

STAG-TB

Report of the 16th Meeting
of the
**STRATEGIC AND
TECHNICAL ADVISORY
GROUP FOR TUBERCULOSIS**

13-15 June 2016

WHO Headquarters
Geneva, Switzerland



**World Health
Organization**

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Report of the 16th Meeting

WHO STRATEGIC AND TECHNICAL ADVISORY GROUP FOR TUBERCULOSIS (STAG-TB)

13-15 June 2016

In its work on tuberculosis (TB), the World Health Organization (WHO) aims for a world free of TB and, as part of the Sustainable Development Goals, to end the global TB epidemic by 2030. It seeks to enable universal access to TB prevention and care, guide the global response to threats, and promote innovation. The WHO Secretariat, at all its levels, requires regular scientific, technical and strategic advice from its Strategic and Technical Advisory Group for Tuberculosis (STAG-TB).

Mission and functions of the STAG-TB:

The mission of the STAG-TB is to contribute to ending the TB epidemic, and eventually eliminating the disease, by providing state-of-the-art scientific and technical guidance to WHO. It has the following functions:

- 1.1 To provide to the Director-General independent evaluation of the strategic, scientific and technical aspects of WHO's Tuberculosis work;
- 1.2 To review, from a scientific and technical viewpoint, progress and challenges in WHO's TB-related core functions, including:
 - 1.2.1 The content, scope and dimension of WHO's development of TB policies, strategies and standards in TB prevention, care and control;
 - 1.2.2 The content, scope and dimension of WHO's collaboration, and support of, countries' efforts to control TB, including the provision of guidance and capacity-building on policies, strategies, standards and technical assistance;
 - 1.2.3 The content, scope and dimensions of WHO's TB epidemiological surveillance, monitoring, evaluation and operational research activities, their relevance to countries' efforts to end the TB epidemic and approaches to be adopted;
 - 1.2.4 The content, scope and dimensions of WHO's promotion and support of partnerships, and of advocacy and communications for TB prevention, care and control worldwide;
- 1.3 To review and make recommendations on the establishment of committees, working groups, and other means through which scientific and technical matters are addressed; and
- 1.4 To advise on priorities between possible areas of WHO activities related to tuberculosis prevention, care and control.

The 16th meeting of the STAG-TB took place at WHO Headquarters on 13-15 June, 2016. The meeting was organized by the WHO Global TB Programme (GTB), which provides the Secretariat for the advisory body.

Dr Ibrahim Abubakar, Director of the Institute for Global Health of the University College London, was appointed by the WHO Director-General as STAG-TB Chair for the period of 2016-2018. He worked with the WHO Secretariat in the development of the agenda for the 16th meeting and in the pre-briefing of new members of STAG-TB. For 2016, there are 23 members of STAG-TB with strong gender, geographical and expertise balance. Twenty two members, including the Chair, were in attendance for the 16th meeting.

The STAG-TB members were joined by 175 technical, academic and civil society partners and WHO staff from Headquarters, all six Regional Offices and many WHO Country Offices.

The following pages provide a summary of the 16th meeting of STAG-TB, with a focus on the conclusions and recommendations provided by STAG-TB to WHO. The meeting agenda is attached as **Annex 1**. **Annex 2** provides the list of participants. **Annex 3** provides the full Terms of Reference for STAG-TB.

Each STAG-TB session (except the introductory session) began with an introductory presentation(s) by WHO staff and, in some cases, with partners. Comments and suggested recommendations were provided by one or two STAG-TB members serving as session discussants, followed by comments and recommendations offered by other STAG-TB members, and additional comments by other participants. Answers to any questions were provided by presenters.

The session discussants developed draft written STAG-TB recommendations, with the assistance of WHO rapporteurs. All draft written recommendations were reviewed by all STAG-TB members on the last day of the meeting, and any proposed revisions were recorded. The final revised recommendations were consolidated by the WHO Secretariat. The recommendations were reviewed by the STAG-TB Chair and then the full report was reviewed by all STAG-TB members and finalized by the WHO Secretariat and the STAG-TB Chair. The report is submitted via the Director, Global TB Programme and the Assistant Director-General, HIV/AIDS, TB, Malaria and Neglected Tropical Diseases Cluster, to the WHO Director-General.

This report is posted on the WHO website:

http://www.who.int/tb/advisory_bodies/stag_tb_report_2016.pdf, and circulated to all WHO Senior Management and WHO Offices, to all meeting participants, and via relevant TB list serves.

Sixteenth meeting objectives:

At this 2016 meeting, WHO requested STAG-TB to review and advise on the following areas of WHO global TB work, and reflecting nearly all the topics suggested by STAG-TB members for consideration in 2016, as reported in the 2015 STAG-TB report.

1. Support to promotion, adaptation and roll-out of the End TB Strategy, at global, regional and country level;
2. WHO Global Task Force on TB Impact Measurement mandate and work, and efforts to strengthen TB surveillance across the 30 high TB burden countries;

3. Support integration of patient-centred care, including specifically: Implementation of new policies related to MDR-TB diagnosis, treatment; planning for operational guidance on chest radiography; and, scale up of contact tracing and programmatic management of latent TB infection (LTBI) among people living with HIV (PLHIV) and childhood contacts;
4. Support for more effective and sustainable social protection for TB patients and affected families, including measurement of costs borne by TB patients;
5. Development of recommended target profiles for new TB treatment regimens and promotion of country-specific research to end TB;
6. Priorities for action and a road map to address zoonotic TB, working with multisectoral partners;
7. Engagement of NGOs and other CSOs in End TB Strategy promotion, adaptation and implementation.

SESSION 1: INTRODUCTION

On behalf of the WHO Director-General, Dr Ren Minghui, Assistant Director-General, HIV/AIDS, TB, Malaria and Neglected Tropical Diseases Cluster, welcomed STAG-TB members and all other participants to the meeting. He noted his appreciation to the STAG-TB for its 16 years of support to WHO, his aims as new Assistant Director-General for the Cluster, and the commitment of WHO to continuing its collaboration with partners supporting action to end the epidemics, including the range of partners contributing to these STAG-TB discussions.

Dr Mario Raviglione, Director, Global TB Programme acknowledged the gratitude of WHO to immediate past STAG-TB Chair, Dr Chuck Daley (2014-2015). Dr Daley noted the value of STAG-TB, WHO's work and his appreciation for serving as Chair.

Dr Raviglione introduced Dr Abubakar as STAG-TB Chair for 2016-2018. Dr Abubakar then assumed the role of Chair for the meeting and reflected on the task ahead for STAG-TB, and the importance of the agenda items proposed for consideration. He outlined how to make the most efficient use of the two-and-a-half day meeting in guiding and advising WHO.

Dr Ren Minghui presented an overview of health in the UN Sustainable Development Goals (SDG) agenda. He emphasized that WHO's new strategies for TB, HIV, hepatitis, malaria, and neglected tropical diseases, are all aligned with the SDG aim of ending and/or dramatically reducing epidemics by 2030, and of universal health coverage,

equity and poverty elimination. He noted as well WHO's commitment to working with partners, including the wide range attending the meeting.

The WHO Secretariat presented an updated Terms of Reference of STAG-TB, meeting processes and participants' declarations of interests. No interests were deemed significant and no modification in participation was made to the meeting. Declared interests were recorded and are available from the Secretariat.

An introductory video was shown on the status of the TB epidemic, global response, and provided highlights of WHO's TB-related products, consultations, and activities in supporting countries since the last STAG-TB meeting in June 2015.

Dr Raviglione providing an overview of key innovations that could "leapfrog" efforts forward to end TB – including precision medicine (genomics), big data, digital technology ("Internet of Things"), social impact tools and research. He called for smarter investment in innovation to reap greater benefits, while simultaneously strengthening the basics of TB prevention and care. He also emphasized why the topics to be addressed in the STAG-TB meeting were priorities in taking forward the End TB Strategy.

STAG-TB CONCLUSIONS AND RECOMMENDATIONS BY SESSION

Presenter and STAG-TB Member discussant names for each session are shown in the meeting agenda (Annex 1).

SESSION 2: SUPPORT TO END TB STRATEGY ADAPTATION AND ROLL-OUT

The Global TB Programme reviewed efforts and plans in promoting, building capacity and supporting country adaptation and implementation of the End TB Strategy, including through the annual End TB Strategy Summit of the 30 Highest TB Burden Countries, and release in 2016 of the core document, *The Essentials* on implementing the Strategy, incorporating guidance provided in 2015 by STAG-TB. Draft *Transition pointers* on processes signaling country transition to the new Strategy were presented as well as the approach to helping countries measure and report on the WHO recommended ten top operational indicators for 2016-2025. Implementation support has begun through national strategic planning revisions/updates, epidemiological reviews, programme reviews, and regional capacity-building meetings and workshops.

