National TB Programme Managers, partners and experts meeting to review progress on End TB milestones in South-East Asia Region

*New Delhi, India, 10-12 August 2022*
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Acronyms

ACF    active case-finding
ACSM   Advocacy, Communication and Social Mobilization
aDSM   Active drug safety monitoring and management
AI     Artificial Intelligence
ASHA   Accredited Social Health Activist
BPaL   bedaquiline, pretomanid, linezolid
BPaLM  bedaquiline, pretomanid, linezolid and moxifloxacin
CB-NAAT cartridge-based nucleic acid amplification test
CRG    communities, rights, and gender
C19RM  COVID-19 Response Mechanism
COVID-19 coronavirus disease-2019
CSO    Civil Society organization
CXR    chest X-ray
DR-TB  drug-resistant TB
DS-TB  drug-sensitive TB
DST    Drug Sensitivity Testing
EWS    early warning systems
GDF    Global Drug Facility
GTB    Global TB Programme
HIV    human immunodeficiency virus
HHC    household contact
IGRA   interferon gamma release assay
LTBI   latent TB infection
LGBTi  lesbian, gay, bisexual, transgender, Intersex,
LGBTQIA++ lesbian, gay, bisexual, transgender, queer and/or questioning, intersex, asexual, two spirit.
LPA    line probe assay
MDR-TB multidrug-resistant TB
RR-TB  rifampicin-resistant TB
MoH    Ministry of Health
mWRD   molecular WHO-recommended diagnostics
MAF-TB multisectoral accountability framework for TB
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>NTRL</td>
<td>National TB Reference Laboratory</td>
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<td>NGO</td>
<td>nongovernmental organization</td>
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<td>NSP</td>
<td>national strategic plan</td>
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<td>NTP</td>
<td>national TB programme</td>
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<td>NFM4</td>
<td>new funding model, 4th cycle</td>
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<td>PLHIV</td>
<td>people living with HIV</td>
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<td>PPM</td>
<td>public–private mix</td>
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<td>PTB</td>
<td>pulmonary tuberculosis</td>
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<td>rGLC</td>
<td>Regional Green Light Committee</td>
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<td>SL-LPA</td>
<td>Second Line Probe Assay</td>
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<td>STTA</td>
<td>Short-term Technical Assistance</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SEA</td>
<td>South-East Asia</td>
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<td>TB</td>
<td>tuberculosis</td>
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<td>TPT</td>
<td>tuberculosis preventive treatment</td>
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<td>UHC</td>
<td>universal health coverage</td>
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<td>UNHLM-TB</td>
<td>United Nations High-Level Meeting on TB</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WHO CC</td>
<td>WHO Collaborating Centre</td>
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<td>WHO RO</td>
<td>WHO Regional Office</td>
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<td>SEARO</td>
<td>WHO South-East Asia Region</td>
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<td>SE</td>
<td>South-East</td>
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<td>STP</td>
<td>Stop TB Partnership</td>
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<td>XDR-TB</td>
<td>Extensively Drug-Resistant Tuberculosis</td>
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Executive summary

Summary recommendations of the meeting

1. Improving access to diagnostic and treatment services
   a. Plan and implement intensified case-finding activities complemented with patient-support mechanisms to cover the gaps in notifications due to COVID-19 outbreak.
   b. Undertake diagnostic network optimization activities for efficient use of existing diagnostic services.
   c. Include Chest X-Ray followed by rapid molecular tests in diagnostic algorithms for early TB diagnosis.
   d. Introduce GeneXpert/XDR as soon as possible – incorporate it into diagnostic algorithms.
   e. Phase out all injectable based DR-TB regimens (bar individualized regimens which require inclusion of a SLI) by the end of 2022.
   f. Plan asap to transition to the newer and shorter duration all-oral DR-TB regimens, including BPaLM and BPaL under programmatic conditions.
   g. Involve community at the planning stages of implementation and monitoring of new activities in operational research, not only monitoring the service delivery.
   h. Regular dialogue between NTPs and community groups to better understand the respective partners perspective.
   i. Reinvest Global Fund funds (including TB and C19RM) for screening, testing, regimen, and commodities to support adoption of newer regimens, as a cross cutting investment, in line with the C19RM scope.
   j. Capacity building of community, and patient groups on innovations like newer TPT regimens, diagnostics, treatment, and care.
   k. Capacity building of health workforce on innovations like newer TPT regimens, diagnostics, treatment, and care to ensure rapid introduction of these innovations of new DR-TB treatment recommendations as per demand of countries.

2. Improving access of service for vulnerable and marginalized groups
   a. Address TB among migrant workers, industries, by engagement of workplaces in both public and private sectors.
   b. Embark on peer education and support on TB, HIV, and migrant health camps through NGOs/employers/construction companies/ Industries/ Dormitories, as per the country situation.
c. Adopt updated WHO guidelines for diagnosis and management of TB in children and adolescents.

d. Strengthen collaboration with prison services through multisectoral coordination and support of CSOs and NGOs

3. TB preventive treatment (TPT)

a. Adapt WHO recommended shorter regimen and inclusion of all risk-groups, specifically adolescent and adults for TPT in the country guidelines.

b. Adopt WHO guidelines for provision of TPT among MDR-TB contacts as per risk-benefit assessment

4. Addressing social determinants of health

a. Undertake catastrophic cost surveys in countries where it is not already conducted.

b. Strengthen multisectoral collaborations and look beyond the health sector for comprehensive access to social protection services.

5. Meaningful engagement of community

a. Develop/update guidelines to define “community engagement”. This initiative has already been taken by WHO HQ.

b. Formal and informal partner coordination forum should be further utilized for regular dialogue and strengthening collaboration.

c. Mapping of community-based organization engaged in TB work is important for each country.

d. Services of community members with relevant expertise can be used for capacity building of NTP staff on community engagement.

e. Provide capacity building training to communities for empowering them and taking right treatment decisions.

6. Private sector engagement

a. Make legal provisions for mandatory notification of all TB patients

b. Address bottlenecks for provision of enablers to patients through private sector
c. Look for innovative means for engagement of pharmacies in referral and treatment provision.
d. Consider provision of financial and non-financial incentives for private sector for referral and management of TB patients.

7. Multisectoral engagement using an accountability framework

a. Undertake baseline assessment review and progress mapping using WHO multisectoral accountability framework for TB (MAF-TB).
b. TA to be requested by Member States for MAF-TB assessment and preparation for coming UNHLM on TB reporting.

8. Update of National Strategic Plans

a. Form “Partners Coordination Forum” that includes key stakeholders and communities for planning discussions and strategies to reach out to all groups using a people centered approach.

9. Strengthen regional cooperation on research and innovation

a. SEARO to convene WHO CCs and partners for prioritizing research and strengthening South-South collaboration on research and innovation
b. Regional capacity building on planning and implementing research activities through existing and new platforms.
c. WHO-CCs to make annual plan and communicate with WHO RO, TB unit regarding fund availability per year.

10. Resource mobilization

a. All eligible countries need to start consultation dialogues to plan for the Global Fund funding request.
b. Countries also need to start preparing transitional plans for use of GeneXpert MTB/RIF Ultra, XDR-TB tests and introduction of BPaLM/ BPaL regimen.
c. Engage with all partners including community groups, GDF, GF, technical agencies, WHO country offices to develop ambitious plans towards ending TB
Detailed report
**Inaugural session**

Dr Suman Rijal, Director Communicable Diseases Department, Regional Office for WHO South-East (SE) Asia Region opened the meeting by delivering the opening address on behalf of the Regional Director, WHO SE Asia Region (annexure 1).

He conveyed his expectation that the meeting will provide opportunity to the country participants, partners, donors to share experiences and come to a consensus for way forward towards ending TB in the SE Asia Region.

Dr Ernesto Jaramillo from WHO Global TB Programme (GTB) addressed the audience emphasizing the need for continued commitment towards ending TB with multistakeholder coordination and collaboration. A recorded message from the Dr Tereza Kasaeva, Director, WHO GTB was played. Dr Tereza reiterated the devastating impact of COVID-19 pandemic on the achievement of TB-related targets and cited that insufficient progress in closing case detection gaps in TB case notification, treatment and provision of preventive treatment as compared with that of 2019 level before the COVID-19 pandemic. She expressed her solidarity with the millions of people in the South-East Asia and around the world who are being infected with TB and dying each year.

Ms Ashna Ashesh, from Survivors Against TB, India, representing the TB affected communities stated that opportunities have emerged from the public health emergency of the COVID-19 pandemic to reimagine TB care and ending TB strategy. Ms Ashesh then went on to highlight the needs of the TB affected community. She identified TB prevention as key, towards ending TB. Further, she highlighted the need for accessible, affordable, and accurate diagnosis and treatment. She further emphasized that TB is not just a biological disease but has socioeconomic determinants and social implications. TB care accordingly needs to address not just the biological impact of TB but also its social impact through socioeconomic support be it in terms of nutrition, housing, access to clean water etc.

