Expert Consultation Meeting on Public–Private Mix for Management of Drug–Resistant Tuberculosis (PPM DR-TB)

MEETING REPORT

23 – 24 June 2014

WHO Headquarters
Geneva, Switzerland
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Welcome address

Dr Mario Raviglione, Director, Global TB Programme (GTB), World Health Organization (WHO), welcomed the participants to the consultation meeting on public–private mix for the management of drug–resistant tuberculosis (PPM DR-TB). While noting the major achievements made in TB control, he highlighted the fact that global efforts on improving multidrug–resistant tuberculosis (MDR-TB) case detection, treatment and care are urgently needed. Many missing MDR-TB cases are not detected or they are detected but managed in health sectors outside the National TB Control Programmes (NTP). In 2012, only 28% of 300,000 estimated MDR-TB patients were detected among notified pulmonary TB cases. The gap of diagnosis and treatment is growing rapidly in a number of countries as a result of rapid expansion of the diagnosis capacity, putting more diagnosed MDR-TB and rifampicin resistant TB patients on “waiting lists” for treatment with second-line drugs. Dr Raviglione also highlighted that treatment outcomes of MDR-TB patients remain unsatisfactory, with only 48% MDR-TB cases successfully treated in the 2010 patient cohort. While PPM for TB care and control has been implemented and scaled up in many countries, limited progress has been made in engaging non-NTP health care providers in the management of DR-TB patients although good practices of PPM DR-TB have been demonstrated in a number of different settings. Engaging all relevant health care providers in the management of DR-TB cases is one of the important interventions to achieve the goal of universal access to MDR–TB care and services. Dr Raviglione also highlighted that the World Health Assembly in May 2014 adopted the Post-2015 Global TB Strategy, which was a major milestone in the history of TB control. The post-2015 strategy highlights that if we continue with business as usual, ending the TB epidemic could well remain a dream. PPM is something that cuts across all 3 pillars and the 10 components of the new strategy. The most relevant components of the post–2015 strategy for this meeting are “early diagnosis and universal drugs susceptibility testing (DST) coverage”, “treatment of all people with TB including DR-TB”, “engagement of all public and private care providers”, and “Universal Health Coverage and regulatory frameworks”. We have to prepare and begin work on these lines from now and not wait until 2016. The framework document discussed in this meeting will be useful to guide countries on implementing PPM DR-TB activities.

Meeting objectives and declaration of interests

Objectives of the meeting were presented by Dr Fraser Wares, WHO/GTB, as follows:

1. To share findings of the in–country assessments
2. To discuss the framework of PPM DR-TB
3. To discuss ways forward for scale up of PMDT through PPM approaches

The expected outcomes of the meeting are:

1. Consensus on draft framework for PPM DR-TB
2. Consensus on the ways forward for scale up of PPM DR-TB

Dr Wares presented the summary of interests declared by all the participants of the meeting. Most participants declared no interest, with 5 participants declaring interests which were deemed to represent no conflict of interest.

The meeting was chaired by Ms Gini Williams, International Council of Nurses, and co-chaired by Dr Fraser Wares, WHO/GTB.
Public-private mix for TB care and prevention (PPM-TB)

Dr Mukund Uplekar, WHO/GTB, presented an overview of PPM for TB care and prevention. Dr Uplekar highlighted the limited impact of TB control on reduction of the disease burden, the persistent gap in case notifications to estimated burden over the last decades, and the progress in expansion of PPM-TB activities. Dr Uplekar also presented approaches to PPM, which have been implemented in different countries, and an overall strategy for the scale up of PPM-TB. Collaborative approaches include social franchising mechanisms, contracting, hospital engagement, and insurance packages. Countries also need to address regulatory issues in order to restrict the access to TB drugs to prevent their irrational use, promote certification or accreditation of providers and mandatory notification. A comprehensive strategy mix for scaling up PPM-TB was presented by Dr Uplekar, which includes strengthening the capacity of Ministries of Health (MOH) or NTPs; optimizing investments in the scale-up of PPM-TB; engagement of different partners and providers (institutions, hospitals, private practitioners, business sector, and of communities and civil society organizations (CSOs); and enforcement of regulatory approaches.

Dr Evan Lee, Co-chair of the PPM-TB Subgroup of the Stop TB Partnership, presented an update on the best PPM-TB practices from the Eli Lilly Foundation’s PPM–TB projects, particularly the engagement in PPM-TB activities of rural practitioners, pharmacists, and one hospital chain in India.

