b>98</b>		<b>17</b>	

**Notes:**

Living with diagnosed HIV infection represents all persons ever diagnosed and reported with HIV and/or AIDS, who have not been reported as having died as of Dec. 31, 2021. Persons living with diagnosed HIV infection, represent persons living in Ohio as of Dec. 31, 2021, regardless of whether the person was a resident of Ohio at time of the initial HIV and/or AIDS diagnosis.

Asterisk (\*) indicates rate not calculated for case count <5 due to unstable rates. Dash (–) indicates no cases were reported for the given category.

<sup>a</sup> The rate is the number of persons living with diagnosed HIV infection per 100,000 population, calculated using 2020 U.S. Census estimates.

<sup>b</sup> In this data, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; white; and multi-race. Those of Hispanic/Latino descent are included in the Hispanic/Latino category, regardless of race. They are not included in a race category. Asian/Pacific Islander includes Native Hawaiians.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

**Table 16: Reported persons living with HIV infection by race/ethnicity and transmission category, Region 4, 2021**

	Living with diagnosed HIV infection in 2021													
	American Indian/Alaska Native		Asian/Pacific Islander		Black/African American		Hispanic/Latino <sup>a</sup>		White		Multi-Race		Unknown	
Transmission Category <sup>c</sup>	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Male adult or adolescent</b>														
Male-to-male sexual contact	-	-	6	67%	369	65%	61	64%	564	71%	52	70%	-	-
Injection drug use (IDU)	-	-	-	-	21	4%	9	9%	23	3%	2	3%	-	-
Male-to-male sexual contact and IDU	-	-	-	-	24	4%	5	5%	53	7%	8	11%	-	-
Heterosexual contact	-	-	1	11%	48	8%	9	9%	35	4%	5	7%	-	-
Other/unknown	-	-	2	22%	105	19%	12	13%	123	15%	7	9%	10	100%
Subtotal	-	-	9	100%	567	100%	96	100%	798	100%	74	100%	10	100%
<b>Female adult or adolescent</b>														
Injection drug use	-	-	-	-	16	7%	6	16%	26	18%	2	9%	-	-
Heterosexual contact	-	-	3	100%	184	80%	27	71%	105	73%	19	86%	-	-
Other/unknown	-	-	-	-	29	13%	5	13%	12	8%	1	5%	6	100%
Subtotal	-	-	3	100%	229	100%	38	100%	143	100%	22	100%	6	100%
<b>Child (&lt;13 yrs. at diagnosis)</b>														
Perinatal	-	-	-	-	12	86%	5	100%	1	100%	1	50%	-	-
Other/unknown	-	-	1	100%	2	14%	-	-	-	-	1	50%	1	100%
Subtotal	-	-	1	100%	14	100%	5	100%	1	100%	2	100%	1	100%
<b>Total</b>	<b>-</b>		<b>13</b>		<b>810</b>		<b>139</b>		<b>942</b>		<b>98</b>		<b>17</b>	

**Notes:**

Living with diagnosed HIV infection represents all persons ever diagnosed and reported with HIV and/or AIDS, who have not been reported as having died as of Dec. 31, 2021. Persons living with diagnosed HIV infection, represent persons living in Ohio as of Dec. 31, 2021, regardless of whether the person was a resident of Ohio at time of the initial HIV and/or AIDS diagnosis.

Asterisk (\*) indicates rate not calculated for case count <5 due to unstable rates. Dash (–) indicates no cases were reported for the given category.

<sup>a</sup> In this data, race/ethnicity is presented using the following categories: American Indian/Alaska Native; Asian/Pacific Islander; Black/African American; Hispanic/Latino; white; and multi-race. Those of Hispanic/Latino descent are included in the Hispanic/Latino category, regardless of race. They are not included in a race category. Asian/Pacific Islander includes Native Hawaiians.

<sup>b</sup> Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC and system-calculated using sex at birth and risk factor history to determine mode of transmission. A person with multiple risks is only represented in the highest category based on the CDC hierarchical algorithm. Thus, transgender women are included in the male-to-male sexual contact transmission category if assigned male at birth, and risk factor history indicates sex with males. Please note this is for the categorization of HIV transmission categories only, and not to describe sexual orientation.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2022.

# Ohio AIDS Drug Assistance Program (OHDAP) Utilization

The Ohio AIDS Drug Assistance Program helps people living with HIV and AIDS access medications needed to remain healthy. In 2020, OHDAP program enrolled 292 people living with HIV who utilized services in Region 4. Of those clients, 87% were virally suppressed at their most recent lab test date (i.e., viral load  $\leq 200$  copies/mL). There were 4,074 clients who accessed ADAP services in Ohio in 2020.

The Ryan White Part B program uses the following definitions to calculate viral suppression.

**Numerator:** Viral load  $\leq 200$  copies/mL.

**Denominator:** Number of clients who had at least one HIV medical visit during the measurement period. HIV medical visit is defined as having a CVS medication dispense payment by OHDAP for a medical appointment (indicated by various service codes), or having a case management-funded medical care service (indicated by various service codes).

**Table 17: Ohio AIDS Drug Assistance Program utilization by race/ethnicity, Region 4, 2021**

OHDAP Clients Enrolled from January 1, 2020, to December 31, 2020		
Race/ethnicity	% (N)	Virally Suppressed, %
Black/African American	37% (108)	89% (96)
White	55% (160)	84% (135)
Hispanic/Latino	7% (19)	95% (18)
Other	2% (5)	80% (4)
<b>Total</b>	<b>292</b>	<b>87% (253)</b>

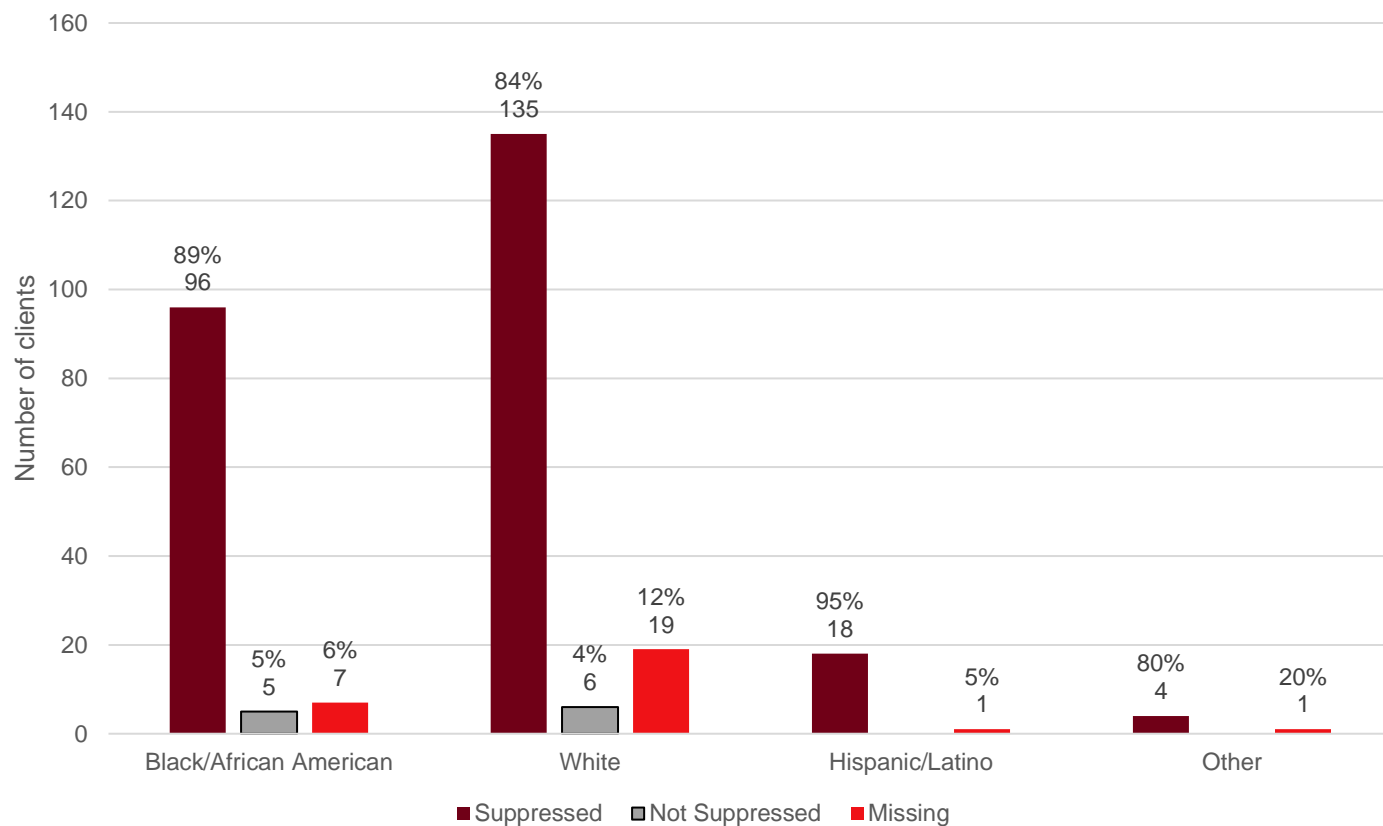
Notes:

Viral suppression includes missing/incomplete data. Clients enrolled in the Ryan White Part B Program may also receive services from other pay sources (e.g., other Ryan White Parts, Medicaid).