Ms Ashesh also advocated for recognizing the mental health and TB as comorbidities, the catastrophic impact TB has on mental health and for providing mental health support at every step of the TB care cascade and bringing the concept of psychological first aid to TB care. The need for effective stigma mitigation instead of just feel-good messaging like “Don’t stigmatize”, was also highlighted. Gender-responsive TB care, for LGBTQIA++ individuals co-designed by LGBTQIA++ individuals, was another critical issue identified by her. She concluded by asserting the importance of person centered and inclusive design of care and implementation process, if we want person centered, inclusive TB care. TB survivors and affected communities need to be at the table, co-creating TB care and co-leading TB elimination alongside other stakeholders, to ensure person and community centered care.
The technical unit, SE Asia Regional office introduced the objectives of the meeting to the participants. The general objective of the meeting is to review progress towards ending TB in the WHO South-East Asia Region, and plan implementation of the Regional Strategic Plan to end TB in the SEA Region, 2021-25, within the overall guiding principles, as outlined in the Ministerial Statement from the SE Asia Regional High-Level TB Meeting in October 2021.

The inaugural session was followed by technical sessions on various key areas of importance for ending TB in the SE Asia Region (agenda placed at Annexure 2).
Session 1: Progress towards HLM targets and capitalizing on the Regional political commitments

The Regional situation in relation to progress towards ending TB was presented by the technical unit, WHO SE Asia Regional Office. The presentation highlighted the burden in TB incidence 2020 in the region which showed a slow decline of 2-3% per year even in pre-COVID-19 pandemic period, and the contribution of several social determinants like undernutrition (nearly 20% of the TB incidence), smoking, alcohol use disorder, diabetes mellitus and HIV-co-infection, to the TB incidence in the SE Asia Region. The presentation also highlighted the likely impact of COVID-19 pandemic on incidence, estimated TB mortality rising to more than 700,000 in 2020 and worsening of social determinants that is likely to lead to an increase in TB incidence.

This was followed by country-wise presentation covering the COVID-19 impact on TB programme, mitigation measures to sustain TB activities during the COVID-19 pandemic, key activities planned for 2022/2023, partner engagement including community, and annual funding requirement.

Summary of points from the session:

- All the country presentations reflected to a variable extent, a downward trend in notification for both drug-sensitive TB (DS-TB) and drug-resistant TB (DR-TB) in 2020 (and draft 2021 figures), compared those for 2019 due to COVID-19 pandemic related disruption of health services.
- Several challenges like interruption in planned training and orientation programmes, scarcity of staffs engaged in TB programme, disruption of monitoring and supervision, less attendance of TB patients at clinics and overwhelmed health system emerged during the pandemic period.
- To catch-up the missing TB patients, the countries in the Region adopted several measures including outreach activities for active case findings, strengthening diagnostics networks, social support for TB-COVID coinfected patients, and provision of PPE to all health care providers. Bidirectional TB-COVID testing in health facilities were also undertaken in some countries.
- Several countries are yet to include the latest TB preventive treatment (TPT) guidelines covering older age group contacts of pulmonary TB patients and implementing shorter regimen like 3 HP (3 months of weekly Isoniazid and Rifapentine) or 1 HP (1 month of daily Isoniazid and Rifapentine).
- Though public-private collaboration mechanisms have been established in several countries, there are still challenges in complete engagement in TB services, referral of all symptomatic, as well as transferring incentives to patients through private providers.
• National guidelines have been updated on diagnosis, treatment, and infection prevention and control in the context of COVID-19, and contingency planning guidelines developed for handling TB and COVID-19 cases in some countries.
• Innovations like hostels for drug-resistant (DR) TB patients, insurance scheme, artificial Intelligence assisted TB screening and mobile CXR are being used for early diagnosis of TB.
• Some countries have plans to strengthen community awareness via social media to strengthen diagnosis and treatment of childhood TB.
• Countries have changed their policy of identifying risk groups and targeted intervention including active case finding (ACF) which resulted in increased case notification.
• Individual risk factors and malnutrition status from TB Vulnerability Assessment have been initiated in the Region.
• Cross border issues are common among countries sharing borders with the SE Asia Region and adjoining Regions as well.

Comments and discussions:

• Countries need to be more aggressive in strategies/implementation and set ambitious milestones to achieve targets.
• There should be better delineation of burden and risk groups to ensure that appropriate strategies are included in a fully costed national strategic plan (NSP) for the new GF funding proposals.
• Innovations should be implemented in partnership with various stakeholders on the ground and sharing the solutions across countries in the Region to accelerate efforts towards ending TB.
• Community engagement needs to be better reflected by countries, specifically including the contribution towards the country progress in programmatic implementation and policy change.
• Though TB patient forums are formed in many countries, but these are not fully functional. There is a lack of clarity on what kind of patient support is being provided and who provides the support services.

Preparation for the 2023 UN High Level Meeting on TB

The presentation was delivered by Ms Monica Dias from WHO HQ. The following salient points were highlighted during her presentation:
• Dr Dias referred to the 2018 UN High Level Meeting regarding the political declaration where core commitments and core targets were set, to reach 40 million people and 30 million people with TB preventive.

• Several steps in preparation for next UN High-Level Meeting took place, like the Global Ministerial Conference, which brought together Ministers of Health from several countries and published a document which then went to the WHO Executive Board, the World Health Assembly, and there were Member State briefings, the interactive civil society hearing was held.

• The high-level meeting was an impetus for progress for the TB community as such 2nd high level meeting provided a 2nd high level opportunity through political declaration.

• In 2019, several countries were progressing well and touching the first milestone of those targets. Unfortunately, COVID-19 pandemic reversed the gain manyfold.

• WHO came out with a progress report with 10 priority recommendations in 2020 to give catalyze action in the middle of the COVID-19 pandemic and not lose focus on ending TB.

• She mentioned the need for engaging and working in close collaboration with various sectors, going even beyond the Ministry of Health.

• The next UN High Level Meeting will be likely held in September 2023. WHO has been given the mandate with partners to support the organization of the High-Level Meeting which was reiterated in the UN Secretary General progress report in 2020.

• If a country is interested in stepping up as a co-facilitator, that would be an immense opportunity to showcase country leadership, and to lead the process.

• Engagement of governments and civil society is crucial prior to the UN High-Level Meeting.

• In conclusion, we need all hands-on deck as we prepare for the High-Level Meeting. Urgent actions are needed build the momentum towards the 2023 meeting.

Global Plan to End TB

The Global Plan to End TB was presented by Dr Sreenivas Nair from Stop TB Partnership (STP). He provided the background, rationale, priority actions, potential impact, and the budget of the new global action plan along with the following important points:

• This global action plan is tool for advocacy and requested NTP managers to use this document for country level advocacy.
• The plan has been updated in alignment with the WHO End TB Strategy targets for reduction in the incidence rate, deaths and the catastrophic cost due to TB.

• The updating of current plan has gone through an intensive process involving group of experts and global discussions to set the priority interventions along with the cost of interventions.

• This document is available on the website, and it is a digital report of most comprehensive investment packages with a detail into the costing aspects.

• Described the development process including different modelling exercises which mentioned how many people, or what proportion of them need to be diagnosed early, care that needs to be provided, and how many people need to be prevented from getting tuberculosis. The modelling also included the social determinants to be addressed.

• The plan provides details of resources needed to End TB, 2023-2030 by cost category and timeframe.
Session 2: Providing highest standards of care for prevention and management of TB

This session started with a presentation by Dr Kerri Viney, WHO HQ on recent and anticipated updates to TB guidelines in the area of prevention, screening, diagnosis, treatment, children and adolescents, TB co-morbidities, guidance on programme review and NSP development, social protection, TB related sequence, TB surveillance and other associated operational handbooks and training materials including knowledge sharing platform.

Subsequent session was divided in to three groups of presentations from countries in the following order:

- TB Preventive treatment – transition to updated guidelines and coverage of all eligible populations: India, Maldives, and Timor-Leste
- Diagnostics – achieving universal DST for first and second-line drugs: Nepal, Indonesia, and Sri Lanka
- Treatment – transition to new, all-oral shorter regimen for DR-TB; adoption of shorter regimen for DS-TB; adoption of child-TB guidelines: Bangladesh, Bhutan and Thailand

Summary of key points discussed during the session:

TB Preventive treatment – transition to updated guidelines and coverage of all eligible populations

India:

After release of updated WHO guidelines on TB preventive treatment in 2020, the following actions have been undertaken:

- Constituted a National Technical Working Group (NTWG) involving researchers, clinicians, and public health experts. By August 2021 national guidelines for programmatic management of TB preventive treatment (PMTPT) was launched.
- National training of trainers initiated with the help of knowledge sharing platform (Swasth e-gurukul). Physical/Hybrid trainings were initiated in 2022.
- Between Sept 2021 to Feb 2022, 3HP has been used in 194 districts with the support of WHO and the Global Fund.
- Target population for TPT: PLHIV (ART)- adults and children >12 months and infants <12 months with HIV in contact with active TB, House-hold contacts
(HHC) < 5 years (treat policy only, no test) and > 5 years (test and treat policy) of pulmonary TB, other risk group including persons initiating Immuno-suppressant or Anti-TNF treatment, transplant recipient, malnourished, Diabetes, alcohol abuse and smoker, HHC of MDR TB (6Lfx) and H mono resistance with 4R.