PPM DR-TB working models: country experiences

Dr Gabriel Akang presented Nigeria’s experience in PPM efforts for DR-TB, which is mainly focused on a hospital-based model of care, with an average duration of hospital admission of three months for MDR-TB patients. By the end of 2013, one of ten PMDT treatment centres and one of four DR-TB diagnostic centres in the country have been established outside the NTP. The NTP’s future plan is to engage more private facilities in PMDT in order to increase number of DR-TB patients enrolled on treatment. The existing TB provider network, as well as the professional associations, could be better engaged to refer patients for detection of DR-TB. In addition, a greater emphasis on ambulatory care and the inclusion of TB and MDR-TB in the National Health Insurance Scheme are important elements being considered for future PMDT scale-up in the country.

Dr Abdul Ghafoor presented Pakistan’s experience in PPM-TB with the engagement of several partners and providers including tertiary hospitals, private practitioners, pharmacists, laboratories and non–governmental organizations (NGOs). By the end of 2013, Pakistan was operating successful hospital-based PPM-TB models with programmatic management of DR–TB (PMDT) sites established in 3 not-for-profit private and 15 public tertiary hospitals. These hospitals offer free diagnosis, treatment and management of DR-TB. Linkages between the PMDT sites and community health workers have been established to cater for ambulatory patients. Community health workers supervise the daily treatment, and provide social support and health education for DR-TB patients. DR-TB patients also receive food packages during their treatment. The NTP has a scale-up plan for PPM DR-TB involving the engagement of professional bodies (e.g. Pakistan Chest Society) in technical support, implementation of PPM DR-TB and advocacy; engagement of all models of PPM-TB in management of DR –TB; installing Xpert machines at selected sites in the private sector, and expansion based on lessons learned from the ongoing TB REACH projects.

Dr Vivian Sanchez-Lofranco presented that the Philippines has a remarkably active private sector, with more private hospitals than public hospitals and an estimated 15,000 plus private practitioners in the country.
However, the involvement of the private sector in PPM for DR-TB is still very limited. A survey conducted by the NTP, in collaboration with the WHO Western Pacific Regional Office, involving 76 private hospitals, 14 private laboratories, and 118 private practitioners, showed a high level of lack of awareness of MDR-TB services among the private health providers. Very often, TB is not notified to the NTP when patients are diagnosed with the disease at a private health facility, and up to 30% of private health providers do not use standard regimens for the treatment of TB. Around 6% of private practitioners reported treating MDR-TB in their own clinics. A very high proportion of private health providers reported their willingness to collaborate with the NTP and MOH on PMDT (76% private practitioners, 100% private laboratories and 42% private hospitals). Since the initiation in 1999 of the DOTS–PLUS activities at a private clinic, in collaboration with the NTP/DOH, 8 private clinics now are engaged in the diagnosis and treatment of DR-TB cases, out of a total of 44 PMDT facilities in the country. The NTP’s plan for engagement of private sector in PMDT is to improve advocacy and close coordination with partners; share best practices on the implementation of PPM DR-TB; promote certification / accreditation of private clinics; and develop sustainable plans beyond current projects. It is also necessary to develop a framework to engage the private sector in PMDT applying lessons learnt in both PPM and PMDT; enforce regulation of TB notification and strengthen quality recording and reporting; and recognize the contribution from the private sector in TB control and PMDT.

Dr Seref Özkara presented an example of excellent collaboration of the private sector in TB control in Turkey with the engagement of several health care providers and partner institutions (private physicians, private polyclinics, private hospitals, private laboratories, private pharmacies, Anti-TB associations, Turkish Thoracic Society and different academic institutions). Private stakeholders are not only involved in the diagnosis and treatment of TB, but also in advocacy, policy development, patient support, training, and academic activities. Turkey also presents a very good example of enforcement of regulation on notification of TB, as most of the public and private health facilities comply well with notifying TB cases to the provincial health authorities. Dr Özkara reported that MDR-TB treatment was initiated in 1991 in Turkey. However, only over the last ten years have second-line TB drugs been controlled in the free market, since the MOH/NTP procures the second-line TB drugs and distributes them for free for all DR-TB patients. Although the public sector is the lead agency for the diagnosis and treatment of DR-TB patients in Turkey, the private sector makes an important contribution in the identification and referral of presumptive DR-TB patients, provision of economic support to the DR-TB patients, advocacy, domestic production of first-line and second-line TB drugs, and in scientific and advisory activities.

