Meeting Report

ELEVENTH NATIONAL TB PROGRAMME MANAGERS MEETING IN THE WESTERN PACIFIC REGION

19–21 March 2017

Tokyo, Japan

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
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NOTE

The views expressed in this report are those of the participants of the Eleventh 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 Eleventh National TB Programme Managers Meeting in the Western Pacific Region in Tokyo, Japan from 19 to 21 March 2017.

CONTENTS

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SUMMARY

Tuberculosis (TB) remains one of the world's deadliest communicable diseases. In the Western Pacific Region, an estimated 1.6 million people annually develop TB and 90 000 die of this curable illness. The Region has made substantial progress in TB control reaching the Millennium Development Goals and other relevant global targets ahead of 2015. Despite this success, TB incidence is declining very slowly and a number of new challenges have emerged. TB is concentrated in hard-to-reach and vulnerable populations and the spread of drug-resistant TB is yet to be controlled.

In October 2015, Member States of the World Health Organization (WHO) Western Pacific Region endorsed the *Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific, 2016–2020* during the sixty-sixth session of the Regional Committee.

To review and discuss challenges in the implementation of the Regional Framework for Action, the Eleventh National TB Programme Managers Meeting in the Western Pacific Region was held in Tokyo, Japan from 19 to 21 March 2017. The objectives of the meeting were:

- to review the progress of TB control in the Region and the status of the adaptation and implementation of the End TB Strategy and the Regional Framework for Action;
- to share country experiences and good practices, particularly in the areas of people-centred TB services, sustainable financing and multisectoral engagement for TB control; and
- to discuss ways to address common challenges in the Region such as TB among mobile populations and scaling up interventions for drug-resistant TB.

The meeting was attended by 27 participants from 14 countries and areas with diverse epidemiological settings (low to high burden). In addition, 11 temporary advisers and 14 observers representing different institutions and entities also participated in the meeting.

After exchanging country experiences and building an enabling environment to pursue regional TB care, and with prevention as a common goal, the meeting established the following major recommendations for the Member States:

1) Member States are urged to maximize the opportunities of the global events to ensure national commitment to accelerate implementation of the End TB Strategy through multisectoral and partner engagement.
2) Members States are recommended to continue monitoring the progress against the global targets and consider collecting data on the top 10 indicators for the implementation of the End TB Strategy.
3) Member States are encouraged to conduct patient catastrophic cost studies to establish a baseline against a global target of zero catastrophic costs due to TB. Member States that have completed cost studies should disseminate their findings and identify the ways to provide better financial and social protection for TB patients and families.
4) Member States are urged to ensure maintaining health system core capacities to promote and protect public health, strengthen their domestic financing institutions, improve

efficiency of the TB programme, seek ways to increase domestic financing for TB care and prevention, and pursue synergies among overall social sector policies and services.

5) Member States should promote the collaboration between different sectors and partners to strengthen country monitoring systems to include disaggregated data on migrants, to develop migrant-inclusive policies and national plans, and to provide migrant-sensitive TB care and prevention.
6) Member States may consider using the WHO/European Respiratory Society web-based platform to improve current practices for cross-border referral to ensure continuity of care for migrants with TB.
7) Member States may also consider strengthening the management of childhood TB by improving case finding, introducing child-friendly dispersible fixed-dose combinations and providing latent TB infection treatment through effective contact investigation.
8) Member States, where relevant, are urged to take action to address TB among the elderly.
9) Member States are recommended to step up the efforts to ensure access to diagnosis and treatment for all people with drug-resistant TB. Urgent action should be taken to adopt and accelerate the uptake of WHO-recommended rapid diagnostic tools, new anti-TB medicines and the shorter MDR-TB regimen.
10) Member States may consider intensifying actions in all four domains of people-centred care in line with resolution WPR/RC58.R4 and the Regional Framework for Action.

INTRODUCTION

1.1 Meeting organization

The Eleventh National TB Programme Managers Meeting in the Western Pacific Region was held in Tokyo, Japan, at the National Center for the Global Health and Medicine from 19 to 21 March 2017. This meeting reviewed the progress of tuberculosis (TB) care and prevention in the Region and the status of the adaptation and implementation of the End TB Strategy and the *Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific, 2016–2020.*

1.2 Meeting objectives

The objectives of the meeting were:

- to review the progress of TB control in the Region and the status of the adaptation and implementation of the End TB Strategy and the *Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific, 2016–2020*;
- to share country experiences and good practices, particularly in the areas of people-centred TB services, sustainable financing and multisectoral engagement for TB control; and
- to discuss ways to address regional common challenges such as TB among mobile populations and scaling up interventions for drug-resistant TB.

PROCEEDINGS

1.3 Opening session

The meeting was opened by Mr Hiroyuki Yamaya, Director, Office of International Cooperation, Ministry of Health, Labour and Welfare and Dr Tamotsu Nakasa, Director, Bureau of International Health Cooperation, National Center for Global Health and Medicine. Dr Yamaya stressed the importance of having the regional TB meeting this year in light of the Global Ministerial Conference on Ending TB in Moscow in November 2017. He also highlighted Japan's contribution for global TB control, including support through bilateral and multilateral channels such as the Japan International Cooperation Agency (JICA), Global Fund, the World Health Organization (WHO) and Global Health Innovative Technology Fund (GHIT). Dr Nakasa introduced the background of the institution and relevance to host the meeting.

Dr Nobuyuki Nishikiori, Coordinator, Stop TB and Leprosy Elimination, WHO Regional Office for the Western Pacific, delivered the opening address on behalf of Dr Shin Young-soo, WHO Regional Director for the Western Pacific. The speech mentioned the progress made by Member States of the Region in implementing the Regional Framework for Action since its endorsement by the sixty-sixth session of the Regional Committee. It also called for a concerted effort to strengthen TB control in the Region and for making best use of the opportunities of the upcoming ministerial meeting in Moscow in 2017 and the high-level meeting on TB to be convened by the United Nations General Assembly in 2018.

