Know Your Epidemic: Driving Change to End TB  WHO Global TB Symposium

Background and Aim
The Sustainable Development Goals agenda, including its aim to end the TB epidemic by 2030, is now underway. Ambitious milestones have been set for 2020. The adoption and roll-out of the End TB Strategy depends on a shift in perspectives and accelerated efforts within and well beyond the TB community. This is fully aligned with the “Confronting resistance” to change theme of this year’s World Conference on Lung Health.

The Global TB Symposium will offer presentations and panel discussions on better using data and analysis to know your TB epidemic, who is affected, and the current status of systems to help drive the advocacy, collaboration, implementation scale-up and research called for in the End TB Strategy. Each segment will address the challenges and opportunities in moving ahead.

Objectives of the symposium
1. To review the status of the global TB epidemic, the roll-out of the End TB Strategy and response, as well as the opportunities offered with innovations well beyond the field of tuberculosis. New technologies and tools can impact our understanding of disease, our response, the way we share and use information, and the engagement of a much wider array of partners.
2. To understand the steps taken by countries, affected communities and partners to better know their TB epidemics and to frame their actions based on this understanding. Among the questions are: who is affected -- which areas, risk groups and populations; how they are affected; and, what are the dynamics in underlying social and economic conditions, and in current health and social systems.
3. To highlight some actions being taken in 2016-2017 by parliamentarians, global health leaders, TB programs, civil society actors and researchers to drive higher-level, cross-Ministry and cross-society engagement, greater resource mobilization, and impact.
4. To profile recent advances in TB research and strategies for the rolling out of new diagnostics, drugs and regimens.

Opening
10:00 - 10:15

Welcome
Jose Luis Castro (France)
Mario Raviglione (Switzerland)
Timpyian Leseni (Kenya)

Riding the wave: Capitalizing on innovations within and beyond TB
10:15 - 10:30

Mario Raviglione (Switzerland)
Scientific Programme

Katherine Floyd (Switzerland) 10:30 - 10:50

Questions & Answers 10:50 - 11:00

I. Know Your Epidemic  Chair: Ibrahim Abubakar, Institute for Global Health, University College London
The power of understanding and using your available data
Charalambos Sismanidis (Switzerland) 11:00 - 11:05

New strategic directions driven by national epidemiological and patient pathway analysis, affected communities consultations and systems reforms
Denise Arakaki (Brazil)
Rein Houben (United Kingdom)
Sahu Suvanand
Christy Hanson (United States of America)
Hans Kluge (Denmark)
Thandar Lwin (Myanmar) 11:05 - 11:20

Questions & Answers 11:20 - 11:35

Lunch 12:40 - 13:00

II: Driving political commitment and accountability  Chairs: Cheri Vincent, United States & Eliud Wandwalo, Switzerland
Outcomes of the 2nd WHO End TB Strategy Summit of National TB Programmes of the 30 Highest TB Burden Countries - Representative of National TB programmes
Enos Masini (Kenya)
Abedola Lawanson (Nigeria) 14:00 - 14:10

Progress on civil society engagement to end TB - WHO Civil SOciety Task Force on TB
Blessina Amulya Kumar (India) 14:10 - 14:20

Progress on resource mobilization and implementation of the Stop TB Partnership Global Plan to End TB, 2016-2020
Lucica Ditiu (Switzerland) 14:20 - 14:30

Progress on parliamentary action
The Rt Hon Nick Herbert CBE MP (United Kingdom) 14:30 - 14:40

Question & Answers 14:40 - 14:50

Coffee Break 14:50 - 15:10

III: ADVANCES IN TB RESEARCH AND ROLL-OUT OF INNOVATIONS  Chair: S. Swaminathan, Director General of the Indian Council of Medical Research and Secretary of the Department of Health Research, Ministry of Health and Family Welfare, Government of India
From new diagnostics to new treatments: a. The role of new DSTs in determining MDR-TB patient treatment
Christopher Gilpin (Switzerland) 15:30 - 15:45
Scientific Programme

From new diagnostics to new treatments: b. Panel discussion 15:45 - 16:05
Claudia Denkinger (Switzerland)
Ernesto Jaramillo (Switzerland)
Charles Daley (United States of America)
Madhukar Pai (Canada)

From new drugs to new regimens: a. Target regimen profiles for TB treatment 16:05 - 16:15
Christian Lienhardt (Switzerland)
Lice González-Angulo (Switzerland)

From new drugs to new regimens: b. Panel discussion 16:15 - 16:35
Erica Lessem (United States of America)
Michael Rich (United States of America)
Cathy Bansbach (United States of America)
David W Dowdy (United States of America)
Grania Brigden (Switzerland)

From new treatments to prevention: a. Updates on programmatic management of LTBI 16:35 - 16:45
Alberto Matteelli (Italy)

From new treatments to prevention: b. Panel discussion 16:45 - 17:05
Ibrahim Abubakar (United Kingdom)
Jacqueline Shea (United States of America)
Haileyesus Getahun (Switzerland)
Gavin Churchyard (South Africa)
Thomas Scriba (South Africa)

Questions & Answers 17:05 - 17:20

Closing Panel 17:20 - 17:45
Eric Goosby (United States of America)
Stephen Lewis (Canada)
Phumeza Tisile (South Africa)
Mario Raviglione (Switzerland)

Post-graduate course (PGC)
11:00 - 17:30  Session Room 10

03. TB prevention in children and people living with HIV in high-burden settings: contact investigation, active case-finding and preventive therapy

As noted in Pillar 1 of the End TB Strategy, prevention re-emerged as a core strategy for reaching TB targets. This course is for healthcare workers who work in high-burden settings with persons at high risk for TB infection and will specifically address household contacts under the age of five years and persons living with HIV (PLHIV).

Topics include strategies for TB prevention in high-burden countries, diagnosis of latent TB infection in high-risk persons, treatment options, contact investigation and the role of monitoring and evaluation. The format consists of lectures, case studies, role plays and exercises. This course has been planned collaboratively by The Union, WHO and other key players in the End TB Strategy.

Chairperson: Riitta Dlodlo (Zimbabwe)
Coordinator: Alberto Matteelli (Italy)

Overview of course
Riitta Dlodlo (Zimbabwe)
Scientific Programme

Risk factors and vulnerable populations
Chen-Yuan Chiang (Taiwan)

WHO strategy for latent TB infection management
Haileyesus Getahun (Switzerland)

Treatment options for latent TB infection
Neil Schluger (United States of America)

Implementation of the strategy for active case-finding and TB prevention: part 1
Anna Nakanwagi-Mukwaya (Uganda)

Implementation of the strategy for active case-finding and TB prevention: part 2
Riitta Dlodlo (Zimbabwe)

Monitoring of systematic testing and treatment for latent TB infection in children and people living with HIV
Alberto Matteelli (Italy)

Country example of implementation of case-finding and implementation of latent TB infection treatment
Seyou Mohamed Ouedraogo (Burkina Faso)

Conclusion and evaluation
01. Update on clinical and programmatic management of MDR- and XDR-TB

Multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) pose a significant threat to TB control and challenge clinicians and programme managers worldwide due to the complexities in diagnosis, treatment, and case management. This course presents cutting-edge strategies for clinical and programmatic management of MDR-TB for the front-line clinician, nurse, epidemiologist, laboratorian and programme manager, based on the newly updated WHO guidelines. It will use case-based presentations to illustrate internationally recommended practices to address the challenges of MDR-TB diagnosis, treatment and care.

How the post-graduate course is related to the conference:
The course is directly related to the theme of the 47th Union World Conference on Lung Health because addressing the problem of MDR- and XDR-TB will be one of the main challenges as we move forward towards TB control and elimination beyond 2016. Appropriate prevention and management of MDR/XDR TB will be the key for the future of TB control.

Objectives:
1) Present the principles of MDR-TB prevention, diagnosis, treatment and care.
2) Update on recent advances in rapid diagnosis of drug resistance and to discuss how these advances may be applied in the clinical setting
3) Discuss evidence-based management of and controversial issues in the treatment of MDR/XDR-TB and MDR-TB/HIV and other special situations
4) Present cutting edge strategies for the treatment and management of MDR/XDR-TB including new drugs and new drug regimens for the treatment of active disease
5) Introduce programmatic management of MDR-TB in resource-limited settings, especially with a high burden of TB-HIV co-infection, including ambulatory and community-based initiatives
6) Discuss prevention strategies for MDR/XDR-TB
7) Present the most effective strategies for proper management of adverse reactions to second-line anti-TB drugs
8) Update on the ethics principles to guide the prevention, diagnosis, treatment and care of TB

Coordinator: Sundari Mase (United States of America)
Coordinator: Ignacio Monedero (Spain)

Updated guidelines on molecular tests for the diagnosis of DR-TB
Christopher Gilpin (Switzerland)

Use of new anti-TB drugs for treatment of MDR-TB
Malik Parmar (India)

Designing a treatment regimen for MDR-TB according to new WHO guidelines: presentation of a clinical case
Jose Caminero Luna (Spain)

Treatment regimen for special MDR-TB situations in which new drugs are used: presentation of a clinical case
Barbara Seaworth (United States of America)

Treatment of MDR-TB:HIV co-infection, pregnancy
Jennifer Furin (United States of America)

Treatment of MDR-TB: Childhood TB
Hendrik Simon Schaaf (South Africa)

Surgery in management of MDR-TB
Andrei Mariandyshev (Russian Federation)

Management of adverse drug reactions: presentation of a clinical case
Michael Rich (United States of America)
Scientific Programme

**Patient-centred care to enable treatment adherence to new WHO recommendations**
Ernesto Jaramillo (Switzerland)

**Presentation of clinical cases**
Ignacio Monedero (Spain)

**Panel: Questions and final remarks**

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**Post-graduate course (PGC)**
11:00 - 17:30

**Session Room 14**

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**02. Qualitative data inquiry and analysis**

**Course objective:**
To build operational capacity in qualitative research design, data collection, and analysis.

**Description and relevance:**
Qualitative research provides contextualised insight into the social and behavioural contexts of TB related determinants, challenges, and outcomes. There is growing interest to integrate qualitative methods into operational and clinical TB research. This course will strengthen participants’ capacity to evaluate the underlying tenets and methods of qualitative data inquiry and analysis, and apply them to plan relevant and rigorous qualitative research in diverse settings.

The course will cover:

a) Qualitative data collection, with emphasis on semi-structured interviews and field observations
b) Approaches to qualitative data analysis, with emphasis on coding, comparing, and representing qualitative data
c) Adaptation techniques to tackle methodological challenges in the field. The course will be interactive, and utilize case studies and exercises

**Expected outputs:**
1) Understand the principles of qualitative research questions
2) Explore mechanisms to integrate qualitative methods into a current or future project
3) Develop capacity to design a relevant and rigorous qualitative study
4) Learn various approaches to qualitative interview design and implementation
5) Evaluate and apply common frameworks of qualitative data interpretation and analysis

**Coordinator:** Amrita Daftary (Canada)
**Coordinator:** Madhukar Pai (Canada)

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**Qualitative methods: a complimentary lens to traditional operational research**
Madhukar Pai (Canada)

**Tenets of qualitative study design: rigour, ethics and reflexivity**
Amrita Daftary (Canada)

**Asking questions in qualitative research: conducting a semi-structured interview**
Nora Engel (Netherlands)

**Analysing talk, text and observations in qualitative research**
Beverely Stringer (United Kingdom)

**Analysing qualitative data in a complex health system: making sense of magic mountains of data**
Andrew McDowell (France)
Scientific Programme

Wednesday, 26 October 2016

Community Common Cultural Activity: Participatory Activity
07:30 - 08:00

Weaving - our selves, our stories, our society, our strength
Stigma associated with TB leaves communities vulnerable. It prevents early testing, discourages disclosure and painfully isolates patients.

We invite conference delegates to create an artwork as a visual representation of our interdependence and connectivity using string art. Participants will have the opportunity to weave string that is colour coded with their respective countries to promote dialogue and insight - “If it happened to me, it can happen to you.”

The string symbolizes:
· Our connection
Connecting different spheres of the TB world: researchers, health care workers, programme managers, patients and advocates.
· Our dependence
We need each other in this fight against TB! More research with better implementation means improved treatment outcomes.
· Our resistance
“A cord of three strands is not quickly broken” - Ecc 4:29. Together we more resilient to overcome TB.

The string also reminds of a South African game, where two cans are attached by a piece of string and used as a 'telephone'. Being able to speak about your TB status, receiving support from family and friends and unveiling the stigma around TB enables patients and communities to be better equipped to deal with the burden of TB.

We would like to present the artwork to a MDR treatment facility in the Eastern Cape, where patients are severely stigmatized. It would offer them hope and courage and connection to the scientific world.

Coordinator: Andrea von Delft (South Africa)
Coordinator: Chanel Rossouw (South Africa)

Presentation
Phumeza Tisile (South Africa)
Ingrid Oxley (South Africa)
Patricia Bond (South Africa)
Chanel Rossouw (South Africa)

Workshop (WS)
08:00 - 14:30

04. Suppressing resistance emergence in TB programmes using PK/PD science
This is a one-day workshop on pharmacometric approaches to suppressing emergence of multi-drug resistance and optimising existing anti-TB regimens to minimise side effects. The workshop will provide an overview of PK/PD sciences role in chemotherapeutics, optimisation of traditional regimens and defining susceptibility breakpoints for the treatment of TB in adults, babies and toddlers and other special populations including pregnant women and those with comorbid conditions.

Coordinator: Jotam Pasipanodya (United States of America)
Coordinator: Vhudzani Tshisevhe (South Africa)

PK/PD, drug development and role of public-private partnerships
Debra Hanna (United States of America)
**Scientific Programme**

**PK/PD Basics: models, dose selection, therapeutic targets**  
Eric Nuermberger (United States of America)

**Pharmacokinetic variability of anti-TB agents in special populations**  
Paolo Denti

**How TB therapy failure and acquired drug resistances emerges: TB program versus hostpathogen factors**  
Jotam Pasipanodya (United States of America)  
Vhudzani Tshisevhe (South Africa)

**Role of drug gradient in lungs and acquired drug resistance**  
Keertan Dheda (South Africa)

**Defining drug resistance in TB programmes based on PK/PD sciences**  
Tawanda Gumbo (United States of America)

**How to implement PK monitoring in TB programmes: a practical approach**  
Jan-Willem Alffenaar (Netherlands)

**Latest treatment regimens for children with/out drug resistant TB**  
Jotam Pasipanodya (United States of America)

**Monitoring drug concentrations in patients with MDR-TB**  
Scott Heyssell (United States of America)

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**Workshop (WS)**  
08:00 - 14:30  
Hall (Session room) 1C

**03. Operational research skills in one day**

This is a one-day workshop on operational research, providing an overview of the topic, the SORT IT model of operational research capacity building, how to develop a protocol, how to use EpiData to undertake data collection and analysis, how to write a paper and get it accepted for publication and how to change policy and practice. This workshop is designed to show participants what operational research is all about and show how it can help in changing policy and practice in low- and middle-income countries.

The main aim of the workshop is to present the building blocks of operational research to an interested audience. Specific objectives include:

1) Providing an overview of operational research and how this can lead to changes in policy and practice  
2) Presenting the Union-MSF model of capacity building  
3) Demonstrating the principles of developing a research protocol  
4) Organising data collection and performing data analysis using EpiData  
5) Understanding the principles of writing a paper for publication  
6) Understanding how to move research to policy and practice and how to monitor this progress.

Participants will finish the one-day workshop understanding the basic principles of operational research and the capacity building that is needed to develop operational research at a country or programmatic level.

The theme of the conference is <em>Confronting resistance: fundamentals to innovations</em>. This workshop will show participants how operational research on tuberculosis, HIV/AIDS and non-communicable diseases can be used to inform ministries of health, disease-control programmes, health workers and the community about coverage, quality, effectiveness or safety of innovative strategies and innovative interventions to enable policy and practice to be changed for the better to improve the health of people living in resource-poor countries.

Coordinator: Anthony D Harries (United Kingdom)  
Coordinator: Rony Zachariah (Luxembourg)
Operational research: what, why and how  
Rony Zachariah (Luxembourg)

Operational research capacity building  
Anthony D Harries (United Kingdom)

Collection and organisation of data and use of Epidata  
Ajay Kumar (India)

Moving research to policy and practice  
Sven Hinderaker (Norway)

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**Workshop (WS)**  
08:00 - 14:30  
Session Room 3A

**01. Innovative WHO policies to support the End TB Strategy**

Objectives of the workshop are to present the process and methods applied by WHO for policy development and to present updated WHO recommendations on the clinical, ethical and programmatic aspects of diagnosis, prevention, treatment and care of tuberculosis.

Participants in this workshop will learn about updates on the evidence-based recommendations for diagnosis and treatment of drug susceptible TB, drug-resistant TB, latent TB infection, TB care and patient support, TB infection control, social protection, ethics of TB treatment and care, and innovation in the End TB strategy.

Participants will have the chance to understand the development process and contents of WHO policies relevant to the implementation of the End TB strategy, and to discuss or provide feedback on the policy implementation.

Coordinator: Linh Nguyen (Switzerland)  
Coordinator: Ernesto Jaramillo (Switzerland)  
Chairperson: Charles Daley (United States of America)

*Updating the WHO guidelines: scope, process and evidence*  
Dennis Falzon (Switzerland)

*Updated guidance on molecular tests for diagnosis of TB and TB drug-resistance*  
Christopher Gilpin (Switzerland)

*WHO updates on the programmatic management of latent TB*  
Haileyesus Getahun (Switzerland)

*Progress on updating WHO guidance on treatment of drug-susceptible TB*  
Giuliano Gargioni (Switzerland)

*Updated guidance on treatment of drug-resistant TB*  
Charles Daley (United States of America)

*New diagnostic pathways based on the updated policies and implications for clinical practice*  
Fuad Mirzayev (Switzerland)

*Progress on updating WHO guidance on support to treatment adherence and model of care*  
Linh Nguyen (Switzerland)

*Progress on updating guidance on ethics of TB prevention, diagnosis, treatment and care*  
Diego S. Silva (Canada)
Progress on updating WHO guidance on TB infection control
Paul Jensen (United States of America)

Introducing the Companion Handbook to the WHO policies for the management of drug-resistant TB
Ernesto Jaramillo (Switzerland)
Michael Rich (United States of America)

Discussion

Workshop (WS)
08:00 - 14:30
Session Room 3B

02. TB transmission control: advances in the sustainable implementation of the F-A-S-T control strategy and upper room germicidal UV air disinfection.

This workshop focuses on advances in the sustainable implementation of two evolving TB transmission control strategies: F-A-S-T and Germicidal ultraviolet (GUV) air disinfection. F-A-S-T stands for Finding cases Actively, Separating safely, and Treating promptly and effectively based on rapid molecular testing. GUV is a new acronym for upper room Germicidal Ultraviolet air disinfection - removing 'irradiation' from the name because of confusion with more dangerous forms of ionizing radiation. There has been great progress in recent years in implementing both of these approaches, one administrative, the other environmental engineering.

F-A-S-T is based on the premise that traditional TB IC activities focus on known TB cases are often misplaced because known TB cases placed on effective therapy become rapidly non-infectious - long before sputum smear and culture conversion. It recognises that the primary source of transmission in congregate settings is likely to be occupants with unsuspected, untreated pulmonary TB, or persons with known TB with unsuspected, inadequately treated drug-resistant TB. This refocused, intensified administrative approach employs active case-finding and rapid molecular testing to promptly identify and effectively treat all coughing patients entering a facility so that there is no one able to transmit. This workshop will feature programmes around the world that have implemented F-A-S-T in a sustainable fashion.

Although natural ventilation is essential, by definition it is not applicable in all locations day and night. GUV with air mixing is an old technology, but new research has led to evidence of substantial efficacy as well as clear guidelines on how to apply upper room GUV air disinfection. A major obstacle that will be addressed is sustainability - the need for profitable companies to maintain upper room GUV systems because experience has shown that most hospitals cannot. Various examples of sustainable approaches will be shared.

Coordinator: Sevim Ahmedov
Chairperson: Edward Nardell (United States of America)
Chairperson: Max Meis (Netherlands)

Intro and Overview of FAST
Dylan Tierney (United States of America)

FAST in Russia
Viktoriya Livchits (Russian Federation)

FAST in Viet Nam
Hien Le (Viet Nam)

FAST in Bangladesh
Paul Daru (Bangladesh)

FAST in Nigeria
Sani Useni (Nigeria)
Scientific Programme

How to sustain FAST: discussion
Dylan Tierney (United States of America)

Introduction and overview of GUV
Edward Nardell (United States of America)

Sustainable GUV in Russia
Gregory Volchinkov (Russian Federation)

Sustainable GUV: industry perspective
Richard L Vincent (United States of America)

Sustainable GUV in India
Soura Bhattacharyya (India)

Sustainable GUV in South Africa
Toby Van Reenen (South Africa)

Discussion

07. Introduction to the design of a TB TeleECHO programme

The Extension for Community Healthcare Outcomes (ECHO) tele-mentoring model is an innovative evidence-based education and training intervention designed to strengthen the knowledge and practice of clinical care teams in rural and underserved communities. The TeleECHO model—based on a combination of videoconferencing, case-based learning, sharing of best practices, and monitoring outcomes—is being adapted in a growing number of global contexts to expand access to high quality care and treatment for TB in low- and high-burden settings through the development of communities of practice and learning that link national experts with site level TB practitioners.

Objectives:
Introduce participants to basic principles and components of the TeleECHO model for education and training, review examples of adaptation and implementation, and guide participants through development of their own initial design and action plan for a TB TeleECHO programme for their local context.

Expected Outputs/outcomes:
1) Each participant will acquire an understanding of the principles and components of the TeleECHO model for education and training and the variety of ways it has been adapted to support state, national and tribal TB programmes, including drug-resistant TB programmes in Asia, Africa and the Americas.
2) Each participant will begin the process of designing their own TB TeleECHO programme plan of action for their local context with guidance from the faculty using a standard planning template.

Relevance:
TB programme managers and educators working to strengthen state and national TB healthcare capacity will learn about an evidence-based, innovative new model for education, training, and programme quality improvement.

Faculty:
Bruce Baird Struminger (Project ECHO/University of New Mexico)
Lisa Chen (Curry International Tuberculosis Center/UCSF)
Nguyen Viet Nhungh (Viet Nam/NTP)
Maureen Kamene (Kenya/NTP)
Willy Morose (Haiti/PNLT)
David Horne (Firland TB Center/UW)
Diana Fortune (New Mexico/DOH)

Coordinator: Bruce Struminger (United States of America)
Coordinator: Lisa Chen (United States of America)
Overview of the ECHO model for TB and development of a TB MetaECHO community to strengthen TB workforce development globally
Bruce Struminger (United States of America)

Overview of the ECHO model for TB and development of a TB MetaECHO community to strengthen TB workforce development globally
Lisa Chen (United States of America)

Adaptation and implementation of the ECHO model for drug-resistant TB in Viet Nam
Viet Nhung Nguyen (Viet Nam)

Adaptation and implementation of the ECHO model to support migrant and refugee populations with drug-resistant TB in Kenya
Maureen Kamene Kimenye (Kenya)

Implementation of the ECHO model for TB case management in low-incidence settings and among indigenous populations: New Mexico and the Navajo Nation
Diana Fortune (United States of America)

Implementation of the ECHO model for TB case management in low-incidence settings and among indigenous populations: Washington State
David Horne (United States of America)

Adaptation and implementation of the ECHO model for drug-resistant TB in Haiti
Willy Morose (Haiti)

Workshop (WS)
08:00 - 11:00
Session Room 11A

07. Ethics and human rights in prevention, care and control of tuberculosis: challenges and approaches

Ethical questions and challenges around tuberculosis (TB) continue to occur at policy and practice levels. Viewed from a human rights, public health and medical ethics framework, governments and providers have an ethical responsibility to provide treatment to those with TB and to protect the health of others. However, there can be challenges for national TB programmes (NTPs) and providers in providing this care. Some areas where ethical challenges occur include: ensuring access to care including social support for all; including vulnerable populations, the gap between diagnosis and treatment for drug-resistant TB; involuntary isolation of infectious patients; research in TB care and control, adequate protection of healthcare workers and managing infectious non-treatable patients, including palliative and end-of-life care. The USAID/TB CARE II consortium has developed tools, training materials and resources around ethics and palliative care.

The objectives of this workshop are to discuss the concepts of human rights and ethics in TB, raise awareness for NTP staff, healthcare workers (HCWs), NGO staff, advocates and others on application of ethical values in their work and gather input that can be incorporated into future guidance and activities around TB and ethics. The workshop will describe the WHO guidance on ethical prevention, care and control of TB and existing tools and resources. It will include examples of assessment and efforts to improve ethical practices from TB programmes. Case studies and a panel discussion will be included to foster discussion about ethical dilemmas and practical approaches to improve practice around TB and MDR-TB.

The expected output is guidance to inform next steps around TB and ethics activities, including revised tools and resources to be developed on this topic.

Coordinator: Nisha Ahamed (United States of America)
Coordinator: Ernesto Jaramillo (Switzerland)
**Scientific Programme**

**Introduction and polling questions**
Lee Reichman (United States of America)

**Overview of WHO work on promotion of TB and human rights, ethics and equity**
Ernesto Jaramillo (Switzerland)

**Ethical challenges in TB approaches for improvement: South African experience**
Lindiwe Mvusi (South Africa)

**Ethics and TB Research**
Richard OBRIEN (United States of America)

**Tools and training on ethics**
Nisha Ahamed (United States of America)

**Legal efforts to ensure ethical approaches in TB control: Experience from Kenya**
Enos Masini (Kenya)

**Panel discussion Moderator: Rajita Bhavaraju**
Michael Frick (United States of America)
Tsira Chakhaia (Georgia)
Lindiwe Mvusi (South Africa)
Ignacio Monedero (Spain)
Enos Masini (Kenya)

**Q & A**
06. Developing counselling skills for TB caregivers

Description:
Counselling is a critical component of effective TB care. The proposed half-day workshop aims to enhance counselling knowledge and skills of TB care-givers within the framework of Cough-to-Cure Pathway that should help in early TB case detection, early treatment initiation, treatment adherence and successful treatment completion. The workshop will also equip participants with specialised counselling techniques and tools, including measuring effectiveness of counselling, for helping TB patients with drug-resistant TB, TB-HIV co-infection, diabetes, as well as children with TB and persons lost to follow-up.

Objectives:
1) To provide an overview of the importance of counselling in TB patient-centred care and control
2) To learn about the Cough-to-Cure Pathway framework and the treatment-seeking behavior
3) To demonstrate the application of counselling skills and Cough-to-Cure Pathway framework in TB patient counselling
4) To orient participants on the methodologies and tools to measure effectiveness of counselling in TB
5) To equip participants with counselling methodologies and tools in special situations (DR-TB, TB-HIV, etc.)

Expected outcome:
By the end of the workshop participants will:
1) Understand the counselling techniques, tools and methodologies of framework of Cough-to-Cure pathway
2) Be equipped with the necessary soft-skills to provide effective counselling to TB patients, their families and vulnerable communities
3) Be able to measure effectiveness of their TB counselling services
4) Understand special needs and learn about necessary counselling skills for helping patients with drug-resistant TB, TB-HIV co-infection, diabetes, as well as children with TB and persons lost to follow-up to ensure favorable treatment outcomes

Coordinator: Sugata Mukhopadhyay (India)
Coordinator: Gagik Karapetyan (United States of America)

- A brief description of Cough-to-Cure Pathway
  Dennis Cherian (United States of America)
- What is counselling? Various types of counselling
  Jeannette Ulate (Canada)
- Counselling at different stages of Cough-to-Cure Pathway
  Sugata Mukhopadhyay (India)
- Counselling tools in TB care
  Sushma Cornelius (India)
- Enhancing counselling skills to meet the special needs of patients with drug-resistant TB, TB-HIV co-infection, diabetes, children with TB and persons lost to follow-up
  Gagik Karapetyan (United States of America)
- Measuring effectiveness of counseling services: methodologies and tools
  Samuel Blesson (India)
04. An introduction to tuberculosis modelling

This post graduate course is for individuals interested in modelling tuberculosis and the impact of TB care and control programmes.

The key learning objectives include: introducing the participants to the basic structures, assumptions, principles, and concepts of TB modelling, including key aspects of Mtb natural history and the impact and cost-effectiveness of TB care and control programmes.

Participants will also gain hands-on experience of using a TB model and how to critically appraise TB modelling papers.

We end by highlighting the role of modelling for policy and decision making & resources available from the TB Modelling and Analysis Consortium (www.tb-mac.org) and other organisations, for students who are interested in taking their modelling interests further.

The key output of this workshop is a better trained cadre of individuals, who are more able to apply knowledge of the pros and cons of modelling in their current and future roles in TB prevention and care.

Coordinator: Piotr Hippner (South Africa)
Coordinator: Richard White (United Kingdom)
Chairperson: Philip Eckhoff (United States of America)

Lecture 1: An introduction to tuberculosis modelling
Richard White (United Kingdom)

Practical 1: Setting up a model of Mtb
Emilia Vynnycky (United Kingdom)
Tom Sumner (United Kingdom)

Paper discussion: How to critically review a modelling paper
Piotr Hippner (South Africa)
Philip Eckhoff (United States of America)
Gwen Knight (United Kingdom)

Lecture 2: Tuberculosis modelling - interventions
Rein Houben (United Kingdom)
Gabriela Gomez (Netherlands)

Practical 2: Modelling the impact and cost effectiveness of TB interventions
Tom Sumner (United Kingdom)
Emilia Vynnycky (United Kingdom)

Summary of the day
Richard White (United Kingdom)
**5. Confronting resistance: ensuring access to new TB drugs in the WHO European Region with focus on Eastern Europe and Central Asia.**

The WHO recommended bedaquiline and delamanid for the therapy of drug-resistant (DR) TB under specified conditions. The WHO-European Region has the highest rates of DR-TB worldwide including countries of EECA. Introduction of new TB drugs has lagged somewhat behind the need for new treatments, especially in Eastern Europe and Central Asia (EECA). Even after their approval by stringent regulatory authorities in some countries, the actual number of patients treated with bedaquiline and delamanid is still much lower than the actual need. Several settings have already reported some successes in using bedaquiline and delamanid under compassionate use or programmatic conditions but these results have not yet been presented broadly. Lack of knowledge and availability of materials on clinical and programmatic use of new drugs for TB is one of major barriers to accelerate access to new treatments. Limited availability of materials and tools in local languages on regimen design, safety and effectiveness is another challenge, which affects their uptake by national TB programmes.

Expected audience: clinical and public health representatives from countries of the WHO European Region. The workshop will be conducted in English and Russian to accommodate audience needs. Speakers will present successful models of new drug introduction, including materials and tools currently available to guide adequate field use of new drugs for multidrug-resistant TB (MDR-TB). These tools can then be shared with participants for adapted use in other settings.

**Objectives:**

1) To present experiences with introduction of new drugs at country level
2) To share good practices for adequate and rational use of new TB drugs, including training materials
3) To help develop a network of medical and public health providers in EECA who can form a community of practice, providing ongoing support to one another in the expansion of new drug introduction.

**Expected Outcomes:**

1) Materials exchange
2) Formation of virtual community for sharing good practices
3) Increased comfort level about using new drugs among participants

Chairperson: Masoud Dara (Belgium)
Chairperson: Irina Vasilyeva (Russian Federation)

**WHO perspective of sharing knowledge on new TB drugs: regional perspective**
Masoud Dara (Belgium)

**Use of Bedaquiline in the Russian Federation: national roll-out, needs and challenges.**
Irina Vasilyeva (Russian Federation)

**Update from the work of new and repurposed TB drug introduction from the WHO Regional Office for Europe**
Martin van den Boom (Denmark)

**Field management of patients with new TB drugs: examples from the endTB project.**
Michael Rich (United States of America)

**Monitoring and management of patients in the setting of new TB drugs, practical tools: example from Latvia**
Liga Kuksa (Latvia)

**Country report: experience of the use of new TB drugs, example from Georgia**
Nino Lomtatadze (Georgia)

**Ensuring adequate supply of new drugs**
Nigorsulton Muzafarova (Switzerland)
Scientific Programme

Country report: working with national regulatory authorities or around regulations to import the drugs into countries, experience from Kazakhstan
Elmira Berikova (Kazakhstan)

Country report: experience with pharmacovigilance/aDSM from Belarus
Alena Skrahina (Belarus)

Global tendency toward increasing access to BDQ and DLM
Jennifer Furin (United States of America)

Post-graduate course (PGC)
08:00 - 14:30
Session Room 13

05. Making sense and use of routine TB data for management

Overall objective:
The course follows up a Union 2014 conference workshop and a 2015 post-graduate course. It is based on a guide that the national tuberculosis programme (NTP), The Union and TB CARE developed and piloted in Zimbabwe and which is planned as a Union generic guide. The objective is to introduce a simple and user-friendly approach how health staff and managers at facility, district and higher levels tabulate and analyse their own routine TB data for management. Key indicators covering the main components of TB programmes are compared with expected values to identify strengths and challenges and to agree on action points targeting these challenges. The approach is implemented through strengthened supportive supervision which is data-driven, using check lists with summary tables of routine data and through quarterly performance review meetings. The approach will also be set in a regional context.

Expected outputs/outcomes:
Participants will learn the importance of quality data, acquire skills in data tabulation and analysis directly linked to management at facility, district and provincial levels through practical examples, how to carry out strengthened supportive supervision and performance review meetings and how to roll out the approach in countries.

Relevance of the topic for the target audience:
The approach strengthens implementation of the End TB Strategy by focusing on the facility level where TB patients are increasingly being diagnosed and treated, and district level which monitors the network of facilities, identifying both “hot” and “cold” spots where early case detection should be strengthened. The approach makes local staff more motivated, empowered and owners of their data, strengthening data quality, content of supervision, follow-up of training, supplies, usefulness of new tools and ultimately patient care.

The approach promotes the conference theme by preventing and addressing resistant TB, is also relevant for other health programmes and contributes to health system strengthening.

Coordinator: Einar Heldal (Norway)
Coordinator: Christopher Zishiri (Zimbabwe)

The role of reliable TB data and their use for implementing TB programmes - a regional perspective
Saidi Egwaga (Tanzania, United Rep.)