WHO Regional Offices presented on a top focus area this year within their regional End TB strategic plans and/or frameworks:

- AFRO on its new draft framework for implementation of the End TB Strategy to be reviewed for adoption by the Regional Committee in 2016.
- PAHO/AMRO on progress of its *TB in Big Cities* project;
- EMRO on its new regional strategic plan 2016-2020, and status of TB response in the context of complex emergencies;
- EURO on inter- and intra-regional actions to address urgent needs related to TB and migration, and on the TB REP project with the Global Fund and partners on health systems strengthening for effective TB and MDR-TB response;
- SEARO on the development of “fast track” models in pursuing the regional strategy;
- WPRO on financial sustainability planning as part of its regional framework.

A presentation was given on a patient pathway assessment methodology supported by the Bill & Melinda Gates Foundation to identify key barriers to diagnosis, entry into treatment and treatment completion of TB patients, with desk assessments done for 8 countries. The Ethiopia assessment was presented as an example. The approach was proposed by WHO as another means to enhance baseline assessments in planning prioritized actions in line with the End TB Strategy.

STAG-TB:

- Recognises the importance of supporting all countries to transition towards operationalising the End TB Strategy through:
 - a. The use of the WHO-recommended *transition pointers*;
 - b. Technical assistance to help countries implement the End TB Strategy;
 - c. Advocacy and enabling communication across countries;
 - d. Monitoring progress using WHO annual data collection and report;
- Applauds the adaptation work at regional level, through frameworks, strategies, and/or plans, which has resulted in diverse directions suited to each regional context, in order to best support countries in their own adaptation efforts;
- Notes the potential of patient pathway analysis to support country-level planning and action to operationalise the End TB Strategy.

STAG-TB recommends that WHO:

In line with the Sustainable Development Goals (SDGs) and End TB Strategy,

1. Continues to focus on its roles, as described in the session, in facilitating Strategy adoption, adaptation and roll-out:
 - a. High-level advocacy for political commitment to end TB;
 - b. Co-ordination with all partners, including civil society and private sector;
 - c. Global and cross-regional activities;
 - d. Multi-sectoral activities;
 - e. Resource mobilisation, including support to countries in costing End TB Strategy interventions and fiscal space analysis for domestic funding;
 - f. Monitoring of progress and accountability.
2. Sustains focus and strengthens action on TB and migration, and TB in complex humanitarian situations, including surveillance, access to and continuity of prevention and care.
3. Responds to the emerging evidence from prevalence surveys that more of the “missing cases” are men than women by:
 - a. Supporting communications, advocacy, interventions and innovations that recognise and respond to the under-addressed needs of men, while continuing to support work on the needs of women and children;
 - b. Continuing to collect and disaggregate data in all surveys and studies by sex.
4. Promotes the use of patient pathway analyses in countries to help guide transition to the End TB Strategy and prioritise patient-centred interventions during implementation.

SESSION 3: TB IMPACT MEASUREMENT: PROGRESS-TO-DATE AND POST-2015 AGENDA

The updated mandate of the WHO Global Task Force on TB Impact Measurement in the context of the End TB Strategy and SDGs was presented: (1) To ensure that assessments of progress towards End TB Strategy and SDG targets and milestones at global, regional and country levels are as rigorous, robust and consensus-based as possible; and (2) To guide, promote and support the analysis and use of TB data for policy, planning and programmatic action. The related priority work programme for WHO and the Task

Force in guiding work in each critical area of surveillance and monitoring and evaluation was then reviewed.

STAG-TB:

- Recognizes that high-quality surveillance and survey data are essential for effective TB prevention, diagnosis and treatment, including to make the case for investment in TB as part of the wider development agenda, to inform target setting and to demonstrate impact and value for money;
- Supports the updated mandate and strategic areas of work of the WHO Global Task Force on TB Impact Measurement for the period 2016–2020 as defined in its April 2016 meeting, in particular:
 - a. The prioritization of strengthening routine surveillance (national notification and vital registration systems) for direct measurement of incidence and mortality, including use of inventory studies to quantify and address reporting gaps;
 - b. The continued role of national TB prevalence surveys in eligible countries, recognizing the valuable information that they generate and how they can help to build political will and attract funding;
 - c. The inclusion of measurement of costs faced by TB patients and their households within the mandate and strategic areas of work of the Task Force, in the context of the SDGs and the End TB Strategy;
 - d. The emphasis on analysis and use of data at country level, especially disaggregated analyses —including by age, sex, location, income quintile and for key affected populations;
- Notes that data quality and system coverage of national TB surveillance systems, through the implementation of the WHO TB surveillance checklist with the support of the Task Force, should be a priority for every member state.

STAG-TB recommends that WHO:

1. Ensures linkages between the WHO Global Task Force on TB Impact Measurement and the WHO Task Force on TB Patient Cost Measurement.
2. Increases support to the preparation of prevalence survey reports and associated communication of results.
3. Further engages with economists and mathematical modellers to ensure that standardised data analyses produce the outputs needed to inform impact modelling,

and that modelling addresses priorities identified by the Task Force on Impact Measurement and decisions about resource allocation.

4. Promotes the engagement of affected communities and civil society representatives in the planning of surveys, efforts to strengthen surveillance and translation of evidence into patient-centered interventions.
5. Initiates a dialogue at the End TB Strategy Summit 2016 with the 30 high TB burden countries on how to accelerate progress on strengthening surveillance, including consideration of setting a target for the number of countries that have met the standards for data quality and reporting in the WHO TB surveillance checklist by 2020¹.
6. Further strengthens surveillance by:
 - a. Developing guidance on how to establish effective regulatory frameworks for mandatory notification, and how to facilitate reporting by the private sector including use of e/m-health solutions;
 - b. Exploring and defining what “big data” means in the context of TB surveillance and how it can be used;
 - c. Continuing development of tools for compilation, disaggregated analysis and visualization of TB surveillance data, with particular focus on DHIS2 software;
 - d. Providing support to countries to ensure that core TB surveillance indicators are included in wider health information systems, especially those adopting DHIS2;
 - e. Developing materials for high-level advocacy related to the value of vital registration data, for example based on existing country case studies (e.g. Kenya);
 - f. Helping mobilize increased funding to accelerate progress, including for technical assistance to countries to implement all seven priority areas of work².

SESSION 4: POLICY UPDATE AND IMPLICATIONS FOR INTEGRATED PATIENT-CENTERED CARE

¹ A distinction may need to be made between the 20 high TB burden countries on the basis of numbers of cases and the ten high TB burden countries which are included on the basis of high rates per capita.

² As defined by the WHO Global Task Force on TB Impact Measurement (see Report at WHO.int/tb of the sixth full meeting of the WHO Global Task Force on TB Impact Measurement, held 19-21 April 2016)

- a. New MDR-TB treatment guidance & updated bedaquiline and delamanid guidance**
- b. Surveillance on pyrazinamide and fluoroquinolone resistance: analysis and results**
- c. Global response to the MDR-TB public health crisis**

WHO's recently released policy recommendations on a novel rapid diagnostic test and a shorter, lower-cost 9-month MDR-TB treatment regimen was summarized, and next steps being taken by WHO for their roll-out in collaboration with partners were reviewed. The Global TB Programme also reported on ongoing data review and planned expert group consultations to inform possible updating of interim guidance on the use of bedaquiline, and the use of delamanid, in the treatment of MDR-TB. Results from a multi-country population-based surveillance project to investigate resistance to pyrazinamide and fluoroquinolones among TB patients and implications were also presented. With the Global Drug Resistance Initiative (GDI), an overview of global MDR-TB response was provided.

STAG-TB acknowledges:

- The progress made by WHO in using evolving evidence to build and disseminate best guidance on programmatic management of drug-resistant tuberculosis;
- The need for additional resources and innovative tools to enable WHO to rapidly and effectively assist countries in adoption of new policies into routine practice.

STAG-TB recognizes:

- The need for country support and operational guidance in implementing use of new tools and approaches, given the challenges countries are facing with rapidly evolving guidance on new TB drugs and regimens for drug-resistant TB (DR-TB);
- That the number of people with DR-TB who are diagnosed and started on treatment has increased over the years, although cure rates and access to new treatment options remain low;
- The importance of contributions being made by the TB community to the evolving antimicrobial resistance (AMR) debate and agenda.