Source: Ryan White Application Database. Data reported through Feb. 14, 2022.

Among Black/African American clients in Region 4 enrolled in the OHDAP program in 2020, 89% were virally suppressed. Among white clients in Region 4 enrolled in the OHDAP program in 2020, 84% were virally suppressed. Among Hispanic/Latino clients in Region 4 enrolled in the OHDAP program in 2020, 95% were virally suppressed.

**Figure 17: Viral suppression among clients utilizing the Ohio AIDS Drug Assistance Program by race/ethnicity, Region 4, 2020**



Note: Clients enrolled in the Ryan White Part B Program may also receive services from other pay sources (e.g., other Ryan White Parts, Medicaid).  
Source: Ryan White Application Database. Data reported through Feb. 14, 2022.



# Linkage to Care and Continuum of Care

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To calculate a care continuum and other related measurements for persons in Region 4 diagnosed with HIV infection, HIV Surveillance data are used, including information on CD4 levels of T-lymphocytes (CD4) and Viral Load (VL) lab results. CDC uses reported CD4s and VL lab results as a proxy measure to assess whether or not a person with HIV was in care. The following data presented on the Region 4 HIV Continuum of Care are population-based and centered on calculations made using CDC definitions and the information reported to HIV Surveillance, which includes data from the Ohio Disease Reporting System and the Ryan White Application Database.

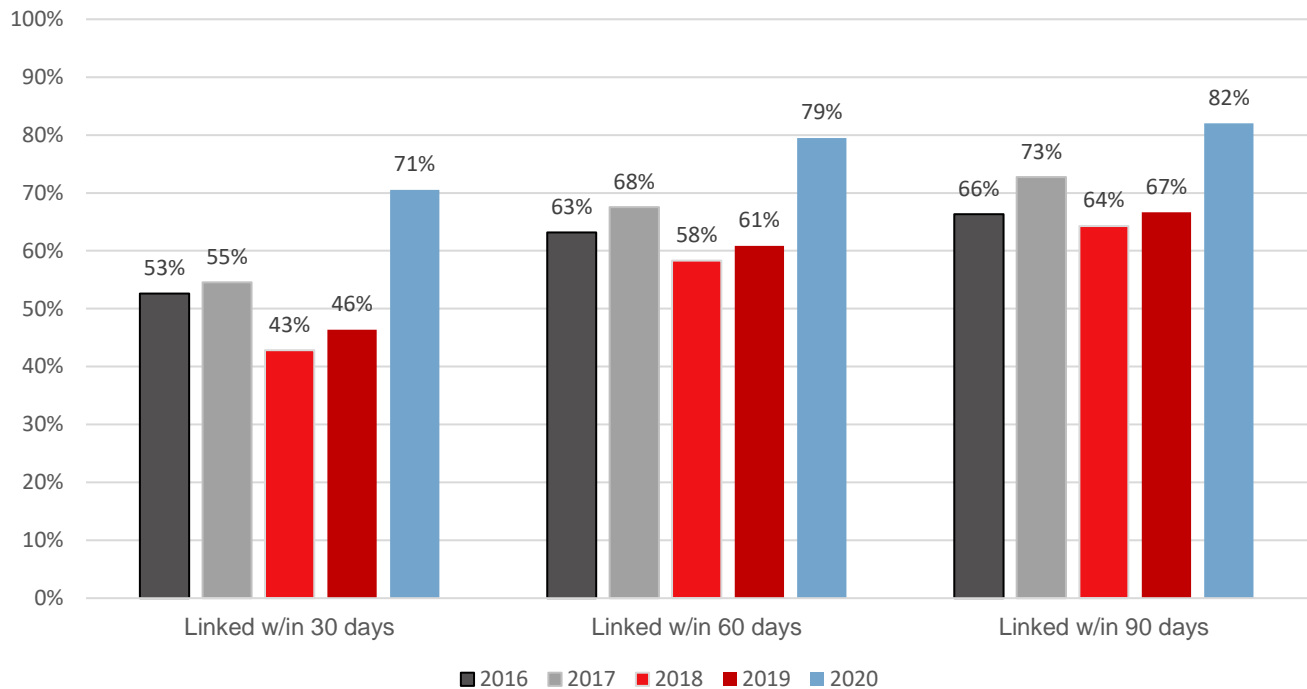
## Linkage to Care

**Numerator:** The number of people in the denominator who had at least one CD4 and/or VL within 30, 60, and 90 days of the date of HIV diagnosis.

**Denominator:** The number of new diagnoses of HIV infection in Region 4 among persons aged  $\geq 13$  years in each year. For example, the denominator for 2020 is the number of new diagnoses of HIV infection in Region 4 in 2020 among persons aged  $\geq 13$  years (i.e., adults/adolescents).

The objective is for 85% of new diagnoses of HIV to be linked to care within 30 days of HIV diagnosis. Seventy-one percent of adults/adolescents diagnosed with HIV infection in Region 4 in 2020 were linked to care within 30 days of diagnosis, 79% were linked within 60 days, and 82% were linked within 90 days. Of those who were linked to care, the average length of time to be linked to care after diagnosis was 41 days. The number of persons who were linked to care within 30 days of diagnosis are also considered to have been linked within 60 and 90 days, and thus, the measures are cumulative. The percentage of persons diagnosed with HIV who were linked to care within 30 days in 2020, increased compared with 2019, when 46% of persons diagnosed with HIV were linked to care within 30 days. In Ohio, 81% of persons diagnosed with HIV in 2020, were linked to care within 30 days.

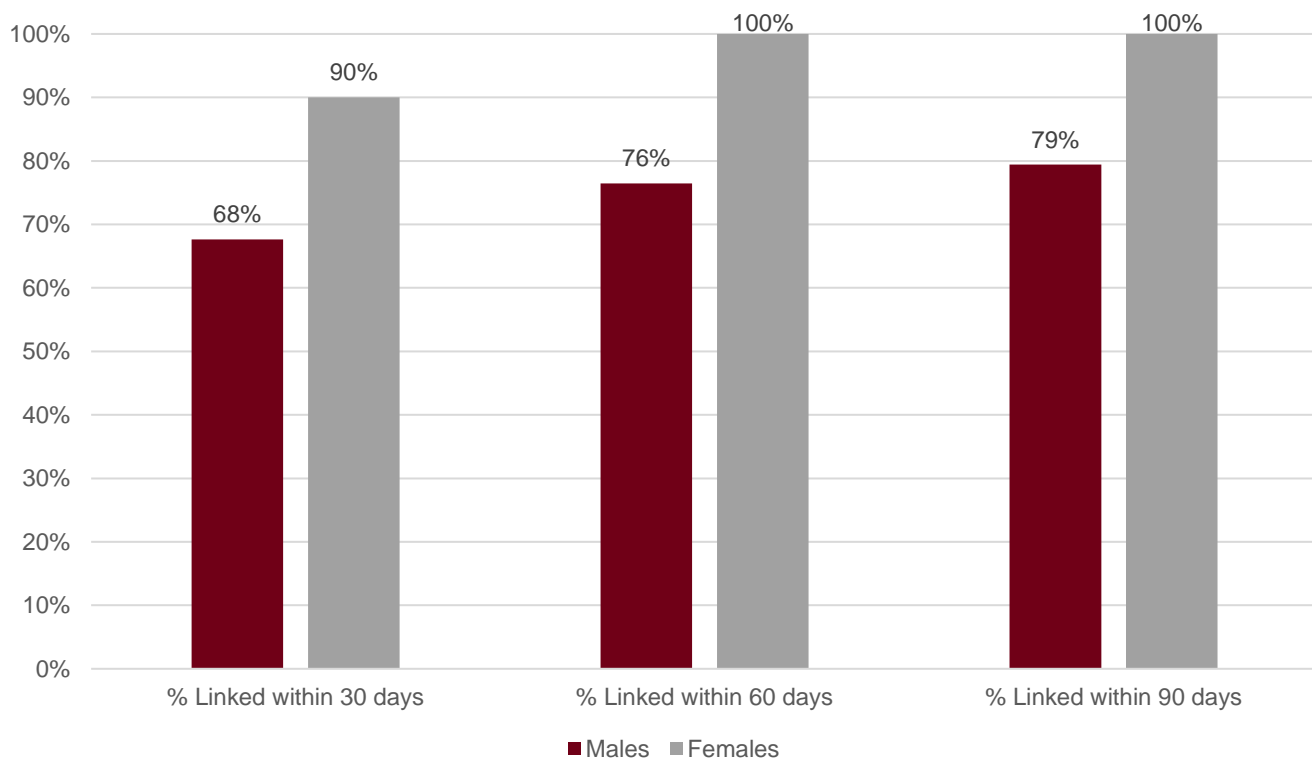
**Figure 18: Linkage to care, Region 4, 2016-2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Sex at birth:** Sixty-eight percent of adult/adolescent males, and 90% of adult/adolescent females diagnosed with HIV in Region 4 in 2020, were linked to care within 30 days of diagnosis.

