Are New HIV Cases Rising or Falling?

Whether cases are going up or down depends on where you look and what you're measuring.

January 9, 2024 By Liz Highleyman

New HIV diagnoses declined slightly in San Francisco and New York City in 2022, suggesting that things have gotten back on track after disruptions in health services at the start of the COVID-19 pandemic. But nationwide data are mixed, and some areas are seeing increases, such as a 19% rise in new cases in Arizona.

CDC, Diagnoses of HIV Infection in the United States and Dependent Areas, 2021

Last May, the Centers for Disease Control and Prevention (CDC) released its latest HIV surveillance report, showing that estimated HIV incidence declined steadily over the past several years,

including a nearly 5% decline from 33,600 new infections in 2020 to 32,100 in 2021, and a 12% decline since 2017. The five-year drop was particularly notable—34%—for young people ages 13 to 24. Incidence reflects health officials' best guess about how many people acquired HIV during a given period. (Another measure, prevalence, is the total number of people living with HIV, regardless of when they acquired the virus.)

CDC, Diagnoses of HIV Infection in the United States and Dependent Areas, 2021

At the same time, the CDC reported that HIV diagnoses increased by 18%, from 30,585 in 2020 to 36,136 in 2021. HIV diagnosis is a more objective measure, reflecting the actual number of new positive tests reported to health departments, but it includes people who acquired HIV in the past and were only recently tested.

Diagnosis numbers are heavily dependent on testing. Due to shutdowns and reductions in medical services early in the COVID pandemic—as well as caution around seeking health care—HIV testing declined steeply in 2020. This led to substantially fewer diagnoses that year, followed by a rise in 2021. But that increase likely reflects people catching up on testing rather than many more people acquiring the virus. With 2020 removed, the trend in diagnoses more closely resembles the trend

in new infections.

San Francisco Epidemiology

Something similar appears to have happened in San Francisco. After falling steadily since 2006, there was a 13% uptick in new HIV diagnoses from 2020 to 2021, which health officials suggested could be attributable to a decline in testing in 2020. According to the latest San Francisco Department of Public Health (SF DPH) HIV Epidemiology Annual Report, diagnoses resumed their downward trajectory in 2022, falling slightly from 166 to 157 cases. Counting from 2019—the last normal year before COVID—the decline was 12%, which is not as steep as prior years.

San Francisco Department of Public Health, HIV Epidemiology Annual Report 2022

"We've seen a bit of a slowing in the decline in the number of new diagnoses," said Susan Buchbinder, MD, director of SF DPH's Bridge HIV. "We're not seeing the same rapid decline that we saw previously, which means we need to redouble our efforts to reach the people we're not reaching."

Most newly diagnosed people (84%) were cisgender men, 9% were cisgender women, 6% were transgender women and 1% were trans men. Latinos accounted for 43% of new diagnoses, followed by white people (29%), Black people (15%) and Asians and Pacific Islanders (10%). For the first time, Latino men had a higher HIV diagnosis rate than Black men (84 versus 68 cases per 100,000 people), and both groups far exceed the rates for white and Asian and Pacific Islander

men (19 and 9 per 100,000). What's more, Latinos were the only group to see an increase in new diagnoses. However, most newly diagnosed cisgender women were Black. Latino people were the least likely to receive HIV care, and both Latino people (70%) and Black people (69%) had lower rates of viral suppression than white people (76%). (San Francisco's population is about 38% non-Latino white, 38% Asian or Pacific Islander, 16% Latino and 6% Black.)

In comparison, nationwide figures show that Black people accounted for 40% of new HIV diagnoses in 2021, while Latinos accounted for 29%, white people for 25% and Asians and Pacific Islanders for about 3%. An estimated 62% of Black people and 64% of Latinos achieved viral suppression, compared with 72% of white people. (The U.S. population is about 60% non-Latino white, 19% Latino, 14% Black and 7% Asian or Pacific Islander.)

The report shows that disadvantaged groups bear the brunt of San Francisco's HIV epidemic. People who inject drugs accounted for 19% of new diagnoses in 2022, while people experiencing homelessness accounted for 17%. Only 66% of people who inject drugs and 52% of people experiencing homelessness achieved viral suppression.

