

Short items

Here we present short articles on recent publications, conference announcements and reports related to the work of SACEMA.

Bophelo Pele Male Circumcision Project

From 2002 until 2005 a male circumcision (MC) trial was conducted in Orange Farm. The trial showed a protective effect of MC of about 60%. Following this trial there was an ethical obligation of the funder to offer this effective treatment to the entire community. This project, which was named the Bophelo Pele Male Circumcision (*Health First*) study by the community, started to perform male circumcisions in January 2008. The project is sponsored by the ANRS (*Agence Nationale de Recherches sur le Sida*) and the principal investigator is Prof Bertran Auvert.

The project consists of three distinct phases. The first is a social marketing phase, including a door-to-door campaign, a radio show, pamphlet distribution and community workshops. Those who are interested then visit a recruitment centre. During the second phase, participants are counselled extensively on safe sex messaging, including MC, in a group session and finally in an individual session. Participants have to be 15 years of age or older, written consent is obtained, and Voluntary Counselling and testing is offered. Phase 3, the actual circumcision, follows 3 days after the counselling. 2 to 3 days after the procedure there is a final follow-up visit.

The most significant achievements of the study are that it is still today the only functioning stand-alone clinic in South Africa offering MC for free. Part of the aim of the study was to see whether it would be possible to implement such a project in a community, looking at this goal, the project has been very successful in recruiting men. The maximum capacity of the centre is to do 150 MCs per day. On average about 40-50 MCs are performed with

seasonal peak times like during winter and school holidays. This capacity can be considered another success of the study as a model of high volume, high quality was developed by Drs Rech and Doyle from the centre. This model was adopted and further developed by UNAIDS into what is now called the MOVE model, which describes the entire patient flow and functioning of high volume sites.

The project has been visited by, among others, Michel Sidibe – UNAIDS Executive Director; Dr. Emmanuel F. Njeuhmeli - HIV Prevention Advisor on Male Circumcision for USAID and Mr. Dayanund Loykissoonlal, Acting Director, HIV Prevention Strategies NDOH. More recently, the project was visited by Bill Gates and other high ranking officials of the Gates Foundation. Many local policy makers and health authorities continue to visit the project.

Based on extensive costing exercises the project has been able to advise the Ministry of Health in its endeavours to implement MC in South Africa. A policy and National Guidelines on MC is imminent. The project has become a model for other implementation sites around the entire region. The project aims to complete circumcising the largest portion possible of the men in the Orange Farm community by the middle of 2010, which would be another major achievement if accomplished. Cross sectional studies in future would be able to indicate the impact of large scale MC on HIV infections in a community.

Reference: Dirk Taljaard for the Bophelo Pele Male Circumcision Project <http://www.bpmcc.co.za/>

Impact of early treatment on HIV incidence

In November 2009 the Flemish Research Fund and the Flemish Interuniversity Council approved two proposals concerning “Data-driven modelling of the impact of wide-scale, early HIV treatment on the incidence of HIV in South Africa”. Both projects will be launched in 2010 and involve research and capacity building components as well as efforts to intensify the dialogue with policy makers. More specifically, a household survey will be conducted in two communities near Cape Town that are heavily burdened by HIV and TB, to capture the complex patterns of sexual age mixing and concurrency (having multiple relationships which overlap in time) among residents of these communities. Subsequently, mathematical models will be used to study the role of age disparate and concurrent relationships in translating the effect of early HIV treatment on individuals into population impact on HIV incidence. Further, these projects will allow an additional two PhD and two MSc students to be trained at SACEMA over the next 5 years. A course

in applied statistics will be established as well to meet South Africa’s need for strengthened capacity in statistical analysis of biomedical and epidemiological data. Lastly, a series of meetings and seminars with policy makers will be organised. In this way, the projects aim to facilitate communication and interaction between scientists and provincial as well as national government regarding the guidelines for HIV treatment initiation in South Africa.

Wim Delva, epidemiologist at SACEMA and Ghent University (Belgium) and principal investigator on the funded projects, recently completed his PhD thesis entitled “Sexual behaviour and the spread of HIV – Statistical and epidemiological modelling applications.” Central in the work are six papers describing the sexual behaviour of populations at increased risk for HIV infection as well as opportunities for HIV prevention.

Herpes medication does not reduce HIV transmission

An article published in the June 2009 edition of the SACEMA Quarterly reported on the positive association between genital herpes (most often caused by Herpes Simplex Virus type 2 (HSV-2)) and HIV acquisition (1). It has been argued that HSV-2 could have a major role in fuelling the spread of HIV and that significant numbers of HIV infections could potentially be averted if HSV-2 could either be prevented or suppressed. However, more evidence has become available that current treatment of HSV-2 does not reduce the risk of HIV transmission. A randomized, placebo-controlled trial of a drug widely used as a safe and effective treatment to suppress HSV-2 (acyclovir) has been conducted in 3,408 African couples. In all couples only one of the partners was seropositive for HIV-1 and that partner also had HSV-2. The study took place at 14 sites in seven countries in eastern and southern Africa (Botswana, Kenya, Rwanda, South Africa, Tanzania, Uganda and Zambia). Researcher Guy De Bruyn who was part of the study team indicated to SACEMA that “the ‘Partners in Prevention’ trial was the largest discordant couples study undertaken up till now”. The study found that

daily acyclovir therapy reduced the occurrence of genital ulcers due to HSV-2 (by 73%). Furthermore, acyclovir reduced the average amount of HIV in the blood (by 40%), which is in agreement with results of earlier trials. Although the modest reduction in HIV viral load decreased HIV disease progression, a finding similar to that of prior trials, it did not reduce the risk of transmission of HIV-1. De Bruyn further said that “future interventions will need to provide greater reductions of HIV viral load if they are to have a transmission benefit”.

Reference list

1. Tarnaud C, Lissouba P, Auvert B. Transmission probability of HIV and Herpes Simplex Virus. SACEMA Quarterly, issue June 2009. [http://www.sacemaquarterly.com/magazines.php?page=detailview&p_id=11&d_id=24] Accessed February 25, 2010.
2. Celum C, Wald A, Lingappa JR, et al. Acyclovir and transmission of HIV-1 from persons infected with HIV-1 and HSV-2. *N Engl J Med.* 2010;362(5):427-39.