

# Tuberculosis and HIV/AIDS: A Dual Epidemic in Sub-Saharan Africa

About a third of 42 million people living with HIV/AIDS (PLWHA) by the end of 2002 are co-infected with *Mycobacterium tuberculosis*. Since 70% of those co-infected live in sub-Saharan Africa, this region also bears the overwhelming brunt of the global epidemic of HIV-associated TB. Out of 24 countries in the world with an adult HIV seroprevalence rate above 5%, 23 are in sub-Saharan Africa. In 8 of these countries (all in Southern Africa), the adult HIV seroprevalence rate is above 15%. Sub-Saharan Africa thus bears the overwhelming brunt of the HIV/AIDS epidemic. Nigeria had a seroprevalence rate of 5.8% by the end of 2002. HIV is the most powerful known factor for reactivation of latent TB infection to active disease and may be the most potent risk factor for TB yet identified. The two infections have a symbiotic relationship.

Escalating TB case rates over the past decade in sub-Saharan Africa are largely attributable to the HIV epidemic. Case fatality rates have increased from >5% to >20% in the worst affected countries. Up to 70% of patients with sputum smear-positive pulmonary TB (PTB), are HIV-positive and up to half of PLWHA develop TB.

In a study we carried out at the University of Benin Teaching Hospital (UBTH) in Benin City, Nigeria, between January 1998 and December 1999, the case fatality rate was 8%, and up to 32% of the patients with sputum smear-positive PTB were HIV-positive. This data would have increased considering the high seroprevalence rate (5.8%) of HIV now in Nigeria, which was about 2.5% at the time of our study.

TB is the most common cause of HIV-related death in many HIV-affected settings. Conditions that enhance vulnerability to TB are poverty, homelessness, substance abuse, psychological stress, poor nutritional status; crowded living conditions also enhance vulnerability to HIV. Both epidemics register their highest rates of infection among populations that are typically disadvantaged or marginalized in their societies. Most African women fall within these groups. They have a right to education and information about TB, HIV and the synergy between the two infections, so that they can make informed choices about testing and treatment options.

For many years, those involved primarily with tackling TB and HIV have largely pursued separate courses. For TB, they have concentrated on ensuring that all TB patients have access to the basic essentials of TB control, namely, case-detection and cure. For HIV, strategies have been formulated for care of PLWHA and there has been little measurable progress so far in implementing interventions which ensure that PLWHA have access to effective diagnosis and treatment of the common infections (and their complications) which are responsible for HIV-related illnesses and deaths (namely, TB, pneumonia, diarrhoea). Yet in those countries with the highest rate of TB/HIV

co-infection (all in sub-Saharan Africa), it is apparent that those involved primarily with tackling TB and those involved in tackling HIV have a common cause.

Tackling HIV means tackling TB as the single biggest killer of PLWHA and tackling TB means tackling HIV as the most potent force driving the TB epidemic. There is a growing recognition of the need for increased collaboration between TB and HIV programmers to provide a coherent health service response to the dual TB/HIV epidemic in Africa. Considerable orientation of approach on the part of national and international agencies is necessary for HIV and TB programmers to ensure full coordination of efforts (which until now have been largely independent) to achieve common aims in tackling HIV and TB.

Given the overlap between the two epidemics, however, and the recent increase in TB cases, especially in sub-Saharan African countries, there is an urgent need to promote a joint approach at both the global and local level, and to ensure delivery of interventions to tackle HIV-related TB.

Finally, we cannot afford to treat TB and HIV as separate problems. By supporting expanded and strengthened programs and developing an integrated strategy to tackle these diseases, hundreds of thousands of additional lives can be saved and help reverse this dual epidemic in sub-Saharan Africa.

**Obuekwe Ifeyinwa Flossy**

Department of Pharmaceutical Microbiology, University of Benin, Benin City. Nigeria.

Email: ifyobuekwe@yahoo.com, fobuekwe@uniben.edu

**Egbagbe Eruke Elizabeth**

Department of Medicine, College of Medicine, University of Benin, Benin City. Nigeria.

Email: eegbagbe@yahoo.com, eegbagbe@uniben.edu