Dr Linh Nguyen, WHO/GTB, presented a summary of the PPM DR-TB assessments conducted by WHO in 4 countries – Myanmar, Nigeria, Pakistan and Turkey. The country assessments were conducted using a pre-designed assessment tool that helps to collect necessary data and analysis of outcomes. Key findings of the assessments were the documentation of the different PPM DR-TB approaches for engagement of providers and partners and potentials for scale-up of PPM DR-TB in these 4 countries (see Table 1).

Dr Jacques van den Broek, a former KNCV staff and now an independent consultant, presented an assessment and planning tool on implementation of PPM DR-TB, which was developed in collaboration between KNCV and WHO. The tool was a self-assessment checklist for important issues such as commitment, finance, human resources, clinical management and linkages between NTP and private providers. The questionnaires can be used for private medical doctors, Chief Executive Officers of non-NTP hospitals, private laboratories and diagnostic centres. The lessons learnt from the country assessments showed that the tool provided useful information about present knowledge and experience of private sector on
management of DR TB, management of second-line drugs, linkage issues of PMDT and PPM, challenges for scale up of PPM DR-TB, private sector’s expectations on the role of NTP, and possible contributions by private sector to PPM DR-TB in collaboration with NTP.

Dr Tran Ngoc Buu in his commentary echoed the need for strengthening PPM DR-TB activities using the implementation experiences in Vietnam. Dr Buu highlighted that MDR-TB patients treated outside the collaborative mechanisms between the NTP and health facilities, had worse treatment outcomes than those patients treated under the NTP in Vietnam. Enforcement of the legislation on mandatory notification of TB and control of TB drugs in the market are a challenge, but are very important for the scale up of PPM-TB and PPM DR-TB. Dr Buu highlighted the importance of the development of a framework to engage private health facilities and partners, as well as standardization of DR-TB care services. He also mentioned other important issues that will facilitate the scale-up of PPM DR-TB, such as: the expansion of ambulatory model of care or community based treatment for DR-TB patients; advocacy; and the engagement of professional associations (e.g. TB and Lung Diseases Association, Private Practitioners Association) and other non-NTP health care providers and partners. Strong political commitment to ensure an adequate budget for PPM and PMDT activities, together with operational approaches such as provision of second-line TB drugs, diagnostic tools and other support by NTP, are crucial to scale up PPM DR-TB.

Table 1. Summary of key findings of the country assessments

<table>
<thead>
<tr>
<th>Country</th>
<th>Existing PPM DR-TB mechanisms</th>
<th>Potential for expansion of PPM DR-TB by engagement of more providers and partners</th>
</tr>
</thead>
</table>
| Myanmar | • Diagnosis and treatment by NGO-run clinics  
          • Referral of presumptive DR-TB patients by GPs  
          • Patient support by volunteers  
          • Coordination of PPM DR-TB activities by NGO | • Existing PPM–TB providers (e.g. GPs) for referral of patients  
                                                             • Chest physicians  
                                                             • Volunteers for patient support  
                                                             • NGOs & professional associations |
| Nigeria | • Engagement of public and private hospitals | • Existing PPM providers for referral of DR-TB  
                                                   • Professional associations  
                                                   • Health Insurance Scheme |
| Pakistan | • Engagement of public and private hospitals  
            • Referral of presumptive DR-TB patients by GPs  
            • Patient support by a private institution | • Existing PPM providers for referral of DR-TB  
                                                          • Chest physicians  
                                                          • Professional (Chest) Society  
                                                          • Para-statal health facilities |
| Turkey  | • Chest hospitals  
          • Patient support by NGO (Anti-TB Association) | • Laboratories – Quality Assurance activities  
                                                   • Family physicians engagement in DOT and patient support |
Ways forward for scale up of PPM DR-TB

Dr Saira Khowaja, representative of Interactive Research & Development (IRD), presented a social business model for the engagement of the private sector in TB control using IRD’s experience of a TB REACH project for the rollout of Xpert in the three cities of Karachi (Pakistan), Dhaka (Bangladesh) and Jakarta (Indonesia). Social business model is defined as "a model between for-profit business and charity, which subsidizes beneficial goods and services to optimize between social good and sustainability, and can expand the services to low income people who have some but limited ability to pay". In the business model, investors or donors seek social returns on their investments, but not profit. Grants can provide the required start-up capital and boost growth, whilst the social returns serve the needs for sustainability. Important lessons learned from the IRD’s social business project are: i) investments focused on the public health system miss large numbers of patients in the private sector; ii) moderate-risk, high-gain investments in social business models for the private sector have the potential to be sustainable and to improve standards of lung health and diabetes care; and iii) social business models have been acceptable to government NTPs in the countries where the model has been implemented.