1.4 Implementing the End TB Strategy: Overview

1.4.1 Building the global momentum to end TB

Although TB continues to be one of the biggest global health threats, external resources for TB care and control are generally decreasing, especially in the countries in the Region, and governments' financial contributions are insufficient. Out-of-pocket expenditures on health remain considerably high. Continuation and building up of global momentum among high-level leaders for TB control are critical. The ministerial meeting in Moscow in November 2017 and the UN General Assembly High-Level Meeting in 2018 could be potential platforms for advocacy and fundraising for TB programmes. These events represent unprecedented opportunities to raise TB high on the global health agenda to accelerate the implementation of the End TB Strategy.

1.4.2 Ending the TB epidemic in the Western Pacific Region

The Western Pacific Region has made substantial progress in TB care and prevention in the last decade. However, difficulties and new challenges that are yet to be addressed remain. The WHO Western Pacific Region accounted for 1.59 million (15%) of 10.4 million incident TB cases that occurred globally in 2015. More than 15% of incident TB cases were either not diagnosed or not registered in the Region. The gap is startlingly high among multidrug-resistant TB (MDR-TB) cases, with only 17% of estimated cases diagnosed and initiated on treatment. The remaining challenges include higher TB rates among high-risk and vulnerable populations; insufficient response in addressing drug-resistant TB; and challenges in building sustainable TB systems within a wider health system.

Since its adoption, Member States have rolled out the implementation of the End TB Strategy in line with the Regional Framework for Action. However, implementation has remained suboptimal due to various reasons ranging from weak health systems to limited resources and low political commitment. More efforts are needed to establish and maintain a robust national TB control system that can rapidly adopt innovative technologies to improve TB care, supported by sustainable financing.

1.4.3 Discussion (discussants: 1. China, 2. Malaysia, 3. Philippines)

Experiences from China, Malaysia, and the Philippines demonstrate that evidence-based policies and high-level advocacy are essential to create positive changes and can have an impact on reducing the TB burden. Socioeconomic development; application of innovations, including advanced technologies; and strong emphasis to provide universal access to quality services may have contributed to the decline of incidence and mortality rates in some countries. Nonetheless, sustainable domestic financing of public health programmes and sufficient funding mobilization from donors remain crucial to leverage the momentum of strengthening TB care and prevention.

1.4.4 TB impact measurement monitoring progress of the End TB Strategy targets

The global targets of the End TB Strategy have been linked to the Sustainable Development Goal targets of 80% reduction in the TB incidence rate and 90% reduction in TB deaths compared to the levels in 2015. The best method for measuring TB incidence is through a routine surveillance system that captures reliable and comprehensive data about new TB cases. Mandatory notification of TB cases is an essential first step to have comprehensive data. The countries can implement periodic prevalence surveys and inventory methods to indirectly estimate incidence until the routine surveillance system improves to the extent that it can be considered as a proxy to incidence. WHO

also recommends that countries improve their vital registration system so that it can be used as a direct measure for TB mortality. The case fatality ratio (CFR) is the number of TB deaths divided by the estimated number of incident cases in the same year. In Brazil, CFR has recently been approximated as the ratio of TB deaths (vital registration) by notification due to the improved surveillance system.

WHO has recommended top 10 indicators for monitoring the implementation of the End TB Strategy globally and nationally with recommended target levels. The strategy also emphasizes strengthening routine surveillance, especially the electronic case-based reporting system for TB.

In addition to the top 10 indicators, countries are also advised to monitor and address, among others, poverty-related determinants, coverage of essential health services, infection control, catastrophic costs due to TB, social protection coverage, health insurance and comorbidities.

1.5 Universal health coverage and social protection to support TB control

1.5.1 Overview: TB patient cost studies

Several studies indicate that a large proportion of TB patients and affected households face catastrophic costs due to TB and about half of the cost is incurred before the start of treatment. One of the three high-level indicators set in the End TB Strategy is to eliminate catastrophic costs due to TB by 2020. WHO is recommending and supporting countries to design, implement and analyse TB patient cost surveys. The outcomes of these surveys are expected to inform policy and practices for improved financial and social protection of TB patients and their affected households.

It is a facility-based survey with the primary objectives of: (i) documenting costs and identifying the main cost drivers of TB disease to inform policy and (ii) monitoring progress towards the End TB Strategy target of zero catastrophic costs. The TB-specific estimates for cost are relevant to universal health coverage (UHC) and social protection because they provide useful information on the magnitude and nature of demand-side barriers to access care and contribute to the diagnosis of barriers to progress towards UHC and social protection.

WHO recommends all 30 high-burden countries to conduct TB patient cost surveys to ascertain the baseline before 2020 and monitor it at least every five years. Moreover, it also advises countries to analyse and use cost survey outcomes to develop/strengthen financial and social protection policies to mitigate patient costs.

1.5.2 Enhancing social protection to improve TB care

In line with the Sustainable Development Goals, the End TB Strategy advocates providing social protection to TB patients in order to contribute to ending poverty and the disease epidemic. Both economic and nutritional support can be important for TB patients. WHO has suggested pointers on effective social protection that includes: (i) assessing needs; (ii) building collaboration with social protection counterparts; (iii) determining clear terms of eligibility; (iv) making informed decisions; (v) sustainable funding; and (vi) improving management, monitoring, evaluation and research.

In connection to the above pointers, five specific work streams have been suggested for more effective and sustainable social protection: (i) conduct TB cost surveys; (ii) support integrated patient-centred care; (iii) map social protection schemes; (iv) promote cross-programme data linkages and interventions; and (v) pursue research through the Social Protection Action Research and Knowledge Sharing (SPARKS) research network.

WHO also advises national TB programmes (NTPs) to work with health and social sector partners and nongovernmental organizations to move from a project-based approach to a programmatic one that is integrated with the larger platform.

