

**Report of the
Sixth annual meeting of the
Stop TB Working Group on MDR-TB**

**Tbilisi, Georgia
20–22 September 2007**



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Summary

The sixth meeting of the Stop TB Working Group on MDR-TB (WG) was held on 20–22 September 2007 in Tbilisi, Georgia. More than 170 participants attended the meeting, representing countries, bilateral and multilateral agencies, international organizations, nongovernmental organizations (NGOs), the pharmaceutical industry and academia (Annex 1). The main purpose of the meeting was to consolidate the lessons learnt from the six major hurdles to scaling up the management of multidrug-resistant tuberculosis (MDR-TB) worldwide, namely management of second-line anti-TB drugs; laboratory capacity; community involvement; recording and reporting, infection control; and planning of scale up.

The meeting was structured around three sessions:

1. Managing MDR-TB: experiences at country level
2. Translating best practices into effective response
3. Implementing the global response plan: next steps

Major outcomes of the meeting included:

- declaration of a major crisis in procurement of second-line anti-TB drugs;
- endorsement of an updated research agenda on MDR-TB control;
- endorsement of community-based MDR-TB care as a means of accelerating scale-up of MDR-TB management;
- awareness of the urgent need for coherent and adequately-costed plans to scale-up laboratory capacity, based on international policy guidelines, technical standards, appropriate external quality assurance and long-term technical assistance;
- awareness of the potential of new diagnostic tools to facilitate and accelerate diagnosis of MDR-TB, even in low-resource settings.
- awareness of the importance of infection control within the context of MDR-TB and HIV;
- strengthening of collaboration between implementing working groups of the Stop TB Partnership;
- agreement on the process to elect a new chair and vice-chair by 4 October 2007.

This report summarizes the presentations, discussions, and conclusions and recommendations of the meeting.

Meeting objectives

The objectives of the meeting were:

- To create further awareness of the global emergency of MDR-TB and XDR-TB (extensively drug-resistant TB) in order to plan a more accelerated response by all individuals and agencies of the Working Group on MDR-TB (WG).
- To assess the lessons learnt by national TB control programmes (NTPs) and projects approved by the Green Light Committee on the management of MDR-TB in order to inform policy formulations.
- To review the progress achieved by subgroups of the WG and other relevant subgroups.
- To examine the progress made in scaling-up MDR-TB control according to the Global Plan to Stop TB, 2006–2015¹ and to make decisions about ways of accelerating control activities.
- To analyse challenges to scaling up MDR-TB management and to accelerate mobilization of resources by the Stop TB community.

Session 1. Managing MDR-TB: experiences at country level

The discussion under Session 1 was structured around country experiences in plenary and presentations subsequent detailed debate in the break-out sessions on each of the six thematic areas: scaling up MDR-TB management; management of second-line anti-TB drugs; building laboratory practices; infection control; scaling up patient and community participation; and recording and reporting. The summary below represents the detailed discussions in the break-out sessions. All plenary presentations under Session 1, including two special plenary sessions devoted to infection control and the E. Lilly partnership presentation, are posted on the web site of the Stop TB Partnership's working groups.²

Scaling up MDR-TB management

The following four areas were identified as principal bottlenecks to accelerating the scale up of MDR-TB management:

1. Lack of political commitment; a special concern of the largest high-burden countries

Participants highlighted that DOTS was not being implemented comprehensively everywhere. There is a need for renewed political commitment to help strengthen NTPs, to enable them to build strong national programmes. Adequate human resources and an appropriate mandate, with adequate rules and regulations, are indispensable in supporting NTPs.

Since the size of a country alone can be a factor preventing rapid scale up (e.g. China and India), there is a need to increase the sense of urgency at the country level. Lack of proper coordination between different ministries, WHO and other partners, is a

¹ Stop TB Partnership. *The Global Plan to Stop TB, 2006–2015*. Geneva, World Health Organization, 2006 (WHO/HTM/STB/2006.35).

² See http://www.stoptb.org/wg/dots_plus/meetings.asp

major obstacle.

Community care and support are as important as treatment. The exclusion of TB patients from society was therefore noted as one of the main problems. With insufficient participation from NGOs and civil society, there is a greater need for increased efforts from communities, and the medical professionals.