- Bottom-up district wise TPT scale up plan using an excel based macro enable tool is being used, in which mapping of contacts and other risk groups is being done.
- As on May 2022, 96% districts had initiated TPT services in the expanded risk groups.
- There is also an increasing use of “Prevent TB” app, as a bridging tool to put TPT component in Nikshay and TPT adherence monitoring through digital technology
- Way forward:
  - Capacity building and involvement of medical colleges in activities.
  - Institutional based mapping for the other high-risk groups by districts and Integration of TPT with ACF
  - There is a plan to introduce of C-TB skin test approved by Drug Controller General of India for TB infection (TBI) testing
  - Expansion of shorter TPT regimen.
  - Community engagement for awareness and increased acceptance of TPT

Maldives:

Maldives presented implementation experience on TPT. The salient points are as follows:

- Currently target group of TPT has been expanded to all children who are household contacts (HHC) of TB cases and those taking immune suppressant drugs.
- People living with HIV (PLHIV) are not given TPT yet, only screened for TB, but there is a plan to include them under the next guidelines.
- The TPT regimens in use are 3HP and 3HR.
- Under the “TB Free prison” initiative, all prison inmates are screened for TB and only when active TB is ruled out, TPT is given to them.
- Under the TB Free Island or atoll concept, TB screening are done for presumptive patients to identify TB and then TPT given in at-risk groups that do not have active TB.
• Target population for TB and TBI screening under high-risk group are - migrants, smokers, drug users, diabetic and chronic disease patients, health care workers (HCW), contact of previous TB cases, elderly > 60.
• Still using Mantoux test for screening, but in doubtful cases offering interferon gamma release assay (IGRA) test.
• There are challenges in providing TPT in children when parents are hesitant to give drugs to children due to stigmatization. When a child is found positive, TB screening is conducted for whole school population including the HH members of the detected child and an education session conducted (by govt and professional organization) followed by individual counselling to the parents.

Main strategy:

• Awareness campaign and scale-up the use of IGRA for LTBI testing in the context of Maldives due to extra travel cost and travel by sea route in case of Mantoux test.
• Provision of adequate funding for TB elimination.

Timor-Leste:

• Country guidelines as compared to recommended WHO guidelines: PLHIV- 3 HP treatment though preferable but in case Rifapentine is not available, 3RH is being used. If 3RH not available, then 6H IPT used. In case of HIV-negative with bacteriologically positive pulmonary TB household contact (HHC), 3HP to be given to contacts above 2 years of age or 3HR as first-line TPT. Below 2 years of age, 3HR is preferred over 3HP.

Challenges:

• Only 28% children contacts of TB initiated TPT.
• Stock-out of 3HP was witnessed due to disruption in supplies.
• Only 5% PLHIV on ART initiated TPT
• TPT not yet initiated for adult contacts of TB patients.
• Resistance from community in initiating TPT. Parents of children not allowing for TPT.
• Lesson learnt is TPT can be provided during TB Vulnerability assessment (pilot) recording through mobile app.
Comments and discussions:

- There is a need to engage community more effectively. Countries can learn from the Polio campaign where communities were used effectively in awareness generation. Need to address the challenge of reluctance from doctors especially related to the side effects and to address challenges to the reluctance on the part of the community through awareness generation.

- Timor-Leste and Maldives have similarity as both are island nations, there is possibility for an exchange of information and experience between countries, and how IGRA has helped. On the other hand, Timor-Leste is undertaking vulnerability assessment and experience can be shared.

- India has TB forum in each district with routine meeting in which communication between all stakeholder is established with same understanding between professional and community. Moreover, there are more than 3000 TB champion from TB survivors, and they are the best advocates.

- To convince medical doctors, India has reached out to medical faculty and medical association.

- To convince the community, the message is to save communities from the TB disease, not medicines for TB patients.

- Maldives has community engagement in place, but the work is more in general for health (TB is included), and especially for migrant groups/camp, which has been facilitated by community organizations to train peer educator for infectious disease.

- Maldives has also started the process to develop communication materials according to language and dialects for each tribe/island.

- A question was raised about whether there are any guidelines on TB and viral hepatitis as the vulnerable populations are the similar - the poor, the migrant, and the elderly. As per WHO HQ, there is guidelines committee but still not looking this area.

- WHO HQ also briefed about the mental health issue and TB cases. There is an ongoing collaboration between mental health department. TB and mental health are a cross-cutting issue. A guidelines document will be developed particularly focusing first on the training of the TB health workers to quickly identify the main symptoms and the referrals within the existing network of primary health care to be able to respond. In many countries, that capacity is non-existing.
Diagnostics – achieving universal DST for first and second-line drugs

The second group of presentation from Indonesia, Nepal, and Sri Lanka was on the diagnostic facilities available, guidance documents updated, challenges faced during implementation and adoption of updated guidance and lessons learned. The presentation and discussions highlighted as the following:

All three countries have prioritized rapid molecular tests like GeneXpert as their primary test for TB diagnosis. In very remote areas which are not linked to the GeneXpert test, countries continue to use smear microscopy for initial diagnosis.

**Indonesia**

- Indonesia has more than 1500 GeneXpert machines in 2021 and intends to use them for second line DST with 65% universal DST coverage reached in 2021. The target for universal DST is 70% in 2022 and 75% by 2024. Indonesia is having more diagnostic sites compared to treatment sites. The utilization rate of GX is more than 50% in 2022 which is increased compared to that of 2020.
- Indonesia has seven LPA laboratories to perform second line LPA. This is augmented with a few laboratories performing Liquid Culture DST.

**Challenges:**

In Indonesia, the main challenge is still networking of GeneXpert with all health centers and specifically where there is a need for specimen transportation. The patients with confirmed RR-TB not reaching to treatment sites will not get SL-LPA/DST testing done.

**Nepal**

- TB management guidelines 2019 refers the diagnostic approach to DS- and DR-TB aligned with WHO updates.
- Nepal has two laboratories performing LPA and DST at Kathmandu.
Challenges:

- In Nepal, geographically difficult terrains pose difficulties in TB diagnosis. Underutilization of GeneXpert machines and maintenance is an issue. Limited availability of cartridges due to budget constraints is creating hindrances in diagnosis.
- The programme is also facing the challenge of increasing DST and culture services across the country due to high MDR-TB burden.
- Nepal faced issues with availability of GeneXpert cartridges, which has been resolved with the Global Fund supporting 300,000 cartridges.

Sri Lanka

- In Sri Lanka the laboratory facilities are mainly centered at the NTRL, supported by a few intermediate laboratories performing culture.
- Sri Lanka guidelines are updated as per the recent WHO recommendations. All microbiologically positive cases tested for rifampicin resistance using rapid molecular diagnostic, Xpert MTB/RIF to detect drug resistance early. All rifampicin resistant cases detected by Xpert should be tested with LPA for first line DST. In Sri Lanka, there are 31 GeneXpert machines distributed in 29 sites covering 26 districts.
- Current crisis in Sri Lanka has hampered sputum transport and storage mechanisms.

Challenges:

- Limited facilities for 2nd line DST in Sri Lanka. Only one LPA at NTRL for 2nd line-fluoroquinolones is available. Human resource to carry out investigations by existing modern diagnostic equipment is less.
- Current financial crisis and re-emergence of COVID-19 hindering implementation of TB control activities including provision of diagnostic facilities.
Treatment – transition to new, all-oral shorter regimen for DR-TB; adoption of shorter regimen for DS-TB; adoption of child-TB guidelines

Bangladesh:

- The country has updated TB, Child TB and DR-TB guidelines and included all oral regimens for DR-TB treatment, implemented and scaled-up.
- There is a policy of using GeneXpert MTB/Rif for all presumptive TB patients and child TB patients.
- DS-TB treatment: In new cases, treatment for 6 months and for retreatment cases 4 FDC for six months with levofloxacin is being given if the patient is not rifampicin resistant. 4-month DS-TB regimen is yet to be adopted.
- DST and Diagnostic algorithm have been updated as per WHO guidance.
- For fluoroquinolone resistance MDR TB patients, shorter oral regimen (6-9 months) consisting of Bedaquiline, Pretomanid, linezolid regimen (BPaL) is being given under operational research.
- More than 80% of RR-/MDR-TB patients have been put on oral shorter regimens (STR) and rest on longer regimens (LTR) – mostly oral.

Challenges:

- There are still 35% missing DS-TB cases and 55% DR-TB cases from the estimated cases.
- Delayed implementation of oral regimen due to availability of injection stock
- Active drug safety monitoring and management (aDSM) is inadequate
- Community based care inadequate due to lack of trained HR
- COVID-19 Disruptions

Bhutan:

- Adoption of all oral regimen with no injections for RR-/MDR-TB patients. 60% patients are on shorter regimen and 40% on longer regimen.
- For DS-TB - 2HRZE/4HR regimen is used. 4 months treatment regimen for DS-TB is yet to be adopted.
- For TPT, 3HP is used for adults and 3HR (isoniazid & Rifampicin for 3 months) is being used for children
- Drug-resistant TB patients remain admitted in hospital until culture negative
Challenges:

- Requirement to update National treatment and management guidelines
- Planning for drug supply management and resources for introduction of new regimen.