STAG-TB recommends that WHO:

1. Makes available in its reports country-level incidence estimates of rifampicin-resistant (RR) TB to represent the number of individuals eligible for second-line treatment, along with the MDR-TB incidence estimates.
2. Includes in its advice to countries, that testing for resistance to both fluoroquinolones and pyrazinamide is included in the basic drug-resistance surveillance activities (recognizing that national programmes may add tests for resistance to other TB medicines which they consider relevant to their treatment regimen design, so long as the drug susceptibility testing [DST] methodology is valid).
3. Continues to support the global response to the MDR-TB crisis within a landscape of evolving evidence on the best use of TB diagnostics and medicines and adds the following key actions to:
 - a. Make available all relevant policy guidance on the diagnosis and treatment of RR-/MDR-TB within one composite streamlined framework document that will help national programmes to understand and implement guidance, with the long term objective of converging treatment guidance for drug-susceptible and drug-resistant TB into a single track, as envisaged in the target regimen profiles process;
 - b. Regularly assess, with the assistance of expert groups, if the existing guidance would need to change when new data become available for review, as is expected for instance with the upcoming review of data on bedaquiline and delamanid in June 2016, with emerging data on MDR-TB drug dosages in children outside of the context of the shortened regimen, and with the release of the STREAM trial results in a few years' time;
 - c. Consolidate operational advice for implementation of policies to facilitate translation into practice in countries and update the *Programmatic management of drug-resistant TB* (PMDT) handbook and the frequently-asked questions (FAQs) with appropriate technical detail necessary for policy implementation by health care providers.
4. Continues to support and coordinate the response to the MDR-TB crisis with high quality technical assistance at global, regional, and country levels to help national TB programmes define financing requirements, mobilize resources and implement WHO guidance.

5. Continues promoting rigorous studies of the effectiveness and safety of the shorter MDR-TB regimen under trial conditions in order to improve the quality of the evidence and to increase the knowledge of its application in different settings and patient groups.
6. Provides more instruction for end users on the practical issues relating to the implementation of the shorter MDR-TB regimen, such as drug dosages and the application of the shorter MDR-TB regimen in children.

d. New diagnostics: Policy recommendations

STAG-TB was provided an update on WHO policy recommendations on use of three new rapid diagnostic tests: a second-line line probe assay (SL-LPA) to speed up detection and improve treatment outcomes for patients with multidrug-resistant TB (MDR-TB); a urine based test (LF-LAM) to detect TB among seriously ill persons living with HIV; and a rapid molecular test (TB-LAMP) that has been designed to potentially be used as an alternative to smear microscopy.

WHO issued its recommendations in 2015-2016 on the use of LF-LAM and SL-LPA technologies. The guidance based on the outcomes of the TB-LAMP guideline development group is currently being reviewed by the WHO Guideline Review Committee. STAG-TB discussed the plans to support enhanced application of existing and potential upcoming diagnostic recommendations.

STAG-TB:

- Acknowledges the great progress and leadership by WHO in developing policy guidance on new diagnostics from different manufacturers and especially for new rapid approaches for the detection of drug resistance;
- Recognizes that despite WHO policy recommendations, uptake of new tools has been limited and an urgent need remains to prepare countries for the uptake of transformational tools as they emerge from the pipeline.

STAG-TB recommends that WHO:

1. Combines and synthesizes diagnosis and treatment guidelines for TB and drug-resistant TB into a “how to” implementation manual to ensure consistency across guidelines.

2. Intensifies technical assistance and guidance to countries to implement second-line LPAs or equivalent diagnostics to facilitate the introduction and scale-up of the shorter MDR-TB treatment regimen.
3. Convenes a Partners Forum to accelerate country implementation of WHO-recommended diagnostics and to prepare countries for the uptake of new transformational tools as they emerge from the pipeline, by engaging partners to develop innovative guidance and tools that address:
 - a. The strategic positioning of new diagnostics aligned with patient pathways to access care;
 - b. Barriers for scale-up of new diagnostics, building on example success stories;
 - c. Optimal use of data from diagnostics through connectivity solutions;
 - d. Country preparedness to demonstrate the impact of rapid diagnostic tools for early diagnosis of TB and universal access to DST³.

e. Operational guidance on the strategic use of chest radiography and scoping of potential guidance on computer-aided detection (CAD) for TB detection

WHO's ongoing work in developing a consolidated operational guide on the strategic and programmatic use of chest radiography for TB detection was presented. This guide will be reviewed by a WHO expert group in the third quarter of 2016. At the same time, WHO will seek expert advice on scoping of potential guidance on the use of computer-aided detection (CAD) of TB in TB detection. CAD is an emerging technology which could potentially replace human readers in resource-constrained settings when high chest X-ray reading throughput is required.

STAG-TB:

- Recognises that countries need guidance on where to place chest radiography (CXR) in screening, triaging, and diagnostic algorithms, and on what level of the health system CXR should be placed for optimal TB detection;

³ Universal access to DST is currently defined as DST for at least rifampicin among all patients with bacteriologically confirmed TB, and further DST for at least fluoroquinolones and second-line injectable agents among all TB patients with rifampicin resistance

- Notes that computer-aided detection (CAD) of TB is an emerging technology that could potentially aid or replace human readers in some situations;
- Welcomes the planned consolidated guidance on the strategic and programmatic use of CXR and provision of associated technical support to countries and partners, as well as the process of scoping the published and unpublished literature computer-aided detection of TB.

STAG-TB recommends that WHO:

1. Involves additional experts in the global consultation (and the pre-consultation peer review) on operational guidance for the strategic and programmatic use of CXR, including radiologists, radiographers, paediatricians, health economists, radiation safety experts, and countries with different TB burdens that have operational experience of strategic CXR implementation.
2. Includes guidance on how to estimate CXR investment and running costs, and potential funding sources for scaling up quality-assured CXR.
3. Identifies, as part of the CAD scoping process, platforms for further CAD research, such as TB prevalence surveys, and additional research questions for CAD, such as those related to diagnosis of bacteriologically-negative TB.

SESSION 5: SCALING UP CONTACT TRACING AND PROGRAMMATIC MANAGEMENT OF LTBI AMONG PLHIV AND CHILDHOOD CONTACTS

WHO presented on progress made in supporting the scaling up of management of latent TB infection (LTBI), including the establishment of the Global LTBI Task Force, identification of barriers for effective LTBI management and next steps in tools development and technical assistance.

STAG-TB:

- Acknowledges the leadership and recent progress made by WHO, including the establishment of the Global LTBI Task Force and identification of barriers for implementation;
- Supports the development of the LTBI monitoring and evaluation framework and standardised indicators as well as the estimation of number of child contacts of notified TB cases requiring LTBI treatment to assist programmatic implementation;
- Supports the primary focus on high-risk groups (PLHIV and young child contacts) with established recommendations and evidence base, but recognizes the need to expand the focus to other risk groups, including all contacts and individuals living in congregate settings, to fully contribute to the achievement of the End TB Strategy targets;
- Emphasizes the importance of research to develop preventive treatment for contacts of drug resistant TB;
- Recognizes the need to develop an accurate point-of-care test that optimizes the use of preventive therapy, that distinguishes latent TB from active TB and, ideally, can monitor response to preventive therapy.

STAG-TB recommends that WHO:

1. Develops pragmatic implementation (how-to) tools and provide technical assistance to countries, recognising diverse epidemiologic settings and different needs or entry points of target at-risk groups.
2. Consolidates LTBI guidelines including contact investigation, and reviews evidence on the use of rifamycin-containing regimens for child contacts and PLHIV in high TB burden countries.
3. Supports implementation of programmes that provide lessons learned for scale-up, measure outcome indicators and costs, and include the introduction of shorter regimens for contacts of drug-susceptible TB cases in high TB incidence settings.
4. Considers widening target groups for preventive therapy in household contacts beyond young children (<5 years) to include older children, adolescents and adults in high TB incidence settings.
5. Promotes the current guidelines for the prevention of TB in MDR-TB contacts while advocating and awaiting evidence from randomised controlled trials.

SESSION 6: MOVING TOWARDS EFFECTIVE SOCIAL PROTECTION

a. From social support to social protection: Assessing good practices and effective inter-agency linkages

The Global TB Programme presented an overview of the social protection policy and practice environment in low and middle-income countries, followed by a review of work undertaken in assessing current practice in social support to TB patients and envisioning more sustainable platforms. This includes related case studies to inform *The Essentials* implementation guidance in this new area as well as preparing social protection briefs for TB programmes in the 30 highest TB burden countries and additional countries. Next steps were outlined in supporting further documentation and assessment of country and region-specific experiences, country workshops and new collaboration across ministries and agencies. New implementation, donor and research partners were noted. A summary of the case study of Kenya's efforts to improve social protection for TB patients and families was presented by STAG-TB member and National TB and Leprosy Programme Manager, Dr Enos Masini.