2. Lack of capacity in countries to prepare and implement MDR-TB control programmes

For a number of countries, the implementation of MDR-TB control programmes remains a real challenge as most of MDR-TB patients are not referred from the NTP. For most countries in the WHO African Region, the magnitude of MDR-TB is still unknown. Diagnosis is often not part of the normal DOTS programme. Laboratory capacity is the most often quoted bottleneck, as inadequate numbers of laboratories exist to perform culture tests, the process of receiving laboratory data is too lengthy and most of the laboratories need to be linked with supranational TB reference laboratories outside the region. Other highlighted challenges included procurement problems and how to link public and private sectors.

3. Lack of capacity to deliver high-quality technical assistance to countries in the situation of increased availability of financial resources and accelerated response.

The provision of timely, efficient and quality-assured technical assistance is key to ensuring scale up of activities in response to MDR-TB. Although most countries need technical support to develop country guidelines, representatives reiterated during the session that there was a need for more coordinated efforts between different partners with specific expertise to offer countries targeted technical assistance. There is also a need for a comprehensive regional approach, so that consultants do not provide diverging recommendations. Consultancy planning should be long term, with consultancy visits organized more than 1–2 times a year.

Receiving timely and coordinated technical assistance was highlighted in the context of principal recipients of the Global Fund to Fight AIDS, Tuberculosis and Malaria (GF) being under pressure to start treatment strictly in accordance with the proposal.

4. Too slow administration and channelling of financial resources

Members of the working group discussed how to leverage partners at the country level to ensure that countries can absorb funds. The discussion favoured further deliberations on a streamlined approach for a country-level/regional funding manager, who would have to manage funds under different pressures.

Management of second-line anti TB drugs

The discussion recognized that there was a global shortage of the second-line anti-TB drugs and a severe imbalance in the supply-demand for these products. There are inadequate medications for patients in the active GLC projects, and in the currently-approved GLC projects. The specific amounts of the imbalance, both current and future, are not known.

There are national project shortages created by limits on available supply in particular countries. This results partly from the global shortage, but the situation is worsened

by registration restrictions, import barriers of governments, poor forecasting and communication of need by projects, delays in order placement by Principal Recipients of GF grants, etc. The specific amounts of the imbalance are known for certain projects, but not for others.

Opaque market situation is created by non-existence of accurate, reliable quantification of current demand and the process for short- and longer-term forecasting, inability to estimate the timing and reliability of demand and lack of strong player to assure payment and assume risk. The main causes for short-term paralysis in flow of second-line anti-TB drugs are general system lock-up, problems in logistics, communications and response-time to and from GLC, GDF, IDA and the projects, exacerbated supply shortages, no firm demand forecasts that result in little supply and inadequate approved supply resulting in no release of funds.

Producers reportedly lose their interest in the market of the second-line anti-TB drugs because of technical requirements of production and high capital cost, scarcity of raw materials, shelf-life risks, expensive and slow pre-qualification and approval process, high production costs, barriers of country registrations and import licenses. There is a call for more attractive, predictable, domestic and international markets.

The crisis in the procurement of the second-line anti-TB drugs has not been acknowledged and addressed with appropriate sense of urgency. The WG felt that until now MDR-TB drugs have not been made a priority in the WHO Prequalification Programme. An evident obstacle to finding a solution is that the power to resolve the crisis is held by people in different organizations, answering to different authorities and the lines of responsibility and accountability are not totally clear to everybody. The complexity and extent of the work requires dedicated, full-time professionals and funding.

Building laboratory capacity to deal with MDR-TB

Several key factors need to be addressed in order to build laboratory capacity for scale up. These include the need for coherent plans to scale up quality controlled laboratory networks, informed by international policy guidelines; long term and consistent technical assistance that is crucial for implementing new tools; consultant capacity (quality and quantity); international technical consensus - external quality assurance (EQA), standard operating procedures (SOP), quality control (QC), supportive supervision and sufficient number of qualified human resources. There needs to be an explicit linkage between NTP and laboratory as well as the link with the private labs and hospitals in every country. Coordination of efforts has to be strengthened, as multiple donors and partners are involved, sometimes bringing contradicting messages. Scale up of laboratory capacity may also be facilitated by setting minimal requirements for starting an MDR-TB control programme and linking supranational reference laboratory (SRNL) network with more than 1 laboratory at national level, especially in large countries.

