## SCIENCE'S COMPASS

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## **HIV/AIDS: The Peril** of Pseudoscience

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olitics has inappropriately taken center stage in the South African response to the AIDS epidemic with the publication of the open letter from President Mbeki stating that "whatever lessons we have to and may draw from the West about the grave issue of HIV/AIDS, a simple superimposition of Western experience on African reality would be absurd and illogical." Ironically, those who offer misguided solutions for this "African reality" are not Africans, but a loosely connected group of Western scientists often referred to as "dissidents."

This latest instance is merely another entry in a lengthening list of politically driven decisions regarding the South African AIDS crisis. In 1998, a number of politicians, including President Mbeki, enthusiastically embraced virodene as an inexpensive therapeutic against AIDS without any scientific evidence. The government's refusal to give AZT to pregnant women for the prevention of maternal-fetal HIV transmission flies in the face of evidence showing that AZT and nevirapine reduce mother-to-child HIV transmission. This decision poses serious moral and ethical dilemmas in a nation where maternal-fetal transmission of HIV accounts annually for 10% of the total HIV disease burden. Most recently, the politically motivated suggestion, in the absence of scientific evidence, that malnutrition and poverty cause AIDS in Africa is not only absurd but may also represent a form of national denial. South Africa is rapidly becoming a fertile ground for the types of pseudoscience often embraced by politicians

During the critical period of 1990-95, when the HIV epidemic could have been curbed, South Africa had no effective government and no public health policy to deal with the epidemic. The current government was going through a process of massive renewal. New democratic civil institutions were

> being created at a phenomenal rate. In the midst of the heroic efforts to build a new, pluralistic South Africa, the HIV epidemic simply became one challenge too many. Now that the euphoria of Uhuru and social transformation in Africa has settled, the government finds itself lurching from one crisis to the next with no coherent shortor long-term strategy to deal with the explosive HIV/AIDS epidemic. Instead of accepting our mistakes, the government is retreating behind revisionist theories.

> There is little doubt that HIV causes AIDS, as has been demonstrated by many carefully conducted experiments and clinical case studies. In contrast, there is no evidence that common African conditions such as poverty, malnutrition, and many chronic infectious diseases by themselves, singly or in combination, cause the characteristic immunodeficiency typical of AIDS, that is, progressive depletion of CD4<sup>+</sup> cells. To conflate causation with cofactors through a mixture of pseudoscientific statements is scientifically and politically dangerous in societies where denial, chauvinism, fear, and ignorance are rampant. In such societies, the manipulation and misrepresentation of scientific facts only serve to fuel the epidemic.

The introduction of highly specific and effective antiretrovirals has transformed the natural history of HIV/AIDS. Today, in the developed countries, AIDS is seen as a controllable disease. Yet, these drugs are neither a panacea for the management of HIV/AIDS nor a cure. Furthermore, there are deep moral and ethical dilemmas with regard to sustainability and affordability of these treatments in developing countries. The South African government must address these problems immediately and unambiguously, at the level of policy and research.

The current political and scientific furor in South Africa, fuelled largely by the dissidents' theories on HIV/AIDS and the seeming support of Mr. Mbeki, has much broader implications for South Africa and South Africans than some are prepared to admit. The current controversy is undermining the constructive public health messages this government has put in place. It is sending mixed messages to all those who have dedicated themselves to the alleviation and eradication of this epidemic and is having a negative impact on the morale of affected patients and families. The undermining of scientists and the scientific method is especially dangerous in a developing country still in the process of establishing a strong scientific research base. Furthermore, it may erode investor confidence in our country, with dire economic consequences. We present South Africans cannot afford to make any more mistakes lest history judges us to have collaborated in one of the greatest crimes of our time.

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