Introduction: Key questions to be answered by the recording and reporting system, indicators to be monitored, recording and reporting tools
Charles Sandy (Zimbabwe)

How to tabulate and analyse data at facility level, with exercises
Mlilo Nqobile (Zimbabwe)

How to tabulate and analyse data at district level, with exercises
Ronald Thulani Ncube (Zimbabwe)
How to do data-driven supportive supervision and to use data for decision-making at different levels.
Nqobile Mlilo (Zimbabwe)

How to use electronic recording in the best way
Patrick Hazangwe (Zimbabwe)

Rolling out the guide in the country and maintaining its use
Einar Heldal (Norway)

Community Common Cultural Activity: Performance
08:00 - 17:00
Piazza

LIVE DISPLAY: ACE-1 Cookstove versus open fire
Throughout the day (at 8am, 12noon and 4pm) a series of open fires will be lit inside miniaturised replica Malawian housing (created by students from Liverpool Life Sciences UTC) on the piazza of the ACC Arena to visibly demonstrate the risks of air pollution and fire. An open fire will be lit and will be contrasted with the ACE-1 Cookstove, an advanced cookstove which reduces smoke emissions to negligible levels and is among the cleanest and most high-tech stoves currently available. The session is coordinated by Dr Kevin Mortimer of the Liverpool School of Tropical Medicine and Operation Florian, a UK-based international humanitarian charity that provides fire engines, equipment and training to the world’s poorest regions.

Community Common Session: Panel Discussion
08:10 - 09:10
Community Common Silent Theatre

Is TB care really free?
Is TB care really free? It is supposed to be, but in fact patients and their families face many costs, from diagnostic costs to transportation, and the disease has an enormous impact on incomes.

How can we get rid of these costs? This panel discussion will present evidence of the impact of these costs and discuss innovative programmatic and policy solutions. Speakers include a survivor of pre-XDR TB who will discuss the impact on her life.

The panel will generate discussion and involvement in the community space and argue that eliminating catastrophic health costs related to TB deserves to be a top priority for advocates and decision makers. We will connect TB advocacy to the broader effort to establish social protection and eliminate poverty.

Coordinator: David Bryden (United States of America)
Coordinator: Sarah Kirk (Australia)

Presentation I
Ines Garcia Baena (Switzerland)

Presentation II
Carlton Evans (United Kingdom)

Presentation III
Ingrid Oxley (South Africa)

Presentation IV
Blessina Amulya Kumar (India)
New Diagnostics Working Group Annual Meeting

At its 2015 Annual Meeting, the New Diagnostics Working Group (NDWG) launched three task forces with the goal of advancing the priorities in TB diagnostics research and development to support the targets of the End TB strategy and the Global Plan to End TB.

This year, we will review progress made since our last annual meeting with a particular focus on the achievements of our Task Force on Tests for progression of latent tuberculosis infection (LTBI) to active disease. The task force coordinator and members will report on the outcomes of an expert workshop convened by the NDWG in July and present a newer understanding of the evolving concept of LTBI diagnosis, as well as advanced drafts of the Target Product Profile (TPP) for a test of progression of LTBI and of the Framework for evaluation of novel LTBI tests. Additional presentations will consider the use of existing molecular tests and the perspectives of next generation sequencing for detection of drug resistance in high TB burden countries, and share a recent overview of the biomarker pipeline for TB detection at the point-of-care level, including for paediatric TB.


Chairperson: Catharina Boehme (Switzerland)
Chairperson: Daniela Maria Cirillo (Italy)

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<th>Time</th>
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<td>09:00 - 09:15</td>
<td>Introduction: Strategic framework for new diagnostics 2016-2020:</td>
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<td>Progress towards Global Plan goals</td>
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<td>Catharina Boehme (Switzerland)</td>
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<td>09:15 - 09:35</td>
<td>Setting the scene for LTBI diagnostics</td>
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<td>Alberto Matteelli (Italy)</td>
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<td>09:35 - 09:55</td>
<td>The evolving concept of LTBI diagnosis: Tests for incipient TB and tests</td>
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<td>Frank Cobelens (Netherlands)</td>
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<td>09:55 - 10:15</td>
<td>Target product profile for a test for incipient TB: Making better</td>
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<td>predictions to improve patient care</td>
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<td>Samuel Schumacher (Switzerland)</td>
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<td>10:15 - 10:35</td>
<td>Guidance document for the evaluation of TB prediction tests to inform</td>
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<td>WHO endorsement – An update</td>
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<td>Frank Cobelens (Netherlands)</td>
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<td>10:35 - 10:45</td>
<td>Q&amp;A and discussion</td>
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<td>10:45 - 11:15</td>
<td>Coffee break</td>
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<td>11:15 - 11:30</td>
<td>Grading of mutations associated with drug resistance and their use in</td>
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<td>Daniela Maria Cirillo (Italy)</td>
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<td>11:30 - 11:45</td>
<td>Optimising patient care with existing molecular screening tests in high-</td>
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<td>Camilla Rodrigues (India)</td>
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### Scientific Programme

**Deeplex-MycTB, an all-in-one test for diagnosis and surveillance of drug-resistant TB**  
Philip Supply (France)

**Part III: Advancing biomarker discovery for TB point-of-care tests**

**The biomarker pipeline for active TB detection**  
Tobias Broger

**Biomarkers for paediatric TB and update on standardized SOPs for pediatric sample collection**  
Rinn Song (United States of America)

**Wrap-up and close of the meeting**  
Daniela Maria Cirillo (Italy)

**Post-graduate course (PGC)**

**06. An introduction to costing tuberculosis strategies and services**

Estimating the costs of achieving the End TB goals is essential for those advocating for increased resourcing, prioritising TB programme resources and planning sustainable financing. This postgraduate workshop will introduce participants to the different approaches for estimating the costs of TB strategies and services, providing an overview of concepts and current practice, as well as outlining cost data and tools currently available. Participants will gain hands-on experience working with cost data for different purposes and appraising cost data quality. We will highlight the use of cost data in TB programme planning and financing. We will also outline the resources available from the Global Health Costing Consortium (GHCC) to support this effort. The workshop is for those who are new to economic costing, and provides an introduction and links to follow-on resources.

**Objectives:**
1. Provide an overview of TB cost data and key concepts
2. Introduce participants to the principles of costing TB services
3. Outline the main steps to be taken in designing a costing study
4. Provide hands-on experience of analysing cost data for different purposes
5. Highlight resources available from the Global Health Costing Consortium

**Coordinator:** Anna Vassall (United Kingdom)  
Coordinator: S Bertel Squire (United Kingdom)

- **Overview of costing**  
  Anna Vassall (United Kingdom)

- **Using cost data in priority setting**  
  Fiammetta Bozzani (United Kingdom)

- **Tea**

- **Principles and processes of cost estimation**  
  Sedona Sweeney (United Kingdom)

- **Lunch**

- **Costing from the patient perspective**  
  Jason Madan (United Kingdom)
Scientific Programme

**Costing data and resources**
Yoko Laurence (United Kingdom)
Gabriela Gomez (Netherlands)

Community Common Cultural Activity: Participatory Activity
09:00 - 17:00
Piazza

**OUTDOOR SOCCER: Kick TB and improve lung health with Liverpool Homeless Football Club**

This session is all about using socially inclusive soccer to kick TB and improve lung health. Liverpool Homeless Football Club will host a programme of mini soccer tournaments on its mobile 4G football pitch on the ACC piazza. The session aims to encourage the participation of those communities affected by HIV/AIDS, TB and other lung diseases, as well as delegates and members of the public.

Community Common Session: Panel Discussion
09:15 - 10:15
Community Common Silent Theatre

**Meaningful community engagement - ‘myth or reality?’**

The Global Coalition of TB Activists (GCTA) serves as a global platform to bridge the gap between civil society organizations and other stakeholders, while ensuring that community is involved in all TB processes. Since its inception in October 2013, the GCTA has contributed significantly to the global TB agenda through its network of activists. The coalition has also founded a strong online presence through a formal website and several other modes of social media.

This session will be targeted at civil society and community groups and will aim to generate a lively and insightful discussion surrounding the on-ground reality of Community Engagement. The session will also seek to educate participants in the nuances of Community Engagement; pitfalls and top priorities. Key speakers will be drawn from the GCTA’s global membership, but the discussion will be kept open and informal so as to allow active participation from attendees. A flexible agenda is as follows:

1. Overview of Community Engagement – GCTA’s experience – GCTA Chair
2. Country and Regional perspectives – GCTA Regional Focal Point
3. Providing resources- experience of donors
4. Building capacity for Community Engagement
5. Open question and experience sharing – “Do you think that members of the affected community are being effectively represented at all levels?”
6. Summary Outcomes of discussion – GCTA Communication and Support Officer

**Presentation I**
Blessina Amulya Kumar (India)

**Presentation II**
Tushar Nair (India)
Aeras stakeholder meeting and luncheon

New, more effective TB vaccines will be essential to achieving the targets put forth in the End TB Strategy. The Aeras stakeholder meeting will provide an update on Aeras's progress and priorities in developing new vaccines, with an emphasis on TB vaccines in clinical development, community engagement in TB vaccine research, and advocacy and resource mobilization. Lunch will be provided.

Workshop (WS)
11:15 - 14:15
Session Room 10


Tuberculosis disease occurs most often within the context of economic and social vulnerabilities, and patients receiving TB treatment services frequently experience other psychological, social and economic problems that may interfere with their ability to complete treatment. The context for this workshop is the recognition that the provision of high quality care for TB, TB-HIV and MDR-TB patients requires effectively addressing the social conditions which underlie the occurrence of TB disease and which can prevent positive outcomes or can expose a TB patient to significant economic or social risk. As we work towards the End TB global strategy, the importance of moving beyond successes in clinical service delivery to better address TB patients’ holistic health and social needs through a patient-centred care model that addresses the context in which the patient experiences illness and care is being increasingly recognised.

Objective:
The objective of this workshop is to present a framework for TB, TB-HIV and MDR-TB projects to better plan, manage, and coordinate delivery of social support and social protection services for TB patients. The workshop will cover lessons from existing TB social support programmes, including URC-supported projects. Discussions will focus on the need for and purpose of different social support components and partnership models with existing service providers.

Expected Outcome:
A conceptual framework for social support for TB patients that session participants can adapt to their own local programmes to review, develop, and monitor social support packages to advance their TB programmatic objectives.

Chairperson: Refiloe Matji (South Africa)
Chairperson: Hala Jassim AlMossawi (United States of America)

Providing comprehensive patient-centered care: A conceptual Framework For Quality TB Care
Refiloe Matji (South Africa)

Ensuring sustainability of social support interventions through strengthening the legal framework for TB control
Tamar Gabunia (Georgia)

Linking social support with Pillar 2/universal healthcare component of End TB Strategy
Samson Malwa Haumba (Swaziland)

Integrating palliative care and end of life care into TB/MDR-TB programmes
Robert Makombe (South Africa)

Mobile cash transfers for MDR-TB patients in Bangladesh
Paul Daru (Bangladesh)
Scientific Programme

Member Meetings (Regional, Section, Sub-section, Working Group)
11:15 - 12:15
Session Room 11A

WG: Countering Tobacco

Workshop (WS)
11:15 - 14:15
Session Room 11B

08. Lessons learnt from increasing access to Bedaquiline and Delamanid for management of drug-resistant TB

The conditional approval to use Bedaquiline and Delamanid in combination with other second line drugs for the treatment of multidrug-resistant TB offers opportunity to the TB community to save more lives with less toxicity. Bedaquiline is now available to countries via a donation agreement between USAID and Janssen (the pharmaceutical companies of Johnson & Johnson) whereby J&J will donate Bedaquiline for 30,000 patients over a four year period with the expected intention to increase access and gather field-based data on the impact of Bedaquiline containing regimen on patients with MDR-TB. Delamanid is now available through a new initiative by the Stop TB Partnership and Otsuka, the drug’s manufacturer where countries can now access Delamanid through the Global Drug Facility (GDF).

The purpose of this session will be to present and share preliminary lessons learned from selected countries that have accessed Bedaquiline and Delamanid through the GDF. This information is relevant as countries plan to introduce Bedaquiline and Delamanid.

Objectives:
1) To provide overall information about the Bedaquiline donation programme and updates on the progress on Bedaquiline donation programme implementation
2) Share countries’ practical experiences on the introduction of Bedaquiline and Delamanid including setting up of the patient adverse drug safety monitoring system
3) Understand critical considerations for successful and timely introduction of Bedaquiline and Delamanid at country level

Expected outcome:
1) Participants will learn what is critical as they plan to introduce Bedaquiline and Delamanid for successful implementation and scale up
2) Participants will recognise diverse countries’ contexts, partners involvement and NTP perspectives in the introduction of Bedaquiline and Delamanid
3) Practical examples on Bedaquiline and Delamanid active drug safety monitoring and management (aDSM) implementation are shared
4) Participants know where to access resources to assist in the planning and implementation of Bedaquiline and Delamanid.

Coordinator: Edmund Rutta (United States of America)
Coordinator: Susan van den Hof (Netherlands)

Access to Bedaquiline and Delamanid through the Global Drug Facility: what you need to know
Andre Zargoski (Switzerland)

Providing technical assistance to build national TB programme readiness to introduce Bedaquiline: lessons learnt
Owunna Chinwe (United States of America)

Providing technical assistance to build national TB programme readiness to introduce Bedaquiline: lessons learnt
Gunta Dravniece (Netherlands)
Scientific Programme

Adoption of bedaquiline under programmatic conditions in Swaziland: country experience and lessons learnt
Weile Sikhondze (Swaziland)

Ensuring drug-safety monitoring and management for patients on Bedaquiline: Georgia experiences
Nino Lomtadze (Georgia)

Understanding barriers that can delay access despite the availability of donated medicines
Vincent Balanag (Philippines)

Overall update on the Bedaquiline donation programme and lessons learnt
Yadiuli Mukadi (United States of America)

Overall update on the Bedaquiline donation programme and lessons learnt
Susan van den Hof (Netherlands)

Creating an understanding of The Union

The session aims to raise awareness about The Union amongst members of civil society. By doing so members of the community as well civil society key players will be clear about the core business of The Union, as well as how it operates.

Chairperson: Carol Nawina (Zambia)
Coordinator: Nomampondo Barnabas (South Africa)

Presentation I
E Jane Carter (United States of America)

WG: Getting Research into Tobacco Control Policy at Regional and Country Level

Chairperson: Roxana Quader (Bangladesh)
Chairperson: Tara Singh Bam (Singapore)
Coordinator: Akramul Islam (Bangladesh)
Coordinator: Shayla Islam (Bangladesh)

A. Presentations on country experiences

Trends on blood sugar change for TB patients during anti-TB treatment in China
Yan Lin (China)

Tobacco control research: evidence to policy action in Myanmar
Aung Tun (Myanmar)

Impact of media mobilization to counter tobacco industry interferences
Ananda Bahadur Chand (Nepal)
The Union 2016 - 47th Union World Conference on Lung Health, 26 - 29 October, 2016, Liverpool, United Kingdom

Scientific Programme

**Tobacco control research priority in Indonesia**  
Theresia Sandra Ratih (Indonesia)  
12:54 - 13:02

**Importance of licensing for tobacco sales in Bangladesh**  
Syed Mahbubul Alam Tahin (Bangladesh)  
13:02 - 13:10

**Update from India**  
Rana Jugdeep Singh (India)  
13:10 - 13:18

B. Identify action plan for 2017  
13:18 - 13:24

C. AOB  
13:24 - 13:30

Community Common Session: Panel Discussion  
13:00 - 14:00

**An advanced cook-stove intervention to prevent pneumonia in children under 5 years old in Malawi: a cluster randomised controlled trial**

Malawi has one of the highest rates of death among infants and the under-fives. Pneumonia is the leading cause of death and morbidity: around 300 per 1000 children under the age of 5 are diagnosed with pneumonia every year. Exposure to smoke produced when biomass fuels (animal or plant material) are burned in open fires is a major avoidable risk factor for pneumonia. In Malawi, where at least 95% of households depend on biomass as their main source of fuel, biomass smoke exposure is likely to be responsible for a substantial burden of this disease. Smoke from burning biomass in open fires also causes other health problems including chronic lung disease, lung cancer, heart disease, stillbirth and low birth weight; it is also thought to be an important driver of global climate change.

In Africa, around 700 million people burn biomass fuels to provide energy for cooking, heating and lighting. The problem extends around the globe where around half the world’s population depend on biomass fuels for their day-to-day energy requirements. Around 4 million people die every year from the effects of biomass smoke.

The panel discussion is to discuss the reasons and experiences behind a trial in rural Malawi which saw households in 150 randomly assigned villages replace their open fire cooking with efficient bio-mass fan assisted cook stoves. The main outcome of interest is pneumonias in children under 5 years of age. Other outcomes include measures of air pollution and economic and social impacts of the stoves.

In addition, with the support of Operation Florian, Merseyside Fire & Recuse Service and local school children, a series of open fires will be lit inside miniaturised replica housing (created by school children) on the piazza of the ACC Arena to visibly demonstrate the air pollution and fire risks.

Coordinator: Kevin Mortimer (United Kingdom)  
Coordinator: Steve Jordan (United Kingdom)

**Presentation I**  
Kevin Mortimer (United Kingdom)  
13:00 - 13:20

**Presentation II**  
Thomas Smith (United Kingdom)  
Zachary Smith (United Kingdom)  
13:20 - 13:30

**Presentation III**  
Steve Jordan (United Kingdom)  
Craig Kelsall (United Kingdom)  
Thomas Smith (United Kingdom)  
13:30 - 13:40
9th FIND Symposium

The FIND symposium will discuss the recent advances as well as priority challenges in TB diagnostic development and implementation in order to support the targets set by the End TB Strategy.

In the first part of the session, FIND and partners will review advances in the TB diagnostics pipeline, including in point-of-care diagnosis and in biomarker discovery. Additional presentations will focus on the upcoming evaluation of the GeneXpert Omni system and on the next revolution in the diagnosis of drug-resistant TB - next generation sequencing (NGS). The two talks on NGS will consider how increased simplification and portability coupled with important cost reductions will make this technology more accessible for laboratories in low- and middle-income countries.

The second part of the session will involve a panel discussion on the theme “Adapting diagnostic pathways to patient needs”. The multi-disciplinary panel will discuss existing barriers to diagnosing patients where they first seek care and referral for individualized diagnosis and care at higher levels of the health system for more complex cases. The panel will consider the end-to-end solutions and country-specific approaches needed in the context of health systems diversity.

Chairperson: Catharina Boehme (Switzerland)
Coordinator: Claudia Denkinger (Switzerland)

Part I - Symposium

Welcome address
Catharina Boehme (Switzerland) 13:30 - 13:45

TB Diagnostics Pipeline - An update
Claudia Denkinger (Switzerland) 13:45 - 14:00

Implementation trials for GeneXpert Omni - Assessing impact and minimizing bias
Adithya Cattamanchi (United States of America) 14:00 - 14:15

Next generation sequencing applications in microbiology
Christiane Honisch 14:15 - 14:30

Implementing a culture-free next generation sequencing solution in LMICs
Timothy Rodwell (Switzerland) 14:30 - 14:45

Blood tests for predicting risk of TB disease
Thomas Scriba (South Africa) 14:45 - 15:00

Coffee break 15:00 - 15:30

Part II - Panel discussion: Adapting diagnostic pathways to patient needs. Moderator: Madhukar Pai, McGill International Centre

Introduction
Christy Hanson (United States of America) 15:30 - 15:45
Scientific Programme

Panel
Anna Marie Celina Garfin (Philippines)
Cristina Giachetti
Christy Hanson (United States of America)
Erica Lessem (United States of America)
Thandar Lwin (Myanmar)
Beatrice Mutayoba (Tanzania, United Rep.)
Anete Trajman (Brazil)

15:45 - 17:00

Member Meetings (Regional, Section, Sub-section, Working Group)
14:00 - 15:00
Session Room 11A

WG: TB Control in Prisons

Special session
14:00 - 18:00
Session Room 5

MPs meeting

Community Common Session: Panel Discussion
14:05 - 15:35
Community Common Silent Theatre

Urban impact: strategies to improve lung health in cities
Over half the world’s population now live in cities. Urbanization can be positive, increasing access to goods and services and accelerating development. However, it can also be disastrous, effecting resources and public health, including infectious disease control and non-communicable diseases. While this can mean epidemics, urban stresses are often harder to detect.

Successful urbanization can be achieved by strengthening health systems and improving availability of data; public engagement; access to healthcare; and emergency response systems. This symposium will explore urban health stresses including TB management, engaging communities in air quality control, health data usage, and other NCD risk factors.

Chairperson: Sandra Mullin (United States of America)

The impact of indoor and outdoor air pollution on lung health
Thomas Matte (United States of America)

The new social determinants of TB: diabetes, smoking, air pollution
Neil Schlugar (United States of America)

Using data to drive lung health policy in China
Quan Gan (China)
13. Civil society: becoming equal and key partners in the national TB response

There has been insufficient engagement of communities and civil society (CS) in the TB response. The traditional top-down, passive biomedical approach to TB has resulted in unmotivated, poorly organised, unintegrated and underfunded communities. Strong networks of civil society partners that engage at a national level and represent, support and are accountable to their constituencies are required if civil society and communities are to be equal and valued partners. By mapping the community response to identify and address barriers and gaps in representation, systems and services the Stop TB Partnership’s Challenge Facility for Civil Society (CFCS) Round 7 grantees are building collaborative inclusive civil society networks at a national level that create the critical partnerships needed to engage in and strengthen a comprehensive and integrated community response. Few countries have existing CS networks operating at a national level. Lessons and achievements from CFCS Round 7 grantees can inform and encourage countries to establish national civil society networks that support and operationalise the implementation of community-driven and more inclusive leadership in the response to TB.

Coordinator: Jacob Creswell (Switzerland)
Chairperson: Kate Thomson (Switzerland)

Stop TB Partnership: challenge facility for civil society
Caoimhe Smyth (Switzerland)

Ramping up civil society engagement in the national response in Ethiopia
Jonniah William-Molle (Tanzania, United Rep.)

Using the community HIV experience in Cambodia to bolster the engagement of communities in the TB response
Choub Sok Chamreun (Cambodia)

The civil society response in the Philippines
Bertrand Pfrominzhauer Kampoer (Cameroon)

Expanding and engaging key populations in TB in the national response
Safar Naimov (Tajikistan)
11. Digital health technology for the End TB Strategy: developing priority products and making them work

The End TB Strategy of the World Health Organization (WHO) projects to bring the TB epidemic in the world to an end in the 20 years after 2015. For this to happen, novel solutions will be needed to address the challenges posed by TB to health professionals and to affected people and communities. Information and communication technology present opportunities for innovative approaches to scale up the support to TB efforts in patient care, surveillance, programme management and eLearning. In September 2015, WHO and the European Respiratory Society (ERS) jointly released a digital health ‘agenda for action’ for the End TB Strategy. This workshop will focus on how digital health innovations are supporting global efforts to improve TB care and prevention.

As an output of this workshop, a short paper will be written and submitted for publication describing the progress in the development of target product profiles (TPPs) to work towards optimised solutions as well as case studies in countries applying some of these technologies.

Coordinator: Mario Raviglione (Switzerland)
Coordinator: Giovanni Battista Migliori (Italy)

- **Introduction**
  Mario Raviglione (Switzerland)

- **WHO, ERS, digital health and the End TB Strategy**
  Dennis Falzon (Switzerland)

- **How much can digital health contribute to global TB control: modelling the evidence**
  Richard Lester (Canada)

- **TB treatment observation using smartphones**
  Richard S Garfein (United States of America)

- **New approaches to adherence support for TB care: the future is now**
  Bruce Thomas (United States of America)

- **Bringing a target product profile for connected TB diagnostics to life**
  Chris Isaacs (Switzerland)

- **Could digital health bring precision medicine within reach of the TB clinician?**
  Zelalem Temesgen (United States of America)

- **Harnessing the power of digital platforms for clinical decision making and programme planning**
  Niranjan Konduri (United States of America)

- **NIKSHAY and AADHAAR as the cornerstones of TB notification in India**
  Kiran Kumar Rade (India)

- **Concluding remarks**
  Giovanni Battista Migliori (Italy)
12. Building capacity for increased attention and support for integrating migrants and mobile populations in national and international TB programmes.

The overall objective of this workshop is to increase attention and support for access to TB prevention, treatment and care services for migrants and mobile populations. Through building capacity of the participants, the workshop will enable an increase in the application of recommended strategies and programmatic approaches by participants when they return to their countries and work to address TB and migration issues. The workshop will utilise validated tools and training materials developed and delivered by experts from The Global Fund, Stop TB Partnership, IOM, who will jointly adapt these key affected populations materials to suit The Union workshop on TB and migration. Civil society organisations, researchers and migrants themselves will be speakers, sharing real operational research evidence from diverse regions of the world including Eastern Europe, Southern Africa and South Asia - all regions of both high migration and TB rates, including MDR-TB challenges.

Outcomes:
1) After the workshop, attendees will utilise rights-based approaches, guidelines for working with key populations and updated evidence-based approaches in TB programming for migrants and mobile populations.
2) Migrants and mobile population beneficiaries and community groups will improve their efforts to integrate with national TB services, and to mobilise resources for TB.

Outputs:
1) Package of TB guidance and tools for key populations and communities adapted and relevant to migration context is available.
2) 'I am a migrant' stories, from the ongoing IOM campaign, will be adapted to collect and edit TB and migration stories. These stories will be packaged for case studies during the workshop and be made available on IOM websites and disseminated to partners to raise understanding of wide range of challenges faced by migrants (workers, refugees, internally displaced, cross-border temporary migrants, trafficked persons, students and other long-term visa applicants, family reunification, etc.)

Coordinator: Poonam Dhavan (Switzerland)
Coordinator: Musa Ernest Mkoko (Swaziland)

Updates and overview: global migration context and TB prevention, care and control
Davide Mosca (Switzerland)

Migrants as key populations in the Global Plan to End TB
Jacob Creswell (Switzerland)

Perspectives from the field: Afghanistan
Ataulhaq Sanaie (Afghanistan)

Perspectives from the field: Romania
Jonathan Stillo (United States of America)

Migrants and mobile populations: engagement of programme stakeholders and communities in the Global Fund-related processes
Ed Ngoksin (Switzerland)
Hyeyoung Lim (Switzerland)

TB and MDR-TB in Southern African mining migrant workers: a migrant worker transforms from patient to survivor and change agent
Musa Ernest Mkoko (Swaziland)

TB and MDR-TB in Southern African mining migrant workers: civil society organisation’s stories of change
Dumisane Simelane (Swaziland)
Integrating migrants in regular and irregular status, in national TB services: research and policy perspectives, and a story from East London, United Kingdom
Dominik Zenner (United Kingdom)

I am a migrant (IAAM) case stories
Poonam Dhavan (Switzerland)

Workshop (WS)
14:45 - 17:45
Session Room 11B

14. What brought about a 10 percent annual decline in TB incidence? Lessons learnt from Japan, Western Europe and North America

The End TB Strategy aims at a 10 percent annual decline in TB incidence globally for 2025 by optimising use of the current tools and pursuing universal health coverage and social protection. Japan achieved annual TB reduction of 10 percent from 524/100,000 in 1960 to 61/100,000 in 1980. Japan Anti-Tuberculosis Association (JATA) will conduct a series of workshops in World and Asia Pacific Union Conferences to discuss what vehicles of such a reduction were and what lessons and implications to TB high-burden countries are to achieve the End TB Strategy targets. As the first workshop at Liverpool, we will review experiences of Japan, North America and Western Europe to identify the similarities and the differences among those countries.

Objectives:
1) To explore factors of the countries with a 10 percent annual decline in the TB incidence after the World War II by analysing their medical systems, policies, legal frameworks, measures against TB, or social welfare associated with case detection, prevention and uninterrupted treatment and care in those countries
2) To discuss why such activities or systems could be put into practice in such countries at that time and why not in the current high TB burden countries with the economic growth
3) To identify such activities, systems or lessons learnt from such experiences which can be applied to the current high burden countries

Expected outcomes:
The participants understand how and what activities and systems against TB were implemented in such countries with a high decline rate and envisage what need to be done by multi-sectoral approach to accelerate the decline rate in their countries. Discussion points from the workshop as well as the experiences shared among the participants will be used for more detailed discussion as the next step so that the End TB Strategy can be translated into actions.

Coordinator: Kosuke Okada (Japan)
Chairperson: Chakaya Muhwa (Kenya)
Chairperson: Paula Fujiwara (United States of America)

Global and HBC's trend of TB notification: why we couldn't observe a significant decline under Stop TB Strategy
Ikushi Onozaki (Switzerland)

Experiences in Japan: universal health coverage, social protection and other counter-measures against TB
Akihiro Ohkado (Japan)

Experiences in Western Europe: improved living conditions and nutrition, and chemotherapy
Charlotte Jackson (United Kingdom)

Experiences in North America: dramatic decline in TB incidence among Canadian native population
Anne Fanning (Canada)
Workshop (WS)
14:45 - 17:45
Session Room 11C

15. Building environment for active case detection, treatment management and adherence using the rural T4D model

As a technology for development (T4D) organisation ZMQ established a fully technology-linked rural model for TB management and treatment. The model is based on a bottom-up approach, where the patients and communities are not mere beneficiaries but key stakeholders in the design. ZMQ believes that ubiquitous mobiles and their networks are important in the redesign.

This new technology linked development model brings together the existing service providers like diagnostic centers, PHCs, TB Units and DOTS Centers close to Local NGOs & other key resources, community, families and patients. This leads to a new opportunities in combating TB and related diseases with patients and communities as central to it.

Session Design:
Under this session ZMQ will give a presentation of its active compliance system being established in Mewat Distrcit in Haryana in India with over 2500 patients and now also being established in Uganda (as a pilot). The session will bring key stakeholders integrated in the new design like the network of former patients, families of patients, community radio (Radio Alfaz-e-Mewat), self-help networks, Vodafone recharge association in Mewat, MIRA workers (CHWs) in Mewat and representatives of DOTS providers network and District TB office of Mewat in Haryana.

The session will cover the following:

1) How to build and establish a community-integrated model for TB management and treatment
2) How to integrate local resources and knowledge to build support system for TB management
3) How to design new technology interventions in TB treatment at rural or community levels
4) Demonstrate roles of different local stakeholders in this integrated model and their roles in awareness building, case detection and referrals, treatment adherence and community support supervision and treatment mangment.

Coordinator: Subhi Quraishi (India)
Coordinator: Syed Fasihuddin (Pakistan)

Role of community radio in the fight against TB
Puja Murada (India)

Patients mobile-based active compliance
Pravin Raj (India)

Holistic rural model for combatting TB
Subhi Quraishi (India)

Digital communication for BCC: TB awareness building
Hilmi Quraishi (India)
Scientific Programme

Workshop (WS)
14:45 - 17:45
Session Room 12

09. Quality chest X-ray (CXR) for TB diagnosis in adults and children

Although widely used for TB diagnosis for more than a century, the role of chest X-rays (CXR) has received very limited attention in global TB control strategies in the past. The End TB Strategy reconsiders the importance of CXR in triage and diagnostic approaches for TB case-detection as well as for preventive therapy for latent TB infection (LTBI). There are recognised challenges and limitations: observer error, disagreement between readers, poor image quality, limited access to quality and safe X-ray equipment, cost often borne by patients or families - all leading to misdiagnosis (over-and under-diagnosis). There have been a number of improvements in the technology that could result in greater accuracy of diagnosis, improved access, less diagnostic delays, and improved safety. However, capacity building on CXR reading with proper training tools, quality control methods through rechecking of reading, place of CXR in the diagnosis algorithm and proper recording and reporting are some of the steps needed to improve quality CXR in TB diagnosis.

Objectives:
1) To define place of CXR in active case finding and TB diagnosis
2) To discuss the strategy and challenges to improve triage and diagnosis with proper use of CXR
3) To explore innovative X-ray equipment and protection

Expected outcomes:
The workshop will provide an update on the evidence of benefit and importance of quality CXR as a screening tool for triage and early TB diagnosis for adult and childhood.

Coordinator: Pierre-Yves Norval (France)
Coordinator: Chen-Yuan Chiang (Taiwan)

WHO recommendations on the use of chest radiography for screening, triaging and diagnosis of TB
Cecily Miller (United States of America)

Chest X-ray initiative in Tanzania and Myanmar: country experiences on CXR training and use of CXR in TB diagnosis
Si Thu Aung (Myanmar)
Beatrice Mutayoba (Tanzania, United Rep.)

Capacity building on chest X-ray reading
Etienne Leroy-Terquem (France)
James Seddon (United Kingdom)

IOM tele-radiology quality control systems.
Sifrash Meseret Gelaw (Philippines)

Review of existing computer aid diagnosis (CAD) and retrofit DR plates
Frank Cobelens (Netherlands)

Member Meetings (Regional, Section, Sub-section, Working Group)
14:45 - 15:45
Session Room 14

WG: Asthma management in low- and middle-income countries
Community Common Session: Panel Discussion
15:40 - 16:40

Engaging, mobilizing and utilizing communities in the fight against TB (Community Common Abstract Presentations)

Chairperson: Zolani Barnes (South Africa)

- Integrating strategy of door-to-door TB screening and mapping to improve TB cases detection in Depok City, West Java, Indonesia
  - Anna Rozaliyani (Indonesia)
  - Time: 15:40 - 15:45

- Mobilizing and screening Vulnerable TB communities in the Kanifing Municipal Council (KMC) in The Gambia
  - Omar Malleh Ceesay (Gambia)
  - Time: 15:45 - 15:50

- Factors affecting the acceptance of Directly Observed Therapy (Dots) of tuberculosis in communities. a case of Kawempe community, Kampala, Uganda
  - Abel Tumusiime (Uganda)
  - Time: 15:50 - 15:55

- Adherence is not a pipe dream: effective community-based TB services for PLHIV
  - Dean Lewis (India)
  - Time: 15:55 - 16:00

- Community engagement for TB care and control: experience from a Hilly State in India
  - Deepak Ranjan Mishra (India)
  - Time: 16:00 - 16:05

- Empowered community volunteers improve case finding in access-poor areas
  - Teodoro Jr Yu (Philippines)
  - Time: 16:05 - 16:10

- Community tracing system performance for people affected by tuberculosis during Ebola epidemic in Conakry, Guinea
  - Nimer Ortuno Gutierrez (Belgium)
  - Time: 16:10 - 16:15

- Strengthening community level management to improve TB control services in Quezon City, Philippines
  - Arthur Lagos (Philippines)
  - Time: 16:15 - 16:20

- Celebrity advocacy to fight stigma and discrimination against TB
  - Aparajita Suman (India)
  - Time: 16:20 - 16:25

- Opportunities and challenges in involvement of non-formal healthcare providers to control tuberculosis among migrant population: lessons from TB REACH project
  - Ambarish Dutta (India)
  - Time: 16:25 - 16:30

- Webinars connecting lung health journalists and advocates with experts around current priorities
  - Rahul Kumar Dwivedi (India)
  - Time: 16:30 - 16:35

- Multi-pronged strategies for enhancing awareness and early detection of TB patients among marginalised and vulnerable population
  - Sripriya Pandurangan (India)
  - Time: 16:35 - 16:40
Scientific Programme

Member Meetings (Regional, Section, Sub-section, Working Group)
16:00 - 17:30
Session Room 11A

**WG: TB Education and Training, Regional Mobilisation of Nurses and Allied Professionals and Best practice for patient-centred-care**

Member Meetings (Regional, Section, Sub-section, Working Group)
16:00 - 17:00
Session Room 13

**WG: TB infection control**

Presentation
16:00 - 16:10

Member Meetings (Regional, Section, Sub-section, Working Group)
16:00 - 17:00
Session Room 14

**WG: TB and Mental Health**

Member Meetings (Regional, Section, Sub-section, Working Group)
17:00 - 18:00
Hall (Session room) 1C

**WG: Maternal-Child TB**

Presentations
17:00 - 17:10

Community Common Cultural Activity: Participatory Activity
17:15 - 18:15
Community Common Silent Theatre

**Lung yoga with Sahir House - increasing lung capacity with breathing techniques**

Sahir House is Merseyside's HIV support, information and training center. It has been offering services for over 30 years. At this point in the afternoon, Sahir House's Well Being practitioners will run two 30 minute yoga sessions. These are seated exercises focused on increasing lung capacity, sense of breath and relaxation. These sessions are accessible to all, including wheelchair users. Instructions will be in English and handouts will be available to take away.