1.5.3 Country experiences in conducting catastrophic cost studies and enhancing social protection

Cambodia has implemented community-based active case finding (ACF), mainly among household and neighbourhood contacts of TB patients. The NTP conducted a cross-sectional comparative study integrated into the ACF activity to compare the cost incurred due to TB between active and passive case finding (PCF) groups. The study reported a significantly lower cost (25%) incurred before treatment by the ACF group than the PCF group. The proportion of patients facing catastrophic cost was 9 percentage points lower in the ACF group (36.1% vs 45.0%). Indirect cost constituted about two thirds of the total cost in both groups. The study concluded that ACF has the potential to reduce cost incurred due to TB, particularly before treatment, and there is a need to establish social protection mechanisms to compensate income loss.

The Philippines is currently progressing in data collection for its TB cost survey and shared its experience of the process. The survey requires good preparation, including capacity-building, tool customization, sampling and ethics review. The major challenges faced were: difficulties in using some of the survey tool questions; securing participation of sample facilities that are geographically widespread; getting updated lists of patients in sample facilities due to varying reporting accuracy; difficulty for some patients to visit a facility for interview for various reasons; and slow pace of data collection due to conflicting priorities. The programme implemented the following solutions to address the above challenges: adaptation of the survey tool questions to country context; enhancement of interregional coordination and monitoring; and home visits for patients who are unable to attend the health facilities.

Viet Nam is the first country in the Western Pacific Region to complete the nationwide TB cost survey. The results showed that about 98% of households affected by drug-resistant TB and 65% of those affected by drug-sensitive TB incurred catastrophic costs due to TB. Income loss accounted for the largest share (58%) of the total cost of the drug-sensitive TB episodes. The travel and accommodation costs portion was much higher post-diagnosis. Recall bias; difficulty for patients to break down the costs and understand some of the terminology of the tool; as well as time-consuming interview questionnaires were some of the challenges that the programme faced in executing the cost survey.

1.5.4 Sustainable financing for public health priorities

In the Western Pacific Region, most high-burden countries rely heavily on external funding for their TB programmes. Countries are at different stages in transition, some still rely largely on external donor funding and some are in the middle of transition to domestic funding. Even for countries with more mature systems, sustainability is an issue for moving to elimination. For example, when the disease becomes less visible, ministries struggle to secure funds for staff and activities. Funding to provide core services for drug-sensitive TB tends to shift first to domestic funding. The programmatic management of drug-resistant TB (PMDT) may need some more time to shift to domestic funding due to its high cost and reliance on external funding. The WHO Regional Office for the Western Pacific is preparing a regional guidance to support countries in transitioning to sustainable financing. The document describes four priority pillars: (i) ensure health system core

capacities to promote and protect public health; (ii) strengthen domestic institutions; (iii) increase domestic financing; and (iv) ensure effective governance and coordination for transition.

1.5.5 Countries' progress in strengthening domestic financing for TB control

Notwithstanding a recent slump in economic growth, **Mongolia** reached upper-middle-income country status in 2015 due to its fast economic growth in the last two decades. This led to increased urbanization, internal migration and subsequent decreased donor assistance, especially for the TB and HIV programmes. TB remains a pressing public health challenge with an estimated burden of bacteriologically positive TB at 554 per 100 000 population (according to estimates of national TB prevalence in 2014/15) and the burden of MDR-TB is increasing. The Global Fund contributes about 34% of the total funding for the TB programme. In view of decreasing external support, the Ministry of Health planned to develop a transition plan to efficiently move predominantly towards domestic financing for the TB and HIV programmes.

An analysis of the current financial situation showed that certain areas of TB control such as second-line drugs, drug susceptibility testing (DST), programme management and infection control had been heavily supported by external funding. The projected cost for the TB programme for the period 2017-2035 is expected to increase gradually, mainly in the areas of human resources and targeted activities for high-risk populations, etc. A preliminary report recommends exploring approaches for innovative tax collection and ensuring allocation of more funds for priority public health programmes. The programme aims to quickly finalize and get approval of the transition plan, intensify advocacy among decision-makers and discuss with all stakeholders for an effective implementation of this plan.

The situation in **Viet Nam** is similar. International support for health programmes is decreasing since Viet Nam became a lower-middle-income country. In order to obtain increased domestic financial support for the TB programme, as a starting point, Viet Nam launched its National TB Strategy, which included ambitious goals. The strategy is based on a whole-of-government approach emphasizing the key role of the state as well as implementing evidence-based interventions and largely community-based services. The approach has resulted, among others, in a substantial annual increase in the government's budget, progress on health insurance, the setting up of a patient support foundation to end TB and higher private sector contribution.

1.5.6 Discussion (discussant: China)

China increased health insurance coverage to 95% of the population including free chest X-rays, microscopy and first-line anti-TB drugs. However, health insurance schemes inadequately cover certain areas of TB control. A 2015 study by the Bill & Melinda Gates Foundation reported that 80% of MDR-TB patients faced catastrophic payments. The catastrophic cost study using the WHO protocol will start in April 2017 and will be finalized in July. Peng Liyuan, the First Lady of China and a WHO Goodwill Ambassador for TB and HIV/AIDS, is actively involved in TB advocacy.

PMDT in **Viet Nam** is funded by the Global Fund until 2020. Viet Nam has a plan for health insurance backup, though it is yet to be implemented. Central procurement is currently in place for the second-line drugs through the Global Drug Facility (GDF), but health insurance funding may require going through international bidding procurement. The Global Fund policy demands 20% government counterpart funding and the programme is advocating with policy-makers to provide it as a condition to obtain the full Global Fund allocation.

During the national TB caucus, parliamentarians were made aware of the TB burden in the **Philippines**. The meeting resulted in a decision to increase the budget of the TB programme. The TB law in the country also reiterates that TB services should be provided free of charge to presumptive TB cases and patients.

Community representatives explained that there is a huge need for increasing domestic funds for TB; strengthening community participation, which is largely missing in the national strategic plans for TB control; and improving programme implementation.