With regard to the role of new diagnostic tools and their implementation in routine programme conditions, the meeting took note of several options for rapid targeted diagnosis of rifampicin resistance and MDR-TB (HAIN-test) and in particular FIND's led project on PCR based rapid screening test for R and H resistance directly from

SS+ specimens. The need was highlighted for distinguishing diagnosis and monitoring, as well as re-emphasizing "low tech" methods applicable at intermediate level and using of LED fluorescent microscopy, especially for detection of SS- in high HIV prevalence setting.

To expand capacity for drugs susceptibility testing (DST) for second-line anti-TB drugs consensus needs to be reached among experts on methodologies and clinical relevance for each of the drugs. In this regard WHO and Laboratory subgroup are finalizing interim policy guidelines on DST for second-line anti-TB drugs and technical manual for lab personnel, based on consensus among experts. However lack of standards was observed for second-line anti-TB other than aminoglycosides and fluoroquinolones. Regimens should be based on history of drugs used in country and individual patient. The participants called for further human resource development and implementation of proficiency testing for second-line anti-TB. Explicit linkage was underlined between laboratory, NTP and clinicians and how to make them understand importance and consequences of laboratory results, especially second-line anti-TB DST and their *in vitro* reliability.

In the context of implications of decentralizing, it was emphasized that there needs to be a minimal specimen-load established to maintain quality, i.e. not less than 200 DST per year to maintain proficiency. However, in high HIV prevalence settings maximal specimen load should also be recommended to maintain quality. Decentralization may happen only in a functional and rational network, with appropriate responsibilities, transport of specimens and infrastructure. Second-line anti-TB DST still has to be centralized.

Further research and consensus-building is needed for second-line anti-TB DST, operational research to evaluate feasibility and reliability of rapid DST-methods and monitoring with smear instead of culture (repeated, several smears, especially after culture conversion).

TB Infection Control

TB infection control is based on good TB control which involves the determinants such as political will, intensified case finding, strong laboratory for rapid diagnosis, early initiation of best treatment regimen, attention to adherence and completion of treatment, reliable supply of anti-TB drugs (including second-line anti-TB), recording and reporting.

TB Infection Control Subgroup of the TB-HIV Working Group has been formed and the core team will be selected. MDR-TB WG representative will be identified for the core team. The subgroup is already engaged in revising 1999 TB Infection Control guidelines. The other items on the subgroup's agenda were discussed and include organizing of a meeting of TB infection control experts to finalize both global and national strategies on implementation, developing a comprehensive training strategy for health care workers at all levels, working within the context of general infection control, promoting monitoring and evaluation, developing a campaign to promote infection control and mobilizing financial resources.

Scaling-up patient and community participation in the Response to MDR-TB and XDR-TB.

While it was difficult to identify cured TB patients because they may simply want to resume their old life, it was debated that there is a huge human resource of MDR-TB patients who could be used as advocates.

There was also debate over whether to use the terms *TB control* or *TB care*, as the first seemed to support the rationale of a top-down prescriptive approach, while the second seemed to lend itself to a more participatory meaning. One particular perception was that the system is not primarily designed as a care system: it is there for the prevention of transmission more so than to cure the patient. Another interpretation from the floor indicated that it was important to control the disease in order to care for the patient.

1. MDR-TB patient participation as the way to promote political commitment to scale-up MDR-TB management.

There was agreement that it is important to use patient as advocates, but also a necessity to feature community participation. It was suggested to include everybody as a whole under the definition of community in this sense: medical doctors and other health workers, medical associations and donors, local officials, and ordinary community people partnering TB patients. It was also noted that it was important to build alliances with opinion makers such as the media and union organizations.

There is greater sense of community in some societies (such as Peru, and the Philippines) than in others. However, almost in every society community groups have been able to mobilize a health agenda.

2. Community participation as the response to the lack of adequate and sufficient human resources to scale-up MDR-TB management.

In Namibia and Indonesia, where health care workers were unable to dedicate adequate time (due to lack of human resource), difficult patients who were at risk of failing treatment were approached pre-consultation by volunteer staff, whose role was to inform on TB in an informal setting.

In the case of Philippines, patients have become more empowered by the social mobilisation of ordinary people as volunteer advocates on special task forces. This results in building a motivated community to support a program, and it is this membership that will advocate for political commitment. It was considered that a dedicated community was more valued than a paid, untrained (and perhaps uninitiated) worker.