Coordinator: Serena Cavanagh (United Kingdom)

Presentation
Kath Charters (United Kingdom)
Scientific Programme

Plenary session (PL) (inc Opening and Closing)
18:00 - 20:00
Plenary Hall

Inaugural Session

The opening of the conference will feature a keynote address by Stephen Lewis, co-founder and director of AIDS-Free World, whose prestigious career includes serving as Deputy Executive Director of UNICEF, United Nations (UN) Special Envoy for HIV/AIDS in Africa and Canadian Ambassador to the UN.

The session will also include remarks from The Union President Dr E Jane Carter and Executive Director José Luis Castro, as well as the presentation of The Union Medal.

Entertainment by Liverpool band “Sing Your Socks Off” will feature persons living (and singing) with COPD and asthma who, through the Breathe Easy Programme of the Merseyside Health Trust, have recovered their lung capacity through singing.

A Welcome Reception for all delegates, exhibitors and accompanying persons will be held immediately afterwards, hosted in conjunction with the City of Liverpool. All will have the opportunity to enjoy the thematic specialties and cultural delights for which Liverpool enjoys worldwide renown.

Chairperson: E Jane Carter (United States of America)
Chairperson: Stacie Stender (South Africa)

Official Opening 18:00 - 18:10
Welcome Remarks 18:10 - 18:15
Jose Luis Castro (France)

Award Presentation: The Union Medal 18:15 - 18:20
E Jane Carter (United States of America)

Announcing the World TB Day Theme 18:20 - 18:25
Lucica Ditiu (Switzerland)

Confronting Resistance 18:25 - 18:55
Stephen Lewis (Canada)

Coordinating Committee of Scientific Activities 18:55 - 19:00
Stacie Stender (South Africa)

Welcome Reception 19:00 - 20:00
01. The preserving effective TB treatment study (PETTS): methods, final results, conclusions, and policy implications

PETTS was a large prospective cohort study, enrolling 1,761 patients in 9 countries starting in 2005, following them with monthly sputum cultures to 2010. Thanks to the efforts of over 85 investigators at 26 sites and 17 laboratories in 10 countries, a patient database was established with clinical, treatment, and laboratory data, a laboratory database with specimen-level results for drug susceptibility testing, genotyping, and DNA sequencing, and an archive of over 5,500 isolates. The study’s methods and final results to date will be presented and policy implications discussed with active participation of the audience.

Chairperson: Ruwen Jou (Taiwan)

Goals, study population, methods
Ekaterina Kurbatova (United States of America) 07:30 - 07:50

Main results
Peter Cegielski (United States of America) 07:50 - 08:10

Implications for policy and research
Ernesto Jaramillo (Switzerland) 08:10 - 08:30

Panel discussion, Q & A 08:30 - 08:45

Adjourn

02. Pushing the boundaries: use of new TB drugs, the MSF experience

Chairperson: Philipp du Cros (United Kingdom)
Chairperson: Alena Skrahina (Belarus)

Update on MSF projects and global scale up of new and repurposed drugs
Krzysztof Herboczek (United Kingdom) 07:30 - 07:45

Description and preliminary results of patients receiving Dlm in MSF-NTP projects
Catherine Hewison (France) 07:45 - 08:00

Dlm-Bdq combination: programmatic aspects and preliminary results of patients receiving Dlm and Bdq combination in MSFNTP projects
Gabriella Ferlazzo (South Africa) 08:00 - 08:15

Extending Bdq or Dlm beyond 24 weeks: description and preliminary results of patients receiving Dlm or Bdq longer than 24 weeks
Animesh Sinha (India) 08:15 - 08:30
The Union 2016 - 47th Union World Conference on Lung Health, 26 - 29 October, 2016, Liverpool, United Kingdom

Scientific Programme

**Children and adolescents under Dlm: description and preliminary results of children and adolescents receiving Dlm**
Sylvie Jonckheere (India)  
08:30 - 08:45

**Discussion**  
08:45 - 09:00

Community Common Cultural Activity: Participatory Activity  
07:30 - 08:00

**Stories from behind the masks**

TB is a highly stigmatized disease. With this interactive session we aim to connect conference participants to the stories of patients who have personally experienced TB stigma.

Join us to share in the stories, help us look for ways to break down stigma and send a personal message of hope and encouragement to TB patients in South Africa.

Chairperson: Helene-Mari van der Westhuizen (South Africa)  
Coordinator: Koot Kotze (South Africa)

**Presentation**

Koot Kotze (South Africa)  
Helene-Mari van der Westhuizen (South Africa)

Meet the expert session (MTE)  
07:45 - 08:45  
Session Room 11A

**02.Confronting resistance: need for policy change against new industry tactics**

Changing industry approach to women  
Mira Aghi (India)

Innovative strategies for newer tactics of tobacco industry  
Elif Dagli (Turkey)

This session aims at discussing the need to develop new policies to fight against the changing targets, products and marketing methods of the “tobacco industry”. Women have been an appealing target for the industry for many decades. The new strategies to increase women customers and new proposals for solution will be debated. The new set of products industry is about to market will be a game changer. The experts will question the readiness of tobacco control advocates and policy-makers to change the conventional strategies.

**Innovative strategies for newer tactics of tobacco industry**  
07:45 - 07:55  
Elif Dagli (Turkey)
Meet the expert session (MTE)
07:45 - 08:45

01. Comprehensive community care for children affected by TB
Anne Detjen (United States of America)

The community is the ideal place to identify children at risk of or with TB, and to ensure they and their families receive appropriate care and support. During this session we want to discuss bottlenecks and opportunities for community health systems to efficiently address childhood TB.

Presentation
07:45 - 07:55
Anne Detjen (United States of America)

Member Meetings (Regional, Section, Sub-section, Working Group)
07:45 - 08:45

WG: TB and Migration
Chairperson: Poonam Dhavan (Switzerland)

TB and migration WG update
07:45 - 08:45
Poonam Dhavan (Switzerland)
Deliana Garcia (United States of America)
Alexandra Todd

Meet the expert session (MTE)
07:45 - 08:45

03. MDR-TB clinical management of adults and children
Alena Skrahina (Belarus)

MDR-TB is a global threat. We are going to talk about current approaches to M/XDR-TB diagnostics and treatment. We will also cover the recent emergence and implementation of rapid diagnostics, new and repurpose drugs as well as new regimens based on them.

MDR-TB clinical management of adults and children
07:45 - 08:05
Alena Skrahina (Belarus)

Member Meetings (Regional, Section, Sub-section, Working Group)
07:45 - 08:45

WG: Global Indigenous Stop TB Initiative
Scientific Programme

Plenary session (PL) (inc Opening and Closing)
09:00 - 10:00

**Plenary Session 1: Confronting resistance**

**Chairperson:** Janet Hemingway (United Kingdom)
**Chairperson:** Catharina Boehme (Switzerland)
**Chairperson:** Hon Stephen Mule (Kenya)

- **The impact of air pollution on adult and child lung health**
  09:00 - 09:15
  Thomas Matte (United States of America)

- **Changing course without rocking the boat: lessons learnt from implementing TB genomics in public health**
  09:15 - 09:30
  Jennifer Gardy (Canada)

- **Funding innovation to confront resistance**
  09:30 - 09:45
  Janet Ginnard (Switzerland)

Community Common Networking Activity
10:15 - 11:15

**A deadly duo: combatting TB and HIV through policy change**

People living with HIV are especially vulnerable to tuberculosis (TB). Despite being preventable and treatable, the airborne disease is responsible for one out of every three HIV-related deaths. While efforts have been made to integrate TB and HIV programs, many gaps remain. Only people with TB-HIV co-infection successfully complete TB treatment. Two-thirds of people with TB-HIV lack access to life-saving antiretroviral treatment, many clinics lack access to new diagnostic tools, and current vertical programs treat require patients to travel to one clinic to receive their HIV care, and another clinic to receive TB care.

Civil society, affected communities, policymakers, and donors have a critical role to play in achieving TB-HIV integration and address the medical, financial, and structural barriers to quality HIV and TB prevention, treatment, and care.

This session will be a panel discussion/chat show feel with donors, civil society, affected communities, policy makers and parliamentarians to discuss ACTION latest research on TB HIV integration, identify gaps and opportunities and to strategise on next steps going forward.

**Coordinator:** Rachael Crockett (United Kingdom)

*Presentation*
The Global TB Caucus - how to get involved and how to contribute

The Global TB Caucus is a unique international network of political representatives with support in more than 100 countries. Led by its members for its members, with the support of a dedicated Secretariat, the members of the Caucus work collectively and individually to end the TB epidemic. The Caucus is committed to developing and supporting local political representatives to lead the fight against the disease in their own context. To that end delegates have committed to establishing regional and national level Caucuses under the auspices of the Global TB Caucus.

This session is envisioned as a means for delegates to the Conference to learn about the work being done by the Caucus, through its regional bodies, and to find out how they can become involved in the Caucus. Sessions will be as follows:

1. Introduction to the Global TB Caucus
2. What does the Caucus do, and how?
3. How can you get involved?
   a. Interacting with Members of Parliament
   b. Getting MPs to sign the Barcelona Declaration
   c. Setting up a National TB Caucus
4. Open Session – Questions and clarifications

Coordinator: Tushar Nair (India)

Presentation I
Sarah Kirk (Australia)

Presentation II
Tushar Nair (India)

Ministerial Session

The Ministerial Special Session will be an integral component of the conference to mirror political commitments and actions in achieving the global targets of ending TB and tobacco. The session will highlight four principle areas: political leadership, priority setting to end TB, tobacco control and non-communicable diseases (NCDs), resource mobilisation and policy implementation. The session will host an interactive discussion informed by international experiences and best practices, as well as the local innovation and experience of the participating Health Ministers.

Dr Paulyn Jean B. Rosell-Ubial, Secretary of Health, Philippines
Hon Rajitha Senaratne, Minister of Health, Nutrition and Indigenous Medicine, Sri Lanka
Hon Pagwesese Parirenyatwa, Minister of Health, Zimbabwe

Oral Abstract session (OA)
10:30 - 12:00

01. Resistance to TB drugs: new moves and what next?

Chairperson: Grant Theron (South Africa)
Chairperson: Anthony D Harries (United Kingdom)
**Scientific Programme**

**OA-300-27** *Ethical and political challenges related to new and emerging TB drugs and diagnostics*

Renaud Boulanger (Canada)  
10:30 - 10:40

**OA-301-27** *Are time to positivity and the molecular bacterial load assay telling us a different story in a mouse tuberculosis model?*

Gerjo de Knegt (Netherlands)  
10:40 - 10:50

**OA-302-27** *Transcriptional analysis of genes associated with rapid acquisition of multidrug resistance in Mycobacterium tuberculosis*

Kalpana Sriraman (India)  
10:50 - 11:00

**OA-303-27** *Role of efflux pumps in conferring resistance in extensively drug-resistant Mycobacterium tuberculosis strains*

Zahra Hasan (Pakistan)  
11:00 - 11:10

**OA-304-27** *Evaluation of the Genoscholar FQ+KM-TB II (NIPRO, Japan) for detection of resistance to fluoroquinolones and second-line injectables*

Leen Rigouts (Belgium)  
11:10 - 11:20

**OA-305-27** *Performance characteristics of Abbott RealTime-MTB and RealTime INH/RIF-Resistance Assays for direct detection of M. tuberculosis and genetic resistance markers*

Sabine Hofmann-Thiel (Germany)  
11:20 - 11:30

**OA-306-27** *Different sensitivities of rapid phenotypic and genotypic methods for low-level rifampicin resistance conferring rpoB mutations*

Gabriela Torrea (Belgium)  
11:30 - 11:40

**OA-307-27** *Evaluation of access to drug susceptibility testing for previously treated tuberculosis patients in Botswana, 2013-2014*

Rosanna Boyd (Botswana)  
11:40 - 11:50

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**Short Oral Abstract session (SOA)**

10:30 - 12:00  
Hall (Session room) 1B

**01. Drugs, vitamins, valves: the diversity of TB clinical trials**

Chairperson: Christopher Kuaban (Cameroon)  
Chairperson: Paul Nunn (United Kingdom)

**SOA-500-2** *Can micronutrient supplementation prevent TB in vulnerable household contacts? A randomised controlled trial*

Matthew J Saunders (United Kingdom)  
10:30 - 10:38

**SOA-501-2** *Effect of moxifloxacin on QTc interval in adults with pulmonary tuberculosis*

Dina Nair (India)  
10:38 - 10:46

**SOA-502-2** *Bedaquiline for extensively drug-resistant or pre-XDR Mycobacterium tuberculosis: interim results of an early access study*

Irina Vasilyeva (Russian Federation)  
10:46 - 10:54

**SOA-503-2** *Resistance to pyrazinamide and ethambutol among MDR-TB participants in a clinical trial in Lima, Peru*

Carolina Moran (Peru)  
10:54 - 11:02
Scientific Programme

SOA-504-2  
Baseline and pharmacokinetic factors associated with individual outcome in the PanACEA-MAMS-TB-01 trial: lessons for regimen and trial design  
Norbert Heinrich (Germany)  
11:02 - 11:10

SOA-505-2  
Delayed tuberculosis treatment response or failure? Predictors and outcomes of month two culture non-conversion among HIV-negative patients: a Rifatox Trial Sub-study  
Daniel Atwine (Uganda)  
11:10 - 11:18

SOA-506-2  
The effectiveness of treatment in patients with destructive pulmonary TB depending on the mode of administration of anti-tuberculosis drugs  
Mykhailo Kuzhko (Ukraine)  
11:18 - 11:26

SOA-507-2  
The efficacy of endobronchial valve installation in a complex therapy of destructive pulmonary drug-resistant tuberculosis  
Denis Krasnov (Russian Federation)  
11:26 - 11:34

SOA-508-2  
Challenges in supply of investigational medicinal products for MDR-TB clinical trials  
Jan Komrská (United States of America)  
11:34 - 11:42

SOA-509-2  
Tuberculosis clinical trial activity on the African continent: analysis of tuberculosis trials registered on the Pan African Clinical Trials Registry  
Vittoria Lutje (United Kingdom)  
11:42 - 11:50

Symposium (SP)  
10:30 - 12:00  
Hall (Session room) 1C

02. Pneumonia: supportive clinical management where there is no intensive care

Beyond making the diagnosis of pneumonia, and the initial choice of antibiotics, there is much to tax the clinician. In acutely unwell adults and children, supportive treatments for pneumonia have the potential to alter the clinical course of disease. This symposium aims to highlight and discuss current issues in clinical care where there are minimal intensive care facilities available, including:

- How do we know who is at greatest risk?
- Who should receive oxygen, and how should we deliver it?
- How much intravenous fluid is enough? And how much too much?

Chairperson: Jamie Rylance (United Kingdom)  
Chairperson: Stephen Graham (Australia)

Oxygen support in severe respiratory illness: implementation where there is no ICU  
10:30 - 10:45

Support for patients with sepsis: a relevant agenda where there is no ICU  
10:45 - 11:00

How can risk stratification benefit children with pneumonia?  
11:00 - 11:15

Eric McColum (United States of America)

How can risk stratification benefit adult patients with pneumonia?  
11:15 - 11:30

Stephen Aston (United Kingdom)

Biomarkers of pneumonia: are new diagnostics on their way, or far away?  
11:30 - 11:45

Enitan Carrol (United Kingdom)

Discussion  
11:45 - 12:00
Symposium (SP)
10:30 - 12:00
Session Room 3A

01. High-dose rifampicin: recovering an old drug in the post-multidrug-resistant TB era

Rifampicin has been the cornerstone of TB treatment since its development in the 1960s. A number of developments threaten that position of primacy today. Global prevalence of MDR-TB exceeds 3 percent in new and 20 percent in previously treated patients. The induction of metabolic and transporter enzymes and implications for interactions with other anti-TB drugs and antiretrovirals represents another threat. Nevertheless, a number of efforts to optimise the use of rifampicin may serve to prolong its utility. This symposium will present the state-of-the-art and will finish with a panel discussion on the future of rifampicin in TB treatment.

Chairperson: Carole Mitnick (United States of America)
Chairperson: Martin Boeree (Netherlands)

- **High-dose rifampicin in pulmonary TB**
  - Gerry Davies (United Kingdom)  
  
- **Drug-drug interactions with rifampicin and implications for its use with new anti-TB drugs and in HIV-coinfected TB patients**
  - Kelly Dooley (United States of America)

- **High-dose rifampicin in TB-meningitis**
  - Rob Aarnoutse (Netherlands)

- **Adjunctive therapies and other approaches to extending the useful life of rifampicin**
  - Tawanda Gumbo (United States of America)

- **Panel discussion on the future of rifamcyins for TB treatment in the face of resistance**
  - Patrick Phillips (United Kingdom)

- **Discussion**

Symposium (SP)
10:30 - 12:00
Session Room 11A

04. Active TB drug safety monitoring and management: a transformative approach to limit treatment-related patient harm

Reporting adverse events (AEs) from real-life clinical practice contributes to evidence for decision making that impacts prescribing practices and improves treatment safety. In 2015 The World Health Organization launched the active drug safety monitoring and management (aDSM) strategy. The strategy aims to promote the safe use of new TB medicines and novel regimens and develop a robust safety database to proactively protect public health.

This symposium will:
- Describe the impact of current AE data deficiencies
- Discuss efforts to standardise reporting
- Share experiences of aDSM implementation in two MDR-TB programmes
- Provide updates on the global data repository for TB AEs

Chairperson: Ernesto Jaramillo (Switzerland)
Chairperson: Antonia Kwiecien (United States of America)
## Scientific Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 10:30 - 10:45 | Limitations and problems of current MDR-TB treatment adverse event reporting  
Richard Menzies (Canada) |
| 10:45 - 11:00 | Reporting adverse events within the framework of aDSM: parameters and approaches  
Dennis Falzon (Switzerland) |
| 11:00 - 11:15 | Adverse events reporting for anti-tuberculosis medicines in the Philippines: current situation, experiences and lessons learnt  
Anna Marie Celina Garfin (Philippines) |
| 11:15 - 11:30 | Improving TB patient safety and management: the Georgia experience  
Nino Lomtadze (Georgia) |
| 11:30 - 11:45 | Consolidating safety information collected in countries in the context of aDSM  
Christin Halleux (Belgium) |
| 11:45 - 12:00 | Discussion |

### Oral Abstract session (OA)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>10:30 - 12:00</td>
<td>Session Room 11B</td>
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</tbody>
</table>
| 10:30 - 10:40 | Finding the missing 20%: active TB case finding through engagement of private health care providers in Mombasa County, Kenya  
Duke Mobegi (Kenya)  
OA-308-27 |
| 10:40 - 10:50 | Effective use of corporate social responsibility (CSR) strategies to accelerate TB control in Mumbai, India  
Daksha Shah (India)  
OA-309-27 |
| 10:50 - 11:00 | From their own perspective: community perceptions of tuberculosis in a rural district of Eastern Tigray, Northern Ethiopia  
Yohannes Gezahagn (Ethiopia)  
OA-310-27 |
| 11:00 - 11:10 | Addressing TB vulnerability among the seven indigenous tribes of Bukidnon Province, Philippines  
Ricardo Reyes (Philippines)  
OA-311-27 |
| 11:10 - 11:20 | Reaching the hard to reach: finding the missing cases  
Ngak Song (Cambodia)  
OA-312-27 |
| 11:20 - 11:30 | Engagement of public figures as catalysts for change  
Anumegha Bhatnagar (India)  
OA-313-27 |
| 11:30 - 11:40 | The TB Forum: building coalitions for evidence-based parliamentary advocacy to end TB  
Michelle Imison (Australia)  
OA-314-27 |
<table>
<thead>
<tr>
<th>Session Number</th>
<th>Title</th>
<th>Time</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OA-315-2</td>
<td>Importance of documentation and data management for advocacy: case study of ‘Call to Action for a TB-free India’</td>
<td>11:40 - 11:50</td>
<td>Sonali Bhatnagar (India)</td>
</tr>
<tr>
<td>SOA-511-2</td>
<td>The social determinants underlying tuberculosis diagnostic delay: a mixed methods study</td>
<td>10:38 - 10:46</td>
<td>Lily Bonadonna (United States of America)</td>
</tr>
<tr>
<td>SOA-512-2</td>
<td>Perceived barriers and facilitators of isoniazid preventive therapy among people living with HIV in South Africa</td>
<td>10:46 - 10:54</td>
<td>Hae-Young Kim (United States of America)</td>
</tr>
<tr>
<td>SOA-513-2</td>
<td>Cultural adaptation and validation of the tuberculosis-related stigma scale in Brazil</td>
<td>10:54 - 11:02</td>
<td>Ricardo Alexandre Arcêncio (Brazil)</td>
</tr>
<tr>
<td>SOA-514-2</td>
<td>Delays of tuberculosis diagnosis in patients from a tuberculosis referral hospital in urban southeastern China</td>
<td>11:02 - 11:10</td>
<td>Leonardo Martinez (United States of America)</td>
</tr>
<tr>
<td>SOA-515-2</td>
<td>Predictors of delay in seeking tuberculosis care in South Kivu Province, Democratic Republic of the Congo</td>
<td>11:10 - 11:18</td>
<td>Eric Musafiri (Congo (Democratic Rep.))</td>
</tr>
<tr>
<td>SOA-516-2</td>
<td>‘Anything to do with TB is dangerous’: exploring barriers to uptake of household TB screening intervention in Blantyre, Malawi</td>
<td>11:18 - 11:26</td>
<td>Kruger Kaswaswa (Malawi)</td>
</tr>
<tr>
<td>SOA-518-2</td>
<td>A pilot study to investigate the relationship between illness perception and clinical characteristics in patients with pulmonary tuberculosis in South Korea</td>
<td>11:34 - 11:42</td>
<td>Jinsoo Min (Korea, Republic of)</td>
</tr>
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</table>
Scientific Programme

Symposium (SP)
10:30 - 12:00
Session Room 12

03. Tackling second-hand smoking: a life course approach

The trajectory of non-communicable disease (NCD) risk starts early in the life-course, and interventions in these early years allow the child to achieve the highest attainable health. Exposure to second-hand smoke (SHS) during pregnancy, infancy and early life years increases the risk of developing many NCDs in children in later years. In this symposium, we will describe the extent and the associated risks of SHS exposure early in the life-course and highlight how innovative approaches in ante-natal, postnatal and primary school settings can be effective in reducing this risk of developing cancers, cardiovascular diseases and chronic lung diseases in later-life.

Chairperson: Heather Thomson (United Kingdom)
Chairperson: Rumana Huque (Bangladesh)

10:30 - 10:45
Prevalence of second-hand smoke exposure during pregnancy: a secondary analysis of demographic and health surveys in 30 low- and middle-income countries
Sian Reece (United Kingdom)

10:45 - 11:00
Why do men smoke in the home? A qualitative investigation with pregnant women, their husbands and family members
Cath Jackson (United Kingdom)

11:00 - 11:15
Interventions to reduce home exposure to second hand smoke in pregnant women: findings from a systematic review and modified Delphi survey
Mukesh Dherani (United Kingdom)

11:15 - 11:30
Second-hand smoke exposure in children in low-income countries with smoke free laws: a school-based survey in Bangladesh
Kamran Siddiqi (United Kingdom)

11:30 - 11:45
What can be done with schools to protect children from second-hand smoke exposure
Rumana Huque (Bangladesh)

Discussion

Oral Abstract session (OA)
10:30 - 12:00
Session Room 13

03. Prisons, slums and the homeless

Chairperson: Lucie Blok (Netherlands)
Chairperson: Eric Pevzner (United States of America)

OA-316-27 Role of mass screening in uncovering outbreaks of TB in correctional settings
Toini Auala (Namibia)

OA-317-27 Yield of systematic screening for tuberculosis among vulnerable populations using enhanced diagnostic tools and algorithms in Palawan, the Philippines
Kyung-Hyun Oh (Korea, Republic of)
Scientific Programme

**OA-318-27**  Effectiveness of active TB case finding among prisoners in two prisons in Afghanistan
Mohammed Khaled Seddiq (Afghanistan)

**OA-319-27**  Role of systematic screening in improving tuberculosis case detection in selected urban slums of Bangladesh
Toufiq Rahman (Bangladesh)

**OA-320-27**  The impact of the Xpert® MTB/RIF assay in pulmonary tuberculosis case detection during house-to-house active case finding in urban slum dwellers
Haruna Ismaila Adamu (Nigeria)

**OA-321-27**  Computational modeling of TB epidemiology in Nigerian urban slum environments
Stewart Chang (United States of America)

**OA-322-27**  Transmission events revealed in tuberculosis contact investigations in London, 2012-2014
Sean Matthew Cavany (United Kingdom)

**OA-323-27**  Tuberculosis contact tracing outcomes in London, 2012-2014
Sean Matthew Cavany (United Kingdom)

**Symposium (SP)**
10:30 - 12:00
Session Room 14

05. Addressing healthcare disruption and minimising drug resistance development among TB patients affected by conflict arising from armed resistance in Syria

The civil war in Syria is the product of resistance; the marches that started peacefully have spiraled into civil war with no clear resolution in sight. Ten million people have been displaced and healthcare systems, including TB programmes, have been devastated. Many are living in conditions conducive to the spread of TB. The political leadership has resisted parties attempting to provide assistance. Displaced persons comprise a substantial proportion of the missing three million. This symposium will explore the aspects of the disruption of healthcare and the current state of TB control in Syria and refugee host countries.

Chairperson: Latha Rajan (United States of America)
Chairperson: Gillian Richardson (United States of America)

- **Tuberculosis control in the Syrian Conflict - A physician's perspective**
  Aula Abbara (United Kingdom)
  10:30 - 10:45

- **Conflict and the interruption of TB treatment among Syrians**
  Aula Abbara (United Kingdom)
  10:45 - 11:00

- **The international impact of the Syrian civil war on TB care delivery: Management of TB in displaced populations in Lebanon, Jordan and Iraq**
  Aleksandar Galev (Jordan)
  Saiful Qayyum (Jordan)
  11:00 - 11:15

- **Discussion**
  11:15 - 11:25
Asbestos-related disease support groups: a survey of their organisational structures and activities

Hazards to workers in developing countries from asbestos-related lung disease

Objectives: Mesothelioma is a devastating disease that has a high emotional impact on patients, their families and carers. Patient organisations play an important role in the supportive care of patients with asbestos-related diseases (ARDs), especially those with mesothelioma. The psychosocial sequelae and complex benefit and compensation claims associated with mesothelioma have resulted in a need that is not met by standard health and social care services. The Asbestos Victims Support Groups (AVSGs) were founded in response to this unmet need. Members of the AVSG UK Forum adhere to a set of principles that includes specifying the nature of relationships with lawyers. The aim of this study was (1) to provide a comprehensive picture of the way Forum AVSGs are set-up, their day-to-day organisation and operational activity and (2) to develop a survey instrument that could be used to monitor and support group development and impact in the future.

Methods: A survey form, developed by the authors in collaboration with the ASVG UK Forum, was distributed by email in December 2015 to all 20 Forum support groups. Nine responses (45%) have been received to date. The survey remains open until 31 January 2016 and it is predicted that the response rate will rise when reminders are sent out in mid-January.

The rest of this abstract, including the results and conclusion, is available to view online at www.asbestosdiseases.org.uk, and will be presented at the event.

Acknowledgement. First submitted to the International Mesothelioma interest Group (IMiG) conference, Birmingham, UK 1-4 May 2016 and published in the conference abstract/journal.

Authors.
Dr Helen Clayson
Honorary Research Fellow,
Centre of the Social History of Health and Healthcare,
GCU and the University of Strathclyde
Dr Kate Hill
Visiting Senior Research Fellow
Leeds Institute of Health Sciences

Hazards to workers in developing countries from asbestos-related lung disease

Developed countries are dumping hazardous materials overseas because Health & Safety regulations prevent them from so doing within their own territories. Furthermore, obsolete ships, railway carriages, (and many other manufactured goods that have been insulated with asbestos), are transported to developing countries in order to be dismantled and their components recycled locally. This has led to worrying levels of contamination of the reception sites themselves and also of the surrounding environment. Significant health hazard is therefore posed to local residents as well as those working in the shipbreaking & recycling processes who are rarely provided with personal protective equipment.

Coordinator: John Flanagan (United Kingdom)
Coordinator: Jeff Morgan (United Kingdom)

Presentation I
John Flanagan (United Kingdom)

Presentation II
Jeff Morgan (United Kingdom)
### Scientific Programme

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>EP-100-27</td>
<td>The global burden of drug-resistant tuberculosis in children: a mathematical model</td>
<td>Pete Dodd (United Kingdom)</td>
</tr>
<tr>
<td>EP-102-27</td>
<td>Low-dose linezolid therapy attains putative pharmacokinetic/pharmacodynamic efficacy and toxicity targets in tuberculosis: meta-analysis and Monte Carlo simulation</td>
<td>James Millard (United Kingdom)</td>
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<tr>
<td>EP-104-27</td>
<td>Latent tuberculosis infection and tuberculosis disease in paediatric contacts of drug-resistant tuberculosis patients in Armenia</td>
<td>Helena Huerga (France)</td>
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<tr>
<td>EP-106-27</td>
<td>Pediatric drug-resistant TB case finding and treatment outcomes in a decentralized setting in the Eastern Cape</td>
<td>Lenny Naidoo (South Africa)</td>
</tr>
<tr>
<td>EP-107-27</td>
<td>Treatment effectiveness among new isoniazid-resistant tuberculosis cases in Latvia</td>
<td>Signe Peirága (Latvia)</td>
</tr>
<tr>
<td>EP-108-27</td>
<td>Efficacy and tolerability of linezolid for the treatment of extensively drug-resistant tuberculosis in Latvia</td>
<td>Ilze Pētermane (Latvia)</td>
</tr>
</tbody>
</table>
On the Front Line: the role of front line health workers in preventing and treating lung diseases and NCDs

The NCD Dialogues session 1 -
The NCD dialogues is a collaborative series organised by the supporters of the NCD Alliance.

People living with lung diseases, and in particular additional NCD co-morbidities, require ongoing complex and holistic care. With increasingly ageing populations in both developed and developing countries, the burden of these co-morbidities is continually growing, and yet health systems are ill-equipped to respond. In order to respond effectively to NCD co-morbidities, there is a need to place a strong emphasis on the value of early prevention, strengthen and reorient health systems for chronic conditions, to integrate care across lung health and other NCDs. The role of front line health workers is instrumental both in educating the population on NCD prevention, and in delivering integrated care for people with NCDs.

Objectives:
- Understand the unique role of frontline healthcare workers in educating, supporting and caring for patients with Lung Health and NCDs
- Discuss current areas of weakness for healthcare systems to respond to lung diseases and NCD co-morbidities
- Explore good practice in reorienting health systems for integrated chronic care (e.g. early TB screening for people with diabetes; chronic care)

Lunch will be provided.

Coordinator: Tiphaine Lagarde (Switzerland)
Chair: Katie Dain, Executive Director, NCD Alliance

Chairperson: Katie Dain (Switzerland)

Dr. Edward Nardell, Professor of Medicine, Harvard Medical School, Division of Global Health Equity, Brigham & Women's Hospital.

Dr. Ramya Ananthakrishnan, Executive Director, Resource Group for Education and Advocacy for Community Health (REACH)

Degu Jerene Dare, Deputy Director, Management Sciences for Health (MSH)
Scientific Programme

Member Meetings (Regional, Section, Sub-section, Working Group)
12:15 - 13:15
Session Room 14

Middle-East Regional Meeting
Presentation
12:15 - 12:25

E-poster session (EP)
12:15 - 13:15
Session Room 5

02. From screening and integration to outcomes
Chairperson: Katharina Kranzer (United Kingdom)

Allan Nkwata (United States of America)

EP-111-27 Psycho-social support to children and adolescents with HIV and infected with tuberculosis: a forgotten crucial element for TB-HIV treatment adherence
Atuganile Musyani (Tanzania, United Rep.)

