

# Improving the cost effectiveness of HIV/AIDS interventions in South Africa

June 8 2017, by David Bradley

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An international African collaboration has turned to statistical analysis to determine the cost effectiveness of major HIV/AIDS interventions in South Africa with a view to advising policy makers on the optimal approach to managing the disease. Details are reported in the International Journal of Economics and Business Research.

Josue Mbonigaba of the University of KwaZulu-Natal, in Durban, South Africa, working with Saidou Baba Oumar of The University of Bamenda, in Bambili, and the University of Buea, both in Cameroon point out that a shortage of resources in South Africa to address the high burden of HIV/AIDS requires that different strategies must be adopted in rural and urban regions. The team explains that despite major advances in coping with AIDS elsewhere in the world, South Africa continues to suffer the burden of this devastating disease with many millions living with HIV/AIDS (ca 5.51 million in 2015). The high prevalence is a consequence of an exponential increase in infections through the late 1990s and early 2000s, which the team attributes to the slow response of the government to the crisis.

The team has used Markov state transition models, the spectrum policy modeling system and sensitivity analysis to estimate the [cost-effectiveness](#) (CE) of different interventions. The interventions discussed are: prevention of mother-to-child transmission of the virus, use of highly active antiretroviral drugs in adults and in children.

They have found that running HIV/AIDS interventions and expecting to

achieve the same cost effectiveness across both rural and urban areas is erroneous. They point out that, factors affecting cost effectiveness, such as earlier or increased access to interventions have more significant influence in rural areas than they do in urban areas. "This result is crucial for South African policymakers, who have been seeking to address the dichotomy between rural and urban areas," the team reports. "Factors linking earlier access and usage of interventions include stigmatization and other cultural factors." As such, these issues must be addressed if interventions are to have the deepest impact and bring South Africa out of this medical crisis sooner rather than later.

**More information:** The cost-effectiveness of major HIV/AIDS interventions in rural and urban areas in South Africa, *Int. J. Economics and Business Research*, Vol. 13, No. 4, pp.413-434.

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