Dr Krzysztof Herboczek presented Médecins Sans Frontières (MSF)’s perspectives and experiences in PPM-TB and PMDT, highlighting the experiences of the MSF TB programmes in Central Asia and Sub Saharan Africa. MSF’s experience suggests that a patient-centred and decentralised approach is necessary for the success of a TB programme, and the model of care must be adapted according to patients’ need and the local context. Integrated care, including DR-TB care, should be implemented especially in high HIV prevalence settings. MSF projects are often implemented through home-based interventions or through health facilities close to patients residence. MSF programmes highlight that early involvement of the MoH and other partners are essential for the successful scale-up of DR-TB treatment services. MSF programmes have had successful collaboration and partnerships with many other organisations in MDR-TB care (e.g. ICRC in Kyrgyzstan; a local NGO Shalom in Manipur, India; Partners in Health (PIH) and other partners in Peru, Lesotho etc.). Dr Herboczek also highlighted MSF’s work on specific aspects of PMDT, such as supporting a number of countries in introducing shorter regimens for the treatment of MDR-TB and addressing problem of TB medication use outside of the NTP.

Dr Jacob Creswell presented the Stop TB Partnership’s experiences from the TB REACH project and lessons learnt for PMDT specifically on diagnostic aspects. Dr Creswell presented that new diagnostics such as Xpert MTB/RIF, which are seen as a way to attract patients, can bring potential for new business opportunities for the private sector. Non-NTP practitioners usually focus on providing the best tests for the patient. As of March 2014, from 51 projects which have reported data to TB REACH on the 386,263 tests performed on people with presumptive TB across a variety of settings, 6,215 patients with rifampicin resistance were detected (1.7% of all tests). The findings and lessons learnt from the project showed that Xpert will only have a major impact on diagnostic numbers of DR-TB if used on new patients. Major challenges will arise as testing is decentralized without reporting systems, strong human resource development, and increased laboratory support for follow-up. Dr Creswell also highlighted that training, reporting, good diagnostic algorithms, and an alignment of diagnostic and treatment capacity are critical. Different non-NTP health care providers can assist NTPs in the many aspects of PMDT.

Professor Mohamed Awad Tagel Din in his commentary highlighted the importance of engagement of non-NTP providers in PMDT. From his wide experience in different roles of health care services, as a former.
minister of health, an academic professor, a member of different professional associations and a private physician, he highlighted the history of the DOTS Programme in Egypt and the important contributions made by the private sector, and the professional and academic societies in the implementation of the TB programme. Strong partnerships are necessary for the management of DR-TB and scale up of PPM DR-TB.

**Framework for PPM DR-TB**

Dr Linh Nguyen, WHO/GTB, presented on behalf of the secretariat the overview of approaches to engagement of health care providers and a draft of the framework for implementation of PPM DR-TB document. The objectives of the framework document are: to share best practices and approaches to engage diverse providers in PPM DR-TB; and to describe a framework for implementation of PPM DR-TB.

The proposed framework consists of four main parts: 1) Rationale and purpose; 2) PPM for TB care and control (PPM–TB); 3) Approaches to engage diverse health care providers in PPM DR-TB; and 4) Framework for planning and implementing PPM DR-TB. In addition, case studies or best practices documented from countries are presented in highlighted boxes in the respective sections of the draft framework document. The annex includes the tool for assessment of PPM DR-TB, which was designed to support country assessment on PPM DR-TB.

Different approaches to engage the diverse range of care providers in PPM DR-TB are presented in the framework document by 4 health care provider categories: health care institutions; individual health care providers (private practitioners and non-physician individuals e.g. pharmacist, traditional healer, treatment supporter); laboratories; and NGOs or professional associations. Each approach is presented with a description of the approach/model, eligibility for participation, the roles of the NTP and the respective health care providers, implementation considerations, and case studies. In addition, a task matrix for the different DR-TB provider categories and an algorithm for engagement of care providers to guide selection of an appropriate PPM DR-TB approach based on provider’s capacity, especially on diagnosis and treatment of DR-TB, are provided.