1.6 TB control among high-risk and vulnerable populations

1.6.1 Addressing the needs of TB patients among migrants

The Western Pacific Region has a large number of migrants – intra- and intercountry – who are more likely to face challenges in accessing health care. They may experience increased likelihood of exposure to TB infection due to overcrowded living and poor working conditions combined with poverty and low levels of knowledge about TB. There are still significant challenges in TB control among the migrant population in the areas of TB prevention, diagnosis, treatment and care. Delay in diagnosis and interruption of treatment are common in the migrant population. The major reasons are social, economic and legal barriers to accessing health care, incompatibility of clinic hours with working times and lack of TB-related education among this population. Although migrants come from diverse backgrounds, some are more vulnerable to health risks with limited access to health care and inadequate social protection. Cross-border coordination through multisectoral engagement is highly essential to ensure continuity of TB care in the migrant population. The WHO Regional Office for the Western Pacific in 2016 published *Tuberculosis Control in Migrant Populations: Guiding Principles and Proposed Actions*, which promotes actions across four pillars: (i) policy and legal framework; (ii) migrant-sensitive health systems; (iii) partnerships, networks and multi-country frameworks; and (iv) monitoring migrant health.

1.6.2 Intercountry coordination for TB among mobile populations

Current mechanisms for intercountry communication and TB case referrals vary among countries; either the International Health Regulations (IHR) or direct NTP-to-NTP communication channels are used. Four scenarios for informing and referring TB patients were presented with their pros and cons, along with actions proposed to improve current practices. The WHO–European Respiratory Society (ERS) web-based platform is one that can be used to improve current practices for cross-border referral to ensure continuity of care for migrants with TB.

1.6.3 Update and challenges for childhood TB in the Western Pacific Region

Countries with high TB prevalence are likely to have more childhood TB cases. However, some of the high-burden countries such as Viet Nam and China are currently notifying less than 1% of childhood TB among all TB cases. Clinical diagnostic capacity needs to be strengthened among health-care workers as current diagnostics including GeneXpert have a limited role in diagnosing TB in younger children mainly due to difficulties in producing sputum. Several sources such as a field handbook and online training courses produced by international projects (Union and Sentinel) are available to support the capacity-building of the health-care workers. In 2016, new fixed-dose combinations (FDCs) were introduced for treating childhood TB.

Papua New Guinea is the first country in the Region to introduce the new FDCs in its programme. Bacille Calmette-Guérin (BCG) vaccine coverage remains low in some of the high TB burden

countries in the Region. The Regional Framework for Action recommends that 90% of the close contacts of TB patients should be initiated on isoniazid preventive therapy (IPT) after excluding TB disease among them. The proportion of childhood TB among total TB cases in Papua New Guinea is much higher (22%) than the regional average. The country has introduced several initiatives such as implementing an electronic case-based recording system for better reporting. However, the capacity to treat paediatric TB cases varies in different provinces.

1.6.4 TB among the elderly

In **Hong Kong SAR (China)**, the TB epidemic trend has been changing over the decades with more cases occurring in the elderly population. Findings from operational research provided evidence of the impact of smoking on TB incidence and tobacco control therefore plays a key role in TB control among the elderly in Hong Kong SAR (China). Nutrition has also been shown as an important factor in influencing TB prevalence among the ageing population. Screening and treatment of latent TB infection (LTBI) are possible but remain controversial due to limitations of existing treatment tools and operational challenges.

In **Japan**, the proportion of elderly TB patients is increasing. Interventions implemented to control TB among the elderly include screening in the facilities and providing patient-centred care for the elderly. The main challenges still are serious comorbidities and physical disabilities, among others. Integrated, people-centred community care plays an important role in TB control among the elderly in Japan.

1.7 Programmatic management of drug-resistant TB

1.7.1 Global and regional situation of drug-resistant TB

There were an estimated 580 000 new MDR-TB and rifampicin-resistant TB (RR-TB) cases in 2015, of which 30 000 cases were children. MDR/RR-TB was responsible for an estimated 250 000 deaths in the same year. The top 30 high-burden countries constitute 90% of the global burden of MDR/RR-TB. Four high MDR-TB burden countries are in the Western Pacific Region: China, the Philippines, Viet Nam and Papua New Guinea.

There are exorbitantly large gaps in drug-resistant TB diagnosis and treatment relative to the estimated cases in the Region. Out of estimated 83 000 MDR-TB cases in 2015, only 18 472 (22%) were diagnosed and 13 722 (17%) were started on treatment. The average treatment success rate among MDR/RR-TB cases has remained around 55%. Inadequate resources including human resources, weak governance, limited laboratory capacity, gaps in the procurement and supply management system, and poor service delivery have remained major challenges in the Region. The uptake of the shorter MDR-TB regimen and new drugs is slow mainly due to the regulatory issues, long lead time for procurement, limited funds and insufficient technical/operational capacity.

1.8 Laboratory policy update

The End TB Strategy calls for the early and rapid diagnosis of TB and universal DST for all TB cases. The Framework of Indicators and Targets for Laboratory Strengthening under the End TB Strategy measures a program's capacity to (i) detect patients accurately and quickly use WHO-recommended rapid diagnostics; (ii) provide access to universal DST; and (iii) ensure quality of diagnosis. Between 2015 and 2017, WHO recommended new diagnostic tools/tests, including: (i) lateral flow urine lipoarabinomannan assay (LF-LAM) for TB in people living with HIV with a CD4 cell count less than or equal to 100 cells/μL; (ii) loop-mediated isothermal amplification assay (TB-

LAMP) as a possible replacement of sputum microscopy; (iii) first-line line probe assay (LPA) to detect resistance to rifampicin and isoniazid; (iv) second-line LPA to detect resistance to fluoroquinolones *and* the second-line injectables; and (v) next-generation Xpert MTB/RIF Ultra assay.

