

AIDS BRIEFS

THE VALUE OF CIRCUMCISION

If more men in Africa were circumcised, up to 5.7 million HIV infections could be prevented each year, according to a study published in the *Public Library of Science*.

A recent South African study has suggested that male circumcision could reduce the risk of a man acquiring HIV by 60%, as long as it does not encourage men to believe that they can have sexual partners without using condoms. Circumcision is believed to reduce the risk of male infection because it removes the vulnerable tissue inside the foreskin, which contains Langerhans cells (a type of cell particularly vulnerable to HIV infection). The area under the foreskin is also vulnerable to trauma, and is more likely to become abraded if vaginal lubrication is not present. Also, uncircumcised men may be more vulnerable to sexually transmitted infections, because the area under the foreskin can retain bacteria acquired during sex, thus increasing the chance that an infection will become established.

The study used information from UNAIDS on country HIV prevalence and from a 2004 study of male circumcision in Africa. The authors made the following assumptions: Each case of HIV infection will generate approximately 6 further cases, assuming an average age of 27 at infection and a life expectancy of approximately 10 years; 52% of those infected are women, and men are twice as likely to pass HIV to women as women are to pass it to men.

Male circumcision could avert 2 million new infections and 0.3 million deaths over the next 10 years. It could avert a further 3.7 million infections and 2.7 million deaths by 2026. One-quarter of all infections and deaths averted would be in South Africa, the country with one of the lowest circumcision rates in Africa among the black African population. Because circumcision reduces male vulnerability to HIV infection, the proportion of HIV-positive women in sub-Saharan Africa would continue to grow, reaching 58% by 2026. Among circumcised men in South Africa, HIV prevalence would be one-fifth lower than in uncircumcised men.

However, the authors caution that better data will be necessary before these figures can be used to make public health policy decisions, in particular in HIV prevalence figures, which could be up to 30% out. There will also need to be information on circumcision, the age at circumcision and the safety of current circumcision practices. They also need the information from 2 large clinical trials that are currently under way in Kenya and Uganda.

One danger is that circumcision could become a donor-driven tool, which could lead to huge resistance by the affected populations. According to Bertrand Auvert, the researcher who carried out last year's South African study, acceptability studies conducted in Kenya, South Africa and Uganda show that between 50% and 75% of uncircumcised men would opt to have themselves and their sons circumcised if it was proven to reduce the risk of HIV transmission.

Circumcision prevalence varies in Africa from 80% to 95% in the Muslim-influenced countries of West Africa, to 85% in Kenya, 25% in Uganda and Botswana and 10 - 15% in Zambia, Lesotho, Rwanda and Zimbabwe, according to data gathered between 1967 and 2004 in 3 separate surveys. Less is known about variations within countries according to ethnic groups.

Williams BG, *et al. PLoS Medicine* 2006; **3**.

ROUTINE HIV TESTING IN BOTSWANA

By far the greatest problem with prevention and treatment of HIV is the stigma attached to the disease. But in Botswana, where routine HIV testing is offered to anyone who seeks medical care, this policy is widely supported by most people in the country and most also believe that the policy will help to prevent stigma and reduce violence against women.

Botswana introduced an opt-out policy of HIV testing in all major facilities in 2004, when it became clear that people's reluctance to be tested for HIV was a major cause of slow enrolment in the country's free antiretroviral programme.

This cross-sectional study, which recruited 1 268 people from a cross-section of Botswana households for private, structured interviews at the end of 2004, found that 81% of people reported that they were either extremely or very much in favour of routine testing, 60% thought that routine testing would reduce stigma and 55% thought it would reduce violence against women. However, the survey also revealed that 43% thought that routine testing would discourage people from going to the doctor and 68% of the sample felt that they could not refuse a test.

Just under half of those interviewed had been tested – a far greater percentage than is found in most African countries. People who had negative attitudes to those living with HIV and AIDS were less likely to have been tested. The key barriers to testing were: fear of knowing status, lack of perceived risk of acquiring HIV, and fear of having to change sexual behaviour. Seventy-one per cent of those who had

not been tested said that they planned to be tested in the next 6 months. The best incentive for testing was knowing that treatment was available, followed by being tested with their partner.

The knowledge that treatment was available was a key factor in encouraging testing for two-thirds of those tested, as was the confidentiality of the test results, especially for men, but the national media advertising campaign was also very important in encouraging testing (69% said they

were convinced of the need to test by advertising messages). However, only 15% of those who had tested were estimated to have done so as a result of the routine testing programme: most had undergone traditional voluntary testing and counselling. People who visited the doctor at least 3 times a year were significantly more likely to have tested.

Weiser SD, *et al. PLoS Medicine* 2006; **3**.

Bridget Farham

SINGLE SUTURE

TAI CHI VERSUS WALKING

Tai Chi, literally translated as 'supreme ultimate fist', is a Chinese routine of slow, graceful exercise. Not very aerobic you may think, but a recent paper published in *Age and Ageing* suggests otherwise. The authors took 19 sedentary, elderly women and randomised them either to a brisk walking group or to a Tai Chi group. There was significant improvement in the estimated VO_{2max} in the Tai Chi group versus the brisk walking group, suggesting that Tai Chi is a potentially effective way of improving fitness in the elderly. It has the added advantage of improving lower leg strength, balance and flexibility.

Audette JF, *et al. Age Ageing* 2006; **35**: 388-393.

SINGLE SUTURE

PARKINSON'S DISEASE AND *H. PYLORI*

If someone with Parkinson's disease is showing a poor response to levodopa, then check them for *Helicobacter pylori*. A study from Italy suggests that the presence of *H. pylori* affects the pharmacokinetic and clinical response to levodopa. When *H. pylori* was eradicated in a group of patients who were responding poorly to levodopa they showed an increase in levodopa absorption, less clinical disability and a longer time with reduced symptoms.

Pierantozzi M, *et al. Neurology* 2006; **66**:1824-1829.