Thailand:

- Programmatic data from the country shows that Bedaquiline containing shorter regimen has better success rate and low mortality compared to regimens with Am (stopped in 2018) and Km (stopped in 2019)
- Proportion of DR-TB among new cases decreased from 2% to 0.8% and among previously treated cases from 20% to 13% from 1997-98 to 2017-18 drug-resistance survey (DRS).
- There is an online system for aDSM.
- XDR-TB has been included under “Dangerous Communicable Disease” list.
- Operational research on BPaLM (Bedaquiline, Pretomanid, linezolid and Moxifloxacin) regimen for DR-TB has been initiated. However, Pretomanid has not been approved for use yet.
- Planned to launch 6-month regimens BPaL for patients 18 years and older in age and BPaLM for 15 years and older in age as per WHO recommendations, and 4-month regimens for DS-TB.

Comments and discussions:

Indonesia: plans to enhance the diagnosis through LPA. Utilization of these lab is low and access to these labs is still a challenge. This year the country is starting second-line DST with the introduction of XDR cartridge.

Nepal: has two centers for LPA one in central laboratory and one in the national reference laboratory (GENETUP, Kathmandu. The GeneXpert system is the primary tool for diagnosis. But for remote areas where there is difficulty in transporting samples to GeneXpert centers, in that case microscopy is done first.

Sri Lanka follows the WHO protocol for childhood TB treatment and the specific algorithm.

The Global Fund (GF) commented that there are challenges in transitioning to newer drugs and technology. The GF is fully committed to support the transitioning process. Countries need to plan and implement the use of 10-colour GeneXpert modules as this is the technology programmes should invest in. There is a need to move quickly with the newer tools and technology.
Session 3: Partners Speak
This session was dedicated to listen to the partners about their support in the Region, perspective on TB progress in the SEA Region and way forward with further strengthening the collaborations towards ending TB. There were four speakers:

- Global Fund “Accelerating implementation and preparing for the next GF funding cycle”
- USAID support to countries for GF-related activities for the next funding cycle
- Updates on first- and second-line drugs availability in the Region
- The Union’s support towards ending TB in the SEA Region

Accelerating implementation and preparing for the next GF funding cycle

The presentation was divided in three parts: accelerating implementation of current grants, preparation for new funding cycle and Global Fund Strategy 2023-2028. There is opportunity for standard TB grants but also for COVID-19 grants as well.

- Over $130 million (from COVID-19 Response Mechanism or C19RM) has been approved to support mitigation of the impact of COVID-19 on TB.
- GF allocations for TB among SE Asia Region countries in the New Funding Model wave 3 is US$ 690 million.
- Due to slow absorption of C19 RM grant, the allocated funding could not be utilized and there is opportunity to reprogramme with the available funding plus the additional funding. Utilizing of this fund for strengthening systems, improving access to rapid diagnostics, infection prevention, and other cross-cutting areas could benefit TB programmes
- Digital X rays with Artificial Intelligence (AI), GeneXpert cartridges and other molecular diagnostic tests are eligible within this reinvestment.
- The GF has new strategy to accelerate impact toward the 2030 horizon and under the new funding model, 4th cycle (NFM4).
- Under the new strategy of the GF, there are five priority areas: 1. Focus on finding and treating all people with DS-TB and DR-TB, 2. Scale-up TB prevention, 3. Improve quality of TB services across the TB care cascade including management of co-morbidities, 4. Rapid deployment of new tools and innovations and 5. Promote enabling environments, in collaboration with partners and affected communities, and to reduce TB-related stigma, discrimination, human rights and gender-related barriers to care and advance approaches to address catastrophic cost due to TB.
• Recommended to all countries to start consultation dialogues with all partners including communities and speed up funding request.

**USAID support to countries for GF-related activities for the next funding cycle**

- USAID has launched TB accelerator to align with targets established in 2018 UN High-Level Meeting on TB.
- The role of USAID grant is to support missions with primary focus on:
  - Develop global strategies and policies
  - Represent USAID at global and regional platforms
  - Support USAID missions for all aspects of TB programming

- USAID has congressional obligation to assist GF with its implementation in priority countries
- Technical assistance and support (free to countries) can be provided for Epi assessment
- Joint External Monitoring Mission
- Development or update of the TB national strategic plans (NSP)
- GF grant application
- Implementation of the GF grants
- Short-term Technical Assistance (STTA): Currently 107 consultants available.
- NTP can also propose consultant for their own preference.
- USAID shared the mechanism and links for “How to request STTA”.

**Global Drug Facility (GDF) updates on first- and second-line drugs availability in the Region**

- GDF provides an innovative procurement mechanism facilitating access to quality TB medicines and diagnostics. More than half of the world (>130 countries) receives TB health products from GDF. GDF encompasses all of TB care products to diagnose, prevent and treat all forms of TB in all populations from pediatric and adolescents to adults. .
- Thanks to the GDF Launchpad and its Pediatric Drug-Resistant TB initiative, GDF ensures access to child-friendly TB medicines. Countries received support in grants and technical assistance in clinical and regimen design, phasing-in, quantification and supply planning. GDF developed a technical information note which lays out information about child-friendly DR-TB formulations with recommendations on how to quantify and plan an order.
• The audience was also informed about discontinuation of GeneXpert 6-color system and transition to GX 10-color system in June 2022, and about discontinuation of GeneXpert MTB/RIF test and transition to MTB/RIF Ultra test by May 2023
• GDF also provides Technical Assistance and capacity strengthening in TB pharmaceuticals' PSM, including supply planning to priority countries and collaborates with the GF, rGLC (Regional Green Light Committee) and other partner/donor agencies
• GDF encourages countries to use and share quarterly QuanTB data to monitor and to ensure implementation of early warning systems (EWS), to alert any possible risk of stock-out.

Projects supporting TB elimination in SE Asia Region by The Union

• The Union is primarily present in India and Myanmar in the SE Asia Region.
• Current major projects are iDEFEAT TB project to strengthen India’s TB-related institutions that focus on programmatic and clinical management of people with TB and DR-TB.
• Engaged in capacity building, establishing sustainable systems and processes on ACSM, demonstration of selected implementation of replicable and scalable interventions.
• TA support for advocacy, communication and social mobilization, TB research studies and Tobacco control in several countries, project Axshya plus (GF supported mainly for TPT, 7 states in 107 districts), TB & HIV projects in Myanmar.

Comments and discussions:

• Community representatives requested programme managers and partners to take support of TB survivors and members of the affected community as technical consultants for community engagement and capacity building and make provision for funding from the donors to engage them in a meaningful way. So, countries can shift to a more meaningful engagement with community.

• On the issue of GeneXpert machines, GDF will not be able to supply the 6 colour machines because supplier cannot produce them anymore. Upgrading to 10 colour module is possible with some accessories but this may not be cost-effective in present circumstances.
• GF doesn’t fund clinical trials but can support countries for operational research including use of modified oral regimens that contribute to policy and data. So, implementation research for pediatric formulations is possible, but for clinical trials, other organizations such as UNITAD and Gate’s Foundation may be used.

Session 4: People-centric services and research

The session started by presenting slides from the global commitments at the UN High-Level Meeting, September 2018, excerpt from the political commitments at UNHLM-TB and objectives from the Regional Strategic Plan towards ending TB 2021-2025.

James Malar from the Stop TB Partnership (STP) made a remote presentation titled “overcoming law and policy barriers to find the missing people, strengthen the national TB response and achieve the End TB Strategy- Stop TB Partnership (STP)” and the key highlights from the presentation are as below:

The political declaration from 2018 UNHLM on TB contains clear coverage targets and consistent with the End TB Strategy, it also contains clear commitments on CRG, that encompass:

• End TB stigma and discrimination
• Improving access to medicines
• Removing legal and policy barriers
• Gender equity
• Participation of TB key and vulnerable populations
• Psychosocial support for TB patients
• An equitable and human rights-based approach
• Multisectoral accountability including TB affected communities
• Several tools developed to support TB CRG engagement and advocacy and national Stop TB Partnership platforms are the mechanisms by which advocacy and accountability can be progressed.
Global Plan to End TB, 2023-2030 – Transforming CRG Commitments into National Targets; As an example, Bangladesh is developing first costed national strategic plan.

- The country targets are set in the global plan for achieving the UNHLM on TB commitments on CRG.
- Bangladesh is the first country in the region which developed a national costed TB CRG action plan.
- India and Indonesia undertaken TB CRG assessment and Myanmar and Nepal are planning to conduct.
- Key issues were identified in TB CRG assessments - access, affordability, availability and quality, stigma and discrimination, key populations (like prisoners, migrants, HCW), gender (more prevalence in men but barriers among women), and lack of legal protection and remedies.

Update on TB CRG Tools, Evidence & Mechanism

- A monitoring mechanism has been developed through mobile apps. Countries are encouraged to use the tool in local context.

