

A photograph of an Arizona desert landscape featuring a prominent saguaro cactus in the foreground and a large, flat-topped mountain range in the background. A thick red vertical bar is positioned on the right side of the image, partially overlapping the landscape. The text '2023 ANNUAL REPORT' is printed in black, sans-serif font within the red bar.

2023  
ANNUAL  
REPORT

# HIV/AIDS In Arizona

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ANALYSIS COMPLETED JULY 2023  
DATA THROUGH 2022

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## EXECUTIVE SUMMARY

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### Background

The HIV Surveillance Program at the Arizona Department of Health Services (ADHS), in conjunction with local health departments, collects and analyzes data to assess the burden of HIV/AIDS throughout the state. Active and passive surveillance are used to monitor trends in new and existing cases of HIV/AIDS. The majority of new HIV/AIDS cases are identified through passive surveillance, which involves healthcare providers and/or laboratories reporting lab results related to HIV/AIDS to the HIV Surveillance Program. Less often, local health departments may employ active surveillance by soliciting information from health care providers and/or laboratories to confirm new diagnoses or ensure that a person living with HIV/AIDS (PLWH) is receiving health care.

Surveillance data are used by various stakeholders, from the Centers for Disease Control and Prevention (CDC) to local community partners. Furthermore, these data may help inform HIV prevention strategies, identify areas and populations in need of HIV care and services, and provide situational awareness about the status of HIV/AIDS in Arizona compared to other jurisdictions.

This report provides an overview of HIV/AIDS surveillance data for 2022, including a statewide analysis as well as analyses for individual counties. Throughout the report, rates are calculated to describe the burden of HIV/AIDS relative to population size—all rates are calculated per 100,000 people. Race/ethnicity includes six categories: White, Black, Hispanic, American Indian/Alaska Native (AI/AN), Asian/Pacific Islander/Native Hawaiian (A/PI/NH), and multi-race/other/unknown. Risk categories include men who have sex with men (MSM), injection drug use (IDU), men who have sex with men and injection drug use (MSM/IDU), high-risk heterosexual contact (HRH), no indicated risk/no risk reported (NIR/NRR), and Perinatal/Blood/Other. Definitions of terms and abbreviations used throughout the report can be found in Appendix 4: Glossary of Terms.

### HIV Care Continuum

The HIV care continuum consists of various milestones that an individual may reach from the time they receive an HIV diagnosis to achieving viral suppression. Appropriate use of Highly Active Antiretroviral Therapy (HAART) allows PLWH to achieve and maintain an undetectable viral load. Maintaining an undetectable viral load also prevents transmission of HIV through sexual contact. Therefore, it has become a national priority to ensure that individuals are aware of their HIV status, linked to HIV care, and receiving adequate treatment for HIV such that it is possible to achieve and maintain an undetectable viral load.

In this report, a diagnosis-based HIV care continuum was used, and each step of the continuum (described below) is a percentage of the number of PLWH in Arizona at the end of 2022 who received a diagnosis prior to the end of 2021. Individuals who did not have a documented lab in the last 15 years were excluded from the denominator. An individual is considered linked to care if they received a lab test (i.e. viral load, CD4) within 30 days of their diagnosis. Linkage to care is a measure that cannot be compared to other

outcomes in the HIV care continuum because the denominator includes only individuals diagnosed with HIV/AIDS in 2022.

## TECHNICAL NOTES

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### Data Specifications

This report presents data of people who resided in Arizona at the time of their HIV diagnosis in 2022 as well as those living with HIV in Arizona as of December 31, 2022. The data presented in this report were reported to the Arizona Department of Health Services through July, 12, 2023. A six-month reporting delay allows for sufficient time to collect case and laboratory data as well as the completion of case investigations.

### Data Suppression

In order to maintain privacy and to protect the confidentiality of people living HIV/AIDS in Arizona, all cell sizes with a count of six or less than have been suppressed throughout this report. If any cell met the suppression criteria, additional cells were suppressed to prevent back calculation of the suppressed cell(s).

### Data Sources

Information of HIV/AIDS diagnoses, including residence at diagnosis, age, race/ethnicity, sex at birth, HIV exposure category and CD4 and viral load lab results are extracted from ADHS Enhanced HIV/AIDS Reporting System (eHARS). Population denominators used to calculate incidence and prevalence rates are from the Arizona Department of Health Services Vital Statistics. Morality data is sourced from various outlets including the Arizona State Vital Records, National Death Index and Social Security Death Match.

## HIV/AIDS IN ARIZONA

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**In 2022, 19,894 people were living with HIV/AIDS in Arizona. There were 975 new (incident) cases of HIV/AIDS, and the HIV/AIDS incidence rate was 13.2 cases per 100,000.** In comparison, there were 852 incident cases of HIV/AIDS and an incidence rate of 11.4 cases per 100,000 in 2021. HIV/AIDS incidence differs based on factors such as geographic location, sex, age, race/ethnicity, and reported risk behavior. 647 (66%) incident cases resided in Maricopa county and 141 (15%) incident cases resided in Pima county. While Pinal county had the highest HIV/AIDS incidence rate (17.6 per 100,000) 70% of those cases were incarcerated.

The incidence rate was 22.8 per 100,000 for males compared to 3.7 per 100,000 for females. By age, the groups with the highest HIV/AIDS incidence rates were ages 30-34 (33.4 cases per 100,000) and 25-29 (31.9 cases per 100,000). By sex at birth and age group, females assigned at birth in the 35-39 age category had the highest incidence rate (10.4 per 100,000) while males assigned at birth in the 30-34 age category had the highest incidence rate (50.1 per 100,000).

For race/ethnicity, 292 (30%) incident cases identified as white and 405 (42%) identified as Hispanic. While fewer newly diagnosed individuals identified as black, the incidence rate of HIV/AIDS in black individuals was the highest at 42.3 per 100,000. Men who have sex with men (MSM) was the most commonly reported risk behavior, with 546 (56%) incident cases reporting MSM.

Since the introduction of antiretrovirals (ARVs), PLWH who take HIV medicine as prescribed can live longer and healthier lives. As a result, the number of deaths related to HIV/AIDS has decreased. **In 2022, 326 deaths occurred among known PLWH in Arizona.**

STATEWIDE OVERVIEW

ARIZONA POPULATION: 7,409,189

HIV/AIDS INCIDENCE: 975

HIV/AIDS INCIDENCE RATE: 13.2 PER 100,000

HIV/AIDS PREVALENCE: 19,894

HIV/AIDS PREVALENCE RATE: 268.5 PER 100,000

HIV/AIDS-RELATED DEATHS: 326

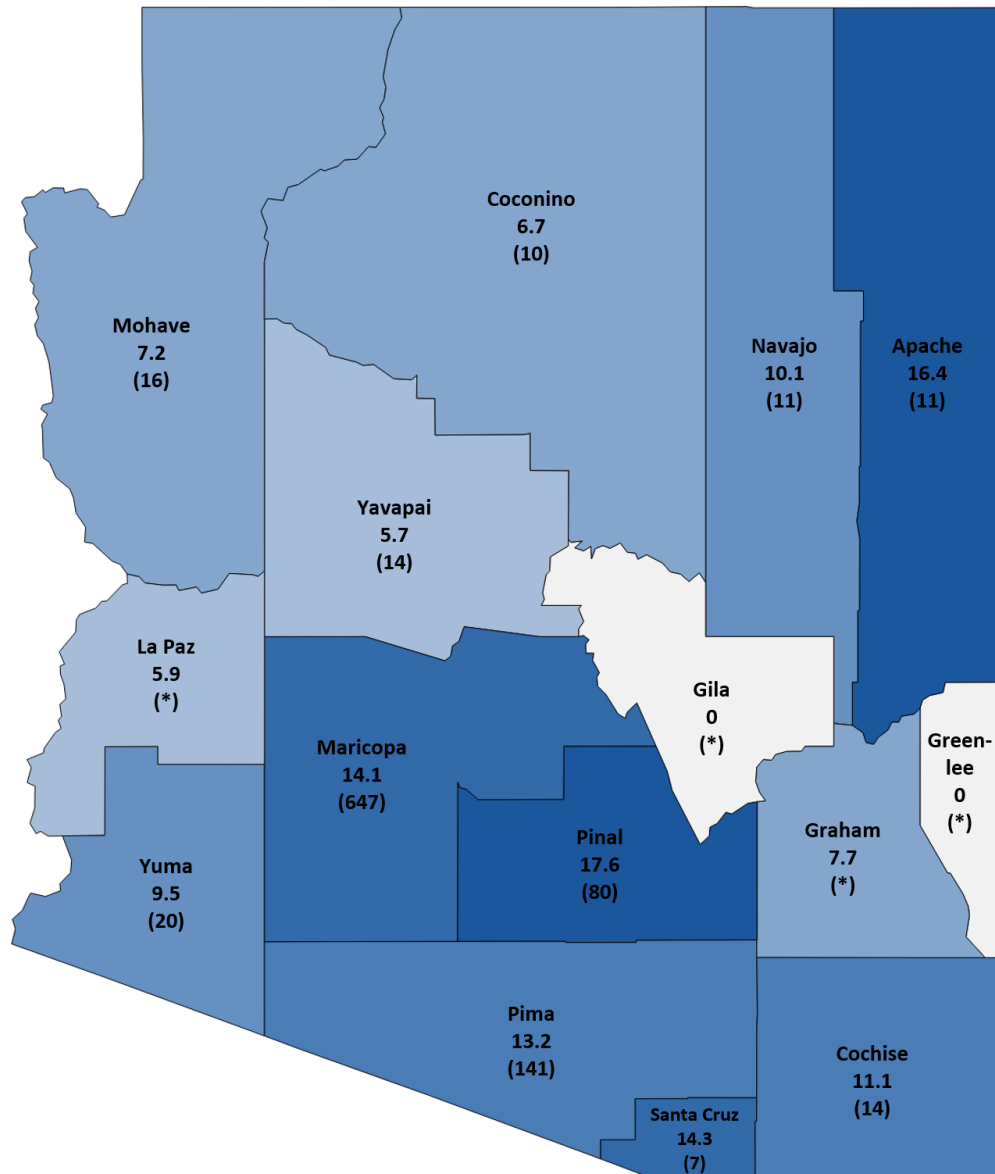


Figure 1: Arizona HIV/AIDS Incidence Rate and (count) by County, 2022.

**Arizona HIV/AIDS Incidence Rates by County in 2021 Compared to 2022**

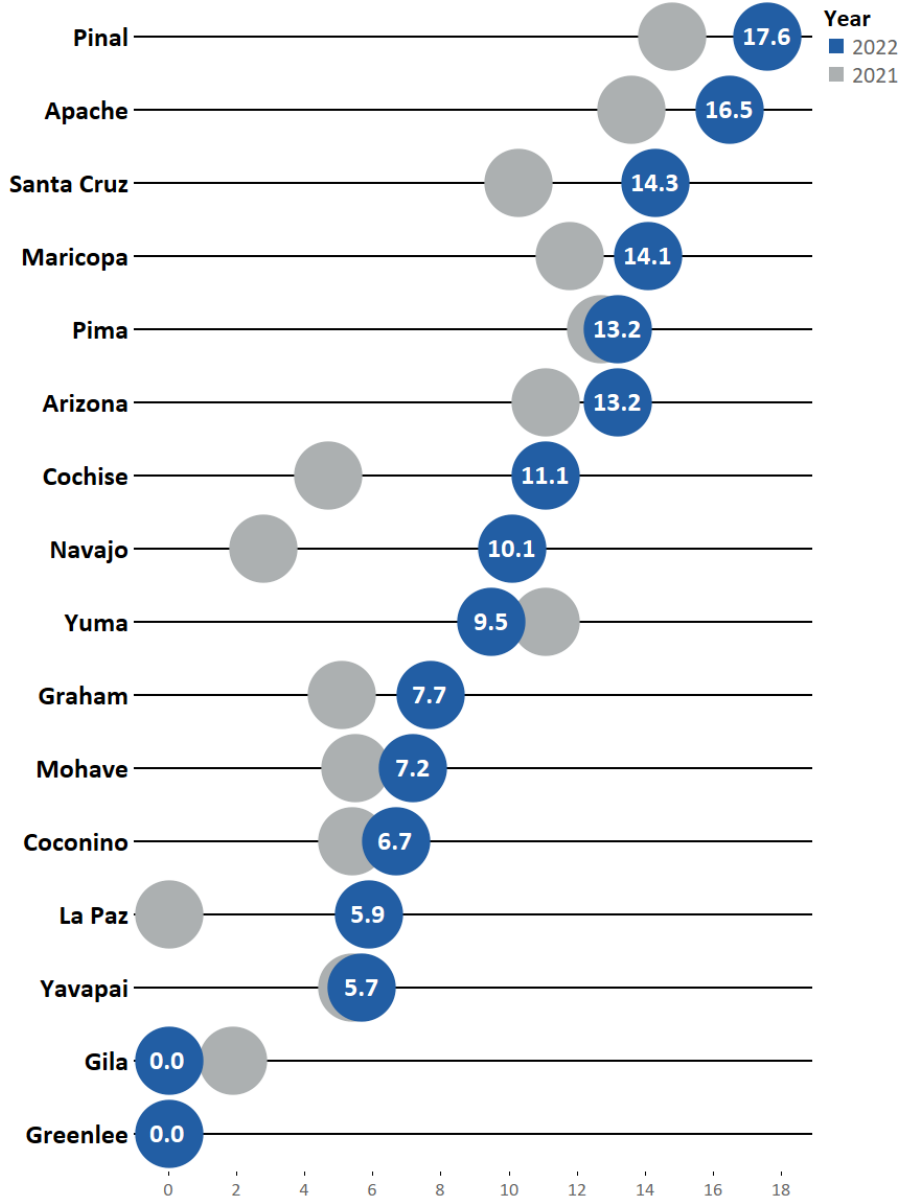


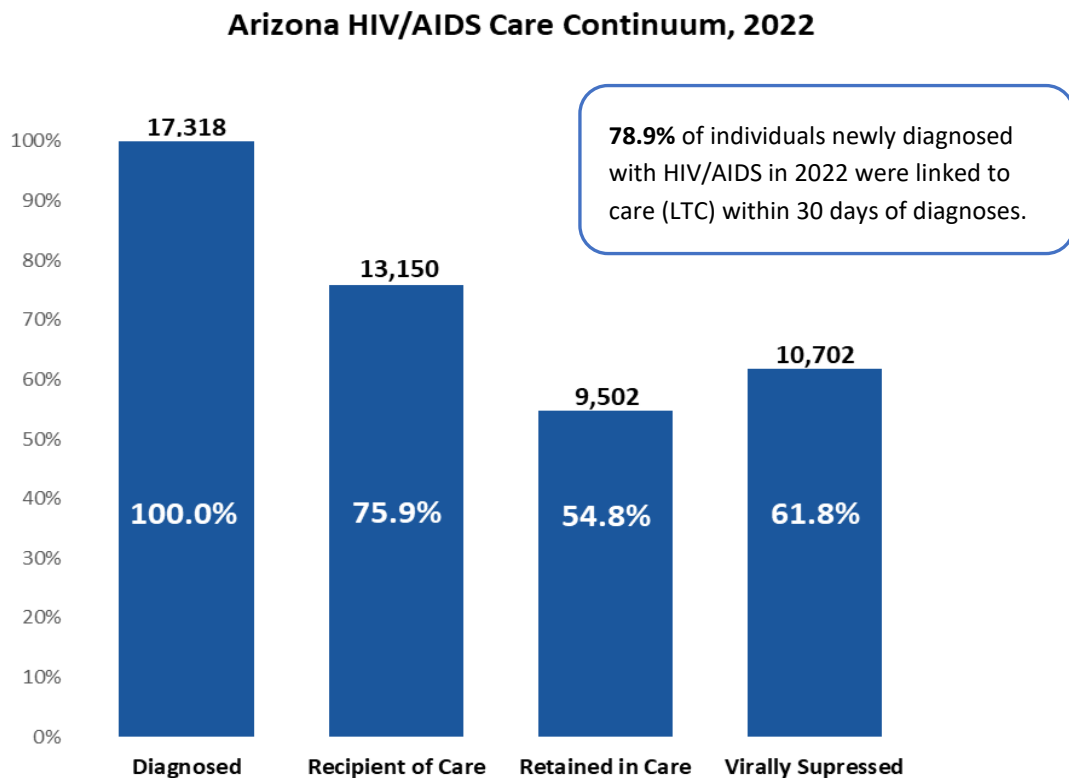
Figure 2: HIV/AIDS incidence rate (per 100,000) in 2021 compared to 2022 by county.

The incidence rate (per 100,000) for the state of Arizona increased from 11.1 in 2021 to 13.2 in 2022. 12 counties experienced an increase in the rate of new HIV infections when compared to rates reported in 2021. Greenlee county maintained a zero-case count in 2022 that was seen in 2021. Yuma county experienced a decrease in the rate of rate of new HIV/AIDS infection from 11.1 per 100,000 in 2021 to 9.5 per 100,000 in 2022. Gila County also experienced a decrease in the rate of new HIV/AIDS infections from 1.9 per 100,000 in 2021 to 0.0 per 100,000 in 2022.

## HIV CARE CONTINUUM, 2022

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The HIV care continuum consists of various milestones that an individual may reach from the time they receive an HIV diagnosis to achieving viral suppression. Appropriate use of antiretroviral therapy (ART) allows PLWH to achieve and maintain an undetectable viral load and live long and healthy lives. Maintaining an undetectable viral load also prevents transmission of HIV through sexual contact. Therefore, it has become a national priority to ensure that individuals are aware of their HIV status, linked to HIV care, and receiving adequate treatment for HIV such that it is possible to achieve and maintain an undetectable viral load.



**Figure 3:** HIV Care Continuum of patients who were diagnosed, received care, retained in care, and virally suppressed, Arizona 2022.

Individuals who did not have a documented lab in the last 15 years were excluded from the denominator. An individual is considered linked to care if they received lab test (i.e. viral load, CD4) within 30 days of their diagnosis. Linkage to care is a measure that cannot be compared to other outcomes in the HIV care continuum, because the denominator includes only individuals who were diagnosed with HIV/AIDS in 2022. Using the HIV Care Continuum described above, 78.9% of people in Arizona who were diagnosed with HIV/AIDS in 2022 were linked to care. Of the 17,318 PLWH in Arizona in 2022, 75.9% were a recipient of care, 54.8% were retained in HIV care, and 61.8% were virally suppressed.



Among current residents of Arizona living with HIV/AIDS, the Non-Hispanic White population had the highest total number of HIV/AIDS prevalent cases (7,914), while those falling into the Multi-Race/Unknown/Other category had the lowest count of prevalent cases (433). The AI/AN population had the highest adherence across all stages of the continuum of care. Among the AI/AN population who were infected with HIV, 82% were a recipient of care, 74% were retained in care and 69% were virally suppressed. In contrast, the Black population had the lowest outcomes across all stages of the continuum of care. Among the Black population that was infected with HIV, 71% were a recipient of care, 49% were retained in care and 52% were virally suppressed. Among the Black population that was infected with HIV, 71% were a recipient of care, 49% were retained in care and 52% were virally suppressed.

### Arizona HIV/AIDS Care Continuum by Race/Ethnicity, 2022

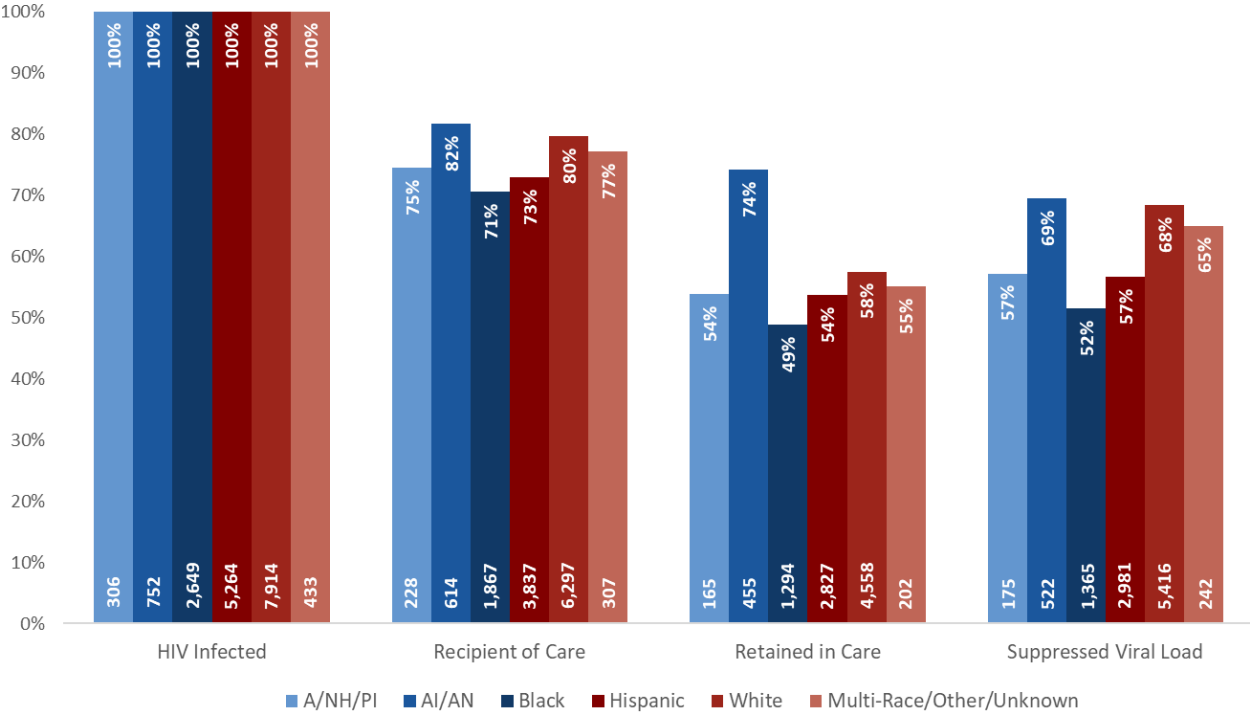


Figure 4: HIV Care Continuum include patients who were diagnosed, received care, retained in care, and virally suppressed by Race/Ethnicity, Arizona 2022.

Among current residents of Arizona living with HIV/AIDS, those who reported a risk of MSM had the highest count of HIV infections (10,939), while individuals who reported a risk of perinatal, blood, or other had the lowest count of HIV infections in the continuum of care (187). Individuals who reported a risk of perinatal, blood, or other were most likely to be a recipient of care (82%) and most likely to be retained in care (62%) when compared to the other risk groups. Those who reported a risk of MSM alone were most likely to be virally suppressed (65%). Those who reported IDU as a risk factor had the lowest outcomes across all stages of the continuum of care when compared to the other risk groups. Among those who were initially infected with HIV/AIDS and reported their risk factor as IDU, 64% were a recipient of care, 44% were retained in care and 48% were virally suppressed.

