Meeting Report

TENTH NATIONAL TB PROGRAMME MANAGERS MEETING IN THE WESTERN PACIFIC REGION

1–4 March 2016

Manila, Philippines

World Health Organization
Western Pacific Region

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WORLD HEALTH ORGANIZATION

REGIONAL OFFICE FOR THE WESTERN PACIFIC

MEETING REPORT

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Convened by:

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE WESTERN PACIFIC

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NOTE

The views expressed in this report are those of the participants of the Tenth National TB Programme Managers Meeting in the Western Pacific Region and do not necessarily reflect the policies of the conveners.

This report has been prepared by the World Health Organization Regional Office for the Western Pacific for Member States in the Region and for those who participated in the Tenth National TB Programme Managers Meeting in the Western Pacific Region in Manila, Philippines from 1 to 4 March 2016.

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Keywords: Tuberculosis – prevention and control / Programme Management / Programme planning

SUMMARY

Tuberculosis (TB) remains one of the world's deadliest communicable diseases. In the Western Pacific Region, annually, an estimated 1.6 million people develop TB and 110 000 die of this curable illness. The Region has made substantial progress in TB control reaching the Millennium Development Goals and other relevant global targets in advance of 2015. Despite this success, TB incidence is declining very slowly and a number of new challenges emerged. TB concentrates in hard-to-reach and vulnerable populations and the emergence of multidrug-resistant TB is yet to be controlled.

In October 2015, Member States of the WHO Western Pacific Region endorsed the Regional Framework for Action on Implementation of the End TB Strategy during the sixty-sixth session of the Regional Committee.

To discuss all above-mentioned issues, the Tenth National TB Programme Managers Meeting in the Western Pacific Region was held in Manila, Philippines from 1 to 4 March 2016. The objectives of the meeting were:

1. to review the progress of TB control and identify the challenges to strengthening TB control in the Region;

2. to discuss ways countries can adapt and implement the Regional Framework for Action to Implement the End TB Strategy in the Western Pacific Region; and

3. to discuss priority actions required at the regional and national levels to facilitate the implementation of the specific areas of the regional framework with a focus on promoting people-centred care, enhancing social protection and strengthening cross-country cooperation to address TB among migrants.

The meeting was a forum for participants to discuss ways to adapt and implement the regional framework to each country context. The meeting was attended by 34 participants from 15 countries and areas with diverse epidemiological settings (low to high burden). Also, four temporary advisers and 14 observers participated the meeting from different technical agencies.

With the exchange of country experiences and building enabling environment to pursue regional TB control as a common goal, the meeting established the main following recommendations for the Member States:

1. Member States should continue to adopt the End TB Strategy into their national policies, progressively pursue the goal and targets, and implement the priority actions elaborated in the Regional Framework for Action by engaging a wide range of governmental and nongovernmental stakeholders including private and public health-care providers.
2. Member States may consider proactively working within and outside the Ministry of Health to ensure and maintain sufficient financial flow to deliver essential public health functions for TB care and prevention as well as quality clinical TB services without incurring significant financial burden to the patients.
3. Member States may consider effectively utilizing legal and regulatory mechanisms to build bold supportive systems for TB care and prevention.
4. Member states may consider to employ the Health in All Policies (HiAP) approach to proactively engage relevant stakeholders including health authorities and policy-makers, at national and subnational level, to address the social determinants of TB and advance universal health coverage (UHC).
5. Member states should intensify actions in all four domains of people-centred care in line with

resolution WPR/RC58.R4 and the Regional Framework for Action and adapted to their national context.

6. Member States may consider means to improve current practices for inter-country information exchange for contact investigation and patient referral including improving communication within their country systems, defining standard operating procedures and piloting the WHO/European Respiratory Society web-based platform.
7. Member States may consider taking necessary steps to improve programmatic management of drug-resistant TB by adopting the proposed actions in the Regional Framework for Action with particular focus on addressing diagnostic, treatment gaps and low treatment success rate.
8. Member States are encouraged to promote and increase capacity for TB research in line with the Global Action Framework for TB Research and take advantages of funding and training opportunities.

1. INTRODUCTION

1.1 Meeting organization

The Tenth National TB Programme (NTP) Managers Meeting in the Western Pacific Region was held from 1 to 4 March 2016 at the Conference Hall of the WHO Regional Office in Manila, Philippines.

1.2 Meeting objectives

The objectives of the meeting were:

1) to review the progress of TB control and identify the challenges in strengthening TB control in the Region;
2) to discuss ways countries can adapt and implement the Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific; and
3) to discuss priority actions required at the regional and national levels to facilitate the implementation of the specific areas of the regional framework with a focus on promoting people-centred care, enhancing social protection and strengthening cross-country cooperation to address TB among migrants.

2. PROCEEDINGS

2.1 Opening session

The meeting was opened with welcome remarks by Dr Shin Young-soo, WHO Regional Director for the Western Pacific, followed by the presentation of the meeting objectives by Dr Nobuyuki Nishikiori, Coordinator, Stop TB and Leprosy Elimination, World Health Organization Regional Office for the Western Pacific. The participants and observers introduced themselves, and office bearers were nominated.

2.1.1 The WHO End TB Strategy and an action framework towards TB elimination.

To end TB, it is important to make optimum use of current and new tools, pursue universal health coverage (UHC) and social protection, and tackle the question of social determinants. At the same time, new tools and approaches must be invented and put to use. The End TB Strategy has several new facets, including the need to adapt to local realities, and a greater emphasis on research needs. The challenges that remain are: the high number of missing drug-sensitive and drug-resistant cases; poor treatment outcomes, especially among drug-resistant cases; and insufficient focus on high-risk groups.

2.1.2 Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific

The world has achieved much in TB control. However, there are still residual difficulties and new challenges to be faced. These include: TB among high-risk and vulnerable populations; scaling up the response to drug-resistant TB; and building sustainable TB control systems while helping to strengthen the wider health system.

The End TB Strategy and its Regional Framework for Action have opened up a new era of TB control. This entails a shift from a vertical programme to "an essential health system competency"; people-centredness as a core principle; and cooperation and alignment of all countries for regional and global TB control.

2.1.3 The role of policy-makers to build strong national systems for TB control and elimination

Discussion of the role of policy-makers was preceded by presentations on the Asia Pacific TB Caucus and the TB elimination bill being enacted by the Congress of the Philippines.

2.2 UHC and social protection in the context of TB care

2.2.1 Financing TB care and control in the context of universal health coverage

Discussion under this sub-item first considered the situation in Indonesia, where total incidence reduction targets are used to make TB cost projections. The type of financing source that should be used for each component of the TB control programme was discussed, and the amounts needed from each source to implement it. The modelling of incidence and service targets and related costs, based on standard detection and treatment protocols, showed that donor contributions would no longer be needed in 2021 as TB is due to begin to decline.

It was recognized that analyses of macroeconomic impacts provide powerful funding arguments. Nonetheless, the projection of TB costs based on incidence reduction has proven inaccurate in the past; the immediate economic impact of TB diagnosis and treatment is more reliable when making the case for funding. On the other hand, incentives should be used to enhance the quality of care by using cure-related measurements of payment, while bearing in mind that the distribution of resources in Indonesia is not equitable.

2.2.2 Exploring financing options: country updates/experiences

The experiences of China and Viet Nam in exploring financing options were discussed. In China, five sets of systems and practices have been established: medical insurance with 100% population coverage; essential drugs; community health; public hospital management; and equal access to basic public health services. In Viet Nam, where TB financing relies mostly on external funding, additional funding is needed to implement the national strategic plan (NSP). There is also uncertainty about whether Global Fund (GF) money will be available beyond 2017. The Government plans to develop a comprehensive TB package covered by health insurance with zero co-payment for insured TB patients, and a mechanism to cover basic TB services for uninsured TB patients. The approach is not without its challenges, such as the danger of health insurance providing misleading incentives that cause unnecessary hospitalization, and neglect of directly observed treatment short course (DOTS) in the community.

It was emphasized that WHO worked with countries not because it sought to promote the use of health insurance in TB care but because health insurance itself is such a complex issue. There are many modalities to health financing. UHC promotes health financing, not health insurance. In Viet Nam, health insurance does not cover all expenses; first-line TB drugs are very expensive. Support is provided at the provincial level, and there is considerable nongovernmental organization (NGO) involvement.

Other possibilities include a mixed system such as the one used by Rwanda, where the Government is paying salaries and health insurance covers a proportion of care costs.

2.2.3 Monitoring financial burden of TB patients (patient cost study)

At each milestone of the End TB Strategy, there is a target of zero catastrophic costs. At present, costs are high, particularly for those with multidrug-resistant TB (MDR-TB) and people in low socioeconomic groups. Lost income accounts for the bulk of these costs. A good measurement approach is needed to monitor the progress towards the targets, along with baseline surveys. The next steps are the field testing of the generic protocol and instrument in 2016; the revision/finalization of the protocol in December 2016; and the conduct of surveys before 2020 in at least the 30 high-burden countries.

The discussion focussed on the need for WHO to support all the countries; the recruitment biases warranting complementary analysis for those countries where follow-up, operational research and qualitative research may be deficient; and the proportion of MDR-TB patients in the sample size. This latter topic is addressed in the protocol with respect to the need to inflate the size if MDR is studied specifically. There was also discussion of whether the study on catastrophic costs will follow the drug resistance survey (DRS) model in which assessment of drug resistance started with surveys before being established in the framework of continued surveillance.

2.3 Legal and regulatory framework to support TB care and control

2.3.1 Legal and regulatory framework to support public health / TB care and control

There was a presentation of legal and regulatory aspects of public health functions, including the UHC action framework, the International Health Regulations, the WHO Framework Convention on Tobacco Control, and the International Code of Marketing of Breast-milk Substitutes.

The importance of legal aspects in TB control were also emphasized. TB is an infectious disease which takes a heavy toll on public health. The TB programme requires authority and stewardship at different levels of government and coordinated actions by non-health sectors. Critical regulatory questions include quality of care, availability of quality assured medicines, social protection, and private sector engagement. The legal framework also is crucial to protecting TB control functions in countries under health system transition.

2.3.2 Comprehensive Tuberculosis Elimination Plan Act in the Philippines

The progress of the Comprehensive Tuberculosis Elimination Plan Act within the Congress of the Philippines was outlined. The bill proposes an integrated and comprehensive approach to health development. It expands efforts to eliminate TB as a public health problem by increasing investments for TB prevention, treatment and control, and adopting a multisectoral approach in responding to the disease.

2.3.3 National TB control systems: country updates/experiences

Representatives of Japan, New Zealand and Singapore outlined the legislative acts underpinning TB control in their respective countries. The discussion alluded to the fact that the International Labour Organization has listed TB as an occupational disease since 2010, which may help countries to initiate discussion of the legal aspects of TB. Mapping current TB-related laws and policies in the Region may prompt other countries to take further legislative initiatives. Political commitment is paramount, and a national and regional high-level meeting may be envisaged.