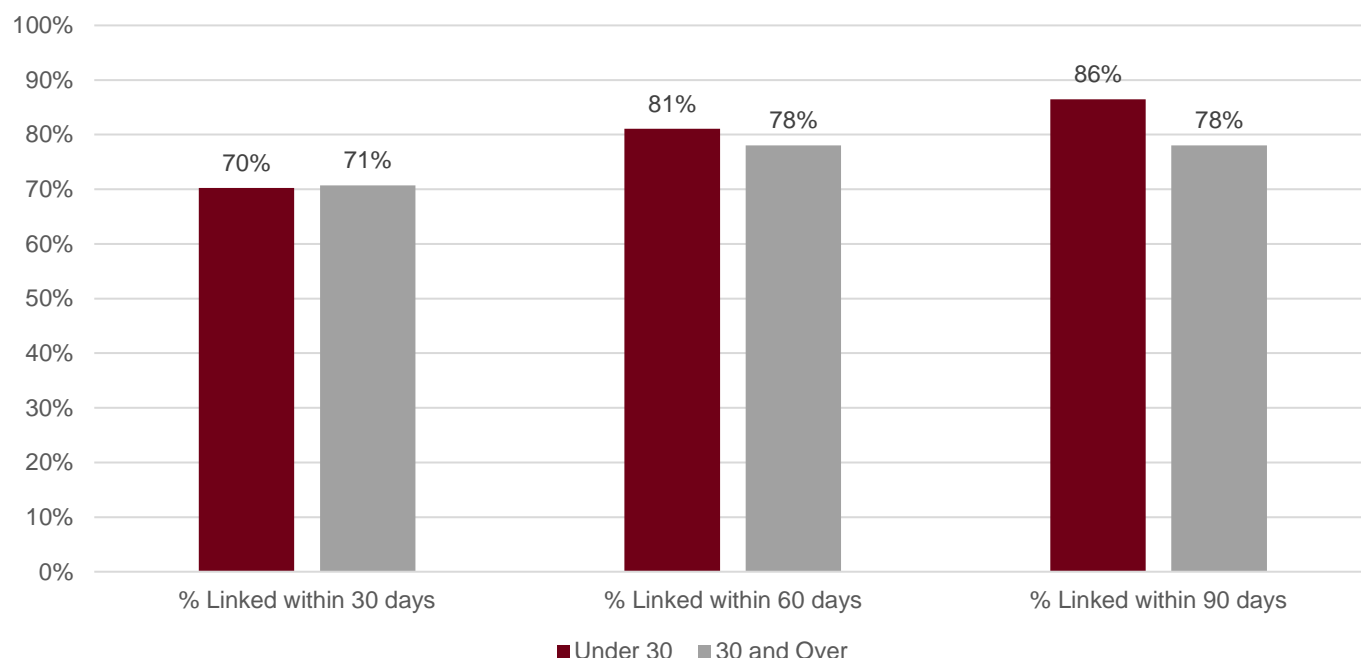
**Figure 19: Linkage to care by sex at birth, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Age at diagnosis:** Seventy percent of persons aged 13-29 years, and 71% of persons aged 30 and over diagnosed with HIV in Region 4 in 2020, were linked to care within 30 days of diagnosis.

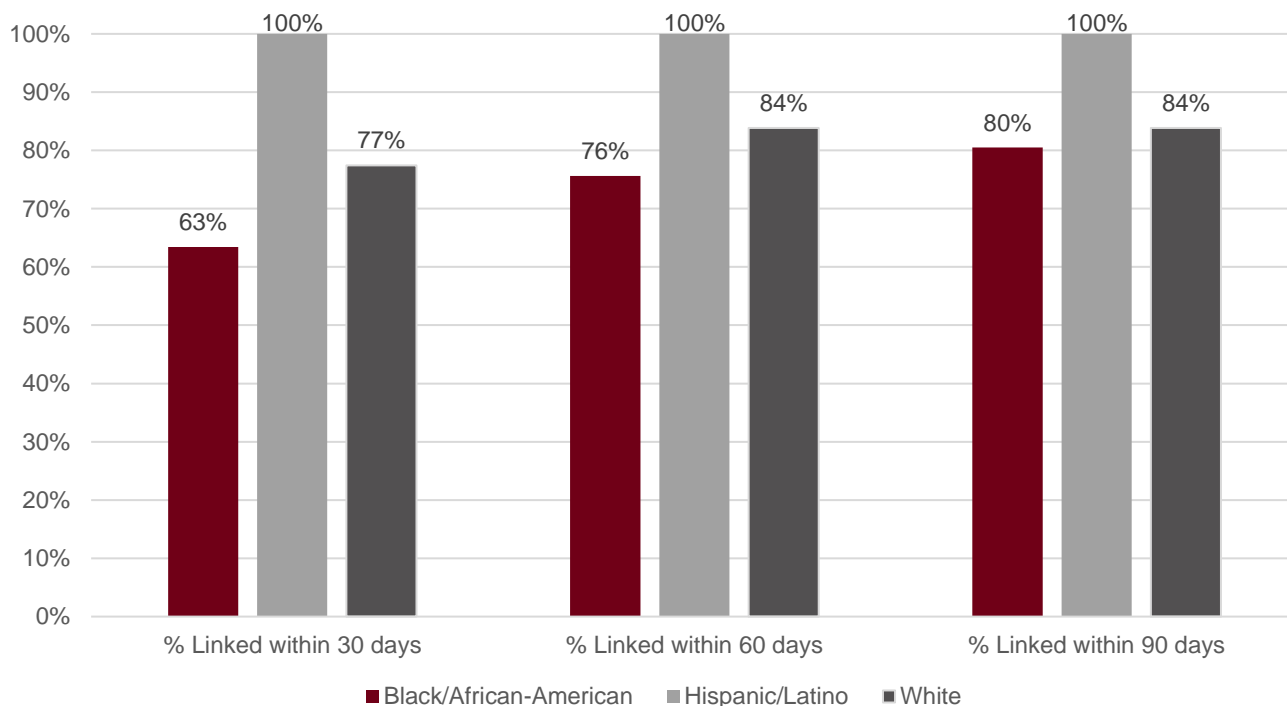
**Figure 20: Linkage to care by age at diagnosis, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Race/ethnicity:** Sixty-three percent of Black/African American people, 100% of Hispanic/Latino people, and 77% of white people diagnosed with HIV in Region 4 in 2020, were linked to care within 30 days of diagnosis.

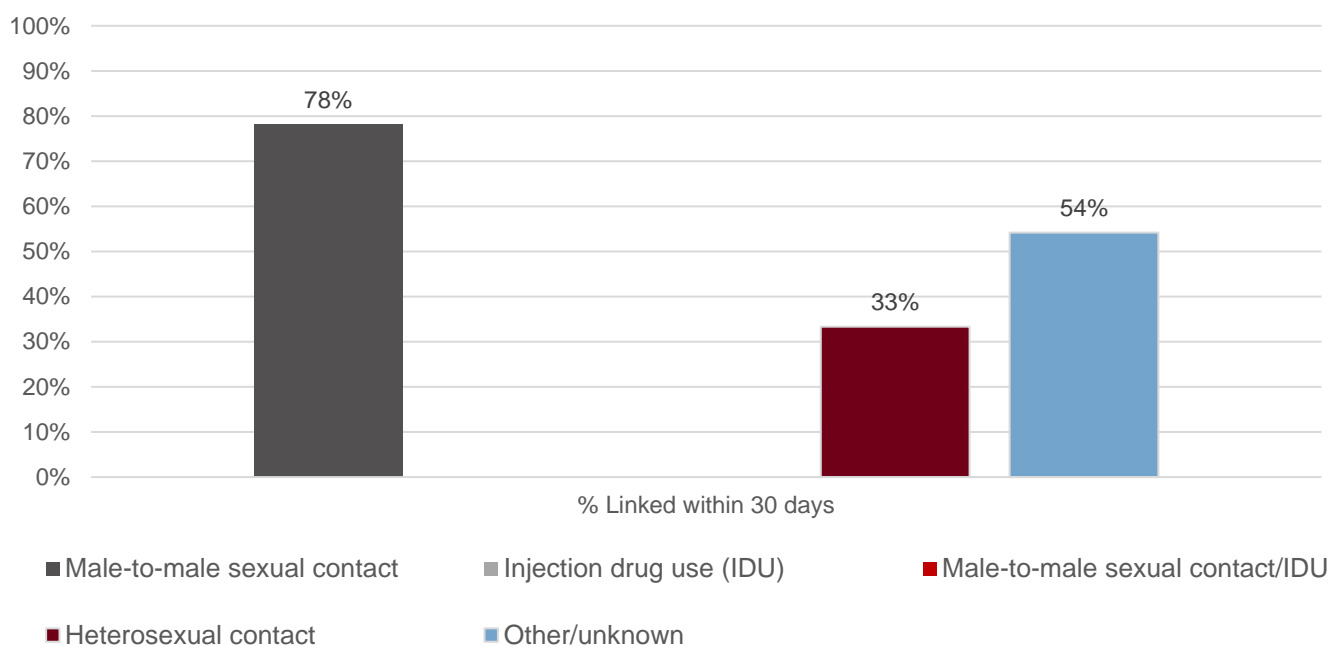
**Figure 21: Linkage to care by selected race/ethnicity, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Transmission category:** Seventy-eight percent of males with a transmission category of male-to-male sexual contact, 33% of males with a transmission category of male-to-male sexual contact/IDU, and 50% of heterosexual males diagnosed with HIV in Region 4 in 2020, were linked to care within 30 days of diagnosis.

