

STATE OF IOWA DEPARTMENT OF
Health AND **Human**
SERVICES

**State of Iowa HIV Disease
End-of-Year 2021
Surveillance Report**

SEPTEMBER 2022

AUTHORSHIP – BUREAU OF HIV, STI, AND HEPATITIS

Acknowledgements

SUGGESTED CITATION:

Iowa Department of Public Health, Bureau of HIV, STI, and Hepatitis. *State of Iowa HIV Disease End-of-Year 2021 Surveillance Report*. Des Moines: Iowa Dept. of Health and Human Services, Division of Public Health, 2022. Web. <https://idph.iowa.gov/hivstdhep/hiv/data>.

Gov. Kim Reynolds
Lt. Gov. Adam Gregg
Kelly K. Garcia, Director

Report Contact Information:

Alagie Jatta, M.S.
HIV/AIDS Surveillance Coordinator
Phone: (515) 281-6918
Email: alagie.jatta@idph.iowa.gov

Samoane Don, M.P.H.
HIV/AIDS Surveillance Epidemiologist
Phone: (515) 242-5141
Email: samoane.don@idph.iowa.gov

Joyce Mbugua, M.C.R.P
Data and Epidemiology Program Manager
Phone: (515) 305-0225
Email: joyce.mbugua@idph.iowa.gov

Randy Mayer, M.S., M.P.H.
Chief, Bureau of HIV, STI, and Hepatitis
Phone: (515) 242-5150
Email: randy.mayer@idph.iowa.gov

Table of Contents

Key Points	3
Organization of this Data Report	5
Definitions.....	5
Section 1: SOURCES OF DATA	6
Core HIV Surveillance Data	6
Population Data	8
Section 2: NARRATIVE SUMMARY	8
Iowans Diagnosed with HIV.....	8
Sex	9
Age	9
Racial and ethnic minorities are over-represented.....	10
HIV and COVID-19 co-infection	12
Social Determinants of Health.....	13
HIV exposure category	14
Late testers.....	14
HIV prevalence.....	15
Deaths of People with HIV/AIDS	15
Continuum of HIV Care	15
HIV Partner Services	16
Ending the HIV epidemic.....	17
Section 3: TABLES AND FIGURES	18
Table 3.1 Iowans Diagnosed with HIV or AIDS or Dying with HIV in 2021.....	18
Table 3.2 Iowans Diagnosed with HIV ¹	19
Table 3.3 Iowa Males 13 Years of Age and Older Diagnosed with HIV: 2007 through 2021 .	20
Table 3.4 Iowa Females 13 Years of Age and Older Diagnosed with HIV: 2007 through 2021	21
Table 3.5 Iowans Diagnosed with HIV in 1982 through 2021	22
Figure 3.1 Iowans Diagnosed with HIV: 2011 through 2021	23
Figure 3.2 Number and Percentage of Iowans Diagnosed Late with HIV ("Late Testers"):.....	24
Figure 3.3 Iowans Diagnosed with HIV by Sex: 2011 through 2021.....	25
Figure 3.4 Age in Years at Diagnosis of HIV in Iowa: 2011 through 2021... Error! Bookmark not defined.	
Figure 3.5 Iowans Diagnosed with HIV by Race and Ethnicity: 2011 through 2021	26
Figure 3.6 Iowa Population Percentage by Race and Ethnicity compared to Proportion of HIV Diagnoses and Percent Living with HIV by Ethnicity and Race as of December 31, 2021	28
Figure 3.7 Iowa Adults Diagnosed with HIV by Exposure Category: 2011 through 2021	29
Figure 3.8 Numbers of Iowans Living with Diagnosed HIV Disease as of December 31, 2021,	30
Figure 3.9 Prevalence of HIV Disease at the end of 2021.....	31
Figure 3.10 Prevalence of HIV Disease by County of Current Residence:	32
Figure 3.11 Iowa HIV Care Continuum for 2021	33
Section 4: REPORTING OF HIV AND AIDS IN IOWA	34

Key Points

HERE ARE A FEW POINTS DRAWN FROM OUR 2021 HIV DATA:

One hundred and twenty-four (124) Iowans were diagnosed with HIV in 2021: HIV diagnoses increased by 25% over 2020, reversing decreasing trends in diagnoses in recent years. Diagnoses increased across almost all social and demographic groups, with exceptions only among people 15 to 24 years of age, US-born women, and people who indicated a multi-racial identity. Among racial and ethnic populations, diagnoses increased significantly among US-born Hispanic/Latinx (800%); non-US-born Hispanic/Latinx (175%); non-US-born Black (50%); and non-US-born Asian (200%) people. Diagnoses among non-US-born people increased by more than 80% from 2020, but were only a little higher than diagnoses in 2019. This may indicate that restrictions in movement during the COVID-19 pandemic in 2020 suppressed diagnoses in this population temporarily.

Other groups that saw significant increases in diagnoses included heterosexual Iowans, among whom diagnoses increased by 78%. This increase is due, in part, to the previously mentioned increase in diagnoses among non-US-born people, where heterosexual contact is the most commonly reported route of exposure. Finally, there was a significant increase in diagnoses among men who have sex with men and who inject drugs, although the absolute number remains relatively low (an increase from 6 to 9 people). Since 2016, Iowa had seen a decrease in diagnoses overall, and had experienced fewer than 100 new HIV diagnoses in 2019 and 2020. HIV diagnoses decreased by 8.1% from 2016 to 2017, by 7.2% from 2017 to 2018, and by 15.5% from 2018 to 2019. In contrast, diagnoses increased in 2021 to the third highest peak over the last ten years. The increase in diagnoses among most populations is likely due in part to the effects of the COVID-19 pandemic. Widespread clinic closures throughout the state in 2020 led to subsequent spikes in other symptomatic sexually transmitted infections, including gonorrhea and syphilis, in 2020 and 2021, respectively. This may relate to increases in diagnoses among US-born populations. On the other hand, restrictions in mobility related to COVID-19 in 2020 may have decreased diagnoses in non-US-born populations that year, but diagnoses in 2021 increased to about 7% higher than levels in 2019.

Sex: Diagnoses increased among males and females in 2021, by 26% and 24%, respectively. Diagnoses among U.S.-born males increased by 21% in 2021 compared to a 55% increase in diagnoses among non-U.S.-born males. However, diagnoses among U.S.-born females decreased by 13% in 2021 while diagnoses among non U.S.-born females increased by 140%. Overall, the proportion of HIV diagnoses that are among males continued to outnumber those among females by a ratio of about four to one in 2021.

Age: People aged 25 through 44 years continue to account for the largest proportion (53%) and number (55) of people diagnosed with HIV. Diagnoses in this age group increased by 28% from 2020 to 2021 after a slight decrease (by 2%) from 2019 to 2020. Youth and young adults 15 through 24 years experienced a significant decrease in new HIV diagnoses from 2020 to 2021 (by 31%) after having a sustained increase in diagnoses for two years in a row; new HIV diagnoses increased in this age group by 16% from 2018 to 2019 and by 18% from 2019 to 2020. Youth and young adults accounted for 26 (27% of all people newly diagnosed with HIV) in 2020 and 18 (15% of all people newly diagnosed) in 2021.

Race and ethnicity: Diagnoses among non-Hispanic Black/African-American people increased by 30% in 2021 after experiencing a sustained decrease in diagnoses for four years in a row after peaking in 2016 at 44 new diagnoses (32% of total diagnoses). In 2021, 30 Black/African-American Iowans were diagnosed with HIV. While non-Hispanic Black/African-American people represent 4% of Iowa's population, they experienced 24% of all HIV diagnoses in 2021. Diagnoses among non-US-born Black/African American Iowans accounted for 40% of all diagnoses among non-Hispanic Black/African American Iowans, higher than in 2020 when non-U.S.-born Black/African Americans accounted for 33% of all diagnoses among non-Hispanic Black/African American Iowans. While there was a 13% increase in diagnoses among U.S.-born Black/African Americans, diagnoses among non-U.S.-born Blacks increased by 50% in 2021.

Diagnoses among Hispanic/Latinx people increased by 300% in 2021 from 5 diagnoses in 2020 to 20 diagnoses in 2021. Hispanic/Latinx people represent 6% of Iowa's population, yet represented 16% of people diagnosed with HIV in 2021. Of the 20 Hispanic/Latinx people diagnosed, 11 (55%) were non-U.S. born.

Non-Hispanic White people experienced a 15% increase in diagnoses in 2021, the second continuous year of increases after a fairly steady decline in diagnoses since 2007. Non-Hispanic White people represent 85% of Iowa's population, but experienced only 51% of HIV diagnoses in 2021.

It is important to note that the disproportionate impact of HIV on communities of color is related to social determinants of health. These determinants create environments in which some populations are more likely to experience higher rates of exposures to infectious disease agents. It has also been shown that these populations experience higher levels of other factors (stigma, stress, lack of access to health care, homelessness) that may lead to chronic health conditions, which in turn may make them more susceptible to HIV.

Mode of Exposure: HIV diagnoses increased overall in all mode of exposures categories. Diagnoses increased in 2021 among males who have sex with men (MSM) by 5%; among people who inject drugs (PWID) by 8%; among males who have sex with men and who inject drugs (MSM/PWID) by 50%; and among people with heterosexual mode of exposure by 78%. Of the 63 non-Hispanic White people diagnosed in 2021, 63% were MSM (74% of non-Hispanic White males). This compared to 33% of the 30 non-Hispanic Black/African-American people diagnosed (48% of non-Hispanic Black/African-American males), and 75% of the 20 Hispanic people diagnosed (83% of Hispanic males diagnosed).

Late testers: The proportion of people diagnosed with AIDS within three months of their initial HIV diagnosis ("late testers") decreased from 26% in 2020 to 24% in 2021. The proportion of people that are "late testers" in 2021 is similar to the five-year (2016-2020) average, and is lower than the 10-year average of 31%. The lower number of "late testers" is further confirmation that people at risk for HIV are getting timelier access to testing. Of the 124 new HIV diagnoses in 2021, 3 were in an acute stage (i.e., very early) of HIV infection.

HIV prevalence: As of December 31, 2021, there were 3,077 people with a current address in Iowa diagnosed and living with HIV, a prevalence of 96 per 100,000 persons. As of December 31, 2021, 94 of Iowa's 99 counties had at least one resident living with HIV. Prevalence in six counties was greater than 100 per 100,000 population (0.1%). Polk County, with 184 per 100,000, has the highest prevalence, followed by Pottawattamie County (141 per 100,000), and Scott County (133 per 100,000).

HIV Continuum of Care: The HIV continuum of care includes people living with HIV in Iowa who were diagnosed before January 1, 2021. Of the 2,950 people diagnosed with HIV disease on or before December 31, 2020, and living in Iowa as of December 31, 2021, 2,559 (87%) were retained in HIV care and 2,429 (82%) were virally suppressed. These numbers increased from 2020 and are also significantly higher than in many parts of the country. The most recent estimate from Centers for Disease Control and Prevention (CDC) is that 66% of people in the US who are diagnosed with HIV were virally suppressed at their last test. When Iowans are retained in care (i.e., have two or more CD4 or viral load tests, performed at least three months apart, or have at least one suppressed viral load test result), viral suppression rises to 95%.

ORGANIZATION OF THIS DATA REPORT

This end-of-year report presents surveillance data on HIV disease in Iowa. It provides an overview of HIV disease in the state and within its population subgroups. It includes information on the HIV care continuum and partner services offered to people newly diagnosed with HIV while residing in Iowa. There are four sections to the report: Section 1 describes **data sources**; Section 2 is a **narrative summary** with key highlights; Section 3 employs **charts, graphs, and tables** to illustrate trends; and Section 4 outlines the **reporting requirements** for HIV in Iowa.

DEFINITIONS

HIV diagnoses reflect all people diagnosed with HIV for the first time, regardless of AIDS status, who were residents of Iowa at time of diagnosis. Some people may also have been counted among AIDS diagnoses if they received an AIDS diagnosis during the same calendar year. Age is the age at time of diagnosis of HIV.

AIDS diagnoses reflect all people who first met the criteria for AIDS while living in Iowa during the specified time period, regardless of when the case was reported to the state. Age is age at time of diagnosis of AIDS.

People living with HIV disease reflect people diagnosed with HIV (regardless of AIDS status) who were alive as of December 31 of a given year.

Pediatric exposures: A person diagnosed at 13 years of age or older (adult/adolescent) may have had a pediatric exposure to HIV. In such an instance, the person would be classified as adult/adolescent at time of diagnosis, but would be listed under pediatric exposures in tables that display data by category of exposure. Pediatric exposure categories include mother with HIV; hemophilia or coagulation disorder with exposure to contaminated Factor VIII (Hemophilia A), Factor IX (Hemophilia B), or other clotting factors; or receipt of contaminated blood, blood components, or tissue.