2.4 TB control among high-risk populations

2.4.1 Strategies to address TB among high-risk populations

The core issue is the cause of TB. Although the concept of prevention being the best cure still holds, other factors are now of equal importance. These are the upstream and downstream determinants of TB including the social determinants of health. The population-attributable fraction is significant. This adds the prevalence of the determinant in the population to the intrinsic strength of the causality relation between the factor and the risk of TB disease. TB is emblematic of the poverty/disease trap; poverty has to be addressed to make an impact on TB. A tentative framework for approaching risk groups has therefore been developed. The cornerstone of the framework is the situation assessment, which links the risk factors to the relevant interventions and presupposes the availability of data and analysts.

2.4.2 Evaluating active case-finding activities

The evaluation of active case-finding activities entails both quantitative evaluation to measure effectiveness, cost effectiveness, additionality, and other benefits, and qualitative evaluation that relies on the perceptions and experiences of the healthcare provider, participants, community and patients. The meeting considered the cascade of screening activities starting with people eligible for screening and ending with patients treated.

2.4.3 ScreenTB: an online tool for prioritization and strategy selection

ScreenTB is an online tool for risk-group prioritization and strategy selection. The tool was developed as part of the 2015 WHO guidance on operationalizing the Principles and recommendations for systematic screening for active TB (2013). The tool works through inputs, i.e. the parameters needed, and outputs, i.e. tables and graphs. Four inputs are required: risk group selection, reachability and acceptability, test accuracy and cost, and a defined set of algorithms. The outputs consist of an output table, the total yield, true vs false positives, cost per case, the number needed to screen, and cost vs yield. The tool is meant to serve only as an aid in prioritizing risk groups for screening and choosing screening algorithms.

2.4.4 Multisectoral approach to address social determinants: Health in all policies and whole-of-society approaches for health

The social determinants of health (SDH) are the conditions in which people are born, grow, live, work, and age, and the structural drivers of those conditions, such as the distribution of power, money and resources. SDH are mostly responsible for health inequities. Addressing SDH while working towards UHC will contribute to the improvement of health outcomes.

Health in All Policies (HiAP) is a tool that addresses the social determinants. The HiAP approach comprises six steps, namely: establish the need and priorities for HiAP; assess and engage other sectors; foster common understanding between sectors; identify supportive structures and processes; enhance community participation; and ensure monitoring, evaluation, reporting and accountability.

The role of TB programmes is to fortify the monitoring systems that provide disaggregated data to assess inequities; undertake advocacy to strengthen commitment to address SDH of TB; actively participate in national efforts to fight poverty and improve living conditions; and ensure that TB programmes foster equity in access and financial protection for the poor.

2.4.5 Country experiences: Addressing the needs of vulnerable populations

Country experiences in addressing the needs of vulnerable populations were presented. The presentation by Hong Kong SAR (China) took up the question of contacts and provided a five year outcome of close contacts of TB cases notified during one quarter. The focus was on TB early detection, treatment of latent TB infection (LTBI), the relative merits of Interferon Gamma Release (IGRA) and tuberculin skin testing (TST), the risk of isoniazid related hepatitis, and treatment completion.

The information from the Lao People's Democratic Republic showed the limitations of passive case-finding and described the case-finding approaches set forth in the NSP 2015-19, which consist of a mix of passive and active case-finding. There is good coverage by GeneXpert throughout the country. Intensified case-finding was conducted among contacts and prisoners.

The participant from Mongolia defined that country's priority groups, namely TB contacts, prisoners, homeless people, pregnant women and selected clinical risk groups (people living with HIV (PLHIV)), people with mental disorders). A cluster intervention study supported by WHO with enhanced cognitive interview (CI) (with home visits) detected two cases. Under a Health Ministry order, all pregnant women in Mongolia should be screened for TB: initially by questionnaire, then through referral for X-ray.

2.5 People-centred care

2.5.1 WHO's strategy to promote people-centred care

2.5.2 People-centred TB care and prevention

The concept of people-centered care in overall health system was presented, and in particular a TB programme focusing on three domains: informed and empowered individuals, families and communities; competent and responsive health-care workers; and efficient and humane health-care organization.

2.5.3 Country experience

Japan and Australia outlined their experiences in TB care and prevention. Japan offers three levels of treatment support for TB patients: type A (OPD DOTS): DOT service at the outpatient department of the clinic/health centre for patients with high risk of default; type B (visiting DOTS): treatment support by visiting TB patients at home to ensure adherence; and type C (contacting DOTS): treatment support by contacting TB patients by phone, fax, email, etc.

Australia is moving towards the pre-elimination phase. To achieve this goal a well-trained and competent workforce is essential. The Australian Respiratory Council has completed its evaluation of the Australian TB Nursing Workforce. There is a national plan for a Framework for Nursing Education which may hold potential for a regional approach to articulating the role of nurses within TB programmes.

2.5.4 Group discussion: the four domains of action

The meeting broke into three discussion groups.

Group 1 discussed the topic of ***Empowered individuals, families and communities***

Common themes

- Multidisciplinary approach including nurses, communities, families, peer counsellors and patients;
- Effecting behaviour change through communication and education using mass media, face-to-face interaction, social media and helplines, with feedback for health providers;
- The paradigm shift involved in taking patients from stigma to empowerment.

Examples

<u>Patient-centred approach</u>

- Informed decision-making in practice (Australia)

- Patient-focused clinical care and follow-up (Brunei Darussalam, China, and Hong Kong SAR (China))
- Multi-disciplinary patient care through a "DOTS conference"(Japan)
- Patients and family-centred services (Mongolia)
- Community-DOTS with community volunteers covering 80% of the territory (Cambodia)

Communication and education

- Education programmes for general and risk groups (Australia, Cambodia)
- Education and campaigning through mass media on World TB Day and at other events (Brunei Darussalam, Japan, China, and Hong Kong SAR (China))
- Information, Education and Communication (IEC) materials targeted at mobile activities; training on patient education for health-care workers (Cambodia)
- Health education to reduce stigma attached to TB (New Zealand)
- Involving patient groups in activity planning for TB and HIV infection (Lao People's Democratic Republic, Philippines,)
- Innovative communication methods in addition to traditional face-to-face education; facilitated social media groups (China)
- Involving the Stop TB Partnership nongovernmental organization (NGO) in advocacy and education (Viet Nam)
- TB education in schools (Malaysia)

Group 2 discussed the topic of ***Responsive health-care workers***

Common themes

- High-burden countries use standardized training materials, concentrating on technical content, which is updated when new polices are adopted;
- Case studies, conferences and analyses of surveillance data are used in low-burden countries to refresh knowledge;
- People-centered care approaches and integration of TB within other diseases are applied at varying levels.

Examples

- TB training manual describing DOTS, side effects and management for health-care workers. The health workers are trained in communication skills and patient—doctor relations (Hong Kong SAR (China))
- Mandatory training course for nurses using TB control guidelines (Republic of Korea)
- Training of volunteers as TB health workers in the community; on-site training during supervision (Cambodia)
- Comprehensive NTP guidelines include other sectors, TB training for laboratories and private clinics on contact investigation or screening; case discussion within groups of professionals; DOTS home based system with contact investigation; labs send results to health-care workers via smartphone (Brunei Darussalam)
- Training programmes for doctors by hospitals, local government, medical association, multidisciplinary training and research (Japan)
- Low incidence, hence capacity issues causing delays: curriculum for nursing, peer review and case reviews for sharing expertise; multidisciplinary team expertise is used, integrating TB recognition in the general medical training curriculum; use of videoconferences for discussing cases (New Zealand)
- Incentives for doctors to work in TB (China, Viet Nam)

Group 3 discussed the topic of ***Efficient and humane health-care organizations and facilities, and supportive health-care systems***

Common themes

- Financial protection: many countries offer free or heavily subsidized TB services (transport subsidies, facilitated specimen transport);
- Accessibility: many countries are pushing TB diagnosis and care down to community levels; outreach DOT is also useful for hard-to-reach populations or patients with limited mobility;
- Feedback: while some TB support groups provide advocacy, more often the physicians, nurses, and social workers who care for the TB patients contribute feedback on TB care issues;
- Psychological support: developments are patchy and dependent on income, although there is recognition that counselling services and social support services are required for good TB care;
- Public health nurses who visit patients at home (home DOT).

Examples:

- Multisectoral approach: Australia and Hong Kong SAR (China) explained how social services and welfare departments are closely engaged in care for TB patients. There are extended clinic hours to cater for need of working TB patients.
- Patient-centredness/seeing the patient as an individual: New Zealand produces videos in which patients document how their lives are affected by the disease. These videos are used in teaching materials for medical and nursing students, and in-service staff training
- Health literacy and patient partnership: since TB treatment is a lengthy process, it is important to invest time in educating and counselling patients on the disease, and the treatment, seeing patients as partners, not as a customers or statistics
- Efficient referral systems between TB and HIV clinics and/or integrated care (Viet Nam)
- Multidisciplinary DOTS conference prior to patient discharge (Japan)
- E-health: One patient/one record (Malaysia)
- Moderated patient support groups via social media (China)

2.6 TB control among migrant populations: possible architecture of an international referral mechanism

2.6.1 TB control in the context of migration and health

The presentation pointed out significant barriers for migrants to access health care, including TB services. These groups were exposed to a wide diversity of risks. The common myths endure: that migrants are carriers of disease and a burden on the health system. In reality, 15% of migrants worldwide (35 million) are under 20 years old and most of them are healthy. For the time being, there is no research data on migrants and TB.

Key determinants of migrant TB are the volume of the travelling population and rates of travel, along with the efficiency and accessibility of travel. The need for a screening strategy at regional level is a significant challenge.

2.6.2 Mechanisms to facilitate international information exchange for referral and contact investigation

The meeting looked at the results of the 2011 consultation on migrant TB in low- and intermediate-burden countries which discussed the role of World Health Organization Regional Office for the Western Pacific in developing standard guidance on the question. The importance of the health of migrants was endorsed by World Health Assembly resolution 61.17 and enshrined in the Regional Framework for Action on Implementation of the End TB Strategy. The Regional Framework on TB and Migration in the Western Pacific has been published and distributed to all countries in the Region. Four components of this are crucial to implementing TB control within a migrant population:

monitoring migrant health; policy and legal frameworks; a migrant-sensitive health system; and a partnership network and multi-country framework.

Current mechanisms for information and referrals on TB cases vary among countries. There is no single standard. Either International Health Regulations (IHR) channels or direct NTP to NTP are used. Four scenarios for informing and referring TB patients were presented with their pros and cons, along with action proposed to improve practices. A European example of informing and referring via a web-based system was outlined for discussion.

