

High rates of HIV and diabetes raise the risk of TB for South Africans

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Credit: Yale University

Since the 1980s, HIV has contributed to an increase in tuberculosis (TB) cases across the globe. Recently, diabetes has been found to be an important risk factor for TB. In a new study, Yale researchers investigated whether having both HIV and diabetes increases the risk of developing TB among individuals living in rural South Africa.

The Yale-led research team analyzed health data on more than 7,000 patients screened for both chronic and infectious diseases. After adjusting for demographic and socioeconomic factors, the researchers found that people with either HIV or diabetes were more likely to also have TB. They also discovered that having both diseases further compounded the risk for developing TB symptoms. This is one of the first studies to demonstrate the possible synergism between HIV and diabetes to increase risk of TB, the researchers said.

The heightened TB risk is likely due to the combination of a delayed immune response in people with diabetes, and the overall suppressed immunity in those living with HIV. HIV rates are high in sub-Saharan Africa and diabetes is becoming increasingly prevalent in the region. Their findings suggest the need to screen individuals in sub-Saharan Africa for the three conditions, and to aggressively treat both HIV and [diabetes](#) in order to improve outcomes for TB, noted the researchers.

The study, led by Sheela Shenoi and Pranay Sinha, is published in the *International Journal of Tuberculosis and Lung Disease*.

More information: P. Sinha et al. Synergism between diabetes and human immunodeficiency virus in increasing the risk of tuberculosis, *The International Journal of Tuberculosis and Lung Disease* (2018). [DOI: 10.5588/ijtld.17.0936](#)

Provided by Yale University

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