Dr Vineet Bhatia, WHO/GTB, then presented the fourth section of the draft framework document on planning and implementing PPM DR-TB. In his presentation, Dr Bhatia highlighted the different stages of the planning process with a national situation assessment, development of a scale-up plan, and development of national operational guidelines and tools for PPM DR-TB. Implementation processes include preparation, training staff, logistics arrangement, monitoring and evaluation.

For the second day of the meeting, participants were divided into 2 groups for review of and further discussion on the draft framework. Ms Gini Williams and Dr Abdul Ghafoor were nominated to lead the 2 groups. The group review and discussion focused but not only on answering the following main questions:

- Is the structure of the draft framework document appropriate?
- Are there any components missing that need to be included in the draft framework?
  - Any additional working models?
  - Should financial mechanisms for PPM DR-TB be included?
  - Any additional steps in the implementation process?
  - Suggestion for additional case studies?
- Suggestions on how to improve the draft framework?
After the group work, a representative of each group presented the feedback of the group to the plenary session. Dr Saira Khowaja and Dr Vivian Sanchez-Lofranco presented the feedback on behalf of the 2 groups. The following is the consolidated feedback from the review by two groups and discussions.

**Structure and general suggestions**

- Suggested to combine sections 1 (Background and rationale) and 2 (PPM-TB).
- Add page with definitions that provide clear and concise explanation of PPM DR-TB. Definitions of terms “public and private sectors” also need to be clearly stated.
- Stress that PPM DR-TB activities need to be integrated into existing PPM–TB, and both need to be part of the overall NTP. And that all PPM activities are to be under the stewardship of the NTP, with the principles of PPM, the roles of PPM committees/working groups, and the roles of providers, clearly stated.
- Analyses of the players’ interests, including incentive/profit attractions for the private providers, need to be considered and stated clearly in any Memorandum of Understanding (MOU)/service agreement between the NTP and the providers.

**Approaches of PPM DR-TB**

- Section requires revision to make it more concise (e.g. remove eligibility criteria). Information should be presented in a tabular format as much as possible to make the document more user-friendly.
- Non-NTP partners need to be included in all advisory boards of the NTP.
- The algorithm of PPM DR-TB models (Figure 1) should be expanded beyond the capacity of providers on diagnosis and treatment to include patient support etc. Some specific suggestions for improving the algorithm related to each model section are follows:
  - Model 1: should be added with the text regarding capacity for patient support
  - Model 2: molecular test should be added to DST mentioning diagnosis capacity for DR-TB. Consideration of expansion of “making diagnosis” to making decision on testing for this model. Notification by labs to a designated health authority should be highlighted in this model as a separate bullet point.
  - Model 3: should be expanded to address co–morbidities and adverse drug reactions (ADRs)
  - Model 4: a full package of diagnosis, treatment and patient support should be added.
- Task matrix for provider categories (Table 1) should split functions into 4 categories: 1) Clinical functions, 2) Public Health functions, 3) Patient support, and 4) Advocacy, and make the functions more comprehensive. Provider categories should be expanded with two additional columns for “Other MOH departments outside the NTP and other ministries”; and “Health professional associations, societies and regulators”.
- Models and tasks to be clearly linked with and referred to in the text of the relevant sections.

**Case studies**

- The opinions of participants and feedback from 2 groups were not the same in relation to the included case studies.
- While most of the participants found the case studies to be useful in understanding the approaches and the context of PPM DR-TB, the suggestion was to expand the number of examples of good practices for each model and include examples from a wider range of countries. More information on best practices
could be collected through regional focal persons. The participants also stressed the importance to show PPM relevant for all WHO regions, especially from Europe and Americas.

• Some suggested case studies from different countries to be included are the engagement of key affected populations in peer support provided by ex-TB patients in the Philippines; faith-based organisation TB/DR-TB treatment and care in Kenya; and private hospital-based PPM in Mumbai, India. In the discussion, it came out the relevance to document the PPM in Netherlands where KNCV, a NGO, has been contracted out by MOH to implement the national TB control programme. As PPM is also public-public mix, best practices in collaboration with prison health and with PHC/family medicine should be documented for the framework document. There are plenty of best practices in Western Europe that are also relevant to the document as example for other countries moving towards same level of health system complexity (e.g. TB integration and decentralization, national health insurance).