STAG-TB:

- Acknowledges that TB disproportionately affects the poor and that TB and its care can have impoverishing effects on households;
- Recognizes the global policy environment that supports increased attention to social protection for TB patients, including the central role of financial protection during ill-health within the global UHC agenda, as well as the adoption of the End TB Strategy target of eliminating catastrophic costs due to TB;
- Notes the Global TB Programme's leadership in promoting social protection for TB patients as part of larger UHC and social protection efforts, as well as the role of WHO as a whole and the UN family to advocate for multi-sectoral engagement at country level;
- Concludes that countries seeking to provide social protection for TB patients can be guided by considering the emerging experiences in similar country contexts, given that social settings, health systems, UHC strategies, and social protection systems vary widely;
- Emphasizes the need for capacity building at national, regional and global level, as incorporating TB into social protection policies and programs represents a paradigm

shift and requires multisectoral engagement -- areas in which NTPs and their partners have little or no experience.

STAG-TB recommends that WHO:

1. Continues its work to technically support countries to improve clarity and efficiency of current TB patient support approaches, and to proactively seek out and document best practices of the inclusion of TB within social protection platforms from countries with varying social and health system contexts, and degrees of UHC implementation, in order to inspire and inform other countries' efforts.
2. Reinforces advocacy for financing and national commitments to action in the area.
3. Establishes modalities for the exchange of experience and expertise between TB-affected countries of similar social and health systems contexts, as well as the engagement of additional expertise, including affected communities, national and regional institutions, economists and social/political scientists.
4. Builds capacity of all WHO regional and country offices to support NTP planning and engagement with other Ministries to enable incorporation of TB patients as beneficiaries of social programmes and social protection platforms, while also seeking synergies with related efforts on other public health conditions.
5. Promotes, as planned, relevant operational research.

b. Support to national TB patient cost surveys and social protection research

WHO presented on its related work in supporting high TB burden country national TB programmes in preparing for and conducting national TB patient cost surveys. The aims include to inform effective response to onerous cost burdens borne by TB patients and affected households, and to prepare baseline estimates for the measurement of progress and achievement of the related End TB Strategy target for 2020. That target is zero TB-affected households face catastrophic costs (total catastrophic costs from direct medical costs, indirect costs and income loss). WHO's work, with in-country partners and experts in the WHO Task Force on Measurement of TB Patient Costs, includes the development of a generic protocol and survey instrument, building on previous TB patient cost surveys, resource mobilization and technical assistance for implementation

of the model protocol and planning for further surveys with countries. A workshop will be held in December 2016 to review experience with the protocol, make any adjustments required and further discuss results to date and implications of findings. Initial results from the WHO-supported national TB patient cost survey in Myanmar were presented at the meeting as well.

STAG-TB:

- Recognises that national TB patient cost surveys are important for advocacy and for informing policies aimed to minimize financial access barriers and socioeconomic consequences of TB, as well as to monitor progress towards the End TB Strategy target to eliminate catastrophic total costs due to TB;
- Emphasises that technical support for national TB patient surveys needs to be linked with support for policy translation concerning service delivery models, universal health coverage and social protection;
- Notes that several countries are conducting surveys using the field testing version of the generic protocol for national TB patient cost surveys;
- Supports the plan to organize a data-review and protocol revision meeting organised by the WHO Task Force on Measurement of TB Patient Costs at the end of 2016.

STAG-TB recommends that WHO:

1. Guides countries on how to translate TB patient cost survey findings to policy in the light of other critical data that need to be collected through research, mapping and surveillance (including information on TB epidemiology, patient pathways, service delivery models, health financing, social protection landscape, and patients' experiences of social and financial consequences of TB).
2. Promotes in-country dialogue with relevant stakeholders, including affected communities, to discuss how to utilise survey results effectively.
3. Creates a technical assistance network, building on local research capacity and international expertise as well as recent country experiences, while fostering sharing of survey implementation experiences between high-burden countries.
4. Promotes fast implementation of national TB patient cost surveys, with first priority for high TB burden and high MDR-TB burden countries.

SESSION 7: INTENSIFIED RESEARCH AND INNOVATION

a. Driving the development of new TB treatment regimens

WHO's ongoing work on the development of Target Regimen Profiles (TRPs) for TB treatment regimens was presented. These TRPs seek to guide the drug development process toward important regimen characteristics. TRPs are currently being developed in a multi-stakeholder process led by the WHO Task Force on New TB Drug Policy Development and the Global TB Programme, in collaboration with the Johns Hopkins University and the Bill & Melinda Gates Foundation, as well as participation of an array of stakeholders.

STAG-TB:

- Welcomes the development of TRPs and encourages their prompt finalization;
- Congratulates the Global TB Programme and stakeholders who contributed to the development of TRPs for the excellent progress made in this area.

STAG-TB recommends that WHO:

1. Carries out further work with regulatory authorities to ensure that due consideration is given to the rapid evaluation and approval of new TB regimens.
2. Takes advantage of the TRPs process to promote the use of innovative trial designs and to address the issue of markers of treatment outcome.
3. Addresses issues related to treatment of TB in children in the development of TRPs.

b. Promoting country-specific research to End TB

WHO outlined efforts made to support the development of national TB networks and associated plans, in keeping with the *Global Action Framework for TB Research*. WHO is working with several 'path-finding' countries to develop technical assistance tools suited for country-level adaptation. In addition, work is being carried out with three path-finding countries (Brazil, South Africa and Viet Nam) to develop mathematical models as a tool for research prioritization and advocacy to suit the needs of local

stakeholders. These analyses of interventions utilize estimates of epidemiological impact and cost-effectiveness of existing and hypothetical interventions in line with the End TB Strategy.

STAG-TB:

- Welcomes the development and implementation of the ‘how to’ tools in defining country-specific TB research priorities as laid out in the Global Action Framework for TB Research;
- Commends the progress made in ‘path-finding’ countries in promoting TB research and integrating TB research into national TB programmes.

STAG-TB recommends that WHO:

1. Reinforces its work with path-finding countries so as to share lessons learnt on planning and implementing TB research and its policy implication for national TB prevention, care and control.
2. Engages more with low-income countries to support the development and implementation of national TB research plans, as laid out in the Global Action Framework for TB Research.
3. Encourages the appointment of research focal persons within national TB programmes to enhance the researcher/policy-maker interaction and promote funding, implementation and uptake of research findings in policy and practice.
4. Facilitates collaboration with all stakeholders, including establishment and strengthening of national TB research networks.
5. Promotes TB research implementation with capacity building, in a simultaneous manner at country level.
6. In collaboration with researchers, affected communities, CSOs and NGOs, continues to advocate, with international, philanthropic, private sector, bilateral donor agencies and national governments to increase investments in TB research and development, especially in areas of social science, implementation research and impact evaluation in low and middle-income countries, and including through promoting the setting of investment targets.

SESSION 8: ZOOBOTIC TB - DEFINING KEY PRIORITIES FOR ACTION AND A ROAD MAP

A joint presentation was given on the actions taken by WHO, in collaboration with The Union, the World Organisation for Animal Health (OIE), and the Food and Agricultural Organisation of the United Nations (FAO), to address the neglected area of zoonotic TB. Presenters emphasized the need for a One Health approach that links animal, human and environment health in order to eliminate the risk of TB infection in humans, and for actions to support effective diagnosis and treatment for those affected. A zoonotic TB road map is expected to be finalized in early 2017. Timpiyan Leseni from the Masai community in Kenya, and a member of the WHO Civil Society Task Force on TB, shared her difficult experience with zoonotic TB. She called for increased awareness and action.

STAG-TB:

- Acknowledges the initiative by WHO and the International Union Against Tuberculosis and Lung Disease (The Union) of bringing together a multi-stakeholder working group on bovine and zoonotic TB;
- Recognises that zoonotic TB in humans cannot be fully addressed without considering the risk pathways for transmission at the human-animal interface and therefore must be addressed according to the One Health approach;
- Recognizes the potential impact of zoonotic TB on the livelihoods of people and endorses addressing zoonotic TB in the context of the UN Sustainable Development Goals 2016-2030, WHO End TB Strategy 2016-2035 and the Stop TB Partnership's Global Plan to End TB 2016-2020;
- Agrees with the 10 key priorities proposed for addressing zoonotic TB, grouped under three core themes: improve scientific evidence base; reduce transmission at the animal-human interface; and strengthen intersectoral and collaborative approaches;
- Endorses the development of a roadmap for zoonotic TB based on the proposed 10 key priorities.

STAG-TB recommends that WHO:

1. Continues to engage the tripartite of WHO, the World Organization for Animal Health (OIE) and the Food and Agricultural Organisation of the United Nations (FAO) to take action against zoonotic TB.