### Arizona HIV/AIDS Care Continuum by Risk Category, 2022

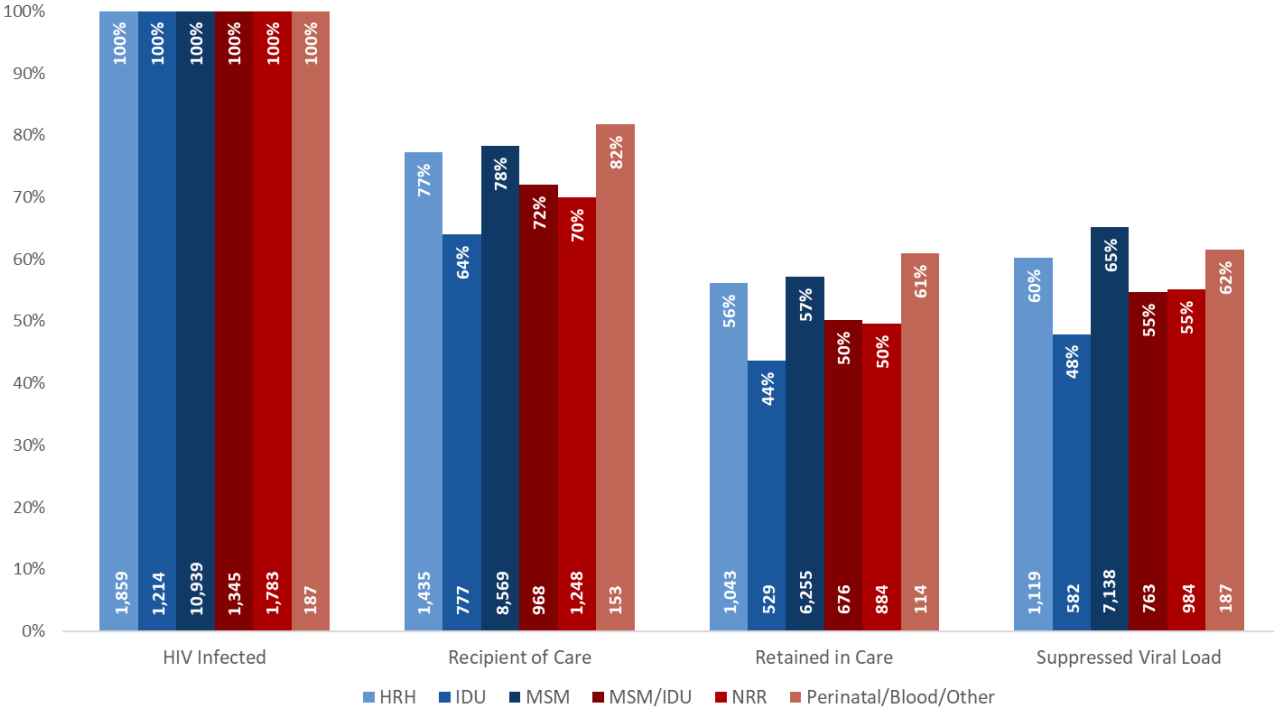


Figure 5: HIV Care Continuum include patients who were diagnosed, received care, retained in care, and virally suppressed by Risk Category, Arizona 2022.

Among current residents of Arizona living with HIV/AIDS, the male population had the highest total number of HIV/AIDS with 14,860 prevalent cases and females had the lowest with 2,458 prevalent cases. Females were more likely to be a recipient of care (78%) and more likely to be retained in care (56%) while males were more likely to be virally suppressed (62%).

### Arizona HIV/AIDS Care Continuum by Sex at Birth, 2022

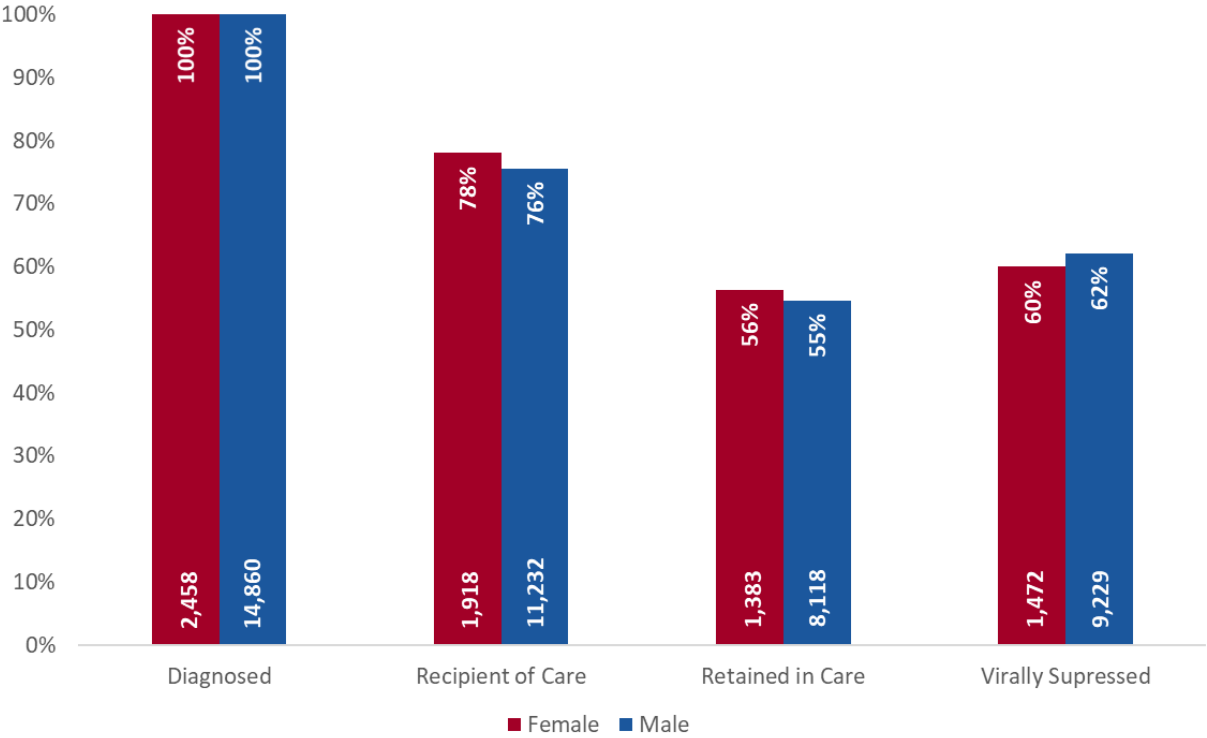


Figure 6: HIV Care Continuum include patients who were diagnosed, received care, retained in care, and virally suppressed by Risk Category, Arizona 2022.

## INCIDENCE TREND ANALYSIS, 1982-2022

HIV/AIDS was first identified in the early 1980s, quickly becoming one of the leading causes of death among adults in the United States (U.S.)<sup>1</sup> The HIV epidemic reached its peak in Arizona by 1988 with 940 new infections and reached its low of 464 new infections in 1994. Zidovudine (AZT) was the first antiretroviral drug to be approved to treat HIV/AIDS and has been widely available since 1987.<sup>2</sup> Testing for HIV using EIA and Western Blot technology began in 1986 and was seen in wide use by 1987. Federal and state funding and messaging created high demand for testing which created a large peak of positive cases from 1987 to 1990 as both new and older infections were detected at this point. Following the peak in cases a gradual decline in HIV/AIDS incidence was observed from 1991, representing a 49% decrease in the span of 6 years. A steady increase of new infections emerged between 1994 – 2007 peaking with 769 new infections, despite of the development of Highly Active Antiretroviral Therapy (HAART) in 1995. HAART is a treatment regimen usually consisting of a combination of three or more antiretroviral drugs used to treat HIV infected patients.<sup>3</sup> A steady decline in incident cases between 2008 – 2011 during the financial collapse of that era, and reached a low of 564 new infections in 2011.

Notably, the COVID-19 pandemic may have affected HIV/AIDS testing measures in 2020 by projecting a lower number of HIV/AIDS incident cases. From 2020-2022, the number of HIV/AIDS incident cases detected increased by 19% following the COVID-19 pandemic. Over the last ten years of the HIV epidemic (2013-2022), an average of 757 incident cases per year have been recorded.

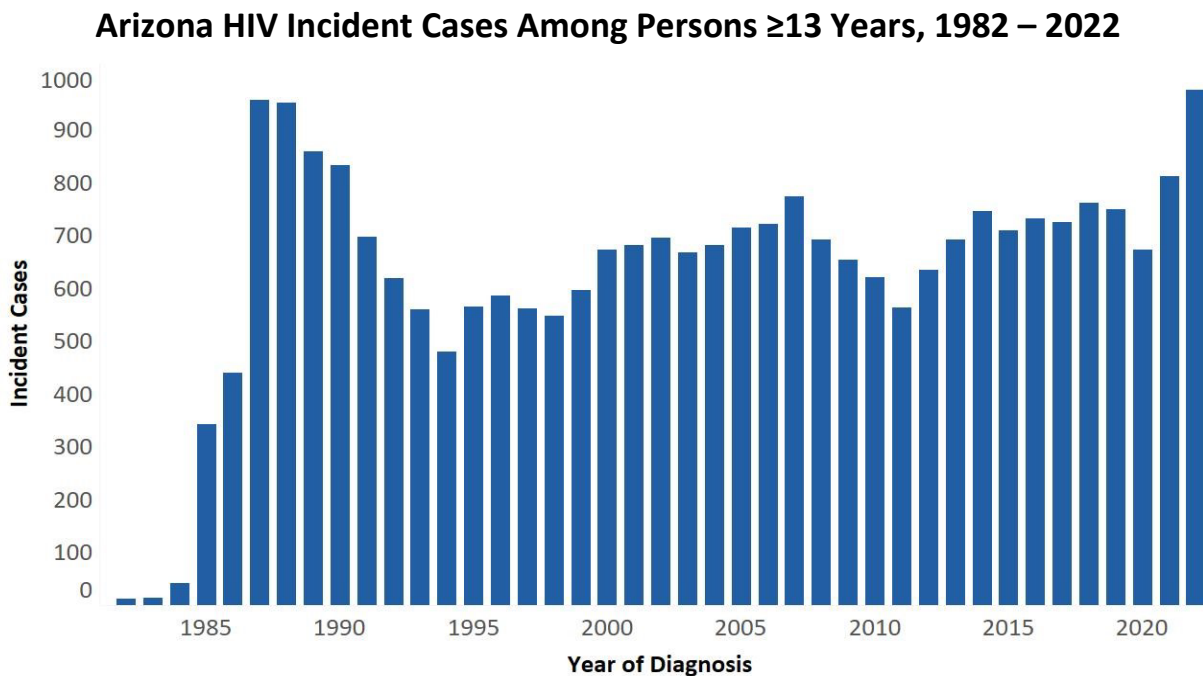


Figure 7: Number of HIV incident cases among persons ≥13 years, Arizona from 1982 - 2022.

### Arizona HIV Incidence Rate, 1991 – 2022

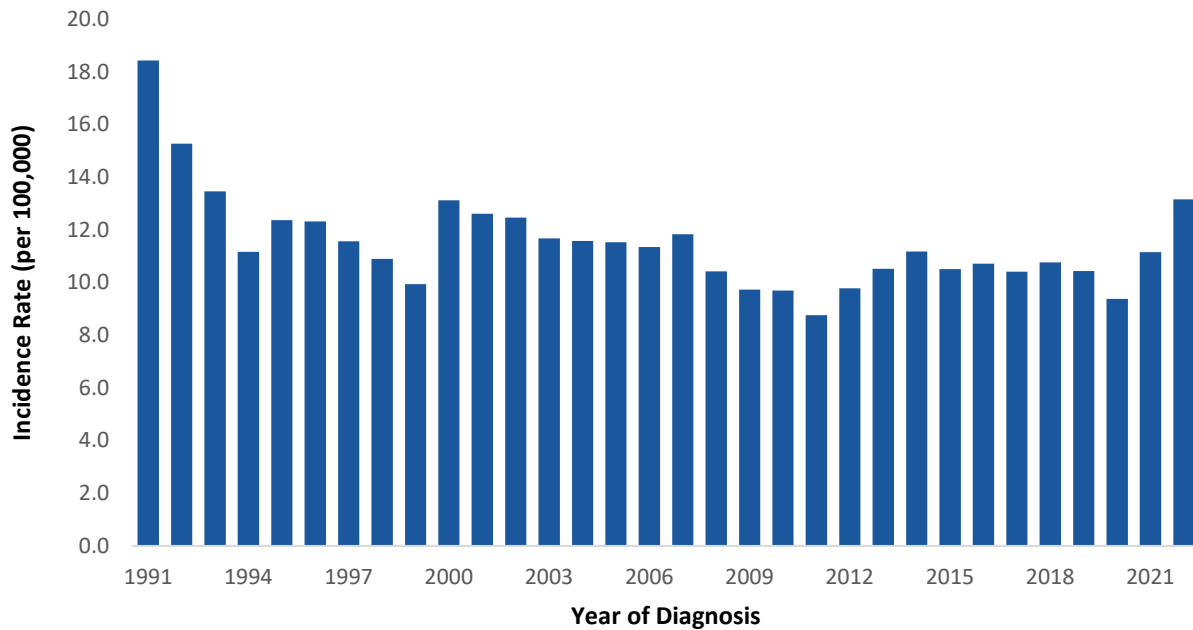


Figure 8: Number of HIV incidence rate (per 100,00), Arizona from 1991 - 2022.

In 1988, the White population accounted for 75% of new HIV infections. From 1988 – 2022, the White population experienced a 59% decrease in HIV incidence, whereas the Hispanic population experienced a 181% increase of new HIV infections.

### Arizona HIV Incident Cases Among Persons ≥13 Years by Race/Ethnicity, 1982 – 2022

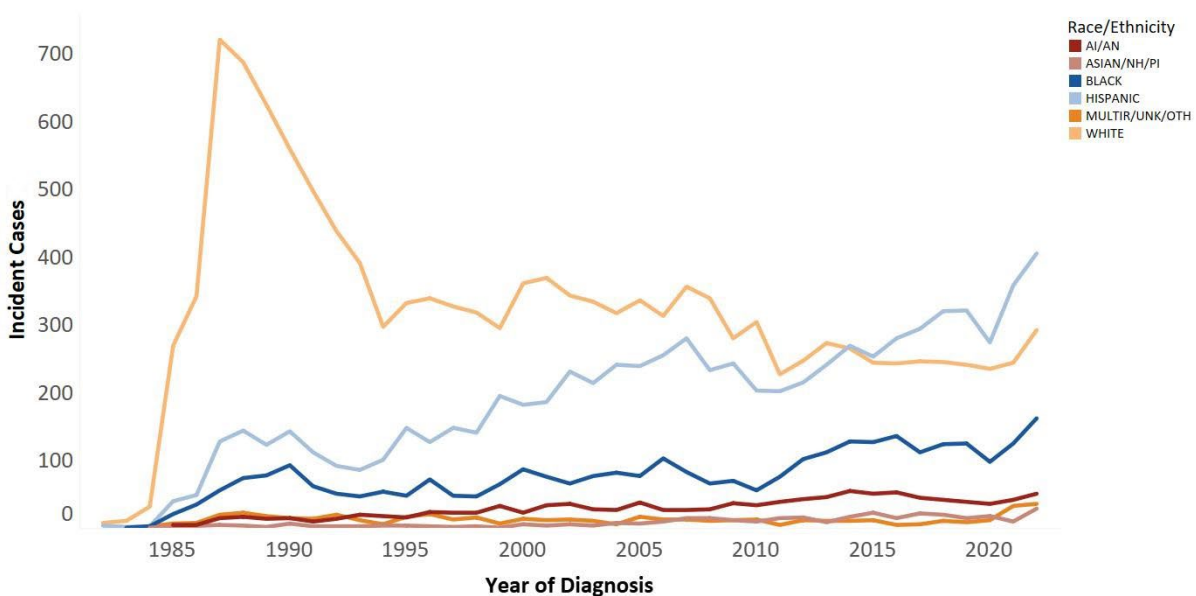


Figure 9: Number of HIV incident cases among persons ≥13 years by race/ethnicity, Arizona 1982 -2022.

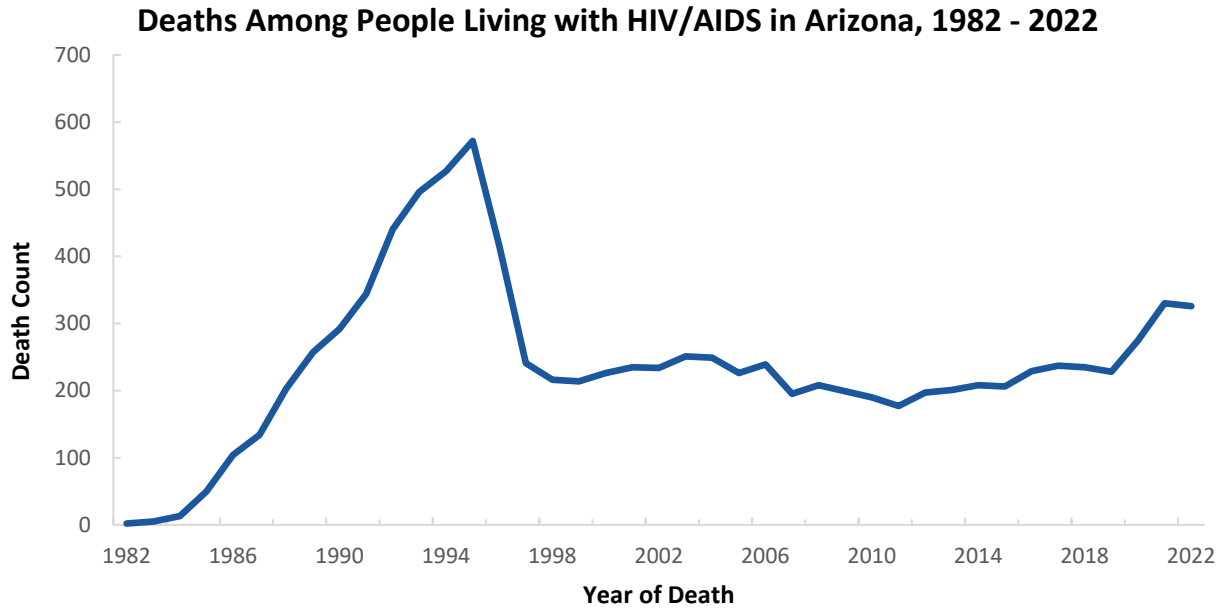


Figure 10: Number of HIV/AIDS related deaths in Arizona 1982-2022.

In 2022, 326 people known to be living with HIV/AIDS died and the death rate among people known to be living with HIV/AIDS in Arizona was 4.4 per 100,000.

### Death Rate (per 100,000) Among People Living with HIV/AIDS in Arizona, 1990 – 2022

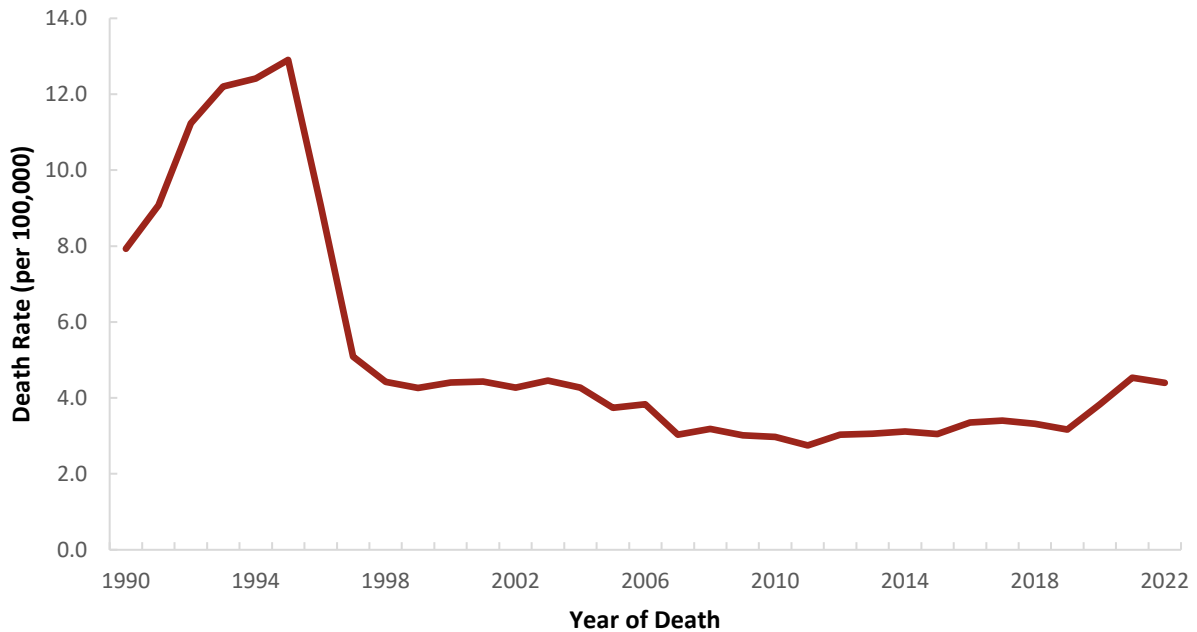


Figure 11: HIV/AIDS related deaths by rate (per 100,000), Arizona 1990 – 2022.

## Arizona HIV Incident Cases Among Persons ≥13 years by Age, 1982 - 2022

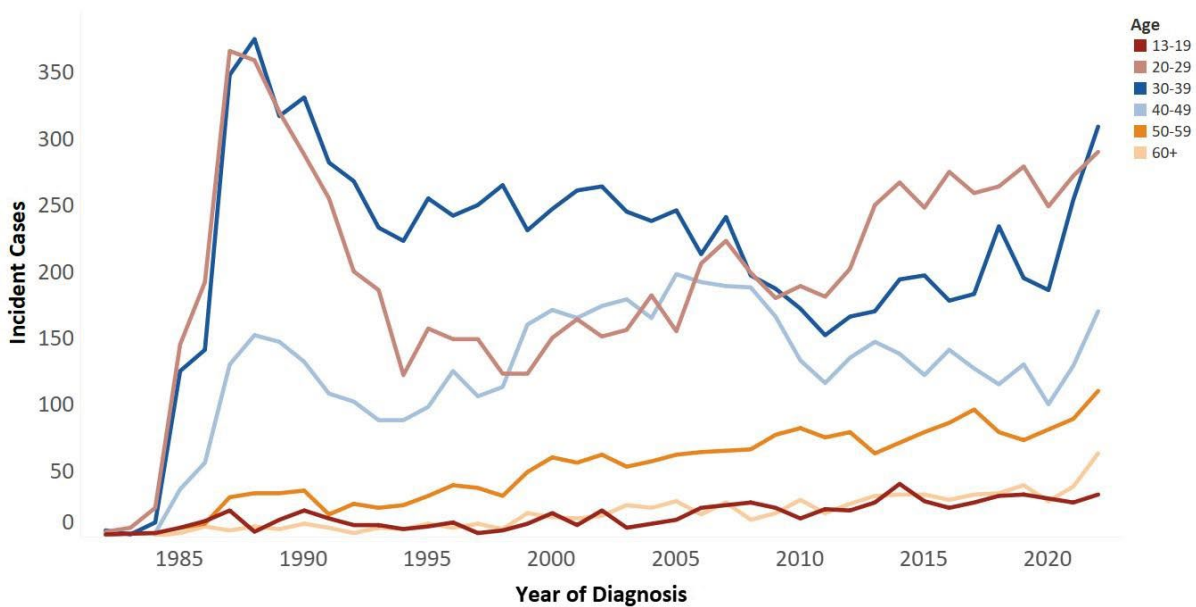


Figure 12: Number of HIV incident cases among persons ≥13 years by age group, Arizona 1982 to 2022.

