Black People With HIV in Rural Areas Less Likely to Have Undetectable Viral Load

Rural inequities must be addressed to achieve the Ending the HIV Epidemic goal of 95% viral suppression.

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Sixty percent of Black people living with HIV in rural areas achieved viral suppression in 2018, far short of the Ending the HIV Epidemic goal of 95%, according to new data from the Centers for Disease Control and Prevention (CDC).

The findings highlight the persistent and stubborn disparities Black people experience all along the HIV prevention and care spectrum, from use of HIV pre-exposure prophylaxis (PrEP) to rates of HIV acquisitionto HIV care and undetectable status.

The new data now add a geographic layer to these disparities.

Using 2018 data from the National HIV Surveillance System, Shacara Johnson Lyons, MSPH, and colleagues from the CDC's Division of HIV/AIDS Prevention identified Black Americans ages 13 and older who tested HIV positive by area of residence—rural, urban or metropolitan.

The researchers gathered data on CD4 counts and percentages of total lymphocytes—measures of immune system health—to determine whether people were diagnosed with early or late-stage chronic HIV infection. They used CD4 counts gathered a month or more after initial diagnosis to determine whether people were engaged in care. Finally, they gathered data for viral load to ascertain whether HIV-positive people had an undetectable viral load, defined as 200 or less, by six months after diagnosis.

In 2018, a total of 14,502 Black people living in 41 states and the District of Columbia—nearly half of the approximately 36,000 new HIV diagnoses in that year—were diagnosed with HIV and had all the lab data required to be included in the study. The vast majority lived in urban or metropolitan areas, but 897 (6%) lived in rural areas. Most (72%) were cisgender men, and more than half (57%) were ages 13 to 34.

Though cisgender women accounted for 27% of rural people diagnosed with HIV, they made up

the greatest proportion of individuals in rural areas who had already progressed to AIDS at time of diagnosis (31%). Likewise, heterosexual men also had a high rate of AIDS at diagnosis. That's a measure of long-untreated HIV and poor health. And while people ages 45 to 54 accounted for just 13% of those diagnosed with HIV, they made up 48% of those living with untreated HIV that progressed to AIDS.

These rates remained higher than the rates of peers living in urban or metropolitan areas.

Johnson Lyons and colleagues wrote that their goal was to see whether engagement in care and viral suppression met the goals set by Ending the HIV Epidemic: A Plan for America that 95% of people with HIV would be linked to care and 95% of those would reach an undetectable viral load.

That was not what they found.

Indeed, overall, linkage to care hovered around 77% for Black people regardless of where they lived. Cisgender men in all locations were also less likely to be linked to care than their cisgender female counterparts. Heterosexual men ages 45 to 54 in rural and urban areas and those ages 13 to 24 in metropolitan areas were the least likely to be linked to care.

And far from the 95% undetectable viral load goal, just 60% of Black people in rural areas reached an undetectable viral load by six months after diagnosis. Viral suppression was more common in metropolitan areas, at 64%, but essentially the same in urban locations.

Once again, men in urban and rural areas were less likely overall to have an undetectable viral load than women. And just as with linkage to care, men fared worse all across the life span. In metropolitan areas, just 51% of heterosexual boys and men ages 13 to 24 and 45% of men ages 25 to 34 who inject drugs reached an undetectable viral load. Viral suppression rates were even lower for rural and urban men ages 45 to 54 who acquired HIV through sex with women (43%) or men (44%).

"Although 80% of Black persons with diagnosed HIV live in metropolitan areas, identifying geographic disparities is important to assure HIV-related health equity," Johnson Lyons and colleagues wrote. "For equitable health to be achieved for Black persons in all geographic areas, culturally appropriate and stigma-free sexual health care is needed, particularly among those who live in rural communities."

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