MDR-TB guidelines update 2016, shorter regimen, new drugs including aDSM

The *WHO Treatment Guidelines for Drug-Resistant Tuberculosis, 2016 Update* recommends using a shorter MDR-TB regimen of 9–12 months instead of a conventional regimen in patients with MDR/RR-TB who have not been previously treated with second-line drugs and in whom resistance to fluoroquinolones and second-line injectable agents have been excluded or considered highly unlikely (conditional recommendation, very low certainty in the evidence). This recommendation is based on available data on the shorter regimen. It is recommended that children with confirmed MDR/RR-TB be given the same consideration for treatment with a shorter MDR-TB treatment regimen as adults. There is no recommendation at this stage to use the shorter regimen in patients with extra-pulmonary MDR-TB and MDR-TB in pregnancy.

The recent WHO recommendation for bedaquiline (Bdq) remains the same. It is suggested for: (i) adult MDR-TB patients not eligible for the newly WHO-recommended shorter regimen; (ii) patients with additional resistance or intolerance to fluoroquinolones or second-line injectable drugs; (iii) those with extended pulmonary lesions/advanced disease; (iv) others deemed at higher baseline risk for poor outcomes; and (v) when an effective WHO-recommended longer regimen containing at least four second-line drugs in addition to pyrazinamide cannot be designed. WHO recommends the use of delamanid (Dlm) in children over 6 years of age and adolescents diagnosed with MDR-TB who are not eligible for the shorter regimen.

The WHO *Active Tuberculosis Drug-Safety Monitoring and Management (aDSM): Framework for Implementation* needs to be implemented to ensure monitoring and prompt response to adverse events – alongside the monitoring for treatment outcomes.

1.8.1 GDF: Global status of TB drugs including for shorter regimen and new drugs

The GDF aims to facilitate equitable and timely access to affordable and quality-assured medicines and diagnostics, including new tools. There were 137 countries who benefited from GDF procurement as of December 2016. Planned addition of products to the GDF portfolio in 2017 are TB-LAMP, Digital X-Ray, DNA Genotek's OMNIgene-SPUTUM (OM-SPD) and Qiagen's QuantiFERON-TB Gold Plus. All medicines for a shorter MDR-TB treatment regimen, new and repurposed drugs (Bdq, Dlm and linezolid) and new paediatric formulations (RHZ 75/50/150 and RH 75/50) are available through the GDF. The GDF is planning to expand procurement of MDR-TB medicines from five manufacturers supplying 11 quality-assured medicines to 14 manufacturers supplying 23 quality-assured medicines.

1.8.2 Discussion (discussant: community representatives)

Community representatives mentioned that recent innovations had changed the situation in terms of the length of time to diagnose and initiate treatment. However, innovations need to be implemented as quickly as possible. Innovative ways of disseminating information would be very important and there should be a common platform where people can get information regarding the locations for diagnosis and treatment, as well as another where patients can share their experiences and concerns.

Community and civil society organizations should be engaged not only for planning but also for service delivery.

2.6.4 Practical challenges to strengthen response to drug-resistant TB: country experience

TB is a major public health problem in **Papua New Guinea** with a very high incidence rate of 432 per 100 000 population. An estimated 3.4% of new TB patients and 25.6% of re-treatment TB cases have RR-TB. However, there are few hotspots where the rate of drug-resistant TB is estimated to be much higher. Daru in the Western Province has an alarmingly high rate of MDR-TB. Few extensively drug-resistant (XDR-TB) cases have been identified in the Western Province and National Capital District. Of concern is that some are among new cases, indicating transmission of the XDR-TB strain. The overarching challenges include a weak health system, limited laboratory capacity, insufficient skilled human resources, lack of accountability at different levels and limited availability of domestic funds.

Papua New Guinea set up a partnership platform called M/XDR-TB Emergency Response Team (ERT) in 2014. Under the team's guidance, all hotspot provinces developed plans to address the situation. Daru showed significant progress in terms of increasing awareness, raising case notification, strengthening hospital management and infection control, establishing community posts (Daru Accelerated Response for Tuberculosis or DART sites), and achieving zero loss to follow-up. The programme's ambitious plan offers opportunities for loans/funding through the World Bank, Government of Australia, Asian Development Bank and Global Fund new proposals.

The **Philippines** has a high MDR-TB incidence and is among 30 high MDR-TB burden countries globally. Bdq is now being implemented in the National Capital Region under programme conditions. In July 2015, research started to test the operational feasibility, effectiveness and safety of a shorter MDR-TB treatment regimen. Operational research is ongoing in ten study sites of nine regions of the country.

The Philippines has developed the new strategic plan for TB called the Philippine Strategic TB Elimination Plan 1 (PhilSTEP 1) for 2017–2022. The plan aims to build capacity of directly observed treatment, short-course (DOTS) facilities (2600) to provide diagnostic and treatment services to both drug-sensitive and drug-resistant TB patients, implement a shorter MDR-TB treatment regimen and use new anti-TB drugs.

PMDT is well integrated in the routine TB programme in **Viet Nam**. There are 63 PMDT treatment sites in the country. Bdq and a shorter MDR-TB regimen are in use as operational research in a few sites. There are several challenges, such as a poorly regulated private sector, availability of TB drugs in free markets (medical care, agriculture), data inconsistency, report delays (paper based, not well-functioning e-TB manager reporting system) and limited domestic funding.

1.8.5 Discussion

Community representatives emphasized the need to use simple language for communicating policies and guidelines. Community engagement and advocacy to local government need to be strengthened. The introduction of new drugs, such as Bdq and Dlm, is disturbingly slow. Bdq is registered only in the Philippines, and Dlm is not in use in most of the countries in the Region despite approval by the European Medicines Agency and Japan. The registration process is different in different countries. Patient communities might help in advocating the quick registration and use of medicines by drug

regulatory committees and pharmaceutical companies. Bdq is accessible through a donation programme, but the cost of Dlm hampers its rapid introduction in the countries.

1.9 People-centred care

1.9.1 Overview: People-centred TB care and prevention

People-centred care is an important component of the three pillars of the End TB Strategy. The four domains of the people-centred health-care policy framework are: (i) individuals, families and communities – better informed and more empowered; (ii) health practitioners – more responsive and competent; (iii) health-care organizations – more effective and supportive; and (iv) health systems – better design, rules and incentives to support people-centred quality care.