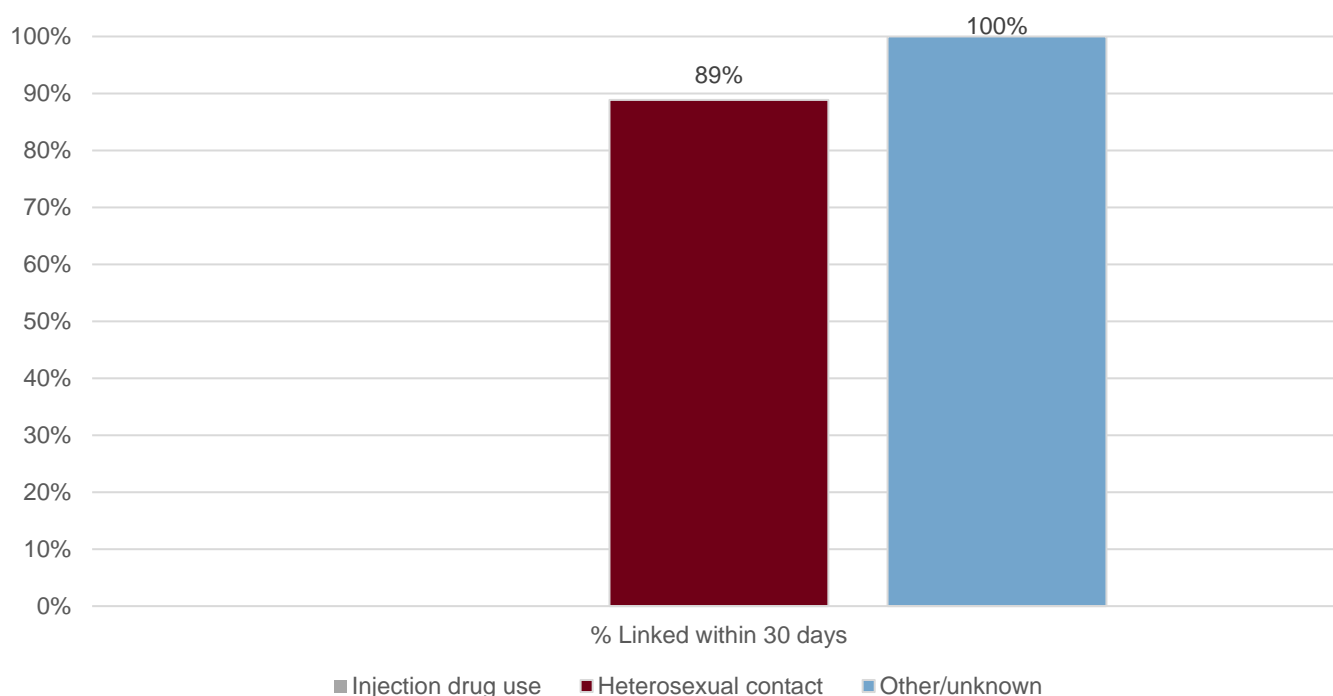
**Figure 22: Linkage to care by transmission category, males, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

Eighty-nine percent of heterosexual females diagnosed with HIV in Region 4 in 2020, were linked to care within 30 days of diagnosis.

**Figure 23: Linkage to care by transmission category, females, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

## Continuum of Care

The measures for Receipt of Care, Retained in Care, and Virally Suppressed are calculated using the same denominator, but each measure uses a different numerator.

**Receipt of Care Numerator:** The number of persons in the denominator who had at least one CD4 and/or VL through the end of the following year (e.g., living with HIV as of Dec. 31, 2020, and having a CD4 and/or VL in 2021).

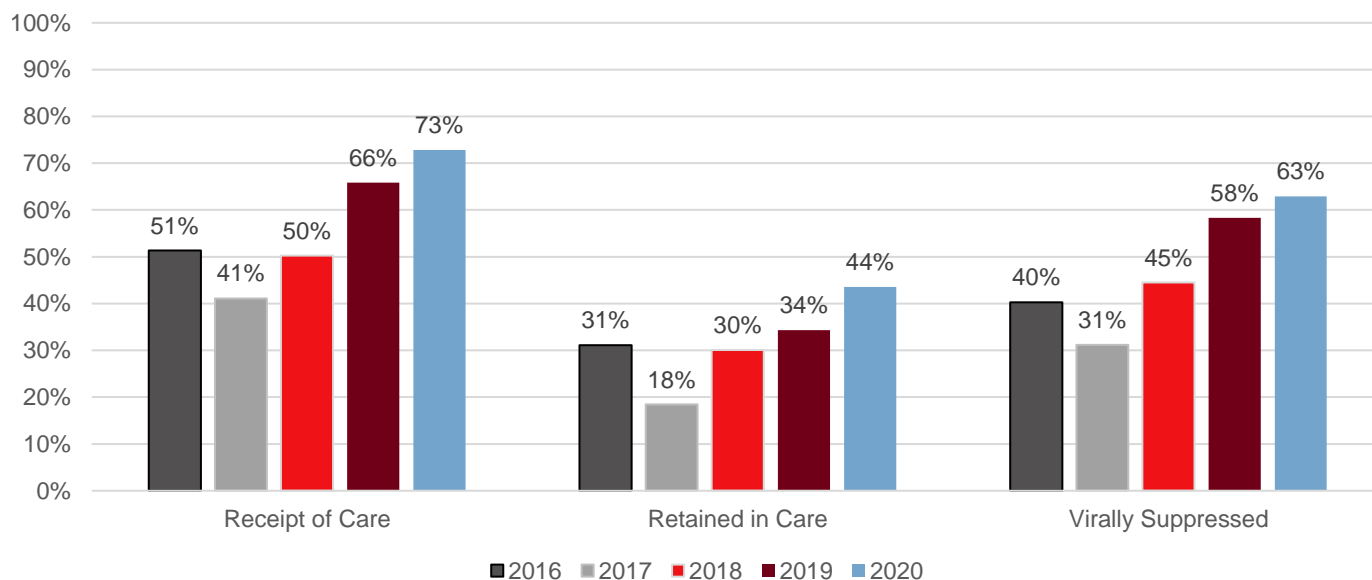
**Retained in Care Numerator:** The number of persons in the denominator who had at least two CD4 and/or VLs at least three months apart, through the end of the following year (e.g., living with HIV as of Dec. 31, 2020, and having at least two CD4/VL tests three months apart in 2021).

**Virally Suppressed Numerator:** The number of persons in the denominator whose most recent VL test in the following year was <200 copies/mL (e.g., living with HIV as of Dec. 31, 2020, and the most recent VL test in 2021 was <200 copies/mL).

**Denominator:** The number of adults/adolescents living with HIV infection through the end of each year, and still living in Region 4 at the end of the next year (e.g., living with HIV as of Dec. 31, 2020, and still living in Region 4 as of Dec. 31, 2021). Each of these measures uses the same denominator and thus the percentage for viral suppression may be higher than the percentage for retained in care (i.e., a person may be counted in the numerator for viral suppression because their most recent VL test was <200, but not counted in the numerator for retained in care because they did not have at least two tests, three months apart).

Of the persons living with diagnosed HIV in Region 4 at the end of 2020, 73% were in receipt of care, 44% were retained in care, and 63% were virally suppressed. Each of these measures uses the same denominator and thus the percentage for viral suppression may be higher than the percentage for retained in care (i.e., a person may be counted in the numerator for viral suppression because their most recent VL test was <200, but not counted in the numerator for retained in care because they did not have at least two tests, three months apart). However, of persons who were in receipt of care, 86% were virally suppressed. Twenty-seven percent of the persons living with HIV infection in Region 4 at the end of 2020, and still living in Region 4 at the end of 2021, did not have a CD4 or VL test in 2021. These persons are considered to be out of care, or have an 'unmet need'. The percentage of persons living with diagnosed HIV who received care, were retained in care, and were virally suppressed increased from 2016 to 2020.