Section I: SOURCES OF DATA

CORE HIV SURVEILLANCE DATA

eHARS

The enhanced HIV and AIDS reporting system (eHARS) includes information on all people with HIV disease who have been reported to the Iowa Department of Health and Human Services (Iowa HHS) HIV Surveillance Program. All people with HIV disease who were first diagnosed while living in Iowa, or who have lived in Iowa at some point in time after diagnosis with HIV, or who have accessed care at an Iowa facility and have been reported to Iowa HHS, are included in eHARS. eHARS is the primary source of data for this report.

Surveillance Case Definition of HIV Disease

The surveillance case definition of HIV infection (the cause of AIDS) was created by CDC in 1982 and has been modified several times to respond to advances in HIV disease diagnosis. The most recent revision occurred in April 2014. For inclusion in eHARS and for purposes of this report, people are considered to be HIV infected if they meet the current CDC surveillance case definition [Richard M. Selik, Eve D. Mokotoff, Bernard Branson, et al., *Revised Surveillance Case Definition for HIV Infection – United States, 2014*. MMWR 2014; 63(No. RR-3):1-10.]

Diagnosis Date and Completeness of Surveillance Data

Only people reported in Iowa and for whom last name, date of birth, race and ethnicity, sex, date of HIV diagnosis, and vital status (living or deceased at time of report) are known are included in this report.

Evaluations of the Iowa HHS surveillance system indicate that at least 99% of newly diagnosed HIV cases are reported. While the data represent diagnosed HIV cases well, they do not include cases among people that are not yet diagnosed. Nationally, CDC estimates that 13.3% of people living with HIV in United States remain undiagnosed. (*HIV Surveillance Supplemental Report 2021*; 26(No. 1)). At the same time, CDC cautions that this national estimate may not apply to individual states.

CDC-developed computer programs run on Iowa HHS data suggest that a delay in reporting diagnoses among Iowa residents is extremely unlikely. Nonetheless, to eliminate possible reporting delays, case reports received through March 2021 have been used. This report includes only those people diagnosed through December 31, 2021. Data are presented by the year of HIV or AIDS

diagnosis regardless of when the diagnosis was reported. All data are provisional and are subject to change as further information becomes available.

Surveillance HIV Mode of Exposure Categories

People diagnosed with HIV may indicate multiple routes of exposure to HIV, and are counted only once in a hierarchy of exposure categories. People with more than one reported mode of exposure to HIV are classified in the exposure category listed first in the hierarchy, except for men with both a history of sexual contact with other men and a history of injection drug use. They make up a separate category. The modes of exposure are categorized in this report according to the following hierarchy:

- “Men who have sex with men and inject drugs” (MSM/PWID) includes men who inject nonprescription drugs and report sexual contact with other men or who report sexual contact with both men and women.
- “Men who have sex with men” (MSM) includes men who report sexual contact with other men, and men who report sexual contact with both men and women.
- “People who injects drugs” (PWID) includes people who inject nonprescription drugs.
- “Hemophilia/Coagulation disorder” includes people who received Factor VIII (Hemophilia A), Factor IX (Hemophilia B), or other clotting factors.
- “Heterosexual contact” includes people who report specific heterosexual contact with a person with documented HIV, or heterosexual contact with a person at increased risk for HIV, such as someone who reports injection drug use, a person with hemophilia, a transfusion recipient with documented HIV, or a bisexual male. A person who reports heterosexual contact with partners whose specific HIV exposures and HIV status are unknown is considered to have “no risk reported or identified” (NIR). Adults and adolescents born, or who had sex with someone born, in a country where heterosexual transmission was believed to be the predominant mode of HIV transmission (formerly classified as Pattern-II countries by the World Health Organization) are no longer classified as having heterosexually acquired HIV. Similar to case reports for other people who are reported without behavioral or transfusion exposures for HIV, these reports are now classified (in the absence of other information that would classify them in another exposure category) as “NIR” (MMWR 1994;43:155-60).
- “Transfusion” includes people who received blood or blood components (other than clotting factor).
- “Received transplant” includes people who received tissues, organs, or artificial insemination. The “received transplant” category has been combined with “transfusion” in this report because of the low number of people diagnosed in Iowa in each category alone.
- “No risk reported or identified (NIR)/other” includes people with no identified history of exposure to HIV through any of the routes listed in the hierarchy of exposure categories. Further investigation over time can help to clarify exposure history. In addition, the category includes people whose exposure history is incomplete because they died, declined to be interviewed, or were lost to follow-up. It also includes people who had no exposure other than working in a health care or clinical laboratory setting. There has been one confirmed case of transmission in a health care or clinical setting in Iowa.

Population Data

The surveillance program has used the 2020 population estimates from the U.S. Census Bureau (<http://www.census.gov>) to calculate prevalence rates.

Section 2: NARRATIVE SUMMARY

IOWANS DIAGNOSED WITH HIV

There were 124 Iowans diagnosed with HIV in 2021, 25% higher than the number diagnosed in 2020. In Iowa, the number of people diagnosed with HIV since 1998 peaked at 136 in 2016, the most HIV diagnoses ever recorded in a single year, and then steadily decreased to 99 new diagnoses in 2020 (Figure 3.1). The 124 diagnoses in 2021 was the third highest number of diagnoses in a single year since 2016. The increase in diagnoses in 2021 was mostly experienced across all populations with few exceptions. In particular, diagnoses among US-born females, among those 15 to 24 years of age, among non-Hispanic White females, among US-born Asian Iowans, and among multi-race Iowans decreased in 2021. New diagnoses among males increased by 26% from 78 males diagnosed in 2020 to 98 males diagnosed in 2021, and new diagnoses among females increased by 24% from 21 females diagnosed in 2020 to 26 females diagnosed in 2021. Similarly, among non-Hispanic White Iowans, diagnoses increased by 15% from 2020 to 2021 while diagnoses among minority racial and ethnic groups increased by 39%. Additionally, diagnoses among Iowans 15 to 24 years of age decreased by 31%, while diagnoses increased by 28% among Iowans of 25 to 44 years of age, and increased by 90% among those 45 years of age and above.

The increase in diagnoses from 2020 to 2021 was influenced by a significant increase in diagnoses among non U.S.-born people (increased by 81%) and a comparatively mild increase in diagnoses among US-born people (increased by 14%). The increase in diagnoses among non-U.S.-born people from 2020 to 2021 was mostly among non-U.S.-born Hispanic Iowans (increased by 175%), among non-U.S.-born Black/African American Iowans (increased by 50%), and non-U.S.-born Asian Iowans (increased by 200%). Among U.S.-born people, the increase in diagnoses from 2020 to 2021 was among U.S.-born Hispanic Iowans (increased by 800%), among US-born White, non-Hispanic Iowans (increased by 15%) and among US-born Black, non-Hispanic Iowans (increased by 13%). Diagnoses among people who identified as Hispanic/Latinx increased from 5 diagnoses in 2020 to 20 diagnoses in 2021 (increased by 300%), with the largest increase being among US-born Hispanic/Latinx people (increased by 800%) compared to foreign-born Hispanic/Latinx people (increased by 175%). Of the 20 Hispanic/Latinx people diagnosed in 2021, 18 (90%) are males. Changes in the number of diagnoses among foreign-born people are often influenced by immigration. The increases in diagnoses among foreign-born Black, non-Hispanic people and foreign-born Hispanic people could be the result of loosening of restrictions in travel and immigration in 2021 related to SARS-CoV-2 (COVID-19). In addition, the increased access to resources for SARS-CoV-2 testing and preventions may allow more opportunities for the essential workers that largely include Hispanic and Black people visit health care centers and receive HIV testing.

Research indicates that racial disparities in people diagnosed with HIV involve complex social factors (i.e., social determinants of health), such as stigma, poverty, discrimination, lack of economic opportunity, inequitable treatment in the health care system, and disproportionate incarceration rates. These social circumstances may limit a person's access to health care and the opportunity to engage in a healthful lifestyle.

The increase in diagnoses among US-born populations is also likely due to the effects of the COVID-19 pandemic. Widespread clinic closures throughout the state in 2020 led to subsequent spikes in other symptomatic sexually transmitted infections, including gonorrhea and syphilis, in 2020 and 2021, respectively. Diagnoses of infections that tend to be asymptomatic in a majority of people, like chlamydia, decreased in 2020, but began to increase again in 2021. This reflected a decrease in routine testing activities in the state. In short, the COVID-19 pandemic seems to have increased transmission of STIs, including HIV. Those who experienced symptoms were still able to find testing during the pandemic, and diagnoses increased in 2020 and 2021.

In 2021, there were 3.9 HIV diagnoses per 100,000 people. This compared to 3.1 HIV diagnoses per 100,000 people in 2020 and 2019, 3.7 HIV diagnoses per 100,000 people in 2018, and 4.0 HIV diagnoses per 100,000 population in 2017.

In 2021, 53 people were diagnosed with AIDS (stage 3 HIV disease), up from 48 in 2020, and less than the average of 51 for the last five years (2016 through 2020).

It is estimated that there are 480 Iowans living with HIV who have yet to be diagnosed. The expansion of HIV testing coupled with pre-exposure prophylaxis (PrEP) programs and condom distribution services may help in finding most of the undiagnosed people living in Iowa and slow transmission of HIV in the state.

Sex

Diagnoses among males increased by 26% from 2020 to 2021, from 78 in 2020 to 98 in 2021. Similarly, diagnoses among females increased by 24% from 21 in 2020 to 26 in 2021. Despite the increase in diagnoses among females, HIV diagnoses among US-born females decreased by 13% from 2020 to 2021 compared to a 140% increase among non-US-born females. Among males, the significant decrease in diagnoses among non-US-born males (55%) masked the relatively small increase in diagnoses among US-born males (21%) such that males experienced a 26% increase overall. Year-to-year variations notwithstanding, the proportion of overall diagnoses among males in Iowa continued to outnumber diagnoses among females by almost a ratio of about four to one.

Age

People aged 25 through 44 years continued to make up the largest proportion (55%) and number (68) of people diagnosed with HIV in 2021. This age cohort experienced a 28% increase in diagnoses from 2020 to 2021. The number of youth and young adults 15 through 24 years of age who were diagnosed with HIV decreased from 26 in 2020 (27% of all people diagnosed with HIV) to 18 in 2021 (15% of all people diagnosed). This is the only age cohort that experienced a decrease in diagnoses (31%) in 2021. Among Iowans 15 through 24 years of age, the number of people diagnosed in 2021 (18) is lower than the five-year (2016-2020) average of 25 diagnoses in that age group. People aged 45 years and older experienced the largest increase in HIV diagnoses (by 90%) in 2021 after three consecutive years of decreases in diagnoses: from 26 (22% of all people diagnosed) in 2018 to 25 (26% of all people diagnosed) in 2019, and finally dropping to 20 (20% of all people diagnosed) in 2020. Diagnoses among people aged 45 years and older increased to 38 (31% of all people diagnosed) in 2021. There were no pediatric HIV diagnoses in 2021.

For people 13 years of age and older (adults and adolescents), the median age at diagnosis in 2021 was 36, higher than the previous five-year average median age of 33. In 2021, the median age of diagnosis for adult/adolescent males was 34.5, lower than that for adult/adolescent females, which was 38.5.

Racial and ethnic minorities are over-represented

Diagnoses among non-Hispanic Black/African American Iowans increased from 24 (24% of all people diagnosed) in 2020 to 30 in 2021 (24% of all people diagnosed), lower than the 5-year average of 34 (29% of all people diagnosed) from 2016 to 2020. The increase in diagnoses among people who are Black/African American was among males, who experienced a 40% increase in diagnoses, whereas diagnoses among Black/African American females remain unchanged from 2020 to 2021. Similarly, non-US-born Black/African American people experienced a 50% increase in diagnoses in 2021, whereas diagnoses among US-born Black/African American people increased 13% from 16 diagnoses in 2020 to 18 diagnoses in 2021. Non-Hispanic Black/African Americans represent 4% of Iowa's general population, but experienced 24% of new HIV diagnoses in 2021. Of the 30 non-Hispanic Black/African Americans diagnosed in 2021, 12 (40%) were non-US-born.

Males accounted for 16 (89%) of the 18 U.S-born non-Hispanic Black/African American people diagnosed in 2021, and among these, 10 (63%) identified as men who have sex with men (MSM) while the exposure category of two is yet to be determined. Among non-US-born Black/African Americans, 7 (58%) of the 12 diagnosed in 2021 were females. The 30 non-Hispanic Black/African American people diagnosed with HIV in 2021 equates to 25 diagnoses per 100,000 non-Hispanic Black/African American population. When the numbers of people diagnosed per 100,000 population are compared, non-Hispanic Black/African Americans were more than 10 times more likely to have been diagnosed with HIV in 2021 than non-Hispanic White Iowans.

