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Uganda gives lessons in stemming the AIDS epidemic

Although many economically developed countries have managed to reduce the devastating effects of HIV/AIDS through the use of new antiviral drugs, in many less-developed parts of the world, the disease continues to wreak havoc. However, statistics from the World Bank reveal that Uganda, a country that has seen two million people die of AIDS, is turning the tide of the epidemic: every year since 1992, the level of infection among young pregnant women has been in decline. Other African nations should look closely at what, against the odds, Uganda has achieved, and reconsider their own response to this disease.

Since coming to power in 1986, Uganda's President, Yoweri Museveni, has spearheaded an aggressive anti-AIDS policy. Every government department issues anti-AIDS warnings; sex is discussed openly in explicit terms; roadside billboards promote safe sex; and foreign-financed non-governmental organizations are given virtually free reign to educate people about the disease. Everyone in Uganda is doing all they can.

Six weeks ago, Uganda added another feather to its AIDS policy cap. Interim results from a joint study between the Uganda government and the US National Institute of Allergy and Infectious Diseases (HIVNET 012) show that a single oral dose of Boehringer Ingelheim's anti-retroviral drug nevirapine given to an HIV-infected mother in labor, and another dose given to her baby within three days of birth, is almost twice as effective at reducing vertical transmission as the AZT regimen tested in Thailand last year by the Centers for Disease Control and Prevention. The nevirapine treatment also turns out to be a staggering 70 times cheaper than the AZT regimen, just \$4 per patient. There is

to be an 18-month follow-up study on infants born in the nevirapine trial to determine the long-term effectiveness of this treatment.

It is estimated that in Africa, vertical transmission of HIV results in 1,800 neonatal infections every day. Given this huge problem, it is surprising how little attention Uganda's experience has generated. Both the media and the scientific press—who last year sank their editorial teeth into the ethics of mother-to-infant drug testing in third world countries—gave little space to the story. Hopefully the findings, and the potential they hold, will receive more attention through the "Global Strategies for the Prevention of HIV Transmission from Mothers to Infants" meeting beginning today in Montreal, Canada, at which the Ugandan Minister of Health, Crispus Kiyongo, will speak on successful strategies for improving healthcare in developing countries.

One party that should be more interested than most in the HIVNET 012 results is South Africa. Despite a more sophisticated medical research system and healthcare infrastructure, South Africa is only now enrolling mothers in trials of nevirapine; this despite the fact that the country has drawn worldwide attention to its AIDS problem and in particular to the fact that it cannot afford to purchase AZT for its pregnant women (*Nature Med.* 5, 1;1999).

Indeed, South Africa has experienced many diversions from the mission to reduce the spread of HIV. Former Health Minister Nkosazana Zuma made some poor decisions on AIDS policy: she spent R14 million (US\$2.3 million) on an anti-AIDS play that flopped; her Medicines Control Council quit over her support for the anti-freeze 'AIDS cure' virodene (*Nature* 392, 527;1998); she refused to acknowl-

edge that AZT was effective against vertical transmission in the face of overwhelmingly convincing data, and declined to buy the drug at the heavily discounted price offered by Glaxo Wellcome; she mounted a legal challenge to international drug patent rights and before leaving office she publicly rejected Bristol Myers Squibb's (BMS) offer for South Africa to take part in a \$100 million AIDS initiative until details of the project were changed to her specifications (*Nature* 399, 624;1999).

In June, Zuma was replaced by Manto Tshabalala-Msimang. Within South Africa there is cautious optimism that Tshabalala-Msimang's attitude to reducing transmission is different. She is now discussing the implementation of a new vertical transmission policy with advisors and has re-opened talks with the pharmaceutical industry on the purchase of antiviral drugs. Twenty-two South African healthcare workers have now accepted places in the BMS program. And although she has hardly had time to visit hospitals and clinics in her own country, last month Tshabalala-Msimang headed a 20-strong delegation to Uganda to examine their AIDS strategy.

In fact, there are indications that Uganda and South Africa may establish a collaborative AIDS policy by applying pressure to the pharmaceutical industry for cheaper drugs. Although the size of the HIV/AIDS problem certainly merits this sort of cooperation, it is hoped that neither Tshabalala-Msimang nor her Ugandan counterpart, Kiyongo, will allow the sort of political activity that has characterized South Africa's response to AIDS to subvert the much more effective and responsible action of President Museveni's government. There is simply too much at stake.