2. Further refines the 10 key priorities into short-term, medium-term and long-term actions in order to have an immediate impact.
3. Gives particular attention to raising awareness and documenting the disease burden, focusing on strengthening surveillance.

SESSION 9: ENGAGEMENT OF NON-GOVERNMENTAL ORGANIZATIONS AND OTHER CIVIL SOCIETY ORGANIZATIONS

WHO presented on the progress made in community engagement for ending TB by partnering with non-governmental organizations (NGOs) and other civil society organizations (CSOs). Work done under the WHO Engage TB approach was reviewed. The planned work of a newly-established WHO Civil Society Task Force on TB (CSTF) was also presented. Members of the Task Force participated in the STAG-TB meeting, and held their first meeting following the STAG-TB meeting. A statement by the members of the CSTF, including their observations on the 2016 STAG-TB meeting, is available at the link:

http://www.who.int/tb/features_archive/TB_Civil_Society_Taskforce/

STAG-TB:

- Appreciates the progress made in engaging communities, Non-Governmental Organizations (NGOs) and other Civil Society Organizations (CSOs), especially through the ENGAGE-TB approach, and supports the further expansion and development of civil society leadership in the TB response;
- Supports the inclusion of patients and affected communities to enable their voice to inform policy making and programmes at every level;
- Emphasises the important role affected communities, NGOs and other CSOs can play in ending TB, especially through their reach and influence with vulnerable and neglected communities;
- Recognises the progress made in developing and monitoring key indicators of community engagement and supports efforts to ensure all countries report routinely on these indicators.

STAG-TB recommends that WHO:

1. Implements the actions relating to WHO articulated in the Addis Ababa Statement of Action including:
 - a. Facilitating and monitoring the establishment or strengthening of NGO Coordinating Bodies for TB, and building capacity of affected communities, NTPs, NGOs and other CSOs through its country offices;
 - b. Promoting the wider adoption of the ENGAGE-TB approach to enhance engagement of unengaged NGOs and other CSOs, and affected communities;
 - c. Emphasising leadership of affected communities and CSOs from the global South;
 - d. Defining a minimum and country-specific package of requirements including technical assistance needed for affected communities, unengaged NGOs and other CSOs to become engaged in TB activities as well as the engaged ones.
2. Ensures inclusion in job descriptions and/or key result areas of all WHO country office TB Medical Officers or focal National Professional Officers of their role as brokers and facilitators between NTPs and NGOs and other CSOs, to ensure they regularly engage with NGOs and other CSOs.
3. Encourages continued and expanded donor support for the community engagement area of work to build on existing efforts and enable the implementation of the Addis Ababa Statement of Action and community engagement in coordination with other actors.
4. Advocates for resource allocations and budgetary provisions to engage and involve members from affected communities, NGOs and other CSOs at every stage from planning to monitoring and evaluation.

PLANNING OF THE 2017 STAG-TB MEETING

The WHO Secretariat announced the planned dates for the 17th annual STAG-TB meeting: **12-14 June, 2017** at WHO Headquarters in Geneva.

STAG-TB members proposed the following topics for consideration in formulating the agenda for the 2017 meeting. Topics are noted in order of mention by STAG-TB members – no prioritization was done at the meeting. Some topics were identified by multiple members and consolidated.

1. Status of evidence review on use of chest radiography, use of digital X-Ray, CAD and related algorithms
2. Update on implementation of actions by WHO recommended in the civil society action agenda and at this STAG-TB meeting
3. Next update on TB surveillance, use of TB surveillance checklist, and impact measurement
4. Non-TB mycobacteria (NTM) and LTBI management for NTM
5. Progress on scaling up of management of LTBI
6. Assessment of early mortality due to TB and how to tackle it
7. Roll-out of the shorter MDR-TB regimen and MDR-TB diagnostics, MDR-TB treatment in children, progress on the overall comprehensive approach to programmatic management of drug-resistant TB (PMDT) and closing the gap in MDR-TB treatment coverage
8. TB and diabetes - update on evidence and integrated care
9. Sustainable financing for TB, national investment cases, and value for money
10. Discussion of WHO's own approach to prioritization among areas of its TB work
11. Progress on access to care in complex humanitarian emergencies, and in light of major migration challenges
12. Progress on TB patient cost surveys
13. WHO costing tool to support overall costing related to the End TB Strategy
14. Progress on e-health/digital health tools assessment/application and quality of other tools to support patient care management
15. Review of national planning experiences, based on the End TB Strategy, and related capacity building and training
16. TB in children and adolescents
17. Use of big data
18. Diagnosis, management of extra-pulmonary TB, and related estimated burden

Note: A request was made to pursue the intended aim to provide key background materials and presentations to STAG-TB members at least a week in advance of the meeting to enable full preparation, appreciating the major effort undertaken by WHO to prepare analyses and materials each year.

CLOSING

The meeting was closed with final remarks and appreciation to all participants offered by Dr Raviglione on behalf of the World Health Organization, and by Dr Abubakar on behalf of the Strategic and Technical Advisory Group for Tuberculosis.

ANNEX 1: STAG-TB 2016 MEETING AGENDA

MONDAY, 13 JUNE 2016		
09:00 – 10:10	<p>SESSION 1: Opening and Overview</p> <p>Welcome and introductions</p> <p>a. Objectives, agenda, modus operandi and declaration of interests</p> <p>b. Health in the Sustainable Development Goals (SDGs) agenda</p> <p>c. Keeping pace with innovations to End TB</p> <p>Opening video</p>	<p>M. Raviglione, Ren Minghui, ADG, HTM Cluster I. Abubakar, Chair</p> <p>D. Weil, M. Dias</p> <p>Ren Minghui</p> <p>M. Raviglione</p> <p>M. Dias</p>
10:10 – 10:30	<p>SESSION 2: Support to End TB Strategy adaptation and roll-out</p> <p>a. Panel: WHO's roles in supporting roll-out and monitoring</p>	<p>D. Weil, M. Uplekar, M. Grzemska, K. Floyd</p>
10:30 – 10:50	Coffee	
10:50 – 12:30	<p>Session 2 continued</p> <p>b. WHO Regional Office focus areas of work</p> <p>C. Baseline assessment: Gaps in the patient pathway</p>	<p>M. del Granado, M. Dara, N. Nishikiori, K. Samson, K.A. Hyder, M. Abdel Aziz</p> <p>C. Hanson</p>

	<p>Discussants</p> <p>Discussion and STAG-TB recommendations</p>	<p>Wang Lixia B. Squire</p>
12:30 – 13:45	Lunch	
13:45 – 15:00	<p>SESSION 3: TB impact measurement: progress-to-date and post-2015 agenda</p> <p>Discussants</p> <p>Discussion and STAG-TB recommendations</p>	<p>K. Floyd, A. Vassall S. Khaparde</p>
15:00 – 15:30	<p>SESSION 4: Policy update and implications for integrated patient-centred care</p> <p>a. New MDR-TB treatment guidance & updated Bedaquiline/Delamanid guidance</p> <p>b. Surveillance on pyrazinamide and flouroquinolone resistance: Analysis and results</p>	<p>E. Jaramillo C. Lienhardt M. Zignol</p>
15:30– 15:50	Coffee	
15:50 – 17:00	<p>Session 4 continued</p> <p>c. Global response to the MDR-TB public health crisis</p> <p>Discussants</p>	<p>F. Mirzayev C. Daley E. Lessem K. van Weezenbeek</p>

17:00 – 18:00	<p>Discussion and STAG recommendations</p> <p>d. New diagnostics: policy recommendations</p> <p>Discussant</p> <p>e. Operational guidance on the strategic use of chest radiography and scoping of computer-aided detection (CAD) for TB detection</p> <p>Discussant</p> <p>Discussion and STAG-TB recommendations</p>	<p>C. Gilpin</p> <p>C. Boehme</p> <p>K. Lonroth</p> <p>M. Nasehi</p>
18:15– 19:30	RECEPTION - UNAIDS/WHO D Building Cafe	

TUESDAY, 14 JUNE 2016		
9:00 – 9:15	Summary of Day 1	Chair
9:15 – 10:00	<p>SESSION 5: Scaling up contact tracing and programmatic management of LTBI among PLHIV and childhood contacts</p> <p>Discussants</p> <p>Discussion and STAG-TB recommendations</p>	<p>H. Getahun</p> <p>U. Go</p> <p>S. Graham</p>
10:00 – 10:30	<p>SESSION 6: Moving towards effective social protection</p> <p>a. From social support to social protection: Assessing good practices and effective inter-agency linkages</p> <p>Country experience/discussant</p>	<p>D. Weil</p> <p>E. Masini</p>