2.6.3 The European Respiratory Council (ERS)-WHO e-Consilium: an example from Europe

The ERS-WHO e-Consilium provides a second opinion for difficult cases and full and standardized referral information. It is used for clinical and programme management purposes. The NTP manager is involved in all referrals. Countries in the Western Pacific Region are encouraged to use this platform if TB patients need to be referred to European countries.

Key points of discussion on referrals

- Cross-country referral is very important for both individual and public health, especially in the case of MDR-TB
- Information channel: most countries are using the IHR, some countries are also using NTP-NTP direct communication.
    - A uniform process of communication/referral is needed
    - Communication between NTPs needs to be improved to keep information about the contact person and follow-up mechanism up to date.
    - Core information at the point of referral should be standardized.
- Continuity of care: important both to the patient's needs and to public health, especially for MDR-TB cases. The communication/referral should not be among physicians only, but also between the sending and receiving country NTPs.
- Liability of TB patients: should be included in the infection control laws and regulations of each country as tracing patients can pose a challenge.
- A feedback mechanism is necessary and should be set up by the receiving country. The receiving country must have a strong domestic referral system to follow up/trace the patients.
- Regimen: the difference in treatment regimens between developed and developing countries poses challenges to continuous treatment. These include difficulties that arise with MDR-TB or with TB/HIV patients who have an individualized treatment regimen and complicated drug reactions.

2.7 Programmatic management of drug-resistant TB

2.7.1 Global and regional situation of drug-resistant TB

TB is still prevalent worldwide, with a high burden of MDR-TB. The WHO high burden list has been revised to include 30 countries post-2015. Many countries in the Region are on the high burden list. MDR-TB cases total 71000. With a 52% success rate, similar to the global level, treatment outcomes of MDR-TB remain problematic. The untreated rate is still high at 34%. Gaps in notification were highlighted. Only 19% of MDR-TB is being detected and reported, with 21% in new cases and 62% in retreated cases according to 2014 data, marking a 20% increase compared to the previous year's 41% in the Region. Differing situations with respect to treatment outcomes in countries were discussed. Patient-centred services for MDR-TB need to be enhanced. For TB financing in countries in 2014, 89% was domestic and 11% from international sources. Challenges include inadequate diagnosis for drug resistant treatment due to insufficient funding, high out-of-pocket costs, human resource constraints and poor coordination. Some non-health system barriers such as geographical difficulties and stigma are also still common. The regional framework for drug-resistant TB recommends a three-tiered approach.

2.7.2 National Action Plan for Combating MDR-TB (United States of America)

The goal of the Plan is to strengthen both domestic and international responses to MDR-TB. It aims to accelerate basic and applied research and development to combat MDR-TB with a view to making an impact within three to five years. The Plan, launched in January 2016, provides for international partnerships with time-bound gaols. Internationally, the Plan aims to help the top 10 high MDR-TB burden countries with low incomes. In connection with the WHO End TB Strategy, a set of outcomes have been prepared on improving access to high-quality, patient-centred diagnosis and treatment services, procurement of drugs and preventing transmission. The Plan also supports TB research in vaccination and innovation.

2.7.3 Antimicrobial resistance (AMR): a global agenda

Once considered miraculous, antimicrobial drugs are now failing. This is in part the result of inappropriate use, and in part due to the economics of medical research, which is not producing new drugs for newly emerged diseases. In the post-antibiotic era, poor surveillance and quality of drugs, human behaviour and medicinal factors are spreading AMR across different diseases, including TB. Although AMR is not on the Sustainable Development Goals agenda, the WHO global action plan was endorsed at the World Health Assembly on 27 May 2015, with support at presidential level from Member States. The Global Health Security Agenda-Antimicrobial Resistance (GHSA-AMR) action plan package is the global response to the growing threat of infectious disease. The burden of AMR is estimated to be higher in middle and high-income countries. In 2014, WHO released its AMR report. The global action plan is comprised of five objectives covering different sectors. Political commitments should be attuned to international cooperation in order to better understand the wider picture through shared data. Every country's action affects its neighbours. The international agenda on AMR includes discussion at the G7 Summit and other high-level meetings. Some countries are including AMR in their national action plans. The development of action plans, including surveillance, is progressing. WHO is working on the issue in the Western Pacific Region.

2.7.4 Discussions

The US National Action Plan for Combating MDR-TB is in the programmatic phase, with some pilot studies under way in countries such as China. The feasibility and future plan for assistance to the top 10 MDR-TB burden countries will be updated. Prevention therapy for MDR-TB contacts should be considered. To treat a patient successfully, timely and concise diagnosis is crucial. Clear warnings about AMR could be affixed to antibiotic packages. TB drug resistance surveillance should be included in WHO reporting. AMR surveillance should be widened to the food, animal and agriculture sectors. Treatment adherence can be improved by simple steps, such as pharmacists explaining the basic facts . Social support from professionals and the family, backed up by better training, is needed to help the patient stay in treatment. However, a simpler and shorter regimen is also called for.

2.7.5 Introduction of new TB drugs / pharmacovigilance

Bedaquiline (BDQ) and Delamanid (DLM) were approved in 2012 and 2014, respectively; two new drugs in 40 years of combating TB. Although few countries have approved the drugs, a good number of patients have received them as part of the treatment regimen. The policy implementation package for the introduction of new TB drugs has six elements. WHO has released an interim guideline for BDQ and DLM. Five conditions are required in use of the drugs in terms of patient selection (the BDQ guideline will be revised in mid-2016). Documented patient-informed consent is necessary; a treatment regimen must be designed based on WHO recommendations on the two drugs; the treatment must be under close monitoring and active pharmacovigilance (a companion book is available for detailed information). Five steps for the introduction of BDQ were described, and an example from Viet Nam was discussed. Viet Nam, the Philippines, Papua New Guinea and Mongolia have already introduced BDQ in pilot sites with support from the Global Fund. Clarification was requested on

dose, frequency and body weight for DLM; the text in WHO guidelines differed from clinical protocol recommendations. Two doses have been clinically trialed and further clarification is needed.

2.7.6 Bedaquiline donation programme

The BDQ donation programme started in April 2015 for low-income countries facing MDR. It is a four-year programme with 30000 treatments for eligible patients, managed by the Global Drug Facility (GDF). Countries in the GF project are eligible along with others under the United States Agency for International Development (USAID) and Janssen agreement. Countries must follow WHO interim policy guidance on BDQ to apply for the donation. The application process and instructions are available on the GDF website. Technical assistance is available from USAID and GF. Thirty-two countries have placed orders so far and 3764 BDQ treatments have been ordered. Technical assistance for BDQ introduction is also available from various organizations working in the TB field.

The discussion highlighted the fact that BDQ resistance is, so far, not being reported. One reason for this is that there is no drug susceptibility testing for BDQ. No data on treatment failure is reported at the programmatic stage; factors causing failure can be various. Currently, eligible countries are those working with the GF, but countries will have to manage the transition when GF ceases funding. This factor needs to be considered in the donation programme. Pharmacovigilance data on BDQ across countries are still very limited. African countries have already started monitoring the isolates, which might be helpful in this area. The Bill and Melinda Gates Foundation will have hands-on surveillance although this is much more connected to programmatic implementation than to research. DLM is available through GDF at US$ 1700 per course.

2.8 Intensified TB Research and innovation

2.8.1 Regional TB research network and research capacity-building

The meeting heard a presentation on research and research capacity-building, defining the former as a process that is essential to continuous improvement, and to building respect for evidence. The research agenda needs to be relevant to the context, identify problems and propose solutions. Methods such as courses and mentorship can be used in collaboration with partners. Australia's Tuberculosis Centre of Research Excellence, for example, focuses on research, research training and research translation. There was also an introduction to the SORT IT course offered by The International Union against Tuberculosis and Lung Disease (The Union) that teaches the practical skills for conducting and publishing epidemiological and clinical operational research, as well as how to influence policy and practice; the course combines training and follow-up of interventions with pre-set milestones and targets over a period of one year.

2.8.2 National TB research coordination / networks

The meeting heard a presentation on research and innovation in China. In the past, the DOTS programme in China was implemented in the Centers for Disease Control (CDC) and then moved to hospitals. China is currently developing an innovative programme to improve the test-and-treat programme in both the CDC and the hospital systems based on lessons learnt in operational research. China is moving towards molecular diagnosis and rapid tests and exploiting new communication technologies like mobile phones. The optimization of comprehensive TB control includes the new test-and-treat approaches in a three-part system (CDC, hospitals and primary health-care centres). Catastrophic expenditures for patients are avoided through a government fund, health insurance and medical assistance. Clinical trials are undertaken to evaluate the new diagnostics arising from international and domestic developments, including automatic microscopy, and innovations in patient management. The China Tuberculosis Clinical Trial Consortium evaluates new drugs to improve the clinical research capacity of TB hospitals. Current research is for validation of Bedaquiline and Delamanid, the MDR short course, and intensified case finding.

There was a presentation of the Vietnam National TB Research network (VICTORY) which responds to Pillar three of the End TB Strategy and the Global Action Framework for TB Research. The NTP and partners have developed a national TB research network consisting of the NTP, related government agencies, civil society, local and international NGOs working on TB, and university researchers. They have planned research capacity enhancements with stable funding, and advocate for public, government, donor and industry support and funding of TB research.

In the ensuing discussion, it was noted that limited capacity at country level often requires external support and collaboration; that the Philippines NTP was involved in the Otsuka study on Delamanid that supported the NTP in its efforts to build capacity for laboratory standard operating procedures (SOP) benchmarking; and that operational research on childhood TB is being conducted in Singapore.

2.9 Parallel sessions

2.9.1 Childhood TB

In 2014, 358 521 TB cases in children were reported to WHO worldwide. This was 30% higher than the figure for 2013. In the Western Pacific Region, TB-endemic countries are estimated to account for more than 10% of the total TB cases, and low-burden countries 5%. Childhood TB estimations are necessary when tackling the neglect of childhood TB and the need for evidence-based advocacy, resulting in appropriate investment and funding allocations within competing health priorities. With respect to the risk of TB in terms of infection by age, children aged under 1 year ran the greatest risk of developing PTB as well as disseminated forms of TB. Diagnosis of EPTB disease is not as difficult as is often claimed. There are no WHO estimates of MDR-TB in children. In many countries, childhood TB is reported to child health departments rather than to the TB programme, resulting in significant under-reporting and huge gaps in surveillance. Clinical challenges are largely diagnostic, as reported in several studies. WHO guidelines for 2014 include recommendations to use Xpert for children. The diagnostic yield with Xpert is about 20%, and clinical diagnosis thus remains the predominant diagnostic method. A desk guide for diagnosis and treatment of childhood TB is being developed. There is an opportunity to enhance childhood TB treatment with the availability of fixed-dose combinations (FDC) for children, each costing US$ 15. WHO prequalification of child FDC is planned for early 2016. Among the currently available approaches, child contact of seropositive TB patients is crucial. There are barriers to preventive therapy due to the need for TST and chest X-rays. Long travel and waiting times, a lack of understanding of the rationale, misperceptions, and poor adherence are commonplace. It is important to secure the collaboration of paediatricians. The Childhood TB Taskforce was established in 2014 in the Western Pacific Region to strengthen political commitment and collaboration with other stakeholders, improved case detection and provide better treatment. Training is needed to translate policy into implementation. A training tool kit has been developed, and an on-line course is available in the website of The Union. The OR training course is also available through USAID funding.

