

Treating HIV sooner would save South African lives and money

July 25 2011

If the South African government followed a recent recommendation by the World Health Organization to start antiretroviral therapy (ART) for HIV-infected residents earlier in the progress of the disease, the policy shift would start saving the country money after 16 years and would extend thousands of lives for dozens of years, according to a new study.

In 2009, the WHO recommended that people start ART when a key measure of immune system strength, the CD4+ cell counts, reaches a concentration of 350 per microliter of blood. South Africa has instead decided to stick with the old standard of waiting until only 200 cells per microliter remain, reflecting a more compromised immune system.

"South Africa, the country with the most people living with HIV/AIDS in the world, has not yet adopted the WHO treatment initiation criteria," said Mark Lurie, a Brown University epidemiology professor and senior author of the study published online July 20 in [PLoS One](#). "We used a [mathematical model](#) to predict the impact of adopting the new WHO guidelines on HIV prevalence, incidence, and cost. We found that changing the treatment guidelines would have a profound impact on HIV incidence. It would require, over five years, an additional 7 percent investment, resulting in 28 percent more patients receiving [HIV treatment](#). After 16 years, the cumulative net costs reach a break even point."

In addition, the models developed by Lurie's team show South Africa saving more than 120,000 life-years by 2040. Life-years are determined

by multiplying the number of people who will still be alive by the number of years of extra longevity.

The reason why the higher up-front investment in ART ultimately would save South Africa money and lives, the authors wrote, is because more aggressive ART treatment would curb the epidemic's spread. Reduced infectivity from the drugs would outweigh the longer period of time in which HIV-infected people would be alive and therefore able to spread the virus.

"While initial costs of adopting the new guidelines will be greater because of the increased number of people now eligible for treatment, in the long run costs would be saved because of the reduced number of new infections," they wrote.

The researchers tested and refined their model by comparing it with actual data from the Hlabisa Treatment and Care Programme, where ART was rolled out in the South African province in 2004, and other data from the Africa Centre for Health and Population Studies, a collaborator in the study. The model accurately predicted recent [HIV prevalence](#) and other epidemiological characteristics. They then used it, along with assumptions based on theirs and others' research, to simulate the economics and demographics of the country's future epidemic, comparing what would happen if people received treatment according to the WHO or according to current South African policy.

"Our paper provides further evidence that starting treatment earlier in generalized epidemics like South Africa simply makes sense," Lurie said.

Provided by Brown University

Citation: Treating HIV sooner would save South African lives and money (2011, July 25)
retrieved 27 April 2024 from
<https://medicalxpress.com/news/2011-07-hiv-sooner-south-african-money.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.