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OPINION

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OPINION ON MALE CIRCUMCISION: AN ARGUABLE METHOD OF REDUCING THE RISKS OF HIV TRANSMISSION

Members of the Working Committee on circumcision:

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Recent, short-term studies on male circumcision led by the Agence nationale de recherche sur le sida (ANRS) at Orange Farm in South Africa¹ and by the National Institutes of Health (NIH) in Kisumu in Kenya² and in Rakai in Uganda³, revealed a reduction of 50% to 60% in the risk of HIV infection among circumcised men who have heterosexual sex. Following on from these results, the WHO and UNAIDS quickly organised a congress of experts whose conclusions envisage "considering male circumcision as a significant supplementary means of reducing the risk of heterosexual HIV transmission in men."⁴. Male circumcision therefore appears to be a possible method of reducing risk in specific situations. However, while the interpretation of the results of the studies is giving rise to debate within the scientific community, it is also raising a number of questions regarding its implementation and its place in terms of public health strategy. The heavy media coverage of the recent results of this research and the confusion that this has caused in terms of understanding of the messages of prevention has prompted the Conseil national du sida (CNS) to take steps to clarify the situation.

THE DIFFICULTIES ASSOCIATED WITH MOVING FROM CLINICAL RESEARCH TO PUBLIC POLICY

Several researchers have attempted to use these results to illustrate the impact of male circumcision on the epidemic of HIV infection by modelling the patterns of incidence. Male circumcision could reduce the number of new infections by around two million and the number of deaths by around 300,000 over the next ten years⁵. These mathematical models are extrapolations based on the hypotheses that underpin them. They do not take into account sociological or anthropological data, nor the likelihood of reproducing the results obtained under controlled experiments in real life. Transmission of the virus by an infected woman to a non-infected man

¹ Auver B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, Puren A. Randomized, controlled intervention trial of male circumcision for reduction on HIV infection risk: the ANRS Trial. *Plos Med* 2005; 2(11): e298.

² Bailey RC, Moses S, Parker C, Agot K, Maclean I, Krieger JN, Williams CFM, Campbell RT, Ndingya-Achola JO. Male circumcision for HIV prevention in young men in Kisumu, Kenya: A randomised controlled trial. *The Lancet* 2007; 369: 643-56.

³ Gray RH, Kigozi G, Serwadda D, Makumbi F, Watya S, Nalugoda F, Kiwanuka N, Moulton LH, Chaudhary MA, Chen MZ, Sewankambo NK, Wabwire-Mangen F, Bacon MC, Williams CFM, Opendi P, Reynolds SJ, Laeyendecker O, Quinn TC, Wawer MJ. Male circumcision for HIV prevention in young men in Rakai, Uganda: A randomised controlled trial, *The Lancet*, 2007, 369: 657-66.

⁴ Joint press release between WHO / UNAIDS issued on 28 March: WHO and UNAIDS announce recommendations from expert consultation on male circumcision HIV prevention. <http://www.who.int/mediacentre/news/releases/2007/pr10/en/index.html>

⁵ Williams BG, Lloyd-Smith JO, Gouws E, Hankins C, Getz WM, Hargrove J, De Zoysa I, Dye C, Auvert B, The potential impact of male circumcision on HIV in Sub-Saharan Africa, *Plos Med*, 2006; 3(7): e262.

is a random event whose cumulative probability over 12 months, assuming repeated exposure, is between 10% and 20%⁶. In the case of repeated exposure, even though the circumcised man is less at risk of contracting any possible infection, the phenomenon of repetition will eventually lead to him becoming infected too – although it will take longer⁷.

The behavioural factors that lead to the risk-taking may cancel out the possible benefits of male circumcision on a wider scale. For this reason, the ANRS is carrying out a new study over the course of 5 years across the entire Orange Farm region. The study will involve at least 30,000 people. It aims to evaluate the impact of a prevention programme on understanding and practices relating to male circumcision, as well as the HIV prevalence in the region⁸. Moreover, the direct move from clinical research to public policy is a difficult one.

It is important not to draw premature conclusions from these preliminary studies. Supplementary research is crucial in order to better define the impact that male circumcision could have on the epidemic's dynamics on wider population.