During the peak of the HIV epidemic, persons aged 20-39 years were at the highest risk of acquiring HIV infection. In 2020 and 2022, persons aged 20-39 years accounted for 61% of reported incident cases.

### HIV/AIDS Cases in Females (Assigned at Birth)

At the peak of the HIV epidemic in 1988, individuals assigned female at birth comprised 9% of new HIV infections in Arizona and 13% of those cases identified IDU as a risk factor. In 2022, individuals assigned female at birth consisted of 8% of new infections and 4% of those HIV cases reported IDU as a risk factor. New infections among the Black female population increased from 16 HIV cases in 2010 to 45 HIV cases in 2022. During this span, the Hispanic female population experienced a 142% increase in new infections while the White female population experienced a 36% decrease of new infections. Overall, the Black and Hispanic female populations have continued to experience a rise in new infections every year. Conversely, the AI/AN female population experienced a 71% decrease in new infections from 7 HIV cases in 2011 to 2 HIV cases in 2019, with an average increase of 7 cases per year. The majority of new female infections occurred in women of childbearing age, raising concerns about potential sexually transmitted co-infections.

## Arizona HIV Incident Cases Among Persons ≥13 Years by Risk, 1982 - 2022

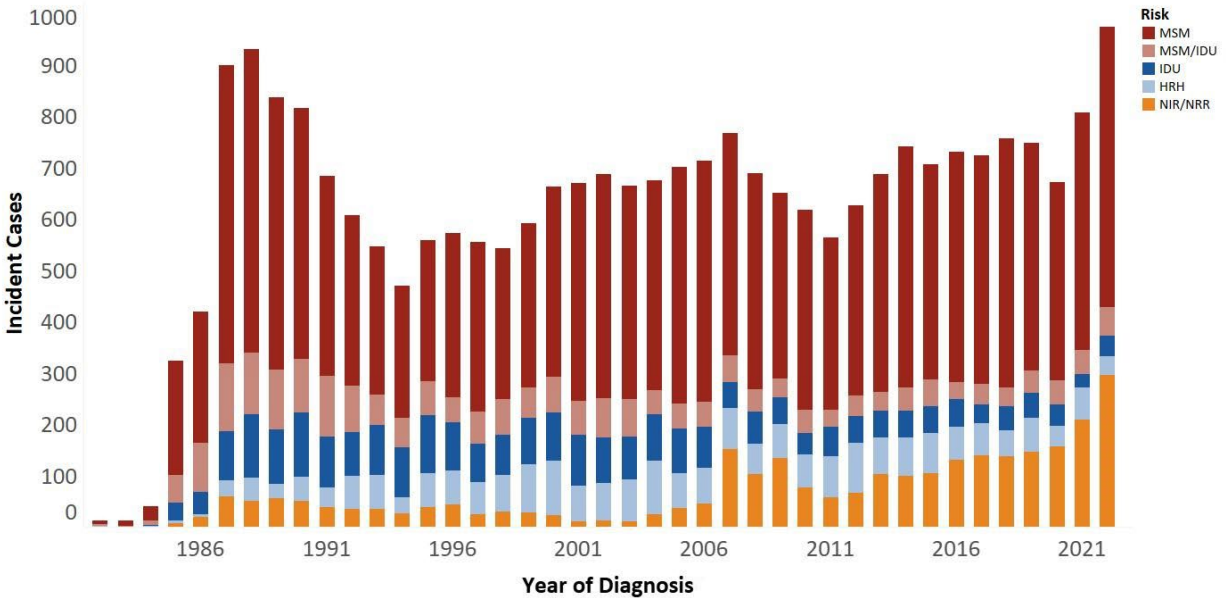


Figure 13: Number of HIV incident cases among persons ≥13 years by risk, Arizona 1982 to 2022.

### Incident Cases by Risk

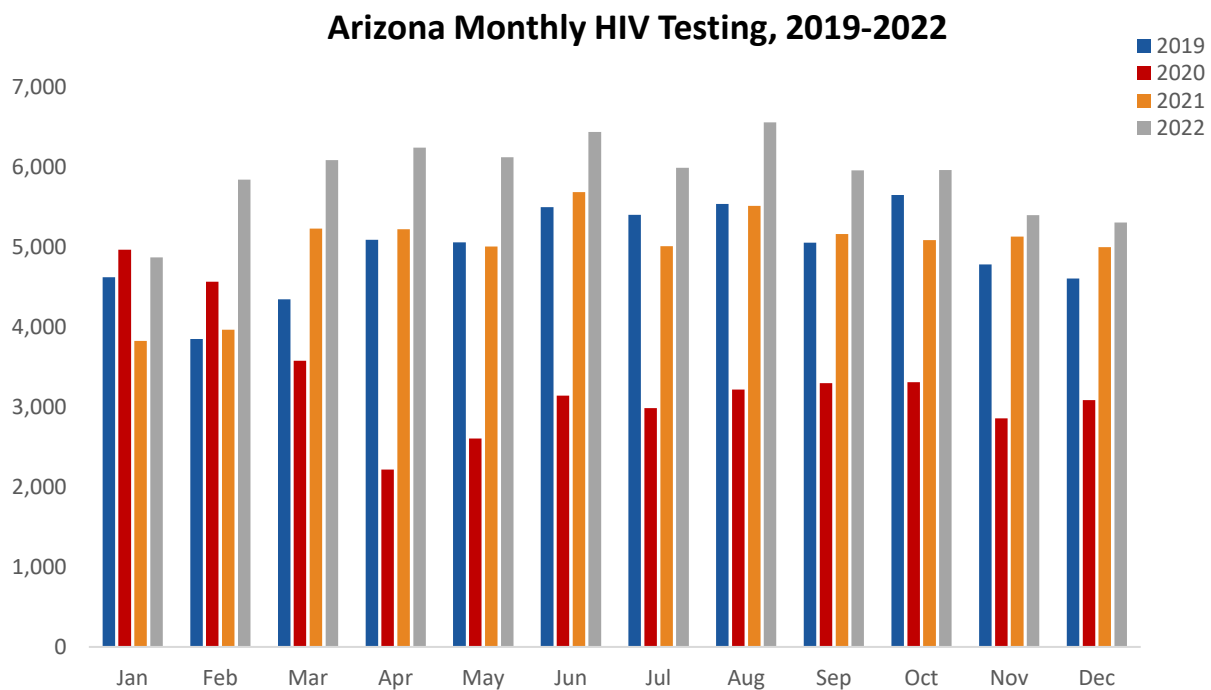
Men who have sex with men (MSM) has been the primary HIV transmission risk throughout the HIV epidemic. MSM as a risk factor represented 56% of new HIV infections in 2022. Overall HIV incidence cases reported among MSM had a steadily increased from the mid 1990's to 2022. However, the Black and Hispanic MSM population have experienced a 191% increase in new infections from 195 HIV cases in 1995 (the year HAART was first introduced) to 567 HIV cases in 2022. The highest rate of incidence cases in the Black and Hispanic MSM population was 297 cases in 2018, followed by 335 cases in 2022. The number of new HIV infections among the Hispanic population surpassed new HIV infections among the White population in 2014 and maintained a high case count through 2022. The Hispanic population experienced a 181% increase in HIV cases since the peak of the HIV pandemic and has continued an upward trend reaching a high incidence case rate of 405 in 2022. From 2000 – 2022, the AI/AN population has encountered a 42% increase in new HIV infections. From 2016-2020 there was a 32% decline in new infections in the AI/AN population, however, there has been a 21% increase in new infections AI/AN from 2021-2022. Comparatively, the White population experienced a 59% decrease in cases since the height of the HIV epidemic in 1988 to 2022 and has experienced a 24% increased from 2020-2022.



## HIV TESTING, 2019-2022

The HIV Prevention Program utilizes quality improvement monitoring for prevention and linkage to care services as a foundational strategy to implement prevention approaches. Additionally, the program focuses on addressing disparities affecting Arizonans experiencing risks for HIV. The program collects individual-level data on all testing interventions funded by ADHS, through CDC cooperative agreement funding. Entities funded through ADHS include county health departments, community-based organizations, AIDS service organizations, and medical providers.

The imposition of lockdowns and strained healthcare resources that occurred during 2020 resulted in a decrease in publicly funded HIV testing (39,813) when compared to 2019 (59,468). The reduction in incident HIV cases in 2020 may reflect decreased access to services including testing, rather than represent a true decrease in the number of new cases. There was a 19% increase in publicly-funded HIV testing in 2022 when compared to 2019. Since 2020, a consistent upward trend has been observed, with notable figures recorded in subsequent years following the initial year of the COVID-19 pandemic, specifically 59,807 tests in 2021 and a further increase of 70,737 tests in 2022. The increase in HIV testing in 2021 and 2022 correlates with the elevated number of HIV/AIDS incident cases detected in these respective years.



**Figure 14:** Number of HIV tests by month and year, Arizona 2020-2022. Home-test kit data not included in graph above.

## ARIZONA INCIDENCE & PREVALENCE CASES BY RACE/ETHNICITY, 2022

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Incidence refers to the number of new cases in a specific time period and prevalence is defined as the number of existing living cases in a specific time period. In the U.S., HIV/AIDS can affect anyone regardless of race, ethnicity, sex, age, and location. Some population sub-groups experience a higher rate of infection due to socio-economic and demographic factors, such as discrimination, income, stigma, and, education.

In Arizona, the Hispanic population experienced the highest total number of HIV/AIDS incident cases in 2022 with 405 cases, followed by the White population at 292 cases, and the Black population at 162 cases. In contrast, the Black population experienced the highest HIV/AIDS incidence rate in 2022 with 42.3 HIV/AIDS cases per 100,000, followed by the Hispanic population at 17.1 per 100,000, and the AI/AN population at 17.3 HIV/AIDS per 100,000.

In 2022, the White population experienced the highest total number of HIV/AIDS prevalent cases with 8,989 cases, followed by the Hispanic population at 6,309 cases, and the Black population at 2,933 cases. In contrast, the Black population experienced the highest HIV/AIDS prevalence rate in 2022 with 766.5 per 100,000, followed by the AI/AN population at 276.7 per 100,000, and the Hispanic population at 267.1 per 100,000.

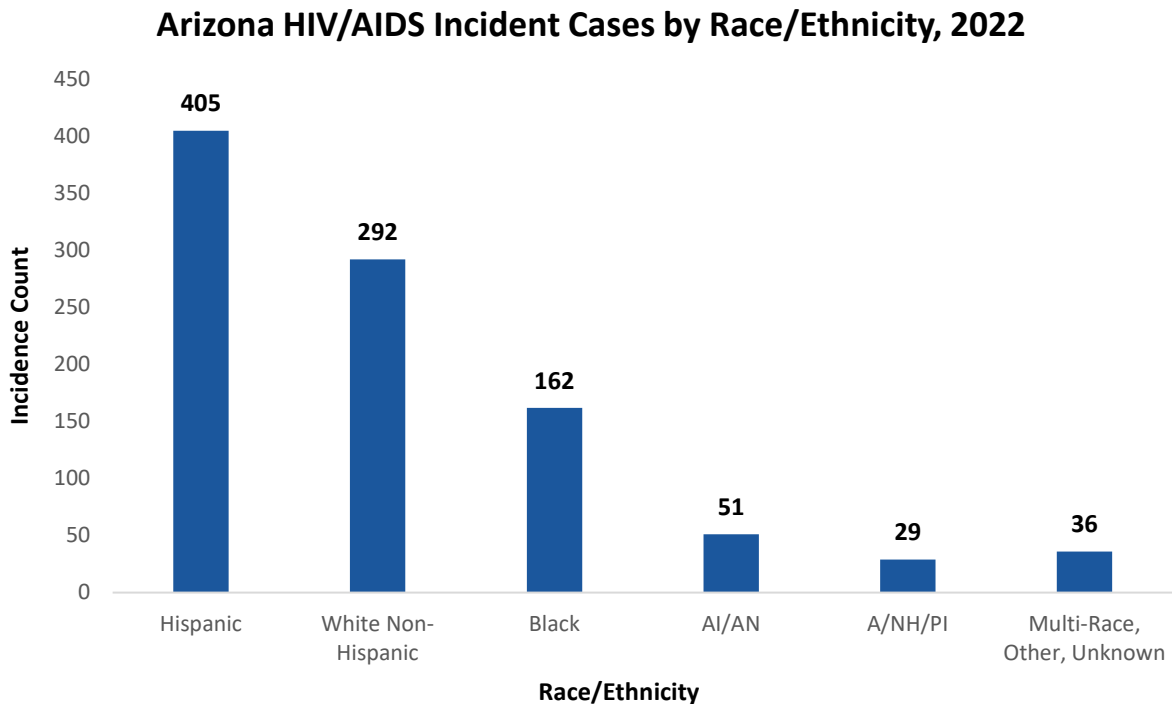


Figure 15: The number of incident cases by Race/Ethnicity, Arizona 2022.

**Arizona HIV/AIDS Incidence Rate (per 100,000) by Race/Ethnicity, 2022**

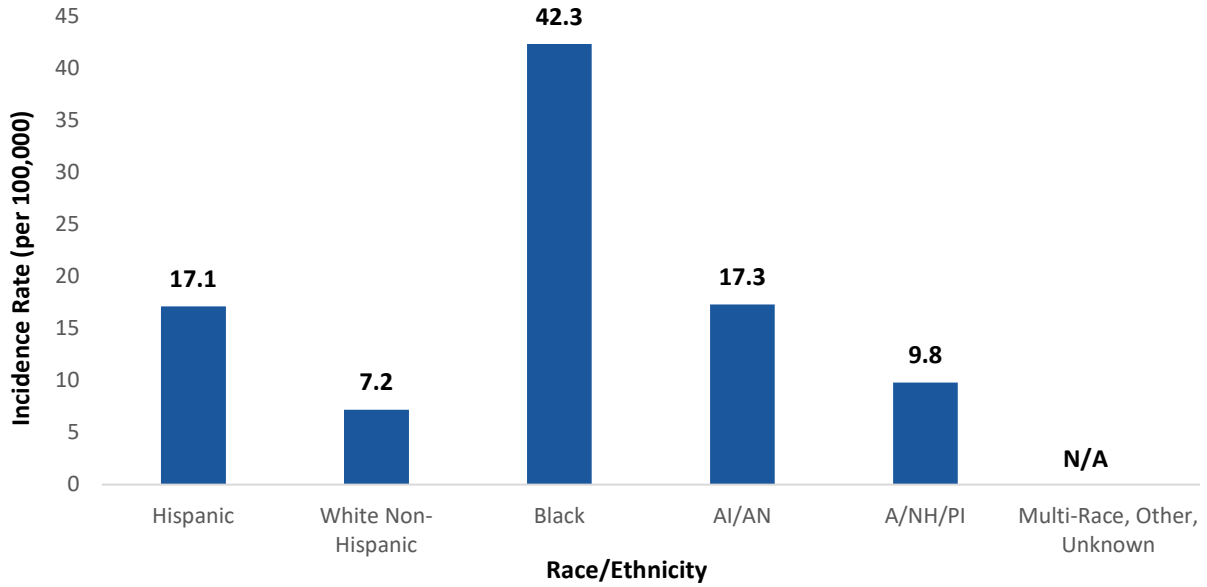


Figure 16: The incidence rate per 100,000 by Race/Ethnicity, Arizona 2022.

**Arizona HIV/AIDS Prevalence Cases by Race/Ethnicity, 2022**

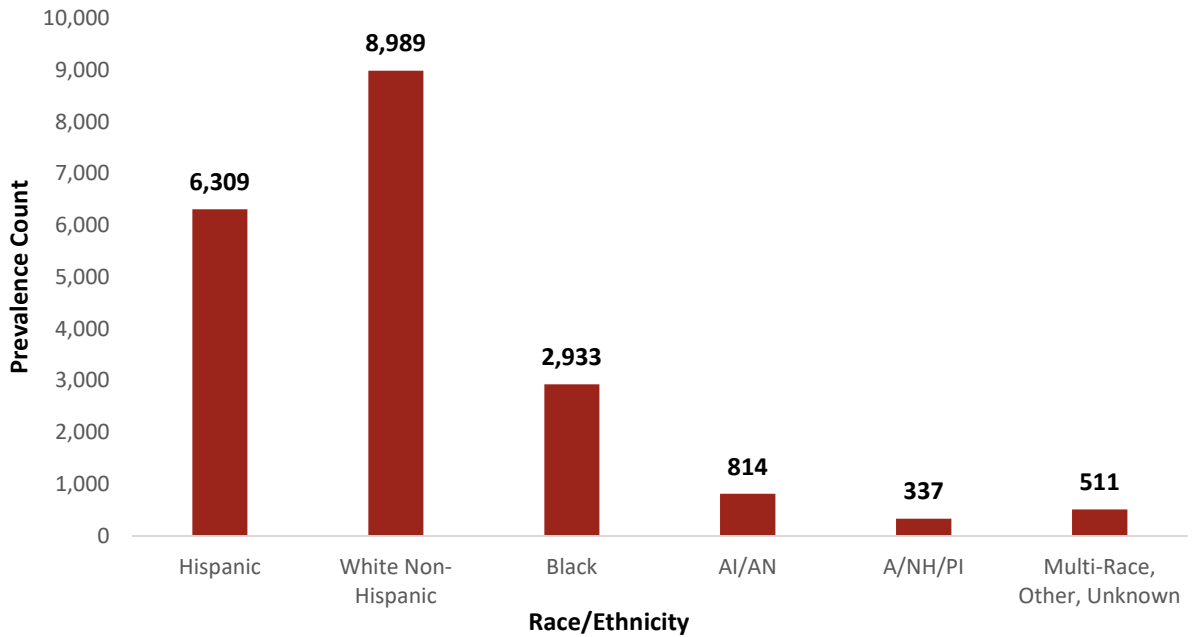


Figure 17: The number of incident cases by Race/Ethnicity, Arizona 2022.

**Arizona HIV/AIDS Prevalence Rate (per 100,000) by Race/Ethnicity, 2022**

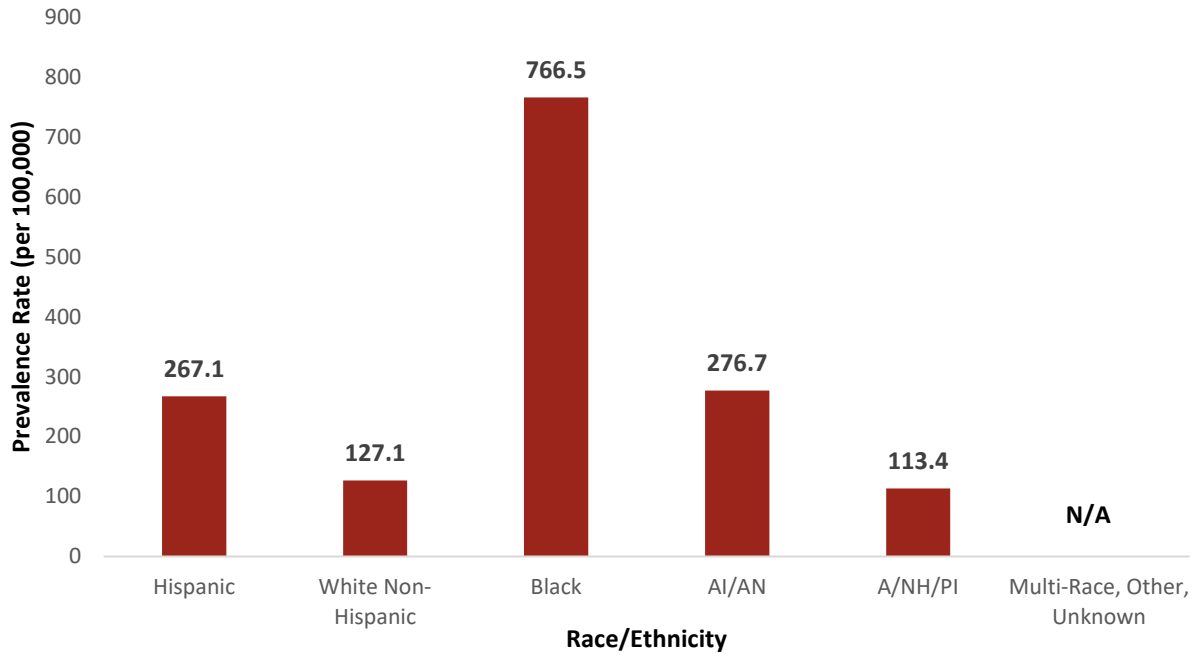


Figure 18: The prevalence rate (per 100,000) by Race/Ethnicity, Arizona 2022.

## AMERICAN INDIAN & ALASKA NATIVES POPULATION

Since the height of the HIV epidemic in 1988, the AI/AN population experienced a 112% increase in new infections. Overall HIV incidence cases reported among the AI/AN population decreased by 7% from its peak of 55 HIV cases in 2014 to 51 HIV cases in 2022. In 2022, AI/AN individuals accounted for 4% of Arizona's population and over 5% of all incident HIV/AIDS cases reported in Arizona. While the AI/AN population shares a small portion of all new HIV/AIDS cases in Arizona, the HIV/AIDS incidence rate (per 100,000) among the population increased from 14.5 to 17.3 from 2021-2022. The AI/AN population experienced the second highest incidence rate per 100,000 by race/ethnicity at 17.3 in 2022; by comparison, the black population experienced the highest incidence rate per 100,000 by race/ethnicity in Arizona at 42.3, followed by the Hispanic population at 17.1.

