

MALE CIRCUMCISION AND HIV

It is not known definitively whether and to what degree providing circumcision to men in cultures where male circumcision is not practiced would result in a reduced incidence of HIV infection. Numerous observational studies indicate that circumcised men have lower levels of HIV infection than uncircumcised men. HIV prevalence is lower in populations that traditionally practice male circumcision than in those parts of Africa or Southeast Asia where most men are not circumcised. However, it is unclear to what extent this may be the result of a biological effect of circumcision or whether other factors, including cultural and social ones, may also play a role.

- To address these questions, three randomized controlled trials of male circumcision have been carried out in East and Southern Africa. One is supported by the French Agence Nationale de Recherches sur le SIDA (ANRS) and the other two are supported by the National Institutes of Health of the United States.
- The ANRS trial, conducted in Orange Farm, South Africa, with 3 274 uncircumcised men aged 18 to 24 years, was recently stopped by a South African panel of experts because it apparently showed a significant protective effect of circumcision. As planned in the study protocol, regardless of the results of the trial, circumcision is now being offered to the control group.
- The Principal Investigators of the South Africa trial (Bertran Auvert, Agence Nationale de Recherches sur le SIDA, France and Dr Adrian Puren) will present the results at the 3rd IAS Conference on HIV Pathogenesis and Treatment, being held in Rio de Janeiro, Brazil, on 26 July 2005.

On the research results:

- Full results from the South Africa study must be considered in the context of the cultural acceptability of promoting circumcision, the risk of complications from the procedure, the additional risk associated with circumcisions performed under unhygienic conditions, and the potential to undermine existing protective behaviours and prevention strategies that reduce the risk of HIV infection.
- The two other randomized controlled trials, currently ongoing in Uganda and Kenya with a combined total of nearly 8,000 participants, remain important to clarify the relationship between male circumcision and HIV.
- If male circumcision is found to have a protective effect against HIV acquisition in the three trials, it will join proven preventive tools such as male and female condoms. The potential for negative or uncertain results in the other two trials cannot be ruled out at this stage. However, as with vaccine and microbicide research, preparation for possible positive findings, even though these may be some years away, can help ensure that a new preventive method increases the options available for people to choose from, without leading to abandonment of existing effective strategies, such as consistent condom use.

On male circumcision in general:

- Male circumcision is the surgical removal of all or part of the foreskin of the penis.
- Depending on culture, circumcision is usually performed soon after birth or during adolescence as a coming-of-age rite.
- It is estimated that globally, about 20% of men, and some 35% of men in developing countries, are circumcised for religious, cultural, medical or other reasons.
- Circumcision status and practices are typically determined by culture, ethnicity and religion. Promoting male circumcision among some groups might be as strongly unacceptable as would be promoting abandonment of circumcision practices among communities in which circumcision is practiced.
- In Africa, the continent worst-affected by AIDS, a large percentage of men are circumcised. But in the highest HIV prevalence countries of southern and eastern Africa, male circumcision rates are generally under 20%. In many of these countries, male circumcision was once traditionally practiced and re-introduction of safe male circumcision may turn out to be culturally acceptable. Acceptability studies in a number of African societies where male circumcision is not traditionally practiced have found that substantial proportions of men and women hold positive views on male circumcision; a majority of males in most studies state they would like to be circumcised if it were performed safely and affordably. For example, in a large Harvard AIDS Institute survey in Botswana over 80% of uncircumcised men said they would like to be circumcised, if it were performed safely and affordably.
- Circumcision is not without risk, particularly if not performed under appropriate sterile conditions. Circumcision by unqualified individuals under unsanitary conditions can lead to serious, immediate and long-term complications, or even death. Where health professionals have been trained and equipped to perform safe male circumcisions, however, the rate of post-operative complications is in the order of 0.2-2%.
- Even if male circumcision is conclusively demonstrated to reduce the risk of HIV infection, it alone certainly does not prevent men from becoming infected with HIV. If it is to be promoted, circumcision must be considered as part of the range of methods to reduce the risk of HIV – including avoidance of penetrative sexual activity, reduction in the number of sexual partners, and consistent condom use.
- Regardless of trial results, action is required now to improve current circumcision practices in many regions, and to provide health-care providers and the public up-to-date information on the health risks and benefits of male circumcision. Many boys and men wishing to be circumcised do not have access to safe circumcision services nor to post-circumcision care if they do suffer from complications. Even in the absence of a consensus about whether to actively promote circumcision for HIV prevention, it is now increasingly important to make existing practices safer through training and other necessary support to medical and perhaps other providers.

On how male circumcision could protect against HIV:

- There are several biological explanations for why male circumcision may reduce the risk of HIV infection, including:
 - By removing the foreskin which is not keratinised or toughened on its underside, circumcision reduces the ability of HIV to penetrate the skin of the penis.
 - Laboratory research has revealed that on the underside of the foreskin are located many special immunological cells (such as Langerhans cells) that are prime targets for HIV.

Male circumcision and other health problems:

- Research shows that male circumcision is associated with a much lower risk of penile cancer and a lower risk for acquiring some sexually transmitted infections. As well, two studies now suggest that female partners of circumcised men have a lower risk of cancer of the cervix, which is caused by persistent infection with high risk oncogenic human papilloma virus (HPV) types (*oncogenic* means cancer-inducing). HPV is the most common sexually transmitted infection worldwide
- Studies have found lower rates of urinary tract infections in male infants who are circumcised.

Female genital mutilation/cutting:

- Female genital mutilation/cutting (sometimes incorrectly referred to as female circumcision) comprises all surgical procedures involving partial or total removal of the external genitalia or other injuries to the female genital organs for cultural or other non-therapeutic reasons.
- The following statement was released in 1997 by WHO/UNFPA/UNICEF: "Female infants, young girls and women who undergo the operation face irreversible lifelong health risks, beginning with the operation itself and continuing in consummation and child birth".
- There is no evidence or observational data that such procedures reduce the risk of HIV transmission; biologically, it is more likely to increase the likelihood of HIV transmission.

For more information, please contact: Luciano Milhomem, UNAIDS Media Consultant, Rio de Janeiro, mobile +55 61 9976 7828, Jacqueline Daldin, UNAIDS, Geneva, tel. +41 22 791 3501, email. daldinj@unaids.org, or Beth Magne-Watts, UNAIDS, Geneva, tel. +41 22 791 5074, email. wattsb@unaids.org. For more information on UNAIDS, please visit www.unaids.org