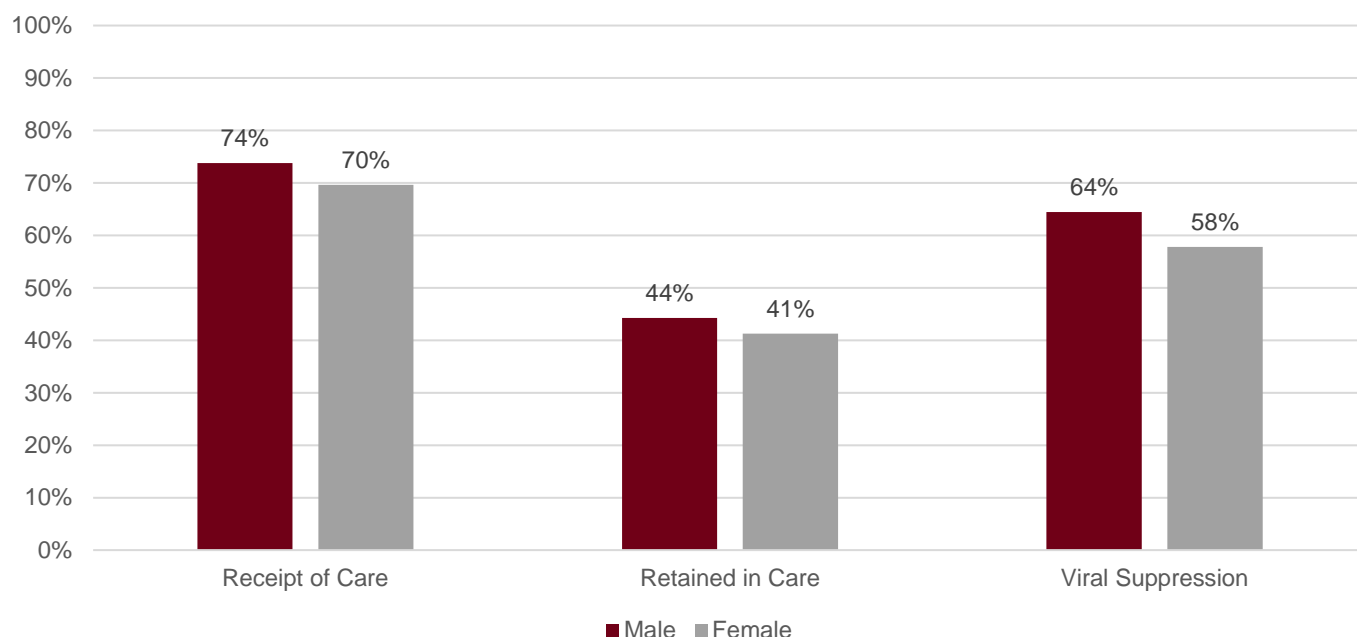
**Figure 24: Continuum of care among persons living with diagnosed HIV infection, Region 4, 2016-2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Sex at birth:** Of males living with diagnosed HIV in Region 4 at the end of 2020, 74% received care, 44% were retained in care, and 64% were virally suppressed. Of females living with diagnosed HIV in Region 4 at the end of 2020, 70% were in receipt of care, 41% were retained in care, and 58% were virally suppressed.

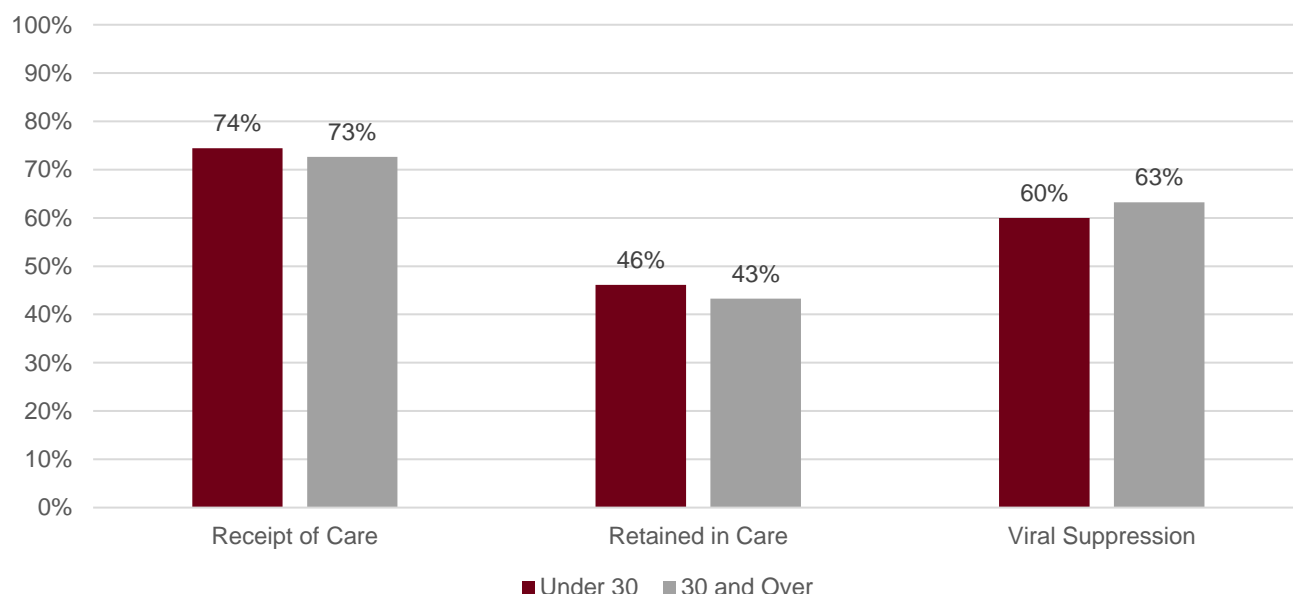
**Figure 25: Continuum of care among persons living with diagnosed HIV infection by sex at birth, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Current age:** Of persons aged 13 to 29 years living with diagnosed HIV in Region 4 at the end of 2020, 74% received care, 46% were retained in care, and 60% were virally suppressed. Of persons aged 30 years and older living with diagnosed HIV in Region 4 at the end of 2020, 73% were in receipt of care, 43% were retained in care, and 63% were virally suppressed.

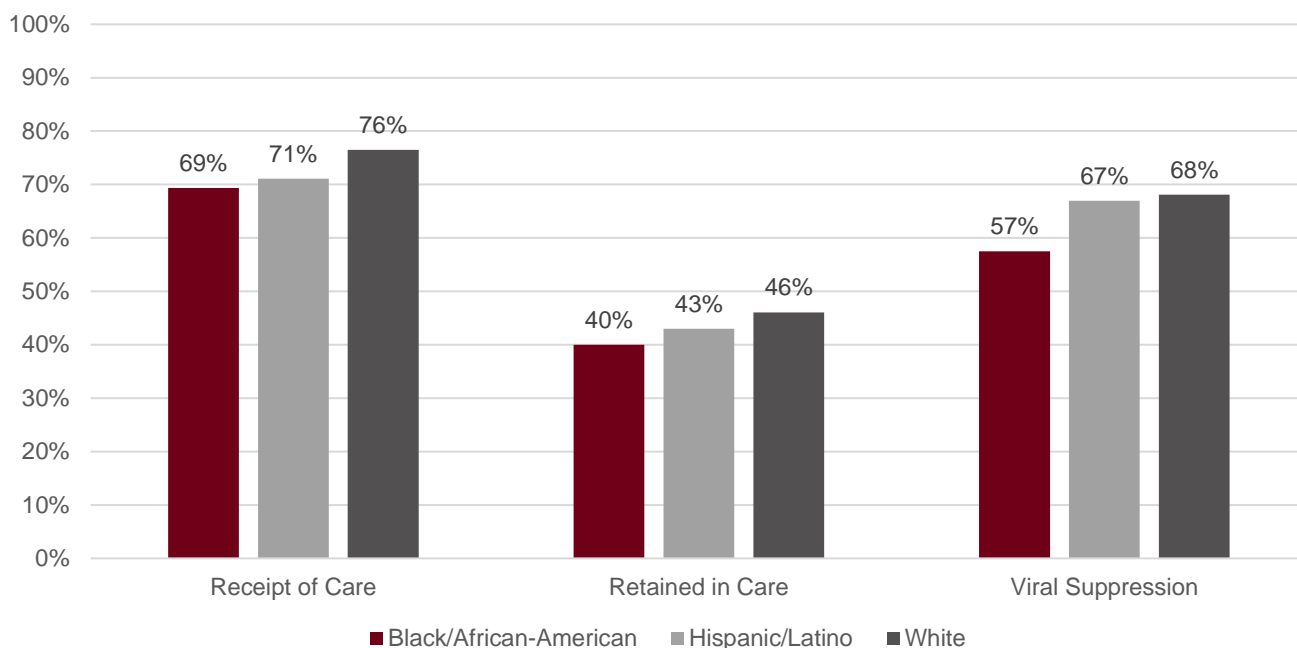
**Figure 26: Continuum of care among persons living with diagnosed HIV infection by current age, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Race/ethnicity:** Of Black/African American people living with diagnosed HIV in Region 4 at the end of 2020, 69% received care, 40% were retained in care, and 57% were virally suppressed. Of Hispanics/Latinos living with diagnosed HIV in Region 4 at the end of 2020, 71% received care, 43% were retained in care, and 67% were virally suppressed. Of white people living with diagnosed HIV in Region 4 at the end of 2020, 76% were in receipt of care, 46% were retained in care, and 68% were virally suppressed.