### Arizona HIV/AIDS Incident Cases Among American Indian/Alaska Native, 1985 - 2022

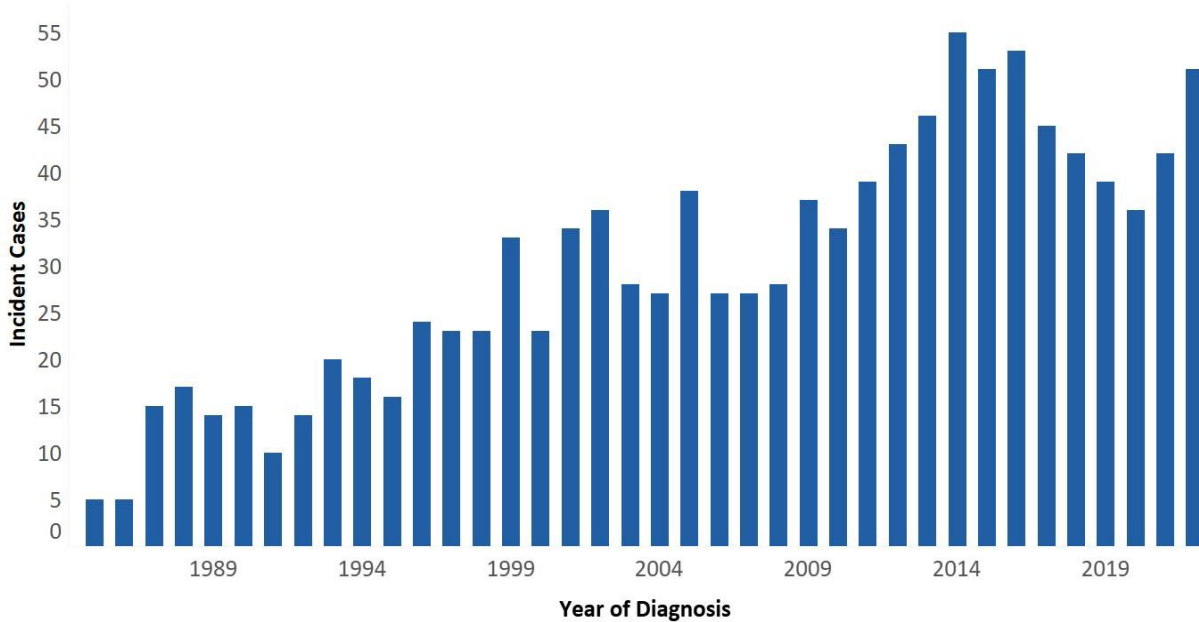


Figure 19: Number of HIV/AIDS Incident cases among American Indian/Alaska Native population, Arizona 1985 - 2022.

## Arizona HIV/AIDS Incidence Rate (per 100,000) Among American Indian/Alaska Native, 1991 - 2022

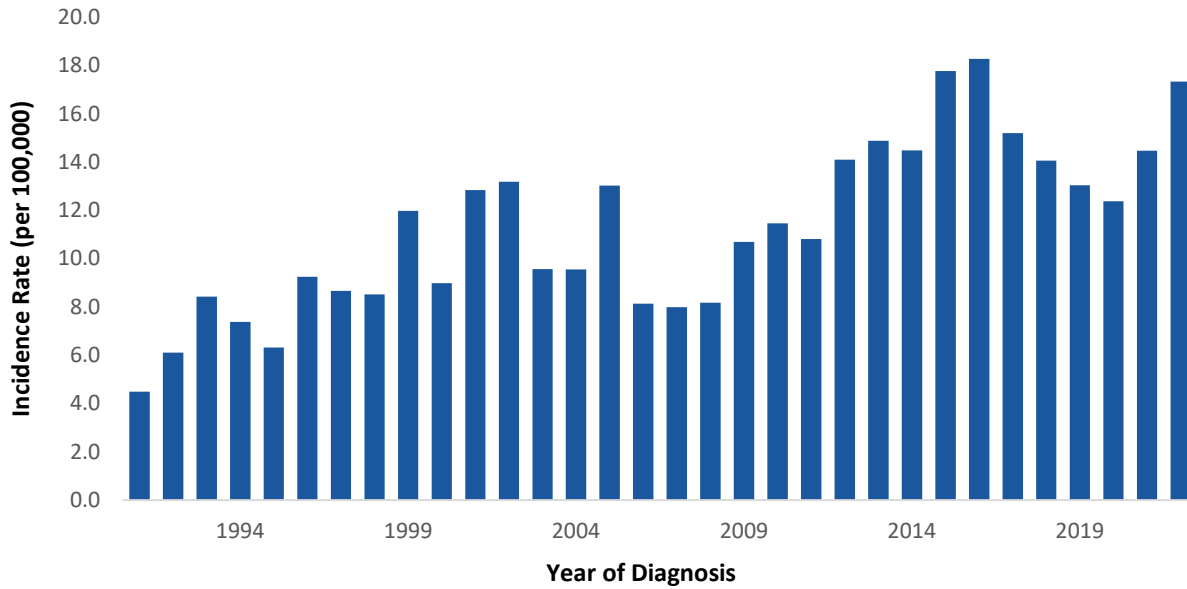


Figure 20: HIV/AIDS incidence rate (per 100,000) among American Indian/Alaska Native population, Arizona 1991 - 2022.

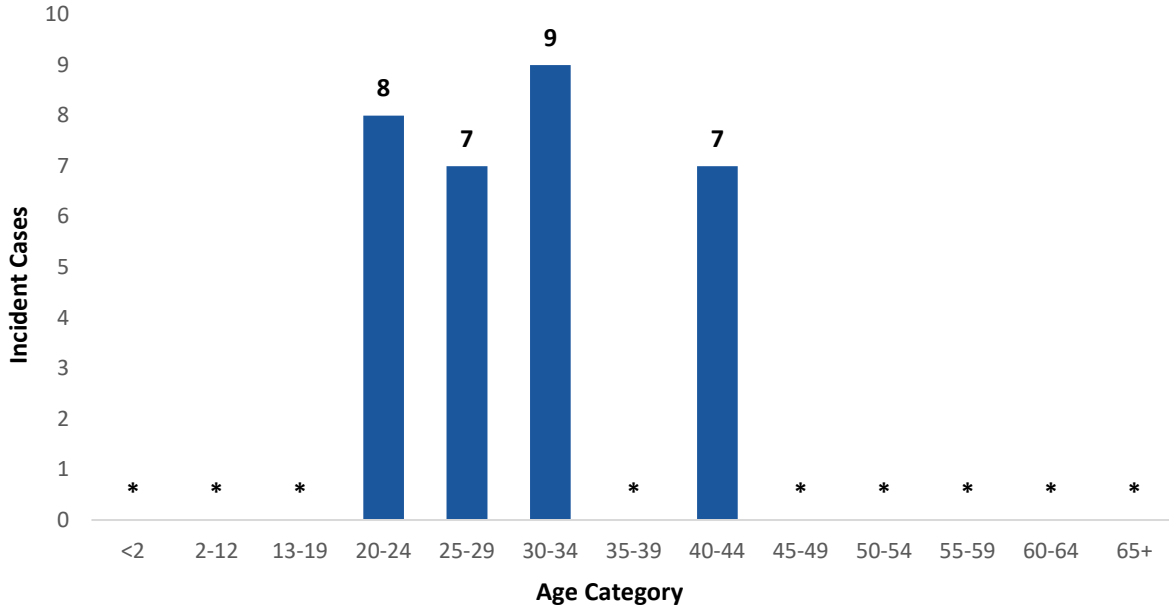
### Cases by Sex at Birth

In 2022, over 80% of newly diagnosed Arizona HIV/AIDS cases occurred in assigned male at birth in the AI/AN population. AI/AN incidence rates for individuals assigned male at birth are over 6 times greater than those of their assigned female at birth counterparts. In comparison, the overall statewide portion of Arizona HIV/AIDS new cases for individuals assigned male at birth was 86%, and individuals assigned female at birth was 14%. Incidence rate for AI/AN individuals' assigned male at birth (28.8 per 100,000) was higher when compared to males of all races/ethnicities in Arizona (22.8 per 100,000), while the incidence rate for AI/AN individuals' assigned female at birth (6.6 per 100,000) was higher when compared to females of all races/ethnicities in Arizona (3.7 per 100,000).

## Incident Cases by Age

In 2022, individuals aged 20-24 years accounted for over 16% of all incident HIV/AIDS cases in the AI/AN population in Arizona, and individuals aged 30-34 years accounted for 18%. In comparison, individuals aged 25-29 accounted for 14% of statewide HIV/AIDS incident cases in Arizona, and individuals aged 30-34 years accounted for 14%.

### **Arizona HIV/AIDS Incident Cases Among American Indian/Alaska Native by Age, 2022**



\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**Figure 21:** Number of HIV/AIDS Incident cases by age among American Indian/Alaska Native population, Arizona 2022.

### Percent of Total Arizona HIV/AIDS Incident Cases by Age Category Among American Indian/Alaska Native, 2022

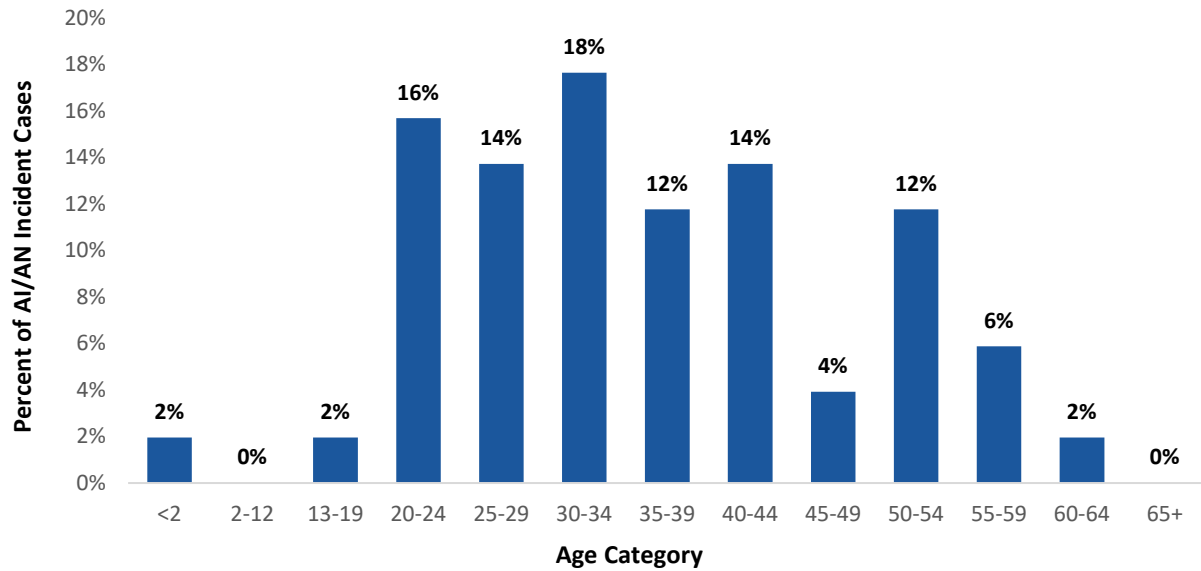


Figure 22: Percent of total HIV/AIDS incident cases by age category among American Indian/Alaskan Native, Arizona 2022.



### Incident Cases by Risk Factors

In 2022, 46% of AI/AN incident HIV/AIDS cases in Arizona reported the risk factor as MSM alone, which was 10 percentage points lower than the 56% of incident HIV/AIDS cases for all races/ethnicities statewide which reported the risk factor as MSM alone. IDU and MSM/IDU accounted for 18% of AI/AN incident cases in 2022, while high-risk heterosexual cases comprised 2% of cases. Additionally, 34% of AI/AN incident HIV/AIDS cases in 2022 had no risk reported.

### **Arizona HIV/AIDS Incident Cases Among American Indian/Alaska Native by Risk, 2022**

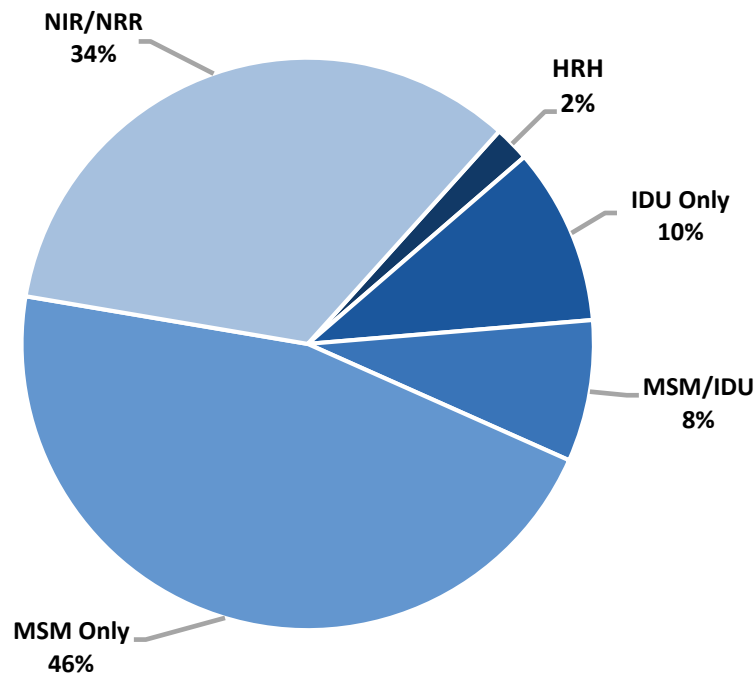


Figure 23: Percent of HIV incident cases among American Indian/Alaska Native population by risk, Arizona 2022.

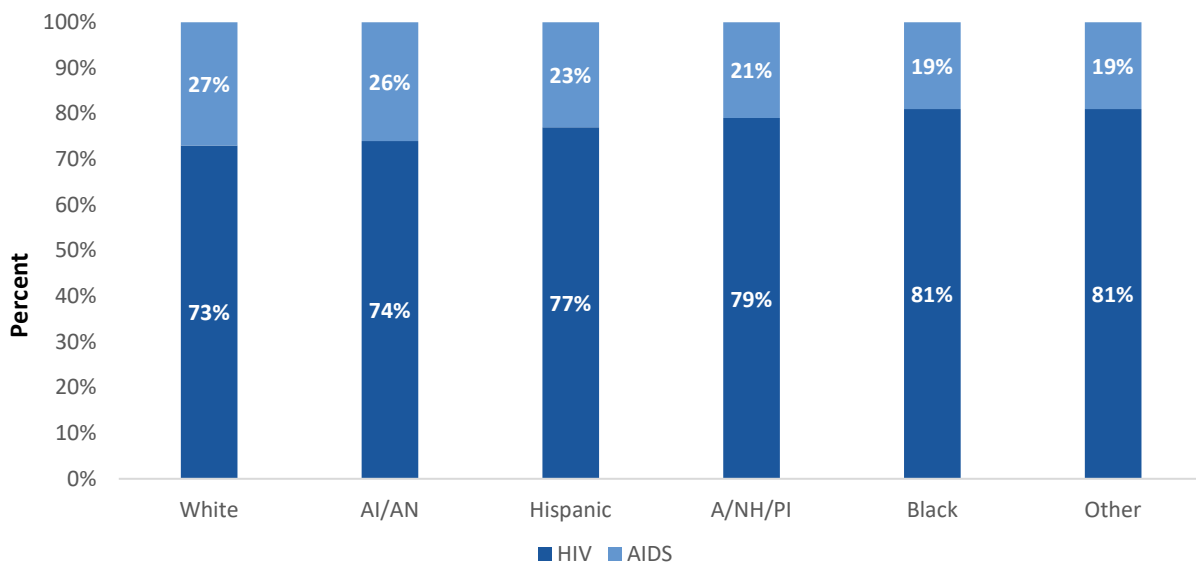
### Cases by Race/Ethnicity at Initial HIV/AIDS Diagnosis (CD4 Count)

According to the CDC, HIV infection is classified as Stage 1 or Stage 2 when the immune system of a person infected with HIV is compromised but not yet AIDS defined.<sup>5</sup> Stage 1 is defined as an acute HIV infection, and stage 2 is defined as chronic HIV infection with a CD4 cell count between 200 and 500.<sup>5</sup> AIDS infection is classified as HIV Stage 3 when the immune system of a person infected with HIV becomes severely compromised (defined by CD4 cell count <200) and/or the person becomes ill with an opportunistic infection.<sup>5</sup> Opportunistic infections and other AIDS-defining conditions occur more frequently, and are more severe, in people with weakened immune systems. In the absence of treatment, AIDS usually develops 8 to 10 years after initial HIV infection.<sup>5</sup>

In 2022, 74% of newly diagnosed HIV/AIDS cases in the AI/AN population were diagnosed with HIV (CD4 count between 200 and 500; not AIDS defined), while 26% were diagnosed with AIDS (CD4 count less than 200). Likewise, 81% of HIV/AIDS cases in the Black population were diagnosed with HIV, while 19% were diagnosed with AIDS.

In the Hispanic population, 77% were diagnosed with HIV and 23% were diagnosed with AIDS. In the White Non-Hispanic population, 73% were diagnosed with HIV and 27% were diagnosed with AIDS. In the Asian/Native Hawaiian/Pacific Islander population, 79% were diagnosed with HIV and 21% were diagnosed with AIDS. In the Asian/Native Hawaiian/Pacific Islander population, 79% were diagnosed with HIV and 21% were diagnosed with AIDS.

**Percent of Arizona Cases Diagnosed with HIV vs HIV/AIDS Concurrently by Race/Ethnicity, 2022**

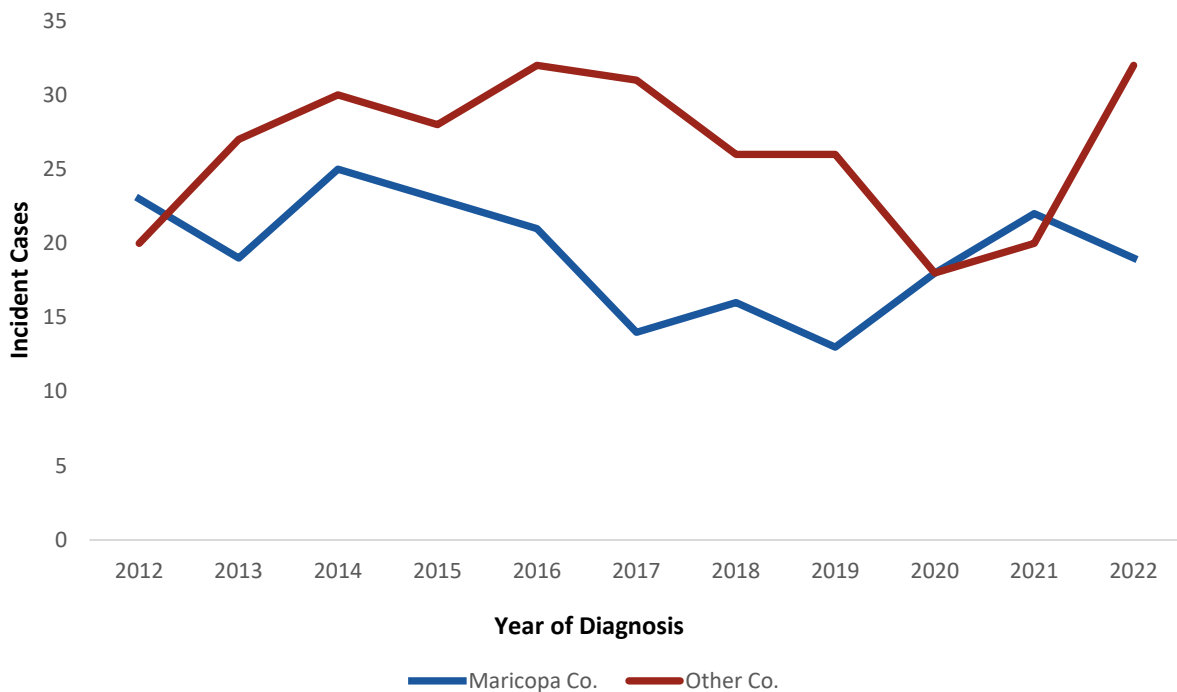


**Figure 24:** Percent of cases diagnosed with HIV vs HIV/AIDS concurrently by Race/Ethnicity based on initial CD4 lab, Arizona 2022.

## Incident Cases by County, 2012-2022

From 2020 to 2022 in Arizona, Apache County and Navajo County experienced an increase in HIV/AIDS cases. In 2022, Maricopa County accounted for over 37% of all Arizona HIV/AIDS incidence cases in the AI/AN population, while Apache County accounted for 22%, and Navajo County accounted for 16%. From 2021 to 2022, Maricopa County experienced a decrease in the rate of HIV/AIDS cases in the AI/AN population from 27.4 per 100,000 to 23.3 per 100,000, while Navajo County experienced an increase in rate of HIV/AIDS cases in the AI/AN population from 2.1 per 100,000 to 16.9 per 100,000 and Apache County experienced an increase in rate of HIV/AIDS cases in the AI/AN population from 16.4 per 100,000 to 22.4 per 100,000.

### **Arizona HIV/AIDS Incident Cases Among American Indian/Alaska Native by Counties, 2012 - 2022**



**Figure 25:** Number of HIV/AIDS incident cases in American Indian/Alaska Native; Maricopa County and Other Counties, 2012-2022. Other Counties include: Apache County, Cochise County, Coconino County, Gila County, Graham County, Greenlee County, La Paz County, Mohave County, Navajo County, Pima County, Pinal County, Yavapai County, and Yuma County.

## RURAL AND URBAN POPULATION COMPARISON, 2022

The Office of HIV and Hepatitis C Services identifies Maricopa and Pima as Arizona’s urban counties as they both have a county population  $\geq 500,000$  and Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Yavapai, and Yuma as Arizona’s rural counties as they each have a county population  $\leq 499,999$ . Individuals residing in state and federal correctional facilities are at higher risk for contracting HIV when compared to the general population.<sup>6</sup> In 2022, 72% of the 78 people diagnosed with HIV in correctional facilities in Arizona had their diagnosis within a correctional facility in Pinal County. Pinal County had the highest incidence rate (17.6 per 100,000) with 80 incident cases in 2022, although 70% of those cases were incarcerated at diagnosis. Incarcerated persons were included in the following analyses as the majority reported their residence at diagnosis as a correctional facility address and data on home residence may not be complete.

