

People With HIV Remain at Greater Risk for Death Due to COVID-19

COVID mortality declined overall during the omicron wave but less so for people with HIV.

August 14, 2023 By [Liz Highleyman](#)

Compared with the population at large, people with HIV did not see as much of a decrease in COVID-19 mortality after the advent of the omicron SARS-CoV-2 variant, according to study results presented at the [International AIDS Society Conference on HIV Science](#) (#IAS2023).

“While COVID-19 mortality risk declined dramatically during omicron among HIV-negative people, it declined only modestly among people living with HIV, especially those with low CD4 counts,” Meg Doherty, MD, PhD, of the World Health Organization (WHO) said during an advance media briefing.

“These findings underscore the need for equitable global access not only to COVID vaccines and boosters but also antivirals,” said IAS president and conference cochair Sharon Lewin, MD, PhD, of the University of Melbourne. “Today, global access to lifesaving antivirals for COVID-19 remains very limited.”

Over the course of the pandemic, studies have yielded conflicting data about COVID risk for people living with HIV. While most individuals with well-controlled HIV [respond well to COVID vaccines](#), those who are not on antiretroviral treatment, those with a detectable viral load and those with a low CD4 T-cell count [may not fare as well](#).

However, there is limited information about how COVID outcomes for people with HIV have changed over the course of the pandemic. In the United States, the initial COVID wave was followed by the alpha wave starting in late 2020, the delta wave in the summer of 2021 and the omicron wave starting in late 2021; timing of the waves varied in other parts of the world. Since then, there has been a succession of variants classified as part of the omicron lineage.

Using data from the [WHO Global Clinical Platform for COVID-19](#), researchers looked at changes in mortality among people with COVID admitted to health facilities during different SARS-CoV-2 variant waves. This analysis included more than 821,000 hospitalized children and adults from about 40 countries. Of these, 5% of those admitted pre-delta, 4% during the delta period and 8% during the omicron period were living with HIV.

Among the more than 543,000 people hospitalized with COVID pre-delta, 24% of HIV-positive people died, compared with 22% of HIV-negative people, WHO's Nathan Ford, PhD, MPH, reported. Of the nearly 152,000 patients hospitalized during the delta period, the corresponding mortality rates were 23% and 21%. But among the more than 126,000 patients hospitalized during the omicron period, the mortality rate was twice as high for people with HIV, 20% versus 10%, respectively. People with an unknown HIV status also had a higher risk of death across all periods.

Before the delta wave, HIV-positive people with COVID had a 54% higher risk of death compared with the HIV-negative population. The differential was similar—56% higher—during the delta period.

The overall risk of severe illness and death has been lower during the omicron period thanks to the buildup of population immunity and possibly also because omicron variants have become less virulent. But people with HIV did not see as much benefit and had a 142% greater risk of death compared with their HIV-negative counterparts during the omicron period.

“Survival was much better during the omicron period compared to the previous waves,” but the survival difference comparing HIV-negative and HIV-positive people was “much greater” during omicron, Ford said. While HIV-negative people saw about a 12% decline in mortality over time, the reduction was only about 4% for HIV-positive people.

Consistent with previous studies, HIV-positive people with a CD4 count of 200 or less—the threshold for an AIDS diagnosis—had a higher risk of death than those without advanced immune suppression, and they saw a smaller decline in mortality over time. Mortality rates for HIV-positive people with a low CD4 count were 64% higher pre-delta, 52% higher during the delta period and 79% higher during the omicron period. This finding underscores the importance of starting and staying on antiretroviral therapy to keep HIV suppressed, allow CD4 cell recovery and improve overall health.

People over age 65 or 75 and those with severe or critical COVID at the time of hospital admission were also more likely to die during all waves. People with diabetes, tuberculosis or chronic kidney disease had significantly higher mortality during the earlier waves but not during omicron period.

The good news is that vaccines remain highly effective. People with HIV who received at least one vaccine dose had a 39% lower risk of death compared with unvaccinated people during the delta wave and a similar 38% lower risk during the omicron period.

The higher risk of death among COVID patients with an unknown HIV status highlights the need to offer HIV testing to help prioritize COVID treatment and vaccines, the researchers concluded. In addition, they added, these findings emphasize the need to implement the WHO recommendation to give booster vaccines to all people living with HIV, even during the less severe omicron waves.

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