MALE CIRCUMCISION CANNOT BE A MEANS OF PREVENTION ON ITS OWN

In March 2007, the WHO and UNAIDS published the findings of an international technical consultation and reiterated the fact that "male circumcision does not provide complete protection against HIV"⁹, but is a supplementary means of reducing the risk of infection. It must only be used within the framework of a wider strategy aimed at preventing HIV. Male circumcision could therefore form part of a raft of preventative measures, including this means of risk reduction among others. Individual prevention involves adopting measures that should allow each individual to avoid becoming infected, such as the use of condoms or abstinence if this is acceptable. Because male circumcision does not provide total protection against infection, it cannot be considered as an individual method of prevention, but it does offer a means of reducing risks aimed at lowering the risks of transmission of infection among a population in the same way as reducing the number of partners or providing treatment for infected individuals. In countries with high prevalence, male circumcision could benefit men who do not have routine access to condoms. It could form part of a system that offers access to screening, care and anti-retroviral treatments for infected individuals, combined with an education and information programme aimed at encouraging changes in sexual behaviour. The ultimate goal of this programme would be to promote the use of condoms by the entire population.

Male circumcision as part of a system of risk reduction should form part of a raft of tools aimed at preventing HIV infection and must not be promoted on its own.

A risk of confusing prevention messages

The promotion of male circumcision raises the issue of the coherence and understanding of prevention messages. In fact, this intervention should be evaluated "with regard to the way in which it is perceived and accepted, rejected or adopted"¹⁰. Even though the WHO insists on the idea that, beyond male circumcision, the use of other forms of prevention remains essential¹¹, it is very likely that people who mistakenly believe themselves to be adequately protected will no longer use condoms. Communications relating to prevention are often subject to interpretation. As such, no research has shown that male circumcision reduces the risk of transmission within the context of sexual relationships between men. This interpretation of the results suggested by certain sources is not borne out by any data. Moreover, women must not consider themselves protected just because their partner is circumcised.

The hypothesis that the heavy media coverage of the practice of male circumcision can have a contrary effect to that intended and that it will result in a relaxation in terms of preventative behaviour, with less widespread use of condoms, needs to be considered.

ANTIRETROVIRAL TREATMENTS REMAIN ESSENTIAL

To date, the WHO has encouraged the start of treatment on as wide a scale as possible, a practice propagated by the member states of the United Nations who are committed to universal access to treatment. The promotion of male circumcision must not sway this commitment, which facilitates the implementation of networks of care, but also a reduction in the risk of transmission both for men and for women. This is especially the case as the WHO highlights the fact that this strategy is not aimed at countries with low prevalence or in countries where it relates specifically to one part of the population such as in France or the United States¹².

⁶ Garenne M. Male circumcision and HIV control in Africa, *Plos Med*, 2006, 3(1):e78.

⁷ Kalichman S, Eaton L, Pinkerton S. Circumcision for HIV prevention: failure to fully account for behavioral risk compensation, *Plos Med*, 2007, 4(3): e138.

⁸ CNS interview.

⁹ World Health Organisation / UNAIDS, New Data on Male Circumcision and HIV Prevention: Policy and Programme Implications, March 2007, Montreux.

¹⁰ Fassin D, "Expériences et politiques du sida en Afrique", 4th Francophone Conference on HIV/AIDS (29-31 March 2007).

¹¹ World Health Organisation / UNAIDS, New Data on Male Circumcision and HIV Prevention: Policy and Programme Implications, March 2007, Montreux.

¹² World Health Organisation / UNAIDS, New Data on Male Circumcision and HIV Prevention: Policy and Programme Implications, March 2007, Montreux.

The promotion of male circumcision must not become a lower-cost policy in the fight against the epidemic in developing countries to the detriment of access to drugs.

LET US REAFFIRM THE FOLLOWING POINTS:

- In the context of sexual relationship, condoms are the only effective means of individual prevention, whether the man be circumcised or not.
- Women must not consider themselves protected solely by virtue of the fact that their partner has been circumcised.
- To date, there is no data to support the idea that male circumcision results in a reduction in the risk of infection from sexual relationships between men.
- Universal access to treatment in 2010 remains the priority, as the United Nations advocates.

LIST OF INDIVIDUALS INTERVIEWED:

The Conseil national du SIDA expresses its sincere thanks to the people below who kindly agreed to be interviewed by the Circumcision Committee:

- Professor AUVERT (AP-HP, INSERM U 687, Université de Saint-Quentin), chief investigator in the ANRS 1265 trial on circumcision carried out in South Africa;
- Professor Jean-François Delfraissy, Director of the ANRS;
- Dr Michel Garenne, demographer, director of research, IRD/Institut Pasteur;
- Dr Isabelle de Zoysa, senior adviser HIV/AIDS, WHO;
- Dr Alain Elpelboin, ethnologist, CNRS.