The number of Hispanic/Latinx people diagnosed with HIV increased from 5 (5% of all people diagnosed) in 2020 to 20 (16% of all people diagnosed) in 2021. The 20 Hispanic/Latinx people diagnosed in 2021 is the highest number of Hispanic/Latinx people diagnosed in a single year in Iowa since the beginning of the HIV epidemic. Of the 20 Hispanic/Latinx people diagnoses in 2021, 18 (90%) were males. Hispanic/Latinx people represent 6% of Iowa's population and experienced 16% of HIV diagnoses in 2021, and 10% of new HIV diagnoses on average from 2016 to 2020. Of the 20 Hispanic/Latinx persons diagnosed in 2021, 11 (55%) were non-US born. Diagnoses among U.S-born Hispanic/Latinx people increased from 1 in 2020 to 9 diagnoses in 2021. All of the 9 U.S-born Hispanic/Latinx people diagnosed in 2021 were males, and 8 were MSM. Diagnoses among non-U.S-born Hispanic/Latinx people increased from 4 in 2020 to 11 diagnoses in 2021. Of the 11 non-U.S-born Hispanic/Latinx people diagnosed in 2021, 9 (82%) were males and of these, 7 (78%) were MSM. The 20 Hispanic/Latinx people diagnosed with HIV in 2021 equate to 10 per 100,000 Hispanic/Latinx people, which means that Hispanic/Latinx people were more than 4 times likely to have been diagnosed with HIV in 2021 as those who are White and non-Hispanic.

The number of non-Hispanic Asian people in Iowa who are diagnosed with HIV is low and primarily influenced by immigration. Of all non-Hispanic Asian people diagnosed with HIV since 2011, 82% were non-US born. In 2020, four (67%) of the six non-Hispanic Asian people diagnosed were US-born compared to two (25%) of the eight non-Hispanic Asian persons diagnosed in 2021. The number of non-Hispanic Asian persons diagnosed reached a peak in 2021 at eight diagnoses. Non-Hispanic Asian persons make up about 3% of Iowa's population, but experienced 6% of HIV diagnoses in 2021, higher than the 3% of total HIV diagnoses on average from 2016 to 2020. The eight non-Hispanic Asian persons diagnosed with HIV in 2021 equates to 9.7 diagnoses per 100,000 non-Hispanic Asian people, more than four times higher than for white, non-Hispanic Iowans.

The largest proportion of people diagnosed with HIV in Iowa continues to be White, non-Hispanic Iowans, even though the proportion experienced among this population has dropped significantly in recent years. Of the 124 people diagnosed with HIV in 2021, 63 (51%) were among non-Hispanic white people, compared to the five-year average (2016 through 2020) of 61 (53%). Since the beginning of the epidemic in 1982, non-Hispanic White people made up 69% of all people diagnosed with HIV in Iowa. The 63 non-Hispanic, White people diagnosed in 2021 equate to 2.3 diagnoses per 100,000 non-Hispanic, White people, among the lowest of any racial or ethnic group in Iowa.

As described previously, communities of color in Iowa bear a disproportionate burden of HIV. Numerous national research studies demonstrate that this is *not* because people of color engage in higher rates of behaviors that put them at risk for HIV acquisition. Rather, numerous systemic factors contribute to disproportionate rates of HIV in communities of color. Some of these factors include poverty, residential segregation, historical trauma, immigration status, racism, homophobia, disproportionate rates of incarceration, and stigma. These social determinants of health lead to higher probabilities of having a sexual or needle-sharing partner with transmissible levels of HIV.

HIV and COVID-19 co-infection

Of the 3,077 people living with HIV in Iowa at the end of 2021, 1,658 (55%) had been tested for COVID-19. Of these, 291 were diagnosed with COVID-19, an 18% positivity rate. Black/African American people living with HIV made up a disproportionate number of people co-infected with COVID-19 at 32% of people with co-infections, compared to 24% of people with HIV. Hispanic/Latinx Iowans accounted for 12% of people with co-infections compared to 10% of people with HIV.

After a sharp 54% decline in HIV testing at the state's 10 contracted Integrated HIV and Hepatitis C Testing Sites from 2019 to 2020 due to clinic closures and redeployment of staff from HIV/STD initiatives towards the Covid-19 mitigation effort, testing strategies were quickly implemented to increase HIV testing while adapting to the ongoing Covid-19 environment. As a result, HIV tests administered at the integrated testing sites increased by 33% from 6,089 in 2020 to 8,124 in 2021 but remained 34% lower than the 13,141 HIV tests administered in 2019, the pre-pandemic year.

Despite the lowest HIV tests administered in 2020 and 2021 at the 10 integrated testing sites, HIV diagnoses increased in these two years compared to 2019 from 17 new cases (0.13 positivity) in 2019, 21 new cases in 2020 and 30 new cases in 2021.

Social Determinants of Health

Social Determinants of Health (SDOH)



Social determinants of health (SDOH) are the conditions in the places where people are born, live, learn, work, play, and age, that affect a wide range of health, functioning, and quality-of-life outcomes and risks.¹ These conditions are in turn shaped by political, social, and economic forces.

The marked health inequities between communities and populations are undergirded by the unequal distribution of power, income, goods, and services, and the consequent unfairness in the immediate, visible circumstances of people's lives.² These circumstances influence their access to health care, schools, and education, the conditions of their work and leisure, their homes, communities, towns, or cities.

Healthy People 2030 has identified a place-based framework that identifies five main SDOH focus areas:

Economic stability, healthcare access and quality, neighborhood and built environment, education access and quality, and social and community context.³

Studies assessing the relationship between HIV diagnosis rates and social determinants of health have found that HIV diagnosis rates among specific populations increased when the following factors increased: income inequality between the population and the general population, the proportion of a population that is unmarried, the number of uninsured people, the number of vacant housing units, the proportion of people 25 years and older without high school diploma, and the number of households under the federal poverty level.⁴

1. Centers for Disease Control and Prevention (2018). Social Determinants of Health: Know What Affects Health. Retrieved from <https://www.cdc.gov/socialdeterminants/index.htm>
2. Commission of Social Determinants of Health, Final Report, Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health (2008) World Health Organization, WHO Press
3. Healthy People 2030, Social Determinants of Health <https://health.gov/healthypeople/objectives-and-data/social-determinants-health> last accessed 06/11/2021
4. Z. Gant, M. Lomotey, H.J. Hall, X. Hu, X. Guo and R. Song, A County-Level Examination of the Relationship Between HIV and Social Determinants of Health: 40 States, 2006-2008, The Open AIDS Journal, 2012 (6)

HIV exposure category

Men who have sex with men (MSM) remained the leading exposure category for people with HIV in Iowa. Of the 124 people diagnosed with HIV in 2021, 58 (47%) of diagnoses were among MSM, less than the previous five-year average of 62 (54%). Overall, MSM have experienced more than half of all diagnoses since the beginning of the epidemic in Iowa, and account for 54% of Iowans living with HIV. Considering all MSM (MSM plus MSM/PWID), there were 67 new diagnoses (54%) in 2021 among this group.

The increase in diagnoses among MSM in 2021 was primarily experienced among Latino men, non-Hispanic Black/African-American men, and non-Hispanic White men. Of the 18 Hispanic/Latino males diagnosed in 2021, 15 (75%) were MSM, and of these, 8 are US-born. Of the 21 non-Hispanic Black/African-American males diagnosed in 2021, 10 (48%) were MSM, and all MSM were US born. Similarly, of the 54 non-Hispanic White males diagnosed in 2021, 40 (74%) were MSM and all of the non-Hispanic White people diagnosed in 2021 were US-born. All three non-Hispanic Asian males diagnosed in 2021 were non-US born, and none was MSM.

There was also a slight increase in diagnoses among people who inject drugs in 2021. Diagnoses increased by 8% from 13 in 2020 to 14 in 2021. Historically, this number has remained low in Iowa at around 7% of all diagnoses, but increased to 11% in 2021. This trend will be closely monitored. Considering all PWID (PWID plus MSM/PWID), there were 23 people diagnosed (18% of new diagnoses) in 2021 among this group.

The proportions of other HIV exposure categories of people diagnosed in 2021 were as follows: men who have sex with men and inject drugs (MSM/PWID), 7%; heterosexual contact, 26%; and no identified risk (NIR), 9%. Experience has shown that while newly diagnosed people may initially be reluctant to disclose their likely mode of HIV exposure to their health care provider or to health department staff, they become less reticent as time progresses. Some exposures will be ascertained over time through follow-up calls to care providers. By the end of 2021, exposure category will be ascertained for many of the remaining people diagnosed in 2021. There have been no pediatric HIV diagnoses in Iowa since 2017.

Transgender Diagnoses

The number of transgender people diagnosed with HIV in Iowa is very small. There have been a total of 24 transgender people diagnosed with HIV in Iowa since the beginning of the epidemic. The highest number of diagnoses among transgender people was in 2020 when 3 transgender people were diagnosed with HIV. Of the 24 transgender people diagnosed, 20 (83%) were Male-to-Female transgender persons, and all 20 were transgender females who had sex with other men.

As of December 31, 2021, there were 38 transgender people with a current address in Iowa who were diagnosed and living with HIV. This means that people who were diagnosed outside of Iowa later moved to the state. Of the 38 transgender people living with HIV in Iowa, 32 (84%) were Male-to-Female transgender persons, and 31 of the 32 were transgender females who had sex with other men.

Late testers

The proportion of people diagnosed with AIDS within three months of their initial HIV diagnosis ("late testers") decreased by two percentage points from 2020 to 2021 (from 26 to 24%). Overall, late diagnoses have decreased significantly since 2013, when 46% of people diagnosed were considered to be

late testers. In 2021, 24% of people diagnosed were late testers, the third lowest proportion ever reported. This is further confirmation that people at risk for HIV are getting timelier access to testing.

HIV prevalence

As of December 31, 2021, there were 3,077 people with a current address in Iowa who were diagnosed and living with HIV, a prevalence of 96 per 100,000 people. This number includes all people whose current addresses were in Iowa at the end of 2021. It includes people diagnosed in Iowa plus people who were initially diagnosed while living in another state, but who now reside in Iowa. When the number of 3,077 is adjusted for our estimated percentage of undiagnosed persons in Iowa (14%), there may have been as many as 3,578 Iowans living with HIV or AIDS at the end of 2020, with an estimated 501 people undiagnosed.

As of December 31, 2021, 94 of Iowa's 99 counties had at least one resident living with HIV. Prevalence in six counties was greater than 100 per 100,000 people (0.1%). Polk County, with 184 per 100,000, has the highest prevalence, followed by Pottawattamie County (141 per 100,000), and Scott County (133 per 100,000). To add perspective, national and regional prevalence data at the end of 2018, the most recent year available, are as follows: United States, 379.7 per 100,000; Midwest, 183.3 per 100,000; West, 265.1 per 100,000; South, 378.7 per 100,000; and Northeast, 422.5 per 100,000. (Centers for Disease Control and Prevention. *HIV Surveillance Report, 2019*; vol. 32. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2021.)

Deaths of People with HIV/AIDS

The number of deaths among people diagnosed with HIV or AIDS in Iowa continues to decrease since peaking at 101 deaths in 1995. As of December 31, 2021, 1,394 deaths had been reported among people diagnosed with HIV or AIDS in Iowa. Of those deaths, 57% were caused in some part by the underlying HIV disease, 37% of deaths were not HIV related, and the causes of death of 6% were unknown. Additional death information may be obtained after the National Death Index data linkage is completed later in 2022.