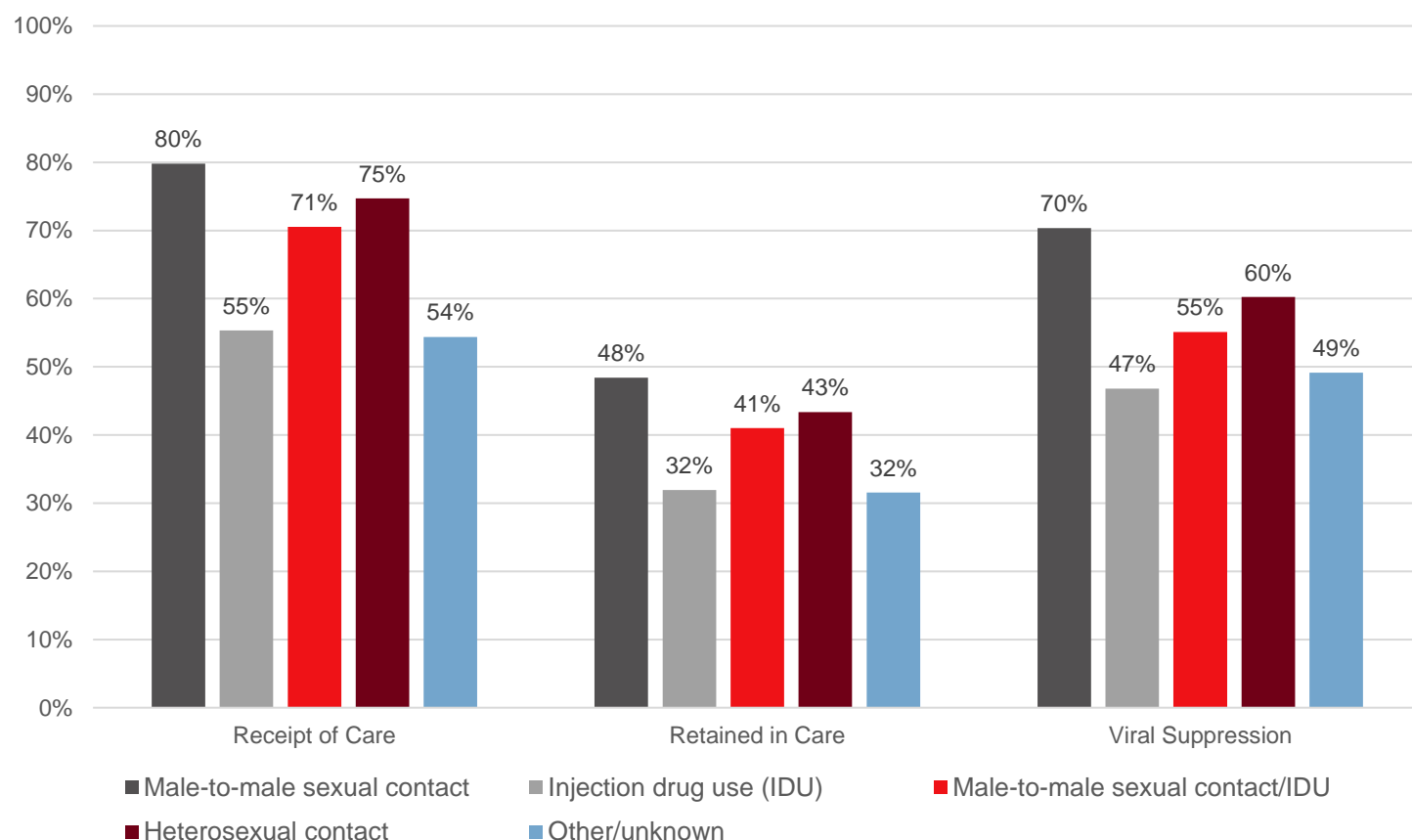
**Figure 27: Continuum of care among persons living with diagnosed HIV infection by selected race/ethnicity, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Transmission category:** Of males living with diagnosed HIV in Region 4 at the end of 2020 with a transmission category of male-to-male sexual contact, 80% received care, 48% were retained in care, and 70% were virally suppressed. Of males living with diagnosed HIV in Region 4 at the end of 2020 with a transmission category of IDU, 55% were in receipt of care, 32% were retained in care, and 47% were virally suppressed. Of males living with diagnosed HIV in Region 4 at the end of 2020 with a transmission category of male-to-male sexual contact/IDU, 71% received care, 41% were retained in care, and 55% were virally suppressed. Of males living with diagnosed HIV in Region 4 at the end of 2020 with a transmission category of heterosexual contact, 75% were in receipt of care, 43% were retained in care, and 60% were virally suppressed.

**Figure 28: Continuum of care among males living with diagnosed HIV infection by transmission category, Region 4, 2020**

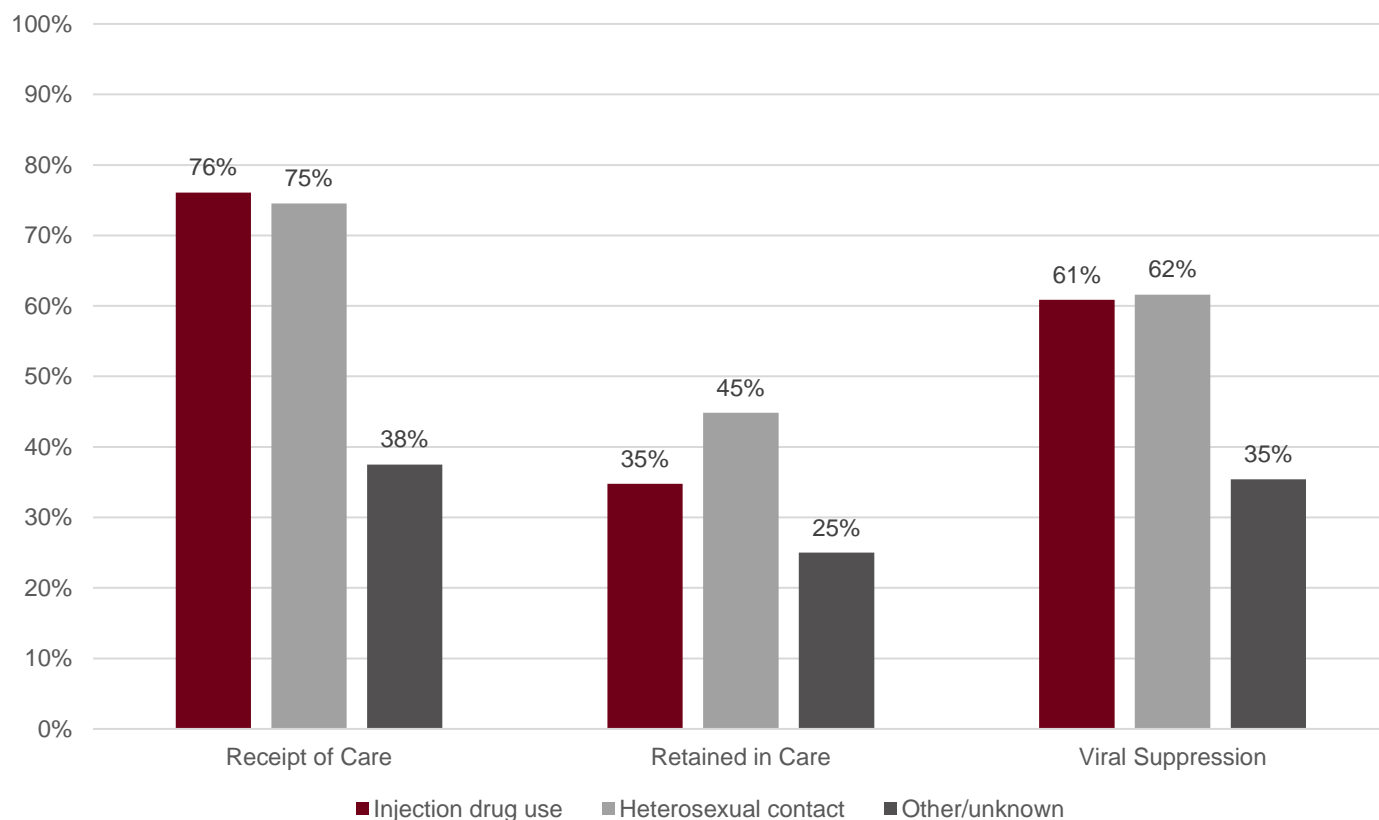


Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.



Of females living with diagnosed HIV in Region 4 at the end of 2020 with a transmission category of IDU, 76% received care, 35% were retained in care, and 61% were virally suppressed. Of females living with diagnosed HIV in Region 4 at the end of 2020 with a transmission category of heterosexual contact, 75% received care, 45% were retained in care, and 62% were virally suppressed.

**Figure 29: Continuum of care among females living with diagnosed HIV infection by transmission category, Region 4, 2020**



Source: Ohio Department of Health, HIV Surveillance Program. Data reported as of May 1, 2022.

**Ryan White Part B:** There were a total of 707 clients enrolled in the Ryan White Part B program in Region 4 in 2020. **A decrease in the HIV care indicators among Ryan White clients in 2020 may not represent a true decline and may be due to a decrease in services accessed as a result of COVID-19.** In 2020, the Ohio Ryan White HIV/AIDS program (RWHAP) served 7,964 clients.

