

Education slowing AIDS in sub-Saharan Africa

Sunday, March 22, 2009

University Park, Pa. -- Increased schooling across sub-Saharan Africa may be lowering new HIV infections among younger adults, according to sociologists, suggesting a shift in a decades-long trend where formal education is considered an AIDS risk factor.

While education in general has a positive impact on global public health, when it comes to HIV and AIDS in sub-Saharan Africa, education has had a completely opposite effect.

During the early stages of the HIV pandemic in the region, the disease passed unnoticed amidst the onslaught of other infections. When scientists took a closer look at the deadly new disease, they found that more often males with a higher than average education were contracting the disease.

"Before the 1990s, in the impoverished regions of sub-Saharan Africa, even modest amounts of education afforded males higher income, more leisure time, and, for some males, greater access to commercial sex workers," explained David Baker, professor of education and sociology at Penn State and lead author of the study. "HIV-infected higher-status males then spread the infection to both educated and uneducated women, which moved the disease into the general population."

Baker and his Penn State colleagues John Collins and Juan Leon, both graduate students, believe that information about AIDS that was already percolating in wealthier countries did not get to sub-Saharan Africa until the mid 1990s. AIDS was seen as a homosexual, urban disease and either neglect or active misinformation campaigns in some African countries ensured that the preventative effects of education never took root. But among younger people in the region, formal education is emerging as a major preventative factor against new infections. They report their findings in the current issue of the UNESCO journal *Prospects*.

"There needs to be a very clear message, both to the donor community and to

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governments in sub-Saharan Africa, that expanding quality primary schools has to be a topmost priority," said Collins, co-author of the study. "It will not only have economic benefits, but also health benefits."

To find what has happened recently to the link between formal education and HIV infections, the researchers analyzed data from surveys previously undertaken in 11 countries across the region between 2003 and 2005. They specifically looked at males ages 15 to 24, 25 to 34, and older than 35.

Survey participants were tested for HIV infection and interviewed about their education, social status, and sexual behavior.

The researchers argued that because the youngest members of the oldest group -- the 35 and older -- became sexually mature in the late 1980s, when there was little or no information about AIDS, higher education would show as a risk factor instead of a social vaccine.

Statistical analyses of the data suggest that in all 11 countries formal education had no effect on HIV infections in the oldest group, probably because many older adults, educated and uneducated have already been exposed to the virus and many have died.

However, having some schooling did reduce the risk of HIV infections in the youngest group by up to 34 percent in Guinea, Malawi, Senegal, Cameroon, Ghana, and Kenya.

"At 24 years, the oldest member of this young group reached sexual maturity in the mid 1990s, when there was already widespread knowledge that HIV and AIDS could be contracted through unprotected sex and intravenous drug use," explained Baker.

The researchers hypothesize that, reasoning skills gained in school by younger adults play a preventative role against HIV in sub-Saharan Africa.

"More educated people have the cognitive tools to make better sense out of facts presented to them," explained Baker. "We have shown that when there is sufficient information, and no misinformation, people with education adopt

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healthy strategies to avoid infections."

The Penn State researchers caution that while a large number of deaths in the early stages of the HIV pandemic could mask the true effects of education in the oldest group, the findings hold key policy implications for turning education into a social vaccine against HIV in sub-Saharan Africa.

According to Baker, AIDS is a complicated disease and it can only be tackled effectively by providing people with an everyday, accurate working theory of how the disease is transmitted. "We are telling the governments that increased literacy is an explicit prevention strategy against HIV because it will help stop pandemics," he said.

The Penn State researcher also asks nongovernmental organizations to reevaluate their educational programs.

"The kind of information being supplied by NGOs is scandalous because it is so simplistic and minimalist, particularly for low-educated people, that they are not going to figure this disease out in time to prevent their own infection," Baker added.

The National Science Foundation supported this work.

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