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M A G A Z I N E

African AIDS: Not About the Needles?

by Josie Glausiusz

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Recent research questioning whether most AIDS in Africa is spread through sex, which was reported in Discover last month, has prompted a rebuttal from evolutionary biologist Edward Holmes of the University of Oxford. He argues that if HIV in Africa is transmitted mainly through contaminated medical needles and transfusions—as anthropologist David Gisselquist claims—then it ought to spread in a fashion similar to that of another blood-borne virus, hepatitis C. When Holmes and his colleagues tracked the incidence of hepatitis C and HIV, however, they found remarkably different patterns. In South Africa, HIV infection rates rose from less than 1 percent of all adults in 1990 to almost 25 percent in 2000. Over the same period, the prevalence of hepatitis C remained steady at around 1 percent, although hepatitis C is more readily spread through contaminated blood.

"We tested one particular aspect of their model—and it failed that test," Holmes says. Medical epidemiologist Tim Mastro, deputy director of the Global AIDS program at the Centers for Disease Control, echoes his skepticism. "The vast majority of scientifically collected data and analysis continues to support the case that the major driving factor for the African AIDS epidemic is sexual transmission," he says. "If you look at the distribution of HIV among populations, the incidence simply doesn't follow the patterns of injections." Most HIV-infected African adults also carry the herpes simplex virus type 2, he says, which is passed on almost exclusively by sex. Despite years of study, however, researchers still do not fully understand why the course of AIDS in Africa is so different from that in Europe and North America.

Read a fact sheet on hepatitis C from the Centers for Disease Control: www.cdc.gov/ncidod/diseases/hepatitis/c/fact.htm.

<http://discovermagazine.com/2003/jul/breakaidsscribe>

Sex is the problem - not sloppy medicine

The Guardian, Thursday 17 April 2003 02.25 BST

HIV infection in sub-Saharan Africa is much more likely to be spread through sex than by unsterile medical practices, British scientists say.

An analysis in the March edition of International Journal of STD and AIDS proposed that sexual transmission of HIV cannot account for more than 35% of HIV incidence in this area. But if this were the case, the epidemic history of HIV would be expected to resemble that of other blood-borne pathogens, such as hepatitis C virus, argue Edward C Holmes and his colleagues.

They compared prevalence patterns for the two viruses and conclude that transmission by medical routes, such as contaminated blood products or unsterile needles, is unlikely to be the main source of HIV infection. With 3.5 million people infected in sub-Saharan Africa last year alone, it is essential to continue to promote safe sex as a key strategy in the fight against HIV infection, they add.

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