10:30 – 10:50	Coffee	
10:50 – 12:00	Session 6 continued b. Support to national TB patient cost surveys and social protection research Report on first national patient cost survey Discussants Discussion and STAG-TB recommendations	K. Lonroth A. Siroka Thandar Lwin C. Hanson
12:00 – 13:15	Lunch	
13:15 – 14:35	SESSION 7: Intensified research and innovation a. Driving the development of new TB treatment regimens Discussant b. Promoting country-specific research to End TB Discussants Discussion and STAG-TB recommendations	C. Lienhardt L. Gonzalez I. Abubakar N. Gebreselaisse R. Zachariah V.N. Nhung
14:35 – 15:45	SESSION 8: Zoonotic TB - Defining key priorities for action and a road map Discussant Discussion and STAG-TB recommendations	P. Fujiwara, F. Olea-Popelka, A. Dean, S. Forcella B. Mutayoba
15:45 – 16:05	Coffee	

16:05 – 17:05	SESSION 9: Engagement of NGOs and other CSOs in End TB Strategy implementation: updates and next steps Discussant Discussion and STAG-TB recommendations	L. Syed H. Getahun T. Mosidi
17:05 – 17:20	Summary of Day 2	Chair
17:20 – 18:00	Discussants meet with WHO Secretariat focal points to prepare draft written STAG-TB recommendations as PowerPoints for presentation on 15 June morning	
WEDNESDAY, 15 JUNE 2016		
9:00 – 10:30	INTRODUCTION TO REVIEW OF RECOMMENDATIONS STAG-TB recommendations review and finalization	Chair Session rapporteurs and STAG-TB members
10:30 -11:00	Coffee	
11:00 – 11:40	STAG-TB recommendations review & finalization (cont.)	
11:40 – 11:50	Planning agenda for 17th STAG-TB Meeting, 2017: Suggestions from STAG-TB Members for topics Dates: 12 June to 14 June 2017	M. Dias
11:50 – 12:00	CLOSING REMARKS	I. Abubakar M. Raviglione

ANNEX 2: LIST OF PARTICIPANTS

STAG-TB Members

1. Prof. Ibrahim Abubakar

Chair, STAG-TB
Director, Institute for Global Health
University College London
London
United Kingdom

2. Dr Catharina Boehme

Chief Executive Officer
Foundation for Innovative New
Diagnostics (FIND)
Geneva
Switzerland

3. Dr Manfred Danilovits

NTP Coordinator and Head of
Department of Tuberculosis
Tartu University - Lung Clinic
Tartu
Estonia

4. Dr Betina Durovni

Under Secretary for Surveillance,
Promotion and Primary Care
Secretary of Health
State of Rio de Janeiro
Brazil

5. Prof. Stephen Graham

Professor of International Child Health
University of Melbourne
Department of Paediatrics
Royal Childrens Hospital
Parkville, Melbourne
Australia

6. Dr Unyeong Go

Director, Center for Disease Prevention
and Korean Network for Organ Sharing
Korea Centers for Disease Control
and Prevention
Seoul
Republic of Korea

7. Dr Christy Hanson

Distinguished Lecturer
International Studies Department
Macalester College
St Paul, MN
USA

8. Dr Sunil Khaparde

National TB Programme Manager
Central TB Division
Ministry of Health and Family Welfare
Government of India
New Delhi
India

9. Ms Erica Lessem

TB/HIV Director
Treatment Action Group
New York, NY
USA

10. Dr Wang Lixia

Director
National Center for TB Control and
Prevention
Centre for Disease Control &
Prevention
Beijing
People's Republic of China

11. Dr Thandar Lwin

Director, Disease Control
Department of Public Health
Ministry of Health
Nay Pyi Taw
Yangon
Myanmar

12. Dr Enos Masini

Programme Manager
National TB Leprosy and Lung Health
Programme
Ministry of Health
Nairobi
Kenya

13. Dr Thato Mosidi

TB Patient
Ambassador of the South African
Department of Health
Emergency Medicine Medical Officer
ER Group, Olivedale Netcare
Roodeport
South Africa

14. Dr Beatrice Mutayoba

Programme Manager
National Tuberculosis and Leprosy
Programme
Ministry of Health and Social Welfare
Dar es Salaam
United Republic of Tanzania

15. Dr Mahshid Nasehi

National TB Programme Manager
Ministry of Health and Medical
Education
Islamic Republic of Iran

16. Dr Nguyen Viet Nhung

Director, National Lung Hospital
Manager, National Tuberculosis Control
Program
Hanoi
Viet Nam

17. Prof. Bertie Squire

Professor of Clinical Tropical Medicine
Liverpool School of Tropical Medicine
Liverpool
United Kingdom

18. Dr Kitty van Weezenbeek

Executive Director
KNCV Tuberculosis Foundation
The Hague
The Netherlands

19. Professor Irina Vasilyeva

Chief TB Specialist
Head of TB Department
Ministry of Health
Moscow
Russian Federation

20. Dr Anna Vassall

Reader in Health Economics
London School of Hygiene & Tropical
Medicine
London
United Kingdom

21. Ms Cheri Vincent

Chief, Infectious Diseases Division
Bureau of Global Health
US Agency for International
Development
Washington, DC
USA

22. Dr Rony Zachariah
Director, Operational Research &
Strategic Advisor to the Director
General Médecins Sans Frontières
Brussels Operational Center
Luxembourg

WHO Temporary Advisers

23. Dr Jaap Broekmans
Former STAG-TB Chair
Chair, WHO Global Task Force on
TB Impact Measurement
The Hague
The Netherlands

24. Dr Charles Daley
Former STAG-TB Chair
Chair, Global Drug-resistant TB Initiative
(GDI)
Chief, Division of Mycobacterial and
Respiratory Infections
National Jewish Health
Denver, CO
USA

WHO Civil Society Task Force on TB Members

- 25. Ms Jacqueline Bodibe**, South Africa
- 26. Ms Jamilya Ismoilova**, Tajikistan
- 27. Ms Blessi Kumar**, India
- 28. Ms Timpiyan Leseni**, Kenya
- 29. Mr James Malar**, Thailand
- 30. Mr Oluyesi Babatunde Oyebisi**, Nigeria
- 31. Ms Gracia Violeta Ross Quiroga**, Bolivia
- 32. Mr Sameer Sah**, United Kingdom

- 33. Ms Mandy Slutsker**, USA
- 34. Mr Ademe Tsegaye**, Ethiopia
- 35. Dr Khin Swe Win**, Myanmar

Other Participants

36. Dr Sevim Ahmedov
Senior TB Technical Advisor
Infectious Diseases Division
Bureau of Global Health
Agency for International Development
Washington, DC
USA

37. Dr Heather Alexander
Chair, Global Laboratory Initiative (GLI)
Tuberculosis and Opportunistic
Infections Unit Lead
US Centers for Disease Control and
Prevention
Atlanta, GA
USA

38. Dr Leopold Blanc
Consultant, TB and health systems
Prévessin
France

39. Dr Amy Bloom
Senior Technical Advisor
Infectious Diseases Division
Bureau of Global Health
US Agency for International
Development
Washington, D.C.
USA

40. Dr Emily Bloss

Epidemiologist
Surveillance, Epidemiology and Impact
Measurement Team
Global TB Prevention and Control
Branch
Centers for Disease Control &
Prevention
Atlanta, GA
USA

41. Dr Delia Boccia

Faculty of Epidemiology and Population
Health, Department of Infectious
Disease Epidemiology
London School of Hygiene and Tropical
Medicine
London
United Kingdom

42. Dr Grania Brigden

TB and AMR Advisor
Access Campaign
Médecins Sans Frontières
Geneva
Switzerland

43. Dr Karen Brudney

Senior Adviser to CDC on TB
Centers for Disease Control and
Prevention
Atlanta, GA
USA

44. Dr Gavin Churchyard

Chief Executive Officer
The Aurum Institute
Parktown
Johannesburg
South Africa

45. Dr Daniela Cirillo

Head, Emerging Bacterial Pathogens
Unit, San Raffaele del Monte Tabor
Foundation
San Raffaele Scientific Institute
Milan
Italy

46. Dr Jacob Creswell

Team Leader, Innovations & Grants
Stop TB Partnership
Geneva
Switzerland

47. Ms Colleen Daniels

Communities, Rights & Gender Officer
Stop TB Partnership
Geneva
Switzerland

48. Dr Anand Date

Assoc. Branch Chief, Global TB
Prevention and Control Branch
Centers for Disease Control &
Prevention
Atlanta, GA
USA