Standard 9 of the International Standards for Tuberculosis Care reiterates that a patient-centred approach to treatment should be developed for all patients in order to promote adherence, improve quality of life and reduce suffering. This approach should be based on the patients' needs and mutual respect between the patient and provider. Although it is difficult at times to implement people-centred care in practice, the policy guidance is available and WHO through its Regional Office for the Western Pacific is in the process of producing a document on people-centred TB care, with examples from the Region.

1.9.2 United States Agency for International Development: Piloting patient-centred packages for drug-resistant TB

The national action plan of the United States of America for combating MDR-TB envisions that the country will work domestically and internationally to contribute to the prevention, detection, treatment and care of patients with MDR-TB in an effort to avert tuberculosis-associated morbidity and mortality and support a shared global vision of a world free of TB.

The goals of the national action plan are to: (i) strengthen domestic capacity to combat MDR-TB, (ii) improve international capacity and collaboration to combat MDR-TB, and (iii) accelerate basic and applied research. The action plan's activity includes interventions to enhance adherence to TB and MDR-TB treatment through development and implementation of a generic ancillary care package to improve MDR-TB treatment outcomes in up to 10 countries. This care package will be developed based on literature review, best practices and survey results.

1.9.3 Country examples

TB is an urgent national public health problem in the **Republic of Korea**. There are continuous point outbreaks at schools and facilities, for which contact investigations are conducted and response actions provided accordingly. Since 2014, the vulnerable population infected with TB and drug-resistant TB benefit from the "TB safety belt", which includes free treatment and cost of hospitalization. The "TB safety belt" also ensures the coordination between different services (health programmes, psychosocial, welfare and community services) and provides mobile medical examinations for the homeless.

The partnership between public health centres and private medical institutions (public–private mix, or PPM) was established in 2011. The costs for LTBI and TB treatment have been covered by national health insurance since the middle of 2015 and 2016, respectively.

The TB control system in **Japan** is strongly backed by a legal framework under the Infectious Diseases Control Law, which highlights that both health centres and hospitals/clinics have the responsibility to ensure patients' adherence. The National TB Prevention Guideline 2016 clearly states that the national and local governments should strengthen coordination among various facilities such as health centres, medical facilities, social welfare facilities and pharmacies, as well as professionals such as nurses and pharmacists for patient-centred care and support. Although coordination mechanisms vary according to the local settings, this can be done by utilizing a "coordination pass note", DOTS conference or cohort meeting, and so on. Before a patient is discharged from hospital, a DOTS conference is held between medical facility and public health centre staff to discuss how to support individual TB patients throughout the treatment course. Attending this conference are typically a doctor, nurse and pharmacist of the hospital/clinic and a doctor, public health nurse, clerical staff and social worker of the health centre. The goal of the conference is to formulate an individual support plan for patients, which describes who will be involved in DOT, where treatment will take place and how the patient will be supported. Each patient is analysed for non-adherence risks and a suitable type of DOT is planned based on the results of the risk assessment.

Multidisciplinary collaboration for people-centred TB services in Japan: Shinjuku City has the highest incidence of TB in Japan. The National Center for Global Health and Medicine (NCGM) provides care to TB patients across Tokyo with a majority from Shinjuku. NCGM is a good example of linking clinical care with public health. The majority of TB patient cases by NCGM were foreign-born patients, homeless or elderly. For each admitted patient, a "bedside DOT" is ensured. Before discharge from the hospital, an individual patient support plan is developed based on the risk assessment and this plan is shared plan with NCGM, public health centres and all relevant facilities. This plan is also periodically reviewed by all relevant care providers.

DOTS conference between NCGM and Shinjuku City Public Health Center (PHC): A regular monthly DOTS conference has been organized by NCGM for all active TB patients with all concerned public health centres. Prior to the conference, a questionnaire is faxed to the DOTS conference team, which is composed of nurses, doctors and pharmacists to prepare answers ahead of the meeting. During the conference, detailed assessment and review of individual cases take place and solutions are identified to ensure adherence and to improve the well-being of the patients. The team from PHC and NCGM also have access to other information from social workers and laboratories, which is uploaded online on a weekly basis. This is an example of a holistic approach to patient-centred TB care.

2.7.4 Discussion (discussant: community representatives)

Community representatives gave accounts of TB patients. An XDR-TB survivor from the Philippines narrated a story of how TB survivors in the community have been engaged by the government programme to reach out to sick patients with TB. She also emphasized that the nationwide airing of survivor stories through television, especially local cases which have higher impact, can encourage patients to complete their treatment. She reiterated that social media can also provide a potential platform to generate awareness in communities.

Another discussant stressed that the provision of adequate information to the patients on the side-effects of medicines is very important to identify and have timely access to health facilities and to avert disabilities that may lead to a loss of income. In addition, information on social protection laws should be widely disseminated so that patients know their rights and responsibilities.

Community representatives emphasized the importance of having simple and patient-friendly communication materials for illiterate patients and patients with disabilities respectively, including social media messaging that is sensitive to patient needs.

Some of the representatives from Australia, China, Hong Kong SAR (China) and Singapore echoed that there is a conflict between people-centred care and good treatment practice and that there is usually a dilemma surrounding MDR-TB patients in particular. However, patients' autonomy and their responsibilities should be balanced for public interest and care packages designed in relation to patients' needs.

Although Hong Kong SAR (China) does not provide one-stop TB/HIV services, given its geographically small size, referral is working well. It is important to have alternate collaborative modalities for comprehensive TB/HIV service delivery even if they are not co-located.

The representative from WHO headquarters informed participants that the guidance on ethics and human rights will be released on 24 March 2017, which is relevant for the patient-centred care and patient rights.