EP-113-27 Improving ART access in TB services in selected facilities in South Africa
Jebson Zingwari (South Africa)

EP-114-27 Optimizing the detection of TB among key populations using the Xpert® MTB/RIF assay in Northwest Cameroon
Collins Titahong (Cameroon)

EP-115-27 Assessment of intensified case finding and isoniazid preventive therapy at health facilities providing HIV care and treatment services in Namibia
Helena Mungunda (Namibia)

EP-116-27 Integration of TB and AIDS case management for migrants using the Reach-Recruit-Test-Treat and Retain (RRTTR) strategy
Chintana Thamsuwon (Thailand)

Joseph Musaazi (Uganda)

EP-118-27 The impact of drug abuse on treatment outcomes of HIV-TB cases reported to the Hong Kong TB-HIV Registry, 2008-2013
Chi Kuen Chan (China)

EP-119-27 Predictors of tuberculosis recurrence in adult patients treated in Nyanza Region, Kenya
Daniel Matemo (Kenya)

E-poster session (EP)
12:15 - 13:15
Session Room 6

03. Childhood MDR-TB, epi, detection, isoniazid preventive therapy and training
Chairperson: Karen Du Preez (South Africa)
Scientific Programme

Tehreem Mohiyuddin (United Kingdom)

Sarah E. Smith (United States of America)

EP-122-27 Evaluation of pediatric multidrug-resistant tuberculosis contact monitoring outcomes in Kyiv, Ukraine
Yana Sheremeta (Ukraine)

EP-123-27 Effect of drug resistance on risk of M. tuberculosis transmission to young children
Vera Golla (South Africa)

EP-124-27 Measuring the yield of an innovative TB REACH contact tracing strategy in Swaziland
Katherine Ngo (United States of America)

EP-125-27 Implementation, challenges, and outcomes of a Stop TB Partnership TB REACH school-based TB contact tracing project in Swaziland
Rachel Golin (United States of America)

EP-126-27 Empowering lay volunteers to implement a simple evaluation protocol to improve TB detection among hospitalized malnourished children in Malawi
Humphrey Chatenga (Malawi)

EP-127-27 Improving childhood TB detection, treatment and reporting using new tools, intensified screening and incentives
Ataulhaq Sanaie (Afghanistan)

EP-128-27 Decentralization of HIV care through Option B+: operationalizing an opportunity to improve IPT uptake in children
Jacqueline Firth (United States of America)

EP-129-27 TB Kids e-Training: operational implementation of the Union's online childhood TB course for health care workers in South Africa
Lienki Du Plessis (South Africa)

E-poster session (EP)
12:15 - 13:15  Session Room 8

04. Revolution: harnessing mobile technologies to support client-centred care
Chairperson: Richard Lester (Canada)

EP-130-27 The use of mobile applications in patient-centred care: experience from a pilot in Beijing, China
Jian Du (China)

EP-131-27 Utilizing a full complement of communication strategies to maintain mobile patients in care
Deliana Garcia (United States of America)

Seup Park (Morocco)
Scientific Programme

EP-133-27  
**Using mobile phones to ensure that referred tuberculosis patients reach their treatment facilities: a call that makes a difference**
Kimcheng Choun (Cambodia)

EP-134-27  
**Mobile text messaging for joint interventions on tuberculosis and tobacco control**
Surabhi Joshi (Switzerland)

EP-135-27  
**Treatment adherence among TB patients in the private sector: combination of technology and human touch**
Muktai Panchal (India)

EP-136-27  
**Factors contributing to good TB treatment adherence among patients in North West Region of Cameroon**
Asanga Achidi Zaccheous (Cameroon)

EP-137-27  
**Mobile banking system to aid MDR-TB patients and DOT providers can help TB program to save time and money**
Paul Daru (Bangladesh)

EP-138-27  
**SMS for sure: Use of mHealth for tuberculosis care in Delhi, India**
Kamal Chopra (India)

EP-139-27  
**Utilization of information on tuberculosis disease, available diagnostic and treatment services among helpline callers in five states of India**
Shekhar Waikar (India)

E-poster session (EP)
12:15 - 13:15  
**Session Room 9**

05. Better TB services for better treatment outcomes

Chairperson: Christopher Zishiri (Zimbabwe)

EP-140-27  
**Factors associated with interruption of tuberculosis treatment among patients in Nandi County, Kenya, 2015**
Sammy Rop (Kenya)

EP-141-27  
**Narrowing the gap between cure and treatment success over four years: sign of improved quality of TB treatment follow-up**
Dereje Habte (Ethiopia)

EP-142-27  
**Gender differences in tuberculosis diagnosis and treatment in an industrialised low-incidence setting: Victoria, Australia, 2002-2014**
Justin Denholm (Australia)

EP-143-27  
**Investigation of non-conversion for bacteriologically confirmed tuberculosis in Emfuleni Sub-District, Gauteng, South Africa**
Tumi Mbengo (South Africa)

EP-144-27  
**TB treatment strategies and risk of default: a quasi-experimental study**
Fernando Rubinstein (Argentina)

EP-145-27  
**Isoniazid and ethionamide resistant mutations are associated with poor treatment outcomes among MDR-TB patients in South Africa**
Lesibana Malinga (South Africa)
Scientific Programme

EP-146-27 Development and validation of a complexity scale to improve management of vulnerable TB patients in the North West of England
Peter Macpherson (United Kingdom)

Muaz Hassan (Sudan)

EP-235-27 Determinants of loss to follow-up and pathways to care during an intensified case finding study in Dar es Salaam, Tanzania
Grace Mhalu (Tanzania, United Rep.)

Poster discussion session (PD)
12:15 - 13:15

01. An intimate relationship: drug resistance and genes

Row 1

Chairperson: Richard Anthony (Netherlands)

PD-600-27 Molecular and phenotypic diagnosis of ethionamide resistance in Mycobacterium tuberculosis: a seven-year experience in France
Alexandra Aubry (France)

PD-601-27 Lack of association between genotypic polymorphisms in ubiA and ethambutol resistance in clinical isolates of Mycobacterium tuberculosis in North India
Mandira Varma-Basil (India)

PD-602-27 Persistence of highly drug-resistant Beijing strain in the Eastern Cape region of South Africa
Halima Said (South Africa)

PD-603-27 Insights into the application of whole genome shotgun sequencing of M. tuberculosis in the highly endemic region of Mumbai, India
Nerges Mistry (India)

PD-604-27 Pattern of rpoB gene mutations in Mycobacterium tuberculosis isolates of pulmonary TB patients using Xpert® MTB/RIF in Ethiopia
Jemal Seid (Ethiopia)

PD-605-27 Detection of isoniazid and rifampicin resistance in clinical Mycobacterium tuberculosis isolates from Pakistan using the GenoType® MTBDRplus assay
Hasnain Javed (Pakistan)

PD-606-27 Detection of multidrug resistance and characterization of mutations in Mycobacterium tuberculosis isolates, IRL Dharampur, Himachal Pradesh, India
Vinod Mehta (India)

PD-607-27 Evaluating next generation sequencing pipelines for Mycobacterium tuberculosis complex genome reconstruction
Boatema Ofori-Anyinam (Belgium)

PD-608-27 Resistance-conferring mutations with fitness cost among HIV-positive individuals from Uganda
Willy Ssengooba (Uganda)
Scientific Programme

PD-609-27  Performance of spoligotyping applied directly on sputum for genotypic characterization of Mycobacterium tuberculosis complex
Bouke De Jong (Belgium)

PD-610-27  Nationwide molecular typing of Mycobacterium tuberculosis complex among retreatment cases in Benin, West Africa
Dissou Affolabi (Benin)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

02. Integration of services: attitudes and lessons learned

Row 3

Chairperson: Muhammad Osman (South Africa)

PD-611-27  Knowledge of tuberculosis and treatment adherence among people living with HIV/AIDS and tuberculosis in Ibadan, Nigeria
Funmilola Oyelami (Nigeria)

PD-612-27  Assessment of facility readiness to provide integrated services for HIV and TB in Namibia
Helena Mungunda (Namibia)

PD-613-27  Extent of HIV co-infection and provision of services among TB patients in Myanmar
Si Thu Aung (Myanmar)

PD-614-27  HIV testing among TB patients rises from 2% to 70% in 7 years in Jharkhand, India
S Nayak (India)

PD-615-27  Assessment of uptake of antiretroviral therapy among HIV-infected TB patients in Nigeria
Bethrand Odume (Nigeria)

PD-616-27  Assessment of uptake of antiretroviral therapy among HIV-infected TB patients in Namibia
Helena Mungunda (Namibia)

PD-617-27  TB-HIV service integration among co-infected patients in Kapkatet district hospital
Cheruiyot Sambu (Kenya)

PD-618-27  Administrative interventions increase antiretroviral initiation in patients with HIV and drug-resistant tuberculosis in the co-epidemic region of Irkutsk, Siberia
Scott Heysell (United States of America)

PD-619-27  Improving the quality of integrated TB-HIV health care services through dual SIMS tool administration and capacity building: experiences from Kebbi State, Nigeria
Nneka Onuaguluchi (Nigeria)

PD-620-27  Improved TB-HIV collaborative activities via health system strengthening in two regions of Ethiopia
Tadesse Anteneh (Ethiopia)

PD-621-27  Integration of isoniazid preventive therapy into routine elimination of Mother-to-Child Transmission (eMTCT) HIV services in a Ugandan urban health facility
Mary Gorreth Nabukenya-Mudiope (Uganda)
Scientific Programme

PD-622-27  Pattern of TB-HIV co-infection among people living with HIV/AIDS: economic importance of IPT in supported health facilities in Northern Nigeria
Ginika Egesimba (Nigeria)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

03. Childhood asthma and TB: a potpourri
Row 6
Chairperson: Leslie Enane (United States of America)

PD-623-27  Care givers’ asthma knowledge and quality of life in asthmatic children requiring re-attendance for emergency care with acute asthma in Esmeraldas, Ecuador
Cristina Ardura-Garcia (United Kingdom)

PD-624-27  Asthma control among children aged 5-17 years attending Mulago Chest Clinics
Julian Abeso (Uganda)

PD-625-27  Impact of training in childhood TB in Bangladesh: a rapid assessment report
Paul Daru (Bangladesh)

PD-626-27  Evaluating the capacity of clinicians to assess children for TB, and need for isoniazid preventive therapy in Uganda: opportunity for quality improvement
Samuel Kizito (Uganda)

PD-627-27  Managing childhood TB in a high-burden district in South Africa: getting the basics right
Lienki Du Plessis (South Africa)

PD-628-27  Paediatric patient support through TB character “Buddy Beat TB” in South Africa
Lerato Legoabe (South Africa)

PD-629-27  The use of fixed-dose combinations of drugs for treatment of pulmonary tuberculosis in children
Anna Starshinova (Russian Federation)

PD-630-27  Integrating childhood TB care in public-private mix in Pakistan: reaching the unreached
Nauman Safdar (Norway)

PD-631-27  Pediatric TB: reverse contact tracing efforts in a rural setting of Pakistan
Sara Siddiqui (Pakistan)

Rutger Bennet (Sweden)

PD-633-27  A retrospective review to determine neonatal tuberculosis in KwaZulu Natal, 2012-2014
Munira Khan (South Africa)
Scientific Programme

Poster discussion session (PD)  
12:15 - 13:15  
Poster Area

04. New developments in basic science

Row 13

Chairperson: Thomas Scriba (South Africa)

PD-634-27 Effect of aldehyde dehydrogenase 2 genetic polymorphism on human airway stem/progenitor cell function in vitro  
Jingtao Gao (China)

PD-635-27 Pre-exposure to household air pollution dampens human alveolar macrophage responses during Mycobacterium tuberculosis infection  
Vera Unwin (United Kingdom)

PD-637-27 Comparative study of Piper nigrum, Piper album and Piper longum on various characteristics of pyrazinamide and ethambutol microspheres  
Prashant Pingale (India)

PD-638-27 Increased growth due to overexpression of cholesterol import gene in M. tuberculosis H37Rv  
Pooja Singh (India)

PD-639-27 Pharmacodynamic interaction assessment of anti-tuberculosis drugs in a pre-clinical setting  
Oskar Clewe (Sweden)

PD-640-27 Assessment of pharmacodynamic interactions in tuberculosis infected mice using the Multistate Tuberculosis Pharmacometric Model and the General Pharmacodynamic Interaction Model  
Chunli Chen (Sweden)

PD-641-27 Antipyrine derivatives in the treatment of tuberculosis  
Poonam Tripathi (India)

PD-642-27 A novel therapeutic vaccine against tuberculosis in the cynomolgus monkey model: preclinical study and clinical trial  
Masaji Okada (Japan)

PD-643-27 Observational study of the duration of protection of school age BCG vaccination in England  
Patrick Nguipdop Djomo (United Kingdom)

PD-644-27 ICAM-1: a potential link between tuberculosis and type 2 diabetes mellitus  
Naila Malkani (Pakistan)

05. "Help!": no drugs, no programme

Row 14

Chairperson: Amrita Daftary (Canada)

PD-645-27 Implementation of digital health tools facilitates strategic information for decision making on TB pharmaceutical management in Tajikistan  
Gulnora Jalilova (Tajikistan)
Scientific Programme

PD-646-27  Interventions for program implementation of bedaquiline in Georgia
Zaza Avaliani (Georgia)

PD-648-27  Sustainable engagement of pharmacists in TB care and control: experiences from the PRATAM Project, India
Vikas Panibatla (India)

PD-649-27  An analysis of supply chain management policies to reduce stockouts of drugs for MDR-TB
Louzanne Bam (South Africa)

PD-650-27  Benefits of implementing an early warning system to improve decision making in five African countries
Salama Mwatawala (Tanzania, United Rep.)

PD-651-27  Private pharmacists: a vital link in the PPM model for TB control in Chennai city, India
Ramya Ananthakrishnan (India)

PD-652-27  Uzbekistan’s new approach to tackle the MDR-TB burden through an institutionalized early warning and quantification system
Maya Kavtaradze (United States of America)

PD-653-27  Aligning TB control activities to the devolved system of governance in Kenya
Alice Wairia (Kenya)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

06. Raising TB awareness

Row 8
Chairperson: Joel Mayowa (Nigeria)

PD-654-27  Engaging Laskar TB Remaja (The Youth TB Warriors) in Depok City, Indonesia: a new hope in enhancing TB awareness
Anna Rozaliyani (Indonesia)

PD-655-27  Effectiveness of a door-to-door outreach strategy on pulmonary TB detection in two health zones in Kinshasa, DRC
Jean Pierre Sylvain Simelo Kahodi Sy (Congo (Democratic Rep.))

PD-656-27  Comparison of awareness about mode of TB transmission among the general population in 2011 and in 2013
Manish Kumar (India)

PD-657-27  Government and community challenge obstacles and create a model of high compliance with legislation in Tehri, a difficult hilly terrain
Govind Kumar Tripathi (India)

PD-658-27  How risky are the innovative strategies that involve community health volunteers in sputum sample collection, packaging and transportation? Mombasa, Kenya
Benson Otieno Ulo (Kenya)

PD-659-27  Working with empowered community health volunteers and community health workers as a cornerstone to intensify active case finding in Kajiado
Timpiyian Leseni (Kenya)
Scientific Programme

PD-660-27  Role of rural health care providers in TB prevention and care: experience from a civil society initiative, India  
Sripriya Pandurangan (India)

PD-661-27  Gender differences in disclosure among TB-HIV patients reporting to some health facilities in the Greater Accra region of Ghana  
Hannah Benedicta Taylor-Abdulai (Ghana)

PD-662-27  Achievements in smoke-free area implementation and ban on tobacco advertising, promotion and sponsorship in Kulon Progo District, Indonesia: an effort to protect public health  
Nanik Prasetyoningsih (Indonesia)

PD-663-27  Concept of Axshya Village, a tuberculosis-free village: a potential End TB strategy  
Sajna Sarasita Nayak (India)

Poster discussion session (PD)  
12:15 - 13:15
Poster Area

07. Issues surrounding TB: "medicines make you feel good though they can also make you feel sick"

Row 19

Chairperson: Wendy Lee Wobeser (Canada)

PD-664-27  Systematic review and meta-analysis of the effect of fluoroquinolones on time to culture negativity in drug-susceptible tuberculosis  
Berit Lange (Germany)

PD-665-27  The effectiveness of inhaled nebulized chemotherapy in patients with newly diagnosed pulmonary tuberculosis with concomitant tuberculosis of trachea and bronchi  
Mykhailo Kuzhko (Ukraine)

PD-666-27  Usefulness of moxifloxacin in tuberculous meningitis  
Ricardo A Martinez (Colombia)

PD-667-27  The use of moxifloxacin in the treatment of patients with pulmonary TB associated with viral hepatitis B and C  
Mykhailo Kuzhko (Ukraine)

PD-668-27  The impact of hepatitis C co-infection on tuberculosis drug-induced liver injury  
Angeline Poh Gek Chua (Singapore)

PD-669-27  Non-linear increase in exposure following higher rifampicin doses characterized by saturation in the elimination as determined using population pharmacokinetic analysis  
Robin Svensson (Sweden)

PD-670-27  Variability in adverse event grading scales used to assess the safety of high-dose rifampin in TB trials  
Meredith Milstein (United States of America)

PD-671-27  Adverse reactions associated with second-line anti-tuberculosis drugs among patients with M/XDR-TB in Tbilisi, Georgia  
Mariana Buziashvili (Georgia)
Scientific Programme

PD-672-27 Local therapy for non-specific endobronchitis in patients with pulmonary tuberculosis
Ekaterina Pavlova (Russian Federation)

Poster discussion session (PD)
12:15 - 13:15

08. Knowing the enemy: MDR-TB epidemiology I
Row 21
Chairperson: Chen-Yuan Chiang (Taiwan)

Hannah Kirking (United States of America)

PD-674-27 Understanding the profile of multidrug-resistant TB patients in Delhi, India
Shekhar Waikar (India)

PD-675-27 High prevalence of drug-resistant tuberculosis reported from a hilly, remote district of India under the Revised National TB Control Programme
Quazi Toufique (India)

PD-676-27 Paradigm shift in presumptive DR-TB: MDR-TB diagnosis in Bangladesh
Nazis Arefin Saki (Bangladesh)

PD-677-27 Trend of fluoroquinolone resistance in MDR cases in Pakistan
Sabira Tahseen (Pakistan)

PD-679-27 Drug resistance pattern of patients with multidrug-resistant tuberculosis in South Korea: a multicenter study, 2010-2014
Jeong Ha Mok (Korea, Republic of)

PD-680-27 Distribution of MDR-TB cases by residence in Uganda: a time series analysis
Denis Joel Sama (Uganda)

PD-681-27 The true burden of MDR-TB in health settings in England: a focus on prevalent cases
Maev K Lalor (United Kingdom)

PD-682-27 Drug resistance patterns in rifampin-resistant and rifampin-susceptible tuberculosis in China
Guirong Wang (China)

PD-684-27 Prevalence of resistance to first-line anti-tuberculosis drugs of Mycobacterium tuberculosis isolates in Astana city
Goar Balasianiantc (Russian Federation)

Poster discussion session (PD)
12:15 - 13:15

09. "So sweet"? TB-diabetes screening
Row 23
Chairperson: Michael Kimerling (Netherlands)
Scientific Programme

PD-685-27 Risk scoring system and symptom-based screening as initial steps for detecting diabetes mellitus in TB and HIV clinics in Ethiopia
Degu Jerene (Ethiopia)

PD-686-27 Active screening for diabetes mellitus among presumptive tuberculosis cases in private health care facilities, Bangladesh
Toufiq Rahman (Bangladesh)

PD-687-27 Can bi-directional screening for diabetes and tuberculosis efficiently identify cases of co-morbidity?
Bachti Alisjahbana (Indonesia)

PD-688-27 Screening for diabetes mellitus among tuberculosis patients in Southern Nigeria: a multi-centre implementation study under programme settings
Charles C. Nwafor (Nigeria)

PD-689-27 The association between tuberculosis and diabetes: the role of glycaemic control to predict risk
Kerri Viney (Australia)

PD-690-27 TB, HIV and diabetes mellitus tri-directional screening in four hospitals of Ethiopia
Degu Jerene (Ethiopia)

PD-691-27 Integrating TB screening in diabetes care through Bangladesh Diabetic Samity (BADAS): moving from pilot to scale-up
Zakia Sultana Siddique (Bangladesh)

PD-692-27 Screening individuals with diabetes for latent tuberculosis infection: preliminary data from the TANDEM program in Peru
Cesar Ugarte-Gil (Peru)

PD-693-27 Prevalence of diabetes mellitus among active pulmonary tuberculosis patients in Addis Ababa, Ethiopia
Adane Mihret (Ethiopia)

PD-694-27 Screening tuberculosis patients for diabetes in rural and urban areas of Dodoma Region, Tanzania
Monica Sahné Schepisi (Italy)

PD-695-27 Study of TB diabetes collaborative activities under the Revised National TB Control Programme, Maharashtra, India
Sandeep Bharaswadkar (India)

PD-696-27 Innovative approach to manage tuberculosis with diabetes co-morbidity in Bangladesh
Paul Daru (Bangladesh)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

10. Supporting MDR-TB patients: mHealth, nutrition, palliation, and health-related quality life

Row 31
Chairperson: Ernesto Jaramillo (Switzerland)
Scientific Programme

PD-697-27 Organisation of palliative care for TB patients in the Tjumen Region of Russia
Elena Tarasova (Russian Federation)

PD-698-27 Evaluating the quality of life of MDR-TB patients in St Petersburg, Russia
Elena Khasanova (Russian Federation)

PD-699-27 Role of nutritional supplementation in treatment adherence among drug-resistant tuberculosis patients on DOTS-plus therapy in an urban slum, India
Naresh Gill (India)

PD-700-27 Drug-resistant tuberculosis patients: they need nutritional support but acceptability matters! Lessons learnt from Mumbai, India
Shankar Dapkekar (India)

PD-701-27 Facilitators and barriers for adoption and implementation of digital health tools: a comparative analysis of 11 diverse countries
Kelly Sawyer (United States of America)

PD-702-27 mHealth for managing MDR-TB patients at the community
A N M Al Imran (United States of America)

PD-703-27 Supervision of DOT by electronic tools and cell phones can greatly improve treatment adherence of DR-TB patients
Paul Daru (Bangladesh)

PD-704-27 The role of mHealth in the management of drug-resistant TB patients at community level in Bangladesh
Sayeed Imtiaz (Bangladesh)

PD-705-27 Using mobile health solutions to improve patient retention in Eastern Cape Province, South Africa
Sipho Nyathie (South Africa)

PD-706-27 Impact of mHealth in increasing retention of patients in treatment
A N M Al Imran (United States of America)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

11. "With a little help from my friends": understanding and supporting retention and adherence

Row 34
Chairperson: Dina Fisher

PD-707-27 Perceptions and factors associated with non-adherence to tuberculosis management among patients in selected hospitals in Osun State, Nigeria
Ademola Adelekan (Nigeria)

PD-708-27 Reasons for pretreatment loss to follow-up of tuberculosis patients in Chennai, India: a qualitative study
Beena Thomas (India)

PD-709-27 Profile of patients dropping out of TB treatment, Brazil, 2013
Francinelle Reis (Brazil)
Scientific Programme

PD-710-27 Association between counselling and adherence to treatment for MDR-TB patients in two districts of West Bengal, India
Ambarish Dutta (India)

PD-711-27 Association between tuberculosis-related stigma and medication adherence among TB patients in China
Aimin Guo (China)

PD-712-27 Will an early counselling intervention with treatment interrupters help to prevent loss to follow-up among drug-resistant TB patients?
Shekhar Waikar (India)

PD-713-27 Patient-centred treatment support groups: the final solution to end loss to follow-up in tuberculosis
Shibu Balakrishnan (India)

PD-714-27 Kyrgyzstan food parcels distribution practice and its influence on strengthening patients' adherence to treatment
Artur Niyazov (Kyrgyz Republic)

PD-715-27 Development and implementation of an approach to providing support for patients within Nepal's MDR-TB management programme
Sudeepa Khanal (Nepal)

PD-716-27 Effect of a social support package on treatment adherence of DR-TB patients in Bangladesh
Kausari Jahan (Bangladesh)

PD-717-27 The use of community health workers in the in-patient setting to improve TB treatment outcomes in Karasburg, Southern Namibia
Karin Husselmann (Namibia)

PD-718-27 Pharmacists and rural health care providers as key players in the fight against MDR-TB: experiences from the PRATAM Project, India
Vikas Panibatla (India)

Poster discussion session (PD)
12:15 - 13:15

12. TB transmission

Row 36

Chairperson: Andrew Ramsay (Switzerland)

PD-719-27 Findings from tuberculosis investigations associated with air travel, Canada, 2008-2012
Jill Tarasuk (Canada)

PD-720-27 Real time investigation of tuberculosis transmission: technical progress in the SAMRC and Gates Foundation Aerobiology of TB Studies
Carl Morrow (South Africa)

PD-721-27 A novel approach in identifying tuberculosis transmission hotspots in urban Tanzania by using carbon dioxide levels and social information
Jerry Hella (Tanzania, United Rep.)
Scientific Programme

PD-722-27  Dynamics of tuberculosis transmission in an Italian metropolitan area
Angela Cannas (Italy)

PD-723-27  Long-term observation of molecular epidemiology of Mycobacterium tuberculosis in an urban area in Japan
Kiyohiko Izumi (Japan)

PD-724-27  Strain diversity in Mycobacterium tuberculosis complex isolates between 2006 and 2015 in Bamako, Mali
Bassirou Diarra (Mali)

PD-725-27  Molecular epidemiology of Mycobacterium tuberculosis and its historical trends in South Korea, 1994-2006
Hongjo Choi (Korea, Republic of)

PD-726-27  Genotypic and spatial analysis of multidrug-resistant tuberculosis transmission in a large metropolitan city in China
Xiaolin Wei (Canada)

PD-727-27  Discriminatory power of MIRU-VNTR for differentiating Mycobacterium tuberculosis
Dhammika Magana-Arachchi (Sri Lanka)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

13. Spectrum of TB care in key affected populations
Row 29
Chairperson: Alice Christensen (Tanzania, United Rep.)

PD-728-27  When students become patients: TB disease among medical undergraduates in Cape Town, South Africa
Helene-Mari van der Westhuizen (South Africa)

PD-729-27  Profile of health workers with TB in Brazil in 2015
Francinelle Reis (Brazil)

PD-730-27  Health care worker screening at selected health care facilities in Namibia
Helena Mungunda (Namibia)

PD-731-27  Screening for TB in 600,000 Bangladesh garments workers
Khurshid E Khuda Talukder (Bangladesh)

PD-732-27  TB surveillance in Nunavut, Canada
Emma Cumming (Canada)

PD-733-27  Optimizing quality in tuberculosis control in Northwestern Ontario
Thomas Krahn (Canada)

PD-734-27  Sustained community intensive initiatives saved lives of primitive tribe communities in Kawardha district, Chhattisgarh, India
Gayadhar Mallick (India)
**Scientific Programme**

**PD-735-27** To achieve WHO Post-2015 Targets: simplified scoping review for TB epidemiology and programmatic response in the elderly in Hong Kong  
Jun Li (China)

**PD-736-27** Risk factors for developing tuberculosis among the national HIV-positive cohort over 15 years in England, Wales and Northern Ireland  
Joanne Rebecca Winter (United Kingdom)

**PD-737-27** Tuberculosis and pregnancy in a cohort of women receiving antiretroviral therapy in Ethiopia  
Degu Jerene (Ethiopia)

**PD-738-27** Integrating TB screening in routine antenatal care services through engagement of lay providers: lessons from Kampala  
Syrus Ntudhu (Uganda)

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**Poster discussion session (PD)**  
12:15 - 13:15  
Poster Area

### 14. Implementing tobacco control strategies

**Row 38**

Chairperson: Mira Aghi (India)

**PD-739-27** City made free from tobacco product hoardings and boards without litigation through self removal and signed declarations by shopkeepers  
Mukesh Kumar Sinha (India)

**PD-740-27** Comparison of tobacco control programs worldwide: a quantitative analysis of the 2015 MPOWER report  
Gholamreza Heydari (Iran, Islamic Rep. Of)

**PD-741-27** Prevalence of tobacco use among priests and their willingness to spread anti-tobacco messages among devotees in Delhi  
Shekhar Grover (India)

**PD-742-27** How West Bengal has been enforcing smokefree policies. An assessment from India  
Nirmalya Mukherjee (India)

**PD-743-27** Compliance with smoke-free legislation among Istanbul hospitality premises in 2015  
Elif Dagli (Turkey)

**PD-744-27** Legislating and implementing a smoke-free law by applying evidence-based data on smoking-attributed mortality, Tianjin, China, 2010-2014  
Guohong Jiang (China)

**PD-746-27** Fifty per cent reduction in sales of tobacco products near educational institutions within 2 years in Himachal Pradesh, India: a comparative study  
Lalit Sharma (India)

**PD-747-27** Investment and getting back the reward: training different government agencies to implement the tobacco control law in Bangladesh  
Sheikh Mohammad Mahbubus Sobhan (Bangladesh)
PD-748-27  Cigarette pricing strategy in India: an example from Patna city, Bihar state
Deepak Kumar Mishra (India)

Poster discussion session (PD)
12:15 - 13:15

15. Tobacco industry interference

Row 46
Chairperson: Rumana Huque (Bangladesh)

PD-749-27  Monitoring the tobacco industry in Africa for effective implementation of the FCTC
Leonce Sessou (Togo)

PD-751-27  Tobacco industry interference at point of sale in Argentina
Maria Clara Sarafian (Argentina)

PD-753-27  Legal and metalegal strategies employed by local government to combat tobacco industry interference: Philippine best practices and practical lessons
Patty Miranda (Philippines)

PD-754-27  Sustaining tobacco control under tobacco industry surveillance in Chandigarh, the first smoke-free city in India
Deepak Bakshi (India)

PD-755-27  Judicial interventions the most effective tool for countering tobacco industry interference: lessons from Mandi District in Himachal Pradesh, India
Leela Dhar Thakur (India)

PD-756-27  Innovative approaches to counter tobacco industry interference in sustaining tobacco control: lessons from the state of Himachal Pradesh, India
Gopal Chauhan (India)

PD-757-27  ‘Loose ends’ in compliance with ban on ‘loose cigarette’ sales: a descriptive analysis of tobacco vendors at point of sale in India
Sonu Goel (India)

PD-758-27  Illicit tobacco products: tobacco industry in disguise to weaken the impact of pictorial warnings
Opinder Preet Kaur Arora (India)

Poster discussion session (PD)
12:15 - 13:15

16. TB diagnostic pathways: improving its steps

Row 48
Chairperson: Alaine Nyaruhirira (South Africa)

PD-759-27  Sputum sample transportation system for DR-TB diagnosis and treatment follow-up of DR-TB patients
Sarder Tanzir Hossain (Bangladesh)
Scientific Programme

PD-760-27 Evaluation of OMNiGene SPUTUM (OM-SPD) reagent for the transport of clinical specimens to a reference laboratory without cold chain
Elisa Tagliani (Italy)

PD-761-27 Improving sample transport to drive service delivery in TB care
Stephanie Denamps (United States of America)

PD-762-27 A meta-analysis comparing different sputum collection methods
Sumona Datta (United Kingdom)

PD-763-27 LED microscope giving better results in Bangladesh
Paul Daru (Bangladesh)

PD-764-27 Performance of the Xpert® MTB/RIF assay from fluorescent acid-fast stained slides
Rumina Hasan (Pakistan)

PD-765-27 An incremental cost-effectiveness analysis of a second Xpert® MTB/RIF test for detecting Mycobacterium tuberculosis and rifampicin resistance
Guirong Wang (China)

PD-766-27 Knowledge and associated factors on the Xpert® MTB/RIF assay among TB clinic health workers in Addis Ababa
Feven Girmachew (Ethiopia)

PD-767-27 Experiences and challenges in the scale-up of GeneXpert services in Oromia and Amhara regions, Ethiopia
Jemal Seid (Ethiopia)

PD-768-27 Optimizing TB diagnosis among PLHIV using GeneXpert machines through a robust specimen transport and result reporting system using motorbikes
Rupert Eneogu (Nigeria)

PD-769-27 Bacillary burden of tuberculosis measured by Xpert® MTB/RIF and treatment outcomes in a high prevalence HIV setting in Southern Mozambique
Fenella Beynon (Spain)

PD-770-27 Cost-effective and innovative technology for effective and rapid TB response in Nigeria
Kehinde Jimoh Agbaiyero (Nigeria)

Poster discussion session (PD)
12:15 - 13:15 Poster Area

17. TB among refugees

Row 51

Chairperson: Elizabeth Rea (Canada)

PD-771-27 Addressing cross-border control of tuberculosis among labor migrants in Kazakhstan
Bakhtiyar Babamuradov (Kazakhstan)

PD-772-27 Yield of TB among immigrant populations: lessons from Kyangwali refugee camp in Uganda
Enock Kizito (Uganda)

PD-773-27 TB prevention and care in five Tibetan settlements in India: a community perspective
Kavita Ayyagari (India)
Scientific Programme

PD-774-27 Combination of active case finding and contact screening: high yield in a residential school for Tibetan refugee children in India
   Shiva Shrestha (India)

PD-775-27 Cross-border migration of MDR-TB patients between Equatorial Guinea and Cameroon: a solution through South-South collaboration
   Marie Francoise Enoka (Cameroon)

PD-776-27 The yield of screening campaigns for tuberculosis in camps of internally displaced people in Iraq
   Samer Ameen (Iraq)

PD-777-27 Novel case management strategy for latent tuberculosis infection among migrant farmworkers
   Eyal Oren (United States of America)

PD-778-27 TB care in emergency context: Syrian refugees in Jordan and Lebanon
   Aleksandar Galev (Jordan)

   Jacqueline Limo (Kenya)

PD-780-27 High non-favorable outcome in districts with significant cross-border interaction: call for regional coordination
   James Mpunga (Malawi)

PD-781-27 Factors contributing to time to sputum conversion among migrant population treated for pulmonary tuberculosis in IOI, Kenya, 2010-2014
   Melly Kipsang (Kenya)

Poster discussion session (PD)
12:15 - 13:15

18. TB modelling, prevalence and surveillance

Row 53
Chairperson: Gabriela Gomes (United Kingdom)

PD-782-27 Systematic review of mathematical models exploring the epidemiological impact of future TB vaccines
   Rebecca C Harris (United Kingdom)

PD-783-27 The use of sub-national TB modelling to inform decision-making in South Africa
   Piotr Hippner (South Africa)

PD-784-27 TiME modelling to estimate the potential impact of case-finding activities in Ghana
   Marek Laili (United Kingdom)

PD-785-27 Estimating tuberculosis incidence from primary survey data: a mathematical modeling approach
   Surabhi Pandey (India)

PD-787-27 Epidemiology of tuberculosis among persons born in the former Soviet Union living in the United States, 1993-2013
   Julia Ershova (United States of America)
Scientific Programme

Debebe Shaweno (Australia)

PD-789-27  Spatial and spatio-temporal risk clusters of occurrence in an endemic area of the São Paulo State, Brazil
Simone Teresinha Protta-Zanatta (Brazil)

PD-790-27  Disease surveillance through mobile phones: geotagging the 'smart-phone' way
Radha Taralekar (India)

PD-791-27  The Zimbabwe National Tuberculosis Prevalence Survey 2015: unexpected findings and implications for prevention and control
Charles Sandy (Zimbabwe)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

19. Intensified case findings
Row 57
Chairperson: Nunurai Ruswa (Namibia)

PD-792-27  Behind the scene and the stones: active TB case finding in a quarry population in Nigeria
Kingsley Nnanna Ukwaja (Nigeria)

PD-793-27  Early TB detection among most at-risk population in Ukraine
Evgenia Geliukh (Ukraine)

PD-794-27  Empowering local NGOs to control the TB burden in the private sector
Vaishnavi Jondhale (India)

PD-795-27  Role of the community in counselling clients in accessing health services and retention on tuberculosis treatment
Basant Kumar Parajuli (Nepal)

PD-796-27  Community outreach as a model for increasing TB case finding: lessons learnt from six high-burden states in Nigeria in 2014
Amos Fadare Omoniyi (Nigeria)

PD-797-27  Gaining momentum through effective partnership in tuberculosis control programme, Bangladesh
Shayla Islam (Bangladesh)

PD-798-27  Household intensified case finding in a high TB-HIV burden setting: whom do you find? A TB REACH experience in Swaziland
Pilar Ustero Alonso (United States of America)

PD-799-27  Mobilizing community health volunteers can contribute to early case finding in Kathmandu Valley, Nepal
Ram Sharan Gopali (Nepal)

PD-800-27  Improving TB case finding through organized and trained community volunteers in San Juan City, Philippines
Eden Mendoza (Philippines)
**Scientific Programme**

### PD-801-27 Experiences from conducting TB outreach campaigns in Water Front slums of Port Harcourt Local Government Area, Rivers state, Nigeria
Enang Oyama (Nigeria)

### Community Common Session: Panel Discussion
13:20 - 14:50

**TB 101: An introduction to scientific terminology in tuberculosis**

This symposium is targeted at civil society and community groups in the community space. Presenters will introduce science and terminology relating to tuberculosis in lay-language to encourage engagement between activists, organisations and the scientific community during the conference. Topics will include tuberculous infection versus disease, transmission, diagnosis, treatment, key populations at risk, and drug resistance. Presenters include educators and community activists with expertise in knowledge translation.