49. Dr Claudia Denkinger

Head of TB
Foundation for Innovative New
Diagnostics (FIND)
Geneva
Switzerland

50. Dr Poonam Dhavan
Coordinator, Migration Health
Programme
International Organization for Migration
Geneva
Switzerland

51. Dr Riitta Dlodlo
Director
Department of TB and HIV
The Union
Bulawayo
Zimbabwe

52. Ms Fran Du Melle
Sr. Director
International Programmes &
Activities
American Thoracic Society
USA

53. Mr Andrew Flynn
Doris Duke International Clinical
Research Fellow
Infectious Diseases Institute
Makerere University
Kampala
Uganda

54. Ms Simona Forcella
Chargée de Mission
World Organisation of Animal Health
12 rue de Prony
Paris
France

55. Dr Paula Fujiwara
Scientific Director
International Union Against
Tuberculosis and Lung Disease (The
Union)
Paris
France

56. Ms Janet Ginnard
Chief, Strategy
UNITAID
Geneva
Switzerland

57. Dr Alexander Golubkov
Senior TB Technical Advisor
US Agency for International
Development (USAID)
Washington, D.C.
USA

58. Dr Carol Hamilton
Senior Scientist
Family Health International
USA

59. Prof. Philip Hopewell
Professor of Medicine
University of California
San Francisco General Hospital
San Francisco, CA
USA

60. Dr Akramul Islam
Director, Tuberculosis and Malaria
Control
Water, Sanitation & Hygiene (WASH),
Bangladesh Rural Advancement
Committee (BRAC)
Dhaka
Bangladesh

61. Dr Shayla Islam

Programme Head
Tuberculosis Control Programme
BRAC
Dhaka
Bangladesh

62. Ms Maike Jager

Intern
KNCV Tuberculosis Foundation
The Netherlands

63. Professor Afranio Kritski

Medical School
Federal University of Rio de Janeiro
Rio de Janeiro
Brazil

64. Dr Evan Lee

Vice President
Global Health Programs & Access
Eli Lilly
Geneva
Switzerland

65. Ms Lisa Leenhouts-Martin

Tuberculosis Adviser
The Global Fund to fight AIDS, TB and
Malaria
Geneva
Switzerland

66. Ms Maria Paola Lia

Program Director
Global Health Programs
Eli Lilly
Geneva
Switzerland

67. Dr Ethel Maciel

Professor
Universidade Federal do Espirito Santo
Vitória
Brazil

68. Dr Susan Maloney

Chief, Global TB Prevention and Control
Branch
Centers for Disease Control and
Prevention
Atlanta, GA
USA

69. Dr Refiloe Matji

Regional Director
University Research Corporation
Pretoria
South Africa

70. Dr Alberto Matteelli

Associate Professor, Infectious and
Tropical Diseases
University of Brescia
Brescia Spedali Civili General Hospital
WHO Collaborating Centre for TB/HIV
and TB Elimination
Brescia
Italy

71. Dr Ya Diul Mukadi

Senior Technical Adviser
Infectious Diseases Division
Global Health Bureau
US Agency for International
Development
Washington, DC
USA

72. Dr Yamuna Mundade

Technical Officer, TB
Operations
UNITAID
Geneva
Switzerland

73. Dr Pierre-Yves Norval

Consultant
France

74. Dr Kosuke Okada

Director
International Programmes
Japan Anti-Tuberculosis Association
Tokyo
Japan

75. Dr Francisco Olea-Popelka

Assistant Professor
College of Veterinary Medicine and
Biomedical Sciences
Colorado State University
Fort Collins, CO
USA

76. Ms Olga Oleinik

Central TB Research Institute
Russian Academy of Medical Sciences
Moscow
Russia

77. Dr Nimer Ortuño-Gutierrez

Medical Advisor at Damien Foundation
Headquarters
Brussels
Belgium

78. Dr Regina Osih

Director for TB, Access Programs
Clinton Health Access Initiative
Johannesburg
South Africa

79. Dr Salah Ottmani

Consultant
Geneva
Switzerland

80. Dr Sara Padidar

Technical Officer, TB
Operations
UNITAID
Geneva
Switzerland

81. Dr Eric Pevzner

Team Lead
Global TB Branch
Center for Global Health
Centers for Disease Control and
Prevention
Atlanta, GA

82. Dr Lee Reichman

Global TB Institute
New Jersey Medical School at
Rutgers the State University
Newark NJ
USA

83. Dr Suvanand Sahu

Deputy Executive Director
Stop TB Partnership
Geneva
Switzerland

84. Dr Anna Scardigli

TB Adviser
The Global Fund to Fight AIDS, TB and
Malaria
Geneva
Switzerland

85. Dr Valerie Schwoebel

Head
Programs in Francophone Africa
The Union
Paris
France

86. Dr Welile Sikhondze

Adviser and Research Coordinator
National TB Control Programme
Ministry of Health
Mbabane
Swaziland

87. Dr Lal Sadasivan Sreemathy

TB Technical Director
PATH
Washington, DC
USA

88. Dr Cherise Scott

Director
Pediatric Programs
TB Alliance
New York, NY
USA

89. Dr Mariam Sianozova

Regional Director for Europe and
Eurasia
Project HOPE
Yerevan
Armenia

90. Dr Melvin Spigelman

President and CEO
TB Alliance
New York, NY
USA

91. Dr Ezra Tessera

Specialist, Epidemiology and Country
Analysis
The Global Fund to Fight AIDS, TB and
Malaria
Geneva
Switzerland

92. Dr Alexander Trusov

Senior Director
TB Portfolio
Project Hope
Millwood
USA

93. Dr Carrie Tudor

TB Project Director
International Council of Nurses
Durban
South Africa

94. Dr Maarten van Cleeff

Director
Challenge TB Project
KNCV Tuberculosis Foundation
The Hague
The Netherlands

95. Dr Eliud Wandwalo

Senior Technical Advisor
Tuberculosis
The Global Fund to Fight AIDS,
Tuberculosis and Malaria
Geneva
Switzerland

96. Dr Brenda Waning
Chief, Global Drug Facility
Stop TB Partnership
Geneva
Switzerland

97. Dr Mohammed Yassin
Senior Advisor, Tuberculosis
The Global Fund to Fight AIDS,
Tuberculosis and Malaria
Geneva
Switzerland

[WHO Headquarters Staff](#)

[HIV/AIDS, TB and Neglected Tropical Diseases \(HTM\)](#)

98. Dr Ren Minghui,
Assistant Director-General
99. Dr Mubashar Sheik, Senior
Adviser

[Global TB Programme](#)

100. Dr Mario Raviglione, Director
Policy, Strategy and Innovations Unit
(GTBP/PSI) & STAG-TB Secretariat
101. Ms Diana Weil, Coordinator
102. Ms Hannah Monica Dias
103. Dr Knut Lonroth
104. Dr Mukund Uplekar
105. Ms Dominique de Santis
106. Ms Jasmine Solangon
107. Ms Jahnavi Curlin
108. Ms Amy Collins

[TB/HIV and Community Engagement Unit \(GTB/THC\)](#)

109. Dr Haileyesus Getahun,
Coordinator
110. Ms Annabel Baddeley

111. Dr Miriam Faid
112. Dr Yohhei Hamada
113. Mr Thomas Joseph
114. Dr Avinash Kanchar
115. Dr Fatema Kazi
116. Dr Silke Reiter-Karam
117. Ms Lana Syed

[Laboratories Diagnostics and Drug Resistance Unit](#)

118. Dr Karin Weyer, Coordinator
119. Dr Dennis Falzon
120. Dr Christopher Gilpin
121. Dr Ernesto Jaramillo
122. Dr Alexei Korobitsyn
123. Dr Fuad Mirzayev
124. Mr Wayne Van Gemert

[Technical Support Coordination Unit](#)

125. Dr Malgorzata Grzemska,
Coordinator
126. Ms Annemieke Brands
127. Ms Andrea Braza
128. Dr Giuliano Gargioni
129. Ms Media Gegia
130. Dr Christian Günneberg
131. Ms Karina Halle
132. Ms Soleil Labelle
133. Dr Linh Nhat Nguyen

[TB Monitoring and Evaluation Unit \(GTB/TME\)](#)

134. Dr Katherine Floyd,
Coordinator
135. Dr Laura Anderson
136. Dr Anna Dean
137. Ms Ines Garcia Baena
138. Dr Philippe Glaziou
139. Dr Sayori Kobayashi
140. Dr Irwin Law

- 141. Dr Ikushi Onozaki
- 142. Dr Andrew Siroka
- 143. Dr Charalampos Sismanidis
- 144. Mr Hazim Timimi
- 145. Dr Matteo Zignol

**Programme Management Unit
(GTB/PMU)**

- 146. Dr Wieslaw Jakubowiak,
Programme Manager
 - 147. Ms Melina Abrahan
 - 148. Ms Henrikka Weiss
- Research for TB Elimination Team
(GTB/RTE)**
- 149. Dr Christian Lienhardt, Team
Leader
 - 150. Ms Licé Gonzalez-Angulo
 - 151. Dr Nebiat Gebreselassie