It was noted that the TB Alliance had developed a syrup form of Isoniazid (INH) for preventive treatment. The new combination of Rifapentine and INH for 12 weeks as a preventive therapy might be a game-changer in the future. TST can be useful in detecting TB in sick children without a history of clear contact with infectious TB cases.

The Regional Childhood TB taskforce 2014/2015

The taskforce was established in 2014 in Viet Nam. In the past two years, funding restrictions limited the activities, which included information sharing and on-line training courses for health workers. In collaboration with the TB Alliance, a new FDC has been introduced in some countries with GF support. Six countries (Cambodia, China, Fiji, Lao People's Democratic Republic, Philippines, and Viet Nam) have developed action plans. Notification for 2014 varies from 2% in Cambodia to 0.1% in Viet Nam. Cambodia and Philippines significantly increased notification between 2013 and 2014.

Country experiences

Papua New Guinea

National guidelines on childhood TB have been revised. An IPT register has recently been developed. So far in 2016, 19 children under the age of five have been given IPT. Diagnosis and treatment of childhood TB cases are managed by paediatricians at paediatric hospitals and other clinicians at rural hospitals. Complicated cases are referred to higher-level hospitals. Adherence to treatment is low. BCG coverage remains above 60%. A child-friendly FDC will be introduced in Capital Region this year. A new childhood TB strengthening project is being funded by the Australian Government (June 2016-June 2017).

Mongolia

Childhood TB cases account for around 9% of all cases over the past 10 years. There were 421 cases aged below 14 were reported in 2015 (EPT 85% and PTB 15%). One hundred forty-nine children were placed on IPT in 2015. The National Strategy for TB Control (2016-2020) includes childhood TB. Collaboration with EPI in BCG and PHC providers is ongoing but lack of collaboration with MCH is one of the major challenges. No focused childhood TB action plan has been developed.

Cambodia

In Cambodia, a childhood TB burden as high as 20% was acknowledged and case detection was consequently improved, resulting in a significant rise in case notification. A new child-friendly formulation of FDC is being introduced. Guidelines are currently under revision, and health workers need more capacity development.

Discussion: Future directions and plan of activities in relation to the Task Force

Operational research in the field is necessary to further facilitate and strengthen childhood TB control activities. Financial support is also required. There is still insufficient understanding of childhood TB. Partnerships with other stakeholders (MCH, etc.) need to be stronger. There is no quick solution, but the TB programme needs a champion for childhood TB control. Some paediatricians take a negative attitude toward childhood TB, which has been neglected for many years. This is because TB control started with the DOTS Strategy focused on infectious TB cases in the interests of better public health. With the new strategy, there is a good opportunity for leverage in order to ramp up childhood TB to a higher level. The Regional Childhood TB Task Force should continue to facilitate this momentum.

2.9.2 Management of latent TB infection (LITB)

Members participating in the discussion: Brunei Darussalam, Viet Nam, Australia, Japan, Singapore, Republic of Korea, Cambodia.

LITB comes under Pillar one in the End TB Strategy which calls for active case finding (ACF) with respect to LITB. Currently contacts investigation is already conducted among people living with HIV (PLHIV) and childhood TB patients as they are the high-risk groups, but it could be expanded to other high-risk groups with no clear limitations to scale. WHO guidelines target high- and middle-income countries with low TB incidence (100 per 100 000 population). There are screening targets with strong recommendations for young children; these also apply in settings such as prisons, health centres and among PLHIV. The LTBI taskforce, established in 2015 for LTBI programmatic management, recommended core global and national indicators for Monitoring and Evaluation, identifying a strategy and promoting research.

The participants noted that contact investigation should include settings other than households where young children are often present. The definition of the risk population varies from country to country and this will have an important impact on the calculation as the denominator changes. Epidemiology

data should be included in the analysis. Currently contact investigations for children aged over five, and those with close contact with people living with HIV, are being conducted in countries with a number of cases reported but this is not done proportionally. In the low incidence setting, little transmission risk is observed. For example, when screening among diabetes mellitus (DM) patients for TB, the proportion is very low. This is probably because DM is well controlled in high-income countries like Australia. The screening algorithm needs to be improved by taking all factors into account and thinking of options, such as whether or not two-time TST testing applies.

Data availability is a problem in almost all participating countries. In some countries, there is data on contact investigation, but no surveillance data is available and there is no systematic data logging. Moreover, data from the private sector is not easily accessible. The Republic of Korea has a well-developed mechanism with almost 100% coverage of contact investigation. Issues were raised including the shortage of test kits and drugs (not widely available in those countries with low incidence) and lack of monitoring of adherence to treatment. Progress has been noted in the shorter treatment regimen and with drugs other than Isoniazid with Rifampicin and Rifapentine. Recommendations for solving the shortage of drugs could include using the GDF for drug supply. Contact investigation for MDR should be included (a study in Viet Nam on MDR contact prevention treatment with Levofloxacin has started recruitment).

2.9.3 TB laboratory strengthening

The action points on TB laboratory strengthening within the Regional Framework for Action were presented. A step-wise approach towards accreditation using available quality management systems (QMS) and supportive national and supranational reference laboratory networks was discussed at the November 2015 meeting in the Republic of Korea. The task of developing the QMS tool was assigned to WHO.

An on-line presentation from Adelaide, Australia described new and repurposed agents for TB treatment. This has implications for the drug susceptibility testing (DST) laboratory. While Rifampicin was introduced and used from the 1960s, BDQ and MLD are newly recommended. Ciprofloxacin is no longer recommended. Resistance was mediated through mutations primarily in gyrA and, to a lesser extent, in gyrB genes. Experiences of the use of BDQ, DLM, CFZ, and LNZ were shared. DST remains important for the use of all anti-TB drugs. Examples were discussed. For instance, it remains uncertain whether it is useful to maintain CFZ in an anti-TB drug regimen. National reference laboratories should flag their needs for support for new and repurposed anti-TB drugs.

There were discussions around the possibility of using mgit with available DST standard operating procedures for BDQ in the Philippines. Such a possibility exists but there is a need for complementary components for its implementation. The requirement for the pathologist to be present in the laboratory was raised, as were issues of non-medical registered personnel operating Gen-Xpert, which can be compromised in certain country contexts. A diagnostic desk for future laboratory support is to be further explored. It appears that the PMDT can decrease the workload of the National Reference Laboratories if a laboratory quality management system is in place, and quality improvement goes further.

If there is cross-resistance with BDQ and CFZ, a particular mutation can lead to resistance of the two. Low/high levels of Rifampicin resistance are related to dose prescription and clinical management. Hyper-susceptibility and the hotspot of gene mutation need further investigation and surveillance systems. DRS on the TB genotype and phenotype are critical; however, recently only phenotypic DST was on the research agenda. Specimen types for molecular testing reflect cost efficiency for diagnosis, although specimens such as stools can be used for Gene-Xpert. A national algorithm is necessary for laboratory reference. Capacity in sequencing, molecular and phenotypic testing is continually sought. Leadership and capacity building with good data management systems along with technology support are key requirements for TB prevention and control.

2.9.4 Surveillance

The meeting heard a presentation on the definitions and purposes of surveillance and standards and benchmarks (S&B) definitions, and on the draft checklist on minimal requirements for TB surveillance. Surveillance relies on systems work management, programme monitoring or population monitoring, and analysis is only as good as the data entered.

During the discussion, participating countries examined varying practices relating to TB information systems. One such is the unique patient identifier (New Zealand, United States) that allows connections between several different databases such as laboratory or vital registration for capturing and supplementing information on a notified case, and automatic notification of TB cases (Brunei Darussalam and New Zealand). There was a lively discussion on the content and use of the surveillance checklist that could be shared with the task force. A number of issues were raised, including the following:

- Benchmarking the percentage of childhood TB within the total number of TB cases (Viet Nam).
- Purpose of surveillance, either assessing the surveillance system itself or the programme performance in diagnosis, notification, reporting, the NTP capacity to capture all cases etc.
- Definition of the administrative area coverage. Either urban or rural (China), involvement of the private sector, interest in/possibility to compare laboratory and registration data for identifying primary defaulters, unique patient identifier.
- Best entry point of the patient in the system: Using lab-confirmed cases versus clinically diagnosed TB patients, or presumptive TB patients versus TB confirmed cases.
- Health centre workers may not understand the usefulness of collecting data down to the more peripheral reporting unit, implying a need for local feedback on the use of collected data.
- Checklist content could include treatment outcomes, as a proxy for the performance level of the programme. Other programmatic outcomes can be extracted from analysing the data (New Zealand).
- Data quality is a primary requirement.
- The need to minimize the requirements for a surveillance system while acknowledging that programmes may require more information such as variables on HIV co-infection, risk factors etc.
- The set of required data can be more easily adjusted with computerized data; data can be customized for different uses.
- Normalization with other health information systems is recommended but TB surveillance requirements may differ.
- TB surveillance in the context of integrated digital platforms (risk of compromising TB surveillance); advocates of electronic systems may not be familiar with TB surveillance.
- There is an interest in real-time analysis (China).
- There is a need to link clinical management data to public health use (Hong Kong SAR (China)), involve users in the elaboration of the data system; communication is vital between the clinical side and public health actors, as is specifying the minimum required information and solving problems in sharing data between different systems.

Regional framework recommendations and proposed actions were presented: Ensure that mandatory notification for TB is in place, as part of national notifiable diseases, and enforced in practice.

- Conduct an assessment of the TB surveillance system using WHO's Standards and benchmarks for tuberculosis surveillance and vital registration systems to progressively improve the surveillance system.
- Assess the completeness and reliability of the TB surveillance system. Where applicable, link to relevant information systems including the national health information system and inter-country notification systems.
- Introduce or expand an electronic, case-based recording and reporting system. Assess the utility of existing systems and address gaps identified.