### Arizona Population by County of Residence, 2022

Differences in both regional and geographical contexts between rural and urban counties have implications on the accessibility of HIV prevention services and treatment.<sup>7</sup> Given the smaller population size of rural counties compared to urban counties, the influence of stigma may play a pivotal role, potentially deterring individuals from seeking testing and sharing accurate information due to apprehensions of community members discovering their HIV status.<sup>7</sup>

Limited access to public health services may pose significant barriers that hinder effective HIV prevention and treatment services. In 2019, The ratio of primary care physicians in urban areas was 80.1 per 100,000 and 63.9 per 100,000 in small rural areas despite the 43 Medicare-certified Rural Health Clinics in Arizona.<sup>8</sup>

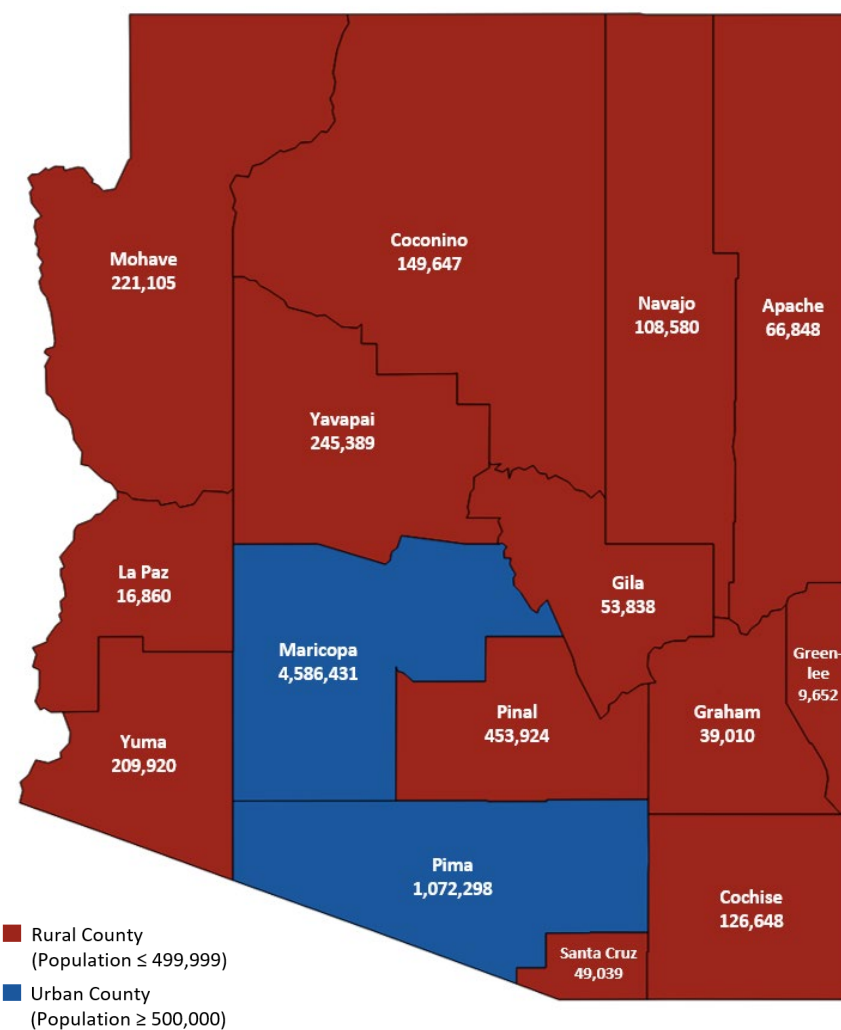


Figure 26: County of residence population, Arizona 2022.

### Arizona HIV/AIDS Incidence Count Among Rural and Urban Residents, 1982-2022

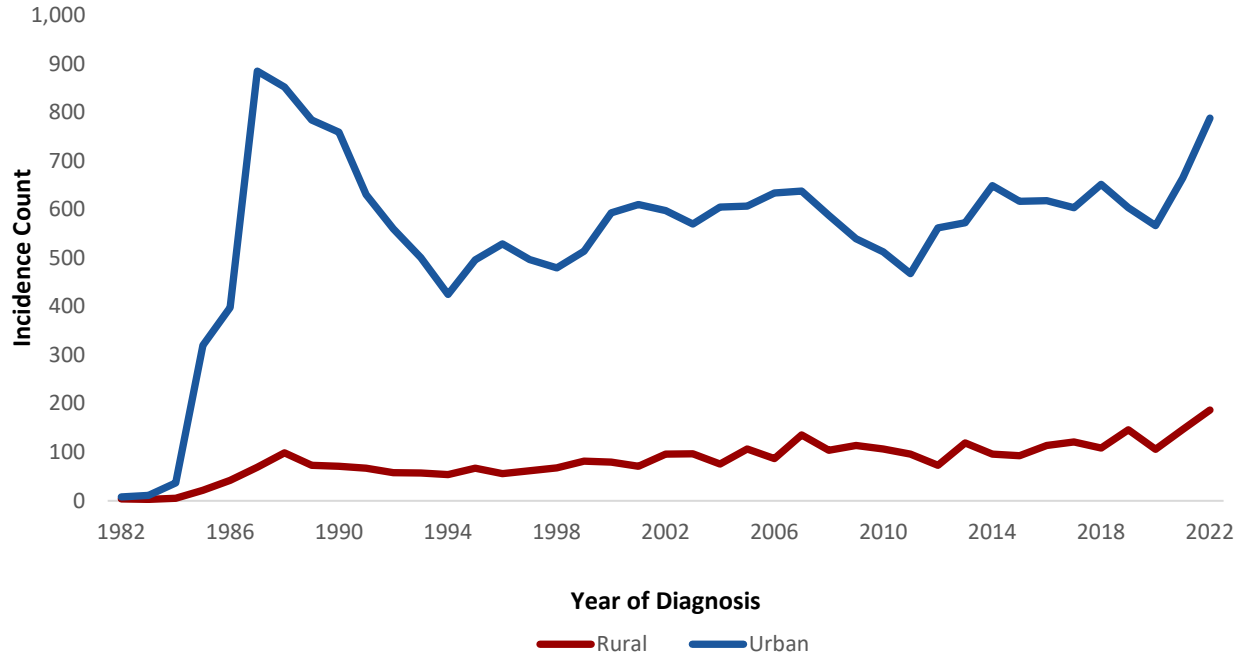


Figure 27: Number of HIV Incident Cases Among Rural and Urban Residents, Arizona 1982-2022.

Since the height of the HIV epidemic in 1987 through 2022, rural counties collectively experienced an 88% increase in incident cases while urban counties collectively experienced a decrease of 10% in incident cases. Over the last ten years of the HIV epidemic (2013-2022), an average of 133 incident HIV/AIDS cases per year have been recorded among the rural county population and 605 among the urban county population. From 2012 to 2022 both the urban and rural county population gradually experienced an increase in HIV/AIDS cases. In 2022, there were 187 incident cases that resided in rural counties and 788 incident cases that resided in urban counties at the time of diagnosis. In 2022, individuals living in urban counties accounted for 81% of all Arizona HIV/AIDS incident cases while individuals living in rural counties account for 19%.

### Arizona HIV/AIDS Incidence Count Among Rural and Urban Residents

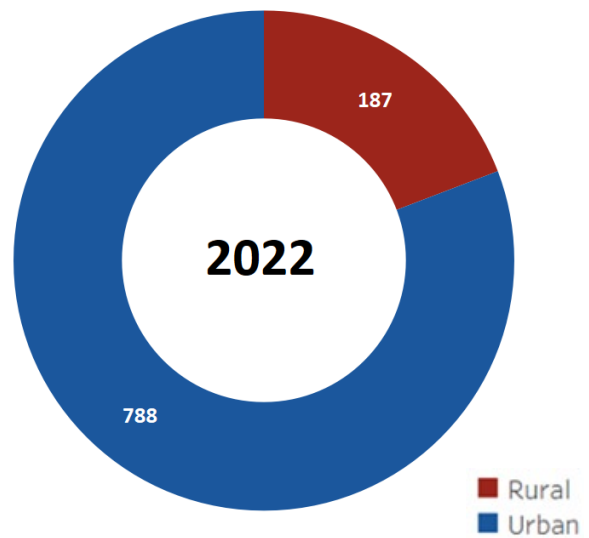


Figure 28: Number of HIV incident cases among rural and urban residents, Arizona 2022.

From 1991 to 2022, the Arizona urban county population has maintained higher HIV incidence rates when compared to the Arizona rural county population. Over the past 31 years, the lowest HIV incidence rate among the rural county population was recorded in 2012 with 4.1 per 100,000 while the lowest incidence rate among the urban county population was recorded with 9.7 per 100,000. From 2021 to 2022, the urban county population experienced an increase in the rate of HIV/AIDS infections from 11.9 per 100,000 to 13.9 per 100,000, and rural county population experienced an increase in rate of HIV/AIDS infections from 8.5 per 100,000 to 10.7 per 100,000.

### Arizona HIV/AIDS Incidence Rate (per 100,000) Among Rural and Urban Residents, 2022

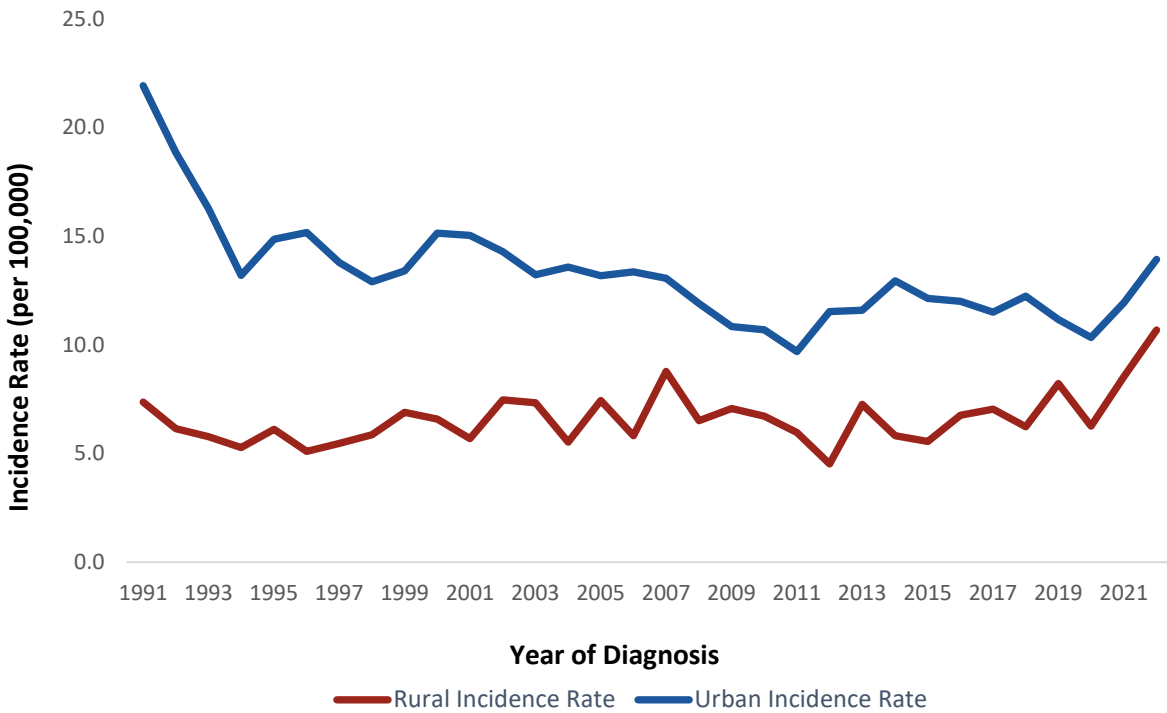


Figure 29: Arizona HIV/AIDS incidence rate (per 100,000) among rural and urban residents, Arizona 1991-2022.

### Incident Cases by Sex at Birth, 2022

In 2022, the percentage distribution of sex at birth was equal when comparing newly diagnosed Arizona HIV/AIDS cases in the rural county population to the urban county population. The proportion of incident cases assigned female at birth increased by 4% in the rural county population and 1% in the urban county population in 2022 when compared to 2021. Conversely, the proportion of incident cases assigned male at birth decreased by 4% in the rural county population and 1% in the urban county population when compared during this period.

In 2022, the incidence rate for urban county residents assigned male at birth (24.2 per 100,000) was higher when compared to the rural county residents assigned male at birth (18.2 per 100,000). In addition, the incidence rate for urban county residents assigned female at birth (3.9 per 100,000) was slightly higher when compared to rural county residents assigned female at birth (3.0 per 100,000) in 2022.

### **Arizona HIV/AIDS Incidence Percent by Sex at Birth Among Rural and Urban Residents, 2022**

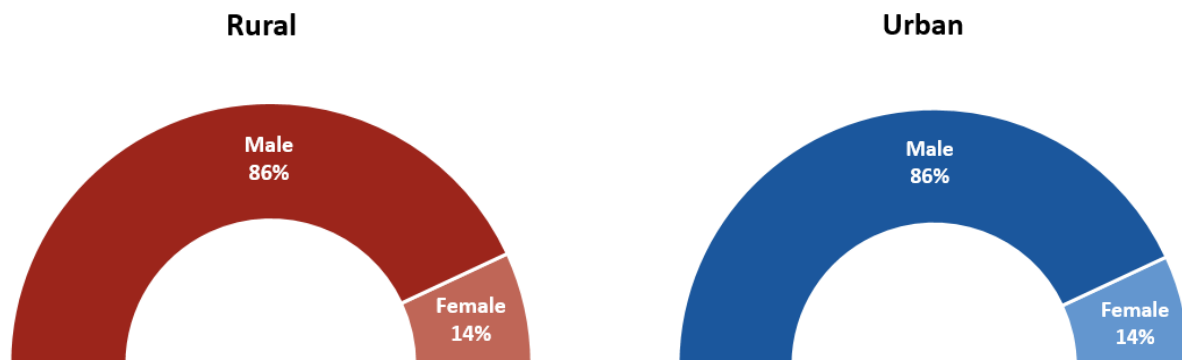


Figure 30: Percentage of incident cases by sex at birth among rural and urban residents, Arizona 2022.

### Incident Cases by Risk, 2022

In 2022, Men who have sex with men (MSM) was the predominant reported risk factor among incident cases that resided in rural and urban counties at the time of diagnosis. MSM was a reported risk factor for 57% of incident cases in the urban county population and for 53% of incident cases in the rural county population. In 2022, 7% of the incident HIV/AIDS cases among the rural county population reported a risk factor of IDU, which was 4 percentage points higher than the 3% of incident cases among urban county population that reported a risk factor of IDU. Thirty-three percent of incident cases in the rural county population and 37% of incident cases in the urban county population did not have a risk factor reported in 2022. The risk factor, MSM and IDU, was reported by 6% of incident cases that resided in urban counties which is 2 percentage points higher than the 4% of incident cases that resided in rural counties. HRH was a reported risk factor for 4% of incident cases that resided in urban counties at the time of diagnosis and for 3% of incident cases that resided in rural counties at the time of diagnosis.

### **Arizona HIV/AIDS Incidence Risk Percent Among Rural and Urban Residents, 2022**

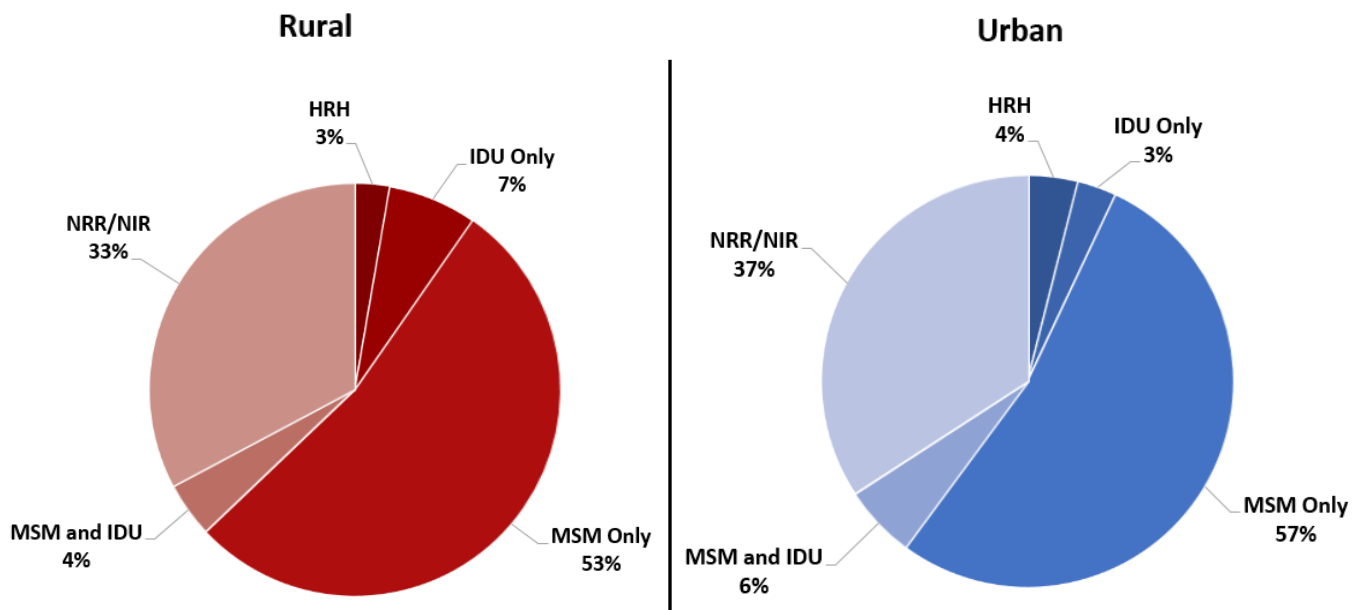


Figure 31: Percentage of HIV incident cases by risk category among rural and urban residents, Arizona 2022.



## Linkage to Care, 2022

Linkage to care refers to the percentage of reported HIV diagnoses with a documented CD4 or viral load test performed within 30 days after their initial HIV diagnosis. In 2022, 70% of incident cases in the rural county population and 81% of incident cases in the urban county population were linked to care within 30 days of receiving an HIV diagnosis. Being linked to care 60 days late, 90 days late, and greater than 90 days or not at all, was more common among incident cases that resided in rural counties when compared to incident cases that resided in urban counties in 2022.

### Arizona HIV/AIDS Linkage to Care Among Rural and Urban Residents, 2022

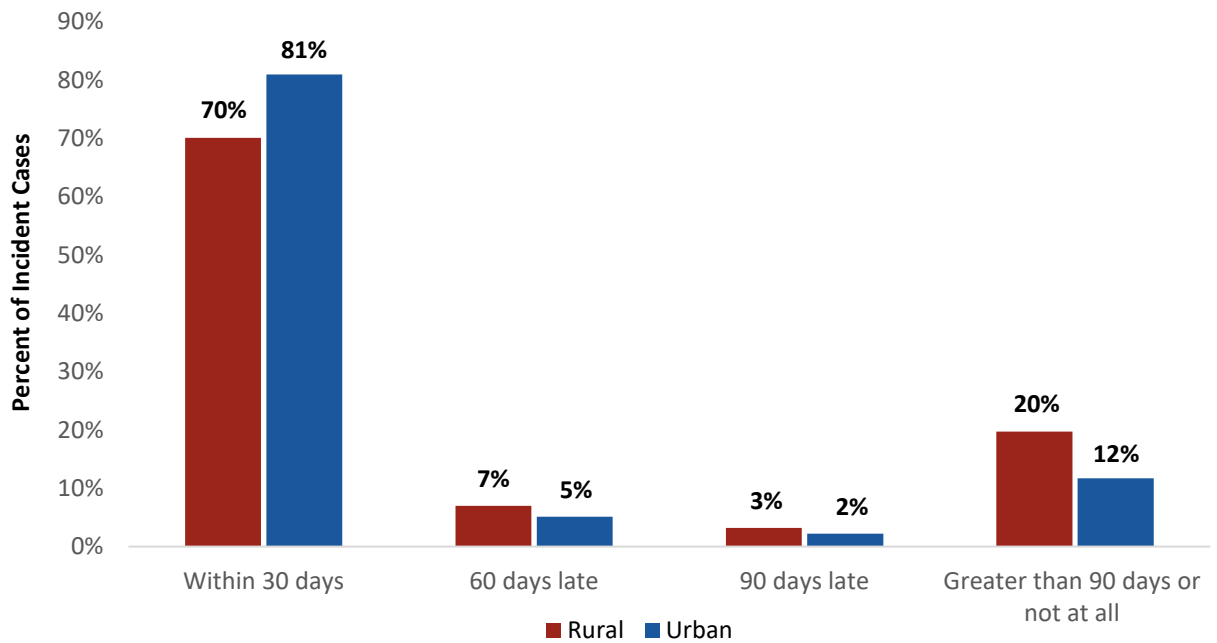


Figure 32: HIV/AIDS linkage to care among rural and urban residents, Arizona 2022.

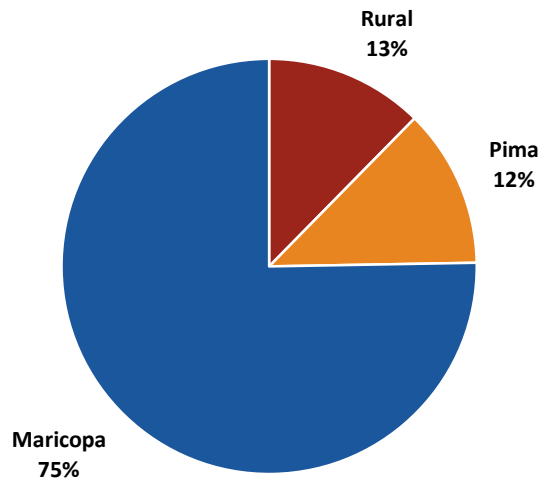
## YOUNG MSM OF COLOR, 2022

According to the CDC, 20% of all new HIV/AIDS infections in the U.S. occurred in youths between the ages of 13-24 in 2020.<sup>9</sup> Youths are least likely to be retained in care and virally suppressed. The CDC detailed that 68% of youth HIV/AIDS incident cases reported Men who have sex with men (MSM) as their risk factor, while the two most heavily impacted race/ethnicity groups were Black/African American and Hispanic/Latino.

In the U.S., Black, Hispanic, and young MSM are disproportionately impacted by HIV.<sup>10</sup> These two groups combined formed the population of young MSM of color. Young MSM of color have experienced inequities related to contracting HIV/AIDS and obtaining treatment and/or care even if they are experiencing seroconvert stages (when the immune system is reacting to the presence of HIV virus in the body).<sup>10</sup> In the U.S., the challenges young MSM face include low rates of testing, low rates of pre-exposure prophylaxis (PrEP) uptake, higher rates of STI coinfection, and lower socioeconomic status.<sup>10</sup> The difficulties young MSM face prioritizes the population in ending the HIV/AIDS epidemic.