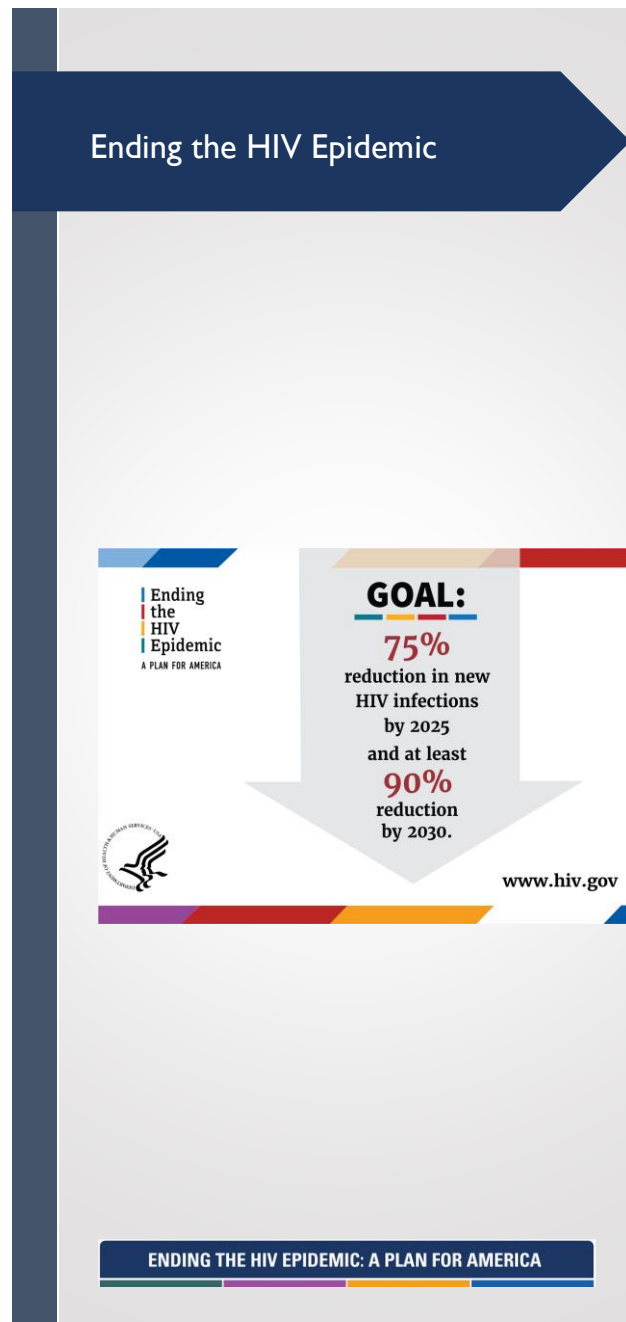
Continuum of HIV Care

A continuum of HIV care was assessed using 2021 HIV care data for people diagnosed with HIV on or before December 31, 2020. People newly diagnosed with HIV during the course of 2021 are not included in the continuum of care analysis. Therefore, as of December 31, 2020, there were 2,950 people diagnosed with HIV disease and living in Iowa at the end of 2021. Of these, 2,559 (87%) were retained in HIV care (i.e., had at least two visits to an HIV primary medical care provider during year 2021 3 months apart or 1 visit with a suppressed viral load) and 2,429 (82%) were virally suppressed. This is significantly higher than many parts of the country. National estimates vary with around 65% of people with suppressed virus. Among Iowans who are retained in care in 2021, viral suppression is 95%.

HIV Partner Services

All of the 124 persons newly diagnosed with HIV disease in 2021 were assigned for partner services and all were interviewed by a disease intervention specialist (DIS) from the state or one of four counties (Black Hawk, Linn, Polk, and Scott). The goal of partner services is to have a DIS contact the patient to provide education about HIV care and services, link the patient to care, and offer assistance in notifying and testing sex and needle-sharing partners. The 124 persons assigned for partner services named 177 partners. Of these, 130 were located in Iowa and were of unknown HIV statuses. Of the remaining 47, 26 lived out of state and 21 were already known to be diagnosed with HIV. Of the 130 contacts with unknown HIV statuses, 80 (62%) were subsequently tested, and nine were found to be HIV positive (11% positivity).

Ending the HIV epidemic



The adverse health impacts of HIV, viral hepatitis, STIs, and TB continue to be an urgent public health priority. The national Ending the HIV Epidemic (EHE) plan prioritizes increased testing and early diagnosis, rapid connection to treatment and medical care, utilization of prevention services to reduce the chances of transmission, and fast response to HIV clusters and outbreaks.

Section 3: TABLES AND FIGURES

TABLE 3.1 IOWANS DIAGNOSED WITH HIV OR AIDS IN 2021, DYING WITH HIV IN 2021, AND IOWANS LIVING WITH HIV DISEASE AS OF DECEMBER 31, 2021

Characteristics	HIV Disease Diagnoses ¹		AIDS Diagnoses ²		Deaths ³		People Living with HIV Disease ⁴	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)
Sex at Birth								
Male	98	(79)	38	(72)	24	(77)	2,389	(78)
Female	26	(21)	15	(28)	7	(23)	688	(22)
Age at Diagnosis								
Under 13	0	--	0	--	0	--	54	(2)
13-14	0	--	0	--	0	--	4	--
15-24	18	(15)	9	(17)	3	(10)	570	(19)
25-34	40	(32)	10	(19)	5	(16)	1,085	(35)
35-44	28	(22)	18	(34)	11	(36)	794	(26)
45-54	21	(17)	5	(9)	5	(16)	400	(13)
55-64	11	(9)	7	(13)	5	(16)	141	(5)
65 or older	6	(5)	4	(8)	2	(6)	29	(1)
Ethnicity/Race								
Hispanic/Latinx, All Races	20	(16)	7	(13)	4	(13)	308	(10)
White, Not Hispanic	63	(51)	24	(45)	19	(61)	1,809	(59)
Black/African American, Not Hispanic	30	(24)	19	(36)	7	(23)	732	(24)
Asian, Not Hispanic	8	(6)	2	(4)	1	(3)	78	(3)
Native Hawaiian/Pacific Islander, Not Hispanic	2	(2)	0	--	0	--	7	--
American Indian/Alaska Native, Not Hispanic	0	--	0	--	0	--	9	--
Multi-race, Not Hispanic	1	(1)	1	(2)	--	--	134	(4)
Country of Birth								
United States or Dependency	95	(77)	41	(77)	26	(84)	2,453	(80)
Other Countries	29	(23)	12	(23)	5	(16)	624	(20)
Mode of Exposure⁵								
Men who have sex with men (MSM)	58	(47)	23	(44)	11	(36)	1,649	(54)
People who inject drugs (PWID)	14	(11)	0	--	6	(19)	225	(7)
MSM and Injection Drug Use (MSM/PWID)	9	(7)	7	(13)	2	(6)	218	(7)
Heterosexual Contact	32	(26)	15	(28)	7	(23)	595	(19)
Hemophilia/Coagulation disorder	0	--	0	--	0	--	6	--
Receipt of blood or tissue	0	--	0	--	0	--	3	--
Risk not reported/Other (NIR)	11	(9)	8	(15)	5	(16)	330	(11)
Pediatric/Other	0	--	0	--	0	--	51	(2)
TOTALS	124	(100)	53	(100)	31	(100)	3,077	(100)

¹ **HIV disease diagnoses** reflect all people diagnosed with HIV disease for the first time, regardless of AIDS statuses, who were residing in Iowa at time of diagnosis. Some people may also be counted in the AIDS diagnoses column if they received AIDS diagnoses during the same period of time. Age is the age at time of first diagnosis of HIV.

² **AIDS diagnoses** reflect all people who first met the criteria for AIDS while residing in Iowa, regardless of where they were residing when first diagnosed with HIV disease or when the diagnosis was reported to Iowa HHS. Age is age at time of first diagnosis of AIDS.

³ **Deaths** reflect deaths in 2021 of people diagnosed in Iowa with HIV disease. Includes both HIV- and non-HIV-related causes of death. All deaths may not have been reported.

⁴ **People living with HIV disease** reflect HIV-diagnosed people (HIV or AIDS) living in the state of Iowa and alive as of December 31, 2021. All deaths may not have been reported.

⁵ **Exposure:** A person diagnosed at 13 years of age or older (adult/adolescent) may have had a pediatric exposure. In such an instance, the person would be classified as adult/adolescent at time of diagnosis, but would be listed under pediatric exposures.

TABLE 3.2 IOWANS DIAGNOSED WITH HIV BY SEX, AGE, RACE AND ETHNICITY, COUNTRY OF BIRTH, AND MODE OF EXPOSURE TO HIV: 2012 THROUGH 2021

Characteristics	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Sex at Birth										
Male	98	78	71	85	101	104	97	78	87	97
Female	26	21	27	31	24	32	26	20	32	21
Age in Years at Diagnosis										
Under 13	0	0	0	0	0	4	0	2	0	2
13-14	0	0	0	1	0	0	0	0	0	0
15-24	18	26	22	19	32	28	32	18	16	21
25-34	40	31	24	45	40	43	28	27	29	33
35-44	28	22	27	25	15	28	26	18	24	27
45-54	21	14	8	15	21	20	22	17	28	24
55-64	11	1	13	8	15	12	13	14	17	9
65 or older	6	5	4	3	2	1	1	2	5	2
Ethnicity/Race										
Hispanic/Latinx, All Races	20	5	12	14	15	9	15	10	9	8
White, Not Hispanic	63	55	47	64	64	74	74	68	73	75
Black/African American, Not Hispanic	30	24	29	33	38	44	23	11	23	26
Asian, Not Hispanic	8	6	2	1	3	5	6	1	8	4
Native Hawaiian/Pacific Islander, Not Hispanic	0	2	2	0	0	0	0	0	0	0
American Indian/Alaska Native, Not Hispanic	2	0	1	1	0	0	0	0	0	0
Multi-race, Not Hispanic	1	7	5	3	5	4	4	8	6	5
Country of Birth										
United States or Dependency	95	83	71	94	102	97	94	84	95	98
Other Countries	29	16	27	22	23	39	28	14	24	20
Mode of Exposure – Adult/Adolescent²										
Men who have sex with men (MSM)	58	55	45	65	71	76	74	60	71	66
People who inject drugs (PWID)	14	13	8	6	7	4	10	8	8	11
MSM and Injection Drug Use (MSM/PWID)	9	6	7	9	10	8	6	5	3	11
Heterosexual Contact	32	18	27	33	28	33	24	20	33	22
Hemophilia/Coagulation disorder	0	0	0	0	0	0	0	0	0	0
Receipt of blood or tissue	0	0	0	0	0	0	0	0	0	0
Risk not reported/Other (NIR)	11	7	11	3	9	11	8	3	4	6
Pediatric/other	0	0	0	0	0	4	0	2	0	2
TOTALS	124	99	98	116	125	136	122	98	119	118

¹ HIV diagnoses reflect all people diagnosed with HIV disease for the first time, regardless of AIDS status, who were residing in Iowa at the time of diagnosis.

² People diagnosed as adolescents or adults may have had pediatric exposures. If so, they will be classified as adult/adolescent at time of diagnosis, but listed under pediatric exposures.

TABLE 3.3 IOWA MALES 13 YEARS OF AGE AND OLDER
DIAGNOSED WITH HIV: 2007 THROUGH 2021

Characteristics	Year of HIV Diagnosis											
	2021		2020		2019		2018		2017		2007 through - 2016	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
Age at Diagnosis												
13-14	0	--	0	--	0	--	0	--	0	--	0	--
15-24	15	(15)	18	(23)	18	(25)	14	(16)	26	(26)	169	(18)
25-34	34	(35)	29	(37)	17	(24)	37	(44)	36	(36)	251	(27)
35-44	19	(19)	19	(24)	18	(25)	15	(18)	10	(10)	227	(24)
45-54	17	(17)	7	(9)	3	(4)	10	(12)	17	(17)	183	(19)
55-64	9	(9)	1	(1)	12	(17)	7	(8)	10	(10)	92	(10)
65 or older	4	(4)	4	(5)	3	(4)	2	(2)	2	(2)	14	(2)
Ethnicity/Race												
Hispanic/Latinx, All Races	18	(18)	5	(6)	8	(11)	11	(13)	13	(13)	88	(9)
White, Not Hispanic	54	(55)	45	(58)	40	(56)	52	(61)	56	(55)	655	(70)
Black/African American, Not Hispanic	21	(21)	15	(19)	16	(23)	20	(24)	24	(25)	127	(13)
Asian, Not Hispanic	3	(3)	6	(8)	2	(3)	1	(1)	3	(3)	25	(3)
Multi-race, Not Hispanic	1	(1)	5	(5)	3	(4)	1	(1)	5	(4)	40	(4)
Other, Not Hispanic	1	(1)	2	(3)	2	(3)	0	--	0	--	1	(1)
Country of Birth												
United States or Dependency	81	(83)	67	(86)	56	(79)	72	(85)	83	(82)	807	(86)
Other Countries	17	(17)	11	(14)	15	(21)	13	(15)	18	(18)	129	(14)
Mode of Exposure												
Men who have sex with men (MSM)	58	(59)	55	(71)	45	(63)	65	(76)	71	(70)	676	(72)
People who injects drugs (PWID)	10	(10)	9	(12)	4	(6)	2	(2)	5	(5)	56	(6)
MSM and Injection Drug Use	9	(9)	6	(8)	7	(10)	9	(11)	10	(10)	68	(7)
Heterosexual Contact	14	(14)	6	(8)	8	(11)	8	(9)	9	(9)	78	(8)
Blood, blood products, tissue	0	--	0	--	0	--	0	--	0	--	0	--
Risk not reported(NIR)/Other	7	(7)	2	(3)	7	(10)	1	(1)	6	(6)	58	(6)
All MSM (MSM + MSM/PWID)	67	(68)	61	(79)	52	(73)	74	(87)	81	(80)	744	(79)
All PWID (PWID + MSM/PWID)	19	(19)	15	(20)	11	(15)	11	(13)	15	(15)	124	(13)
TOTALS	98	(100)	78	(100)	71	(100)	85	(100)	101	(100)	936	(100)

As shown in the Table 3.3, diagnoses among adult and adolescent males increased in 2020 and 2021 among US-born males, but only in 2021 among non-US-born males. Males aged 25 to 44 years experienced more than half (51%) of all adult/adolescent (≥ 13 years of age at time of diagnosis) diagnoses among males from 2007 through 2021. More than 70% of males diagnosed annually since 2011 were mostly exposed through sex with other men. Diagnoses among non-US-born males in 2021 accounted for 17% of all diagnoses among males in 2021, up from 14% in 2020.

