# Report from the Expert Consultation on Drug-Resistant Tuberculosis: Johannesburg, South Africa, 7 – 8 September 2006

## Background

A global laboratory network survey conducted by the US Centers for Disease Control (CDC) and the World Health Organization (WHO) reported in early 2006 that virtually untreatable tuberculosis (TB) due to extensive drug resistance was present in every region of the world.[1] International concerns about the emergence of such strains were heightened by a recent report from the KwaZulu-Natal province of South Africa highlighting the risk for rapid mortality in HIV-infected persons with highly resistant TB.[2] In this cluster of cases, all but one of 53 patients died within an average of 25 days from the point when drug-resistant TB was first suspected. The extremely high mortality was in part explained by the fact that all 44 patients tested for HIV infection were positive; 15 of these died with highly resistant TB despite receiving antiretroviral therapy.

Concern about geographical spread of virtually untreatable TB strains and the adverse implications for high-burden HIV settings prompted an Expert Consultation in Johannesburg, South Africa, on 7 and 8 September 2006, organized jointly by the South African Medical Research Council (SAMRC), WHO and CDC.

The consultation was attended by representatives and guests of the co-organizing agencies together with delegates from countries comprising the Southern Africa Development Community (SADC). SADC countries show the highest incidences of HIV-associated TB in the world. Together with sub-optimal TB control in many settings, uncontrolled use of second-line drugs, and enormous patient load on health facilities ill-equipped to prevent transmission, conditions are ideal for development of extensively resistant TB strains and rapid spread. SADC Ministers of Health were signatories to the declaration of TB as an emergency in Africa and have been instrumental in the development of a SADC framework for TB control in the sub-region. Prevention and control of drug-resistant TB fit well within these commitments and are therefore consistent with the strategic direction outlined in the Strategic Plan for TB Control for the African Region.

The aims of the Expert Consultation were to:

- Call attention to the problem of TB drug resistance in SADC countries;
- Define the gaps in surveillance of TB drug resistance in the region;
- Call attention to the WHO Guidelines for Programmatic Management of TB Drug Resistance, launched in May 2006;
- Define essential components of TB infection control, particularly in high-HIV prevalence settings;
- Identify the steps necessary for SADC countries to effectively address the problem of drug-resistant TB.

The consultation involved formal presentations on the epidemiology and surveillance of drug-resistant TB, programmatic management of such patients, drug-resistant TB outbreaks, and infection control measures needed within the context of high-burden HIV settings. Formal presentations were followed by interactive participant group discussions on the implications of drug-resistant TB for the SADC region and the associated needs and strategic priorities for action. These were summarized in a seven-point action plan adopted during the meeting:

- Conduct rapid surveys of extensively drug-resistant TB;
- Enhance laboratory capacity;
- Improve technical capacity of clinical and public health managers to effectively respond to XDR-TB outbreaks;
- Implement infection control precautions;

- Increase research support for anti-TB drug development;
- Increase research support for rapid diagnostic test development;
- Promote universal access to ARVs under joint TB/HIV activities.

Delegates unanimously agreed that emergency steps were needed to avoid further generation and transmission of extensively drug-resistant TB strains. If left unchecked, these deadly strains could further jeopardise TB control throughout the Southern Africa region and could kill large numbers of people living with HIV/AIDS. The final plenary session of the consultation therefore focused on refinement of the above plan to identify immediate emergency action steps, as well as longer-term strategic steps required to prevent and contain the spread of drug-resistant TB, while appropriately managing existing patients to prevent rapid and premature death.

**Meeting outcomes**

As an overarching need, the meeting re-enforced the requirement for **governments to move quickly to confront the issues related to the function and performance of TB control programmes**, including:

- Ensuring cure rates of at least 85% in patients on first-line anti-TB treatment;
- Addressing reasons for high default rates among TB patients;
- Addressing reasons for high mortality among TB patients;

Beyond addressing TB programme performance issues, the following short-term and longer-term steps are required as priorities to limit the negative impact of drug-resistant TB:

***Short-term***

1. Urgently confront and correct poor TB control programme performance;

2. Ensure strict control and proper use of first- and second-line anti-TB drugs by following WHO Guidelines;[3]

3. Clarify and refine the definition of XDR-TB;

4. Within 3 months, develop national emergency response plans for multidrug-resistant and extensively drug-resistant TB (M(X)DR-TB):
    a. Determine if country Emergency TB Plans had been developed following the 2005 Maputo Summit on Regional TB;
    b. Integrate M(X)DR-TB response plans with country Emergency TB Plans;
    c. Contact technical partners to assist with development of M(X)DR-TB response plans;
    d. Identify in-country focal points to lead and coordinate action steps for the response plan;
    e. Determine and address the causes of misuse of second-line anti-TB drugs contributing to the emergence of extensively-resistant strains;
    f. Stop the use of second-line TB drugs wherever treatment for drug-resistant TB does not follow the WHO guidelines;
    g. Accelerate in-country registration of all second-line anti-TB drugs available through the Green Light Committee procurement mechanism.

5. Within 3-6 months, conduct rapid surveys of drug-resistant TB, using standardised protocols to be developed by WHO, CDC, SAMRC and other technical agencies to assess the presence of M(X)DR-TB in vulnerable populations (survey protocol to be available by end of September 2006);