Chairperson: Jody Boffa (South Africa)
Chairperson: Adrian Muwonge (United Kingdom)

- **Pathogenesis & transmission of tuberculosis**
  Adrian Muwonge (United Kingdom)

- **TB diagnostics**
  Jody Boffa (South Africa)

- **TB prevention, treatment & drug resistance**
  Graeme Hoddinott (South Africa)

- **TB in special populations**
  Blessina Amulya Kumar (India)

### Symposium (SP)
13:30 - 15:00

**06. Tuberculosis and diabetes collaborative activities in the context of the End TB Strategy and Sustainable Development Goals**

There is substantial evidence on the feasibility of integrating services for TB and diabetes mellitus (DM) in settings with dual burden of the two diseases. However, there is limited implementation experience at larger scale.

Our objectives are to:
1) Describe progress, barriers and challenges in the implementation of TB-DM collaborative activities
2) Share promising country experiences in translating global recommendations on integrating TB and diabetes care into action
3) Identify effective models of integration in resource-constrained settings with dual burden of TB and non-communicable diseases
4) Discuss the way forward in implementing TB-DM collaborative activities, including unanswered research questions

Chairperson: Gloria Sangiwa (United States of America)
Chairperson: Kerri Viney (Australia)

- **Update on the global progress in implementing TB-diabetes collaborative activities**
  Anthony D Harries (United Kingdom)
Scientific Programme

TB and diabetes: promising scalable models of TB and diabetes integration in resource-poor settings with dual burden - lessons from World Diabetes Foundation (WDF)
Anil Kapur (Denmark)
13:45 - 14:00

Charting the course for integrative care: five years of TB-diabetes programme progress for the Pacific
Richard Brostrom (United States of America)
14:00 - 14:15

Using TB and HIV platforms for prevention and control of diabetes mellitus: successful example from Ethiopia
Degu Jerene (Ethiopia)
14:15 - 14:30

The TANDEM programme: understanding tuberculosis and diabetes through field studies and basic sciences
Reinout van Crevel (Netherlands)
14:30 - 14:45

Discussion
14:45 - 15:00

Symposium (SP)
13:30 - 15:00
Hall (Session room) 1B

09. Screening for latent TB infection among migrants: from controversy to consensus?

This symposium will contribute to knowledge dissemination on the topic of latent TB infection (LTBI) screening for migrants and mobile populations. With over a billion persons on the move around the world, including from high to low TB-burden countries, there is an urgent need for evidence-based guidance on LTBI screening to address the challenges this issue poses for health systems and governments. Through presentations on cutting-edge population health research and practices from the Americas, Asia-Pacific and European regions, this symposium will increase understanding of LTBI screening and treatment for migrants, as well as outline the path forward for researchers and policy-makers.

Chairperson: Poonam Dhavan (Switzerland)
Chairperson: Ibrahim Abubakar (United Kingdom)

Screening migrants for LTBI: review of the evidence on effectiveness and cost-effectiveness
Alberto Matteelli (Italy)
13:30 - 13:45

LTBI among migrants and refugees: European perspectives, WHO
13:45 - 14:00

Guidance on programmatic management of latent TB infection: applicability for TB control in migrants
Marijeke van der Werf (Sweden)
14:00 - 14:15

Screening migrants for LTBI in Italy, Netherlands, Sweden, and UK: a comparative analysis
Knut Lönnroth (Switzerland)
14:15 - 14:30

Intergovernmental Immigration and Refugee Health Working Group perspectives: pre-migration screening and the potential role of LTBI screening
Paul Douglas (Australia)
14:30 - 14:45
08. Tuberculosis in adolescents: confronting neglect, improving care

Adolescents have been remarkably neglected in TB research and policy. From limited studies of the epidemiology and outcomes of adolescent TB patients, there is increasing awareness that adolescents are a vulnerable group at risk for poor treatment outcomes and in need of particular attention and care. This symposium will bring together perspectives on adolescent TB epidemiology, clinical management including TB-HIV coinfection and drug-resistant TB, ethical and human rights concerns for research involving adolescents, and the voices of adolescent TB patients themselves. We highlight the potential of adolescents to speak to their experiences and to be advocates for themselves and others.

Chairperson: Leslie Enane (United States of America)
Chairperson: Kathryn Snow (Australia)

- **Global epidemiology of adolescent tuberculosis**
  Kathryn Snow (Australia) 13:30 - 13:45

- **Drug-resistant tuberculosis in adolescents and interventions to improve outcomes**
  Petros Isaakidis (India) 13:45 - 14:00

- **Adherence issues in adolescent TB and HIV treatment**
  Elizabeth Lowenthal (United States of America) 14:00 - 14:15

- **Social Considerations in the Care of the Adolescent with Tuberculosis**
  Andrea Cruz (United States of America) 14:15 - 14:30

- **Improving the TB treatment experience: an adolescent’s perspective**
  Eleanor Frame (United Kingdom) 14:30 - 14:45

- **Discussion** 14:45 - 15:00

07. Introducing bedaquiline and delamanid for drug-resistant TB under routine programme conditions: preliminary results from the endTB Initiative

This symposium will report the first results from the UNITAID-funded endTB Initiative. Launched in April 2015, endTB will treat 2,600 multidrug-resistant (MDR-TB) patients with bedaquiline and delamanid, according to interim guidance from WHO. EndTB countries are among the first to introduce the new drugs under routine programme conditions. These experiences are key to informing adoption of bedaquiline and delamanid in other high-burden MDR-TB countries. Presentations will highlight experiences in heterogeneous patient populations (e.g., prisoners, patients with HIV and/or hepatitis C coinfection) and organisational strategies for ensuring safe access, such as decentralised treatment delivery and centralised decision-making on new-drug eligibility.

Chairperson: Carole Mitnick (United States of America)
Chairperson: Francis Varaine (France)

- **Organising MDR-TB treatment with bedaquiline and delamanid: endTB in Armenia**
  Catherine Hewison (France) 13:30 - 13:45

- **Bedaquiline for the treatment of XDR-TB and pre-XDR-TB: endTB in Peru**
  Leonid Lecca (Peru) 13:45 - 14:00
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Bedaquiline and delamanid for MDR-TB in a setting of high HIV co-infection: endTB in Lesotho  
Llang Bridget M. Maama-Maime (Lesotho)  
14:00 - 14:15

Bedaquiline and delamanid for MDR-TB in a setting of high HCV co-infection: endTB in Georgia  
Mark Nicol (South Africa)  
14:15 - 14:30

Regulatory issues and practical solutions for registration of BDQ and DLM - results of a detailed analysis in 30 MDR-TB high burden countries  
Tiziana Masini (Switzerland)  
14:30 - 14:45

Discussion  
14:45 - 15:00

Oral Abstract session (OA)  
13:30 - 15:00  
Session Room 3B

04. "Here, there and everywhere": how to end TB

Chairperson: Lucía Ditiú (Switzerland)  
Chairperson: Randall Reves (United States of America)

OA-324-27 The tuberculosis cascade of care in the Indian public sector: current estimates and gaps in knowledge  
Ramnath Subbaraman (United States of America)  
13:30 - 13:40

OA-325-27 An assessment of the TB screening-to-treatment cascade in Swaziland  
Weile Sikhondze (Swaziland)  
13:40 - 13:50

OA-326-27 Making sense of tuberculosis data: how district and facility staff can use their own routine data for management  
Nqobile Mlilo (Zimbabwe)  
13:50 - 14:00

OA-327-27 Schedule H1 drugs status for anti-tuberculosis drugs an effective surrogate marker for TB case notification: an Indian case study  
Ravinder Kumar (India)  
14:00 - 14:10

OA-328-27 Towards zero stock-outs of anti-tuberculosis drugs: focusing on system strengthening brought a difference in two regions of Ethiopia  
Muluksen Melese (Ethiopia)  
14:10 - 14:20

OA-329-27 Sub-national rationalization of integrated HIV/AIDS/TB partners could mean increased funding for TB programs: a case for Uganda  
Mary Gorreth Nabukunya-Mudiope (Uganda)  
14:20 - 14:30

OA-330-27 A technology-enabled social franchise approach to increase tuberculosis case detection and cure rates in urban Patna, Bihar, India  
Masood Alam (India)  
14:30 - 14:40

OA-331-27 Innovative interventions to enhance access to TB services for vulnerable and marginalized populations: experience from India  
Sripriya Pandurangan (India)  
14:40 - 14:50
11. Another transnational tobacco company in the making: the impact of the globalisation of the Chinese tobacco monopoly on tobacco control policies around the world

The China State Tobacco Monopoly has been a company that mainly focuses on local markets in China. But recent evidence suggests that it now puts more emphasis on developing trade in overseas markets. With the increasing presence in trade, the monopoly is involved in local politics and actively intervenes in local policy-making, particularly on tobacco farming and tobacco control. The China State Tobacco Monopoly is beginning to adopt strategies used by its international counterparts such as Philip Morris and BAT. The monopoly is transitioning into a transnational tobacco company, which presents important challenges for global tobacco control.

Chairperson: Quan Gan (China)
Chairperson: Ehsan Latif (United Kingdom)

**History, aims and aspirations of the Chinese monopoly**
Xing Gao (United States of America)  
13:30 - 13:50

**China’s monopoly role in tobacco agricultural sectors in Brazil**
Tania Cavalcante (Brazil)  
13:50 - 14:10

**Impact on demand and supply side measures for tobacco control under expanding Chinese monopoly**
Daouda Adam (Chad)  
14:10 - 14:30

**Impact on demand and supply side measures for tobacco control under expanding Chinese monopoly**
Eduardo Bianco (Uruguay)  
14:30 - 14:50

**China National Tobacco Corporation from domestic to global dragon**
Jennifer Wang (Canada)  
14:50 - 15:00

10. Policymakers and partnerships: building the political will to end TB

Despite being preventable and treatable, TB remains the world’s leading infectious killer. Each year 1.5 million people die from the disease, which is growing increasingly resistant to the most common anti-TB drugs. Increased political will is required to effectively thwart the spread of disease and eliminate TB as a public health threat. Working with parliamentarians is critical to building support for the necessary policies and resources to effectively tackle the disease. This symposium will showcase the steps civil society, affected communities, and researchers can take to engage Parliamentarians in the fight against TB.

Chairperson: Mandy Slutsker (United States of America)

**Getting our attention: engaging policymakers on TB**
The Rt Hon Nick Herbert CBE MP (United Kingdom)  
Matthew Oliver (United Kingdom)  
13:30 - 13:45

**Building champions in the Kenyan Parliament: how grassroots support led 100+ MPs to take action on TB**
Rahab Mwaniki (Kenya)  
13:45 - 14:00
**Scientific Programme**

**14:00 - 14:15**

*How to engage your colleagues on TB: creating a national TB caucus in Georgia*

The Hon Ruth Labode (Zimbabwe)

**14:15 - 14:30**

*Building parliamentary support at a regional level: the Asia Pacific TB caucus*

Sarah Kirk (Australia)

**14:30 - 14:45**

*Engaging policy-makers on TB in emergency settings: the case of Nepal*

Helen Tan (Philippines)

**Symposium (SP)**

13:30 - 15:00  
Session Room 11C

**12. Reframing resistance: research and innovation to improve patient care and end drug-resistant TB**

Drug-resistant tuberculosis is a major global health concern that will require innovative approaches and new tools for diagnosis, treatment, and prevention. Researchers and product developers recognise that truly ending the global TB epidemic requires a patient-centred approach; one that focuses on prevention as the primary goal, and for those who do get sick, diagnostics and treatment that are tailored to the patients’ needs. This session will focus on efforts to develop new vaccines, diagnostics and drugs that will more effectively prevent, diagnose, and treat drug-resistant TB, and the necessity of these tools to ending all forms of TB.

Chairperson: David Lewinsohn (United States of America)

Chairperson: Helene-Mari van der Westhuizen (South Africa)

**13:30 - 13:50**

*Progress and challenges on the road to a universal regimen*

Eric Nuermerberger (United States of America)

**13:50 - 14:10**

*Towards universal drug susceptibility testing: how could next generation sequencing support this goal*

David Dolinger (Switzerland)

**14:10 - 14:30**

*Developing a vaccine to prevent all forms of TB*

Mark Hatherill (South Africa)

**14:30 - 14:50**

*Intensified TB research is essential for re-centring care around the needs of TB patients*

Michael Frick (United States of America)

**Discussion**  
14:50 - 15:00

**Oral Abstract session (OA)**

13:30 - 15:00  
Session Room 12

**05. Improving patient care in MDR-TB**

Chairperson: Andrei Mariandyshev (Russian Federation)

Chairperson: Anna Marie Celina Garfin (Philippines)

**OA-332-27** *Examining the fall-out points in the pathway to MDR-TB treatment: a gap study in Lesotho*

Carolina Kwok (United States of America)
### Scientific Programme

**OA-333-27**  An innovative approach for designing and implementing drug-resistant tuberculosis treatment adherence interventions  
Kei Alegria-Flores (United States of America)  
13:40 - 13:50

**OA-334-27**  Impact of Xpert® MTB/RIF testing on treatment delays among persons diagnosed with drug-resistant TB in Johannesburg, South Africa  
Denise Evans (South Africa)  
13:50 - 14:00

**OA-335-27**  Improved access to MDR-TB services via decentralized service delivery model in Amhara and Oromia regions, Ethiopia  
Degu Jerene (Ethiopia)  
14:00 - 14:10

**OA-336-27**  Achieving rapid scale-up of MDR-TB treatment using a decentralized, mixed model of patient care: lessons from Uganda  
Stavia Turyahabwe (Uganda)  
14:10 - 14:20

**OA-337-27**  Management of MDR-TB: transition from hospital to community-based management in Bangladesh  
Refiloe Matji (South Africa)  
14:20 - 14:30

**OA-338-27**  Integration of MDR-TB contact tracing as part of DOT is efficient and cost-effective  
Paul Daru (Bangladesh)  
14:30 - 14:40

**OA-339-27**  Burden of MDR-TB among contacts of MDR-TB cases: results from routine program implementation in two regions of Ethiopia  
Muluken Melese (Ethiopia)  
14:40 - 14:50

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### 03. Methodologies and models for TB education and training

**Chairperson:** Linette McElroy (Canada)  
**Chairperson:** Nisha Ahamed (United States of America)

**SOA-519-2**  Health education and focus group discussion to increase knowledge, motivation and medication adherence among patients with tuberculosis  
Resti Yulianti Sutrisno (Indonesia)  
13:30 - 13:38

**SOA-520-2**  Use of mobile technology to reach the unreached with information on TB: experience from six states in India  
Shekhar Waikar (India)  
13:38 - 13:46

**SOA-521-2**  Implementing ECHO Telehealth Model to strengthen nurse case management and improve TB patient care outcomes  
Diana Fortune (United States of America)  
13:46 - 13:54

**SOA-522-2**  Effects of motivational interviewing on treatment adherence of people affected by TB in the Philippines  
Ritzmon Loa (Philippines)  
13:54 - 14:02

**SOA-523-2**  Implementation of international workshops for building technical capacity within NTPs using the TIME model  
Marek Lalli (United Kingdom)  
14:02 - 14:10
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SOA-524-2  National remote TB consultation and training platform: an innovative way to ensure sustainable capacity building for TB hospitals in China  14:10 - 14:18
Yuhong Liu (China)

SOA-525-2  Developing practical tools to train pharmacists in TB care and control in India  14:18 - 14:26
Manjiri Gharat (India)

SOA-526-2  Impact of training nurses on TB/MDR-TB in China  14:26 - 14:34
Aimin Guo (China)

SOA-527-2  Mass media ACSM improves health-seeking behavior for TB in Nigeria  14:34 - 14:42
Michael Odo (Nigeria)

SOA-528-2  Innovative e-learning methodologies using digital technology for TB-HIV: a digital India campaign  14:42 - 14:50
Rajesh Deshmukh (India)

Oral Abstract session (OA)
13:30 - 15:00
Session Room 14

06. Internally displaced indigenous populations and health workers
Chairperson: Razia Kaniz Fatima Fatima (Pakistan)
Chairperson: Elizabeth Rea (Canada)

OA-340-27  Comparative analysis of the predictive values of radiological changes to forecast the progression of pulmonary TB  13:30 - 13:40
Morris Muzyamba (United Kingdom)

OA-341-27  Increasing childhood TB case detection through contact tracing strategy: a case study from rural Pakistan  13:40 - 13:50
Junaid Ahmed (Pakistan)

OA-342-27  Childhood TB management in camps and host communities for internally displaced person in Adamawa State, North-East Nigeria  13:50 - 14:00
Tosin Idaboh (Nigeria)

OA-343-27  Improving TB case finding and treatment adherence in underdeveloped ethnic minority areas: China’s experience  14:00 - 14:10
Jun Li (China)

OA-344-27  Factors associated with active TB in an indigenous population in Brazil: a case-control study  14:10 - 14:20
Jocieli Malacarne (Brazil)

OA-345-27  Improved tuberculosis case detection in Afghanistan: an evaluation of passive and active approaches  14:20 - 14:30
Ataulhaq Sanaie (Afghanistan)

OA-346-27  The implications of gender on the uptake of isoniazid preventive therapy in Zulu communities of uMgungundlovu District, South Africa  14:30 - 14:40
Jody Boffa (South Africa)
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OA-347-27 Influence of quality of work life on motivation and retention of local government tuberculosis control programme supervisors in southeast Nigeria
Daniel Ogbuabor (Nigeria)

14:40 - 14:50

Admin or Side Meetings (MTG)
14:30 - 15:30
Pullman

Friends of Pakistan

Community Common Session: Panel Discussion
15:00 - 15:20
Community Common Silent Theatre

Tobacco-free Sports Stadia: Policy, Practice and Guidance in Europe

Over 20 million people – including many children and young people - attend professional football matches across Europe each week, with many more attending other professional and amateur sports fixtures. The vast majority of European sports venues take place in semi-enclosed structures with roofed stands, and yet there are still very low levels of smokefree and tobaccofree policies in operation.

Building on research findings that only 18 out of UEFA’s 54 European countries have football stadia that operate smokefree or tobaccofree policies, Healthy Stadia has worked with UEFA and World Heart Federation to develop new guidance materials for clubs, multi-purpose stadium operators and governing bodies of sport to assist in the development and enforcement of strong tobacco control policies. This presentation will describe support offered through the new guidance materials, a case study from EURO 2016, and advise on how sports organisations can go beyond national tobacco control legislation to implement tobaccofree policies.

Tobaccofree Sports Stadia: Policy, Practice and Guidance in Europe
15:00 - 15:20
Matthew Philpott (United Kingdom)

15:15 - 16:45
Plenary Hall

Financing Innovation

Financing to alleviate TB morbidity and mortality and ultimately defeat it requires funding on multiple levels. This includes the development of better ways to test and treat TB as well as funding for the programs that provide care and treatment. New and better ways to test for active TB are moving along the pathway to commercialization along with new therapies that can help with the management of MDR TB. Inadequacy of current diagnostic methods and the complications of MDR TB point to the need for innovation as global health experts seek to respond appropriately to the TB epidemic. Reaching into rural communities to treat and prevent the further spread of TB requires an extension of knowledge and organization that goes beyond the ability many countries have to finance healthcare. This panel will discuss the financing of healthcare as well as financing for the development of tools and treatments that are needed to make an impact on the control of TB throughout the world.

Financing Innovation for TB
15:15 - 15:25
Robert Dintruff (United States of America)
Scientific Programme

Symposium (SP)
15:15 - 16:45
Hall (Session room) 1A

**13. Monitoring progress towards the End TB Strategy target to eliminate catastrophic costs: findings from the first round of surveys**

The World Health Organization's (WHO) End TB Strategy includes a target that no TB-affected household should experience catastrophic costs. In 2015, WHO and partners developed a generic tool and instrument for national surveys to measure patient costs in order to enable monitoring of the progress towards this target. Findings from the first round of national surveys using the generic protocol will be presented in this symposium and future applications of the survey methodology will be discussed.

Chairperson: Anna Vassall (United Kingdom)
Chairperson: Knut Lönnroth (Switzerland)

- **Findings from the first national TB patient cost survey in Myanmar**
  Si Thu Aung (Myanmar)
  15:15 - 15:30

- **Findings from the first national TB patient cost survey in Ghana**
  Debora Pedrazzoli (United Kingdom)
  15:30 - 15:45

- **Findings from the first national TB patient cost survey in East Timor**
  Susana Vaz da Silva de Castro Nery (Australia)
  15:45 - 16:00

- **Findings from the 2016 national TB patient cost survey in Viet Nam**
  Binh Hoa Nguyen (Viet Nam)
  16:00 - 16:15

- **Field testing the generic protocol for patient cost surveys: lessons learnt and way forward**
  Ines Garcia Baena (Switzerland)
  16:15 - 16:30

**Discussion**
  16:30 - 16:45

Oral Abstract session (OA)
15:15 - 16:45
Hall (Session room) 1B

**09. The changing landscape of tobacco control**

Chairperson: Anne Jones (Australia)
Chairperson: Mira Aghi (India)

- **OA-364-27 Child labor in bidi factories: current situation and way forward**
  Sushanta Kumar Singha (Bangladesh)
  15:15 - 15:25

- **OA-365-27 Who is accountable for tobacco control in India? Critical analysis of stakeholders**
  Gopal Chauhan (India)
  15:25 - 15:35

- **OA-366-27 What impedes tobacco control law enforcement in China?**
  Jie Yang (China)
  15:35 - 15:45

- **OA-367-27 Using mass media to support implementation of tobacco control policy in Viet Nam**
  Sandra Mullin (United States of America)
  15:45 - 15:55

- **OA-368-27 Impact of ban on smokeless tobacco products on tobacco consumption behaviour in Punjab**
  Rakesh Gupta (India)
  15:55 - 16:05
Scientific Programme

OA-369-27 Analyzing partnerships: drawing lessons from the multisectoral collaboration in the implementation of the FCTC in the Philippines
Jonathan Monis (Philippines) 16:05 - 16:15

OA-370-27 How many deaths can be averted by increasing the legal age at initiation to 21 years globally?
Pranay Lal (India) 16:15 - 16:25

OA-371-27 Cost-effectiveness of a sponge campaign in Moscow
Irina Morozova (United States of America) 16:25 - 16:35

Oral Abstract session (OA)
15:15 - 16:45 Hall (Session room) 1C

08. "The long and winding road": latent TB infection testing and treatment
Chairperson: Gavin Churchyard (South Africa)
Chairperson: Anete Trajman (Brazil)

OA-356-27 The global burden of latent tuberculosis infection
Rein Houben (United Kingdom) 15:15 - 15:25

OA-357-27 Diagnostic accuracy of a novel C-Tb skin test for LTBI: results from two Phase III trials
Morten Ruhwald (Denmark) 15:25 - 15:35

OA-358-27 Performance of screening tests for latent tuberculosis in young, foreign-born children using latent class analysis
Jason Stout (United States of America) 15:35 - 15:45

OA-359-27 National roll-out of latent tuberculosis testing and treatment for new migrants in England: retrospective evaluation in high TB incidence area
Miranda Loutet (United Kingdom) 15:45 - 15:55

OA-360-27 Community-level challenges to tuberculosis preventive therapy provision in KwaZulu-Natal, South Africa
Jody Boffa (South Africa) 15:55 - 16:05

OA-361-27 A public health evaluation of contact tracing and management in Brazil
Anete Trajman (Brazil) 16:05 - 16:15

OA-362-27 Uptake and completion of isoniazid preventive therapy among household contacts of tuberculosis cases in Lima, Peru
Larissa Otero (Peru) 16:15 - 16:25

OA-363-27 Is isoniazid preventive therapy more effective in high-burden settings? Modelling the effect of TB incidence on IPT impact
Romain Ragonnet (Australia) 16:25 - 16:35
14. Enough is enough: time to end preventable mortality among people living with HIV

Despite being preventable and curable, TB is the leading cause of hospitalisation and mortality among people living with HIV (PLHIV), accounting for some 30 percent of HIV-related deaths in 2014. A recent systematic review of post-mortem studies in resource-limited settings reported TB accounting for approximately 40 percent of HIV-related deaths, nearly half of which were undetected prior to death. This highlights the urgent need to increase efforts to enhance access to early detection, timely treatment and prevention. This symposium aims to share the latest evidence and experience on strategies to expedite diagnosis and reduce TB incidence and mortality among PLHIV.

Chairperson: Haileyesus Getahun (Switzerland)
Chairperson: Riitta Dlodlo (Zimbabwe)

15:15 - 15:30
HIV-associated TB mortality: an irreversible truth?
Meg Doherty (Switzerland)

15:30 - 15:45
Perfecting the TB/HIV screening, diagnostic and treatment algorithm to ensure survival from TB in people living with HIV
Salome Charalambous (South Africa)

15:45 - 16:00
The role of presumptive TB treatment for improving survival in severely ill patients with HIV
Wineslaus Katagira (Uganda)

16:00 - 16:15
Strategies to end HIV-associated TB mortality are only as good as their implementation: lessons from Zimbabwe
Charles Sandy (Zimbabwe)

16:15 - 16:30
WHO guidance: examining the latest policies and their potential impact on ending mortality from HIV-associated TB
Annabel Baddeley (Switzerland)

16:30 - 16:45
Discussion

07. TB mortality

Chairperson: Derek Sloan (United Kingdom)
Chairperson: Mohammed Lamorde (Uganda)

OA-348-27 Negative tuberculin skin test result in patients with active TB is associated with increased mortality risk during TB treatment
Argita Salindri (United States of America)

OA-349-27 Interferon-gamma release assay is associated with disease site and death in active TB
Kristin N Nelson (United States of America)

OA-350-27 Predictors of mortality among patients registered for TB treatment in Kampala City, Uganda
Deus Lukoye (Uganda)
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OA-351-27 Exploring gender differences in treatment outcomes among TB patients in Afghanistan: a cross-sectional study
Mohammad Khaled Seddiq (Afghanistan) 15:45 - 15:55

OA-352-27 Spatial distribution profile of mortality due to tuberculosis in an endemic city in the Brazilian Northeast
Ricardo Alexandre Arcêncio (Brazil) 15:55 - 16:05

OA-353-27 Challenges to accurately estimate TB mortality: deaths in notified TB cases vs. TB deaths in vital registration system in England
Maeve K Lalor (United Kingdom) 16:05 - 16:15

OA-354-27 Influenza pandemics and TB mortality in the 19th and 20th century in Switzerland
Kathrin Zürcher (Switzerland) 16:15 - 16:25

OA-355-27 Associations of influenza vaccination with incident tuberculosis and all-cause mortality among elderly Taiwanese patients
Yung-Feng Yen (Taiwan) 16:25 - 16:35

Symposium (SP)
15:15 - 16:45 Session Room 11A

17. Driving real-time access to diagnostic data through connected diagnostics

Diagnostic instruments enabled with remote connectivity have the potential to increase efficiencies and lower costs within test, treatment and surveillance programmes. Programmatic information collected real-time in low-resource settings provides an unprecedented opportunity to improve health systems and disease control. Implementing and embedding new technologies of any kind, however, involves a structured approach to setup, operation, utilisation and support whilst managing complex processes of change at many levels. This session will help the audience understand the elements of connected diagnostics solutions and hear from those implementing them.

Chairperson: Chris Isaacs (Switzerland)
Chairperson: Wayne van Gemert (Switzerland)

Analysis of the essential elements of connectivity solutions
Wayne van Gemert (Switzerland) 15:15 - 15:30

Integrity of connectivity to the success of the larger investment in diagnostics
Amy Piatek (United States of America) 15:30 - 15:45

On the ground experiences and challenges of a connected diagnostics intervention
Mustapha Gidado (Nigeria) 15:45 - 16:00

Experience piloting RemoteXpert and planned integration with Nikshay
Neeraj Raizada (India) 16:00 - 16:15

The impact of connectivity solutions on key programmatic and laboratory indicators
Heather Alexander (United States of America) 16:15 - 16:30

Discussion 16:30 - 16:45
16. Quinolones: from bench to bedside

Fluoroquinolone resistance is mainly responsible for the worsening prognosis of XDR-TB compared to MDR-TB. In vivo and human data support the use of fluoroquinolones despite in vitro resistance.

This session will present
1) The updated epidemiological data of resistance to fluoroquinolone
2) Molecular mechanisms responsible for fluoroquinolone resistance and their impact on fluoroquinolone susceptibility
3) The diagnostic performances of existing molecular assays for the diagnosis of fluoroquinolone resistance
4) Animal and clinical studies supporting the use of fluoroquinolones against XDR-TB

Chairperson: Nicolas Veziris (France)
Chairperson: Zaza Avaliani (Georgia)

15:15 - 15:35
Epidemiology of fluoroquinolone resistance in TB in 2016
Timothy Sterling (United States of America)

15:35 - 15:55
Diagnostic performances of existing molecular and phenotypic assays for the diagnosis of fluoroquinolone resistance
Alexandra Aubry (France)

15:55 - 16:15
Can fluoroquinolones be used for the treatment of XDR-TB? Lessons from animal studies
Nicolas Veziris (France)

16:15 - 16:35
Can fluoroquinolones be used for the treatment of XDR-TB? Lessons from human studies
Armand Van Deun (Belgium)

18. Ending TB transmission, stepping up TB infection control: lessons learnt, opportunities in sight

Ending TB transmission is the essence of the new WHO’s End TB strategy. The quick detection of sources of transmission and immediate enrolment on effective treatment is among the most powerful approaches to end the TB epidemic. Infection TB control offers additional tools which can contribute to prevent transmission in a variety of settings. This symposium will present the state of the art in TB infection control, the most recent advances in the field, and the progress of selected countries in mounting effective and sustainable infection control policy.

Chairperson: Ernesto Jaramillo (Switzerland)
Chairperson: Max Meis (Netherlands)

15:15 - 15:35
Namibia’s experience in implementing TB infection control: lessons learnt
Farai Mavhunga (Namibia)

15:35 - 15:55
Early impact evaluation of the tuberculosis infection control training centre: Tajikistan, 2014–2015
Colleen Scott (United States of America)

15:55 - 16:15
Occupational risk factors for TB among health workers: policies and practices
Carrie Tudor (Switzerland)
Scientific Programme

Progress in the sustainable application of highly effective upper room Germicidal Ultraviolet Air Disinfection
Edward Nardell (United States of America)

Symposium (SP)
15:15 - 16:45

15. New approaches and innovations in TB vaccine research and development
A new, effective vaccine against M. tuberculosis will be an important tool to reducing the global burden of this epidemic and addressing the growing concern of antimicrobial resistance. New vaccines would achieve this by preventing infection and/or disease, thereby reducing the need for antibiotics and reducing disease transmission. Thus, advancing and accelerating TB vaccine R&D should be a global priority. This session will explore progress and innovations in the field, with a specific focus on diversifying the TB vaccine portfolio, therapeutic vaccination, mucosal vaccination and local immunity, and continuing efforts to identify correlates of immunity and protection.

Chairperson: Willem Hanekom (United States of America)
Chairperson: Frank Verreck (Netherlands)

15:15 - 15:35
Diversifying the TB vaccine portfolio
Danilo Casimiro (United States of America)

15:35 - 15:55
The role of a therapeutic vaccine in the fight against tuberculosis
Geneviève Inchauspé (France)

15:55 - 16:15
Pulmonary mucosal vaccination and local immunity
Helen McShane (United Kingdom)

16:15 - 16:35
Searching for correlates of immunity and protection
Thomas Scriba (South Africa)

16:35 - 16:45
Discussion

Short Oral Abstract session (SOA)
15:15 - 16:45

04. SAD to have TB: smoking, air pollution and vitamin D
Chairperson: Kamran Siddiqi (United Kingdom)
Chairperson: Goedele LOUWAGIE (South Africa)

SOA-529-2
7
Prevalence of cigarette smoking among patients with tuberculosis in Southern Namibia
Karin Husselmann (Namibia)

SOA-530-2
7
The association of household air pollution and tuberculosis in women and children in Pune, India
Jessica Elf (United States of America)

SOA-531-2
7
Interaction between smoking and preexisting tuberculosis on lung cancer
Hongjo Choi (Korea, Republic of)

SOA-532-2
7
Tobacco cessation intervention of civil society (Seva Sadhan) plays a vital role in treatment adherence among tobacco-using TB patients
Chinna Kiran kumar reddy Gali (India)
Scientific Programme

SOA-533-2 Attitudes about the impact of smoking and smoking cessation on TB among health care workers at TB facilities in Georgia
Lasha Darchia (Georgia)
15:47 - 15:55

SOA-534-2 Pulmonary tuberculosis and its association with tobacco smoking habits in Panniya tribes of India
Shanavas Palliyal (India)
15:55 - 16:03

SOA-535-2 Barrier identification to smoking cessation for drug-resistant tuberculosis patients in South Africa
Zifikile Phindile Cleverance Shangase (South Africa)
16:03 - 16:11

SOA-536-2 Quantifying the potential impact of smoking cessation campaigns on tuberculosis in Indonesia
Bradley Wagner (United States of America)
16:11 - 16:19

SOA-537-2 Seasonality of tuberculosis in Israel and serum 25-hydroxyvitamin D correlation, 2001-2011
Zohar Mor (Israel)
16:19 - 16:27

SOA-538-2 The proportion of deaths from tuberculosis, tuberculosis with diabetes and tuberculosis with cigarette consumption at age 15 years and above
Tita Rosita (Indonesia)
16:27 - 16:35

Symposium (SP)
15:15 - 16:45
Session Room 14

Call to Action, tapping the energy and influence of key stakeholders towards a TB-Free India

The Call to Action symposium will focus on efforts towards mobilization of multiple stakeholders and their collective action towards a TB-Free India.