2.10 UHC and social protection in the context of TB care

2.10.1 Enhancing social protection to improve TB care

The global commitment to the elimination of poverty and to end TB by 2030 is enshrined in the Sustainable Development Goals. In this respect, social protection floors are designed to achieve Universal Health Coverage (UHC) and income support to all in need. Furthermore, the three End TB Strategy pillars comprise interventions aimed at achieving the same impacts with direct effects in Pillar two. UHC and social protection are pertinent platforms from which to address the income losses from TB-related costs. The Essentials to help guide implementation of the End TB strategy will provide guidance to the countries on how to implement the strategy. In this regard, the World Health Organization Regional Office for the Western Pacific End TB regional framework on TB and social protection is fully consistent with global messages. Surveys are very important in assessing the baseline situation and in monitoring progress toward the global target of zero catastrophic costs. A WHO guidance framework for effective TB patient social protection is being developed. Examples of social security approaches and challenges therein are provided, based on the various stages and models, with suggestions as to what should be done next. The next steps of WHO's actions to move forward with TB social protection in the context of the End TB strategy were presented.

The discussion was an opportunity to take stock of the many challenges faced by the countries to pursue equitable social protection, especially the issues of sustainability, competing needs, the targeting approach of the Global Fund as opposed to the need for universality, and the lack of funding. Strong arguments should be used to make the case for TB social protection.

2.10.2 Country experience

Cambodia and Republic of Korea presented their respective experiences in TB social protection. Social security schemes in Cambodia consist of limited health insurance; the Social Security Fund, covering formal employees in Phnom Penh, and the Health Equity Fund (HEF) covering poor populations. Some HEF sites have started support to TB patients, mainly for travel expenses to health facilities and food and allowances for patients and family members during hospital stays. In the Republic of Korea, TB medical care is free of charge with 100% health insurance coverage. Economically vulnerable patients are supported by a subsidy for living expenses.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

All countries reaffirm the relevance and importance of the vision, goals and strategies of the End TB Strategy (WHA67.1) and actions in the Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific 2016–2020 (WPR/RC66.R3).

High-level political commitment and substantial efforts are needed to implement the regional framework particularly strengthening government stewardship and multisectoral engagement stipulated under pillar two.

UHC and social protection in the context of TB care

The global thrust towards universal health coverage (UHC) presents great opportunities to advance TB prevention and care. In the context of UHC, some countries are undertaking health reforms that will impact the structure and financial flow for TB care. It is critical for National TB

Programmes (NTPs) to be proactive in seeking means to improve the efficiency and coherence of TB services by analysing essential core functions for TB prevention and care , options for service providers, funding sources and financial flows and mechanisms. The End TB Strategy has set an ambitious target of “no affected families facing catastrophic costs due to TB” by 2020. WHO is supporting countries to conduct a standardized patient cost survey to assess the baseline situation against the global target. Social protection is critical to improve TB prevention and care. WHO is developing a guidance document for effective social protection of TB patients .

Legal and regulatory framework to support TB care and prevention

Legal and regulatory approaches are important means to build bold national TB policies and supportive systems as envisioned in the End TB Strategy. Experience sharing and comparative analysis are informative as countries frame their approaches to TB prevention and care by combining various laws and regulations according to specific their national context and needs. Laws can also be used to strengthen multisectoral collaboration for TB service provision, i.e. a whole-of-government approach.

TB among high-risk populations

TB programmes are increasing their efforts to identify TB among vulnerable and high-risk populations such as people living with HIV, prisoners, contacts, young children, older people, diabetes patients, migrants and health-care workers. The data generated through TB screening activities should be systematically analysed for efficient and cost-effective case finding.
WHO has developed ScreenTB, a web-based tool to assist countries with risk-group prioritization and cost effective planning for TB screening activities.

The TB epidemic is driven by social determinants. Addressing social determinants and the vulnerability of populations will reduce TB in these populations and contribute to public health and greater equity in health. NTPs are in a good position to promote a whole-of-society approach, namely Health in all Policies (HiAP), and provide concrete evidence on the impact of such an approach.

People-centred care

TB prevention and care should be delivered and managed in such a way that people receive a continuum of holistic, preventive, diagnostic and treatment/care services, including palliative care, according to their needs and expectations, coordinated across the different levels and sites of care within and beyond the health sector. Supportive treatment supervision, or directly observed treatment (DOT), remains a critical means to organize and ensure patient support.
TB programmes increasingly use people-centred care approaches to improve quality of care, address inequity and eliminate the financial burden faced by TB patients and their families.

TB among migrant population

TB prevention and care among migrant populations (both internal and cross-border migrants) must respond to the specific needs of these populations in line with WHO's Tuberculosis Control in Migrant Populations Guiding Principles and Proposed Actions (2016).
Effective inter-country coordination is essential for NTPs to ensure appropriate steps for public health (e.g. contact investigation) as well as providing continuity of care after referral especially for patients with multidrug and extensively drug-resistant TB (M/XDR-TB).

There are various ongoing practices for inter-country information exchange for both contact investigations and patient referral; they might require further improvement such as defining essential core information, safeguarding patient data privacy, ensuring and reporting successful arrival of patients in receiving facilities. A web-based platform developed by WHO and the European Respiratory Society can be used to address inter-country referral and information sharing.

Programmatic management of drug-resistant TB

Drug-resistant TB poses a major threat in the Region.
The Region has made notable progress as the number of multidrug-resistant TB (MDR-TB) cases diagnosed has been increasing in recent years and the ratio of enrolled to notified MDR/rifampicin resistant TB (RR-TB) has also increased from 57% in 2012 to 66% in 2014. However, gaps exist in some countries for diagnosis and successful enrollment and retention in care. The treatment success rate remains low and virtually unchanged over the last five years. Bottlenecks remain in terms of effective service delivery, patient information and support supervised treatment and engagement of communities.

New anti-TB drugs to treat drug-resistant (TB) patients are available through various international mechanism, however the uptake is slow.

Intensified TB Research and innovation

Several countries in the Region are taking important steps to establish national research networks, identify TB research priorities and develop national research plans. Several initiatives exist to promote and implement operational and clinical research activities that will contribute to inform policy changes and global knowledge. Critical gaps remain in operational research capacity of national programmes and in-country partners, for which capacity-building opportunities are being offered through international partnerships.

Childhood TB

TB in children in high-burden countries is increasingly recognized as being underdiagnosed and/or underreported. Collaboration with other public health programmes, particularly maternal and child health, nutrition and immunization services, as well as professional societies remains weak.

Management of latent TB infection

Management of latent TB infection (LTBI) represents a newly introduced component in the *End TB Strategy*. Although WHO's guidelines on LTBI primarily target countries with a low disease burden, progressive expansion and acceleration of work on LTBI is essential to achieve the ambitious global target on incidence reduction. Inter-country exchange is highly informative as many intermediate and low-burden countries have a wealth of experience in LTBI management.

The coverage of LTBI treatment among people living with HIV and child contacts is still limited especially in high-burden countries despite universal recommendations for these particular high-risk groups.

TB laboratory strengthening

Laboratories in high-burden countries are increasingly using all existing diagnostics to contribute

to early case finding and diagnosis of MDR-TB and they are actively adopting internal and external quality management approaches.

Surveillance

TB surveillance remains a key public health function . Improvements to the surveillance system enable more analyses and insights into the level of burden, progression and nature of TB. Effective surveillance relies on effective information systems, strong legal and societal frameworks, and adequate diagnostic capacity.

3.2 Recommendations

Recommendations derived from all group works were combined and reviewed in a plenary session at the end of the workshop. Based on this concensus, the following priority action areas were identified.

3.2.1 Recommendations for Member States

1. Member States should continue to adopt the *End TB Strategy* into their national policies, progressively pursue the goal and targets, and implement the priority actions elaborated in the regional framework by engaging a wide range of governmental and nongovernmental stakeholders including private and public health-care providers.
2. Member States may consider proactively working within and outside the Ministry of Health to ensure sufficient financial flow to deliver essential public health functions for TB prevention and care as well as quality clinical TB services without patients incurring significant financial burden.
3. Member States may consider using legal and regulatory mechanisms to build bold supportive systems for TB prevention and care .
4. Member States should include systematic screening for active TB according to the principles and recommendations in WHO's guidelines (2013) and the operational guide (2015).
5. Member states may consider employing the health in all policies (HiAP) approach to proactively engage stakeholders including health authorities and policy-makers, at national and subnational levels, to address the social determinants of TB and advance UHC.
6. Member States should intensify actions in all four domains of people-centred care, i.e. informed and empowered individuals, families and communities; competent and responsive health-care workers; efficient, safe and humane health-care organizations (facilities); and supportive health systems—and in line with resolution WPR/RC58.R4 and the regional framework and adapted to their national context.
7. Member States may consider means to improve practices for inter-country information exchange for contact investigation and patient referral including improving communication within their country systems, defining standard operating procedures and piloting the WHO and the European Respiratory Society web-based platform.
8. Member States may consider taking necessary steps to improve the programmatic management of drug-resistant TB by adopting the proposed actions in the regional framework focusing on addressing diagnostic, treatment gaps and low treatment success rate.
9. National TB programmes are encouraged to proactively contribute to national policy development and implementation to address antimicrobial resistance (AMR) by advocating the inclusion of drug-resistant TB high on the agenda.
10. Member States are encouraged to promote and increase capacity for TB research in line with the *Global Action Framework for TB Research* and take advantage of funding and training opportunities.
11. Member States are urged to strengthen recording, reporting and data analysis of TB in children.
12. Member States are urged to strengthen the links with the child health sector e.g. through collaborative engagement in hospital and community settings, engagement of professional societies.
13. Member States may consider progressively expanding the LTBI management with careful assessment of cost, effectiveness, efficiency, risks and benefit in each health system context.

14. Member States should complete the WHO standards and benchmarks exercise for surveillance systems and implement an investment plan for any gaps identified.

3.2.2 Recommendations for WHO

1. WHO is requested to continue to promote the *End TB Strategy* and support Member States to implement the regional framework.
2. WHO is requested to finalize an analytical framework to support Member States on sustainable financing for TB care and prevention as well as a guidance document on effective social protection for TB patients.
3. WHO is requested to increase its support to Member States in strengthening legal and regulatory systems to support TB care and prevention in collaboration with relevant technical divisions within the Organization.
4. WHO is requested to document and disseminate good practices in people-centered TB care and prevention to guide TB programmes.
5. WHO is requested to continue explore means to improve inter-country information exchange for contact investigation and patient referral particularly by defining a model of operation procedures and essential core information to be exchanged.
6. WHO is requested to continue to manage the Regional Green Light Committee (rGLC) mechanism as the secretariat to provide necessary guidance and technical assistance to countries to strengthen PMDT and planning to introduce new drugs in coordination with partners.
7. WHO is requested to explore and disseminate opportunities to build country capacity in operational research.
8. WHO is requested to pro-actively monitor efforts in countries to address childhood TB and provide technical assistance to solve bottlenecks.
9. WHO is requested to organize a second regional meeting on childhood TB to further unite stakeholders, raise awareness and mobilize resources.
10. WHO is requested to finalize the global monitoring framework for LTBI management with due consideration of the feasibility and burden of data collection associated with proposed indicators.
11. WHO is requested to advocate increased resources for the implementation of laboratory quality management systems (QMS) and to further harmonize QMS tools.
12. WHO is requested to assist with epidemiological assessments including assessments of surveillance capacity as needed.