Support & Next Steps

- STP is working to develop guidance around TB CRG interventions and costings that will be available soon.
Group work presentations
Incorporating gender-sensitivity, equity, and human rights protection in TB services:

Key highlights and takeaways from this session were:

Social barriers in accessing TB services as per the group discussions:

- Stigma and discrimination: lack of legal protection, and experience of stigma and discrimination in the workplace, discrimination in health settings and by families, discrimination towards community members from LGBTQIA+, myths about TB and social taboos.
- Communication barriers in public health: Public health communication is often not inclusive in terms of language or ease of understanding.
- Trust deficit: Communities may often struggle to trust health systems and health services, and vice-versa.
- Inequity and inequality in society in access to health services makes it difficult for marginalized populations such as the urban poor, migrants, women in the informal work sector, persons with disability, LGBTQIA+ to access healthcare.
- Lack of gender responsive policies and lack of adequate research and data on gender barriers to accessing care for informing the framing of care policies.
- Low level of legal literacy and health literacy in society.
- Lack of meaningful community engagement by some of the TB programmes.
- Continued policy level integration of civil society is required, not just one-off consultation after the policy has been drafted and is ready to be launched.

Lessons from country experiences:

Bangladesh:

- CRG assessment undertaken to understand barriers.
- Interventions for vulnerable and marginalized populations such as prisoners, urban poor, Rohingyas.
- Key vulnerable populations have been identified within the NSP.
- Flexible hours and modalities for accessing services to ensure that people who work in the informal sector, are able to access health care without having to miss a day’s work – e.g. mobile vans that go to women’s occupational place so women can get tested without missing their work hours, diagnostic centers that stay open late in the evening.
Nepal:

- Decentralizing services by ensuring community as a bridge between community and the health system through community-based collectives such as community volunteers, and the Ama Samuh (mother’s group), a group of women who help women access health services and create public health awareness in the community at large.
- Plans to integrate TB affected communities in planning, implementation and monitoring of TB services.

Sri Lanka:

- Community-based microfinance initiatives that help ameliorate socioeconomic insecurity and thus lead to overall welfare.
- Giving marginalized groups incentives to utilize health services being considered.

Indonesia:

- Collectives such as PETA – survivor led collectives that advocate for improvement of TB services.

India:

- Global Coalition of TB Advocates (GCTA) and KHPT are working with the NTP to create a training manual for state & district level TB officials so that they may further operationalize the NTP strategy to End TB stigma and discrimination.
- How to Protect ourselves from TB: a community friendly brochure on TPT has been designed by the community, for the community to assist rapid uptake of TPT at all levels. The brochure has been made available in all regional languages.
- Survivors Against TB (SATB) – a TB survivor-led collective that alongside experts advocates for better TB care has undertaken the following:
  - Started a virtual help desk during the pandemic to monitor the barriers to TB services due to lockdowns, and provided public health services information to the TB affected
  - Conducts survivor-led trainings on TB advocacy for TB affected communities
Worked with the LGBQTIA++ community to understand gender-based barriers to care and identify interventions needed, actively engaged with the NTP to voice these concerns as well.

**Takeaways:**

- **Redefine research in the context of gender responsiveness, equity and human rights** - Understand that research in this context is social science research; that there is practical low-cost ways to get research data in this field. NTPs should look to actively budget for such interventions at regular intervals.
- **Needs assessment ought to be attentive to local context and informed by multicentric research.** Additionally, needs assessments need to be undertaken at regular intervals. Not just at the beginning of the NSP drafting window.
- **Identify vulnerable population needs’ and custom-make interventions as per the differing needs of diverse vulnerable populations - be attentive to local context again, in terms of assessing who is a vulnerable population.** One size fits all approach needs to be done away with.
- **Funding** - ensure designated budget allocation and political will for incorporating gender responsiveness, equity and rights-based approach in TB care.
- **Define what is community engagement and define roles and responsibilities of stakeholders such as community, CBO clearly.** This should be undertaken with support from TB affected communities and CBOs.
- **Affected community engagement (TB survivors, CBOs) needed at every stage** - planning, implementing, monitoring and the communities must have the power to hold other stakeholders accountable
- **Provide accountability seeking mechanisms at all levels**
- **Community led knowledge sharing and capacity building for all stakeholder - NTPs, community, CBO, health personnel, funders etc., service providers in the areas of gender responsiveness, equity, and rights-based person-centered care.**
- **Pushing for legislating gender responsiveness, equity, and rights in TB care.**
- **State to support TB affected communities through state sponsored welfare schemes even beyond the purview of NTPs, so supporting roles not limited to NTPs and task sharing happens.**
- **Need for integrated coordinated care in safe spaces that are gender responsive, rights affirming and equitable.**
Research priorities for the Region and improving South-South collaboration
Some of the priority research areas enlisted by participants were

- Genome sequencing
- Preventive-vaccine development
- MDR-TB shorter regimen
- Faster diagnostic tools
- Point of care (POC) test, MDR-TB diagnosis, and treatment, contact investigation, childhood TB diagnosis and treatment, Lab capacity for DST and DR-TB, TPT, policy adaptation at district level, treatment adherence and community empowerment and IEC development
- Easier to use POC test (not by GeneXpert)
- Using Artificial Intelligence (AI) in offline platforms
- Quality of life for patients-dietary/supplement/shorter regimens
- Use of TB van as outreach activities for vulnerable populations.
- TB Vulnerability mapping to improve detection and TPT scale-up
- Electronic surveillance
- Cost-benefit analysis on performance-based resource allocation
- Community engagement strategies, multisectoral coordination
- Utilize WHO CC for research protocols etc. Generic protocol for TPT, vaccine, behavioral acceptance on new technologies, new molecules, and biomarkers etc.
- Unite4TB (design and implementation of trials) and TB alliance (accelerating BPaL/M) and potential pipeline, LIFT TB platform-cross learning, costing studies) could support.

Comments and discussions:

- Proposal for Regional TB Research Consortium for South-South collaboration was appreciated.
- GF suggested to include those research work in the funding proposal.
Multisectoral Accountability Framework (MAF) by Dr Monica Dias, WHO HQ. The presentation began with the reiteration that multi sectoral engagement accountability is core to the sustainable development agenda. It's a priority for the World Health Organization as evidenced in WHO's general program of work.

- The importance of accountability of stakeholders underpinned by the relevant laws, regulations, the political, social, professional, moral, ethical codes and conduct and conventions.
- Multisectoral accountability framework for TB (MAF-TB) is not just intended for addressing TB rather it is health agenda and beyond.
- MAF-TB framework has four components-Commitments, Actions, Monitoring and Reporting and Review.
- Engagement of civil society affected communities, parliamentarians, various stakeholders, UN agencies is crucial for ending TB.
- Baseline assessment tools is in the finalization stage that includes the roles and responsibilities of different stakeholders in TB activities and would include best practices examples from various countries.
- Progress with MAF-TB implementation at country level recorded. In WHO SE Asia Region, 10 out of the 11 countries have reported on MAF-TB baseline assessments.
- Multisectoral engagement and accountability need to be covered in joint programme reviews and WHO has been asked to support national consultations and the development of coordination and review mechanism.
- So far, less than half of the countries from 45 countries have initiated integration of multisectoral actions and other risk factors.
- It was also informed that 15 countries have formalized national multisectoral coordination mechanisms, 25 have updated their national strategic plans and aligned with MAF-TB.
- Leadership engagement for periodic review of the TB response is important, because looking at other sectors, the Ministry of Health alone does not have the full mandate.
- In about half the countries, there are no clearly defined list of accountable stakeholders, performance indicators are not set for this and civil society.
- The MAF-TB operational guide has been shared with different stakeholders for their inputs.
- The global multistakeholder and multisectoral platform was launched in 2019 and in place to coordinate the response and review progress. It will be used to support preparations for the UN High Level Meeting with the close
engagement of civil society through civil society Task Force and three levels of WHO as requested by WHO Strategic and Technical Advisory Groups in June 2022.

- To prepare for the UN High Level Meeting in 2023, there is a virtual network or platform which is open to all.
- The field guidelines that were released in March 2022, addressed the refugees and migrant population during emergency and post emergency phase has been addressed in that guide.
- Public-private mix (PPM) data dashboard has been initiated in 10 countries.
- Preparation for 2023 UNHLM including comprehensive review by Heads of States of progress towards the UNHLM targets is important and key priorities mentioned in the end of presentation.

During discussion and question-answer sessions, the audiences updated their country progress regarding progress in MAF-TB and intersectoral collaboration and updating of guidelines, engaging communities, and other important ministries. The chairs also pointed out that this area of engaging other stakeholders is crucial for the preparation of coming UNHLM on TB.