OBJECTIVES
· To present an overview of the ‘Call to Action towards a TB-Free India’ and highlight key steps taken towards mobilizing multiple stakeholders
· To discuss the actions taken by group of stakeholders, from politicians to health leaders, civil society actors and researchers, private health practitioners to provide a momentum capable of sustaining high-level domestic commitment to end TB
· To profile some key stakeholders and their commitment to Call to Action

Chairperson: C K Mishra (India)
Chairperson: Jagdish Prasad (India)

Welcome Address
Jose Luis Castro (France)
15:15 - 15:25

Call to Action for A TB-Free India: A National campaign
Kavita Ayyagari (India)
15:25 - 15:35

Journey from MDR TB survivor to a patient advocate
Deepti Chavan (India)
15:35 - 15:45

Mobilizing corporate sector resources for a TB-Free India, followed by corporate representatives talking about their commitment towards a TB-free India
Mohd Shadab (India)
15:45 - 15:55
Engaging parliamentarians towards a TB-free India, followed by speech by a MP/audio visual on engagement of parliamentarians in India towards a TB-Free India  
Shiva Shrestha (India)

Mobilizing private health sector towards a TB-free Haryana: Experience from Medanta-the Medicity’s Mission TB Free Haryana  
Bornali Dutta (India)  
David Ford (United Kingdom)

Increasing visibility through engaging celebrities and media towards a TB-Free India, followed by an audio-visual address from Amitabh Bachchan, TB Ambassador, India  
Anumegha Bhatnagar (India)

Efforts and outcomes of The Call to Action  
Jamhoih Tonsing (India)

Community Common Session: Panel Discussion  
15:45 - 16:45

“Proud2Bsmokefree” - smoking and vaping in the LGBT community

There has been some success in the past encouraging ‘hard to reach’ groups to reduce or stop smoking – however, there remain challenging areas. Existing data suggested that the global LGBT (Lesbian, gay, bisexual and transgender) community has a higher prevalence of smoking compared to their heterosexual counterparts. In a study conducted by the LGBT Cancer Support Alliance, both the prevalence and the reasons why many members of the group smoke, vape or combine the two were explored. The report discusses community awareness around the link to serious illness, including lung cancer, and proposes a potential way forward.

These ideas will resonate with LGBT communities across the globe. In celebrating the publication of the “Proud2Bsmokefree” report, this panel will discuss smoking, vaping and LGBT people, and its links to long term lung disease. They will be asked to comment and take questions from the floor, and will discuss the following areas:

- Prevalence of smoking in the LGBT community – including evidence to suggest a high prevalence of individuals who both smoke and vape, and that the LGBT community has a higher % of smokers that the heterosexual community.
- Targeted marketing of the LGBT community by tobacco companies and the role this plays in encouraging new smokers and existing smokers to continue.
- Level of awareness around risk of serious health conditions due to smoking, with a particular emphasis on lung cancer.
- Exploring the triggers that contribute to higher smoking rates within the LGBT community, which may include social pressure, minority stress, self-esteem and poor mental health.
- The absence of tailored smoking cessation programs.

Coordinator: Lawrence Roberts (United Kingdom)  
Chairperson: Ben Heyworth (United Kingdom)
More of donor and national HIV budgets should be diverted to cover TB-HIV collaborative activities

Before the debate starts the audience will vote. Then each person will give a 2 minute introduction to state their case. Questions from the audience will follow and a debate will ensue. The audience will then vote once more having an opportunity to change their mind. The team which sways most people wins.

Tuberculosis (TB) and HIV form a lethal combination, each speeding the other’s deadly progress. To combat the deadly diseases, the WHO updated its policy recommendations culminating in the 12 collaborative TB-HIV activities launched in 2012. These recommendations outline the specific activities needed to improve health services and health outcomes for people with and at risk of TB and HIV.

However, recent research shows that uptake of these activities has been slow in the HIV work planning and budget allocation, instead allowing the TB programmes to bare the load. As TB is the leading killer of people living with HIV, causing one in three AIDS-related deaths, should the HIV programmes include more collaborative activities?

Coordinator: Rachael Crockett (United Kingdom)
Coordinator: Mandy Slutsker (United States of America)

07. Challenges of Zoonotic & Bovine TB control in Ethiopia

James Woods (UK)
The Union 2016 - 47th Union World Conference on Lung Health, 26 - 29 October, 2016, Liverpool, United Kingdom

Scientific Programme

Member Meetings (Regional, Section, Sub-section, Working Group)
17:15 - 18:45 Session Room 11C

HIV Section Meeting

The Union’s scientific sections and sub-sections give members the opportunity to affiliate with others who share the same interests and collaborate on research, publications and projects. One of their principal activities is to propose sessions and contribute to the planning of The Union World Conference on Lung Health, the largest annual conference focusing on lung health issues as they affect low- and middle-income populations. They also participate in the governance of The Union through the General Assembly.
Non-members are welcome to attend the section meetings to find out more.

Member Meetings (Regional, Section, Sub-section, Working Group)
17:15 - 18:15 Session Room 13

Bacteriology & Immunology Sub-section Meeting

The Union’s scientific sections and sub-sections give members the opportunity to affiliate with others who share the same interests and collaborate on research, publications and projects. One of their principal activities is to propose sessions and contribute to the planning of The Union World Conference on Lung Health, the largest annual conference focusing on lung health issues as they affect low- and middle-income populations. They also participate in the governance of The Union through the General Assembly.
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17:15 - 17:25
Bacteriology and Immunology Sub-section Meeting
Stella Van Beers (Netherlands)

Member Meetings (Regional, Section, Sub-section, Working Group)
17:15 - 18:15 Session Room 14

Nurses and Allied Professionals Sub-section Meeting

Subsection meeting for nursing and allied professionals
Linette McElroy (Canada)

Satellite session (SS)
17:30 - 19:00 Hall (Session room) 1A

13. Value and impact of complementary diagnostics and expanded drug susceptibility testing in the TB algorithm

The panelists will share and discuss the rationale, implementation and clinical impact of complementary diagnostics and expanded drug susceptibility testing in their national and institutional TB algorithms.

Chairperson: Salman Siddiqi (United States of America)
Chairperson: Romina Hasan (Pakistan)

The importance of liquid culture-based DST for effective drug-resistant TB management
Anastasia Samoylova (Russian Federation)
**Scientific Programme**

17:50 - 18:10

**Phenotypic susceptibility to anti-TB drugs of M. tuberculosis with mutations in genes associated with resistance to rifampicin and isoniazid**

Larisa Chernousova (Russian Federation)

18:10 - 18:30

**The importance of expanded phenotypic DST with molecular diagnostics implementation**

Miguel Viveiros (Portugal)

18:30 - 18:50

**Development of Bedaquiline and Clofazimine Drug Susceptibility Testing in MGIT System**

Halima Said (South Africa)

18:50 - 19:00

**Discussion**

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**Satellite session (SS)**
17:30 - 19:00

**Hall (Session room) 1B**

**03. Update on TB Alliance’s late-stage trials: an emerging new paradigm for TB therapy**

New results from clinical trials conducted by TB Alliance point to an emerging paradigm, where countries may soon have the short, all-oral, and affordable drug regimens needed to treat all people with TB. These regimens may markedly reshape the treatment landscape by offering a common therapy for virtually all people with drug-sensitive and drug-resistant TB, and a closely related treatment for those with extensively drug-resistant TB. Importantly, the regimens can be deployed in the context of currently available or forthcoming diagnostics. The objective of this session is to inform stakeholders of late-stage clinical trial results and generate discussion on critical next steps.

Chairperson: Mario Raviglione (Switzerland)
Chairperson: Francesca Conradie (South Africa)

17:30 - 17:45

**Improving TB drugs for children**

Mehmood Khan (United States of America)

17:45 - 18:00

**The diagnostic landscape: availability and suitability for drug regimens**

Claudia Denkinger (Switzerland)

18:00 - 18:15

**NC-005: phase 2 clinical trial results of bedaquiline, moxifloxacin, pretomanid, and pyrazinamide for drug-sensitive and drug-resistant TB**

Stephen Murray (United States of America)

18:15 - 18:30

**Nix-TB: a clinical trial of bedaquiline, pretomanid, and linezolid in extensively drug-resistant TB**

Daniel Everitt (United States of America)

18:30 - 18:45

**A new paradigm for TB treatment**

Melvin Spigelman (United States of America)

18:45 - 19:00

**Discussion**
Scientific Programme

Satellite session (SS)  
17:30 - 19:00  
Hall (Session room) 1C

04. Partnership approach in achieving standards for TB care

Standards for Tuberculosis (TB) Care are fundamental to partnerships in Healthcare. With countries gearing up to achieve End TB strategy, innovative frameworks leveraging partnership models need to be advocated for replication. In tandem with the theme of the conference, this workshop envisions to advocate several innovative partnership experiences. The experiences shared will beacon stakeholders to make coordinated efforts in confronting resistance with innovative partnership models in health care.

Our aim is to develop a draft guidance document on innovative partnership approaches in achieving standards for TB care, based on deliberations and experiences shared by stakeholders.

Chairperson: Hendrik Jan Bekedam (India)  
Chairperson: Srinivas Hundy (India)

Framework for equitable access to high quality TB diagnosis  
17:30 - 17:45  
Ranjani Ramachandran (India)

E-Governance and TB surveillance  
17:45 - 18:00  
Achuthan Nair Sreenivas (India)

Engaging elected representatives and professional organizations to move the agenda beyond TB control  
18:00 - 18:15  
Nandini Sharma (India)

Fostering partnerships beyond clinical care for TB  
18:15 - 18:30  
David Griffith (Germany)

Health in life course  
18:30 - 18:45  
Rahul Thakur (India)

Discussion  
18:45 - 19:00

Satellite session (SS)  
17:30 - 19:00  
Session Room 3A

05. New tools to support end the TB strategy

In order to reach missing 3-million and help meet the goal of tuberculosis elimination, new strategy and tools are required. Innovative strategies that includes active case finding combined with new and improved technology can support future needs and impact how program managers, laboratories, clinicians, and healthcare workers improve patient care and clinical operations. This satellite session will provide insights into how to implement new and successful strategies in a presence of new diagnostic tool to combat the tuberculosis epidemic in variety of settings.

Chairperson: Amy Piatek (United States of America)  
Chairperson: Cheri Vincent (United States of America)

New diagnostic application of Xpert MTB/RIF for pediatric MTB  
17:30 - 17:50  
David Alland (United States of America)

Engaging private sector and road to a successful implementation  
17:50 - 18:10  
Madhukar Pai (Canada)

How to measure TB programme success: C360  
18:10 - 18:30  
Lesley Scott (South Africa)
Scientific Programme

Reaching out to missing three million: Mobile MTB/HIV Programme  18:30 - 18:50
Linda Gail-Bekker (South Africa)

Discussion  18:50 - 19:00

Satellite session (SS)
17:30 - 19:00  Session Room 3B

06. Presentation of TB ReFLECT: an integrated analysis of the fluoroquinolone clinical trials for TB treatment

This symposium describes a joint initiative by the World Health Organization (WHO) and the Critical Path to TB Drug Regimens (CPTR) to maximize what the field can learn from the contemporary Phase III fluoroquinolone treatment shortening TB clinical trials. Emphasis will be placed on updating researchers, scientists and programme managers on lessons learnt regarding the testing and use of shorter TB regimens for the treatment of TB through an integrated meta-analysis of all three clinical trials. Publically-accessible tools, data standards, and the data sharing platform developed to enhance TB clinical research efforts will be described.

Chairperson: Debra Hanna (United States of America)
Chairperson: Christian Lienhardt (Switzerland)

The OFLOTUB trial: key results and outputs  17:30 - 17:50
Katherine Fielding (United Kingdom)

The REMox and RIFAXQUIN trials: key results and outputs  17:50 - 18:10
Patrick Philips (United Kingdom)

An integrative analysis of the fluoroquinolone containing phase III TB clinical trials  18:10 - 18:30
Rada Savic (United States of America)

Application of learning’s from the TB-REFLECT collaboration  18:30 - 18:50
Christian Lienhardt (Switzerland)

Panel discussion  18:50 - 19:00
Debra Hanna (United States of America)

Satellite session (SS)
17:30 - 19:00  Session Room 11B

07. How facilities earn their keep: provider payment for quality TB services

Governments often pay for health inputs, providing $x for patient food and $x for staff salaries. But what they really want to buy is patient treatment. By changing the way TB is financed, we can improve both efficiency and effectiveness. Join us for an interactive “talk show” on this important topic.

Chairperson: Sara Feinstein (United States of America)
Chairperson: Cheri Vincent (United States of America)

What the heck is provider payment and why does it matter for TB?  17:30 - 17:45
Peter Cowley (Barbados)

Development of a TB DRG system for Kyrgyzstan  17:45 - 18:00
Alexandr Katsana (Canada)
**Scientific Programme**

**Building a road map for TB system restructuring**
Rakhat Cholurova (Kyrgyz Republic)  
18:00 - 18:15

**TB control and the link to health financing in Ukraine**
Yana Terleeva (Ukraine)  
18:15 - 18:30

**TB models of care and payment in the WHO European Region: association with treatment outcomes?**
Martin van den Boom (Denmark)  
18:30 - 18:45

**Discussion**  
18:45 - 19:00

**Satellite session (SS)**
17:30 - 19:00  
Session Room 12

**08. From surveillance and diagnosis to therapeutic innovation: 3 case studies to illustrate TB challenges Expertise France addresses in complex settings**

In Abidjan, Expertise France included 943 prisoners in the biggest ever done TB prevalence study in an African prison: with 19 confirmed TB cases, the prevalence is 10 times higher than in general Ivorian population;  
- In Chad, implementation of GeneXpert machine in a regional capital was the first step to develop the national MDR TB program;  
- The Union, with a 3 years grant from Expertise France, was able to achieve a clinical trial at the ground level in 9 African countries which demonstrates efficacy of short therapeutic regimen for MDR-TB

Chairperson: Christelle Boulanger (France)

**First case study: short therapeutic regimen for MDR-TB**
Arnaud Trébucq (France)  
Dissou Affolabi (Benin)  
17:30 - 17:55

**Second case study: TB and key populations in Ivory Coast**
Marie-Catherine Receveur (France)  
17:55 - 18:20

**Third case study: national MDR-TB programme in Chad**
Doudeadoum Ngarhounoum (To be confirmed) (Chad)  
18:20 - 18:45

**Discussion**  
18:45 - 19:00

**Member Meetings (Regional, Section, Sub-section, Working Group)**
18:00 - 19:30  
Session Room 10

**Zoonotic Sub-section and Working Group Meeting**

The Union’s scientific sections and sub-sections give members the opportunity to affiliate with others who share the same interests and collaborate on research, publications and projects. One of their principal activities is to propose sessions and contribute to the planning of The Union World Conference on Lung Health, the largest annual conference focusing on lung health issues as they affect low- and middle-income populations. They also participate in the governance of The Union through the General Assembly.  
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Championing the political will to end TB

RESULTS UK is a movement of passionate, committed, everyday people using our voices to influence political decisions to bring an end to extreme poverty. Having been a leading voice on TB policy at home and abroad, we also provide the secretariat to the UK Parliament’s All-Party Group on Global TB.

This session will give us the opportunity to demonstrate the value of advocacy combining the voices of politicians, the public and of medical professionals to tackle TB effectively. Learning from committed well-informed advocates, we will look at how volunteer campaigners engage with politicians to campaign effectively on TB and reach the Global Goals.

Our Global Champions, two TB professionals working in the UK, will also be speaking about their recent experiences shadowing TB programmes in Cambodia and learning about different approaches to treatment. Having returned and undertaken significant media and advocacy engagements, including meetings with policymakers and MPs, they will talk first-hand about the value of being both an advocate and a practitioner.

Session will feature:
Introduction by RESULTS UK
UK parliamentarians speaking about their role as TB champions
Grassroots volunteer campaigners to talk about their experiences campaigning on TB and the best ways to engage the general public and parliamentarians
Global Champions to speak about their experiences as practitioners and advocates having shadowed medical professional at Global Fund-funded projects in Cambodia

Coordinator: Aamirah Patel (United Kingdom)
Coordinator: Dan Sharp (United Kingdom)

Presentation I
Susan Dart (United Kingdom)

Presentation II
Jessica Potter (United Kingdom)
A theatrical play performance by Project Axshya

Scene 1: A trial room at Heaven: Where God (Peter/Chitragupta) is hearing the case of Mr Kishanlal, a farmer who died at the age of 35 due to MDR TB. His wife, a local politician, his friend, a private doctor from his village, a government officer etc. are present. The jury asks questions about the death of Kishanlal and examining the factors led to his death.

Scene 2: on Earth: Kishanlal is living happily with his family in a village in India. After a few weeks of cough, he went to see a private doctor, who gave him some medicine and then the cough stops. Cough comes back and he goes to another doctor and then another. Finally, due to the high cost of medicines and other costs, he has to mortgage his land to a local politician. However, as per his friend’s advice, Kishanlal then goes to a government doctor, who gets him tested, and finds him to be suffering from MDR TB and is put on treatment. On learning that, his family members start avoiding him, separated his utensils and restricted him to one room. He stops his treatment; his condition worsens and he finally dies.

The play progresses with humour. Though the context would be Indian, it will try to connect the audience of different cultural background and orientation. It tries to reveal the systemic issues inter-playing behind contracting the same disease (TB) again and again. The story unravels the mysteries and incidents led to the death of Kishanlal. The thread of the story is satirical. At the end, of the play, it raises some uncomfortable questions, pointing fingers to the prevailing social justice system. Who is the culprit? Is it a state sponsored death? And what would be the verdict of God in this case?

Coordinator: V G Ranjith Babu (India)
Coordinator: Ajith G Maniyan (India)

Presentation
Ranjith Babu (India)
Karuna Devi Sagili (India)
Sarabjit Chadha (India)
Scientific Programme

Community Common Cultural Activity: Participatory Activity
07:30 - 18:00 Community Common Galleria

Research Literacy Networking Zone

The Research Literacy Networking Zone is an interactive exhibition space that allows TB Alliance and Aeras, along with any other interested partners involved in Community Engagement (CE) and research literacy efforts, to showcase and share materials they have developed to raise knowledge in communities involved in TB clinical research. The exhibition space will host two activities, scheduled throughout the morning and afternoon:

• Interactive research literacy activities will be a fun way for visitors of the Community Common to visit the exhibition and learn important facts about TB and research, as well as new methods for educating communities about the importance of the clinical research process.

• Research literacy tool review sessions will provide an important opportunity to gather feedback from stakeholders on the appropriateness and usefulness of the materials that TB Alliance, Aeras, and other interested partners have developed to educate communities about their work. Feedback received during these sessions will be incorporated into future materials and methods.

Meet the expert session (MTE)
07:45 - 08:45 Session Room 10

04. Measuring and improving quality of TB care

Madhukar Pai (Canada)

Poor quality of TB care increases morbidity and mortality, and is a major threat to TB control. Data from several high-burden countries show major gaps in TB care cascades. In this session, we will review available data on quality of TB care, methods that can be used to measure quality of care, and discuss potential strategies for quality improvement (QI) programmes.

Presentation
Madhukar Pai (Canada) 07:45 - 07:55

Member Meetings (Regional, Section, Sub-section, Working Group)
07:45 - 08:45 Session Room 11A

WG: TB, HIV and Tobacco

Welcome and introduction 07:45 - 07:55

WG members activities since last meeting 07:55 - 08:25
Jonathan Golub (United States of America)
Goedele LOUWAGIE (South Africa)
Omara Dogar (United Kingdom)

WG outputs 08:25 - 08:35
Meet the expert session (MTE)
07:45 - 08:45
Session Room 11B

05. Overlapping epidemics HIV/Diabetes/TB
Anthony D Harries (UK)

Globally there are about the same number of persons with HIV-associated TB as Diabetes-associated TB, at just over 1 million apiece. HIV-associated TB is focused largely in sub-Saharan Africa (southern Africa particularly) while Diabetes-associated TB is largely focused in Asia (India and China particularly). The degree of overlap between HIV-associated TB and Diabetes-associated TB is not known. Both HIV and diabetes increase the risk of active TB, and both adversely affect TB treatment outcomes. This “Meet the Expert session” will focus on these issues and also discuss the interventions that can be offered to mitigate the effects of HIV and Diabetes on TB.

Tackling HIV and Diabetes Mellitus to prevent TB
Anthony D Harries (United Kingdom)

07:45 - 07:55

Meet the expert session (MTE)
07:45 - 08:45
Session Room 12

06. Management of MDR-TB contacts
Simon Schaaf (South Africa), Greggory Fox (Australia)

Contacts of patients with MDR-TB have a substantial risk of developing the disease. Recent cohort studies suggest preventive therapy for infected contacts is well tolerated and may reduce the incidence of disease. Several clinical trials will soon be underway to explore the effectiveness of preventive therapy in adult and child contacts. In this Meet the Experts session, investigators in two ongoing clinical trials of preventive therapy for MDR-TB (the TB CHAMP and V-QUIN MDR trials) will introduce the topic of current management recommendations for this challenging group of contacts by presenting some cases for discussion.

MDR-TB context in children
Hendrik Simon Schaaf (South Africa)

07:45 - 07:55

Management of MDR-TB contacts
Gregory Fox (Australia)

07:55 - 08:25

Plenary session (PL) (inc Opening and Closing)
09:00 - 10:00
Plenary Hall

Plenary Session Day 2: Tobacco control

Chairperson: Melody Holt (United Kingdom)
Chairperson: Kamran Siddiqi (United Kingdom)
Chairperson: Jesus Felipe Gonzalez Roldan (Mexico)

E-cigarettes and the future of the tobacco industry: Competition or capture, obsolescence or renewal?
Jeff Collin (United Kingdom)

09:00 - 09:10

Current picture and tobacco control efforts in Africa
Kellen Namusisi (South Africa)

09:10 - 09:20

The political successes and shortfalls that “100% smoke-free” campaigns are facing in Latin America
Tania Cavalcante (Brazil)

09:20 - 09:30
Respecting Human Rights In TB Prevention and Care

This moderated panel discussion will focus on solutions and challenges that emerge when applying a human rights framework to the fight against TB. What does a human rights approach say about informing and delivering care to vast numbers of people living with TB infection? How do we deliver treatment and care in a way that protects the rights of individuals, health workers, and the surrounding community—especially in an era of widespread antimicrobial resistance? This expert panel will explore these questions and more.

Chairperson: Zied Mhirsi (Tunisia)

10:15 - 10:30
Colleen Daniels

10:30 - 10:45
Jonathan Stillo

10:45 - 11:00
Lynette Mabote

11:00 - 11:30
Q&A

Affected communities in Asia & the Pacific: Advancing communities, rights & gender in the TB response

Background: The Asia Pacific Platform on Communities, Rights & Gender (APCRG) has been established by the Global Fund to advance community engagement in Global Fund processes. APCRG has worked closely with Stop TB Partnership and Global Coalition of TB Activists to build a network of engaged TB advocates in Asia-Pacific - providing a voice to the groups who must be engaged under the Global Plan to End TB. These advocates represent the most affected populations and in this capacity they have completed CRG Needs Assessments in their respective countries. This process has highlighted priorities of civil society and affected communities in 8 countries of the region and has served to inform recommendations for how to enhance the TB response in the Asia-Pacific.

Method: Building on the paradigm shift introduced by the Stop TB Partnership, including the Stop TB Partnership’s work on key populations, APCIASO has developed a tool to guide assessments on CRG issues that can be completed by affected communities and civil society. The outcomes from the assessments, conducted by and for civil society in 8 countries, has been compiled in a report.

Results: Sub-national, national and Asia-Pacific regional CRG priorities have been identified through this process and recommendations to address these issues have been made - particularly on how to strengthen community systems, how to increase the capacity of TB advocates, broad human rights and gender issues that face TB populations and also steps to better integrate rights and gender concerns in TB interventions - planning, implementing, monitoring and evaluation.

Conclusions: The Global Plan to End TB 2016-2020 emphasises that TB interventions incorporate CRG concerns. A people-centred and rights based approach is critical if we are to reach key populations, remove barriers to TB elimination and advance prevention, treatment and care.

Coordinator: James Malar (Thailand)
Coordinator: Colleen Daniels (Switzerland)

Presentation I
James Malar (Thailand)

Presentation II
Colleen Daniels (Switzerland)

Presentation III
Daniel Marguari (Indonesia)
Scientific Programme

Oral Abstract session (OA)
10:30 - 12:00

10. HIV and TB: lessons from Africa

Chairperson: Neil Martinson (South Africa)
Chairperson: Alwyn G Mwinga (Zambia)

OA-372-28 Tuberculosis prevalence and incidence among people living with HIV attending HIV care and treatment clinics in Botswana, August 2012-Oct 2014
Alyssa Finlay (Botswana) 10:30 - 10:40

OA-373-28 The infectiousness of HIV-seropositive tuberculosis patients in sub-Saharan Africa
Leonardo Martinez (United States of America) 10:40 - 10:50

OA-374-28 Performance of CXR screening with molecular diagnosis for pulmonary tuberculosis in HIV-positive cases with no clinical symptoms in Kigali, Rwanda
Vincent Mutabazi (Rwanda) 10:50 - 11:00

OA-375-28 Performance of WHO TB symptom screen in hospitalized HIV-positive Kenyan children
Lisa Cranmer (United States of America) 11:00 - 11:10

OA-377-28 Patient preferences for provision of isoniazid preventive therapy among people living with HIV in South Africa
Colleen Hanrahan (United States of America) 11:20 - 11:30

OA-378-28 Urgent interventions to improve isoniazid preventive therapy delivery in Swaziland
Lisa V. Adams (United States of America) 11:30 - 11:40

OA-379-28 Modeling the implementation of population-level isoniazid preventive therapy for tuberculosis control in a high HIV prevalence setting
Allison Rhines (United States of America) 11:40 - 11:50

Symposium (SP)
10:30 - 12:00

21. MDR-TB and migration: from infection fundamentals to programme innovations

This symposium will provide latest scientific and programmatic evidence on MDR-TB infection related challenges faced by migrants and mobile populations. There are risk factors for TB exposure, infection, transmission and poor outcomes, increasing risk of drug resistance, throughout the migration process, from origin, travel, transit, destination and possible return. Such challenges are faced by different migrant and mobile population groups, including migrant workers, undocumented migrants, refugees and internally displaced persons facing forced displacement after conflict or a natural disaster. Delegates will hear from and discuss with a wide range of stakeholders including scientific experts, national TB programme, migrant community, others.

Chairperson: Gilles Cesari (Switzerland)
Chairperson: Poonam Dhavan (Switzerland)

Overview of MDR-TB in migrants: epidemiology, increased risks and clinical specific issues to addressing MDR-TB in mobile populations
Jose Caminero Luna (Spain) 10:30 - 10:45
Scientific Programme

Accessing MDR-TB treatment: labor migration in Tajikistan and the journey of an MDR-TB patient crossing borders to access better care
Rukhshona Qurbonova (Tajikistan)  
Accessing MDR-TB treatment: decentralised management, the challenges and opportunities in ensuring timely diagnosis, continuity of care and monitoring of MDR-TB treatment in India
VS Salhotra (India)  
Increased risk for MDR-TB for labour migrants in Southern Africa, especially miners
Llang Bridget M. Maama-Maime (Lesotho)  
MDR-TB in migrants: a gender and children perspective
Anna Scardigli (Switzerland)  
Discussion

Symposium (SP)
10:30 - 12:00
Hall (Session room) 1C

20. Challenging tuberculosis in urban settings and big cities in comprehensive TB control programmes

The world’s total urban population reached an estimated 3.8 billion in 2013, and is projected to swell to nearly 6.3 billion by 2050. In 2014, the urban population represented over half of the global population, compared to about a third in 1960. During the last two decades, TB incidence has increased in urban settings and big cities as a result of several social and demographic factors, including poor TB control efforts and the rise and concentration of high-risk groups.

Objective: To examine and discuss TB control experiences from African, Euro-Asian and Latin American countries in urban settings and big cities.

Chairperson: Seyoum Dejene (Uganda)  
Chairperson: Pedro Guillermo Suarez (United States of America)  
Strengthening TB service provision through urban DOTS in Kampala, Uganda
Frank Mugabe (Uganda)  
Addressing the TB control issue in fragile states: urban DOTS experience in Kabul, Afghanistan
Mohammad Khakerah Rashidi (Afghanistan)  
TB in urban settings and big cities in Latin America: general overview
Mirtha Del Granado (United States of America)  
Challenges to improve TB case detection and quality of care in big cities in Latin America: experience of Lima and Callao, Peru
Edith Alarcon (Peru)  
The perfect storm: the convergence of clinical and social complexity in London, UK
Alistair Story (United Kingdom)  
Discussion
Scientific Programme

Special session
10:30 - 12:00
Session Room 3A

ERS Highlights
Chairperson: Giovanni Battista Migliori (Italy)

Management of COPD 2016
Peter Calverley (United Kingdom)
10:30 - 10:40

Pneumonia - State of the Art
Mark Woodhead (United Kingdom)
10:40 - 10:50

Presentation 3
Ashley Woodcock (United Kingdom)
10:50 - 11:00

Domiciliary NIV for COPD
Robert Parker (United Kingdom)
11:00 - 11:10

Symposium (SP)
10:30 - 12:00
Session Room 3B

19. Implementing pillar three of WHO's End TB Strategy at the country level: lessons learnt from path-finding countries

Intensified research and innovation is one of the three essential pillars of WHO's End TB Strategy. A Global Action Framework for TB Research has been developed by WHO to foster high-quality national and global TB research to end the TB epidemic. A key aspect at country level is the development of country-specific TB research plans by:

1) Establishing a multi-stakeholder and multi-disciplinary national TB research network that bridges TB control programmes with research communities
2) Development of country-specific targeted research priorities, using novel tools

This symposium seeks to disseminate experiences of ‘path-finding’ countries in scaling-up TB research activities.

Chairperson: Christian Lienhardt (Switzerland)
Chairperson: Mauricio Barreto (Brazil)

Implementing Pillar 3 of WHO’s End TB Strategy at country level
Priya Shete (United States of America)
10:30 - 10:45

The role of Ethiopia’s TB research network (TRAC) in driving the agenda for TB research
Abraham Aseffa (Ethiopia)
10:45 - 11:00

Brazil’s TB Research Network (Rede-TB)’s experience in developing and implementing a multi-spectrum national TB research agenda
Afranio Kritski (Brazil)
11:00 - 11:15

Using current country level socio-economic data to define high-risk groups for targeting interventions: the S-Protect project
Ethel L Maciel (Brazil)
11:15 - 11:30

Modelling for evidence: defining country-derived research questions and answers
Gavin Churchyard (South Africa)
11:30 - 11:45

Discussion
11:45 - 12:00
China TB Clinical Trial Consortium

Closed meeting

Symposium (SP)
10:30 - 12:00
Session Room 11A

23. Magnitude and scope of TB stigma: scale validation and cross-country comparisons

Levels of TB stigma vary widely and impact all aspects of TB control. Surveys using validated TB stigma scales can help to track improvement in attitudes toward TB disease, TB patients and their adherence to treatment, and the health workers who care for them. It is essential to understand the challenges of rigorous TB stigma measurement in specific populations and to appreciate how this field is evolving to address stigma measurement issues in the context of MDR and TB-HIV syndemics.

Chairperson: Ellen MH Mitchell (Netherlands)
Chairperson: Ernesto Jaramillo (Switzerland)

Overview of the TB stigma scale landscape: validity, utility and robustness of existing measures for use in measuring progress in reducing TB stigma
Aaron Kipp (United States of America)

Stigma hotspots and time trends: mapping attitudes toward TB disease disclosure across 39 countries
Mirjam Bakker (Netherlands)

Is attitude toward TB disease disclosure a valid proxy measure of anticipated TB stigma in the general population? Evidence from Honduras
Charlotte Colvin (United States of America)

Are TB stigmas compound stigmas? Correlation of TB disease disclosure and levels of poverty, incarceration, substance use and HIV

Adding fuel to the fire: accounting for drug-resistance and HIV in measurement of TB stigma
Amrita Daftary (Canada)

Discussion
Symposium (SP)
10:30 - 12:00
Session Room 11B

22. New approaches to MDR-TB treatment in children: from research to evidence-based implementation

There have been substantial recent developments to improve MDR-TB treatment in children. Important knowledge gaps remain, but implementation of existing and new knowledge is now needed to best translate these advances into practical care for children in the field. This symposium will highlight advances in treatment of children with MDR-TB with potential to impact routine care. Emerging data will be presented on treatment outcomes in children and on paediatric dosing of key second-line anti-tuberculosis drugs. Experience will be shared on the recent development of international MDR-TB treatment guidelines, and with the implementation of MDR-TB treatment in children in the field.

Chairperson: James Seddon (United Kingdom)
Chairperson: Hendrik Simon Schaaf (South Africa)

Scientific and clinical rationale for the substitution of a novel TB drug for the injectable agents in MDR-TB treatment regimens in children
Ethel Weld (United States of America)

Pharmacokinetics of moxifloxacin and linezolid in children with MDR-TB and implications for paediatric dosing
Anthony Garcia-Prats (South Africa)

Predictors of MDR-TB treatment outcomes in children and adolescents receiving individualised regimens
Silvia Chiang (United States of America)

World Health Organization treatment guidelines for drug-resistant TB, 2016 update: recommendations and their application to children
Dennis Falzon (Switzerland)

Challenges and solutions to scaling up paediatric MDR-TB treatment in Central Asia
Aravind Swaminathan (India)

Discussion

Symposium (SP)
10:30 - 12:00
Session Room 11C

24. Asthma and COPD: a shifting landscape

This symposium will explore a new paradigm for understanding and managing obstructive airway diseases. It will highlight in particular the work of the recent Lancet Commission on asthma. Presentations about low-income countries in Africa and the Middle East will reflect on the implications for health systems and policy, and how changes could be implemented.

Chairperson: Jean-William Fitting (Switzerland)
Chairperson: Guy Marks (Australia)

Challenges of using spirometry and peak flow measurement in low-income countries
Asma El Sony (Sudan)

A new paradigm for understanding and managing obstructive airways disease
Ian Pavord (United Kingdom)
The Union 2016 - 47th Union World Conference on Lung Health, 
26 - 29 October, 2016, 
Liverpool, United Kingdom

Scientific Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 11:10 - 11:30 | Challenges of implementing new models of care in low- and middle-income countries  
Kevin Mortimer (United Kingdom) |
| 11:30 - 11:50 | Asthma and COPD - a continuum of disease from childhood: implications for low- and middle-income countries  
Guy Marks (Australia) |

Oral Abstract session (OA)  
10:30 - 12:00  
Session Room 12

11. Bacteria, vaccines and immunity

Chairperson: Mark Hatherill (South Africa)  
Chairperson: Thomas Scriba (South Africa)

| OA-380-28 | Previous BCG vaccination associated with variation in mycobacterial-specific immune response: a modelling study  
Sophie Rhodes (United Kingdom) |
<table>
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<tbody>
<tr>
<td>10:30 - 10:40</td>
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</table>
| OA-381-28 | Can BCG prevent M. tuberculosis infection in guinea pigs exposed to human cases?  
Edward Nardell (United States of America) |
| 10:40 - 10:50 |                                                                                                                                 |
| OA-382-28 | The impact of previous BCG vaccination in enhancing the effectiveness of anti-tuberculosis drugs to control mycobacterial growth ex vivo  
Satria Arief Prabowo (United Kingdom) |
| 10:50 - 11:00 |                                                                                                                                 |
| OA-383-28 | Efficacy of the BCG vaccine on overall causes of mortality in Brazil  
Kleydson Bonfim Andrade (Brazil) |
| 11:00 - 11:10 |                                                                                                                                 |
| OA-384-28 | Delayed-type hypersensitivity response in Balb/C mice vaccinated with chimera DNA vaccine against tuberculosis and leishmania co-infection  
Prem Shankar (India) |
| 11:10 - 11:20 |                                                                                                                                 |
| OA-385-28 | Mycobacterium tuberculosis-specific interferon-gamma responses, the Beijing-lineage, and plasma adipocytokine levels in patients with active tuberculosis  
Nuyyen Thi Le Hang (Viet Nam) |
| 11:20 - 11:30 |                                                                                                                                 |
| OA-386-28 | First comparative proteomic analysis of the Mycobacterium tuberculosis lineage 7  
Solomon Yimer (Norway) |
| 11:30 - 11:40 |                                                                                                                                 |
| OA-387-28 | Inflammasomal response after ESAT stimulation could help differentiate between active TB and latent TB infection  
Jann-Yuan Wang (Taiwan) |
| 11:40 - 11:50 |                                                                                                                                 |
### Symposium (SP)

**25. Qualitative research for tuberculosis control: what lessons can researchers offer to policymakers and implementers in tackling drug-resistant TB?**

There has been a growing interest in the contributions that qualitative research can make in the design and implementation of infectious disease policies and programmes. Qualitative research is best positioned to explore the contextual factors and complex processes that influence the implementation and outcomes of a programme or policy. This symposium will present a range of case studies taken from diverse countries, which will demonstrate how qualitative research methodologies can provide significant, and often crucial, insights that can equip TB control programme for confronting drug resistant TB, while simultaneously, reflecting critically on the methods the studies employed for data collection.