More than three quarters of deaths among people with HIV were due to non-HIV-related causes in 2021. Accidents (20%) were the leading non-HIV-related cause of death during 2018-2021, including 18% of deaths due to drug overdose, exceeding non-AIDS cancers (16%) and heart disease (15%); 3% of deaths were attributed to COVID.

In 2022, just over three quarters of people in San Francisco who could benefit from pre-exposure prophylaxis (PrEP) were receiving it, including 82% of Asian, 73% of Latino, 72% of white and 67% of Black gay and bisexual men seen at the city's main sexual health clinic. In contrast, just over a third of eligible people were receiving PrEP nationwide in 2022, falling from 94% for white people to 24% for Latino people, 13% for Black people and 15% for cisgender women of all races and ethnicities, according to the CDC.

New York City Epidemiology

New York City's HIV Surveillance Annual Report shows that 1,624 people were newly diagnosed with HIV in 2022. Like San Francisco, the city saw a slight decline from 1,645 cases in 2021, which was up from a dip to 1,442 cases in 2020. Before that, cases had been falling steadily since 2000. The relatively stable number of new HIV diagnoses from 2021 to 2022 "may reflect ongoing 'catchup' of HIV diagnoses not made as readily during the height of the COVID-19 pandemic," the report suggests. Looking at HIV incidence, there were an estimated 1,241 new infections, a slight rise from 2020 but below the 2021 total.

New York City Department of Health and Mental Hygiene, HIV Surveillance Annual Report, 2022

“While New York City continues to make headway toward its ending the HIV epidemic goals, progress most recently has slowed compared with previous years,” according to the report. “This is largely due to the widespread impacts of the COVID-19 pandemic on health care access and utilization, which were most pronounced in 2020 and 2021 but persisted into 2022.”

In New York City, 79% of people newly diagnosed in 2022 were men, 18% were cisgender women, 3% were transgender women and less than 1% were trans men. Black people (43%) and Latino people (40%) accounted for far more new cases than white people (12%) or Asians and Pacific Islanders (4%). (New York City’s population is 31% non-Latino white, 29% Latino, 23% Black and about 15% Asian or Pacific Islander.)

The largest proportion of new cases were in Brooklyn (28%), followed by the Bronx (23%), Manhattan (19%) and Queens (18%); 41% lived in ZIP codes with high or very high poverty. The report shows that only about 1.4% of newly diagnosed people had a history of injection drug use, but 32% had an unknown HIV transmission route. The report mentions that 11% of people living with HIV experienced homelessness from 2017 to 2021, but it does not give the proportion of newly diagnosed people who were homeless.

Progress on improving HIV care outcomes has slowed, with relatively flat trends in linkage to care and viral suppression. Only about half of all people who were newly diagnosed in 2022 achieved viral suppression within three months, but among those who received recent HIV care, 88% had a viral load below 200 on their last test, and 79% had sustained viral suppression over the course of a year. Viral suppression rates were lower for Black and Latino people, transgender people, young people and people who inject drugs.

Non-AIDS cancers and cardiovascular disease were the two leading causes of death among people with HIV in 2021. The report notes that 8% of deaths in 2021 were due to COVID, making it the third most common cause of death, down from 18% in 2020, when it was the second most common cause. Accidents were the fourth leading cause, but this apparently does not include drug overdose. “Use of or poisoning by psychoactive substances” was the 10th leading cause of death 2019 but was not listed in 2020 or 2021.

HIV in the South

According to the CDC’s nationwide surveillance report, more than half (52%) of new HIV diagnoses in 2021 were in the South, 20% were in the West, 14% were in the Northeast and 13% were in the Midwest. But the South was the only region to see a decline in estimated new infections since 2017 (down 12%).

Cities and states vary widely in how quickly they compile HIV surveillance data and how much detailed information they make easily available to the public.