TABLE 3.4 IOWA FEMALES 13 YEARS OF AGE AND OLDER
DIAGNOSED WITH HIV: 2007 THROUGH 2021

Characteristics	Year of HIV Diagnosis											
	2021		2020		2019		2018		2017		2007 through 2016	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
Age at Diagnosis												
13-14	0	--	0	--	0	--	1	(3)	0	(0)	0	--
15-24	3	(10)	8	(40)	4	(15)	5	(16)	6	(25)	43	(19)
25-34	6	(23)	2	(5)	7	(26)	8	(26)	4	(17)	74	(33)
35-44	9	(35)	3	(15)	9	(33)	10	(32)	5	(21)	45	(20)
45-54	4	(15)	7	(35)	5	(19)	5	(16)	4	(17)	38	(17)
55-64	2	(8)	0	--	1	(4)	1	(3)	5	(21)	19	(9)
65 or older	2	(8)	1	(5)	1	(4)	1	(3)	0	--	5	(2)
Ethnicity/Race												
Hispanic, All Races	2	(8)	0	--	4	(15)	3	(10)	2	(8)	15	(7)
Not Hispanic, White	9	(35)	10	(50)	7	(26)	12	(39)	8	(33)	90	(40)
Not Hispanic, Black/African American	9	(35)	9	(45)	13	(48)	13	(42)	14	(58)	93	(41)
Not Hispanic, Asian	5	(19)	0	--	0	--	0	--	0	--	15	(7)
Not Hispanic, Multi-race	0	--	2	(5)	2	(7)	2	(6)	0	--	11	(5)
Other	1	(3)	0	--	1	(4)	1	(3)	0	--	0	--
Country of Birth												
United States or Dependency	14	(54)	16	(80)	15	(56)	22	(71)	19	(79)	140	(62)
Other Countries	12	(46)	5	(20)	12	(44)	9	(29)	5	(21)	84	(38)
Mode of Exposure												
People who inject drugs (PWID)	4	(15)	4	(20)	4	(15)	4	(13)	2	(8)	24	(11)
Heterosexual Contact	18	(70)	12	(40)	19	(70)	25	(81)	19	(79)	175	(78)
Risk not reported/Other (NIR)	4	(15)	5	(40)	4	(15)	2	(6)	3	(13)	25	(11)
TOTALS	26	(100)	21	(100)	27	(100)	31	(100)	24	(100)	224	(100)

Diagnoses among females remained below 30, on average, from 2007 through 2021, as shown in Table 3.4. Females aged 25 to 44 years experienced more than half of all adult/adolescent (≥ 13 years of age at time of diagnosis) diagnoses among females from 2007 through 2021. Diagnoses among non-US-born females in 2021 accounted for 46% of all diagnoses among females, and increased by 140% from 2020 to 2021. Heterosexual contact is the most common mode of exposure for women in Iowa.

TABLE 3.5 IOWANS DIAGNOSED WITH HIV IN 1982 THROUGH 2020 BY DIAGNOSTIC STATUS AT DEATH (HIV OR AIDS) AND UNDERLYING CAUSE OF DEATH (UCD)

Year	HIV ¹ Diagnoses	HIV (not- AIDS) Deaths ²	AIDS Deaths ³	Total Deaths	UCD ⁴ (HIV)	UCD (Other)	UCD (Unknown)
1982	1		1	1	0	1	0
1983	1		1	1	0	1	0
1984	25		3	3	0	2	1
1985	56		6	6	0	5	1
1986	61		15	15	0	14	1
1987	64		19	19	14	3	2
1988	69		8	8	6	2	0
1989	81		13	13	10	2	1
1990	111		23	23	13	9	1
1991	134		57	57	44	10	3
1992	125		63	63	51	11	1
1993	98	1	75	76	61	13	2
1994	101	1	83	84	62	18	4
1995	87	2	99	101	76	22	3
1996	104	2	64	66	52	9	5
1997	104	1	29	30	19	9	2
1998 ⁵	98	2	17	19	10	8	1
1999	84	2	23	25	15	8	2
2000	89	2	28	30	20	8	2
2001	96	4	32	36	20	14	2
2002	102	2	33	35	27	8	0
2004	87	5	30	35	16	18	1
2004	104	3	30	33	25	7	1
2005	112	6	22	28	18	10	0
2006	109	2	23	25	11	13	1
2007	122	7	29	36	20	14	2
2008	100	5	19	24	16	8	0
2009	127	6	28	34	16	15	3
2010	114	5	22	27	16	8	3
2011	118	8	25	33	18	14	1
2012	118	7	30	37	20	15	2
2013	119	11	35	46	20	24	2
2014	98	5	42	47	22	20	5
2015	122	9	22	31	14	16	1
2016	136	5	29	34	12	21	1
2017	125	11	26	37	17	19	1
2018	116	9	39	48	11	33	4
2019	98	15	37	52	13	38	1
2020	99	8	37	45	11	24	10
2021 ⁶	124	5	26	31	4	19	8

¹ Diagnoses reflect all people diagnosed with HIV for the first time, regardless of AIDS statuses, who were residents of Iowa at time of diagnosis.

² Data include people whose diagnosis statuses at time of death were HIV (not-AIDS). Fewer than 11% of deaths occur in people whose diagnostic statuses at the time of death are HIV (not-AIDS). People may have been diagnosed in any year up to and including the year of death.

³ Data include people who have AIDS diagnoses at time of death. Greater than 89% of deaths occur in people who have AIDS diagnoses at the time of death. People may have been diagnosed in any year up to and including the year of death.

⁴ The underlying HIV infection is listed on the death certificate as a cause of death in 57% of people diagnosed with HIV in Iowa.

⁵ HIV infection became reportable by name in 1998.

⁶ Death data for 2021 are incomplete. Matching data to the National Death Index files in 2022 may provide more complete death data.

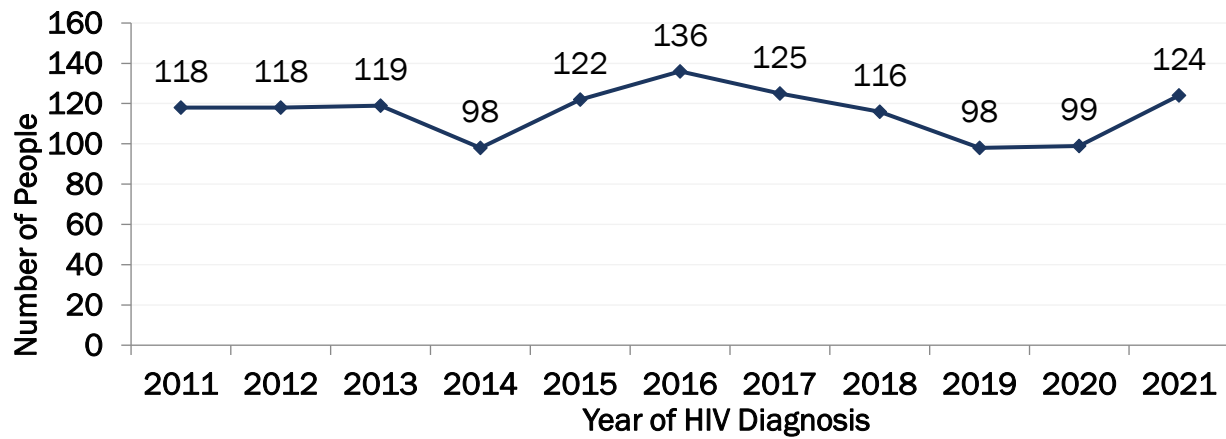
TERMS:

UCD (HIV) – underlying HIV infection was listed on the death certificate as contributing to the death of the individual.

UCD (Other) – underlying HIV infection was not listed as contributing to death of the individual.

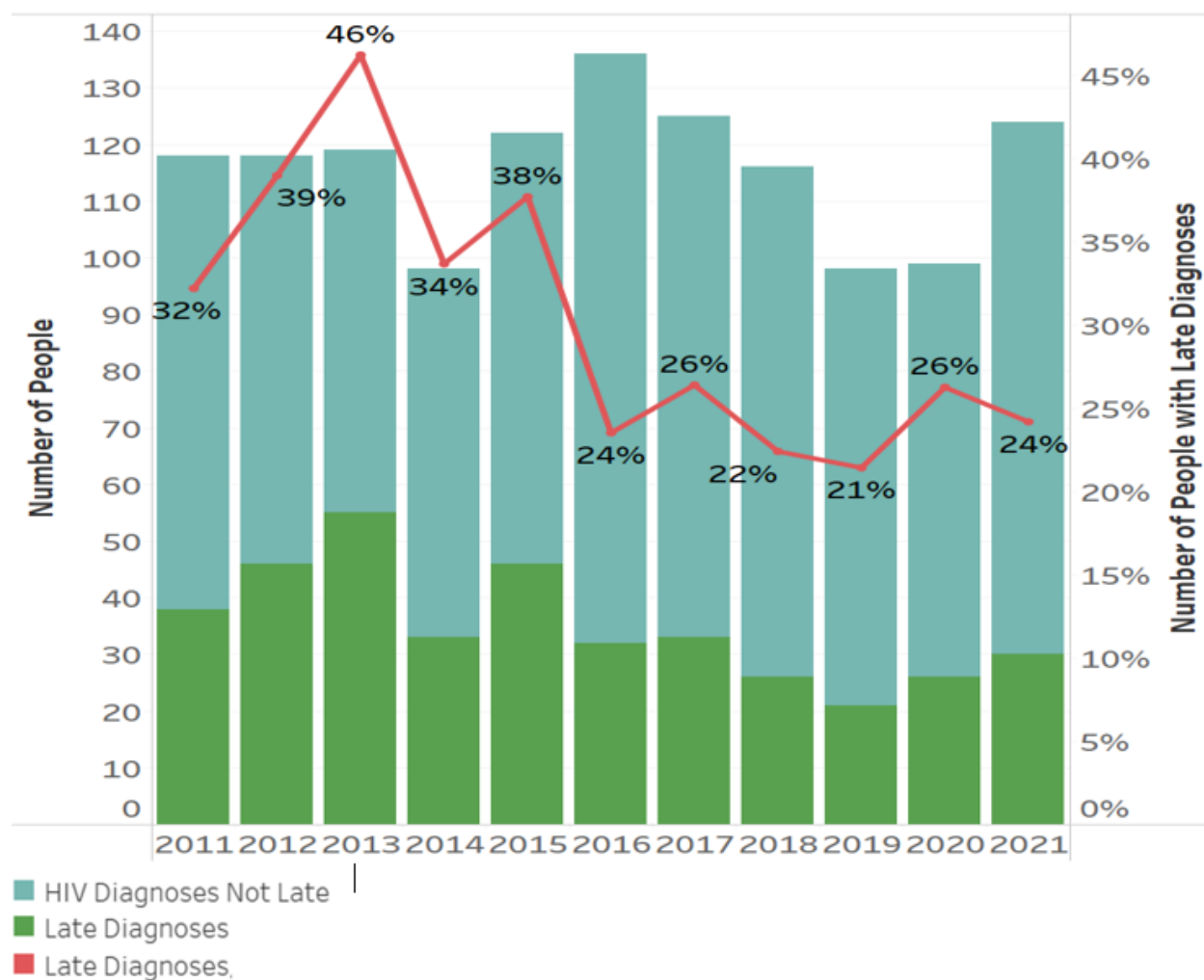
UCD (Unknown) – Cause of death is unknown.

FIGURE 3.1 IOWANS DIAGNOSED WITH HIV: 2011 THROUGH 2021



After peaking at 136 diagnoses in 2016, Iowa experienced four consecutive years without increases in diagnoses of HIV through 2020. HIV diagnoses increased 25% from 2020 to 2021.