Chairperson: John Porter (United Kingdom)
Chairperson: Ian Harper (United Kingdom)

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>10:30 - 10:45</td>
<td>Using qualitative research and stakeholder engagement to develop a patient-centred, psychosocial support intervention for MDR-TB care in Nepal</td>
<td>Sushil Baral (Nepal)</td>
</tr>
<tr>
<td>10:45 - 11:00</td>
<td>‘I have become a nothing’: exploring the role of men’s shame in undermining better health outcomes in men infected with TB and HIV, rural Zambia</td>
<td>Virginia Bond (Zambia)</td>
</tr>
<tr>
<td>11:00 - 11:15</td>
<td>‘At the district level there is still a large gap…’: a qualitative research of implementation process of public private partnership for tuberculosis control in India</td>
<td>Solomon Salve (India)</td>
</tr>
<tr>
<td>11:15 - 11:30</td>
<td>Lessons learnt from qualitative research in TB control in Nepal</td>
<td>Ian Harper (United Kingdom)</td>
</tr>
<tr>
<td>11:30 - 11:45</td>
<td>Confronting resistance: positioning qualitative research in relation to global tuberculosis control and research</td>
<td>Coll Hutchison (United Kingdom)</td>
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<tr>
<td>11:45 - 12:00</td>
<td>Discussion</td>
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Scientific Programme

Symposium (SP)
10:30 - 12:00
Session Room 14

26. Best practices and challenges in ending TB in correctional facilities

Correctional facilities are often been cited as reservoirs for TB, presenting a potential public health threat to the general population. At the same time, the correctional facilities present an opportunity for effective TB control, when prison health services could take advantage of the special features of the prison environment.

This symposium will explore practical interventions to control TB in correctional facilities applying the WHO recommended strategy.

Target audience: TB programme implementers at the regional, national and local levels.

Objectives:
1) To discuss the TB control interventions in prisons
2) To present the best practices in organisation of TB services for inmates

Chairperson: Rafail Mehdiyev (Azerbaijan)
Chairperson: Masoud Dara (Belgium)

Impact of TB transmission in prisons to the community
Julio Croda (Brazil) 10:30 - 10:45

Early case-finding and its impact on the TB burden in prisons of Azerbaijan
Elmira Gurbanova (Azerbaijan) 10:45 - 11:00

Results of TB treatment and care for ex-prisoners in Republic of Moldova
Svetlana Doltu (Moldova) 11:00 - 11:15

Optimisation of TB services in the prison system of the Ukraine
Olexander Etnis (Ukraine) 11:15 - 11:30

TB control and respiratory health interventions in the prisons of the UK
Sarah Anderson (United Kingdom) 11:30 - 11:45

Special session
12:00 - 13:30
Plenary Hall

Lancet Respiratory Medicine Symposium: Dealing with drug-resistant tuberculosis

Chairperson: Keertan Dheda (South Africa)
Chairperson: Tawanda Gumbo (United States of America)

New insights into the pathogenesis of drug-resistant TB and implications for clinical practice
Keertan Dheda (South Africa) 12:00 - 12:20

Enabling next generation whole genome sequencing readouts directly from sputum samples and in the clinic: Hype or Hope?
Megan Murray (United States of America) 12:20 - 12:35

PK/PD considerations for first and second line drugs including bedaquiline and delamanid: State of the art for the practising clinician
Tawanda Gumbo (United States of America) 12:35 - 12:50
Scientific Programme

Using bedaquiline and delamanid in MDR-TB and their contacts: key advances, controversies and practice points 12:50 - 13:05
Gavin Churchyard (South Africa)

Infection control in TB clinics and hospitals in endemic countries: A straightforward guide for clinicians and policy makers on what works and what to do 13:05 - 13:20
Edward Nardell (United States of America)

Global burdens, global opportunities: climate change, lung health and NCDs?
The NCD Dialogues session 2 -

Climate change and non-communicable diseases are acknowledged to be two of the defining challenges of the 21st century. Climate change is projected to have increasingly damaging effects on communities and economies over the coming decades, being set to cause several hundred thousand deaths annually by 2030. Despite the worsening health impacts of climate change, the links between these two areas create as much an opportunity as a threat. Chronic lung conditions and NCDs share common risk factors, of which air pollution, physical inactivity and poor diet are major causes of morbidity and mortality. These three risk factors share some of the same origins and solutions as climate change, across sectors including energy, transport systems, food and agriculture, and emissions from industry, commerce and workplaces.

Objectives:
- Explore the common causes of climate change, lung health, and other NCDs
- Share good practice in implementing co-benefit solutions with positive outcomes for both health and climate change
- Identify upcoming opportunities at the global and national level to bring about positive policy change

Lunch will be provided.

Coordinator: Tiphaine Lagarde (Switzerland)
Chair: José Luis Castro, Executive Director, The Union, Chair of the NCD Alliance

[•Professor Dean Schraufnagel, Professor of Medicine and Pathology, University of Illinois at Chicago, Section of Pulmonary, Critical Care, and Sleep Medicine (MC 719) Department of Medicine, Director, Forum of International Respiratory Societies
[•Dr Thomas Matte, Vice-President for Environment Health, Vital Strategies
[•Dr Anil Kapur, Chairman of the Board of Directors, World Diabetes Foundation TBC

Coordinator: Tiphaine Lagarde (Switzerland)
Chairperson: Jose Luis Castro (France)

Presenters: 12:15 - 12:25
Dean Schraufnagel (United States of America)
Thomas Matte (United States of America)
Anil Kapur (Denmark)
Scientific Programme

Member Meetings (Regional, Section, Sub-section, Working Group)
12:15 - 13:15

Europe Region Meeting

Union Europe Regional Report 2016
Ivan Solovic (Slovakia)

Asia Pacific Region Meeting

1. Governance

Speech of the Union by Secretary-General
Xiaolin Wei (Canada)

Annual report by Chairman
Lixia Wang (China)

Preparation for the 6th Conference of International Union Against Tuberculosis and Lung Disease Asia Pacific Region
Toru Mori

Regional Financial and Audit report, including current payment of member fee of APR countries
Amanda Christensen (Australia)

Future ideas of Scientific Committee
Jennifer Ann Wi

2. Collaboration with Union Regional/Country Offices

Reports of Activities by the Union Regional Office in Singapore
Prabodh BHAMBAL (India)

Reports of Activities by the Union Regional Office in China
Gan Quan (China)

3. The 7th Union APR Conference 2019

4. The membership

Presentation
Jing Wang

North America Region Meeting
Scientific Programme

Member Meetings (Regional, Section, Sub-section, Working Group)  
12:15 - 13:15  
Session Room 13

Latin America Region Meeting

E-poster session (EP)  
12:15 - 13:15  
Session Room 5

06. Community-based approaches for TB
Chairperson: Stacie Stender (South Africa)

EP-148-28  TB detection rates through community mobilization versus household contact investigation in rural South Sudan  
Emmanuel Males (South Sudan, Republic of)

EP-149-28  Notification of TB-HIV co-infected cases through a community-based approach  
Sugata Mukhopadhyay (India)

EP-150-28  When ex-TB patients start looking for other patients: results after 28 months in the South-Kivu province of DRC  
Olivier Bahati Rusumba (Congo (Democratic Rep.))

EP-151-28  Redefining the scope of civil society for tuberculosis control by 2035: a unique initiative by The Union  
Sripriya Pandurangan (India)

EP-152-28  Educlowns and tuberculosis: community theatre, gender and TB awareness in rural areas of Tamil Nadu  
Mercy Annapoorni (India)

EP-153-28  The ´TB missed call´ initiative in the State of Punjab under Digital India  
Naresh Kumar Sharma (India)

EP-154-28  Promoting proper diagnosis and treatment of tuberculosis among employees through the workplace TB program in the City of Calamba, Philippines  
Teodoro Jr Yu (Philippines)

Gloria Okoko (Kenya)

EP-157-28  Analysing the impact of the context in which disease control programmes are embedded: a situational assessment of tuberculosis in Myanmar  
Mishal Sameer Khan (Singapore)

E-poster session (EP)  
12:15 - 13:15  
Session Room 6

07. TB transmission dynamics
Chairperson: Gerry Davies (United Kingdom)
### Scientific Programme

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>EP-158-28</td>
<td>Transmission of Mycobacterium tuberculosis among children and adolescents in schools and congregate settings: systematic literature review and meta-analysis</td>
</tr>
<tr>
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<td>Monica Sañé Schepisi (Italy)</td>
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<td>EP-159-28</td>
<td>Geospatial analyses of M. tuberculosis transmission in Greater Gaborone, Botswana: the Kopanyo Study</td>
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<td>Patrick K Moonan (United States of America)</td>
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<td>EP-160-28</td>
<td>Utilization of the WHONET program for early identification of Mycobacterium tuberculosis clusters based on molecular data</td>
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<td>Daniel Chemtob (Israel)</td>
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<td>Eleanor Click (United States of America)</td>
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<tr>
<td>EP-162-28</td>
<td>Potential of a combined technique of social network analysis and geographic information system in understanding transmission of M. tuberculosis</td>
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<td>Kiyohiko Izumi (Japan)</td>
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<td>EP-163-28</td>
<td>Whole genome sequencing to analyze the transmission dynamics of multidrug-resistant Mycobacterium tuberculosis strains in Saudi Arabia</td>
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<td>Sahal Al-Hajoj Al-Nakhli (Saudi Arabia)</td>
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<td>Conor J. Meehan (Belgium)</td>
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<tr>
<td>EP-165-28</td>
<td>Determining the transmission dynamics of tuberculosis in the Greater Banjul Area of The Gambia</td>
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<td>Tutty Isatou Faal-Jawara (Gambia)</td>
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<tr>
<td>EP-166-28</td>
<td>Genetic diversity of Mycobacterium tuberculosis isolates by fingerprinting method in southern Iran</td>
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<td>Golnar Sami Kashkooli (Iran, Islamic Rep. Of)</td>
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<tr>
<td>EP-167-28</td>
<td>Empirical measurement of the agent of tuberculosis transmission utilising the respiratory aerosol sampling chamber</td>
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<td>Benjamin Patterson (United States of America)</td>
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**E-poster session (EP)**

12:15 - 13:15  
Session Room 8

### 08. "I need you": strengthening health systems

Chairperson: Anna Scardigli (Switzerland)

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<tr>
<th>Poster Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>EP-168-28</td>
<td>Implementing standard operation procedures for tuberculosis case detection: a solution to tackle TB in 13 provinces of Afghanistan</td>
</tr>
<tr>
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<td>Mohammad Khaled Seddiq (Afghanistan)</td>
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<tr>
<td>EP-169-28</td>
<td>Multi-stakeholder participation builds synergies to accelerate TB control</td>
</tr>
<tr>
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<td>Rosalie Masangkay (Philippines)</td>
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<td>Mustapha Gidado (Nigeria)</td>
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Scientific Programme

EP-171-28 Trend and prospect of tuberculosis mortality rate in Brazil: contributions for the National Plan to End Tuberculosis
Andrea Paula Lobo (Brazil)

EP-172-28 Effect of wellness-based health promotion and education on the demand for TB and other disease screening services
Muyabala Munachitombwe - Muna (Swaziland)

Karina Kielmann (United Kingdom)

Seung Heon Lee (Korea, Republic of)

EP-175-28 Opinion leaders: unengaged key stakeholders in TB care and prevention
Anand Das (India)

EP-176-28 Development of the patient care system to reduce defaulting among migrant tuberculosis patients along Thai-Myanmar border
Kanlayanee Nakarit (Thailand)

E-poster session (EP)
12:15 - 13:15 Session Room 9

09. GeneXpert: exciting results from field implementation
Chairperson: Richard Anthony (Netherlands)

EP-177-28 Contribution of GeneXpert implementation towards detection of multidrug-resistant TB in Uganda
Henry Luwaga (Uganda)

EP-178-28 Increased diagnostic yield and notifications of bacteriologically confirmed cases using Xpert® MTB/RIF as the initial test in semi-pastoralists: Ethiopia
Jemberu Raya Soressa (Ethiopia)

EP-179-28 Does the clinical performance of new tuberculosis diagnostic tools meet the required performance standards under programmatic conditions?
Jean Claude Semuto Ngabonziza (Rwanda)

EP-180-28 Implementation of GeneXpert technology for rapid TB diagnosis in South Sudan: lessons learnt
Anthony Worri (South Sudan, Republic of)

EP-181-28 A tool to reduce treatment initiation delay
A N M Al Imran (United States of America)

EP-182-28 Use of Xpert® MTB/RIF/GeneXpert® cycle threshold to replace monthly culture in the follow-up of MDR-TB patients in Bamako, Mali
Bassirou Diarra (Mali)

EP-183-28 Distribution of DR-TB following the nine revised criteria for Xpert® MTB/RIF testing in Bangladesh
Sarder Tanzir Hossain (Bangladesh)
Scientific Programme

EP-184-28  Scaling up Xpert® MTB/RIF implementation under India's Revised National TB Control Programme
Shikha Dhawan (India)

EP-185-28  It's broken again: the scenario of GeneXpert machines in Bangladesh
Sarder Tanzir Hossain (Bangladesh)

Poster discussion session (PD)
12:15 - 13:15

20. "Help!" Identifying TB education and training needs and outcomes from selected interventions
Row 2
Chairperson: Linette McElroy (Canada)

PD-802-28  Tuberculosis knowledge, attitudes and practice among cases and contacts in a UK city
Catherine Browne (United Kingdom)

PD-803-28  TB patient’s existing and preferred sources of TB-related information: findings from a KAP survey across 30 districts in India
Karuna Devi Sagili (India)

PD-805-28  Tuberculosis prevention and control: how knowledgeable are hospital workers in India?
Ramya Km (India)

PD-806-28  Establishing a framework for TB nursing education in Australia
Amanda Christensen (Australia)

PD-807-28  A study of knowledge, attitudes and practice regarding Mycobacterium tuberculosis among private practitioners in Abbottabad District, Khyber Pakhtunkhwa, Pakistan
Kishwar Naz (Pakistan)

PD-808-28  Building an educational campaign with the participation of the prison community
Luciana Nemeth (Brazil)

PD-809-28  Improving the treatment success rate and case notification of smear-positive tuberculosis patients through household health education in Kenya
Titus Kiptai (Kenya)

PD-810-28  Evaluation of the knowledge of registered nurses about TB and MDR-TB in Lesotho
Rejakile Esau Fosa (Lesotho)

PD-811-28  'Finding’ TB in India via active pharmacy engagement: early results from the IC-IMPACTS Study
Amrita Daftary (Canada)

PD-812-28  Capacity building of primary care providers to improve TB case detection in Georgia
Tamar Gabunia (Georgia)

PD-813-28  Social and behavior change initiatives to improve TB detection and treatment adherence in Georgia
Tamar Gabunia (Georgia)
The Union 2016 - 47th Union World Conference on Lung Health,
26 - 29 October, 2016,
Liverpool, United Kingdom

**Scientific Programme**

Poster discussion session (PD)
12:15 - 13:15

**Poster Area**

21. Adult lung health in Africa and Asia

Row 5

Chairperson: Guy Marks (Australia)

**PD-814-28** Correlation between body mass index and forced expiratory volume in one second (FEV1 % predicted) in patients with COPD
Nishant Kumar Chauhan (India)

**PD-816-28** Prescription practices rationalized by the Practical Approach to Lung health in Kerala, India
Shibu Balakrishnan (India)

**PD-818-28** A development study of pulmonary rehabilitation for patients with chronic lung disease in Uganda
Rupert Jones (United Kingdom)

**PD-819-28** Prognostic factors for interstitial lung disease with microscopic polyangiitis
Annettie Ssempala (Uganda)

**PD-820-28** Smoking and lung cancer risk in Sri Lankan men: a case-control study
Pubudu Upekshana Chulasiri (Sri Lanka)

**PD-821-28** Trigger factors for asthma symptoms in Sudan and their validation using skin prick tests
Aamir Magzoub (Sudan)

**PD-822-28** Prevalence of pulmonary involvement in rheumatoid arthritis patients in an Indian population
Krishna Gupta (India)

**PD-823-28** Computed tomographic pulmonary angiography findings in pulmonary embolism: report of 38 cases
Alain Bakebe (Congo (Democratic Rep.))

Poster discussion session (PD)
12:15 - 13:15

**Poster Area**

22. Childhood TB clinical and outcomes

Row 7

Chairperson: Anne Detjen (United States of America)

**PD-824-28** Two’s company, three’s a crowd: tuberculosis in HIV-infected South African children with complicated severe acute malnutrition
Hugh Adler (South Africa)

**PD-825-28** Integrating routine TB screening for children in malnutrition programmes: a review of country guidelines from high TB burden countries
Leena Patel (United States of America)

**PD-826-28** TB case finding among malnourished school-age children
Kristine De Guzman (Philippines)
Scientific Programme

PD-827-28 Tuberculosis pericardial effusions in children
Ndidi June Obihara (Netherlands)

PD-828-28 Atypical radiological patterns in children with bacteriologically confirmed pulmonary tuberculosis
Marieke van der Zalm (South Africa)

PD-829-28 Factors associated with mortality among children diagnosed with tuberculosis in Kampala City, Uganda
Deus Lukoye (Uganda)

PD-830-28 Factors affecting treatment outcome of childhood tuberculosis in two regions of Ethiopia
Dereje Habte (Ethiopia)

PD-831-28 Excellent outcomes seen in children treated for tuberculosis under programmatic conditions in Cape Town, South Africa
Muhammad Osman (South Africa)

PD-832-28 Risk factors for treatment default in pediatric tuberculosis cases
Do Chau-Giang (Viet Nam)

PD-833-28 Investigating loss to follow-up among adolescent TB patients in Gaborone, Botswana
Leslie Enane (United States of America)

Poster discussion session (PD)
12:15 - 13:15

23. Childhood TB around the world
Row 9
Chairperson: Daria Szkwarko (United States of America)

PD-834-28 Community-based tracing of contacts to improve tuberculosis screening and uptake of isoniazid preventive therapy among children
Christine Mwamsidu (Kenya)

PD-835-28 Risk factors for complicated TB in children aged under 2 years: an observational study in a low-incidence TB country
Antoni Soriano-Arandes (Spain)

PD-836-28 Paediatric tuberculosis in Timor-Leste: opportunities for improving recognition, diagnosis and prevention
Charlotte Hall (United Kingdom)

PD-837-28 Factors associated with non-adherence to antituberculosis treatment among children attending three paediatric TB clinics in Kampala, Uganda
Regina Nakiranda (Uganda)

PD-838-28 Window ventilation is an effective intervention for preventing clusters of tuberculosis in schools
Qiongjin Ma (China)

PD-839-28 Implementation of task-shifting for childhood TB in Nigeria: the role of pediatricians
Mustapha Gidado (Nigeria)
PD-840-28  Implementation of gastric aspiration rooms for diagnosis of pediatric tuberculosis in two health facilities in Lima, Peru
Leonid Lecca (Peru)

PD-841-28  Management of children with tuberculosis at a referral hospital in Malawi
Henry Kanyerere (Malawi)

PD-842-28  Retrospective analysis of pediatric tuberculosis management at Kyiv City Pediatric Tuberculosis Hospital in Ukraine
Natasha Rybak (United States of America)

PD-843-28  Are young females more at risk? Three of four children were girls among notified pediatric MDR-TB cases in Maharashtra, India
Shankar Dapkekar (India)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

24. Knowing the enemy (better): MDR-TB epidemiology II
Row 11
Chairperson: Susan van den Hof (Netherlands)

PD-844-28  Detection of XDR-TB in the Russian Federation
Testov Vadim (Russian Federation)

PD-845-28  Multidrug-resistant tuberculosis in Brazil: descriptive analysis, 2010-2015
Kaio Vinicius Freitas de Andrade (Brazil)

PD-846-28  Factors driving antibiotic resistance in a transitioning health system: results from the first multi-centre case-control study on tuberculosis in Myanmar
Mishal Sameer Khan (Singapore)

PD-847-28  Burden of multidrug-resistant TB in Indian states: current trend
Ranjith Babu (India)

PD-848-28  Anti-Tuberculosis Drug Resistance Survey in Iraq
Layth Salihi (Iraq)

PD-849-28  Unravelling TB drug resistance in Kenya
Joseph Sitienei (Kenya)

PD-850-28  Trends in tuberculosis and multidrug-resistant tuberculosis among provinces in South Africa
Kyu Han Lee (United States of America)

PD-851-28  Strengthening multidrug-resistant tuberculosis surveillance program in the Arctic area of Russia using novel technologies for detecting the causative agent
Maria Vinokurova (Russian Federation)

Irada Akhundova (Azerbaijan)
Scientific Programme

Miranda Loutet (United Kingdom)

PD-854-28 First survey of anti-tuberculosis drug resistance in Djibouti, 2014
Elisa Tagliani (Italy)

Poster discussion session (PD)
12:15 - 13:15 Poster Area

25. "With a little help from my friends": linking the public-private sectors
Row 15
Chairperson: Mandy Slutsker (United States of America)

PD-855-28 Implementation of Public-Private Mix for TB control in India: perspectives and practices of district managers and frontline workers
Solomon Salve (India)

PD-856-28 Outcomes of institutionalizing DOTS in urban settings on tuberculosis case notification and treatment: the case of Kandahar city
Ghulam Qader (Afghanistan)

PD-857-28 Tuberculosis case notification by private practitioners in Delhi, India: is the mechanism sustainable?
Shekhar Waikar (India)

PD-858-28 Tuberculosis management practices of private practitioners in Central India
Moumita Biswas (India)

PD-859-28 Large-scale private provider engagement via e-health and free TB drugs in urban Patna, India
Nita Jha (India)

PD-860-28 Models of corporate engagement in TB control in India
Mohd Shadab (India)

Poster discussion session (PD)
12:15 - 13:15 Poster Area

26. Tuberculosis and diabetes outcomes: not always "so sweet"
Row 18
Chairperson: Wim Vandevelde (South Africa)

PD-861-28 Treating diabetes in tuberculosis patients: experience with metformin and insulin in the TANDEM Program
Rovina Ruslami (Indonesia)

PD-862-28 Impact of diabetes on drug-resistant tuberculosis treatment outcomes: retrospective cohort study in Pakistan
Abdul Ghafoor (Pakistan)
Scientific Programme

PD-863-28 Epidemiological characteristics and treatment outcomes among Peruvian MDR-TB patients with and without diabetes
Cesar Ugarte-Gil (Peru)

PD-864-28 Comorbidities and other factors associated with retreatment of tuberculosis in Brazil, 2010-2014
Nanci Saita (Brazil)

PD-865-28 The influence of diabetes mellitus on treatment outcomes of patients with pulmonary tuberculosis
Serine Sahakyan (Armenia)

PD-866-28 Is diabetes mellitus a risk factor for relapse among tuberculosis patients on directly observed treatment?
P.V.M. Lakshmi (India)

PD-867-28 Diabetes in tuberculosis patients in Iraq: prevalence and impact on treatment
Layth Al-Salihi (Iraq)

PD-868-28 Clinical manifestations of tuberculosis in patients with pulmonary TB and TB combined with different types of diabetes
Rizvan Abdullaev (Russian Federation)

PD-869-28 Indonesia´s tuberculosis-diabetes registry: comparison of sputum smear and culture results for tuberculosis diagnosis in patients with and without diabetes comorbidity
Retna Indah Sugiyono (Indonesia)

PD-870-28 Impact of poorly controlled diabetes and adverse drug reactions on treatment outcome in patients receiving directly observed treatment for TB: a prospective study
Khalid Umer Khayyam (India)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

27. MDR drugs: access, supply and cost
Row 25
Chairperson: Colleen Daniels (Switzerland)

PD-871-28 Too little, too late: new anti-tuberculosis drugs for patients with complex drug-resistant tuberculosis in Mumbai
Petros Isaakidis (India)

PD-872-28 Drug use reviews: an approach for ensuring the rational use of anti-tuberculosis and antiretroviral medicines in Ukraine
Oksana Lebega (Ukraine)

PD-874-28 Country perceptions for implementation of new multidrug-resistant TB medicines
Darivianca Laloo (Switzerland)

PD-875-28 Implementation of a bedaquiline access programme for the treatment of drug-resistant tuberculosis in the Western Cape, South Africa
Yulene Kock (South Africa)
Scientific Programme

PD-876-28 Achievements and challenges in accessing new drugs for drug-resistant TB patients managed in primary care settings in Khayelitsha, South Africa
Erika Mohr (South Africa)

PD-877-28 Strengthening quality assurance systems of pharmaceutical manufacturers to ensure availability of affordable TB medicines on the global market
Jennifer Derry (United States of America)

PD-878-28 Cost analysis of models of care during the intensive phase of multidrug-resistant tuberculosis treatment at St Peter’s Hospital, Ethiopia
Meseret Birhanu (Ethiopia)

PD-879-28 No severe hearing loss detected with pure tone audiometry in patients treated with short-course MDR-TB treatment in Niger
Mahamadou Bassirou Souleymane (Niger)

PD-880-28 Minimum inhibitory concentration testing can improve multidrug-resistant tuberculosis regimen choice in Bangladesh
Scott Heysell (United States of America)

Poster discussion session (PD)
12:15 - 13:15 Poster Area

28. "Getting better": service delivery reforms to enhance patient centred-care
Row 32
Chairperson: Carrie Tudor (Switzerland)

PD-881-28 Integrating tuberculosis care in designated hospitals in Zhejiang Province, China: implications for service delivery
Karina Kielmann (United Kingdom)

PD-882-28 Improving ART uptake and treatment outcomes among TB-HIV co-infected patients by implementing a one stop model of care in Kampala, Uganda
Enock Kizito (Uganda)

PD-883-28 The need to restructure TB hospitals in the Kyrgyz Republic
Amira Ibrahimova (Kyrgyz Republic)

PD-884-28 Cost-effectiveness of public-private mix models for enhancing case detection of tuberculosis in Viet Nam
Bao Vu (Viet Nam)

PD-885-28 Social enterprise model for increased tuberculosis case detection in the private sector of Dhaka, Bangladesh
Toufiq Rahman (Bangladesh)

PD-886-28 The yield of TB screening in over 16 million out-patient department visitors in two regions of Ethiopia
Zewdu Gashu (Ethiopia)

PD-887-28 Should smear-negative TB individuals with symptoms be actively followed up to identify missing cases in India? Study from Barmer, Rajasthan
Rohitashwa Kumar (India)
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PD-888-28  Strengthening patient-centered care by implementing a TB-HIV active surveillance system in Swaziland  
Khontile Kunene (Swaziland)

PD-889-28  Cost and operation management of a community outreach program improving access to TB care services in tribal populations in Central India  
Hojoon Sohn (Canada)

PD-890-28  Improving case management with integration of TB patient management into hospital software in Viet Nam  
Hien Le (Viet Nam)

PD-891-28  Out-patient treatment of TB patients in the Kyrgyz Republic  
Rakhat Cholurova (Kyrgyz Republic)

Poster discussion session (PD)  
12:15 - 13:15  
Poster Area

29. Community-based, decentralised MDR care

Row 35  
Chairperson: Benson Otieno Ulo (Kenya)

PD-893-28  Addressing the challenges of drug-resistant tuberculosis and other TB treatment outcomes in selected local government areas in Nigeria  
Tosin Idaboh (Nigeria)

PD-894-28  Unraveling on-treatment mortality at a decentralized DR-TB hospital in KwaZulu-Natal, South Africa  
Amy Beeson (United States of America)

PD-895-28  Decentralization of MDR-TB cohort reviews to regional level improves participation of key stakeholders: lessons from enhanced regional cohort reviews in Uganda  
Etwom Alfred (Uganda)

PD-896-28  Interim treatment outcome among patients managed for drug-resistant TB in three treatment centres in Nigeria  
Michael Odo (Nigeria)

PD-897-28  Follow-up of multidrug-resistant tuberculosis patients enrolled in the home care project of a community health department in a tertiary care hospital in Delhi  
Tanu Anand (India)

PD-898-28  Survival and predictors of mortality among multidrug-resistant tuberculosis patients on treatment in two regions of Ethiopia  
Zewdu Gashu (Ethiopia)

PD-900-28  A new child on board: nurse-initiated MDR TB treatment  
Annatjie Peters (South Africa)

PD-902-28  Low pre-diagnosis and pre-treatment attrition among adults with presumptive MDR-TB in Chennai, India: an operational research  
Dina Nair (India)
**Scientific Programme**

**PD-903-28**  
Impact of community-based DR-TB program in reducing time to treatment initiation and increasing the number of enrollments  
Paul Daru (Bangladesh)

Poster discussion session (PD)  
12:15 - 13:15  
Poster Area

**30. Tobacco control: policy legislation**

Row 27  
Chairperson: Myra Wisotzky (United States of America)

**PD-904-28**  
The role of civil society in policy advocacy for tobacco control in Africa  
Deowan Mohee (Togo)

**PD-905-28**  
How cigarette affordability can affect smoking prevalence in Brazil  
Ana Paula Leal Teixeira (Brazil)

**PD-906-28**  
The impact of sin tax on health awareness programs  
Ralph Emerson Degollacion (Philippines)

**PD-907-28**  
Impact of effective monitoring and regulatory mechanisms on vendors' compliance with ban on electronic nicotine delivery systems in Punjab, India  
Rakesh Gupta (India)

**PD-908-28**  
Role of evaluation of internal tobacco industry documents in tobacco control: the case of Rwanda  
Jean Christophe Rusatira (Rwanda)

**PD-911-28**  
Misleading health claims of e-cigarette websites in Turkey  
Murat Guner (Turkey)

**31. Tobacco epidemiology**

Row 37  
Chairperson: Sonu Goel (India)

**PD-914-28**  
A case control study of the prevalence of Green Tobacco Sickness in two villages of rural Mizoram, India  
Jane Ralte (India)

**PD-915-28**  
A snapshot of tobacco use among adult population in Punjab, India, using GATS protocol  
Rakesh Gupta (India)

**PD-916-28**  
An analysis of the opportunity cost of household expenditure on tobacco in Uganda’s two lowest income groups  
Henry Zakumumpa (Uganda)
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PD-918-28 What GATS, India, has to say on female tobacco use initiation. What insights can we draw to halt this trend?
Mira Aghi (India)

PD-920-28 Evaluation of dual smoking (water pipe and cigarette) and related factors in Iran
Zahra Hessami (Iran, Islamic Rep. Of)

PD-921-28 Factors associated with smoking among adult males in Colombo district, Sri Lanka
Pubudu Upekshana Chulasiri (Sri Lanka)

Sonu Goel (India)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

32. Second-line TB drugs: new drugs, new resistance, new challenges

Row 42

Chairperson: Rosanna Boyd (Botswana)

PD-924-28 Performance of the MTBDRsl line probe assay for rapid detection of resistance to second-line anti-tuberculosis drugs and ethambutol in China
Naihui Chu (China)

PD-925-28 Genetic characterization of second-line drug-resistant and extensively drug-resistant Mycobacterium tuberculosis in North India
Rakesh Yadav (India)

PD-926-28 Susceptibilities of multidrug-resistant Mycobacterium tuberculosis culture isolates to unconventional drugs
Peter Cegielski (United States of America)

PD-927-28 Validation of levofloxacin drug susceptibility testing in clinical isolates of Mycobacterium tuberculosis
Zully M Puyen (Peru)

PD-928-28 Evaluation of MTBDRsl Version 2 for detection of resistance to second-line anti-tuberculosis drugs in Ghana
Dorothy Yeboah-Manu (Ghana)

PD-929-28 Development of an oligonucleotide array for detection of first- and second-line Mycobacterium tuberculosis drug resistance
Chin-Yu Chen (Taiwan)

PD-930-28 In vitro activities of clofazimine in combination with ethambutol or bedaquiline against drug-resistant tuberculosis
Ruwen Jou (Taiwan)

PD-931-28 Performance of the new V2.0 of the GenoType MTBDRsl test
Alexandra Aubry (France)
PD-932-28  Performance and utility of TaqMan Array Card for genotypic susceptibility testing for nine anti-tuberculosis drugs in MDR-TB  
Eric Houpt (United States of America)

PD-933-28  Evaluation of diagnostic accuracy of Anyplex™ MTB/NTM/MDR-TB Detection with PrimeStore™ Transport Media, Thailand  
Hannah Kirking (United States of America)

PD-934-28  Use of fosfomycin to control contamination of Mycobacterium tuberculosis culture in the BD BACTEC™ MGIT™ 960 System  
Roger Calderon Espinoza (Peru)

Poster discussion session (PD)  
12:15 - 13:15  
Poster Area

33. Expanding the diagnostic landscape: looking beyond sputum samples

Row 44

Chairperson: Palwasha KHAN (United Kingdom)

PD-935-28  Comparison of five methods for recovery of Mycobacterium tuberculosis DNA from stool samples  
Diego Ismael Quiroz (Peru)

PD-936-28  Xpert MTB/RIF assay for detection of Mycobacterium tuberculosis in stool samples of patients with pulmonary tuberculosis  
Umme Tasnim Maliha (Bangladesh)

PD-937-28  Application of a quantifiable stool RT-PCR assay to increase diagnostic yield in childhood TB  
Nadine Maranatha Harris (United States of America)

PD-938-28  Experience in applying the Xpert® MTB/RIF assay to diagnose bone and joint tuberculosis in the Republic of Uzbekistan  
Zukhriddin Nuritdinov (Uzbekistan)

PD-939-28  Rapid detection of multidrug resistance in Mycobacterium tuberculosis from direct smear-negative sputum samples by high-resolution melt curve analysis  
Sagarika Haldar (India)