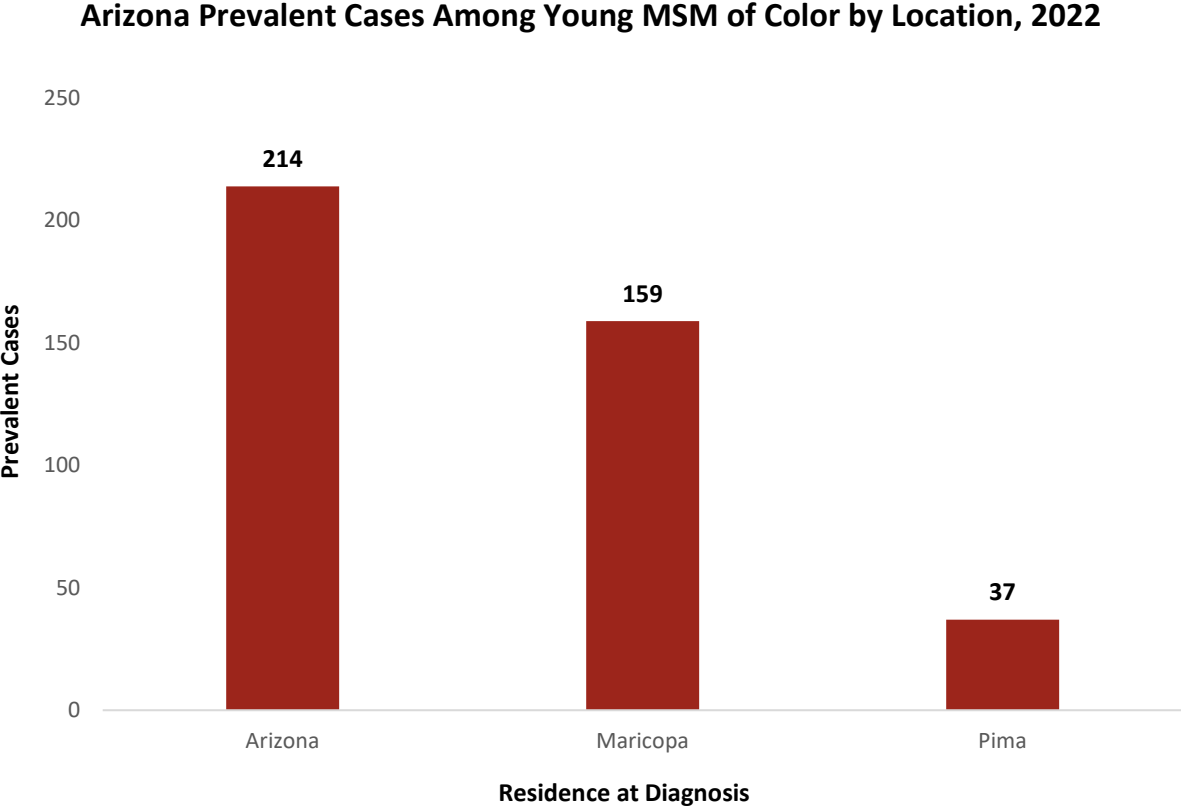
In 2022, there were 89 new cases of HIV/AIDS among young (aged 13-24) MSM of color reported — an increase of 19 cases from 2018. These 89 cases makeup 9.1 percent of all incident HIV/AIDS cases in Arizona in 2022; of which, 7% reported MSM as the risk factor, 47% were 13-24 years of age, and 13% were Black or Hispanic. Within this demographic Maricopa County had the largest number of incident cases reported (67), followed by rural counties (11) and Pima County (11).

### Arizona HIV/AIDS Incidence Proportion Among Young MSM of Color by Location, 2022



**Figure 33:** Percentage of HIV/AIDS incident cases by residence of diagnosis among young MSM of color, Arizona 2022.

At the end of 2022, there were 214 people living with HIV/AIDS in the young MSM of color population. These 214 cases comprise 1.1 percent of all prevalent cases, 1.8 percent of prevalent cases with MSM as the risk factor, 6.0 percent of the prevalent cases aged 13-24, and 2.4 percent of the prevalent cases that identify as Black/African American and Hispanic. Similar to the incidence burden by geographic location, Maricopa County (159) and Pima County (37) have the highest number of prevalent cases reported in this demographic.



**Figure 34:** Number of prevalent cases in young MSM of color by residence of diagnosis, Arizona 2022.

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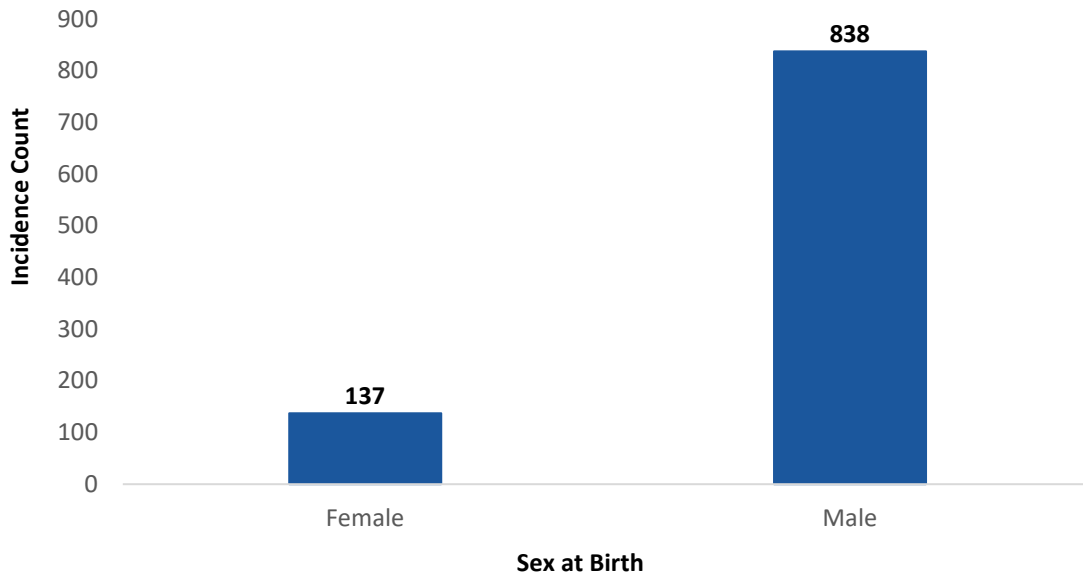
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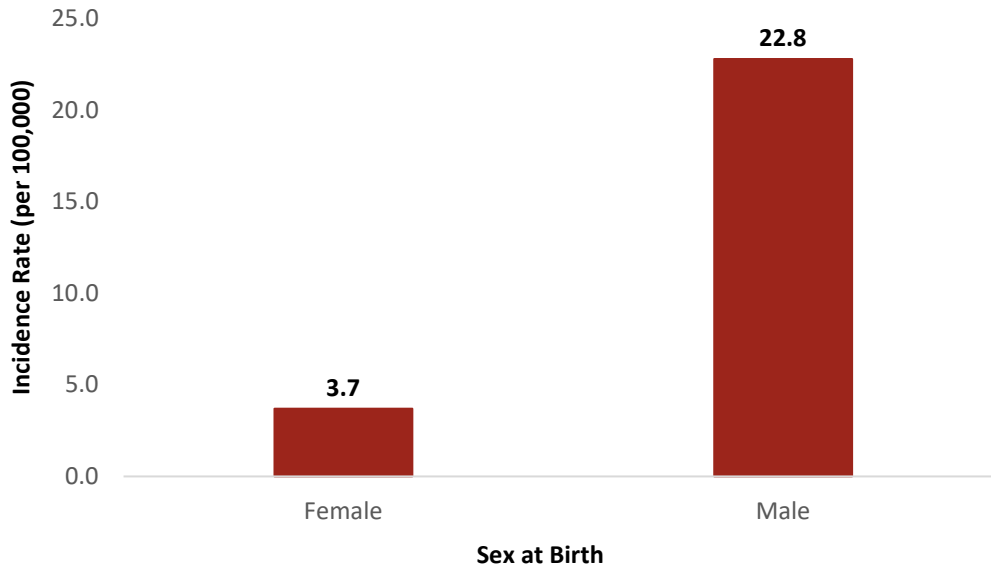
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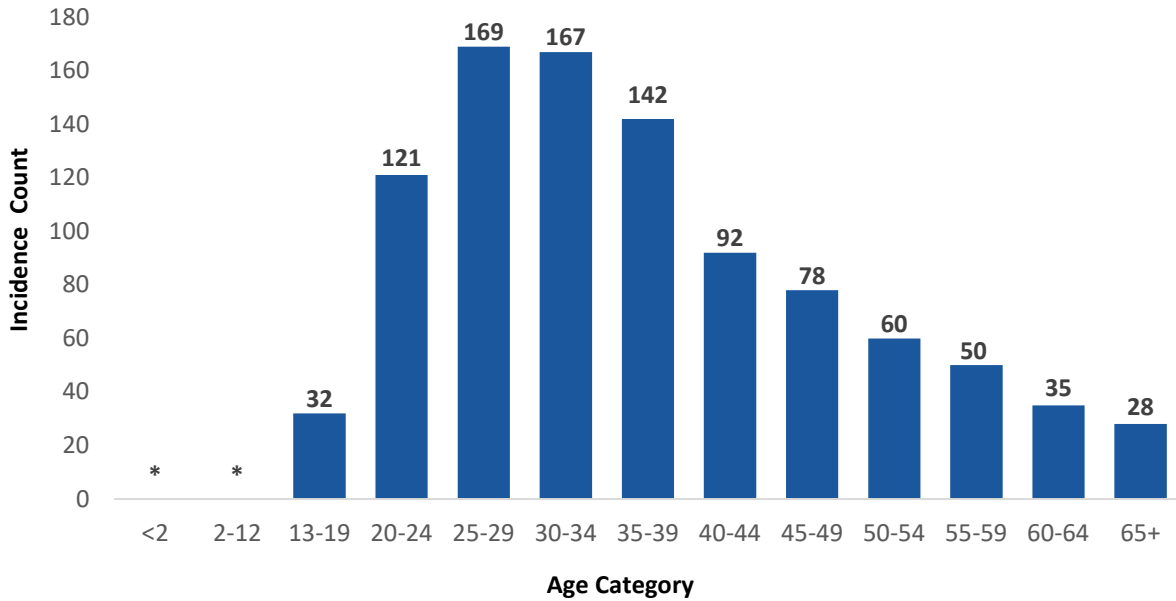
### Arizona HIV/AIDS Incidence Count by Sex at Birth, 2022



### Arizona HIV/AIDS Incidence Rate by Sex at Birth, 2022

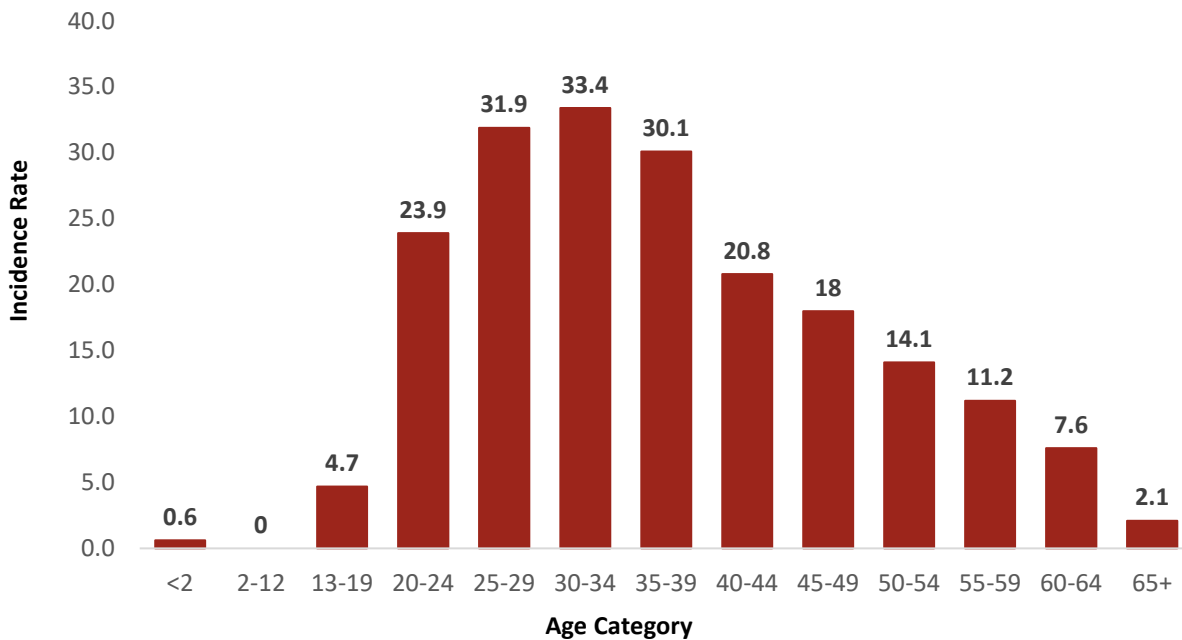


### Arizona HIV/AIDS Incidence Count by Age Category, 2022

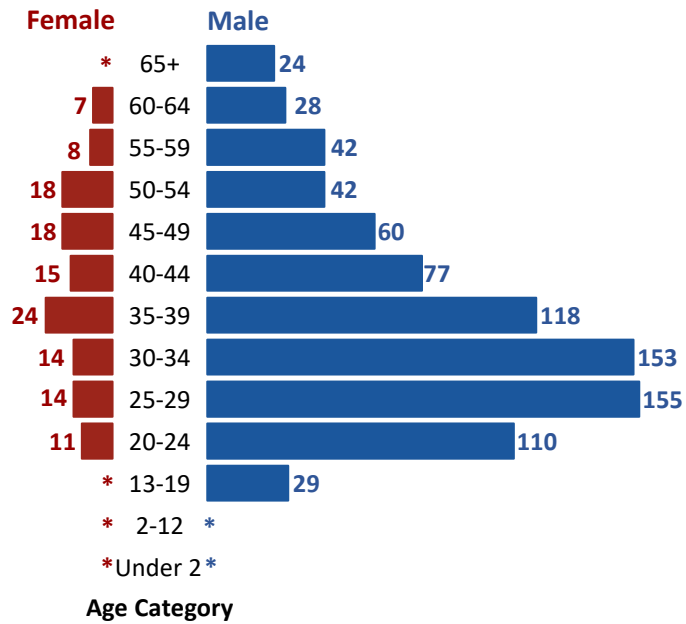


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### Arizona HIV/AIDS Incidence Rate by Age Category, 2022

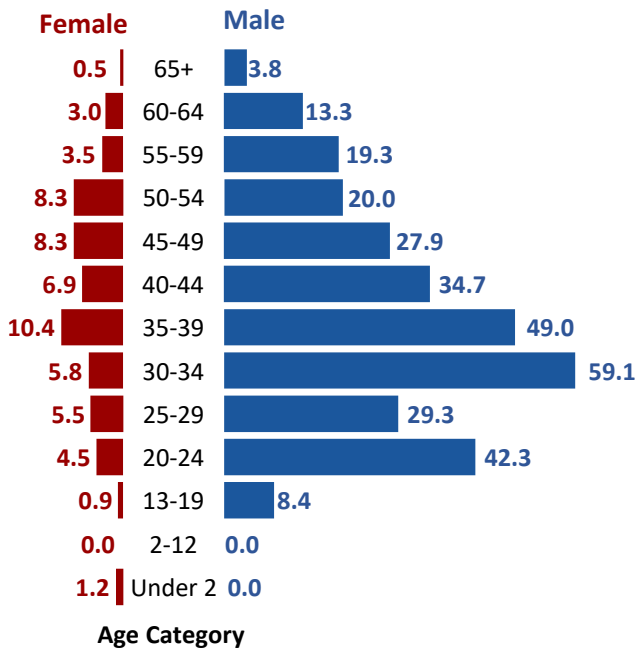


## Arizona HIV/AIDS Incidence Count by Age Category and Sex at Birth, 2022

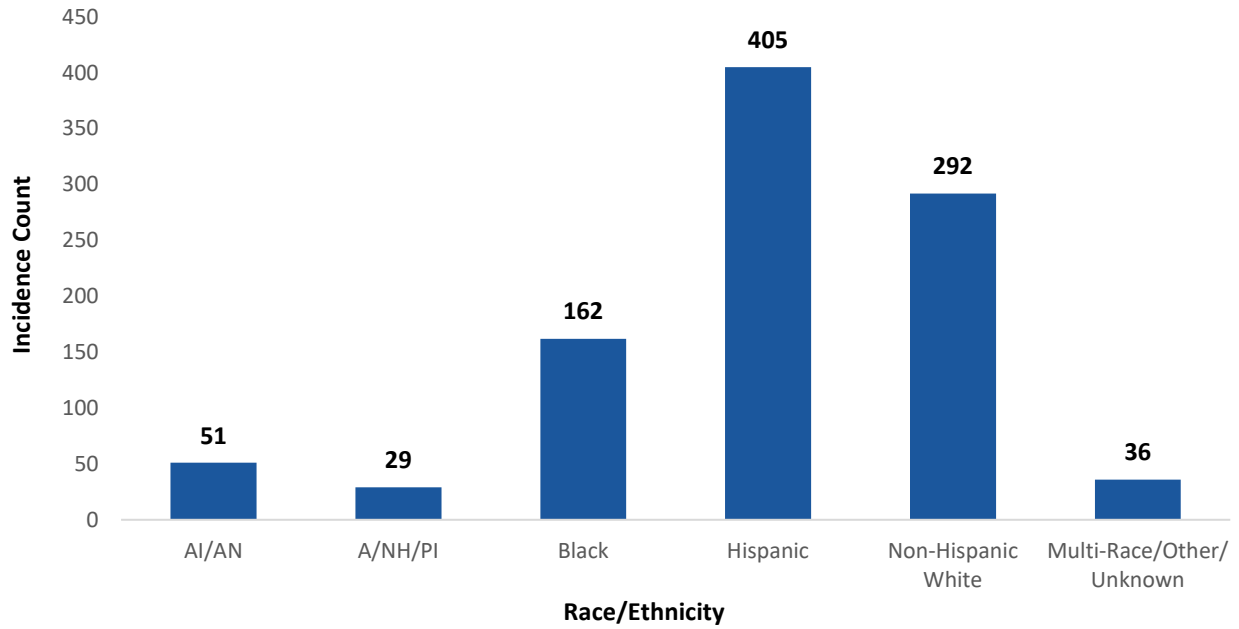


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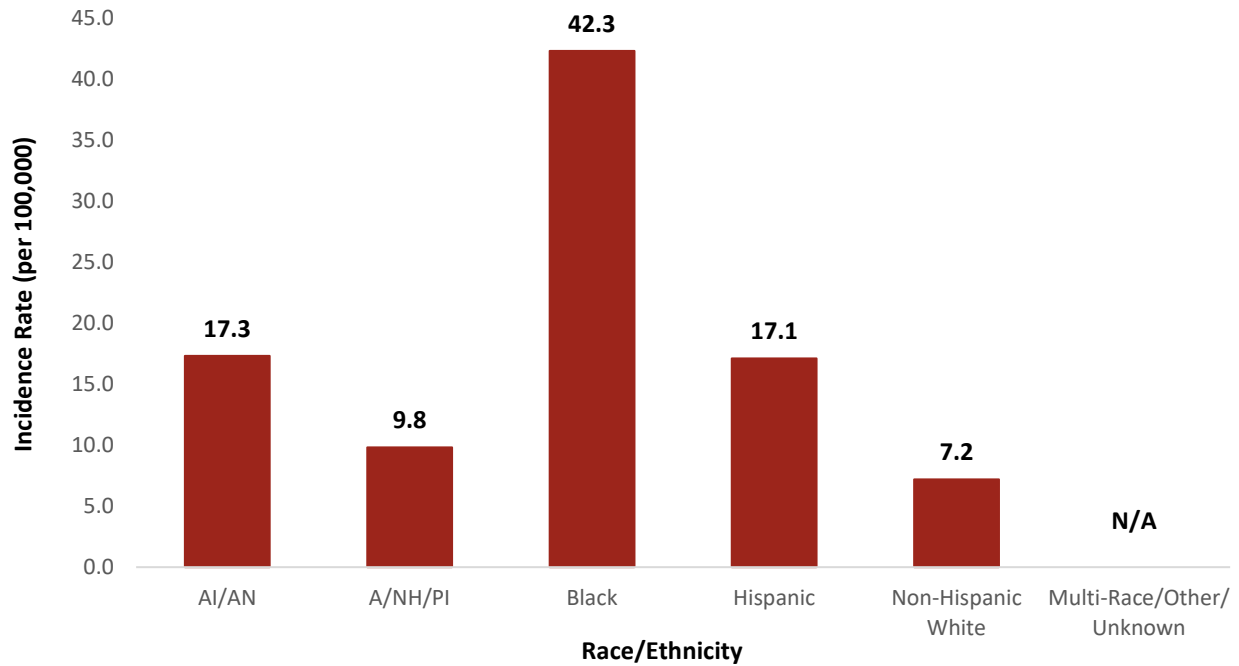
## Arizona HIV/AIDS Incidence Rate by Age Category and Sex at Birth, 2022