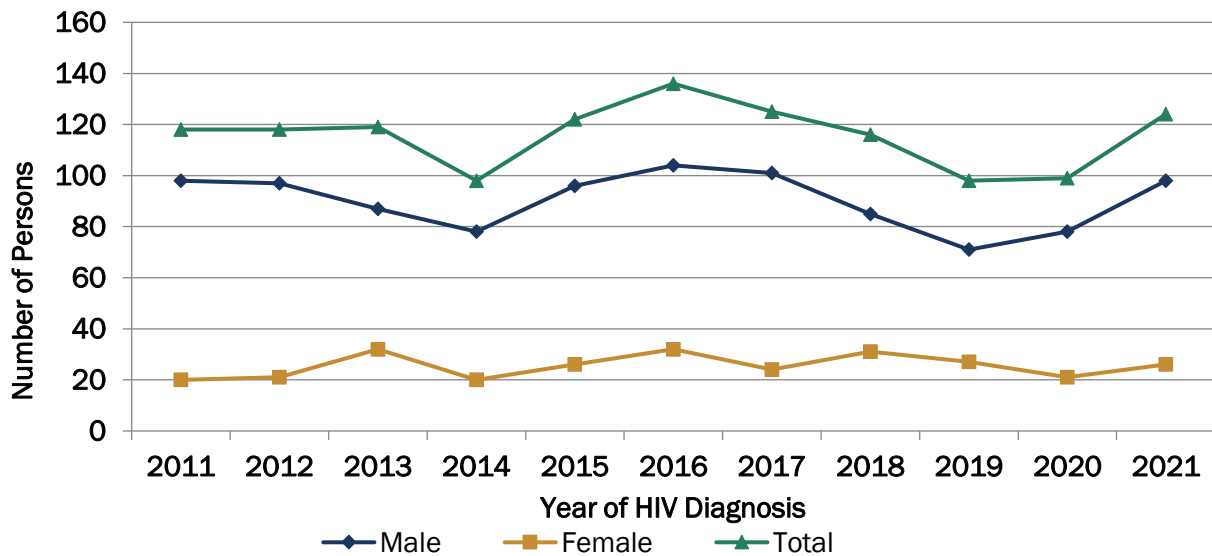
FIGURE 3.2 NUMBER AND PERCENTAGE OF IOWANS DIAGNOSED LATE WITH HIV ("LATE TESTERS"): 1998 THROUGH 2021



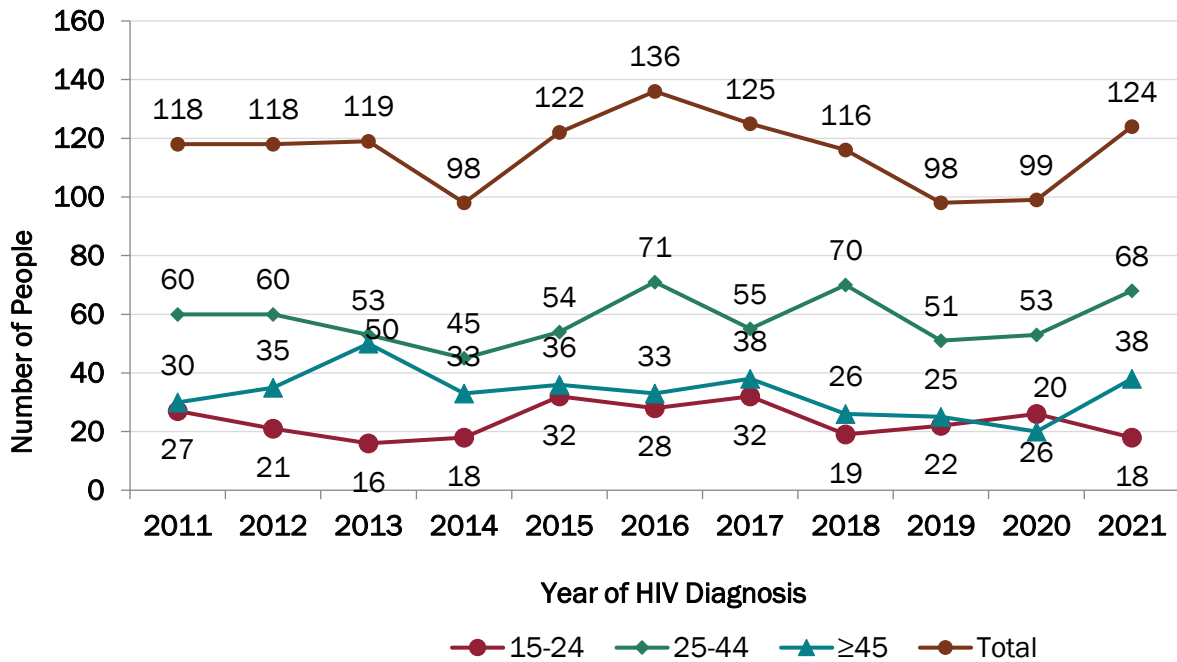
“Late testers” are people who receive AIDS diagnoses within three months of their HIV diagnoses. The proportion of late testers has been decreasing and reached its lowest level ever reported at 21% in 2019. Although the proportion of late testers increased to 26% in 2020, it dropped to 24% in 2021. It has remained consistently below 30% since 2015. Over 90% of “late testers” in Iowa were diagnosed with AIDS concurrently, meaning within one month of their HIV diagnoses.

From 2011 through 2021, there were, on average, four males diagnosed for every female diagnosed with HIV. Men experienced a 26% increase in diagnoses in 2021, with the highest percentage increase among non-US-born males (55%) compared to US-born males (21%). Women experienced a 24% increase in diagnoses in 2021, but solely among non-US-born females (140%). US-born women saw a decrease of 13% in diagnoses. Overall, non-US-born persons showed the highest percentage increase in diagnoses (81%) than US-born persons (14%) showed in 2021.

FIGURE 3.3 IOWANS DIAGNOSED WITH HIV BY SEX: 2011 THROUGH 2021

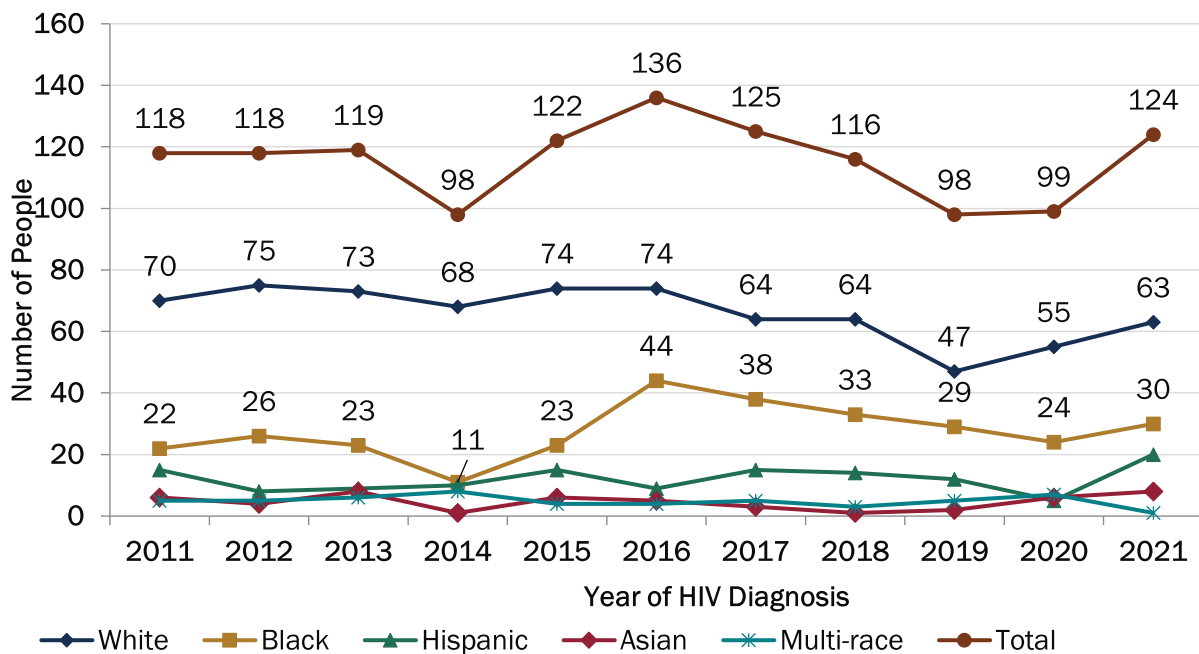


On average, over half of all people diagnosed with HIV annually are between 25 to 44 years of age. Individuals aged between 15 to 24 years experienced a decrease in diagnoses in 2021 (31%), the first annual decrease in diagnoses in this age group since 2018. Those who reported their ages as 45 years or above experienced a highest percentage increase in diagnoses (90%) in 2021. The majority of new diagnoses (55%) was among those 25 to 44 years of age in 2021, and there were twice as many diagnoses among those 45 years as older when compared to those 15 to 24 years of age.



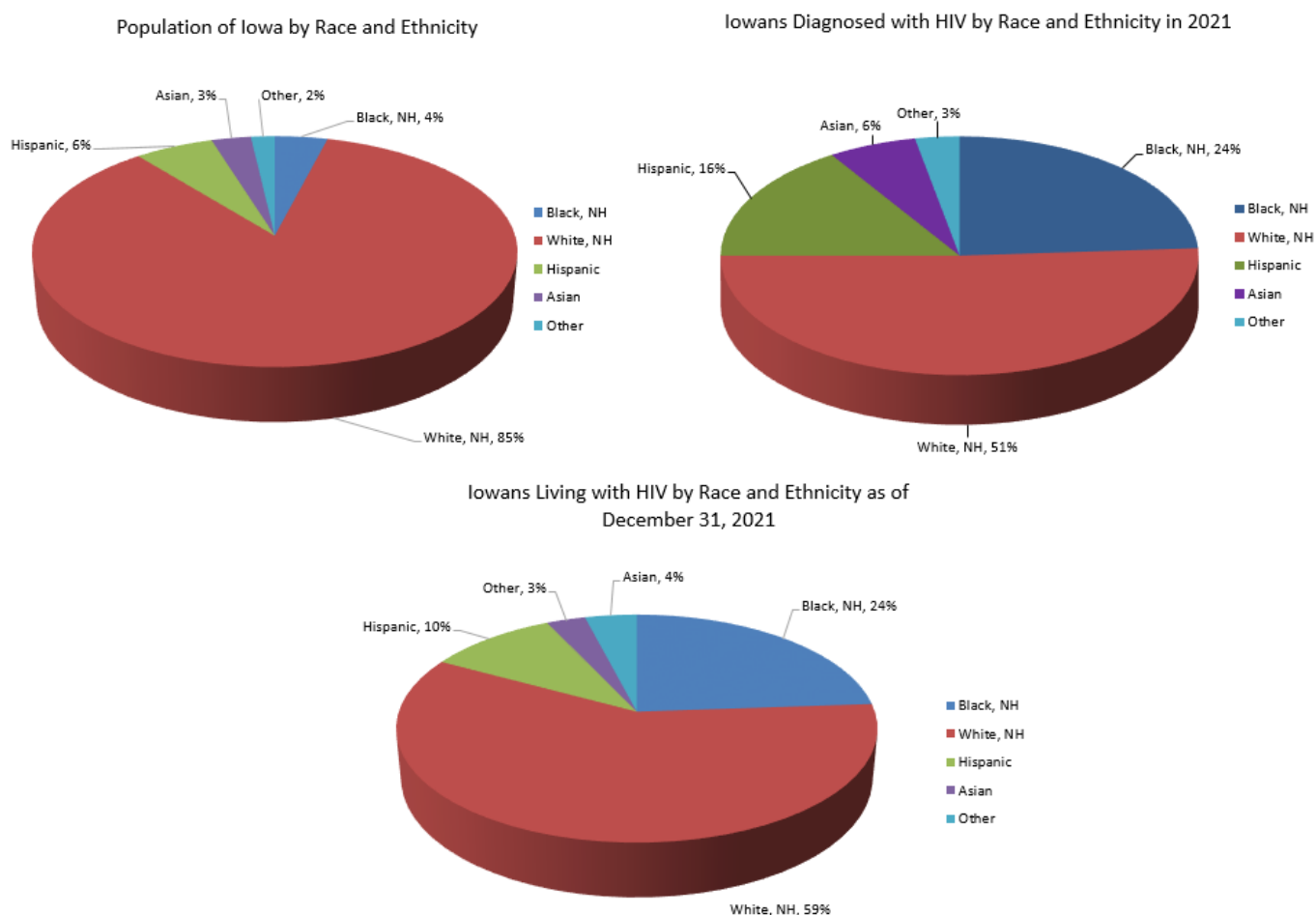
Diagnoses among non-Hispanic Black/African-American people increased 25% in 2021 after consistently decreasing for the four years in a row from a high of 44 (32% of all people diagnosed with HIV) in 2016 to 23 (23% of all diagnoses) in 2020. Twelve (40%) of the 30 non-Hispanic Black/African American people diagnosed in 2021 were non-US born. Of the 20 Hispanic/Latinx people diagnosed in 2021, eleven (55%) were non-US born. Non-Hispanic white people make up the largest proportion of people diagnosed with HIV in Iowa, but this proportion decreased from a high of 75 (64% of all diagnoses) in 2012 to 63 (51% of all diagnoses) in 2021. Despite this, non-Hispanic White Iowans experienced the smallest percentage increase in diagnoses in 2021 (15%) compared to Hispanic/Latinx people, non-Hispanic Black/African American people, and non-Hispanic Asian people.