**Table 18: Continuum of care measures as defined by the Ryan White Part B Program**

Measure	Denominator
Receipt of Care	Number of Ryan White Part B clients (including clients enrolled in OHDAP) who had a least one medical visit (i.e., medical care appointment, prescription copayment, or medication dispense)
Measure	Numerator
Retained in Care	Number of clients who had at least two medical visits
Received Anti-Retroviral Therapy (ART)	Number of clients who received ART, as evidenced by a CVS medication dispense
Virally Suppressed	Number of clients whose most recent documented viral load $\leq 200$ copies/mL

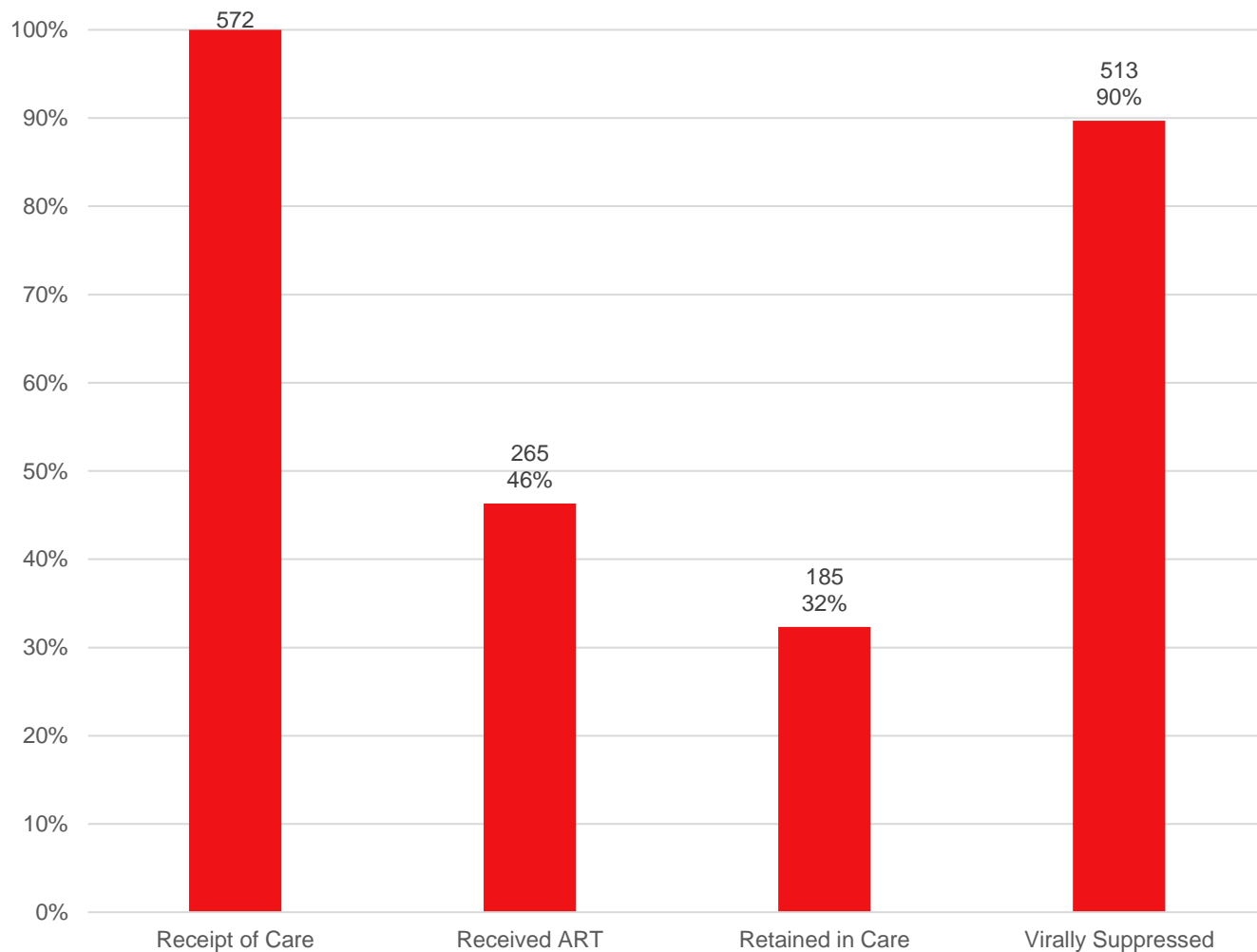
**Table 19: Continuum of care among Ryan White Part B clients, Region 4, 2020**

	Ohio	Region 4
Enrolled in Ryan White Part B	7,964	707
Receipt of Care	5,652	572
Received Antiretroviral Therapy (ART)	3,783	265
Retained in Care	1,662	185
Virally Suppressed	4,468	513

Note: Clients enrolled in the Ryan White Part B Program may also receive services from other pay sources (e.g., other Ryan White Parts, Medicaid).  
Source: Ryan White Application Database. Data reported through Feb. 14, 2022.

Of Region 4 Ryan White Part B clients in 2020, 46% received ART, 32% were retained in care, and 90% were virally suppressed. In comparison, 79% of Ryan White clients in Ohio were virally suppressed in 2020.

**Figure 30: Continuum of care among Ryan White Part B clients, Region 4, 2020**



Note: Clients enrolled in the Ryan White Part B Program may also receive services from other pay sources (e.g., other Ryan White Parts, Medicaid).  
Source: Ryan White Application Database. Data reported through Feb. 14, 2022.

# PREVENT: Prevent new HIV transmissions by using proven interventions, including Pre-exposure Prophylaxis (PrEP) and Syringe Service Programs

## Pre-Exposure Prophylaxis (PrEP)

PrEP is a drug taken by individuals who are at high risk of acquiring HIV to prevent disease transmission. From 2017 to 2021, PrEP users in Region 4 increased from 224 to 578.

**Table 20: PrEP utilization, Region 4, 2017-2021**

	2017		2018		2019		2020		2021	
PREP Utilization	Users	Rate/ 100,000	Users	Rate/ 100,000	Users	Rate/ 100,000	Users	Rate/ 100,000	Users	Rate/ 100,000
Columbiana County	12	13	20	23	25	29	24	27	33	37
Mahoning County	39	20	53	27	65	33	71	36	86	44
Portage County	28	20	36	26	50	35	58	41	74	52
Summit County	118	26	165	36	212	46	254	55	321	70
Trumbull County	27	15	40	23	50	30	47	27	64	37
<b>Ohio</b>	<b>3,602</b>	<b>37</b>	<b>4,869</b>	<b>49</b>	<b>6,221</b>	<b>63</b>	<b>6,901</b>	<b>70</b>	<b>8,636</b>	<b>88</b>

Note: Symphony Health provided Gilead with national, electronic, patient-level prescription data from an overall sample that represents more than 54,000 pharmacies, 1,500 hospitals, 800 outpatient facilities, and 80,000 physician practices across the U.S. This is an open sample of commercially available data, which excludes entities that do not make their data available to Symphony Health, such as closed healthcare systems like Kaiser Permanente. The dataset contains prescription, medical, and hospital claims data for all payment types, including commercial plans, Medicare Part D, cash, assistance programs, and Medicaid. The dataset also includes data from some clinics in academic settings.

Source: Sullivan PS, Woodyatt C, Koski C, Pembleton E, McGuinness P, Taussig J, Ricca A, Luisi N, Mokotoff E, Benbow N, Castel AD. A data visualization and dissemination resource to support HIV prevention and care at the local level: analysis and uses of the AIDSvu Public Data Resource. *Journal of Medical Internet Research*. 2020;22(10):e23173.

PAPI (Prevention Assistance Program Interventions) is a program for HIV-negative Ohioans who have or are seeking a PrEP prescription. PAPI pays for PrEP-related medical costs, including office and medical copays, copays associated with required laboratory work, prescription copays that are not covered by a patient assistance program, and medical services for people who are not eligible for insurance. There are 15 agencies in Ohio that offer these services. In Region 4, PAPI served zero clients in 2019, 13 clients in 2020, and 14 clients in 2021. It is important to note that PAPI only captures information on clients who are accessing payment assistance, but the PrEP help navigators at these facilities provide navigation services to anyone seeking or referred to PrEP services.