### Arizona HIV/AIDS Incidence Count by Race/Ethnicity, 2022

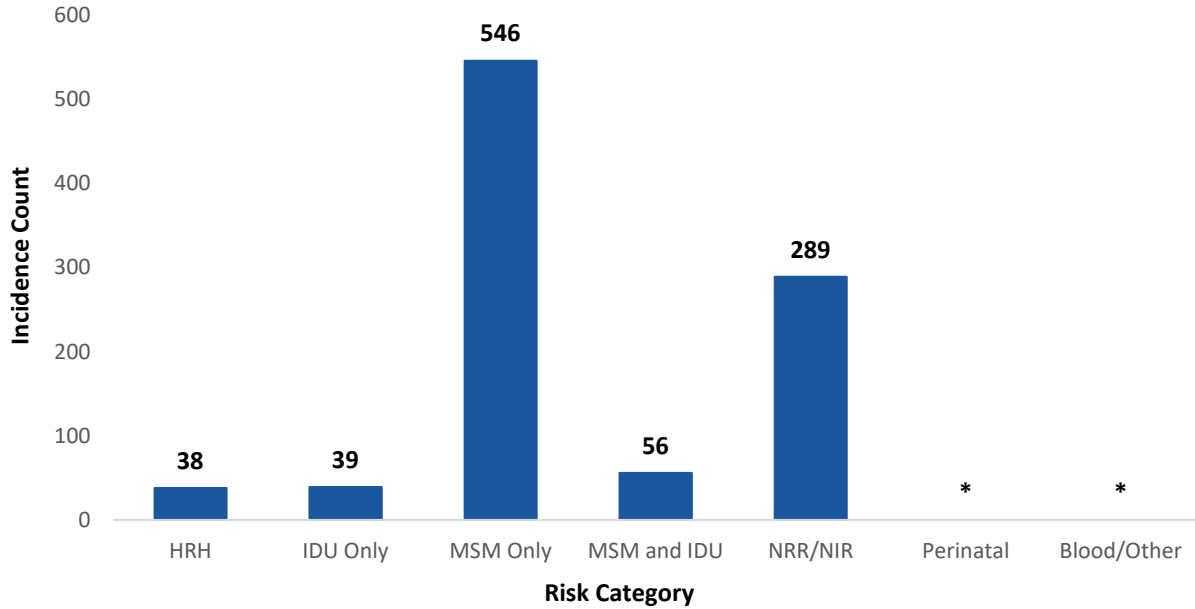


### Arizona HIV/AIDS Incidence Rate (per 100,000) by Race/Ethnicity, 2022



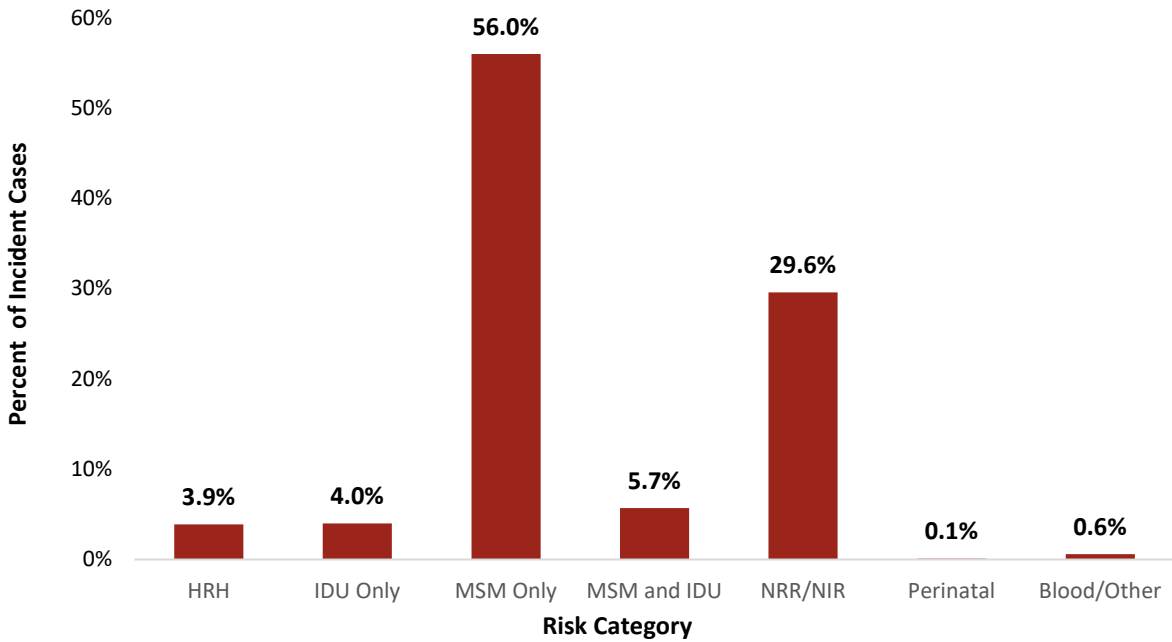


### Arizona HIV/AIDS Incidence Count by Risk Category, 2022

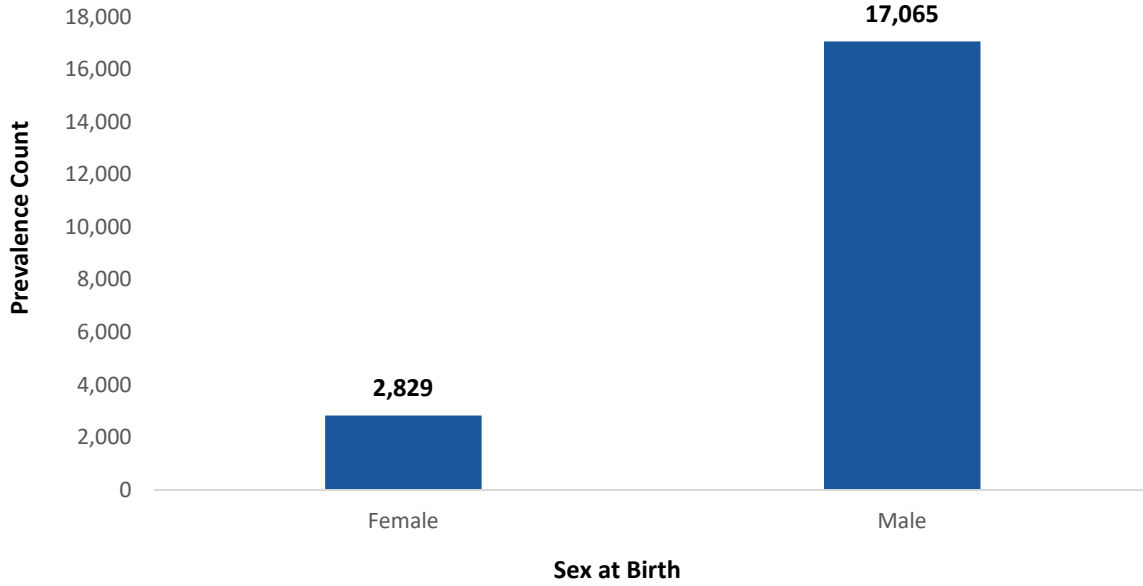


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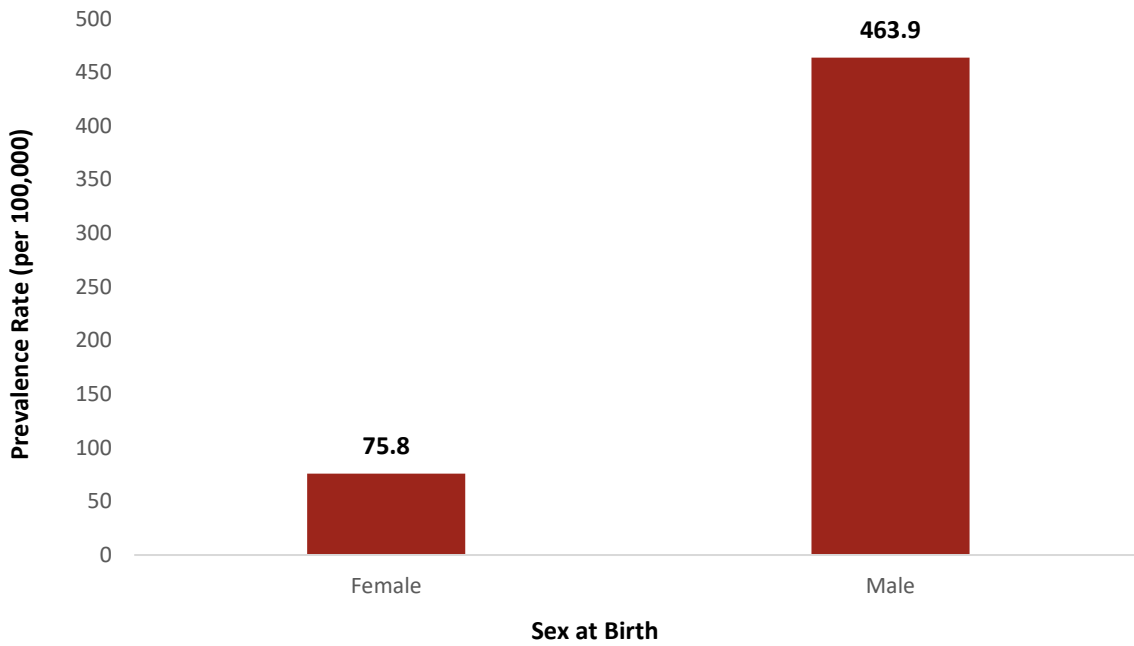
### Arizona HIV/AIDS Incidence Proportion of State Total by Risk Category, 2022



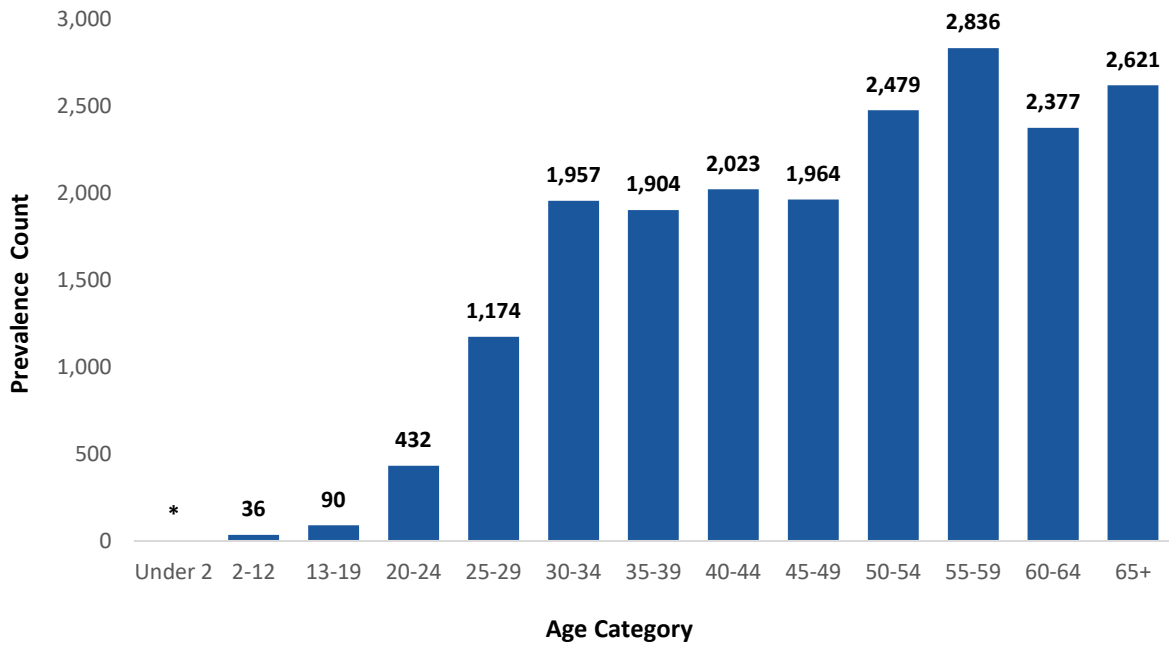
### Arizona HIV/AIDS Prevalence Count by Sex at Birth, 2022



### Arizona HIV/AIDS Prevalence Rate (per 100,000) by Sex at Birth, 2022

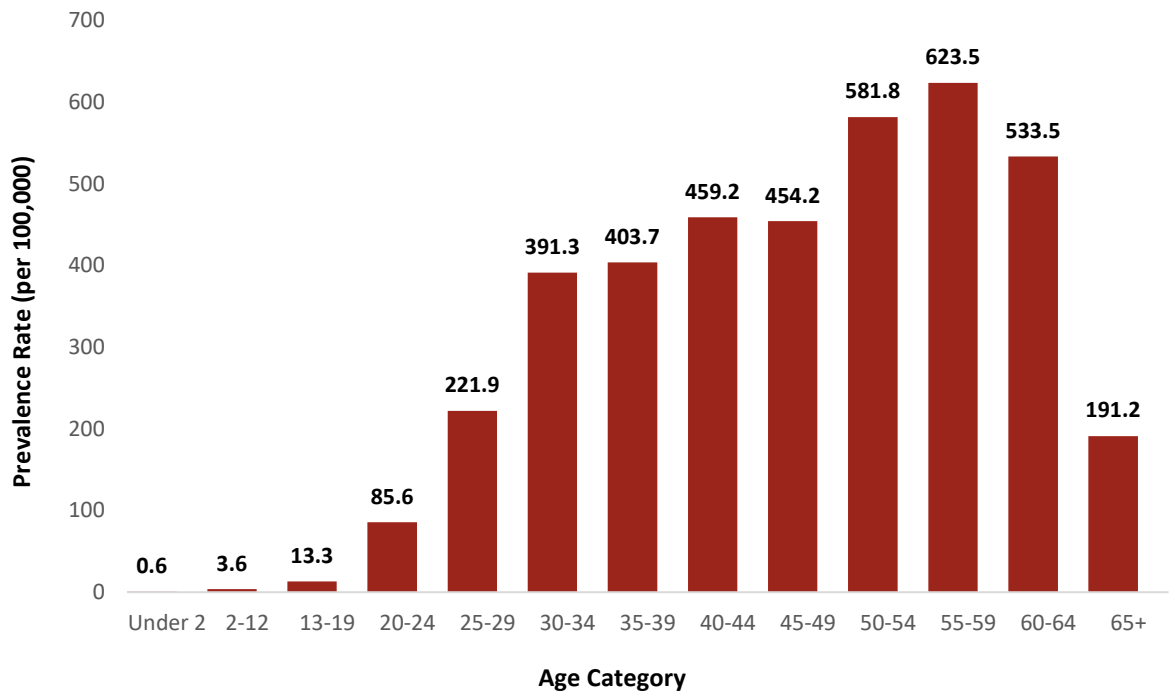


### Arizona HIV/AIDS Prevalence Count by Age Category, 2022

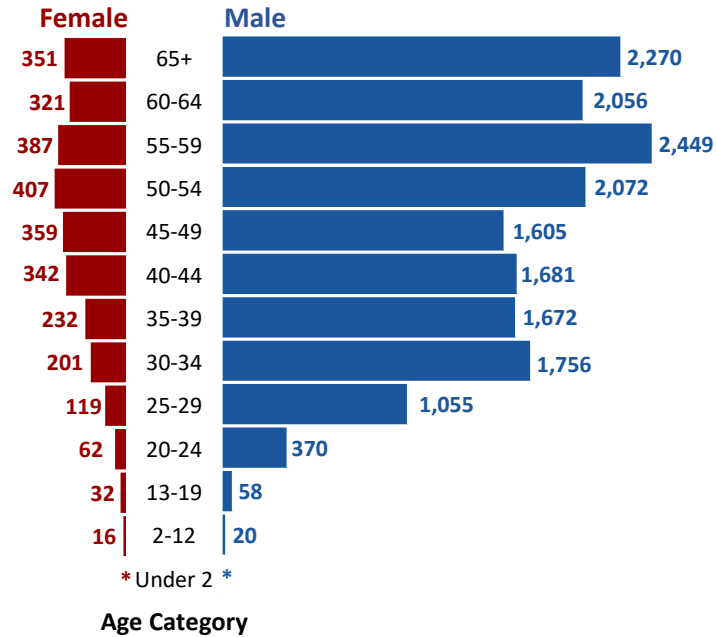


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### Arizona HIV/AIDS Prevalence Rate (per 100,000) by Age Category, 2022

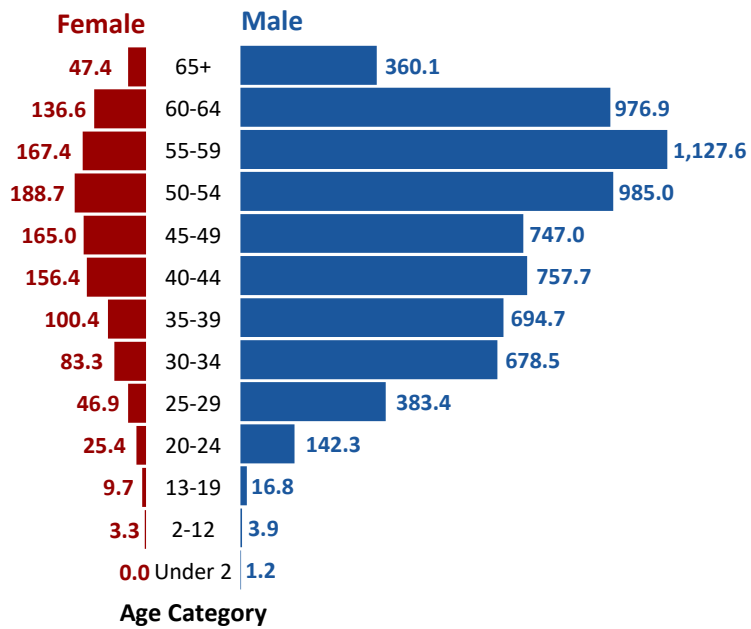


### Arizona HIV/AIDS Prevalence Count by Age Category and Sex at Birth, 2022

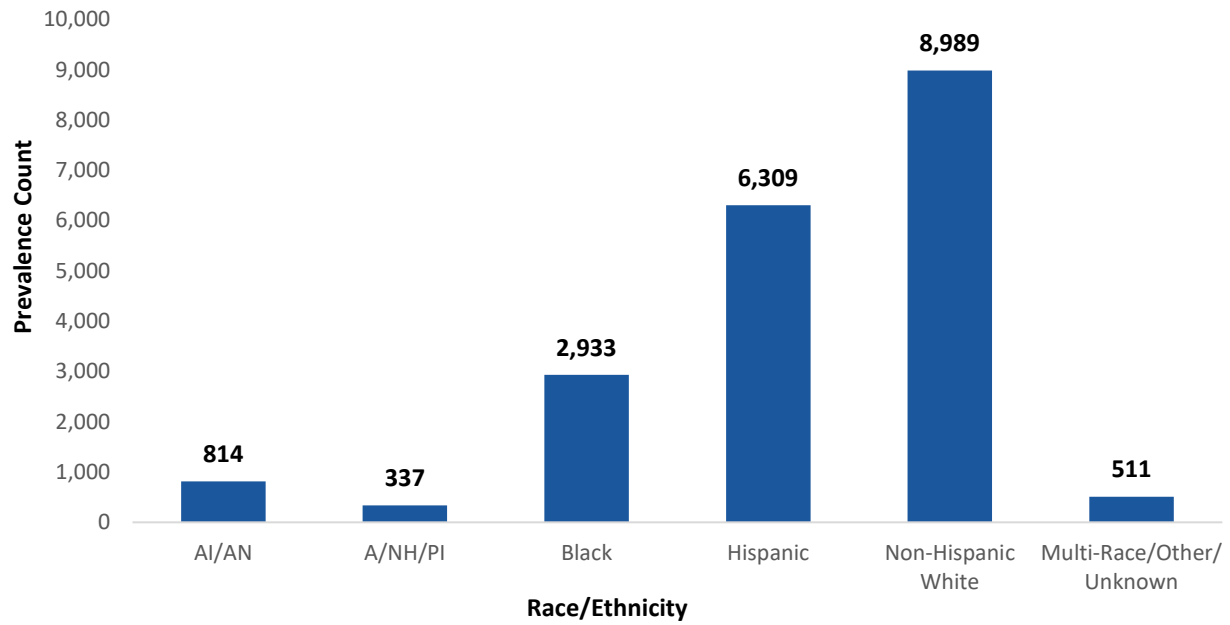


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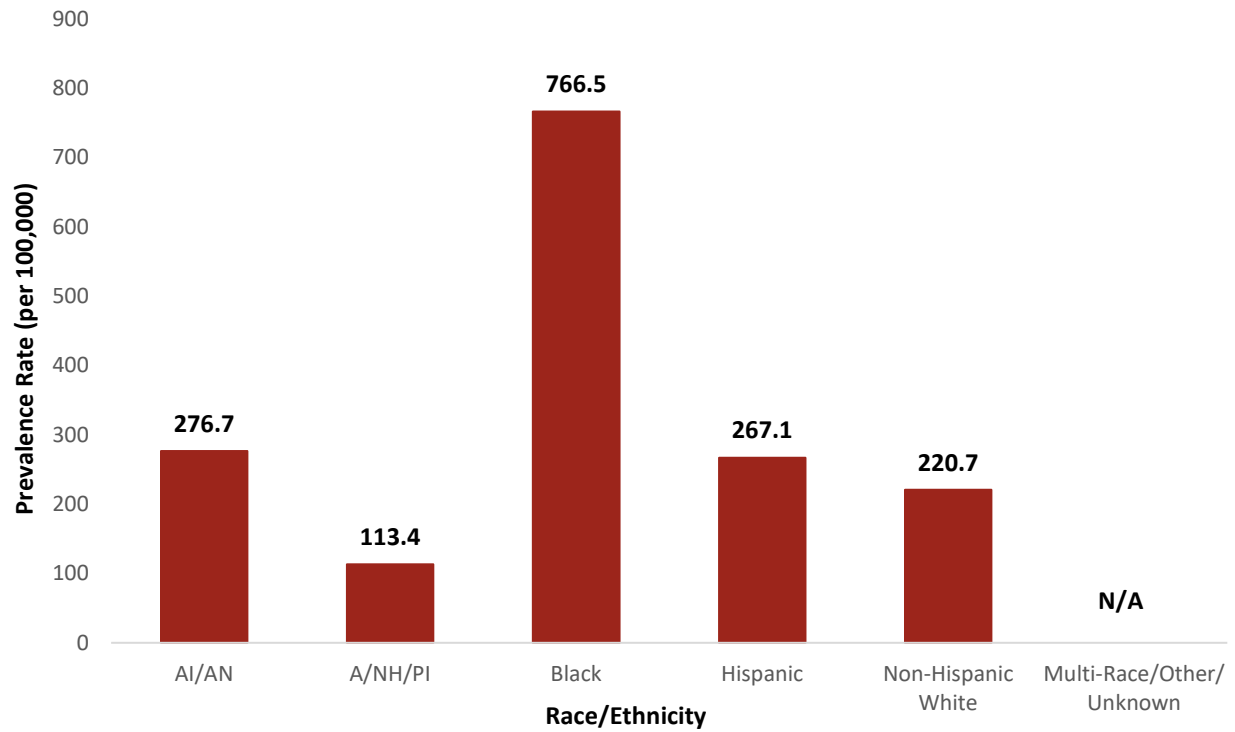
### Arizona HIV/AIDS Prevalence Rate (per 100,000) by Age Category and Sex at Birth, 2022



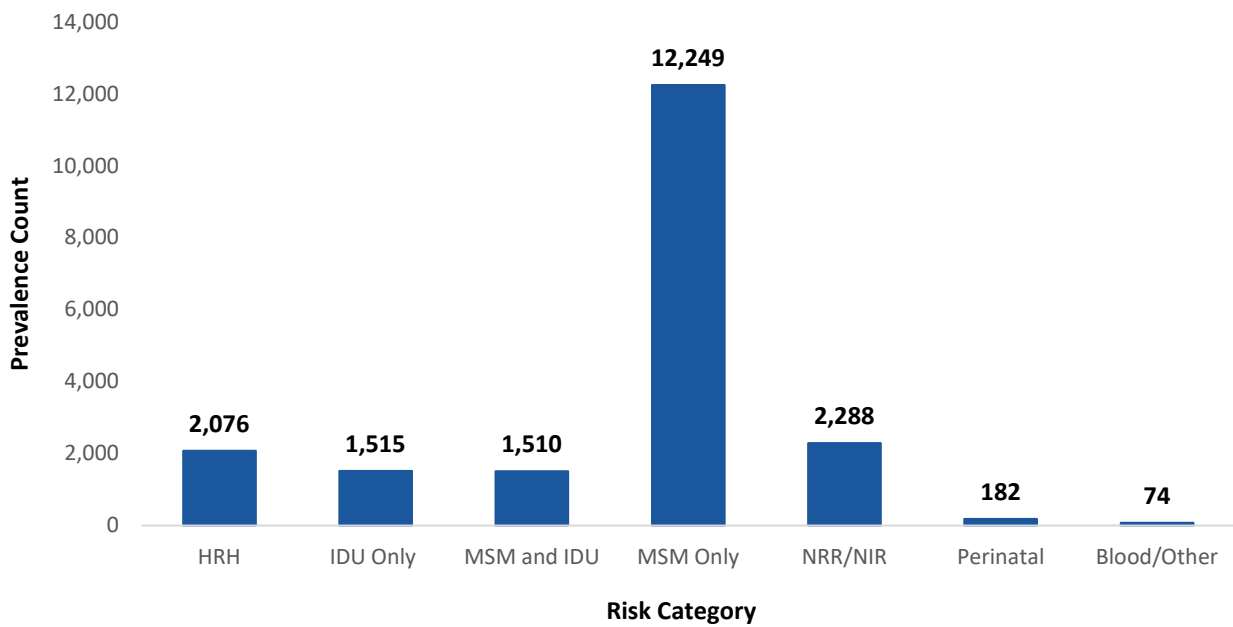
### Arizona HIV/AIDS Prevalence Count by Race/Ethnicity, 2022