ANNEX I

1. **COUNTRY PARTICIPANTS**

AUSTRALIA
Ms Cindy Toms, Epidemiologist (Tuberculosis), Office of Health Protection, Department of Health and Ageing, Level 4 Scarborough House, Atlantic Street, Woden, Australian Capital Territory,
Tel. No.: (612) 6289 8692, Fax No.: (612) 6289 2600, E-mail: ntac.secretariat@health.gov.au

BRUNEI DARUSSALAM
Dr Nurul Huda binti Haji Jeludin, Medical Officer, Disease Control Division, Ministry of Health
BB3910, Tel. No.: (673) 238 2023, Mobile: (673) 881 9799, Fax No.: (673) 232 2755,
E-mail: nurulhuda@jeludin@moh.gov.bn

Mrs Hajah Rafizah bte Haji Abdul Hamid, Public Health Officer, Head of National Tuberculosis Coordinating Centre, Ministry of Health, Spg 115, No. 3 Kg. Kiulap, Jln Kiulap, Bandar Seri Begawan
Tel. No.: (673) 889 6978, Fax No.: (673) 245 5055, Email: rafizah.hamid@moh.gov.bn

CAMBODIA
Dr Mao Tan Eang, Director, National Center for TB and Leprosy Control (CENAT), Ministry of Health
No. 1, Str. 278-95, Boeung Keng Kang 2, Khan Chamkar Morn, Phnom Penh, Tel. No.: (855) 12 916 503
Fax No.: (855) 23 224671, E-mail: mao@online.com.kh

Dr Pheng Sok Heng, Chief, National TB Reference Laboratory, National Center for TB and Leprosy Control (CENAT), Ministry of Health, No. 1, Str. 278-95, Boeung Keng Kang 2, Khan Chamkar Morn, Phnom Penh
Tel No.: (855) 15 655 623, Fax No.: (855) 23 218090, E-mail: sokhengpheng@yahoo.com

Dr Nou Chanly, Deputy Chief, Planning, Statistics and IEC Unit of Technical Bureau, National Center for TB and Leprosy Control (CENAT), Ministry of Health, No. 1, Str. 278-95, Boeung Keng Kang 2, Khan Chamkar Morn, Phnom Penh, Tel No.: (855) 12 555 122, Fax No.: (855) 23 224 671,
E-mail: chanly2009@cenat.gov.kh

CHINA, HONGKONG SAR
Dr Chang Kwok Chiu, Senior Medical and Health Officer, Public Health Services Branch, Department of Health, Wanchai Chest Clinic, 1st Floor, Wanchai Polyclinic, 99 Kennedy Road, Wanchai
Tel. No.: (852) 2591 1147, Fax No.: (852) 2834 6627, E-mail: kc_chang@dh.gov.hk

Dr Chan Chi Hang, Research Officer, Microbiology Division, Public Health Laboratory Services Branch Center for Health Protection Department of Health, 9/F, Rm 1018, 382 Nam Cheong Street, Shek Kip Mei
Tel. No.: (852) 2319 8217, Fax No.: (852) 2319 5989, E-mail: ro_phls2@dh.gov.hk

CHINA, PEOPLE'S REPUBLIC OF
Dr Zhao Yanlin, Director, National Tuberculosis Reference Laboratory, Chinese Center for Disease Control and Prevention (China CDC), No. 155 ChangBai Road, Changping District, Beijing 102206,
Tel. No.: (86) 10 5890 0777, Fax No.: (86) 10 5890 0779, E-mail: zhaoyanlin@tb123.org

Mrs Yuhong Liu, Vice Director, Managing Office, Clinical Center on Tuberculosis, Chinese Center for Disease Control, and Prevention, China CDC, No. 97, Machang, Tongzhou District, Beijing ,
Tel. No.: (86) 10 8950 9135, Fax No.: (86) 10 8088 2505, E-mail: zhoulin@chinatb.org

Ms Wang Wei, Vice Consultant, Bureau of Disease Prevention and Control, National Health and Family Planning Commission, of People's Republic of China, No.1, Xizhimenwainanlu, Xicheng District
Beijing 100044, Tel. No.: (86) 10 6879 2662, Fax No.: (86) 10 6879 2806, E-mail: wangwei@nhfpc.gov.cn

JAPAN
Dr Hidekazu Shimada, Deputy Director Tuberculosis and Infectious Disease Control Division, 1-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8916, Tel. No.: (813) 5253 1111, Fax No.: (813) 3581 6251, E-mail: shimada-hidekazu@mhlw.go.jp

Dr Seiya Kato, Vice Director, Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association 3-1-24 Matsuyama, Kiyose, Tokyo 204-8533, Tel. No.: (8142) 493 5711, Fax No.: (8142) 492 4600, E-mail: kato@jata.pr.jp

LAO PEOPLE'S DEMOCRATIC REPUBLIC
Dr Phonenaly Chittamany, Deputy Director, National Tuberculosis Centre, Ministry of Health, Ban Dongpalane thong Village, Sisattanak District, Vientiane Capital, Tel. No.: (856) 021 414 259, Fax No.: (865) 021 452 855, E-mail: cphonenaly@yahoo.com

Dr Soth Bounmala, Chief of Planning Budgeting Division /Coordinator of Global Fund, National Tuberculosis Centre, Ministry of Health, Ban Dongpalane thong Village, Sisattanak District , Vientiane Capital, Tel. No.: (856) 020 5562 7649, Fax No.: (856) 021 452 855, E-mail: sothbounmala@gmail.com

Mr Phasouk Senephansiri, TB Laboratory Culture Manager, National Tuberculosis Centre, Ministry of Health Ban Dongpalane thong Village, Sisattanak District, Vientiane Capital, Tel. No.: (856) 021 414 259, Fax No.: (856) 021 452 855, E-mail: psenephansiri@yahoo.com

MALAYSIA
Dr Rafidah binti Baharudin, Senior Principal Assistant Director, Tuberculosis/Leprosy Control Disease Control Division, Ministry of Health Malaysia, Administrative Centre, Level 4, Block E10 , 62590 Putrajaya, Tel. No.: (603) 8883 4273, Fax No.: (603) 8888 6271, E-mail: fidahb.@yahoo.com

Dr Faridah Binti Amin, Head, Epidemiology Division, National Public Health Laboratory, Lot 1853, Kampung Melayu, 47000 Sungai Buloh, Selangor, Malaysia, Tel. No.: (603) 6126 1200, Fax No.: (603) 6140 2249, E-mail: drfaridah_ma@moh.gov.my

MONGOLIA
Dr Oyuntuya Tumenbayar, Head, National Reference TB Laboratory, National Center for Communicable Diseases (NCCD), NCCD Campus, Nam-Yan-Su Street, Ulaanbaatar 13335, Tel. No.: (976) 9902 6466, E-mail: toyuntuya_4@yahoo.com

Dr Battsooj Batchuluun, Officer, Policy Implementation on Coordination for STIs/AIDS/Tuberculosis, Ministry of Health and Sports, Olympic Street, Ulaanbaatar 14210, Tel. No.: (976) 9985 1206, E-mail: Battsooj@mohs.gov.mn

Dr Surenkhorloo Dashdulam, Manager, Quality Management of TB Clinic, National Center for Communicable Diseases, NCCD Campus Nam-Yan Su Street, Ulaanbaatar 13335, Tel. No.: (976) 9915 8846, E-mail: unaga_tuulni@yahoo.com

NEW ZEALAND
Mr Cecil Grant Storey, Principal Technical Specialist (Blood), Communicable Diseases Public Health Clinical Leadership, Protection and Regulation, Ministry of Health, P.O. Box 5013, Wellington 6011 Tel. No.: (64) 4 816 4375, Fax No.: (64) 4 496 2191, E-mail: grant_storey@moh.govt.nz

Dr Sally Ann Roberts, Clinical Head of Microbiology, Department of Microbiology, Auckland District Health Board, Park Road, Grafton, Auckland 1031, Tel. No.: (64) 09 3797 440, Fax No.: (64) 09 3074 939, E-mail: sallyrob@adhb.govt.nz

PAPUA NEW GUINEA
Dr Paul K. Aia, Program Officer, National TB Program National Department of Health, P.O. Box 807, Waigani, Port Moresby, Tel. No.: (675) 301 3689, E-mail: paul_aia@health.gov.pg, koltna_44@gmail.com

Dr Evelyn K. Lavu, Manager, Central Public Health Laboratory, National Department of Health, P.O. Box 807 Waigani, Port Moresby, Tel. No.: (675) 324 8197, Fax No.: (675) 325 6342, E-mail: lavuek@gmail.com

Dr Sibauk V. Bieb, Executive Manager, Public Health Division, National Department of Health, P.O. Box 807 Waigani, Port Moresby, Tel. No.: (675) 301 3707, Fax No.: (675) 323 9710, E-mail: svbieb@gmail.com

PHILIPPINES
Dr Rosalind Vianzon, OIC Division Chief, Disease Prevention and Control Bureau, 3rd Floor Bldg 14, Infectious Disease Office, Department of Health, San Lazaro Compound, Sta. Cruz, Manila, Philippines Tel. No.: (632) 651 7800 local 2353 to 54, Fax No.: (632) 310 5713, E-mail: rgvianzon10@yahoo.com

Dr Anna Marie Celina G. Garfin, Medical Specialist IV, Disease Prevention and Control Bureau 3rd Floor Bldg 14, Infectious Disease Office, Department of Health, San Lazaro Compound, Sta. Cruz, Manila, Philippines, Tel. No.: (632) 651 7800 local 2353 to 54, Fax No.: (632) 310 5713, E-mail: garfinamc@yahoo.com/garfinamc@gmail.com

Dr Maria Cecilia Ama, Head, National Tuberculosis Research Laboratory (NTRL), 9002 Research Drive, Filinvest, Corporate City, Alabang, Muntinlupa City, Philippines, Tel. No.: (632) 807-2628, E-mail: cindyamamd@gmail.com

REPUBLIC OF KOREA
Dr Seonghan Kim, Deputy Scientific Director, Division of TB and Bacteria Respiratory Infection, Korea National Institute of Health, Korea Centers for Disease Control and Prevention, 187 Osongsaengmyoung | 2(i)-ro Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheong buk-do, Tel. No.: (82) 10 9256 8120, Fax No.: (82) 43 719 8349, E-mail: kking@korea.kr/kkingsh@chol.com