**Group work presentations and discussions**

**Strengthening private health care provider and corporate sector engagement and monitoring**

Though it was one group but the presentation from the group mentioned some country specific areas as enlisted below.:

- **Key interventions in the Region:**
  - Mandatory notification policy exists in India and Bangladesh.
  - Incentives to providers for notification and treatment completion are being provided in India and Nepal.
  - Access to all health care workers (Doctors, pharmacists, laboratories, etc.) is practiced in India and Nepal for diagnosis and treatment by the patients.
  - Examples of engaging professional organizations, medical colleges, and teaching institutes were provided by India and Bangladesh). These organizations should also be engaged from the planning stage of the initiatives so that they feel like, or they own the initiative and then they take it forward with their own.
  - Continuous monitoring of the process to make early corrective actions so that the programme policy could be monitored from the beginning.
o USAID supported Corporate TB pledge in India, supported by NGO partners
o Multisectoral commitment from programme support units adapted by States in India.
o Establishment of technical support unit to support the state private sector’s engagement in India.

• Bottlenecks in engaging with private and corporate sectors:
  
o Private sector engagement is not seen as volunteerism. The sector expects some compensation which is often difficult to provide.
  
o Additionally, non-availability of free TB drugs is a deterrent for the private sector.
  
o Similarly, Pharmacy engagement in many countries have been a failure due to non-availability of incentives and referral not working.
  
o Pharmaceutical companies urged for local production of TB drugs to increase availability of drugs in private sector
  
o Diagnostic sourcing in private sector is challenge without market-based approaches

• Steps taken to resolve the issues/challenges by countries and possible ways forward:
  
o Mandatory notification: Both traditional and nontraditional health provider’s engagement at grassroot level for increasing treatment reach (recommended by Bangladesh and India) by making tools available for notification of TB patients.
  
o Mechanism needs to be established to provide feedback to the providers of notification by mentioning the patient’s status in terms of enrollment and treatment adherence.
  
o Recommended by the group members for engagement of pharmacies not only for drug dispensing but also involving them in patient’s referral.
  
o Recommended by representatives of the Member States (NTP staffs) to address the TB among migrant workers, industries, and engagement of workplaces support required from both public and private sectors
  
o Loss during referrals to be tackled by IT intervention
  
o Coordinating units at districts and national levels for better coordination with private sectors as well as at national levels.
  
o Acknowledge the need, respect each other, set clear expectations, accountability of both partners, feedback to the partners
Advocacy for PPM as a patient centered approach-get the best of services whoever you choose.

Define the success of engagement (extent, outputs till outcome)
Capacity building of private sector, apps for notifying patients, meetings for coordination.
Advancing multisectoral engagement and accountability between the public and private sector.
Increase access to drugs and diagnostics in private sector and expanding access to private sector.
High level advocacy to include multisector and private sectors.

- Identifying and reaching out to special populations – children, elderly, prisoners, migrants

The group presented in category with country specific activities and situation.

Some key interventions in countries for reaching out to special populations including vulnerable and marginalized groups:

- Prisoners

  - Good coordination with Prison medical teams was mentioned by Bangladesh, India, Indonesia, Maldives, Sri Lanka, and Thailand where medical officers are being trained and annual screening of inmates for TB with Chest Xray
  - Treatment and social support by community organization is available for MDR-TB in prisons (Indonesia)
  - Treatment delivery corners in large prisons with NTP staff (Bangladesh).
  - Care, support, and enablers for MDR-TB patients in prisons who have suicidal tendencies (Indonesia). Youths engaged in Indonesia for online/offline awareness on TB and refer to care along with treatment and social support.

- Elderly

  - Health system prioritizes all care priorities to elderly (Thailand).
  - National Geriatric Care programme collaboration for TB screening (India).
  - Health visits to home of elderly are being done to geriatric TB cases.
• **Migrants**
  o A systematic service for the TB in the migrants, with support from the International Council for Migrants and MSF has been supporting for this issue and services to this group are being provided by mobile vans in India.
  o Screening is being recommended for these migrant workers like garments workers in Bangladesh, and all worker groups in Thailand,
  o Peer education on TB, HIV and Friday migrant health camps through NGOs/employers/construction companies/ Industries/Dormitories, register for annual multi-disease health checks, formal clinics being established by IOM and MoH to address migrants for multiple diseases (Maldives, India, Thailand,)
  o IoM collaborative rapid molecular test-based TB screening of migrants and war displaced groups (Sri-Lanka)
  o BGMEA (Bangladesh Garment Manufacturers and Exporters) – workplace workers screened with mobile facilities in collaboration with industry owners (Bangladesh)
  o Coordination with Ministry of Justice along with making prisons part of the Universal Health Coverage, is being followed in Thailand.

• **Children**
  o Data management from pediatric clinics is being undertaken for TPT coverage (Thailand), Mobile health teams for schools and families for multi-disease screening of children/adolescents including TB, specimen collection linkage at district level (India).
  o MoU with Indian Academy of Pediatricians (IAP) for trainings, specimen collections, detection, and management (India)
  o Training of paediatricians for TB and TPT in children (Myanmar)

• **Truckers**
  o Transport cities health units for regular screening of truckers including TB, HIV (India)
• **Undernutrition**
  - Nutritional rehabilitation centres (NRCs) in India in more than 500 districts—screening of children with moderate/severe malnutrition with linkage for TB care and nutritional support are being provided in India.
  - TB Forums, Accredited Social Health Activist (ASHA), NGOs, Community support for TB patients through Niskhay Mitra for adoption of TB patients (nutrition, vocational, psychosocial) support. Children are being monitored through nutritional health assessment.
  - Nikshay Poshan Yojana (INR 500 per month per patient are provided to every TB patient).
  - In Bangladesh, small incentives provided to MDR-TB cases as nutritional support.
  - In Nepal, DR-TB patients are covered by insurance scheme.
    - TB-COVID-19

• **Bidirectional screening in Covid-19 cases with screening using X-ray, molecular TB and COVID-19 tests. Algorithms in place for care and support (Bangladesh, Bhutan, India, Indonesia, and Thailand)**
  - Challenges faced and steps taken to resolve the issues/challenges
  - Migrants care management (national, international) is a challenge where tracking for care continuity would need partners support
  - WHO International Health Regulation and specific sites coordinate with the NTP nodal points for further arrangement of care at local level that need to be strengthened
  - TPT brochure in multiple languages available through GCTA/SEARO, FAQs are available for inputs.

• **Addressing determinants and co-morbidities through intersectoral collaboration** – Undernutrition; HIV, diabetes, and hepatitis; Tobacco and alcohol use

**Discussions on following topics was held during the group work**

**Change in mindset:** For intersectoral collaboration to be an effective tool in addressing social determinants and comorbidities in TB the first step is a change in mindset. We need to understand that TB-elimination isn’t just the mandate of NTPs or WHO alone but the collective job of all stakeholders - health personnel, social protection and welfare departments, central,
provincial, and local governments, international organizations such as UNICEF, WFP, funders, lawyers, journalists, CBOs, and civil society

- **Basic housekeeping**: Countries need to take a joint inventory stock-take of all relevant stakeholders and partners even outside the NTP, of the current capacity and resources available.
  
  - Need a multisectoral coordinated, equitable and efficient mobilization of resources. For instance, operational costs for NGOs etc. need not be borne out of the NTP budget but could probably be addressed through social protection and welfare budgets. Another way is to give the funding directly to the NTP instead of a middleman. Bhutan highlighted the need for such interventions.
  - Collaboration is required with noncommunicable disease areas such as mental health, HIV, and diabetes critical to addressing TB-related comorbidities.
  - Linking TB-affected persons to existing welfare schemes taking a leaf out of the Indian HIV program's book where PLHIV are linked to existing nutritional welfare schemes for nutritional support instead of the HIV program incurring that cost.
  - Task sharing among health workers - build the capacity of health workers to share tasks across verticals (HIV, TB, Mental Health, Tobacco and Alcohol Use, Diabetes) at a basic level in primary health care settings.

- **Untapped Potential**: Groundwork in the Tobacco program is done, but NTPs need to commit to mainstreaming the work done and implementing it in the context of TB and Tobacco use.
  
  - Tap local resources such as the local government in Kerala that provides support to TB-affected persons from the local government budget thus reducing excessive reliance on the NTP.
  - Working with existing and strengthened primary care facilities such as health and wellness clinics in India to address determinants and comorbidities in TB.
  - Community-based initiatives in Nepal such as Fistful Donation and the Ama Samuh can be tapped to address TB as well. CSR initiatives are also a good partner.
  - The Global Fund is signaling a strategic shift in its funding encouraging NTPs to work with integration and linkages with noncommunicable disease programs, HIV, and nutritional and social welfare programs. More funders
need to value signal the importance of integration and linkages and make it a prerequisite in RFPs/grant applications.

- **Integrated, coordinated care with a holistic focus: Patients to be provided with care in an integrated, coordinated manner in one setting should not have to run pillar to post.**
  - Focus not just on patients but also on their families, so person-centered and family-centered care. - best practices: UNICEF’s family engagement approach.
  - Focus on care beyond just treatment and diagnosis to address social factors such as disability and food insecurity, through for e.g., nutritional and rehabilitation clinics in India, and through linkages with the departments for empowering persons with disabilities.