It was considered important to evaluate whether community participation is acknowledged as a feature of the National Health Plan, and does this also mean that it is a natural part of the TB programme.

3. Ways of promoting community participation in countries where civil society is not strong enough.

The Global Fund proposed the need to strengthen the TB community. Concerns were raised that it would be hard to implement in countries where there is a weak TB community.

The Philippines example showed that unlike HIV, where patients were predominantly young, financially secure and prominent, TB patients are predominantly poor, unaware of their rights, and feel stigmatised. Patients hesitate in participating in such processes, and it was felt that addressing stigma of patients was important in moving them into a phase of greater participation.

The setting up of NGO's (perhaps under an umbrella organisations such as KNCV) was seen as an important way of initiating, supporting local initiatives. It was also important to have the whole community (health workers, local council authorities, workplaces and professional/trade unions, society leaders, media) involved, otherwise advocacy effort may be too weak. The strength and resources of an organisation (or organisations) was thought to be able to provide counselling and support to combat stigma, as well resources (information, funding, advice).

Another suggestion included an analysis on priority needs (resources, training, an education process whereby patients are taught the importance of participation and advocacy).

Initially, it is suggested due to the relationship of poor socioeconomic status and stigma, patients could benefit from in-house education sessions (support mechanisms for the patient, about the treatment process, examples of successes) provided by health workers. The organisation and facilitation of the sessions would be initiated by the health workers/health facility.

It was suggested that it was important to collect individual patients together in a group, purely at social level at first, but with increasing levels of counselling, support, training to *coach them into an organisation*, that is finally empowered to advocate to the TB community, public and the media. It was felt behavioural research could be used as an important resource which could provide sound methods that were effective in this sort of process: from a social club (which may even have originated in a waiting room) to a union complex.

4. Should social support be an essential part of MRD-TB management?

Whilst TB treatment and access to tuberculosis medications are free of charge, the opportunity costs of the patient being treated may compromise their treatment. For example, there are countries where inpatient treatment of 6-8 months is the norm, if the patient is the main breadwinner, they may sign out and therefore default on their treatment, as a result of an inadequate income to sustain their family in their absence, and a lack of social support systems.

The Green Light Committee, it has been acknowledged, has identified that social support is integral to MDR-TB management and has that as a requisite for approving applications.

The experience in the Tomsk oblast, in Russian Federation has shown that social support services are effective in improving successful treatment rates. The pilot study of MDR-TB in the penitentiary system, which managed to reduce MDR-TB failure rates from 25% down to 10-15%, featured such social support services as food packages and provision of hygiene packages and daily visit by psychologists who provided treatment, support and discussion of social problems.

Recording and Reporting in MDR-TB

The participants of the WG meeting agreed that the recording and reporting (R&R) system should allow managers of NTPs at different levels to monitor overall programme performance to provide the basis for programme and policy developments and to aid staff in treatment units to provide adequate management of individual patients. The approach of the discussion was to clarify, simplify and shorten the R&R system for drug resistant TB (ch 4, ch 18, forms) and obtain a compromise on a basic set of indicators.

Participants felt that it was important to define a minimum set of indicators to come up with a standardized information and acknowledge that countries can add additional indicators and variables according to their context and needs.

The basic indicators that were identified included the following:

1. Final outcomes of MDR-TB treatment.
2. Interim treatment outcome at 6-months of MDR-TB cases .
3. Patients still on treatment at 6 months (not defaulted or died).
4. Among those still on treatment: bacteriologic status.
5. Number of patients started on category IV treatment.
6. Number of patients registered with diagnostic category IV (burden of MDR-TB).
7. MDR-TB treatment coverage and delay.
8. DST coverage in patient groups targeted for DST (such as close contacts, failures of Category II treatment).

Half-yearly or quarterly interim treatment outcome (e.g., at 12 or 18 months) and MDR-TB percentage in different patient groups were identified as optional indicators.

The controversial points that emerged during the discussion included the issues of how one defines a minimum set of indicators and variables for a programmatic management of a complex disease and how to register backlog of cases. To address the latter, accurate data on drugs forecasting is needed.