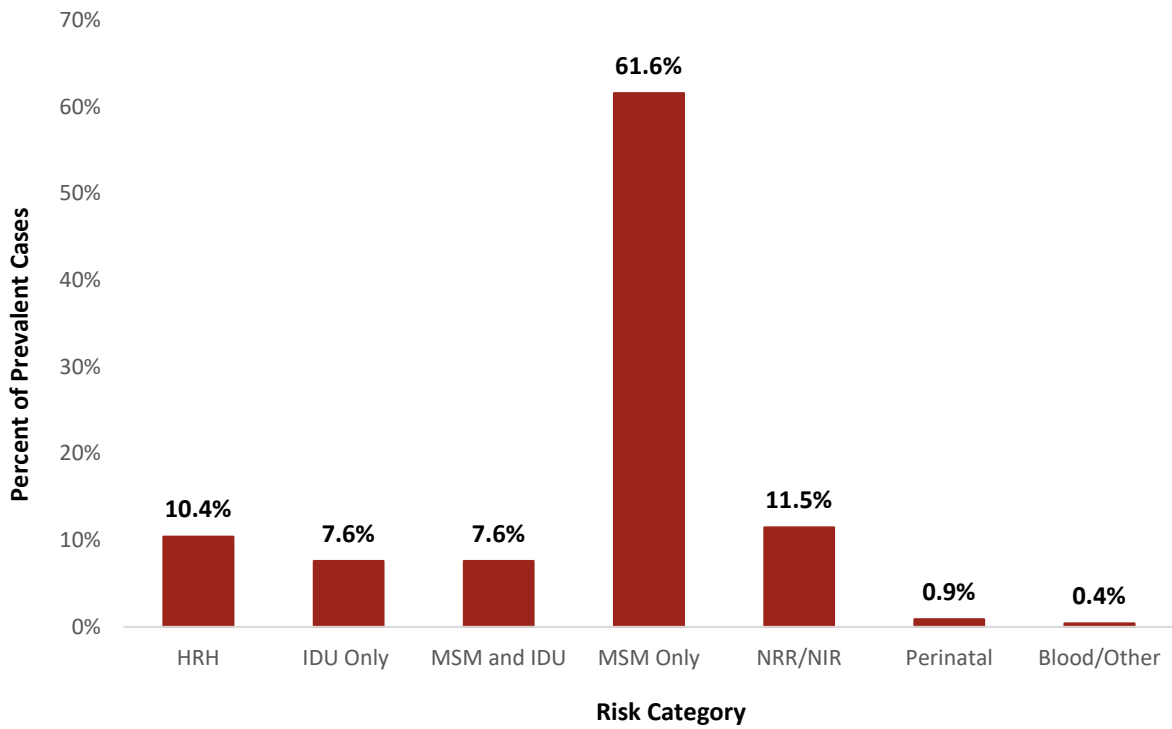
### Arizona HIV/AIDS Prevalence Rate (per 100,000) by Race/Ethnicity, 2022



### Arizona HIV/AIDS Prevalence Count by Risk Category, 2022



### Arizona HIV/AIDS Prevalence Proportion of State Total by Risk Category, 2022



### APPENDIX 3: STATEWIDE & COUNTY TABLES

2022 Arizona Statewide (Population: 7,409,189)				
	Incidence Count	Incidence Rate (per 100,000)	Prevalence Count	Prevalence Rate (per 100,000)
<b>Arizona</b>	975	13.2	19,894	268.5
	Incidence Count		Prevalence Count	
<b>Sex at Birth</b>				
Female	137		2,829	
Male	838		17,065	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	32		90	
20-24	121		432	
25-29	169		1,174	
30-34	167		1,957	
35-39	142		1,904	
40-44	92		2,023	
45-49	78		1,964	
50-54	60		2,479	
55-59	50		2,836	
60-64	35		2,377	
65+	28		2,621	
<b>Race/Ethnicity</b>				
A/PI/NH	29		337	
AI/AN	51		814	
Black	162		2,933	
Hispanic	405		6,309	
White	292		8,989	
Other	36		511	
<b>Risk</b>				
MSM	546		12,249	
IDU	39		1,515	
MSM/IDU	56		1,510	
HRH	38		2,076	
NRR	289		2,288	
Perinatal	*		182	
Blood/Other	*		74	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Apache County (Population: 66,848)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Apache County</b>	11	16.5	139	207.9
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	*		16	
Male	*		123	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		*	
25-29	*		16	
30-34	*		18	
35-39	*		14	
40-44	*		22	
45-49	*		11	
50-54	*		14	
55-59	*		21	
60-64	*		14	
65+	*		*	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	11		118	
Black	*		*	
Hispanic	*		*	
White	*		12	
Other	*		*	
<b>Risk</b>				
MSM	*		73	
IDU	*		16	
MSM/IDU	*		18	
HRH	*		13	
NRR	*		17	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality



**2022 Cochise County (Population: 126,648)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Cochise County</b>	14	11.1	254	200.6
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female		*		42
Male		*		212
<b>Age</b>				
Under 2		*		*
2-12		*		*
13-19		*		*
20-24		*		*
25-29		*		13
30-34		*		14
35-39		*		18
40-44		*		14
45-49		*		25
50-54		*		29
55-59		*		42
60-64		*		40
65+		*		55
<b>Race/Ethnicity</b>				
A/PI/NH		*		*
AI/AN		*		11
Black		*		27
Hispanic		*		57
White		7		145
Other		*		9
<b>Risk</b>				
MSM		9		149
IDU		*		25
MSM/IDU		*		22
HRH		*		31
NRR		*		25
Perinatal		*		*
Blood/Other		*		*

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Coconino County (Population: 149,647)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Coconino County</b>	10	6.7	197	131.6
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	*		17	
Male	*		180	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		7	
25-29	*		16	
30-34	*		27	
35-39	*		18	
40-44	*		22	
45-49	*		16	
50-54	*		20	
55-59	*		14	
60-64	*		24	
65+	*		33	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	*		68	
Black	*		9	
Hispanic	*		36	
White	*		75	
Other	*		*	
<b>Risk</b>				
MSM	7		118	
IDU	*		16	
MSM/IDU	*		26	
HRH	*		13	
NRR	*		22	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Gila County (Population: 53,838)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Gila County</b>	*	0.0	67	124.5
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	*		15	
Male	*		52	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		*	
25-29	*		*	
30-34	*		*	
35-39	*		8	
40-44	*		11	
45-49	*		8	
50-54	*		10	
55-59	*		7	
60-64	*		8	
65+	*		11	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	*		11	
Black	*		*	
Hispanic	*		14	
White	*		37	
Other	*		*	
<b>Risk</b>				
MSM	*		33	
IDU	*		*	
MSM/IDU	*		8	
HRH	*		7	
NRR	*		12	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Graham County (Population: 39,010)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Graham County</b>	*	7.7	33	84.6
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	*		*	
Male	*		*	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		*	
25-29	*		*	
30-34	*		*	
35-39	*		*	
40-44	*		*	
45-49	*		*	
50-54	*		*	
55-59	*		*	
60-64	*		*	
65+	*		*	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	*		*	
Black	*		*	
Hispanic	*		12	
White	*		18	
Other	*		*	
<b>Risk</b>				
MSM	*		13	
IDU	*		8	
MSM/IDU	*		*	
HRH	*		*	
NRR	*		*	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Greenlee County (Population: 9,652)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Greenlee County</b>	*	0.0	*	51.8
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	*		*	
Male	*		*	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		*	
25-29	*		*	
30-34	*		*	
35-39	*		*	
40-44	*		*	
45-49	*		*	
50-54	*		*	
55-59	*		*	
60-64	*		*	
65+	*		*	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	*		*	
Black	*		*	
Hispanic	*		*	
White	*		*	
Other	*		*	
<b>Risk</b>				
MSM	*		*	
IDU	*		*	
MSM/IDU	*		*	
HRH	*		*	
NRR	*		*	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 La Paz County (Population: 16,860)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>La Paz County</b>	*	5.9	22	130.5
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	*			*
Male	*			*
<b>Age</b>				
Under 2	*			*
2-12	*			*
13-19	*			*
20-24	*			*
25-29	*			*
30-34	*			*
35-39	*			*
40-44	*			*
45-49	*			*
50-54	*			*
55-59	*			*
60-64	*			*
65+	*			*
<b>Race/Ethnicity</b>				
A/PI/NH	*			*
AI/AN	*			*
Black	*			*
Hispanic	*			*
White	*			15
Other	*			*
<b>Risk</b>				
MSM	*			13
IDU	*			*
MSM/IDU	*			*
HRH	*			*
NRR	*			*
Perinatal	*			*
Blood/Other	*			*

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Maricopa County (4,586,431)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Maricopa County</b>	647	14.1	13,611	296.8
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	93		1,960	
Male	554		11,651	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	25		59	
20-24	88		303	
25-29	107		854	
30-34	106		1,446	
35-39	98		1,389	
40-44	58		1,433	
45-49	57		1,348	
50-54	40		1,735	
55-59	35		1,906	
60-64	19		1,507	
65+	14		1,608	
<b>Race/Ethnicity</b>				
A/PI/NH	18		257	
AI/AN	19		379	
Black	139		2,346	
Hispanic	251		4,075	
White	188		6,187	
Other	32		367	
<b>Risk</b>				
MSM	364		8,718	
IDU	23		829	
MSM/IDU	36		899	
HRH	25		1,358	
NRR	195		1,640	
Perinatal	*		121	
Blood/Other	*		46	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Mohave County (Population: 221,105)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Mohave County</b>	16	7.2	342	154.7
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	*		56	
Male	*		286	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		*	
25-29	*		8	
30-34	*		21	
35-39	*		29	
40-44	*		31	
45-49	*		26	
50-54	*		42	
55-59	*		65	
60-64	*		63	
65+	*		53	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	*		10	
Black	*		16	
Hispanic	*		47	
White	12		256	
Other	*		*	
<b>Risk</b>				
MSM	*		165	
IDU	7		58	
MSM/IDU	*		42	
HRH	*		43	
NRR	*		31	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality



**2022 Navajo County (Population: 108,580)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Navajo County</b>	11	10.1	144	132.6
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
<b>Female</b>	*		28	
<b>Male</b>	*		116	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		*	
25-29	*		7	
30-34	*		10	
35-39	*		17	
40-44	*		13	
45-49	*		13	
50-54	*		22	
55-59	*		23	
60-64	*		13	
65+	*		21	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	8		91	
Black	*		*	
Hispanic	*		11	
White	*		36	
Other	*		*	
<b>Risk</b>				
MSM	*		69	
IDU	*		26	
MSM/IDU	*		23	
HRH	*		17	
NRR	*		8	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Pima County (Population: 1,072,298)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Pima County</b>	141	13.2	3,021	281.7
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female	18		411	
Male	123		2,610	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		24	
20-24	14		64	
25-29	22		135	
30-34	23		240	
35-39	23		217	
40-44	14		255	
45-49	9		253	
50-54	8		339	
55-59	7		454	
60-64	9		457	
65+	7		572	
<b>Race/Ethnicity</b>				
A/PI/NH	*		37	
AI/AN	*		74	
Black	14		352	
Hispanic	64		1,021	
White	52		1,468	
Other	*		69	
<b>Risk</b>				
MSM	83		1,877	
IDU	*		230	
MSM/IDU	12		273	
HRH	8		329	
NRR	33		257	
Perinatal	*		38	
Blood/Other	*		17	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

2022 Pinal County (453,924)				
	Incidence Count	Incidence Rate (per 100,000)	Prevalence Count	Prevalence Rate (per 100,000)
<b>Pinal County</b>	80	17.6	1,239	273.0
	Incidence Count		Prevalence Count	
<b>Sex at Birth</b>				
Female	11		155	
Male	69		1,084	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	7		27	
25-29	15		72	
30-34	21		115	
35-39	12		119	
40-44	9		156	
45-49	*		187	
50-54	*		167	
55-59	*		167	
60-64	*		126	
65+	*		99	
<b>Race/Ethnicity</b>				
A/PI/NH	*		11	
AI/AN	*		33	
Black	7		135	
Hispanic	54		691	
White	15		342	
Other	*		27	
<b>Risk</b>				
MSM	41		565	
IDU	*		204	
MSM/IDU	*		119	
HRH	*		143	
NRR	30		197	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Santa Cruz (Population: 49,039)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Santa Cruz County</b>	7	14.3	84	171.2
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female		*	7	
Male		*	77	
<b>Age</b>				
Under 2		*	*	
2-12		*	*	
13-19		*	*	
20-24		*	*	
25-29		*	9	
30-34		*	7	
35-39		*	*	
40-44		*	7	
45-49		*	7	
50-54		*	7	
55-59		*	12	
60-64		*	8	
65+		*	19	
<b>Race/Ethnicity</b>				
A/PI/NH		*	*	
AI/AN		*	*	
Black		*	*	
Hispanic		*	66	
White		*	15	
Other		*	*	
<b>Risk</b>				
MSM		*	53	
IDU		*	*	
MSM/IDU		*	7	
HRH		*	9	
NRR		*	11	
Perinatal		*	*	
Blood/Other		*	*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

**2022 Yavapai County (Population: 245,389)**

	<b>Incidence Count</b>	<b>Incidence Rate (per 100,000)</b>	<b>Prevalence Count</b>	<b>Prevalence Rate (per 100,000)</b>
<b>Yavapai County</b>	14	5.7	366	149.1
	<b>Incidence Count</b>		<b>Prevalence Count</b>	
<b>Sex at Birth</b>				
Female		*		66
Male		*		300
<b>Age</b>				
Under 2		*		*
2-12		*		*
13-19		*		*
20-24		*		*
25-29		*		15
30-34		*		25
35-39		*		23
40-44		*		21
45-49		*		27
50-54		*		48
55-59		*		57
60-64		*		67
65+		*		78
<b>Race/Ethnicity</b>				
A/PI/NH		*		7
AI/AN		*		13
Black		*		9
Hispanic		*		57
White		7		269
Other		*		11
<b>Risk</b>				
MSM		9		207
IDU		*		47
MSM/IDU		*		34
HRH		*		49
NRR		*		26
Perinatal		*		*
Blood/Other		*		*

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

2022 Yuma County (209,920)				
	Incidence Count	Incidence Rate (per 100,000)	Prevalence Count	Prevalence Rate (per 100,000)
<b>Yuma County</b>	20	9.5	351	167.2
	Incidence Count		Prevalence Count	
<b>Sex at Birth</b>				
Female	*		49	
Male	*		302	
<b>Age</b>				
Under 2	*		*	
2-12	*		*	
13-19	*		*	
20-24	*		*	
25-29	*		25	
30-34	*		25	
35-39	*		38	
40-44	*		31	
45-49	*		35	
50-54	*		34	
55-59	*		58	
60-64	*		42	
65+	*		54	
<b>Race/Ethnicity</b>				
A/PI/NH	*		*	
AI/AN	*		*	
Black	*		22	
Hispanic	16		207	
White	*		104	
Other	*		8	
<b>Risk</b>				
MSM	14		180	
IDU	*		43	
MSM/IDU	*		27	
HRH	*		59	
NRR	*		36	
Perinatal	*		*	
Blood/Other	*		*	

\*Data are suppressed based on suppression criteria to protect privacy and confidentiality

\* Data suppression for the state and county tables were implemented based on the following criteria: a cell size of six or less, to maintain patient privacy and to protect confidentiality.

All denominators and population data are from the Arizona Department of Health Services Vital Statistics.<sup>11</sup>

## Glossary of Terms

**Age at HIV/AIDS Diagnosis:** Age category at the time of the initial HIV/AIDS diagnosis.

**AIDS Diagnosis:** When the immune system of a person infected with HIV becomes severely compromised (defined by CD4 cell count <200) and/or the person becomes ill with an opportunistic infection.

**Care Continuum:** Milestones in care that an individual may reach from the time they receive an HIV diagnosis to achieving viral suppression.

**CD4 Cell Count:** A laboratory test that measures the number of CD4 T cells in the blood of a person living with HIV/AIDS and is a parameter of HIV progression.

**High Risk Heterosexual (HRH) Contact:** People who report having sexual contact with a person of the opposite sex who are infected with HIV/AIDS or are known to be at an increased risk for HIV transmission.

**HIV Diagnosis:** Acute or chronic HIV infection (defined by CD4 cell count >200).

**HIV/AIDS Related Death:** Death due to underlying HIV disease; based on ICD 9/10 codes from the death certificate.

**Correctional Facility:** State, federal or private prisons, and local jails or detention centers in Arizona.

**Incidence Count:** The number of people newly infected with HIV/AIDS in a specified year.

**Incidence Rate:** The estimated number of people newly infected with HIV/AIDS in a specified year, divided by the population in said year and multiplied by 100,000.

**Intravenous Drug Use (IDU):** People who report using needles, syringes or other injection equipment to receive an injection of a drug that was not prescribed by a physician or clinical provider.

**Linkage to Care:** Percent of reported HIV diagnoses with a documented CD4 or viral load test performed within 30 days after their initial HIV diagnosis.

**Men who have Sex with Men (MSM):** Men who report having sexual contact with other men.

**Men who have Sex with Men/Injection Drug Use (MSM/IDU):** Men who report having sexual contact with other men and have engaged in nonprescription intravenous drug use.

**No Risk Indicated/No Risk Reported (NIR)/(NRR):** People who did not have a reported risk factor.

**Other Exposure:** People who worked in a healthcare or laboratory setting before acquiring HIV, or received clotting factor for a hemophilia/coagulation disorder, or received transfusion of blood/ blood components, or received a transplant of tissue/organs/artificial insemination.

## Glossary of Terms Cont.

**Perinatal Exposure:** When HIV is transmitted from a person with childbearing potential who is HIV positive to the infant during pregnancy, childbirth, or through breastfeeding.

**Prevalence Count:** The number of people living with HIV/AIDS at a given time regardless of the time of infection.

**Prevalence Rate:** The estimated number of people living with HIV/AIDS at a given time regardless of the time of infection divided by the population at said time and multiplied by 100,000.

**People Living with HIV (PLWH):** Reported HIV diagnosis and are alive as of December 31 of the specified year.

**Recipient of Care:** People living with HIV/AIDS who received one or more lab test (i.e. viral load, CD4, or HIV genotype) in a specific year.

**Residence at Diagnosis:** The self-reported jurisdiction of residence at the time of HIV/AIDS diagnosis.

**Retained in Care:** People living with HIV/AIDS who received two or more lab tests (i.e. viral load, CD4, or HIV genotype) that were at least 90 days apart in a specific year.

**Rural County Population:** The following counties in Arizona with a population less than or equal to 499,999: Apache County, Cochise County, Coconino County, Gila County, Graham County, Greenlee County, La Paz County, Mohave County, Navajo County, Yavapai County, and Yuma County.

**Rural Residents:** People living in the following counties in Arizona at the time of diagnosis: Apache County, Cochise County, Coconino County, Gila County, Graham County, Greenlee County, La Paz County, Mohave County, Navajo County, Yavapai County, and Yuma County.

**Virally Suppressed:** People living with HIV/AIDS and having a recent viral load measured in a specific year with a viral load test result less than or equal to 200 copies/mL.

**Urban County Population:** The following counties in Arizona with a population greater than 500,000: Maricopa County and Pima County.

**Urban Residents:** People living in the following counties in Arizona at the time of diagnosis: Maricopa County and Pima County.

**Young MSM of Color:** People who are Hispanic or Black and aged 13-24 who report MSM as a risk factor.



## REFERENCES

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1. Lau, C., Shu, S., Mayer, J., Towns, M., Farris, A., Washington, F., Prichard, P., & Shukla, V. (2021). COVID-19 Trends in the Phoenix Metropolitan Area from a Mobile Testing Program: Last Quarter of 2020. *Journal of community health, 46*(6), 1078–1082. <https://doi.org/10.1007/s10900-021-00991-4>
2. Sperling R. (1998). Zidovudine. *Infectious diseases in obstetrics and gynecology, 6*(5), 197–203. [https://doi.org/10.1002/\(SICI\)1098-0997\(1998\)6:5<197::AID-IDOG2>3.0.CO;2-1](https://doi.org/10.1002/(SICI)1098-0997(1998)6:5<197::AID-IDOG2>3.0.CO;2-1)
3. Eggleton JS, Nagalli S. Highly Active Antiretroviral Therapy (HAART) [Updated 2022 Jul 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK554533/>
4. Centers for Disease Control and Prevention. HIV Surveillance Report, 2018 (Updated); vol. 31. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2020. Accessed September 13, 2022.
5. Centers for Disease Control and Prevention. Revision of the case definition of acquired immunodeficiency syndrome for national reporting—United States. *MMWR 1985; 34*:373–5.
6. Center for Disease Control and Prevention. (2023). CDC Recommendations for Correctional and Detention Settings. [Correctional Recommendations for Correctional and Detention Settings | CDC](#)
7. Masiano, S. P., Martin, E. G., Bono, R. S., Dahman, B., Sabik, L. M., Belgrave, F. Z., Adimora, A. A., & Kimmel, A. D. (2019). Suboptimal geographic accessibility to comprehensive HIV care in the US: regional and urban-rural differences. *Journal of the International AIDS Society, 22*(5), e25286. <https://doi.org/10.1002/jia2.25286>
8. Arizona Department of Health Services. (2022) Arizona Medically Underserved Areas. Biennial Report. Bureau of Women’s and Children’s Health. 23. [2022 AzMUA Biennial Report \(azdhs.gov\)](#)
9. Centers for Disease Control and Prevention. (2018). HIV Surveillance Report, 2018 (Preliminary). *HIV Surveillance Report, 30*, 1–129. [http://www.cdc.gov/hiv/library/reports/surveillance/2011/surveillance\\_report\\_vol\\_23.html](http://www.cdc.gov/hiv/library/reports/surveillance/2011/surveillance_report_vol_23.html)
10. Marsh, K. J., & Rothenberger, M. (2019). A Young Black MSM on PrEP Is Lost to Follow-Up and Acquires HIV Infection: A Case to Call for Improved Strategies to Support Youth Adherence and Engagement in HIV Prevention. *Journal of the International Association of Providers of AIDS Care, 18*, 1–4. <https://doi.org/10.1177/2325958219853834>
11. Arizona Department of Health Services. (2023). Population Health and Vital Statistics. [ADHS | Population Denominators \(azdhs.gov\)](#)