- **Vulnerable Population Mapping:**
  - NTP to undertake vulnerable population mapping in coordination with other programs. Timor-Leste did a vulnerability assessment in the context of TB and could offer useful inputs.
  - Vulnerable populations are to be defined per the national and local context. Interventions to be designed as suited to the varying needs of vulnerable populations.
  - Expand the ambit of vulnerable populations to include persons with disability, migrants, and LGBTQIA++ persons. Kerala’s Athithi Devo Bhava initiative in India has been attempting to address the issue of migration and migrant needs in the context of TB by screening migrants and following up with them.
  - Funders to be attentive to the variance in local context when it comes to identifying vulnerable populations, and factor this into grant application framing and funding. What is a priority for the funder may not be in line with the context of the recipient country? For e.g., a funder may identify x group as vulnerable, but in a particular country, x group may not be vulnerable in the country context. So, funding needs to be granted in keeping with the country's needs and context.
- **Community Engagement:**
  - All relevant stakeholders, with affected communities taking the lead need to define what is community engagement.
  - Affected communities (TB survivors) and CBOs, and civil society need to be engaged meaningfully at every step - planning, implementation, monitoring. Accountability-seeking mechanisms are to be provided by the NTP that allows affected communities to hold stakeholders accountable.
  - Finally, NTPs and international organizations need to engage TB survivors not just as survivors but using an intersectoral lens to view them as survivors and as experts in their fields of professional expertise - be it law, communications, public health, development, or wellness. Engaging their professional expertise to help address determinants and comorbidities in TB in an integrated manner.

**Session 6: Organizing Joint Programme reviews – updated guidelines from WHO**

“Programme reviews and enhanced partner coordination for national TB strategic planning”. The salient points from the presentation of Dr Hannah Monica Dias, WHO HQ are as follows:

**Programme reviews**

- **Guidance on TB programme reviews** (The document is under development)
  - Several online consultations happened between HQ, Regional Office and stakeholders and partners on the renewed focus including the core principles taken in to account the previous guidelines.
  - Guiding principles include - national ownership, transparency, and accountable, inclusiveness is a core principle, making it multi sectoral and aligning it with national strategic plans, as well as the health plans.
  - Harmonize with the national cycle, it needs to be as holistic as possible, and people centered reviews can also have a very strong advocacy.
  - Newer modalities for virtual, hybrid and in-person taken into consideration.
  - The guidance for national strategic planning for tuberculosis, is a comprehensive document, received inputs from several partners country representatives, civil society and there’s been a strong consultation process behind this.
• The formulation of goals objectives, need to be done jointly again looking at the bigger picture identifying priorities. Costing and resource allocation is also important.

- **Partner coordination for national TB strategic planning**
  - This is important and based on this who is leading the efforts to set up this coordination mechanism.
  - Rationale- WHO is leading the efforts to enhance partners coordination mechanism to share information, the key partners informed, partners for TA support, TA for NSP development due to WHO’s strategic position.
  - The pilot countries selected are Bangladesh, India, and Indonesia from SE Asia Region.
  - There is a setup of an enhanced partner coordination mechanism, given the strategic position, WHO need to provide TA (Technical Assistance) to coordinate and to provide leadership.
  - The aim of this partner coordination mechanism is to share information related to national program reviews and Strategic Plan development that's ongoing keep partners informed. It is under development.

- **Comments and discussions**
  - WHO has taken several steps before launching the guidelines such as sharing of the rapid communication. The guidelines and operational handbooks are hosted on the knowledge sharing platform.
  - There are few other ways to monitor the implementation of guidelines from the WHO Global TB Report. One example is to monitor the implementation of shorter regimen to include in global TB report. There is guidelines development group. We did a survey before for TB & diabetes. What is being done in those areas.
Session 7: Data for Action

The use of mathematical modelling was presented by Dr Nim Arinaminpathy, Imperial College, London

- The presentation started with TB care cascade from symptoms to treatment completion though there is scope of losing a patient during this course.
- From programmatic data, we can see where the patient is being lost.
- Modelling helps to understand what gaps in the cascade (and addressing them) may mean for TB incidence and mortality

- Some brief examples of modelling in the Region-
  - PPM in India: Cost, impact, and cost-effectiveness of scaling up across the country
  - Rationalizing approaches to ACF: Strategies for maximizing cost-efficiency
  - Meeting the End TB goals post-COVID: What interventions will be needed

- Cost data: Through implementing organizations, collected cost data from PPSA pilots in India, Mumbai, and Patna
- Unit costs of: Provider engagement, subsidizing CB-NAAT, providing free patient treatment support
- Study summary:
  - Public-private mix (PPM) would be cost-effective if taken to scale
  - Potentially highly cost-effective, depending on the threshold adopted
  - However, priority functions of PPM should be tailored to the local context. For example: in settings with high RR-TB burden, improving uptake of CB-NAAT will be important, in settings with low RR-TB burden, improving treatment outcomes will take priority

- Pressing need to understand how to implement ACF in the most cost-efficient way and what combination of screening and confirmation tools would give impact in the most cost-efficient way:
  - Screening: symptoms or X-ray
  - Microbiological confirmation: Smear microscopy or CB-NAAT
  - Programmatic data can be valuable in understanding the main gaps needing to be addressed, in TB service provision
  - Mathematical modelling can play a helpful role in understanding what these gaps mean for incidence and mortality
Addressing DR-TB in the Region and rGLC support

Observations on technical and programmatic components by the rGLC members were presented in the plenary

- **Diagnostics**
  - Progress towards UDST for first-line drugs in the SE Asia Region is commendable
  - Adoption of updated WHO guidelines on diagnostics
  - Limited use of 10-colour GeneXpert machines/XDR-TB cartridge
  - It may be preferrable for countries to obtain new machines rather than updating old 6 color modules.
  - Diagnostic network optimization needed for planning
  - Country, and regional estimates of GeneXpert 10-colour machines and XDR-TB cartridges is required for proper planning of transition.

- **Treatment**

  - All countries reported to have transitioned or will transition to all-oral regimen by end of 2022 with preference for all-oral shorter regimen.
  - Transition to shorter all-oral regimens, including BPaL (Bedaquiline, Pretomanid and linezolid) and BPaLM (Bedaquiline, Pretomanid, linezolid and Moxifloxacin) under programmatic conditions
    - BPaL is currently being used under OR for “pre-XDR-TB” in 4 countries of the Region
    - Once transition to BPaLM and BPaL under programmatic conditions completed, GDF need to ensure supplies.
**TB Preventive Treatment (TPT)**

- Very few countries doing 6Lfx/4R for TPT in contacts of DR-TB patients.

**Major gaps and concerns to address**

- Post Covid-19 recovery of TB notifications good, but RR/MDR-TB notifications slower to recover and not back to 2019 levels yet
- Progress towards UDST for second-line drugs is slow; specifically programmatic uptake of new rapid molecular tests for key second line drugs. Note tests to detect resistance to Bedaquiline (BDQ), Pretomanid, Linezolid (Lzd) and Delamanid (DLM) will be needed as new regimens are rolled out.
- Slow start among countries for adoption of more effective and shorter BPaL regimen under programmatic conditions.
- Community engagement mentioned by countries, but contribution of these activities to the NTPs is not clearly stated
- What support does Government or NTP offer for community activities (e.g., training, health protection)?
- Community engagement for TPT promotion, awareness and support needed
- Treatment adherence support and aDSM activities not prominently featured.
- Observation from the ground-level that patient satisfaction low due to delays in accessing diagnostics and drugs, mainly for administrative reasons
Session 8: UNITE4TB presentation

- The Unite4TB project is a consortium funded by the European Commission.
- The total budget of the project is US$ 185 million a year, of which the funding derived directly from the PM Commission and comes as the in-kind donation from the pharmaceutical industry and other associated partners.
- Unite4TB is not an isolated consortium, but it operates under a wide umbrella program within the European Union which is the AMR accelerator program where there are four different consortia dealing directly with tuberculosis. UNITE4TB specifically dealing on tuberculosis.
- The organization supports in the development of drugs of newer regimens and new tools so that in the future TB will eventually end as a public health problem.
- The specific objectives of unite4TB are to accelerate and improve the clinical evaluation of new products and new regimen for both drug susceptible and drug resistant tuberculosis through establishing an efficient global network.
Message from the Regional Director, Dr Poonam Khetrapal Singh

After more than two and a half years, since the onset of the COVID-19 pandemic, it is a pleasure to host this in-person meeting while at the same time maintaining online connectivity for those unable to join physically.

The task you embark on today is critically important.

Despite comprising just over a quarter of the world’s population, the South-East Asia Region accounts for an estimated 43% of global TB incident cases and more than half of all TB deaths. An estimated 587 million of the 1.7 billion people infected by TB globally live in our Region.

Ensuring that all countries of the Region are on track to reach the End TB milestones is critical not only to achieve our Flagship Priority on accelerating efforts to End TB by 2030, but also to fulfill commitments made at the 2018 UN High-Level Meeting (HLM) on TB, which will be followed up on by a second HLM next year.

In the WHO South-East Asia Region and across the world, the COVID-19 pandemic has slowed, and in some countries, reversed progress.