Georgia’s HIV Surveillance Summary for 2021 reports that 2,412 people were newly diagnosed statewide in 2021. More than half (1,599) were in the Atlanta metropolitan area. According to the CDC, Georgia had the fourth highest number of new diagnoses and the second highest diagnosis rate, after Washington, DC. Here, too, new diagnoses dropped in 2020, “at least in part because of decreased testing availability and changes in health care seeking patterns,” but returned to pre-COVID levels in 2021.

Of the people newly diagnosed in 2021, 78% were cisgender men, 20% were cisgender women and 2% were transgender or another gender identity. Black people accounted for 71% of new diagnoses, nearly triple the proportion of cases among white (14%), Latino (10%) and Asia and Pacific Islander (1%) people combined. Like New York City, only a small percentage (about 3%) had a known history of injection drug use, but 25% had an unknown transmission route. (Georgia’s population is 50% non-Latino white, 33% Black, 11% Latino and 5% Asian or Pacific Islander; Atlanta is 48% Black.)

The Georgia Department of Public Health also provides a more comprehensive HIV Epidemiological Profile for the state as a whole and for four Ending the HIV Epidemic priority jurisdictions.

America’s HIV Epidemic Analysis Dashboard (AHEAD)

Although its diagnosis numbers are somewhat lower, America’s HIV Epidemic Analysis Dashboard (AHEAD) data for Georgia gives a clearer picture of trends over time as well as information about care indicators. HIV incidence fell from about 2,500 new infections in 2017 and 2018 to 2,300 in 2020 and 2021, without the 2020 dip seen for new diagnoses. Most people (82%) diagnosed in 2021 were linked to care, and 62% achieved viral suppression. About 16% of eligible people were on PrEP in 2018, the latest year with available data.

Turning to the Southwest—which the CDC includes in its West region—the Arizona Department of Health Services (ADHS) HIV/AIDS in Arizona 2023 Annual Report shows 975 new cases of HIV in 2022, for an incidence rate of 13 per 100,000 population. Two thirds were in Maricopa County, which includes Phoenix. The rise was observed in both urban and rural counties. (While these are reported as incident cases, a blog post by Eugene Livar, MD, ADHS’s assistant director for public health preparedness, suggests that they are actually newly diagnosed cases.)

The 975 cases in 2022 represent a 19% increase from 2020, and the number is comparable to the peak incidence in the late 1980s. The rise coincides with a steep increase in publicly funded HIV testing in 2022 after a dropoff during the early COVID pandemic, but Ricardo Fernandez, MD, ADHS chief of HIV and hepatitis C, said he thinks the 2022 numbers reflect more new infections as well as increased testing.

Arizona Department of Health Services, HIV/AIDS in Arizona 2023 Annual Report

In Arizona, 86% of people newly diagnosed in 2022 were assigned male at birth, and 56% were men who have sex with men. Latino people accounted for about 42% of new cases and white people for 30%. Black people made up a smaller proportion of cases (17%), but they had the highest incidence rate, at 42 per 100,000 population, compared with about 17 for Latinos and American Indians and about 7 for white people. HIV incidence rose by 181% among Latinos between 1988 and 2022. American Indians, who accounted for 5% of new cases in 2022, saw a 21% increase from 2021, after a decline from 2016 to 2020. (Arizona's population is 53% non-Latino white, 33% Latino, 6% Black, 5% American Indian and 4% Asian or Pacific Islander.)

In 2022, 79% of newly diagnosed people in Arizona were linked to care within 30 days. Among all people with diagnosed HIV in the state, 62% achieved viral suppression. American Indians had the highest treatment adherence, 82% received care and 69% achieved viral suppression. In contrast, only 52% of Black people achieved viral suppression. People who reported injection drug use had the worst outcomes across the continuum of care, and just 48% had viral suppression.

Taken together, these reports indicate that new HIV diagnoses—which dropped in 2020 due to COVID disruptions and then rose in 2021—have stabilized or started to decline in jurisdictions with the most recent data. But some areas are seeing a rise in new infections, and disparities persist, especially for Black and Latino people. These findings underscore the need for targeted prevention and care services tailored to the populations that need them most.

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