WG governance issues: New composition of the Core Group, election of a new chair and vice-chair

The outgoing Chair of the WG Dr Thelma Tupasi presented the election process of a new chair and vice-chair, which was for the first time in the history of the WG open to all WG members, including those that were not attending the meeting in person and was, therefore, more inclusive and transparent approach for selection of the WG leadership.

The announced nominees for the two positions were the following:

Chair:

- Dr. Kitty Lambregts, KCNV
- Dr. Michael Kimerling, UAB

Co-chair:

- Case Gordon, World Care Council
- Pervaiz Tufail from Pakistan

Nominees were requested to submit to the WG secretariat a one-page platform of their actions to operationalize the WG plans to attain the goals of the Global Plan to Stop TB 2006-2015 to scale up MDR-TB management by close of business, Geneva time (Switzerland) Monday, 24 September. This platform was agreed to be circulated by e-mail to all WG members. Election was announced to open from Tuesday 25 September until close of business Geneva time, 2 October.

Session 2. Translating best practices into effective response

The session two was organized in a way of informative presentations to include update on drug resistance surveillance, a presentation on media relations with regard to MDR-TB issues, the presentation of the work on the most important normative products and reports from several subgroups of the Stop TB Partnership's working groups. For further detail on presentations under Session 2 please refer to the WG website at http://www.stoptb.org/wg/dots_plus/meetings.asp.

Session 3. Implementing the global response plan: next steps

Session Three presented an opportunity to the WG members to summarize the discussion held under each of the topics during the Session One and to propose strategic recommendations for the future work. The outcome of the discussion is summarized in the conclusions and recommendations below.

Conclusions and recommendations

- On drug management of second-line anti-TB drugs:
 1. Declare a major crisis in the drug supply of second-line anti-TB drugs to GLC approved programmes.
 2. Approve the TORs for a subgroup on drug management, which should be submitting a plan of action for consideration and approval by the Core Group at a to-be-scheduled meeting in Cape Town (South Africa), November, 2007.

3. Bring to the attention of WHO/STB and Coordinating Board of the STP this crisis and the serious negative implications on the global response to MDR-TB epidemic.
- On scale up of MDR-TB management
 1. Core group to develop further the idea of a network of regional training centers for MDR-TB management by the end of December 2007, based on the issues raised in the breakout session of the WG.
 2. WHO and partners to work intensely with high burden countries and countries at risk of facing problems with MDR-TB scale-up with the aim of securing agreement for MDR-TB expansion at the highest levels of Government
 3. Stop TB Coordinating Board to address the scale-up of MDR-TB in the next Coordinating Board meeting.
 4. TBTEAM to formulate the plan for coordination of MDR-TB technical assistance and circulate it to the WG by January 2008.
 - On community and civil society involvement in MDR-TB management:
 1. Assist National TB Programs to include plans to empower community and patient groups for community involvement to promote universal access for TB care.
 2. Adopt the patient TB charter into national strategies and support its implementation.
 3. Assure social support for TB patients where social safety nets are weak or non-existent
 4. Country TB proposals to international donors including GFATM should incorporate community and patient empowerment activities for strengthening full community involvement in TB care
 - On infection control
 1. WG will identify a representative for core team of the TB infection control subgroup
 2. To work with the research subgroup to develop improved and standardized impact measures of TB infection control strategies
 3. To intensify communication with the TB Infection Control subgroup on areas of concern on infection control relative to the MDR-TB program implementation.
 - On TB laboratory and MDR-TB
 1. Country MDR-TB proposals to GLC and international donors including GF should incorporate adequately-costed and detailed plans for laboratory capacity strengthening and required technical assistance
 2. Improved coordination of efforts by multiple partners and donors required to avoid duplication and conflicting messages, especially on laboratory technical issues.

3. The Core Group of WG will identify a representative to link with the New Diagnostics WG, to attend the annual meeting in Cape Town in November 2007.
 4. The WG recommended that a Task Force working on the use of new tools needs to be established in order to plan scaling-up of rapid tests. The Task Force will also work on ensuring better use of existing tools. The TOR will be developed by the Core Team and the WG will receive information by email.
- On election of new chair and vice-chair of the WG
 1. Nominees are requested to submit to the WG a one-page platform of their proposed actions to operationalize the WG plans to attain the goals of the Global Plan to Stop TB 2006 by close of business Monday 24 September, Geneva time
 2. Election will be open Tuesday 25 Sep and will end 2 October