Dr Yunhyung Kwon, Research Scientist, Division of TB Epidemic Investigation, Korea National Institute of Health, Korea Centers for Disease Control and Prevention, 187 Osongsaengmyoung 2(i)-ro, Osong-eup, Heungdeok-gu, Cheongju-si Chungcheong buk-do, Tel. No.: (82) 10 3130 1721, Fax No.: (82) 43 719 7292 E-mail: yhhodori@korea.kr/yhhodori@gmail.com

SINGAPORE
Dr Cynthia Chee Bin Eng, Senior Consultant, TB Control Unit, Tan Tock Seng Hospital. 11 Jalan Tan Tock Seng, 144 Moulmein Road, Singapore 308089, Tel. No.: (65) 8216 3219, Fax No.: (65) 6356 7391, E-mail: Cynthia_chee@ttsh.com.sg

VIET NAM, SOCIALIST REPUBLIC OF
Dr Nguyen Bin Hoa, Secretary, Viet Nam National TB Program, No. 463 Hoang Hoa Tham Street, Ba Dinh, Hanoi, Tel. No.: (84) 9120 08 604, Fax No.: (84) 4383 26 162, E-mail: nguyenbinhoatb@yahoo.com

Dr Nguyen Van Hung, Head of Bacteriology Department and, National TB Reference Laboratory National Lung Hospital, No. 463 Hoang Hoa Tham Street, Ba Dinh, Hanoi, Tel. No.: (84) 4 3761 5662, E-mail: hungmtb75@yahoo.co.uk

2. TEMPORARY ADVISERS

Mr David Collins, Senior Principal Technical Advisor, Health Care Financing, Management Sciences for Health (MSH), 200 Rivers Edge Drive, Medford, Massachusetts, United States of America, Tel. No.: (1) 617 250 9317, Email: dcollins@msh.org

Dr Paul Douglas, Chief Medical Officer and Assistant Secretary, Immigration Health Branch Department of Immigration and Border Protection, 307/24 Karrabee Ave Huntley's Cove 2111, Sydney, NSW, Australia, Tel No.: (61) 2 8666 5760, Mobile: (61) 409 155 377, E-mail: paul.douglas@border.gov.au

Dr Steve Graham, Professor, International Child Health, Department of Paediatrics, University of Melbourne Director, Paediatric TB, Pneumonia and Lung Health Unit, The Royal Children's Hospital Melbourne, 50 Flemington Road, Parkville, Victoria 3052, Australia, Tel. No.: (61) 3 9345 4788, Fax No.: (61) 3 9345 6667, Email: steve.graham@rch.org.au

Dr Carrie Tudor, TB Project Director, International Council of Nurses, Geneva, Switzerland, Mobile: (27) 76 496 8335, Email: tudor@icn.ch

3. REPRESENTATIVES OF PARTNER AGENCIES AND OBSERVERS

AUSTRALIAN RESPIRATORY COUNCIL
Mrs Amanda Christensen, Executive Director, Australian Respiratory Council, GPO Box 102, Sydney NSW 2001, Australia, Tel. No.: (612) 92233166, Fax No.: (612) 92233044, E-mail: amandachristensen@thearc.org.au

DAMIEN FOUNDATION BELGIUM
Mr Alex Jaucot, General Director, Damien Foundation Belgium, Bd Leopold II, 263, B 1081, Brussels, Belgium, E-mail: alex.jaucot@actiondamien.be

FHI 360
Dr Anh L. Innes, Chief of Party, USAID CAP-TB Project, FHI 360, Assistant Clinical Professor of Medicine (Adjunct), University of California, San Francisco, 19th Floor, Tower 3, Sindhorn Building, 130-132 Wireless Road, Bangkok 10330, Thailand, Tel. No.: (662) 263 5200, Mobile No.: (6681) 931 8621, E-mail: AInnes@fhi360.org

GLOBAL FUND
Dr Eliud Wandwalo, Senior Disease Coordinator, Technical Advice and Partnerships Department, Strategy, Investment and Impact Division, The Global Fund to Fight AIDS, Tuberculosis and Malaria, Chemin de Blandonnet 8, 1214 Vernier-Geneva, Switzerland, Tel. No.: (415) 8791 1905, Mobile: (417) 9274 4917, E-mail: Eliud.Wandwalo@theglobalfund.org

GLOBAL LABORATORY INITIATIVE (GLI))
Dr Thomas M. Shinnick, Associate Director for Global , Division of Tuberculosis Elimination , Centers for Disease Control and Prevention, Atlanta, Georgia 30333, United States of America, Tel. No.: 1 (404) 639 1474, Fax No.: 1 (404) 639 1287, E-mail: tms1@cdc.gov

INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)
Dr Levan Gagnidze, Regional Coordinator for Laboratory Services, IOM Regional Office for Asia and the Pacific, 8th Floor, Rajanakarn Building, 183 South Sathorn Road, Bangkok 10120 , Thailand Tel. No.: (66) 2 3439448, Fax No.: (66) 2 3439449, E-mail: lgagnidze@iom.int

Dr Predrag Bajcevic, Chief Medical Officer, IOM - Manila Health Centre, 15th Floor Trafalgar Plaza H.V. Dela Costa, Makati, Philippines, Tel. No.: (632) 883-9340, Fax No.: (632) 883-9377, E-mail: pbajcevic@iom.int

Ms Kathrine Mae Burgonio, Laboratory Supervisor, IOM - Manila Health Centre, 15th Floor Trafalgar Plaza H.V. Dela Costa, Makati, Philippines, Tel. No.:(632)-8839346, Fax No.: (632) 883-9377, E-mail: kmburgonio@iom.int

KNCV TUBERCULOSIS FOUNDATION
Dr Catharina van Weezenbeek, Executive Director, KNCV Tuberculosis Foundation , Parkstraat 17, 2514 JD The Hague, The Netherlands, Tel. No.: (3170) 416 7222, (3163) 1952 809, E-mail: kitty.vanweezenbeek@kncvtbc.org

KNCV TUBERCULOSIS FOUNDATION
Dr Nguyen Thien Huong, Country Representative, KNCV Tuberculosis Foundation, Country Office in Viet Nam/Challenge TB Viet Nam, 130 Mai Anh Tuan Street, Dong Da District, Hanoi, Viet Nam Tel. No.: (84) 435 19 0 346 (ext. 16), Mobile No.: (84-0) 912 016 913, Fax No.: (84) 437 760 655, E-mail: huong.nguyen@kncvtbc.org, nthuong139@gmail.com

RESEARCH INSTITUTE OF TUBERCULOSIS
Dr Norio Yamada, Head, Centre for International Cooperation and Global TB Information, Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association, 3-1-24 Matsuyama, Kiyose, 204-0022 Tokyo, Japan Tel. No.: (81) 42 493 5711, Fax No.: (81) 42 492 8258, Email: nyamada@jata.or.jp

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)
Dr Amy Bloom, Senior TB Technical Advisor/MDR-TB, United States Agency for International Development Washington, D.C. 20523, United States of America, Fax No.: 1 (571) 551 7081, 1 (571) 551 7082, E-mail: ABloom@usaid.gov

Dr Alex Golubkov, Senior TB Technical Advisor/MDR-TB, United States Agency for International Development, Washington, D.C. 20523, United States of America, Fax No.: 1 (571) 551 7081, 1 (571) 551 7082, E-mail: AGolubkov@usaid.gov

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)
Dr Kathryn Roa, USAID Project Management Specialist, United States Agency for International Development Annex 2 Building, U.S. Embassy, 1201 Roxas Boulevard, 1000 Ermita, Manila, Philippines, Fax No.: (632) 301-6213, Email: kroa@usaid.gov

WOOLCOCK INSTITUTE OF MEDICAL RESEARCH
Professor Guy B. Marks, Professor of Respiratory Medicine, Respiratory and Environmental Epidemiology Woolcock Institute of Medical Research, P.O. Box M77, Missenden Road, NSW, 2015, Australia, E-mail: guy.marks1@gmail.com

4. SECRETARIAT

WHO WESTERN PACIFIC REGIONAL OFFICE (WHO/WPRO)
Dr Nobuyuki Nishikiori, (Responsible Officer), Coordinator, Stop TB & Leprosy Elimination, WHO/WPRO U.N. Avenue, 1000 Manila, Philippines, Tel. No.: (632) 528 9706, Fax No.: (632) 521 1036, E-mail: nishikiorin@wpro.who.int

Dr Cornelia Hennig, Medical Officer, Stop TB & Leprosy Elimination, WHO/WPRO, U.N. Avenue 1000 Manila, Philippines, Tel. No.: (632) 528 9709, Fax No.: (632) 521 1036, E-mail: hennigc@wpro.who.int

Dr Shalala Ahmadova, Medical Officer, Stop TB & Leprosy Elimination, WHO/WPRO, U.N. Avenue 1000 Manila, Philippines, Tel. No.: (632) 528 9720, Fax No.: (632) 521 1036, E-mail: ahmadovas@wpro.who.int

Mr Thomas Dale Hiatt, Technical Officer, Stop TB & Leprosy Elimination, WHO/WPRO, U.N. Avenue 1000 Manila, Philippines, Tel. No.: (632) 528 9708, Fax No.: (632) 521 1036, E-mail: hiattt@wpro.who.int

WHO/WPRO COUNTRY OFFICES

Dr Fabio Scano, Coordinator, Disease Control, Office of the WHO Representative in China, 401, Dongwai Diplomatic Office Building, 23, Dongzhimenwai Dajie, Chaoyang District, Beijing 100600, China, Tel. No.: (8610) 6532 1288, Fax No.: (8610) 6532 2359, E-mail: scanof@wpro.who.int

Dr Sun Yanni, Technical Officer, Stop TB & Leprosy Elimination, Office of the WHO Representative in China, 401, Dongwai Diplomatic Office Building, 23, Dongzhimenwai Dajie, Chaoyang District, Beijing 100600, People's People's Republic of China , Tel. No.: (8610) 6532 7189, Fax No.: (8610) 6532 2359, E-mail: sunya@wpro.who.int

Dr Jacques Sebert, Medical Officer, Stop TB and Leprosy Elimination, Office of the WHO Representative in Lao People's Democratic Republic, 125 Saphanthong Road, Unit 5, Ban Saphangthongtai, Sisattanak District, Vientiane Capital, Lao People's Democratic Republic, Tel. No.: (856) 21 353 902, Fax No.: (856) 21 353 905, E-mail: sebertj@wpro.who.int