**Special Programme for Research and
Training in Tropical Diseases (TDR)**

- 152. Professor John Reeder, Director
- 153. Dr Dermot Maher, Coordinator,
RCS

**Director-General's Office (DGO)
/Secretariat for Antimicrobial
Resistance**

- 154. Dr Marcus Sprenger, Director

**Department of Food Safety and
Zoonoses**

- 155. Dr Awa Aidara-Kane, Coordinator,
Foodborne and Zoonotic Diseases
- 156. Dr Amina Benyahia Chaieb

**Department of Public Health,
Environmental and Social Determinants
of Health (PHE)**

- 157. Dr Maria del Rosario Perez

WHO Staff (Regional/Country Offices)

AFRO

- 158. Mr Jean de Dieu Iragena
- 159. Dr Ramatoulaye Sall
- 160. Dr Andre Ndongosieme, ISW/WA
- 161. Dr Kefas Samson, IST/ESA
- 162. Dr Wilfred Nkhoma, IST/ESA
- 163. Dr Henriette Wembenyama,
IST/CA
- 164. Dr Nicolas Nkiere, DR Congo
- 165. Dr Joel Kangangi, Kenya
- 166. Dr Kassa Hailu Ketema, Ethiopia
- 167. Dr Mary-Esther Aceng-Dokotum,
Ethiopia
- 168. Dr Ayodele Awe, Nigeria
- 169. Dr Babatunde Sanni, South Africa
- 170. Dr Richard Rehan, South Sudan
- 171. Dr Abel Nkolo, Uganda
- 172. Dr Neema Simkoko, U.R. Tanzania
- 173. Dr Mwendaweli Maboshe,
Zambia
- 174. Dr Patrick Hazangwe, Zimbabwe

AMRO

- 175. Dr Mirtha del Granado,
TB Regional Adviser

EMRO

- 176. Dr Mohamed Abdel Aziz, TB
Regional Adviser
- 177. Dr Ali Akbar, Iraq
- 178. Dr Iraneus Sindani, Somalia

EURO

- 179. Dr Masoud Dara, TB and
M/XDR-TB Programme
Manager
- 180. Dr Pierpaolo de Colombani
- 181. Dr Martin van den Boom
- 182. Dr Soudeh Ehsani

- 183. Dr Javahir Suleymanova,**
Azerbaijan
- 184. Dr Silviu Ciobanu,** Moldova
- 185. Dr Ogtay Gozalov,** Uzbekistan

SEARO

- 186. Dr Khurshid A. Hyder,**
Regional Adviser TB SEARO
- 187. Dr Achutan Nair Sreenivas,** India
- 188. Dr Muhammad Akhtar,** Indonesia

WPRO

- 189. Dr Nobuyuki Nishikiori,** Team
Leader, TB and Leprosy
Elimination
- 190. Dr Shalala Ahmadova**
- 191. Dr Fabio Scano,** China
- 192. Dr Tauhidul Islam,** Papua New
Guinea
- 193. Dr Ridha Jebeniani,** Solomon
Islands
- 194. Dr Rajendra Yadav,** Philippines

ANNEX 3: TERMS OF REFERENCE OF STAG-TB, 2016

1. Functions

The mission of the STAG-TB is to contribute to ending the Tuberculosis epidemic, and eventually eliminating the disease, by providing state-of-the-art scientific and technical guidance to WHO. It will have the following functions:

- 1.1 to provide to the Director-General independent evaluation of the strategic, scientific and technical aspects of WHO's Tuberculosis work;
- 1.2 to review, from a scientific and technical viewpoint, progress and challenges in WHO's TB-related core functions, including:
 - 1.2.1 the content, scope and dimension of WHO's development of TB policies, strategies and standards in TB prevention, care and control;
 - 1.2.2 the content, scope and dimension of WHO's collaboration, and support of, countries' efforts to control TB, including the provision of guidance and capacity-building on policies, strategies, standards and technical assistance;
 - 1.2.3 the content, scope and dimensions of WHO's TB epidemiological surveillance, monitoring, evaluation and operational research activities, their relevance to countries' efforts to end the TB epidemic and approaches to be adopted;
 - 1.2.4 the content, scope and dimensions of WHO's promotion and support of partnerships, and of advocacy and communications for TB prevention, care and control worldwide.
- 1.3 to review and make recommendations on the establishment of committees, working groups, and other means through which scientific and technical matters are addressed; and
- 1.4 to advise on priorities between possible areas of WHO activities related to tuberculosis prevention, care and control.

Pursuant to the above functions, the STAG-TB may submit to the Director-General, through the Global TB Programme in the HIV/AIDS, TB, Malaria and Neglected Tropical Diseases Cluster, technical documents and recommendations as it deems necessary. STAG-TB has no executive or regulatory function. Its role is to provide advice and recommendations to the Director-General of WHO.

2. Composition

2.1 Members of the STAG-TB will be appointed by the Director-General on the basis of scientific and technical competence. The STAG-TB shall have no less than 12 and up to 25 members, who shall serve in their personal capacities to represent the range of disciplines relevant to public policy development and implementation for tuberculosis control, monitoring and surveillance, operational research, research and development, affected communities and civil society engagement, health systems strengthening necessary to properly advise on all aspects of WHO's TB work. Technical balance, gender balance, and geographical representation, will be taken into account.

2.2 The STAG-TB Chair will be appointed by the Director-General and selected from among the STAG-TB members who have served already served at least one year in the body.

2.3 Members of the STAG-TB, including the Chair, shall be appointed to serve for a period of up to three years and shall be eligible for re-appointment but may not serve more than two consecutive terms.

2.4 Previous members of STAG-TB may be asked to participate as a Temporary Adviser in STAG-TB meetings should there be need for further expertise in a given discipline.

2.5 Members of STAG-TB must respect the impartiality and independence from any Government or from any authority external to the Organization. They must be free of real, potential or apparent conflict of interest.

Prior to being appointed as Members of the STAG-TB and prior to renewal of term, nominees shall be subject to conflict of interest assessment by WHO based on information that they will disclose on the WHO Declaration of Interest (DOI) form. In addition, Members of the STAG-TB have an ongoing obligation throughout their tenure to inform WHO of any changes to the information that they have disclosed on the DOI form. Summaries of relevant disclosed interests that may be perceived to give rise to real or apparent conflicts of interest will be noted in the STAG-TB reports which will in turn be made public, as appropriate

2.6 In addition, WHO reserves the right to require Members to sign a WHO confidentiality agreement, as needed depending on the items to be addressed at each STAG-TB meeting. All Members shall sign the standard agreement for WHO temporary advisers. Although all papers presented at the STAG-TB may be made publicly available on the WHO/Global TB Programme website, documents which are prepublication manuscripts or confidential documents from private companies or other documents and information that WHO may determine as being confidential, will be clearly labeled as such and will only be provided to STAG-TB members for discussion.

2.7 Membership in STAG-TB may be terminated by WHO, including, for any of the following reasons:

- a. failure to attend two consecutive STAG-TB meetings;
- b. change in affiliation resulting in a conflict of interest;
- c. a lack of professionalism involving, for example, a breach of confidentiality.

3. Operation

3.1 The WHO Global TB Programme (GTB) will serve as the Secretariat to the STAG-TB.

3.2 The STAG-TB will usually meet once each year. WHO shall provide any necessary scientific, technical and other support for the STAG-TB. In addition to the Members, selected experts may be invited by the WHO Secretariat to STAG-TB meetings as advisors on specific issues when their technical collaboration is required.

Representatives from institutions supporting TB activities may be invited by the WHO Secretariat to STAG-TB meetings as observers.

3.3 The STAG-TB will prepare a report on its meetings with the support of the WHO Secretariat. This report, containing findings and recommendations, shall be submitted to the Secretariat, which will then submit the report and its own comments (if any) to the Director-General. All recommendations from STAG-TB are advisory to WHO, who retains full control over any subsequent decisions or actions regarding any proposal, policy issues or other matters considered by STAG-TB. WHO also retains full control over the publication of the reports of STAG-TB, including whether or not to publish them.

3.4 Members of the STAG-TB may be approached by non-WHO sources for their views, comments and statements on particular matters of public health concern and asked to state the views of STAG-TB or of details related to STAG-TB discussions. Members of the STAG-TB should refer all such enquiries to WHO- GTB

3.5 Members of the STAG-TB will not be remunerated for their participation in; STAG-TB however, reasonable travel expenses incurred by attendance at STAG-TB or related meetings will be compensated by WHO in accordance with WHO applicable rules and policies.