CONCLUSIONS AND RECOMMENDATIONS

1.10 Implementing the End TB Strategy

- The WHO Western Pacific Region accounted for 1.59 million (15%) of 10.4 million incident TB cases that occurred globally in 2015. More than 15% of incident TB cases were either not diagnosed or not registered in the Region. The gap is startlingly high among MDR-TB cases, with only 17% of estimated cases diagnosed and initiated on treatment.
- Since the adoption of the End TB Strategy, Member States started implementing it in line with the Regional Framework for Action. However, implementation has remained suboptimal for various reasons ranging from weak health systems to limited resources and low political commitment.
- WHO in liaison with the Russian Federation is organizing the Global Ministerial Conference on TB in November 2017. This will be followed by a United Nations General Assembly high-level meeting on TB in 2018. These represent unprecedented opportunities to raise TB high on the global health agenda to accelerate the implementation of the End TB Strategy.
- WHO has devised top 20 indicators for monitoring the implementation of the End TB Strategy at the global and national levels. The Strategy also emphasizes strengthening routine surveillance, especially the electronic case-based reporting system for TB.

1.11 UHC and social protection

- The evidence emerging from the patient cost surveys across the world shows that a sizeable proportion of TB patients, especially those with MDR-TB, incur catastrophic costs due to TB. About 50% of these costs occur before the start of treatment and a large portion of the total is due to loss of income.
- The End TB Strategy and the Regional Framework for Action emphasize better social protection for patients and families affected by TB. WHO recommends five streams of work for effective and sustainable social protection: (i) conduct a TB patient cost survey; (ii) integrate patient-centred care; (iii) map social

protection schemes; (iv) promote cross-programme data linkage and interventions; and (v) pursue research.

- Many countries in the Region are at different stages of transition and at risk of external funding cuts for health requiring them to increase domestic financing. WHO is in the process of developing a regional guidance document to support countries in transition to ensure sustainable financing.

1.12 High-risk groups

- Although migrants have diverse backgrounds, some are highly vulnerable to health risks and diseases, lack access to health care and have inadequate social protection. Countries require better cross-border coordination to ensure continuity of TB care in migrant populations through multisectoral engagement. The WHO Regional Office for the Western Pacific in 2016 published *Tuberculosis Control in Migrant Populations: Guiding Principles and Proposed Actions*, which promotes actions across four pillars: (i) policy and legal framework; (ii) migrant-sensitive health systems; (iii) partnerships, networks and multicountry frameworks; and (iv) monitoring migrant health.
- There are still many barriers to diagnosis and treatment of TB in children as well as implementation of preventive therapy for TB in high-risk groups.
- Several countries in the Region carry a significant TB burden among their elderly population. This poses challenges in providing TB care, such as difficulties in diagnosis, management of comorbidities and adverse effects of medicines, and organizing care in communities.

1.13 PMDT and laboratory

- The current gaps in diagnosis and treatment, as well as the poor treatment outcome for patients with drug-resistant TB, are unacceptable. Out of estimated 83 000 MDR-TB cases in the Region, only 18 472 (22%) were diagnosed and 13 722 (17%) were started on treatment in 2015. The average treatment success rate among MDR/RR-TB cases has remained around 55%.
- Inadequate resources including human resources, weak governance, laboratory capacity and procurement and supply management, and poor service delivery have remained major challenges in the Region.
- The uptake of the shorter MDR-TB regimen and new drugs is slow in the Region, mainly due to the regulatory issues, long lead time for procurement, limited funds and insufficient technical/operational capacity.

1.14 People-centred care

- People-centred care is a key component of the End TB Strategy and the Regional Framework for Action. It includes a wide range of interventions at the patient, provider and health system levels. It also requires intergovernmental and multisectoral partnership and involvement of communities.

1.15 Recommendations for Member States

1) Member States are urged to maximize the opportunities of the global events to ensure national commitment to accelerate the implementation of the End TB Strategy through multisectoral and partner engagement.
2) Members States should continue monitoring the progress against the global targets and consider collecting data on the top 10 indicators for the implementation of the End TB Strategy.
3) Member States are encouraged to conduct patient catastrophic cost studies to establish a baseline against a global target of zero catastrophic costs due to TB. Those that have completed cost studies should disseminate their findings and identify the ways to provide better financial and social protection for TB patients and families.
4) Member States are recommended to ensure maintaining health system core capacities to promote and protect public health, strengthen their domestic financing institutions, improve efficiency of the TB programme, seek ways to increase domestic financing for TB care and prevention, and pursue synergies among overall social sector policies and services.
5) Member States are encouraged to promote collaboration between different sectors and partners to strengthen country monitoring systems to include disaggregated data on migrants, to develop migrant-inclusive policies and national plans, and to provide migrant-sensitive TB care and prevention.
6) Member States may consider using the WHO/ERS web-based platform to improve current practices for cross-border referral to ensure continuity of care for migrants with TB.
7) Member States may also consider strengthening the management of childhood TB by improving case finding, introducing child-friendly dispersible FDCs and providing LTBI treatment through effective contact investigation.
8) Member States, where relevant, are encouraged to take action to address TB among the elderly.
9) Member States are recommended to step up efforts to ensure access to diagnosis and treatment for all people with drug-resistant TB. Urgent action should be taken to adopt and accelerate the uptake of WHO-recommended rapid diagnostic tools, new anti-TB medicines and the shorter MDR-TB regimen.
10) Member States may consider intensifying actions in all four domains of people-centred care in line with resolution WPR/RC58.R4 and the *Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific, 2016–2020*.

1.16 Recommendations for WHO

1) WHO is requested to continue to promote the End TB Strategy and support Member States to implement the Regional Framework for Action.
2) WHO is requested to intensify global efforts to ensure commitments and actions of governments and partners to end the global TB epidemic.
3) WHO is requested to assist countries to conduct epidemiological reviews and evaluate and strengthen national surveillance systems.
4) WHO is requested to support designing, implementing and analysing of data of patient catastrophic cost studies.
5) WHO is requested to assist in analysing the TB programme financial situation and to support national advocacy efforts to increase domestic funding for priority programmes.
6) WHO is requested to finalize the guidance document on sustainable financing of public health priorities to support countries' smooth transition from external aid to domestic

financing, improving efficiency and maintaining TB control as part of the core public health functions.