Dr Thipphasone Vixaysouk (Tone), Tuberculosis Programme Officer, Office of the WHO Representative in Lao People's Democratic Republic, 125 Saphanthong Road, Unit 5, Ban Saphangthongtai, Sisattanak District, Vientiane Capital, Lao People's Democratic Republic, Tel. No.: (856) 21 353 902-4 (ext. 81855) Fax No.: (856) 21 353 905, E-mail: vixaysoukt@wpro.who.int

Dr Woo Jin Lew, Senior Programme Coordinator, Office of the WHO Representative in Mongolia, Ministry of Health, Government Building No. 8, Ulaanbaatar, Mongolia, Tel. No.: (976) 11 327 870, Fax. No.: (976) 11 324 683, E-mail: leww@wpro.who.int

Dr Narantuya Jadambaa, Technical Officer (HIV/AIDS/STI), Office of the WHO Representative in Mongolia, Ministry of Health, Government Building No. 8, Ulaanbaatar, Mongolia, Tel. No.: (976) 11 327 870, Fax. No.: (976) 11 324 683, E-mail: jadambaan@who.int

Dr Tauhidul Islam, Medical Officer, Stop TB & Leprosy Elimination, Office of the WHO Representative in Papua New Guinea, 4th Floor, AOPI Centre, Waigani Drive, Papua New Guinea, Tel. No.: (975) 325 7827, Fax. No.: (975) 325 0568, E-mail: islamt@wpro.who.int

WHO/WPRO COUNTRY OFFICES

Dr Rajendra Yadav, Medical Officer, Stop TB & Leprosy Elimination, Office of the WHO Representative in the Philippines, Ground Floor, Building 3, Department of Health, San Lazaro Compound, Rizal Avenue, Sta. Cruz, Manila , Philippines, Tel. No.: (632) 310 6370, Fax No.: (632) 743 8301 (local 1931), E-mail: yadavr@wpro.who.int

Dr Jebeniani Ridha, Technical Officer, World Health Organization, P.O. Box 22, Honiara, Solomon Islands, Tel. No.: (677) 23406, Fax No.: (677) 21344, E-mail: jebenianir@wpro.who.int

Dr Katsunori Osuga, Medical Officer, Stop TB & Leprosy Elimination, Office of the WHO Representative in Viet Nam, 63 Tran Hung Dao Street, Hoan Kiem District, Hano, Socialist Republic of Viet Nam, Tel. No.: (844) 943 3734, Fax No.: (844) 943 3740, E-mail: osugak@wpro.who.int

Dr Pham Huyen Khanh, National Professional Officer, Stop TB & Leprosy Elimination, Office of the WHO Representative in Viet Nam, 63 Tran Hung Dao Street, Hoan Kiem District, Hanoi, Socialist Republic of Viet Nam, Tel. No.: (844) 943 3734, Fax no.: (844) 943 3740, E-mail: phamh@vtn.wpro.who.int

WHO HEADQUARTERS

Mrs Diana Weil, Coordinator, Policy, Strategy and Innovations, Global TB Programme, World Health Organization, Avenue Appia 20, CH – 1211 Geneva 27, Switzerland, Tel. No.: (41) 22 791 3072, Fax No.: (41) 22 791 4199, E-mail: weild@who.int

Dr Knut Lonnroth, Medical Officer, Policy, Strategy and Innovations, Global TB Programme, World Health Organization, Avenue Appia 20, CH – 1211 Geneva 27, Switzerland, Tel. No.: (41) 22 79 11628, Fax No.: (41) 22 791 4199, E-mail: lonnrothk@who.int

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTÉ

REGIONAL OFFICE FOR THE WESTERN PACIFIC
BUREAU RÉGIONAL DU PACIFIQUE OCCIDENTAL

THE TENTH NATIONAL TB PROGRAMME MANAGERS MEETING IN THE WESTERN PACIFIC REGION

WPR/DCD/STB(01)/2016.1b
29 February 2016

Manila, Philippines
1 – 4 March 2016

ENGLISH ONLY

PROVISIONAL PROGRAMME OF ACTIVITIES

Tuesday, 1 March 2016

Time	*Presentation/Subject/Activity*	Presenter
08:00 – 08:30	Registration	
08:30 – 09:15	Opening • Welcome remarks by WHO Regional Director for the Western Pacific • Meeting objectives • Self-introduction of participants and observers • Appointment of office bearers • Administrative announcements	
09:15 – 10:00	*Group photo / coffee break*	
	Session 1: Overview Chair: Dr Celine Garfin Vice-Chair: Dr Seiya Kato	
10:00 – 10:30	The WHO End TB Strategy and an action framework towards TB elimination	*K Lönnroth*
10:30 – 10:45	Regional Framework for Action on Implementation of the End TB Strategy	*N Nishikiori*
10:45 – 11:00	Discussion	
11:00 – 11:40	The role of policy-makers to build strong national systems for TB control and elimination	*Hon. Angelina Tan*
11:40– 12:00	Discussion	
12:00 – 13:00	*Lunch*	

Session 2: UHC and social protection in the context of TB care (1)

Chair: Ms Cindy Toms
Vice Chair: Ms Liu Yuhong

13:00 – 13:20	Financing TB care and control in the context of universal health coverage	*D Collins*
13:20 – 13:40	Exploring financing options: country updates/experiences (5 minutes each)	*China, Viet Nam, Republic of Korea*
13:40 – 14:00	Discussion	
14:00 – 14:20	Monitoring financial burden of TB patients (patient cost study)	*K Lönnroth*
14:20 – 14:30	Discussion	
14:30 – 15:00	*Coffee / tea break*	

Session 3: Legal and regulatory framework to support TB care and control

Chair: Ms Cindy Toms
Vice Chair: Dr Zhao Yanlin

15:00 – 15:30	Legal and regulatory framework to support public health / TB care and control	*N Nishikiori / WPR PH Law Programme*
15:30 – 15:50	Comprehensive TB Elimination Plan Act in the Philippines	*C Garfin*
15:50 – 16:20	National TB control systems: country updates/experiences	*Japan, New Zealand, Singapore*
16:20 – 17:00	Discussion	
17:30	*Reception*	

Wednesday, 2 March 2016

Session 4: TB control among high risk populations

Chair: Dr Rafidah binti Baharudin
Vice Chair: Dr Cynthia Chee Bin Eng

08:30 – 08:50	Strategies to address TB among high risk populations	*K Lönnroth*
08:50 – 09:10	Evaluating active case finding activities / ScreenTB: an online tool for prioritization and strategy selection	*F Morishita*
09:10 – 09:30	Multi-sector approach to address social determinants: Health in all policies and whole-societal approaches for health	*S Ahmadova*
09:30 – 10:00	Country experiences: Addressing the need of vulnerable populations	*Hong Kong (China), Lao PDR, Mongolia*

10:00 – 10:30	*Coffee / tea break*	

Session 5: People-centred care
Chair: Mrs Hajah Rafizah bte Haji Abdul Hamid
Vice Chair: Mr Cecil Grant Storey

10:30 – 10:45	WHO's strategy to promote people-centred care	*R Baghirov*
10:45 – 11:00	People-centred TB care and prevention	*C Hennig*
11:00 – 11:20	Country experience	*Japan, Australia*
11:20 – 12:00	Group discussion: the four domains of action (1st Round)	*Facilitators*
12:00 – 13:00	*Lunch*	

Session 5: people-centred care (continued)

13:00 – 14:00	Group discussion continued (2nd and 3rd Rounds)	*Facilitators*
14:00 – 14:45	Feedback to plenary by three groups	
14:45 – 15:00	Discussion	
15:00 – 15:30	*Coffee / tea break*	

Session 6: TB control among migrant population: possible architecture of an international referral mechanism
Chair: Dr Seonghan Kim
Vice Chair: Dr Soth Bounmala

15:30 – 15:50	TB control in the context of migration and health	*P Douglas*
15:50 – 16:20	Mechanisms to facilitate international information exchange for referral and contact investigation	*N Nishikiori*
	(The ERS/WHO consilium: an example from Europe)	*(P de Colombani via Skype)*
16:20 – 16:40	Discussants	*Brunei Darussalam, Malaysia, New Zealand,*
16:45 – 17:30	Discussion	

Thursday, 3 March 2016

Session 7: Programmatic Management of Drug-Resistant TB
Chair: Dr Mao Tan Eang
Vice Chair: Dr Nguyen Binh Hoa

08:30 – 09:00	Global and regional situation of drug resistant TB	*S Ahmadova*
09:00 – 09:10	US National Action Plan for Combating MDR-TB	*A Bloom*
09:10 – 09:30	Anti-microbial resistance (AMR): a global agenda	*K Tisocki*

09:30 – 10:00	Discussions	
10:00 – 10:20	Introduction of new TB drugs / Pharmacovigilance	*S Ahmadova*
10:20 – 10:30	Bedaquiline donation programme	*A Golubkov*
10:30 – 11:00	*Coffee / tea break*	
	Session 8: Intensified TB Research and innovation Chair: Dr Mao Tan Eang Vice Chair: Dr Nguyen Binh Hoa	
11:00 – 11:20	Regional TB research network and research capacity building	*G Marks*
11:20 – 11:40	National TB research coordination / networks	*China, Viet Nam*
11:40 – 12:00	Discussion	
12:00 – 13:00	*Lunch*	
	Session 9: Parallel sessions	
13:00 – 14:30	Stream 1: Childhood TB	*S Graham/ C Hennig*
	Stream 2: Management of latent TB infection	*N Nishikiori*
	Stream 3: TB laboratory strengthening	*T Shinnick / S Ahmadova*
14:30 – 15:00	*Coffee / tea break*	
	Parallel sessions (continued)	
15:00 – 17:00	Stream 1: Childhood TB (continued)	*S Graham / C Hennig*
	Stream 4: Surveillance	*T Hiatt / N Nishikiori*

Friday, 4 March 2016

	Session 10: UHC and social protection in the context of TB care (2) Chair: Dr Chang Kwok Chiu Vice Chair: Dr Paul Aia	
08:30 – 09:10	Enhancing social protection to improve TB care	*D Weil*
09:10 – 09:30	Country experience	*Cambodia, Republic of Korea*
09:30 – 10:00	Discussion	
10:00 – 10:30	*Coffee / tea break*	

Conclusions / Recommendations

10:30 – 11:30	Discussion and finalization of recommendations Priority topics for future meetings
11:30 – 12:00	Closing
12:00 – 13:00	*Lunch*

Western Pacific TB Partners Forum

13:00 – 15:00	Meeting with technical and funding partners
	Damien Foundation
	FHI 360
	Global Fund (GFATM)
	International Council of Nurses (ICN)
	International Organization for Migration (IOM)
	KNCV Tuberculosis Foundation
	Management Sciences for Health (MSH)
	Research Institute for Tuberculosis (RIT) Japan Anti-Tuberculosis Association (JATA)
	USAID

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