In 2020, TB mortality in the Region increased by nearly 10%, to over 700 000 lives lost.

Case notification dropped from 3.6 million in 2019 to 2.6 million in 2020 – the same level as in 2015.
Throughout 2020 and into 2021, tens of millions of people in our Region were pushed into extreme poverty, exacerbating the social and economic determinants of TB.

In 2019, almost a quarter of new TB cases in the Region were attributable to undernutrition, which has since intensified among the poorest and most vulnerable.
And yet, across our Region, commitment to achieve our Flagship Priority and the End TB milestones continues to be strong.
In 2021, the combined budget for TB programmes in the Region was close to US$ 1400 million, with 40% coming from domestic sources.

This is nearly two and a half times the budget for TB programmes in 2016, where less than one-third had come from domestic sources.

In October 2021, India, Indonesia, and Nepal co-hosted a high-level meeting at which Member States committed to renew the TB response and endorsed a new Regional Strategic Plan 2021–2025.
The Plan calls for increased investments of up to US$ 3 billion annually for priority interventions, and also highlights the urgent need to intensify action within the health sector, but also beyond it.
It has five objectives.

First, achieving universal access to high-quality, rights-based TB prevention and care services, without stigma and discrimination, and focusing on marginalized and vulnerable people.
Second, securing high-level political commitment with adequate financial resources.
Third, enhancing multisectoral coordination and accountability to end TB.
Fourth, reducing suffering and addressing the socioeconomic burden of TB, and
Fifth, strengthening people-oriented research and innovation for improved service delivery.

In coming sessions, you will review country progress and identify ways to maximize resources through strategic planning.
You will learn from community perspectives on the need for people-centred services, including social protection and support during and after TB treatment.
You will discuss ways to strengthen research networks, including for research on new diagnostics, shorter treatment regimens and vaccines, and operational research.
You will identify and develop a series of context-specific priorities for action.
We have just one year to go before the follow-up UN-HLM, and I urge all present to seize this opportunity.
I also flag that in the run-up to the HLM, Member States may benefit from engaging with stakeholders in both the public and private sectors, as well as with community-based organizations.
I reiterate WHO’s ongoing and unmitigated support to refine and implement strategies, and to mobilize the additional resources required to reach our ambitious yet achievable targets.
I thank you for your participation, wish you an engaging and productive meeting, and look forward to being apprised of the outcomes.
Annex 1: Agenda

(1) **Inaugural Session**: including opening remarks, community voices, objectives and agenda, introductions, and logistics

(2) **Session 1**: Progress towards HLM targets and capitalizing on Regional political commitments:
   - Regional situation: progress and challenges for TB control
   - Country Presentation: Country progress, challenges posed by COVID-19 outbreak and plans for accelerated efforts (Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives and Myanmar.
   - Country presentations (including High-burden countries): Country progress, challenges posed by COVID-19 outbreak and plans for accelerated efforts (Nepal, Sri Lanka, Thailand and Timor-Leste)
   - Global updates: Briefing and preparations for upcoming HLM in 2023

(3) **Session 2**: Providing highest standards of care for prevention and management of TB: Recent and anticipated updates to TB guidelines

  **Implementation experience from countries**

  - TB Preventive treatment – transition to updated guidelines and coverage of all eligible populations.
  - Diagnostics – achieving universal DST for first and second-line drugs.
  - Treatment – transition to new, all-oral shorter regimen for DR-TB; adoption of shorter regimen for DS-TB; adoption of child-TB guidelines.
(4) **Session 3:** Partners speak on support to SEAR Member States

- Global Fund “Accelerating implementation and preparing for the next GF funding cycle”
- USAID support to countries for GF-related activities for the next funding cycle (as well as other type of TA support available)
- Updates on first- and second-line drugs availability in the Region
- The Union’s support towards ending TB in the SEA Region

(5) **Session 4:** People-centric services and research

- Introduction to session: Global and Regional commitments to people-centric services
- Group work - Two groups
- Incorporating gender-sensitivity, equity and human rights protection in TB services.
- Research priorities for the Region and improving South-South collaboration

(6) **Session 5:** Multisectoral engagement in ending TB: Going beyond the health sector:

- Multisectoral Accountability Framework
- Strengthening private health care provider and corporate sector engagement and monitoring
- Identifying and reaching out to special populations – children, elderly, prisoners, migrants
- Addressing determinants and co-morbidities through intersectoral collaboration – Undernutrition; HIV, diabetes and hepatitis; Tobacco and alcohol use.
- Organizing Joint Programme reviews – updated guidelines from WHO
- Data for Action
- Addressing DR-TB in the Region and rGLC support
- Conclusion and way forward
Annex 2: List of participants

**Bangladesh**

1. Dr Afzalur Rahman  
   Assistant Director and Programme Manager TB  
   Directorate General of Health Services Mohakhali, Dhaka

2. Dr Md. Khurshid Alam (did not attend)  
   NTP Focal point for Social Protection and Nutrition and Director  
   Directorate General of Health Services and Line Director, TBL and ASP  
   DGHS, Mohakhali, Dhaka

3. Dr Pronab Kumar Modak  
   Deputy Programme Manager (Training) and NTP focal point for DR-TB  
   Directorate General of Health Services  
   Mohakhali, Dhaka

4. Dr Rupali Sisir Banu  
   National Programme Coordinator  
   National TB Programme  
   Dhaka, Bangladesh

**Bhutan**

5. Dr Chencho Dorji  
   Chief Medical Officer  
   Gidakom Hospital  
   Thimphu  
   Bhutan

6. Dr Phurpa Tenzin  
   Programme Officer  
   National TB Programme  
   Ministry of Health  
   Thimphu, Bhutan

**India**

7. Dr Rajendra P Joshi  
   Deputy Director General-TB  
   Ministry of Health and Family Welfare  
   Nirman Bhavan, New Delhi

8. Dr Ravinder Kumar  
   TB Specialist  
   Central TB Division  
   Ministry of Health and Family Welfare  
   Nirman Bhavan, New Delhi

9. Dr Sanjay Kumar Mattoo  
   Additional Deputy Director General-TB  
   Ministry of Health and Family Welfare  
   Nirman Bhavan, New Delhi

**Indonesia (virtual)**

10. Dr. Endang Lukitosari  
    Epidemiologist, Directorate of Communicable Disease Prevention and Control,  
    Ministry of Health Indonesia

11. Dr Tiffany Tiara Pakasi  
    Acting Director of Communicable Disease Prevention and Control  
    Ministry of Health Indonesia

**Maldives**

12. Mr Abdul Hameed Hassan  
    Senior Public Health Programme Officer  
    Health Protection Agency  
    Male, Maldives
13. Dr Fathimath Nazla Rafeeg  
Medical Officer  
Health Protection Agency  
Male, Maldives

Nepal

14. Mr Deepak Dahal  
Statistics Office and Focal Person  
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National Tuberculosis Control Centre (NTCC)  
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15. Dr Naveen Prakash Shah  
National Tuberculosis Control Centre (NTCC)  
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16. Dr Pawan Kumar Shah  
Senior Medical Superintendent  
Ministry of Health and Population  
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Nepal

17. Dr Ramesh Dhakal  
Advisor to Health Ministry  
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18. Dr Sanjay Thakur  
Director  
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19. Ms Thuma Pun  
Nursing Officer  
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Sri Lanka

20. Dr N C Pallewatte,  
Deputy Director  
National Programme for Tuberculosis and Control of Chest Diseases  
Ministry of Health  
Sri Lanka

21. Dr Onali Rajapakse  
Consultant Community Physician  
National Programme for Tuberculosis and Control of Chest Diseases  
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Thailand

22. Dr Phalin Kamolwat  
Director  
Division of Tuberculosis  
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23. Miss Siwarat Namrung  
Public Health Technical officer  
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24. Mrs Wannapen Jittwiwat  
   Public Health Technical Officer  
   Professional Level  
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Timor Leste

25. Mr Basilio Lopes Bragansaca  
   Official for TB Programme  
   Ministry of Health

26. Mr Constantino Lopes  
   Programme Manager  
   National TB Programme  
   Timor-Leste

27. Dr Mark Antonio A Magno Neves  
   Physician for Communicable Disease  
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   Ministry of Health  
   Timor- Leste

WHO Collaborating Centres

28. Dr Anup Bastola (Virtual Participation)  
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   WHO Collaborating Centre  
   SAARC TB and HIV/AIDS Centre  
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   Senior Adviser, TB-HIV  
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33. Prof. Mario C Raviglione (Virtual)  
   Professor of Global Health  
   University of Milan, Italy

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   Technical Advisor 
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   Country Director 
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   KNCV Tuberculosis Foundation, 
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40. Dr Kwonjune Justin Seung 
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42. Dr Sanjay Sarin 
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   Wellness Coach, TB Survivor 
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57. Dr Guy B Marks (Virtual)
   President and (interim)Executive Director
   International Union Against Tuberculosis and Lung Disease (The Union)
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   WCO India

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   WCO, India

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   WCO Indonesia

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   WCO Maldives

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   WCO Myanmar

95. Dr Khine Sue  
   WCO Myanmar

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