

CONSULTATION | 2 - 4 NOVEMBER 2009, GENEVA, SWITZERLAND

# Antiretroviral therapy *for* HIV PREVENTION

## FACT SHEET

The World Health Organization (WHO) will host a consultation on antiretroviral therapy (ART) for HIV prevention in November 2009. This meeting follows the publication in *The Lancet* of a mathematical model on ART for prevention developed by WHO scientists.

## CONTEXT AND TRENDS

- Globally, an estimated 33 million people are living with HIV. In 2007 alone, there were 2.7 million new HIV infections.
- Two-thirds of all HIV infections are in sub-Saharan Africa.
- By end-2008, more than 4 million people were accessing antiretroviral therapy in low- and middle-income countries. That same year, an estimated 5.5 million in immediate need of treatment could not access it.
- Current efforts to treat HIV are not keeping pace with all those who need therapy. Without a dramatic reduction in new HIV infections, this trend will continue.

## PREVENTING HIV TRANSMISSION

- Globally, the most common mode of HIV transmission is sexual transmission, followed by injecting drug use and mother-to-child transmission.
- Interventions to prevent sexual transmission of HIV include correct and consistent condom use, treatment of sexually transmitted infections, and reduction in numbers of sex partners. Male circumcision reduces HIV transmission from women to men in settings with very high HIV prevalence.
- Harm reduction interventions, including provision of clean injection equipment and opioid substitution therapy, are effective in curbing transmission related to injection drug use.
- A set of interventions to prevent the transmission of HIV from mother to child, including the appropriate use of antiretroviral medicines, has virtually eliminated new HIV infections among children in the industrialized world and greatly reduced such infections in a number of low- and middle-income countries.
- Antiretroviral medicines are recommended to prevent transmission after potential HIV exposure in health-care settings or through sexual intercourse (for example, in the case of condom breakage or sexual assault).

- Research on new HIV prevention technologies is ongoing. To date, results from vaccine trials and trials for microbicides have shown limited protection against HIV. Studies are under way to evaluate the effectiveness of antiretroviral drugs as a prevention measure in HIV-negative individuals.
- While current prevention approaches may reduce the number of new HIV infections, they are unlikely to eliminate the disease in settings with high HIV prevalence.

#### ANTIRETROVIRAL THERAPY FOR HIV PREVENTION

- Evaluating the role of ART for HIV prevention has emerged as a pressing issue in HIV/AIDS science.
- ART lowers the concentration of HIV (also known as viral load) in the bloodstream and in genital secretions. Since viral load is the single greatest risk factor for all modes of HIV transmission, ART use decreases the risk that HIV will be transmitted from one person to another.
- There is currently insufficient evidence for WHO to define specific policy or clinical guidance on the role of ART in HIV prevention. WHO is committed to promoting consultation among countries and stakeholders regarding this important issue.

#### WHEN TO START ART?

- HIV causes progressive damage to the immune system, measured by decline in the number of CD4+ lymphocytes in the blood. As HIV disease progresses, a patient's CD4 count drops and this is associated with increased susceptibility to infections and certain cancers.
- HIV experts continue to debate the optimal time to begin ART. Some studies suggest that earlier initiation of ART reduces the risk of HIV-related death and disability. However, ART can also cause unwanted side effects, and there are concerns related to the longer-term use of these medicines.
- WHO is currently reviewing evidence concerning the use of ART, including when to start therapy, and will issue revised recommendations later in 2009.
- A large majority of people living with HIV remains undiagnosed. This probably remains the major barrier to prevention and treatment efforts.