7) WHO is requested to facilitate sharing of country experiences in financial and social protection in favour of patients and families affected by TB.
8) WHO is requested to support Member States to address TB among migrants by focusing on the four priority action areas elaborated in *Tuberculosis Control in Migrant Populations: Guiding Principles and Proposed Actions*. WHO is requested to provide guidance on the cross-border referral network, and establishment of cross-border coordination mechanisms in strategic priority cross-border locations to facilitate intercountry coordination and policy harmonization.
9) WHO is requested to support countries in strengthening their system to manage childhood TB.
10) WHO is requested to continue further work on TB among the elderly, including collecting country experiences, and to consider formulating a guidance document.
11) WHO is requested to continue to manage the regional Green Light Committee (rGLC) mechanism as the secretariat to provide necessary guidance to countries to strengthen their national systems to manage drug-resistant TB.
12) WHO should finalize the guidance document on people-centred TB care and support countries in implementing the proposed actions.

ANNEXES

Annex 1. Programme of activities

Day 1 – Sunday, 19 March 2017

08:30 – 09:00 Registration

09:00 – 09:45 Opening

- Welcome remarks:
  - *Mr Hiroyuki Yamaya, Director, Office of International Cooperation, Ministry of Health, Labour and Welfare*
  - *Dr Tamotsu Nakasa, Director, Bureau of International Health Cooperation, National Center for Global Health and Medicine*
  - *Dr Shin Young-soo, WHO Regional Director for the Western Pacific*
- Meeting objectives
- Introduction of participants and observers

09:45 – 10:15 *Group photo / coffee break*

Session 1: Implementing End TB Strategy: Overview
Chair: Dr Mei Yang
Vice-Chair: Dr Jennie Hood

10:15 – 10:35 Building the global momentum to End TB
- *Ms Diana Weil*

10:35 – 10:55 Ending the TB epidemic in the Western Pacific Region
- *Dr Nobuyuki Nishikiori*

10:55 - 11:25 Discussion (discussants: 1. China, 2. Malaysia, 3. Philippines)

11:25 – 11:45 TB impact measurement monitoring progress of End TB Strategy targets
- *Dr Philippe Glaziou*

11:45 – 12:00 Question and Answer

12:00 – 13:00 Lunch

Session 2: Universal Health Coverage (UHC) and social protection to support TB control
Chair: Dr Seiya Kato
Vice Chair: Dr Phannasinh Sylavanh

15:30 – 16:00 Sustainable financing for TB control
- *Dr Nobuyuki Nishikiori*

16:00 – 16:30 Countries' progress in strengthening domestic financing for TB control
- *Mongolia, Viet Nam*

16:30 – 17:00 Discussion (discussant: China)

17:00 Closing of the day/ Poster viewing

18:00 Cocktail reception hosted by WHO

Day 2 – Monday, 20 March 2017

Session 3: TB control among high risk and vulnerable populations
Chair: Dr Mohamed Naim Bin Abdul Kadir
Vice Chair: Dr Wang Yee Tang

09:00 – 09:20 Addressing the needs of TB patients among migrants
- *Dr Patrick Duigan*

09:20 – 09:40 Immigration screening: Update on experience and evidence

09:40 – 10:00 Inter-country coordination for TB among mobile populations
- *Dr N. Nishikiori*

10:00 – 10:30 Discussion (discussants: 1. Australia, 2. New Zealand, 3. Singapore

10:30 – 11:00 Coffee / tea break

Session 3: TB control among high risk and vulnerable populations (continuation)
Chair: Dr Mohamed Naim Bin Abdul Kadir
Vice Chair: Dr Wang Yee Tang

11:00 – 11:30 Update and challenges for child TB in the Western Pacific Region
- *Dr Steve Graham*

11:30 – 12:00 Discussion (discussant: PNG)

12:00 – 12:30 TB among elderly (Hong Kong, Japan)

12:30 – 13:30 Lunch

Session 4: Programmatic Management of Drug-Resistant TB
Chair: Dr Wang Kin-Fong Teresa
Vice Chair: Dr Evelyn K. Lavu

13:30 – 13:55 Global and regional situation of drug-resistant TB

13:55 – 14:20 Laboratory policy update

14:20 – 14:50 MDR-TB guidelines update 2016, shorter regimen, new drugs including aDSM

14:50 – 15:15 GDF: Global status of TB drugs including the drugs for shorter regimen and new drugs

15:15 – 15:30 • Discussion (discussant: community representatives)

15:30 – 16:00 Coffee / tea break

Session 4: Programmatic Management of Drug-Resistant TB (continuation)
Chair: Dr Wang Kin-Fong Teresa
Vice Chair: Dr Evelyn K. Lavu

16:00 – 17:00 Practical challenges to strengthen response to DR-TB: Country experiences
- *Papua New Guinea, Philippines, Viet Nam*

17:00 – 17:30 Discussion (discussant: community representatives)

17:30 Closing of the day

Day 3 – Tuesday, 21 March 2017

Session 5: People-centred care
Chair: Dr Nguyen Viet Nhung
Vice Chair: Dr Christine Elizabeth May Millar

09:00 – 09:15 Overview: People-centred TB care and prevention

09:15 – 09:30 USAID: Piloting of patient-centred packages for DR TB

09:30 – 09:45 Country examples

09:45 – 10:00 Discussion (discussant: community representatives)

10:00 – 10:30 Coffee / tea break

10:30 – 12:15 Session 5: People-centered care (continuation)
Chair: Dr Nguyen Viet Nhung
Vice Chair: Dr Christine Elizabeth May Millar

Multi-disciplinary collaboration for people-centred TB services in Japan
Observation of "DOTS conference" in Japan
Discussion

12:15 Closing

12:30 Lunch

13:30 Optional site visit (Shinjuku Public Health Centre)

13:30 – 17:30 rGLC face-to-face meeting (only for rGLC members)

Annex 2. List of participants

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