FIGURE 3.4 IOWANS DIAGNOSED WITH HIV BY RACE AND ETHNICITY: 2011 THROUGH 2021



About 85% of Iowa's population is white and non-Hispanic. Hispanic/Latinx, Non-Hispanic Black/African Americans, and non-Hispanic Asian lowans are over-represented among people diagnosed with HIV in comparison to the sizes of their respective populations in Iowa. Non-Hispanic Blacks/African Americans represent 4% of Iowa's population but experienced 24% of HIV diagnoses reported in 2021. Hispanic/Latinx people were over four times more likely to be diagnosed with HIV than non-Hispanic White people. Non-Hispanic Black/African American people were over ten times more likely to be diagnosed with HIV than non-Hispanic White people, and non-Hispanic Asian people are over four times more likely to be diagnosed than non-Hispanic White people.

FIGURE 3.6 IOWA POPULATION PERCENTAGE BY ETHNICITY AND RACE COMPARED TO PROPORTION OF HIV DIAGNOSES AND PERCENT LIVING WITH HIV BY RACE AND ETHNICITY AS OF DECEMBER 31, 2021



Men who have sex with men (MSM) experienced a 5% increase in HIV diagnoses in 2021 but a 24% decrease since the peak of 78 diagnoses in 2016. People who identified as exposed through heterosexual contact experienced a 78% increase in diagnoses in 2021. The 57% increase in people whose exposure route was not reported reflects the recency of diagnoses. Over time, modes of exposure will be investigated and reported. Still, until this occurs, interpretation of trends related to modes of exposure should be made with caution.

FIGURE 3.7 IOWA ADULTS DIAGNOSED WITH HIV BY EXPOSURE CATEGORY: 2011 THROUGH 2021

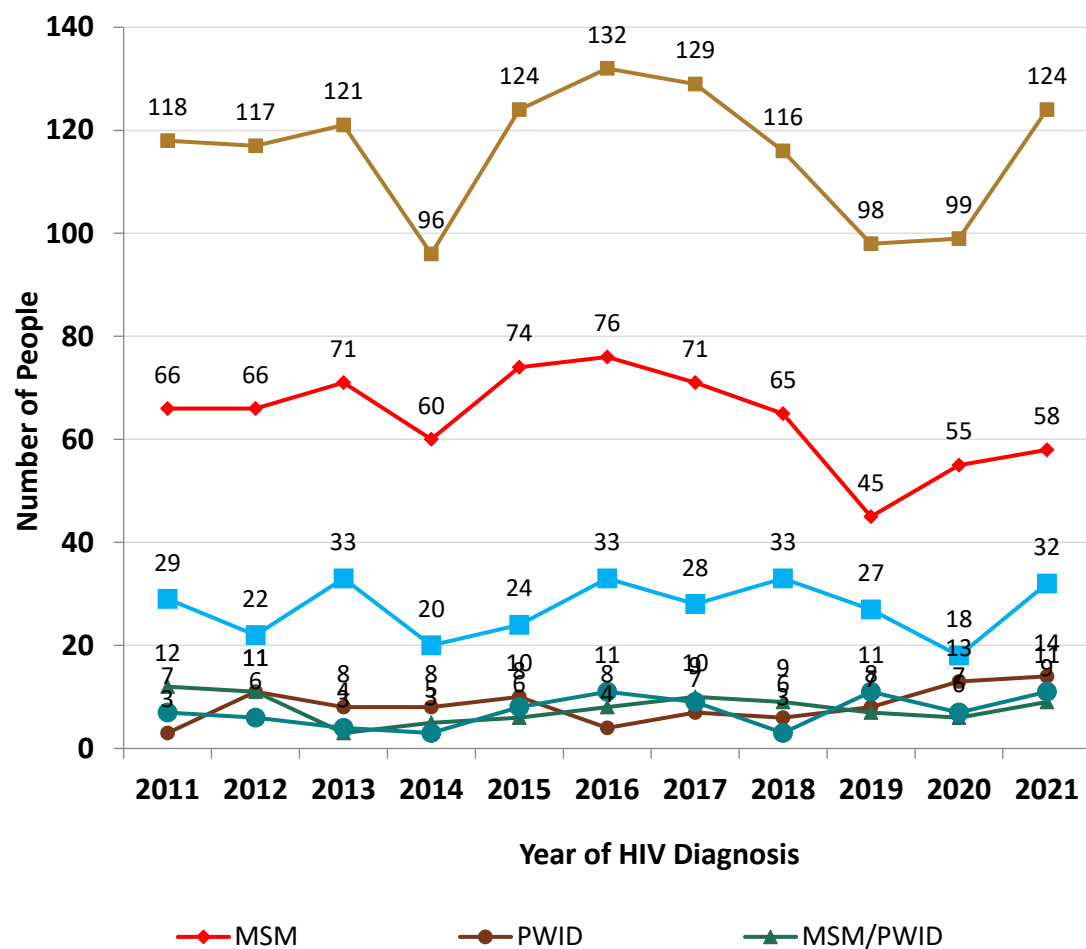
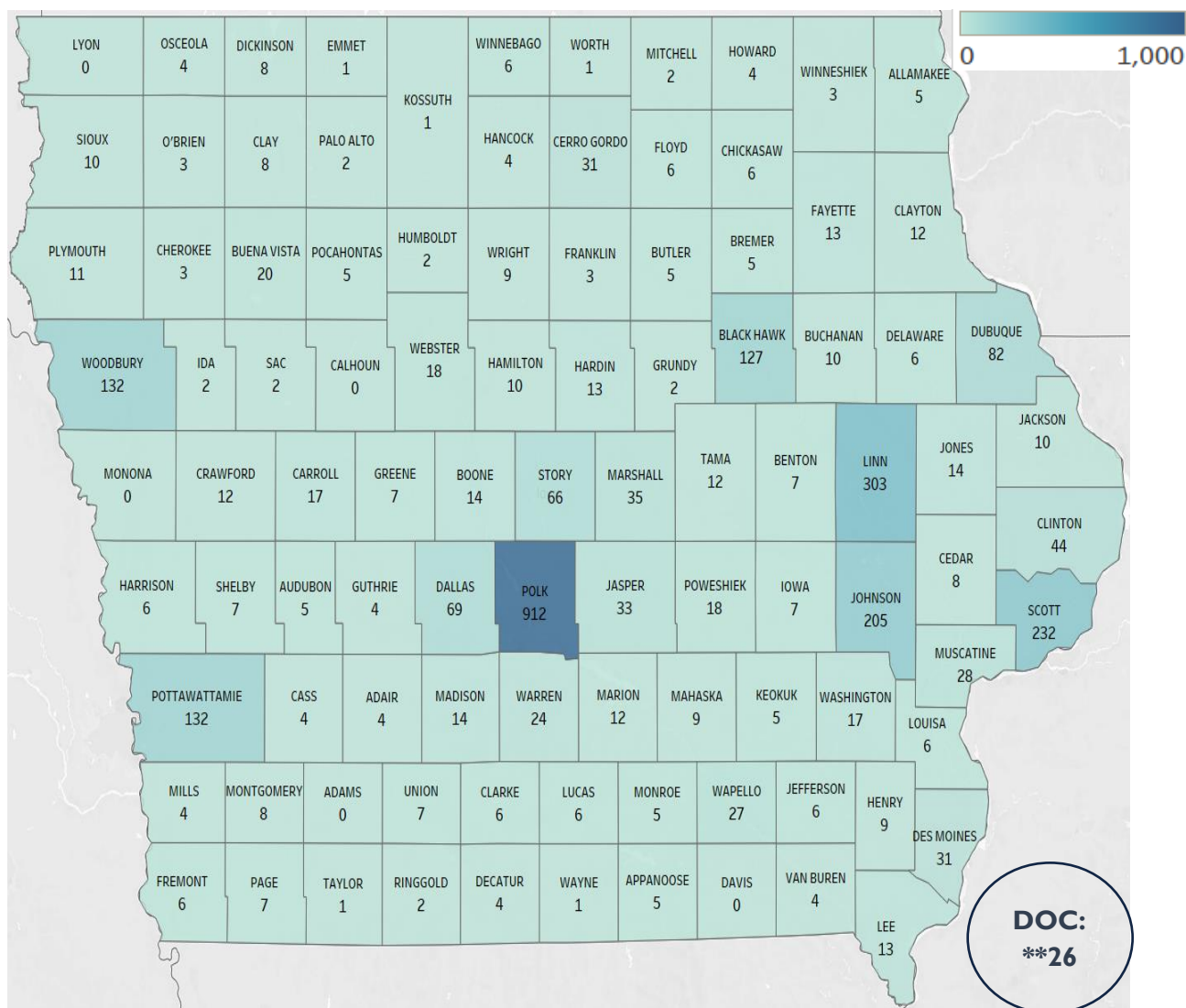


FIGURE 3.8 NUMBERS OF IOWANS LIVING WITH DIAGNOSED HIV DISEASE AS OF DECEMBER 31, 2021, BY COUNTY OF CURRENT RESIDENCE

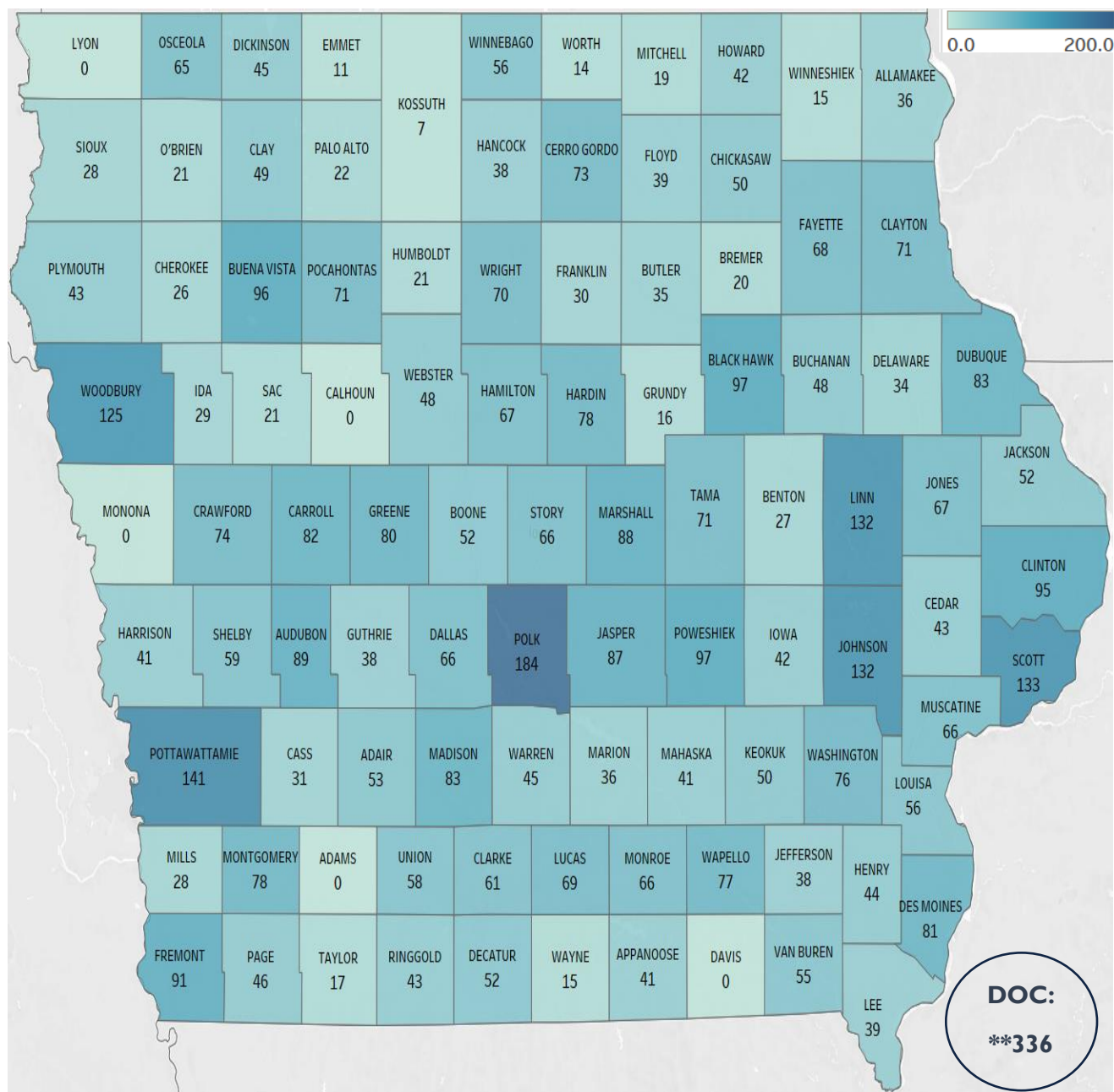


Total: 3,077

This map shows the number of people (3,051) living with HIV disease as of December 31, 2021, in each Iowa county. Five Iowa counties have no people living with HIV. Not all deaths may have been reported.

