

CONSULTATION | 2 - 4 NOVEMBER 2009, GENEVA, SWITZERLAND

Antiretroviral therapy *for* HIV PREVENTION

KEY MESSAGES: A mathematical model developed by WHO scientists

- A WHO-authored paper, published 26 November 2008 in *The Lancet*,¹ explores the use of antiretroviral therapy (ART) for HIV prevention.
- The paper describes a theoretical mathematical modelling exercise. It does not signal a change in WHO policy or recommendations.
- This modelling exercise uses data from several countries in southern Africa with severe heterosexual HIV/AIDS epidemics.
- According to the model, universal voluntary HIV testing for all adults, on average once a year, followed by immediate ART after diagnosis, irrespective of CD4 count, would result in:
 - A 95% reduction in annual HIV incidence (rate of new HIV cases) within 10 years. In other words, in 10 years' time, the number of annual new HIV infections would be reduced from 20 to 1 per thousand adults.
 - A drop in HIV prevalence (proportion of people living with HIV) to less than 1% within 50 years.
- The model assumes a 'combined prevention' approach in which other WHO-recommended interventions are maintained, including correct and consistent use of condoms, partner reduction, male circumcision and treatment for sexually transmitted infections.
- The authors discuss a number of challenges relating to the model, including the protection of individual rights, treatment adherence, drug toxicity and weak health systems.
- While initial costs of the modelled approach are high, there would be an annual cost savings in the medium and long term.
- Irrespective of the findings of the model, WHO policy discussions already consider expanding access to voluntary HIV testing, combination prevention packages, the timing of ART initiation, and the use of ART to prevent HIV transmission.
- WHO will host a consultation on 'Antiretroviral therapy for HIV prevention' from 2 to 4 November 2009.