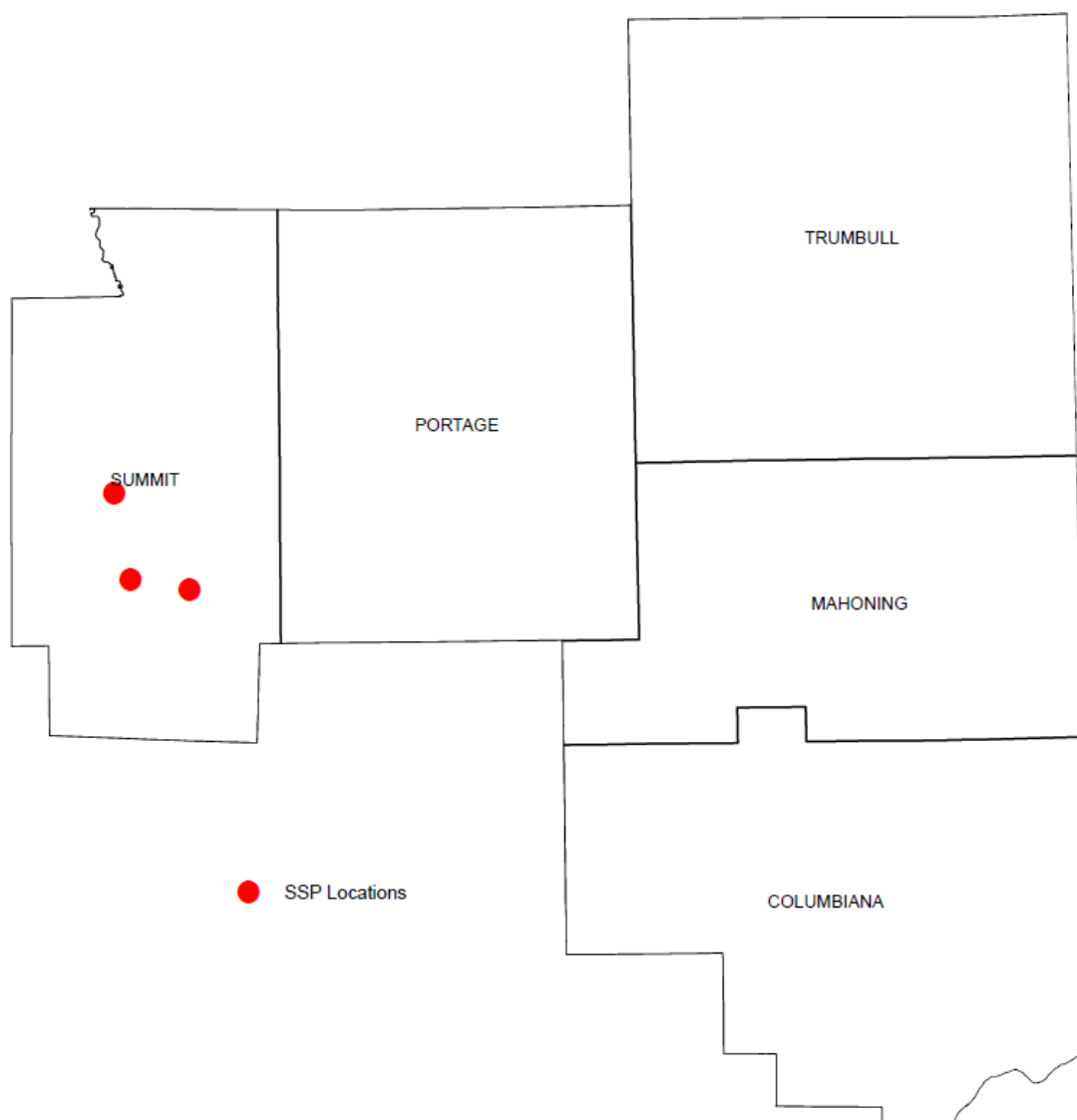
# Syringe Services Programs and Other Substance Use-related Data

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Ohio law gives communities the authority to pursue and operate Syringe Services Programs (SSP) (referred to in the law as a “bloodborne infectious disease prevention program”) through their local board of health following a prescribed process and operating requirements.

In Region 4, the Summit Safe Syringe Exchange operates three locations, distributing a total of 377,453 syringes in 2020, and 437,540 syringes in 2021 from January through October.

**Figure 31: Region 4 syringe service programs, 2021**



Source: HIV Prevention Regions, Ohio, Mar. 22, 2022.

# RESPOND: Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them

**Time-Space analysis:** ODH performs monthly time-space cluster analyses. The following criteria are considered when determining if time-space clusters require further investigation: size of the transmission cluster, evidence of ongoing risk behavior (e.g., injection drug use), late diagnoses, pregnant women, local epidemiology, and resource availability. Time-space reports are routinely and consistently monitored for potential outbreaks.

**Table 21: New reported diagnoses of HIV infection identifying IDU as the mode of transmission and new reported diagnoses of HIV infection, Region 4, 2020-2022**

County <sup>a</sup>	Jan - Dec 2020		Jan - Dec 2021		Jan - Dec 2022		Jan - Nov 2022	
	IDU No.	Total HIV No.	IDU No.	Total HIV No.	IDU No.	Total HIV No.	IDU No.	Total HIV No.
Columbiana	-	-	-	2	1	4	1	5
Mahoning	-	19	1	26	2	25	2	23
Portage	-	4	-	2	-	2	-	2
Summit	-	46	5	46	2	38	2	36
Trumbull	-	7	1	9	2	9	2	8
Region 4	-	76	7	85	7	78	7	74
Ohio	91	888	131	915	93	869	86	784

Notes:  
Includes HIV transmission categories injection drug use (IDU) and male-to-male sexual contact/IDU. IDU and male-to-male sexual contact/IDU are mutually exclusive mode of transmission categories.

County reflects county of residence at time of earliest diagnosis. Cases diagnosed while in a state or federal correctional facility or whose county is unknown are included in 'No County.'

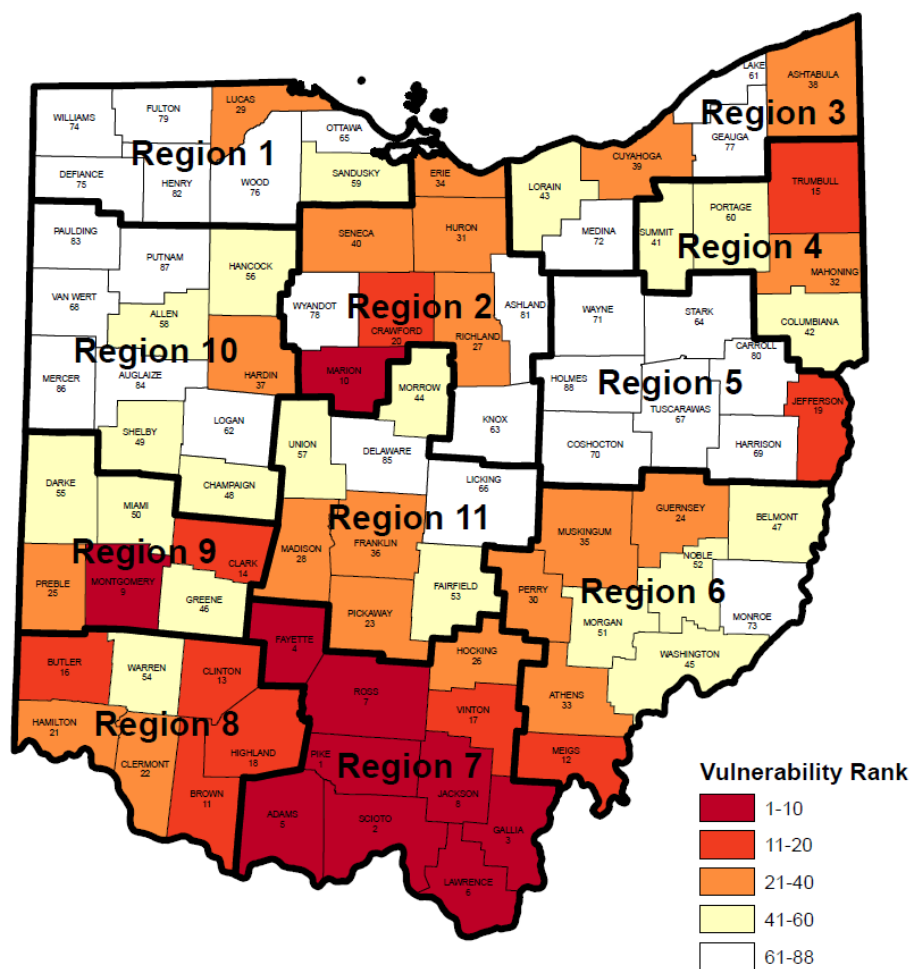
Dash (-) indicates no cases were reported for the given category.

**Vulnerable county per CDC assessment of national injury data on overdose deaths, opioid prescriptions, and high poverty.**

Vulnerable county per ODH assessment of county opioid doses dispensed per capita, overdoses per capita, age-adjusted unintentional drug overdose death rates, total (acute and chronic) Hepatitis C Virus 3-year average rates, reported new diagnoses of HIV infection 3-year average rates, and 5-year average percentage of population below 100% federal poverty level.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through Feb. 28, 2023.

**Vulnerable county assessment:** ODH conducted a vulnerable county assessment to determine areas at high risk for 1) opioid overdoses, and 2) bloodborne infections (i.e., HIV, Hepatitis C, Hepatitis B associated with non-sterile drug injection). This vulnerable county assessment was used to develop plans that strategically allocate prevention and intervention services, and distribute findings to key stakeholders. Data was obtained from multiple sources to reflect indicators plausibly associated with opioid overdoses or injection-related HIV and/or Hepatitis C infections. Indicators were selected based on stakeholder input regarding the recent burden of the opioid-related epidemic in Ohio, and in consultation with internal and external partners. An overall rate average was calculated for each county using six indicators, and counties were then ranked by severity. In the vulnerable county assessment, it was determined that Pike, Scioto, Gallia, Fayette, Adams, Lawrence, Ross, Jackson, Montgomery, and Marion counties were ranked as the most vulnerable to an injection-related HIV and/or Hepatitis C outbreak.



## Additional Sources

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1. Health Resources and Services Administration. Ryan White HIV/AIDS Program Annual Client-Level Data Report 2020. [www.hab.hrsa.gov/data/data-reports](http://www.hab.hrsa.gov/data/data-reports). Published December 2021.
2. U.S. Health and Human Services. (2019, August 18). America's HIV Epidemic Analysis Dashboard (AHEAD). Retrieved from <https://ahead.hiv.gov>.
3. Centers for Disease Control and Prevention. HIV Surveillance Report, 2020; vol. 33. <https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2022. Accessed Feb. 16, 2023.



# Evaluation

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**Evaluation survey:** The purpose of the evaluation survey is to gather feedback from users of this *HIV/AIDS Integrated Epidemiologic Profile for Ohio*. We would appreciate your feedback to help inform the development of future profiles. Please complete the following survey regarding the ease of use, contents, organization, and format of the profile. Thank you.

<https://www.surveymonkey.com/r/KBSRK33>