**Twenty-six people were living with HIV in Iowa Department of Corrections (DOC) facilities in the following counties: Henry (3), Jasper (3), Webster (1), Johnson (11), Jones (3), Lee (2), and Page (3). These numbers are excluded from county totals shown on the map.

FIGURE 3.9 PREVALENCE OF HIV DISEASE AT THE END OF 2021
BY COUNTY OF CURRENT RESIDENCE, NUMBER PER 100,000

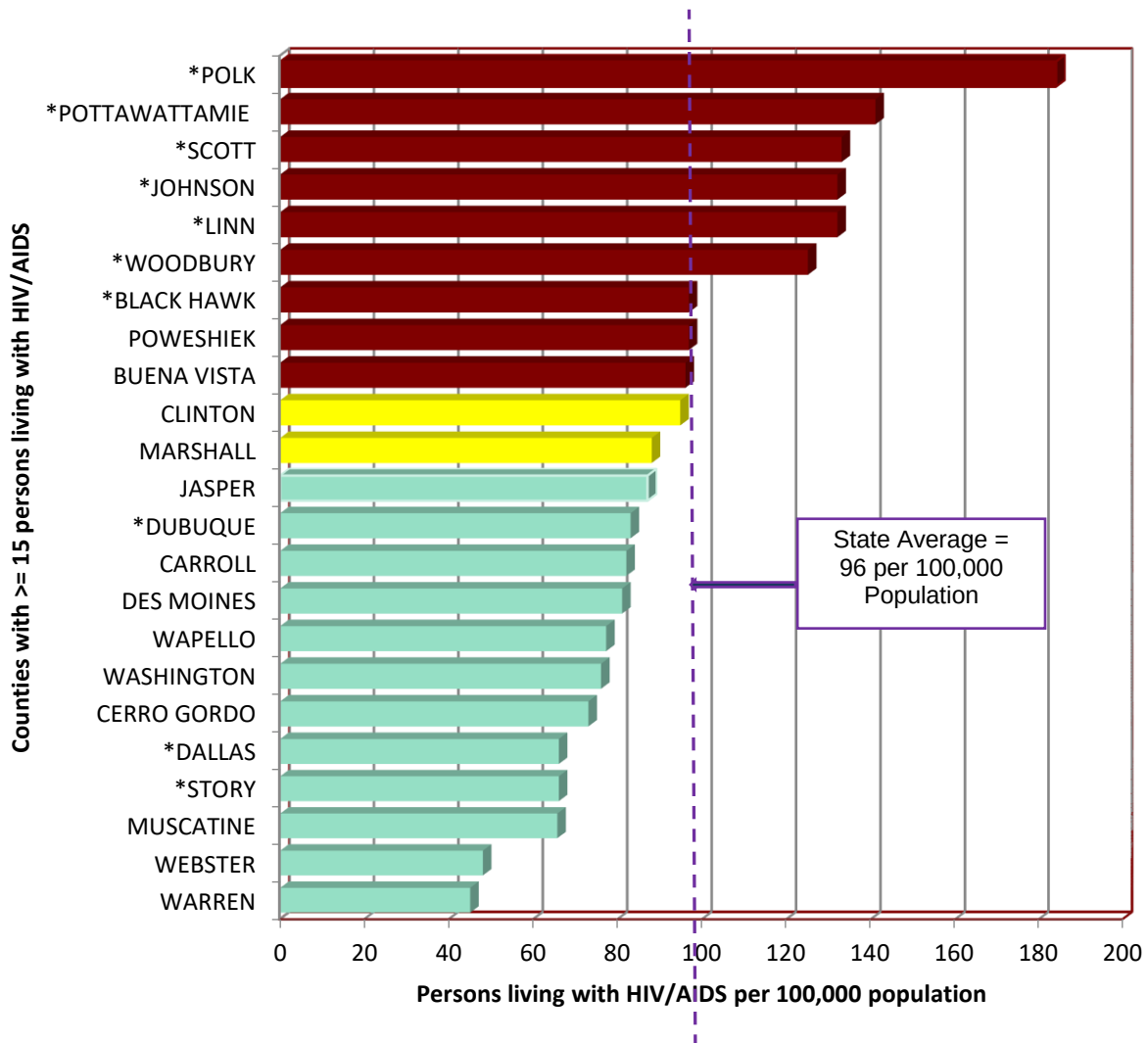


This map shows the rates per 100,000 of people living with HIV disease as of December 31, 2021, in each Iowa County. Not all deaths may have been reported.

**The DOC rate was calculated based on total prison population of Iowa Department of Corrections (DOC) facilities in 2021.

Darker blue indicates a higher prevalence.

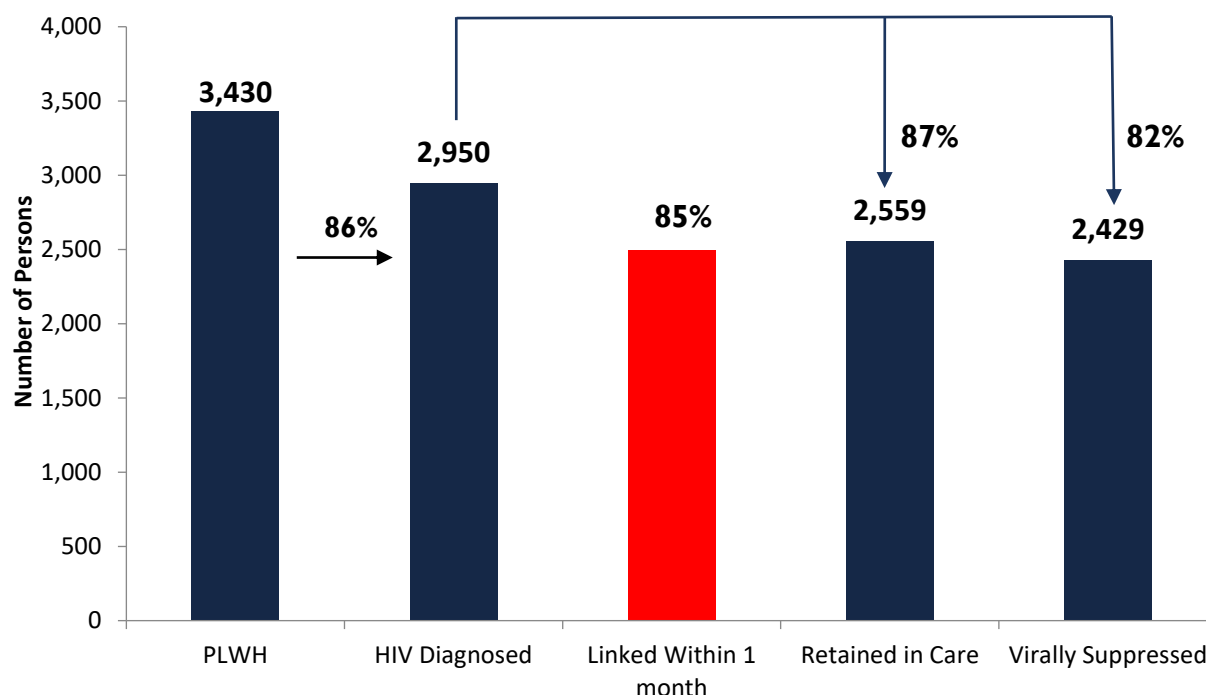
FIGURE 3.10 PREVALENCE OF HIV DISEASE BY COUNTY OF CURRENT RESIDENCE: IOWANS LIVING WITH DIAGNOSED HIV DISEASE (HIV OR AIDS) PER 100,000 POPULATION AS OF DECEMBER 31, 2021



Counties with ≥ 15 persons living with HIV/AIDS

- * Indicates one of the 10 most populous counties
- County rates do not include people living with HIV in the Iowa Department of Corrections system
- County populations are based on the 2020 U.S. Census estimates

FIGURE 3.11 IOWA HIV CARE CONTINUUM FOR 2021



People Living with HIV (PLWH): Estimated total number of lowans with HIV, of which 480 are undiagnosed.

Diagnosed: People diagnosed with HIV disease as of December 31, 2020, and living in Iowa as of December 31, 2021.

- An estimated 3,430 lowans were living with HIV disease as of December 31, 2021. Of these, 2,950 had been diagnosed by the end of 2020, and were living in Iowa as of December 31, 2021.

Linked to Care: Newly diagnosed people who had a viral load or CD4+ cell count reported within one month after diagnoses.

Retained in Care: Diagnosed people who had two or more CD4+ cell counts or viral load lab results at least three months apart in 2021 or who had only one viral load lab result but it demonstrated viral suppression during 2021.

Viral Suppression: People retained in care and whose most recent viral load in 2021 was less than 200 copies/mL.

- 2,559 (87%) of the 2,950 diagnosed lowans had been retained in care at the end of 2021. Of those retained in care, 2,429 (95%) were virally suppressed.
- Viral suppression for all diagnosed people living in Iowa (in care and out of care) was 82%.

Section 4: REPORTING OF HIV AND AIDS IN IOWA

What's reportable: AIDS has been a reportable disease in Iowa since February 1983. HIV became reportable by name in Iowa on July 1, 1998. **Iowa Administrative Code 641—11.6** below, establishes rules for reporting.

641—11.6(141A) REPORTING OF DIAGNOSES AND HIV-RELATED TESTS, EVENTS, AND CONDITIONS TO THE DEPARTMENT.

11.6(1) The following constitute reportable events related to HIV infection:

- a. A test result indicating HIV infection, including:
 - (1) Confirmed positive results on any HIV-related test or combination of tests, including antibody tests, antigen tests, cultures, and nucleic acid amplification tests.
 - (2) A positive result or report of a detectable quantity on any other HIV detection (non-antibody) tests, and results of all viral loads, including non-detectable levels.
- b. AIDS and AIDS-related conditions, including all levels of CD4+ T-lymphocyte counts.
- c. Birth of an infant to an HIV-infected mother (perinatal exposure) or any (positive, negative, or undetectable) non-antibody detection test (antigen test, viral culture, viral load, or qualitative nucleic acid amplification test) on an infant 18 months of age or younger.
- d. Death resulting from an AIDS-related condition, or death of a person with HIV infection.

11.6(2) Within seven days of the receipt of a person's confirmed positive test result indicating HIV infection, the director of a plasma center, blood bank, clinical laboratory or public health laboratory that performed the test or that requested the confirmatory test shall make a report to the department on a form provided by the department.

11.6(3) Within seven days of the receipt of a test result indicating HIV infection, which has been confirmed as positive according to prevailing medical technology, or immediately after the initial examination or treatment of a person infected with HIV, the physician or other health care provider at whose request the test was performed or who performed the initial examination or treatment shall make a report to the department on a form provided by the department.

11.6(4) Within seven days of diagnosing a person as having AIDS or an AIDS-related condition, the diagnosing physician shall make a report to the department on a form provided by the department.

11.6(5) Within seven days of the death of a person with HIV infection, the attending physician shall make a report to the department on a form provided by the department.

11.6(6) Within seven days of the birth of an infant to an HIV-infected mother or a receipt of a laboratory result (positive, negative, or undetectable) of a non-antibody detection test (antigen test, viral culture, viral load, or qualitative nucleic acid amplification test) on an infant 18 months of age or younger, the attending physician shall make a report to the department on a form provided by the department.

11.6(7) The report shall include:

- a. The person's name, address, date of birth, gender, race/ ethnicity, marital status, and phone number.
- b. The name, address and telephone number of the plasma center, blood bank, clinical laboratory or public health laboratory that performed or requested the test, if a test was performed.
- c. The address of the physician or other health care provider who requested the test.
- d. If the person is female, whether the person is pregnant.

11.6(8) All people who experience a reportable event while receiving services in the state, regardless of state of residence, shall be reported.

For free postpaid "03 CONFIDENTIAL" envelopes, call Alagie Jatta at 515-281-6918.

See <http://idph.iowa.gov/hivstdhep/hiv/data> for this report