• A suggestion for consideration was to mention generic case studies without mentioning name of countries to avoid the negative implications of adaptation of the models in some countries.

• Another suggestion was to remove the case studies from the framework document totally, and to create a link to website of best practices in PPM DR-TB that can be updated regularly.

Planning and Implementation

• Planning needs to reflect the “cough to cure” pathway and who can offer what in PPM DR-TB. It should be clearly stated that PPM planning is part of the national TB strategic plan (NSP) and not a separate planning process for PPM, and it should capture sub-national or district plans. Designation of a PPM focal person at the national level is important and should be included.

• Stress that key affected populations (e.g. cured TB/DR-TB patients) should be part of the planning and implementation processes.

• Budgeting should be incorporated with the planning and budgeting tool developed by WHO with the suggested activities or items for budgeting PPM DR-TB. Costs of new strategies and approaches should be budgeted. Some additional columns should be included in the existing budget table in the draft document such as total cost, who bears the cost, available resources (national and international partners). Funding gap and funding resource column to be split.

Implementation

• It should be ensured that all service agreements or MoUs are in accordance with the legal framework of the country. In addition, the NTP and partners should work with the respective national government to revise any legal frameworks which may be limiting PPM implementation.

• Analysis of players’ interest, including incentive/profit attractions for private providers, needs to be considered and stated clearly in the MOU/agreement between the NTP and providers. In addition, roles of tri-media need to be included.

• The document should state clearly that PPM recording and reporting (R&R) need to be incorporated in the NTP’s routine monitoring and evaluation (M&E) system, and not in a separate PPM TB M&E or R&R system.

Scaling up: financing and logistics

• The long-term aim should be mentioned (probably in the financial mechanisms or in advocacy, policy regulations etc.)

• The human resources required for coordination and implementation should be more clearly mentioned.

• The roles of the different actors in the scale up (similar structure of the models) need to be described. Federal/local government investment and the role of the government sector will be crucial, in addition
to joint social responsibilities of different sectors and partners. Resources from local and international organizations and professional associations can supplement existing local or government resources.

**Assessment tool**

- The discussion suggested that the tool for assessment of PPM DR-TB should be included in the annex of the framework document. This will help the countries to adapt and use for the national or local assessment in order to plan and scale up implementation of PPM DR-TB.

**Conclusion and closure of the meeting**

Ms Gini Williams, chair of the meeting concluded the meeting with a summary of the discussions and outcomes of the meeting.

Dr Ernesto Jaramillo, before closing the meeting, asked the opinions of country and partner representatives about their opinions on the necessity of the framework document for implementation of TB programmes in their respective countries and regions. All the country participants expressed the need of a framework document for the scale up of PPM DR-TB activities in countries and support the future work on implementation of the framework. Partner representatives from MSF, ICN, etc also expressed the expectation that a framework document could facilitate their work in collaboration with governments of the different countries to scale up PPM DR-TB.

Dr Ernesto Jaramillo on behalf of WHO/GTB closed the meeting with a summary of the next steps for finalisation of the framework, with a revision of the presented draft framework document taking in the inputs and suggestions of the expert consultation meeting. The revised document will then be shared for further review and feedback by the meeting participants, together with a broader audience including members of the PPM sub-group, and representatives of other the public and private sectors, international, regional and national partners.
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## Annex 2. Meeting Agenda

**Monday, 23 June 2014 (Meeting Room HTM 65, 4th Floor, WHO/UNAIDS (D) Building)**

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<th>Topic</th>
<th>Chair/Speaker</th>
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<td>Chair: Gini Williams</td>
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<td>08.30 – 09.00</td>
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<td>Update on Eli Lilly Foundation’s PPM TB projects</td>
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<td>PPM DR-TB working models: country experiences</td>
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<td>For-profit private sector’s perspective on PPM DR-TB</td>
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<td>Framework for PPM DR-TB</td>
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<td>Overview of the framework and approaches for implementation of PPM DR-TB</td>
<td>Linh Nguyen</td>
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<td>Presentations of the groups (2 groups)</td>
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<td>Next steps for finalization of the framework and scale up</td>
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<td>16.45 – 17.00</td>
<td>Closing</td>
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**Tuesday, 24 June 2014 (Meeting Room HTM 30, 4th Floor, WHO/UNAIDS (D) Building)**

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