PD-940-28  Utility of the Myco/F lytic culture system for recovery of Mycobacterium tuberculosis from sterile body fluids  
Guirong Wang (China)

PD-941-28  Comparative performance of the Loopamp™ MTBC Detection kit for rapid detection of complex Mycobacterium tuberculosis: a retrospective study  
Sokleaph Cheng (Cambodia)

PD-942-28  Usefulness of a loop-mediated isothermal amplification (LAMP) test for diagnosing pulmonary tuberculosis in a clinical setting  
Kosuke Okada (Japan)

PD-943-28  A novel bead-based extraction method for improved qPCR and next-generation sequencing of Mycobacterium tuberculosis from low target samples  
Luke Thomas Daum (United States of America)
Scientific Programme

PD-944-28 Predicting mycobacterial load from the time of positive culture using the microscopic-observation drug-susceptibility assay
Eric Steve Ramos Maguiña (Peru)

Poster discussion session (PD)
12:15 - 13:15 Poster Area

34. Prisons: the smoking gun
Row 41
Chairperson: Farai Mavhunga (Namibia)

PD-945-28 Profile of tuberculosis patients in prisons in Japan: a cross-sectional study
Lisa Kawatsu (Japan)

PD-946-28 Factors associated with poor treatment outcomes of MDR-TB treatment in Tomsk penitentiary system in Russia among patients enrolled in 2000-2009
Irina Gelmanova (Russian Federation)

PD-947-28 Prevalence and risk factors associated with latent tuberculosis infection in security guards from a Colombian prison
Luisa Arroyave (Colombia)

PD-948-28 A linked epidemic? Incarcerated populations may drive tuberculosis rates in the general population
Zoe Mclaren (United States of America)

PD-949-28 Results of the first mass screening campaign for tuberculosis in the Namibian Correctional Service
Helena Mungunda (Namibia)

PD-950-28 Is symptom screening sufficiently sensitive for identification of presumed tuberculosis patients in a congregate setting?
Deus Lukoye (Uganda)

PD-951-28 Successful involvement of ASDAP in the management of tuberculosis cases in the central prison of Bamako, Mali
Camara Fatimata (Mali)

PD-952-28 High incidence of tuberculosis infection and disease in twelve Brazilian prisons
Everton Ferreira Lemos (Brazil)

PD-953-28 Tuberculosis case finding in a Brazilian prison
Daniele Maria Pelissari (Brazil)

Daniele Curtis (United Kingdom)
Scientific Programme

Poster discussion session (PD)
12:15 - 13:15

35. From TB data collection to TB data use for decision making
Row 55

Chairperson: Anete Trajman (Brazil)

PD-955-28 Improving TB patient indicators through frequent and prompt data use: a shift from quarterly to monthly data collection in Kampala
Sarah Zalwango (Uganda)

Eunice Mailu (Kenya)

PD-957-28 Estimating under-reporting of tuberculosis cases in the national surveillance system in Japan: comparing surveillance data and vital statistics
Kazuhiro Uchimura (Japan)

PD-958-28 Underreporting of tuberculosis cases in the Notifiable Disease Information System in Brazil
Kleydson Bonfim Andrade (Brazil)

PD-959-28 Availability of bacteriological information in tuberculosis notification data in Germany
Marta Andres (Germany)

PD-960-28 Research and programmatic agendas since 2000 in Cambodia: HIV, tuberculosis and malaria
Richard James (Singapore)

PD-961-28 Universal Access to TB Care (UATBC): information technology platform to drive scale-up in private sector engagement
Mitu Raychaudhary (India)

PD-962-28 Improving the quality and usage of MDR-TB surveillance data in South Africa
Deanna Tollefson (United States of America)

PD-963-28 Promoting evidence-informed policy making: lessons learned from setting up the NDOH TB Think Tank in South Africa
Salome Charalambous (South Africa)

PD-964-28 The impact of tuberculosis risk scores for child contacts on timely uptake of treatment for latent infection
Pei-Chun Chan (Taiwan)

Poster discussion session (PD)
12:15 - 13:15

36. TB testing: a bouquet of approaches
Row 47

Chairperson: Grant Theron (South Africa)

PD-965-28 Evolving diagnostic algorithms to improve detection and cost-efficiency: a TB REACH project in Cambodia
Sopheak Thai (Cambodia)
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<td>Toufiq Rahman (Bangladesh)</td>
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<td>RiView: an advanced computer-aided diagnosis platform for tuberculosis detection from digital chest X-rays</td>
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<td>Mausumi Acharyya (India)</td>
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<td>Further situation analysis of asymptomatic sputum smear-negative and culture-positive tuberculosis cases from the Cambodian prevalence survey in 2011</td>
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<td>Susumu Hirao (Japan)</td>
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<td>Utilization of WHO-endorsed TB tests by private health care providers in Hyderabad, India</td>
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<td>Relative effectiveness of free test vouchers on private provider TB test prescribing behavior in urban India</td>
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<td>Aparna Parulkar (India)</td>
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#### Poster discussion session (PD)
12:15 - 13:15

**37. TB mortality and recurrence**

Row 49

Chairperson: Adrian Muwonge (United Kingdom)

| PD-975-28 | Clinical parameters, routine inflammatory markers and LTA4H genotype as predictors for mortality among 552 tuberculous meningitis patients in Indonesia |
|           | Reinout van Crevel (Netherlands)                                                                                                                                                        |
| PD-976-28 | A model-based estimation of lives saved by India's Revised National Tuberculosis Control Programme from 1997 to 2014 |
|           | Sandip Mandal (India)                                                                                                                                                                   |
| PD-977-28 | Profile of deaths due to drug-resistant tuberculosis in Brazil, 2013-2015 |
|           | Kaio Vinicius Freitas de Andrade (Brazil)                                                                                                                                               |
| PD-978-28 | Analysis of risks factors associated with death in a cohort of tuberculosis patients in Suriname |
|           | Eric Commiesie (Suriname)                                                                                                                                                               |
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**PD-979-28**  **Tuberculosis treatment outcomes amongst patients enrolled in treatment with biometric monitoring, India**  
Charlotte Jackson (United Kingdom)

**PD-980-28**  **Recurrence of tuberculosis in a low-incidence setting without directly observed treatment: Victoria, 2002-2014**  
Justin Denholm (Australia)

**PD-981-28**  **Long-term risks of repeated tuberculosis treatment episodes in Birmingham, UK**  
Melinda Munang (United Kingdom)

**PD-982-28**  **Factors associated with multiple tuberculosis recurrences among HIV-uninfected persons**  
Yuri van der Heijden (United States of America)

**PD-983-28**  **Determinants of mortality due to tuberculosis in Amazonas, Brazil: a challenge for the End TB strategy**  
Ricardo Alexandre Arcêncio (Brazil)

**PD-984-28**  **Late commencement of anti-tuberculosis drugs in three DOTS referral centres in Benue State Nigeria: a neglected correlate of tuberculosis management**  
Onyemocho Audu (Nigeria)

**Poster discussion session (PD)**  
12:15 - 13:15  
**Poster Area**

38. Alternative diagnostics: from biomarkers, serology to X-ray

Row 54

**PD-985-28**  **The diagnostic value of immunologic tests in differential diagnosis of infiltrative pulmonary TB**  
Olga Demikhova (Russian Federation)

**PD-986-28**  **Performance of gene expression signatures in the context of intensified tuberculosis case finding among people living with HIV**  
Jayant Rajan (United States of America)

**PD-987-28**  **Evaluating the effect of T-Cell Xtend on T-SPOT.TB assay results**  
Jason Stout (United States of America)

**PD-988-28**  **Identification of novel host biomarkers in plasma as candidates for the immunodiagnosis of tuberculosis disease**  
Ruschca Jacobs (South Africa)

**PD-989-28**  **Equal sensitivity of the new generation QuantiFERON-TB Gold plus in direct comparison with the previous version, QuantiFERON-TB Gold IT**  
Sabine Hofmann-Thiel (Germany)

**PD-990-28**  **Evaluation of the antibody in lymphocyte supernatant assay in the detection of active tuberculosis**  
Tania Thomas (United States of America)

**PD-991-28**  **Multidrug-resistant mycobacterial strains in lymph node aspirated specimens from a National Reference Laboratory in India**  
Ajoy Kumar Verma (India)
Scientific Programme

PD-992-28 Utility of urine lipoarabinomannan in diagnosing tuberculosis and predicting mortality with and without HIV: an Asian perspective
Gompol Suwanpimolkul (Thailand)

PD-993-28 Chest X-ray findings in tuberculosis patients identified by spot sputum culture screening
Ema Rastoder (Denmark)

Community Common Cultural Activity: Art Display
13:20 - 13:50

Community Common Silent Theatre
A short film on tuberculosis
TB Proof’s Chanel Rossouw will present a short film that aims to give the audience an insight in to personal stories of illness and recovery. Discussion after the film will be encouraged.

Coordinator: Chanel Rossouw (South Africa)

Presentation
Chanel Rossouw (South Africa)

Special session
13:30 - 15:00
Hall (Session room) 1A

From pipeline to pill bottle: bringing drug innovation to patients
The ideal TB treatment has minimal side effects, pill burden, and length of treatment and is affordable for patients, governments, and donors alike. Innovation is essential to ensure people living with TB are offered treatments that are relevant to them - from rethinking basic science to clinical care to policy. This session will provide an overview of ‘what’s next’ in drug development for phthisis.

Experience from long-acting HIV drug development  13:30 - 13:45
Susan Swindells (United States of America)

PK-PD as applicable to TB drug development  13:45 - 14:00
Gerry Davies (United Kingdom)

Progress in scaling up delamanid use and introducing Otsuka’s second anti-TB compound’  14:00 - 14:15
Lawrence Geiter (United States of America)
Rajesh Gupta

The Bill and Melinda Gates Foundation strategy for new TB drug development and support for a PAN-TB regimen’  14:15 - 14:30
Jan Gheuens (United States of America)

Updates on new regulations: entire regimens or combinations vs individual compounds  14:30 - 14:45
Marco Cavaleri (United Kingdom)

Discussion  14:45 - 15:00
Scientific Programme

Symposium (SP)
13:30 - 15:00
Hall (Session room) 1B

28. Early warning system to improve patient access to TB medicines: from quantification to decision making

Ensuring that patients have continuous access to TB treatment requires complex calculations. Making projections is becoming more challenging with the introduction of new drugs and regimens and the phase-out of other regimens. Frequent forecasting and quantification, along with vigilant stock management, are vital to ensuring that appropriate types and quantities of medicines are available for treatment of all patients. Speakers will discuss early warning system (EWS) for TB medicines including second-line and pediatric drugs. Data from QuanTB tool as an EWS for drug stock-outs and experiences in high burden countries in Africa and Asia will be presented.

Chairperson: Job van Rest (Netherlands)
Chairperson: Luis Gustavo do Valle Bastos (United States of America)

13:30 - 13:45
Project implementation strengthening country MDR-TB drug management and quantification in Belarus: strengths and weaknesses
Liga Kuksa (Latvia)

13:45 - 14:00
Use of QuanTB: creating a constructive snowball effect en route to strengthen supply chain management of TB medicines in Bangladesh
Abdul Hamid (Bangladesh)

14:00 - 14:15
Use early warning system for effective planning of resources and to improve access to TB medicines: Rwanda and Somaliland experience
Job van Rest (Netherlands)

14:15 - 14:30
Managing risks of stock-outs, wastage, overstocks and expiries of TB medicines in Tanzania
Salama Mwatawala (Tanzania, United Rep.)

14:30 - 14:45
Early warning systems for streamlining Global Drug Facility procurement services
Andre Zagorski (Switzerland)

14:45 - 15:00
Discussion

Oral Abstract session (OA)
13:30 - 15:00
Hall (Session room) 1C

14. Challenges in TB diagnostics: an overview of methods and issues

Chairperson: Alaine Nyaruhirira (South Africa)
Chairperson: Stella Van Beers (Netherlands)

OA-396-28 Bovine tuberculosis in humans in Germany: what do we know from tuberculosis surveillance?
Lena Fiebig (Germany)

OA-397-28 Low-cost automated tuberculosis whole smear screening system
Yan Nei Law (Hong Kong)

OA-398-28 Serial molecular testing improves the detection of tuberculosis in a low-prevalence setting
Brian J. Baker (United States of America)
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<td><strong>Diagnosing extra-pulmonary tuberculosis by Xpert® MTB/RIF: the Bangladesh experience</strong></td>
<td>Paul Daru (Bangladesh)</td>
<td>14:00 - 14:10</td>
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<td>OA-400-28</td>
<td><strong>A systematic review of the diagnostic accuracy of TB-LAMP for pulmonary tuberculosis</strong></td>
<td>Priya Shete (United States of America)</td>
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<td>OA-401-28</td>
<td><strong>Misclassification of tuberculosis as other lung diseases in a tertiary chest disease hospital of a high prevalence country</strong></td>
<td>S M Mostofa Kamal (Bangladesh)</td>
<td>14:20 - 14:30</td>
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<td>OA-402-28</td>
<td><strong>Missed opportunities for rapid diagnosis of rifampicin-resistant tuberculosis in the setting of universal Xpert® MTB/RIF coverage in South Africa</strong></td>
<td>Erika Mohr (South Africa)</td>
<td>14:30 - 14:40</td>
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<td>OA-403-28</td>
<td><strong>Is introducing the Xpert® MTB/RIF test into the diagnostic algorithm of smear-negative tuberculosis cost-effective?</strong></td>
<td>Helena Huerga (France)</td>
<td>14:40 - 14:50</td>
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<td>OA-404-28</td>
<td><strong>Systematic review and meta-analysis of clinical outcomes of drug-susceptible tuberculosis diagnosed by Xpert® MTB/RIF and smear microscopy</strong></td>
<td>Tefera Agizew (Botswana)</td>
<td>14:50 - 15:00</td>
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#### Oral Abstract session (OA)
13:30 - 15:00

**13. Enhanced case-finding and contact tracing**

Chairperson: Elizabeth Corbett (Malawi)
Chairperson: Riitta Dlodlo (Zimbabwe)

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<td><strong>A systematic review of national policies on tuberculosis contact investigations</strong></td>
<td>Carly A Rodriguez (United States of America)</td>
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<td>OA-389-28</td>
<td><strong>Comparison of patients identified by active case finding against those identified in health centres</strong></td>
<td>Lovett Lawson (Nigeria)</td>
<td>13:40 - 13:50</td>
</tr>
<tr>
<td>OA-390-28</td>
<td><strong>Optimizing the efficacy and efficiency of household contact tracing in sub-Saharan Africa</strong></td>
<td>Leonardo Martinez (United States of America)</td>
<td>13:50 - 14:00</td>
</tr>
<tr>
<td>OA-391-28</td>
<td><strong>Do pilot active case finding projects increase case notification of sputum smear-positive tuberculosis at national level?</strong></td>
<td>Kobto Ghislain Koura (France)</td>
<td>14:00 - 14:10</td>
</tr>
<tr>
<td>OA-392-28</td>
<td><strong>Risk factors associated with undetected pulmonary TB in a prevalence survey, Callao, Perú</strong></td>
<td>Marco Tovar (Peru)</td>
<td>14:10 - 14:20</td>
</tr>
</tbody>
</table>
Scientific Programme

OA-393-28 Targeting TB preventive therapy to adult household contacts at high risk using a TB risk score  
Matthew J Saunders (United Kingdom)  
14:20 - 14:30

OA-394-28 Cost-effectiveness of active case finding of household contacts of pulmonary tuberculosis patients in an endemic setting, Lima, Peru  
Lena Shah (Canada)  
14:30 - 14:40

OA-395-28 Impact of tuberculosis control interventions targeted to previously treated people in a high-burden setting  
Florian Michael Marx (United States of America)  
14:40 - 14:50

Symposium (SP)  
13:30 - 15:00  Session Room 3B

27. MDR-TB and XDR-TB treatment service delivery models in Africa and Latin America

Multi Drug Resistant (MDR) and extensively-drug resistant TB (XDR-TB) are global challenges. Centralised inpatient treatment is still a common practice in many MDR-TB high-burden countries, but the lack of hospitals, long waiting lists for admissions, and high hospitalisation costs present challenges. Long hospital stays also disrupt patients’ livelihoods and may result in catastrophic costs. Hospitals are not linked to the primary health care centers in many cases and as a result there is no tracing mechanism to ensure proper follow-up. WHO recommends ambulatory models of care and treatment over hospital-based models.

Chairperson: Ernesto Jaramillo (Switzerland)  
Chairperson: Seyoum Dejene (Uganda)

Mixed ambulatory and in-patient treatment model of care: Ethiopian experience  
Degu Jerene (Ethiopia)  
13:30 - 13:45

Achieving rapid scale-up of MDR-TB treatment using a decentralised, mixed model of patient care in Uganda  
Raymond Byaruhanga (Uganda)  
13:45 - 14:00

Integrated home-based treatment of MDR-TB: South Africa experience  
Norbert Ndjeke (South Africa)  
14:00 - 14:15

Challenging MDR-TB and XDR-TB through a decentralised, mixed model in Peru  
14:15 - 14:30

Do decentralised treatment and care lead to better outcomes for MDR-TB patients? Results of systematic review  
Gregory Fox (Australia)  
14:30 - 14:45

Discussion  
14:45 - 15:00
30. Resistance to public health policy, the unique vector: tobacco industry

The tobacco industry interference in public health policies continues unabated as part of the industry’s strategy to increase tobacco addiction and profits in poorer countries. The frequently used vector model for tobacco control focuses on modifying the behavior of the host (tobacco users), agent (tobacco products) and environment - with far less accountability imposed on the vector (tobacco industry). This session aims to present lessons learned from countries that are actively protecting health policies from industry interference, including measures based on FCTC Article 5.3; and supply-side policies that aim to internalise tobacco costs through tax reforms, fees or liability measures.

Chairperson: Matthew Allen (New Zealand)

- **Status report on global and national measures to prevent tobacco industry interference in health and tobacco tax policies**
  - Anne Jones (Australia)
  
  *13:30 - 13:50*

- **Countering tobacco industry interference in tax policies: successful strategies**
  - Jean Tesche (United States of America)

  *13:50 - 14:10*

- **Observatory to monitor the strategies of the tobacco industry in Brazil**
  - Silvana Rubano Turci (Brazil)

  *14:10 - 14:30*

- **Public health policy and industrial epidemics: tackling conflict of interest, promoting policy coherence**
  - Jeff Collin (United Kingdom)

  *14:30 - 14:50*

- **Illicit tobacco trade**
  - Luk Joossens (Belgium)

  *14:50 - 15:00*

29. Moving towards integrated community and primary health systems to improve outcomes for women and children affected by TB and TB-HIV

An estimated one million children fall ill with tuberculosis each year, and with the majority going undiagnosed or misdiagnosed, over 136,000 die. At least 53 million children have TB infection but limited access to preventive therapy. TB is also a major contributor to morbidity and mortality among pregnant women. Addressing TB in key programmes targeting women, children and adolescents will strengthen integrated service delivery, bring mutual benefits and improve outcomes. The symposium will share how countries develop integrated approaches, present tools and an action plan on TB integration, and place TB integration in the broader context of health systems strengthening.

Chairperson: Anne Detjen (United States of America)
Chairperson: Marian Loveday (South Africa)

- **Child TB case finding and prevention at the community level in Uganda**
  - Moorine Sekadde (Uganda)

  *13:30 - 13:45*

- **Joining the country dialogue on integration**
  - Sabine Verkuijl (South Africa)

  *13:45 - 14:00*
**Scientific Programme**

**Integrating TB services within the reproductive, maternal, neonatal and child health platform**
Avinash Kanchar (Switzerland)

14:00 - 14:15

**Health systems thinking around TB integration**
Marian Loveday (South Africa)

14:15 - 14:30

**Strengthening community and primary health systems for TB**
Anne Detjen (United States of America)

14:30 - 14:45

**Discussion**

14:45 - 15:00

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**Oral Abstract session (OA)**

**Session Room 11C**

13:30 - 15:00

---

**16. Adult lung health: chronic obstructive pulmonary disease, chronic disease, asthma and oxygen**

Chairperson: Jean-William Fitting (Switzerland)
Chairperson: Asma El Sony (Sudan)

**OA-413-28** Prevalence and risk factors of chronic obstructive pulmonary disease in a sample of adult smokers, Baghdad, Iraq, 2014
Faris Lami (Iraq)

13:30 - 13:40

**OA-414-28** Increasing trends of COPD in persons living with diabetes: a population-based matched cohort study, 1984-2013
Nancy Yu (Canada)

13:40 - 13:50

**OA-415-28** Cost of hospitalization for chronic respiratory diseases in India: how much are the poor spending?
Jaya Prasad Tripathy (India)

13:50 - 14:00

**OA-417-28** The development of a lung health awareness-raising programme in Masindi province, Uganda
Rupert Jones (United Kingdom)

14:10 - 14:20

**OA-418-28** Assessment of asthma control and risk factors for poor asthma control among patients seen at a referral hospital, Addis Ababa, Ethiopia
Tewodros Haile Gebremariam (Ethiopia)

14:20 - 14:30

**OA-419-28** Oxygen therapy in a resource-limited setting: a time-series analysis of oxygen requirement and use in acutely unwell adults in Malawi
Aylwin Chick (Malawi)

14:30 - 14:40

**OA-420-28** Diagnostic performance of chest computed tomography for the localization of bleeding site in patients with hemoptysis
Yong-Soo Kwon (Korea, Republic of)

14:40 - 14:50
### Scientific Programme

**Oral Abstract session (OA)**
13:30 - 15:00

**Session Room 12**

<table>
<thead>
<tr>
<th>Oral Abstract Title</th>
<th>Session Time</th>
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<tbody>
<tr>
<td><strong>15. Tobacco packaging and graphic health warnings</strong></td>
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<tr>
<td>Chairperson: Angela Jackson Morris (United Kingdom)</td>
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<tr>
<td>Chairperson: Elif Dagli (Turkey)</td>
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<tr>
<td><strong>OA-405-28</strong> Tobacco pack warnings in South-East Asia. Where are we after 12 years of the FCTC?</td>
<td>13:30 - 13:40</td>
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<tr>
<td>Renu Sharma (India)</td>
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<td><strong>OA-406-28</strong> Changes in Vietnamese male smokers’ reactions towards pictorial cigarette pack warnings over time</td>
<td>13:40 - 13:50</td>
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<td>Tran Thu Ngan (Viet Nam)</td>
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<td>Overcoming resistance to bigger and better GHWs- case studies from Nepal, Cambodia and Pakistan</td>
<td>13:50 - 14:00</td>
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<tr>
<td>Fouad Aslam (Pakistan)</td>
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<td><strong>OA-411-28</strong> Are loose cigarettes associated with increased intensity of smoking? A secondary analysis from the Global Adult Tobacco Survey, 2009-2010, India</td>
<td>14:20 - 14:30</td>
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<tr>
<td>Sonu Goel (India)</td>
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<td><strong>OA-412-28</strong> Pictorial health warnings on cigarette packs are highly effective in thinking about quitting: a case study in Punjab, India</td>
<td>14:30 - 14:40</td>
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<tr>
<td>Rakesh Gupta (India)</td>
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**Symposium (SP)**
13:30 - 15:00

**Session Room 13**

<table>
<thead>
<tr>
<th>Symposium Title</th>
<th>Session Time</th>
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<tbody>
<tr>
<td><strong>31. Building research capacity in tuberculosis: the experience of training programmes and their impact in low-middle income countries</strong></td>
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<tr>
<td>Chairperson: Henry Blumberg (United States of America)</td>
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<tr>
<td>Chairperson: Anthony D Harries (United Kingdom)</td>
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<tr>
<td>An NIH Fogarty clinical research training programme: achievements and lessons learnt over 10 years</td>
<td>13:30 - 13:50</td>
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<tr>
<td>Russell Kempker (United States of America)</td>
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<tr>
<td>SORT IT model: successes and challenges</td>
<td>13:50 - 14:10</td>
</tr>
<tr>
<td>Ajay Kumar (India)</td>
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</tbody>
</table>
Scientific Programme

From different angles: role of research training programme for personal development and scientific research capacity building at the National Center for Tuberculosis and Lung Diseases (NCTLD)
Nestani Tukvadze (Georgia)
14:10 - 14:30

Learning through training: experience at the Armauer Hansen Research Institute in Ethiopia
Abraham Aseffa (Ethiopia)
14:30 - 14:50

Discussion
14:50 - 15:00

Symposium (SP)
13:30 - 15:00

32. Should addressing tobacco use in TB and HIV patients be integral to disease control programmes? A case for support

Tobacco use is the leading global cause of preventable death with six million deaths per year. It is often more common among TB and HIV patients than the general population. Furthermore, it leads to negative TB treatment outcomes and worsening of disease among those with HIV/AIDS. On the other hand, health professionals looking after TB and HIV patients have a window of opportunity to help them to quit and, in the process, improve their outcomes and enhance their life expectancy. This symposium aims to discuss the innovative approaches developed by the WHO and The Union, national TB programmes, and NGOs to tackle tobacco use to end TB and HIV epidemics.

Chairperson: Mario Raviglione (Switzerland)
Chairperson: Jonathan Golub (United States of America)

Prevalence of tobacco use in TB and HIV patients: secondary analyses based on demographic and health surveys and literature review
Noreen Mdege (United Kingdom)
13:30 - 13:45

Digital health interventions for TB tobacco control
Dennis Falzon (Switzerland)
13:45 - 14:00

Innovations for TB-tobacco: mHealth
Surabhi Joshi (Switzerland)
14:00 - 14:15

TB and tobacco control integration in primary care: WHO/The Union recommendations and country experiences
Dongbo Fu (Switzerland)
14:15 - 14:30

Scaling-up TB-tobacco integration at global level-mobilisation of resources
Reuben Swamickan (India)
14:30 - 14:45

Discussion
14:45 - 15:00

Community Common Session: Panel Discussion
14:10 - 15:40

Innovative patient driven movements and responses to challenge the status quo in TB
Scientific Programme

Presentation
Caomhe Smyth (Switzerland)  
14:10 - 14:20

Member Meetings (Regional, Section, Sub-section, Working Group)
14:15 - 15:45  
Pullman

Inter-Regional meeting

Oral Abstract session (OA)
15:15 - 16:45  
Hall (Session room) 1A

17. HIV-TB Late-breaker session

Chairperson: Katharina Kranzer (United Kingdom)
Chairperson: Amy BLOOM (United States of America)
Chairperson: Paula Fujiwara (United States of America)
Chairperson: Keren Middelkoop (South Africa)

OA-3048  
Potential impact of antiretroviral therapy on tuberculosis incidence among people with and without HIV - 26 countries, Sub-Saharan Africa, 2010-2014
Diya Surie (United States of America)

OA-3106  
Do high expression MIF alleles confer protection against active tuberculosis?
Duncan Reid (United States of America)

OA-3110  
Immunological recovery in tuberculosis/HIV co-infected patients on antiretroviral therapy: insight into strategy for tuberculosis preventive therapy
Basel Karo (Germany)

OA-2981  
Effectiveness of combination intervention package on initiation of antiretroviral therapy among patients with tuberculosis and HIV (TB/HIV)
Andrea Howard (United States of America)

OA-3112  
Community-based TB screening and HIV testing for ex-miners in Lesotho
Rebekah Chang (United States of America)

OA-3012  
Accessibility to HIV-TB services is a facilitator for TB screening amongst PLHIVs: a case study from Central India
Moumita Biswas (India)
Symposium (SP)
15:15 - 16:45 Hall (Session room) 1B

35. E-cigarettes and other electronic nicotine delivery devices: where are we now? Regulation, opportunities and protecting public health

This session aims to highlight current research findings on the effect on health, identifying policy decisions and options for regulating ENDS. The aim is to increase awareness of the tobacco industry’s role in nicotine delivery market (traditional and emerging products). This session also aims to stimulate a constructive dialogue on policy approaches that protect lung health in low- and middle-income countries.

Chairperson: Ehsan Latif (United Kingdom)

15:15 - 15:35
Regulation on electronic nicotine delivery systems in different countries
Ryan Cohen Kennedy

15:35 - 15:55
Opportunities offered by E-cigarettes
Linda Bauld (United Kingdom)

15:55 - 16:15
Challenges posed by e-cigarettes

16:15 - 16:35
E-cigarettes and FCTC articles
Myra Wisotzky (United States of America)

16:35 - 16:45
Discussion

Symposium (SP)
15:15 - 16:45 Hall (Session room) 1C

34. Monitoring TB treatment: alternatives to microscopy and culture?

Classically, monitoring of TB treatment is based on the conversion of sputum microscopy and/or culture from positive to negative. The use of molecular methods to diagnose TB along with the need to individualise therapy for MDR-TB infections is increasingly exposing the limitations of these methods. Standard molecular diagnostic methods are not suitable for monitoring treatment response but adaptations have been described which make this possible. Rapid monitoring of the host immune response in the early phase of treatment has also shown promise to detect the effect of starting on appropriate drugs. The potential limitations of these methods will be discussed.

Chairperson: Richard Anthony (Netherlands)
Chairperson: Luis Eduardo Cuevas (United Kingdom)

15:15 - 15:35
Innovative non-culture methods for monitoring treatment response in tuberculosis
Stephen Gillespie (United Kingdom)

15:35 - 15:55
Monitoring host immune response a realistic approach to treatment monitoring?
Alberto Garcia-Basteiro (Mozambique)

15:55 - 16:15
Monitoring drug levels during TB therapy a realistic goal?
Jan-Willem Alffenaar (Netherlands)

16:15 - 16:35
Is treatment monitoring as a test of cure realistic?
Frank Cobelens (Netherlands)

16:35 - 16:45
Discussion
Symposium (SP)
15:15 - 16:45  
Session Room 3A

33. The growing gender gap in TB: a consequence of resistance to recognising men’s vulnerability in TB diagnosis and care?

Globally 60 percent of TB cases and 65 percent of TB deaths occur among men. Prevalence surveys show an even more pronounced male disadvantage for undiagnosed TB disease, suggesting lower case-detection rates and a disproportionate role in transmission. Despite evidence that men are disadvantaged in accessing and remaining in care, major donors and policymakers do not recognise male vulnerability as a gender equity concern. This session presents gender differences in TB burden, risk and care pathways, examines the role of masculinity in men’s healthcare decisions, describes interventions to improve men’s utilisation of care and discusses advocacy for real gender equity.

Chairperson: Liz Corbett (Malawi)
Chairperson: Knut Lönnroth (Switzerland)

15:15 - 15:30
A patient’s perspective
Timur Abdullaev (Uzbekistan)

15:30 - 15:45
Gender differences in TB burden and care pathways
Katherine Horton (United Kingdom)

The influence of masculinity on care-seeking for TB
Jeremiah Chikovore (South Africa)

15:45 - 16:15
Strategies for reaching men through occupational screening in Lagos
Nkem Chukwueme (Nigeria)

Advocacy for gender equity
Colleen Daniels (Switzerland)

16:15 - 16:45
Discussion

Oral Abstract session (OA)
15:15 - 16:45  
Session Room 3B

18. The tide is high: TB and co-morbidities

Chairperson: Megan Murray (United States of America)
Chairperson: Stacie Stender (South Africa)

OA-421-28  Tuberculosis and diabetes: trends in hospitalizations and impact on health care costs in the United States
Michele Pearson (United States of America)

OA-422-28  Risk of death and/or poor treatment outcomes among persons with tuberculosis and diabetes in high TB and diabetes burden countries: a systematic review
Cesar Ugarte-Gil (Peru)

OA-423-28  Chronic kidney disease progression and risk of tuberculosis: a cohort study
Hsien-Ho Lin (Taiwan)

OA-424-28  Prevalence and clinical relevance of respiratory viruses among tuberculosis patients and household controls in Tanzania
Francis Mhimbira (Tanzania, United Rep.)
The Union 2016 - 47th Union World Conference on Lung Health,
26 - 29 October, 2016,
Liverpool, United Kingdom

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OA-425-28 The effect of risk factor control on tuberculosis in Taiwan: a modelling study  
Chih-Hui Wang (Taiwan)  
15:55 - 16:05

OA-426-28 Challenges in diagnosing diabetes among those with newly diagnosed pulmonary TB: diagnostic variability according to diabetes disease severity  
Daniel Grint (United Kingdom)  
16:05 - 16:15

OA-427-28 A rapid assessment of the nutritional status of TB patients and the integration of a nutrition assistance program in Ethiopia  
Jundi Ahmed (Ethiopia)  
16:15 - 16:25

OA-428-28 Alcohol and substance use among participants in a clinical trial receiving home-based DOT for tuberculosis  
Segundo Ramos Leon (Peru)  
16:25 - 16:35

Oral Abstract session (OA)  
15:15 - 16:45  
Session Room 11A

20. TB infection control: too fast, too slow or just right?  
Chairperson: Carrie Tudor (Switzerland)  
Chairperson: Enos Masini (Kenya)

OA-437-28 Shortening time to diagnosis and treatment initiation for infectious TB and drug-resistant TB cases by implementation of FAST in Viet Nam  
Hien Le (Viet Nam)  
15:15 - 15:25

OA-438-28 FAST: a new strategy for TB infection control  
Paul Daru (Bangladesh)  
15:25 - 15:35

OA-439-28 Comparison of indoor contacts in Zambia and South Africa suggests infection control intervention targeting should be informed by local data  
Nicky McCreesh (United Kingdom)  
15:35 - 15:45

OA-440-28 TB infection control assessment at high-burden antiretroviral therapy centres under the ‘3Is’ project in India: country experience  
Rajesh Deshmukh (India)  
15:45 - 15:55

OA-441-28 Infection control in MDR decentralised sites in South Africa: a baseline study  
Annatjie Peters (South Africa)  
15:55 - 16:05

OA-442-28 Exploring level of knowledge of health care staff on TB infection control measures in Afghanistan  
Mohammad Khaled Seddiq (Afghanistan)  
16:05 - 16:15

OA-443-28 Assessing tuberculosis patients’ knowledge, attitudes and practices: research to strengthen infection control interventions in PHC facilities in South Africa  
N Gladys Kigozi (South Africa)  
16:15 - 16:25

OA-444-28 Incidence of tuberculosis among health workers at public health care facilities in two regions of Ethiopia  
Dereje Habte (Ethiopia)  
16:25 - 16:35
36. Demonstrated need for strengthened national stop TB partnerships

Increasing civil society engagement and enhancing political commitment especially in developing countries is crucial in ensuring a paradigm shift to ending TB. Strong national networks focusing on TB are required to mobilise and sustain engagement of both civil society and political leadership.

There is evidence of the added value in the presence of national partnerships at country level and lessons can be learnt from them. While there are a few countries that have instituted the Stop TB Partnership at the national level, there is a need to strengthen and expand such platforms to improve results for TB.

Chairperson: Charlotte Colvin (United States of America)
Chairperson: Lucica Ditiu (Switzerland)

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>15:15</td>
<td>Identifying TB champions</td>
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<td>15:15</td>
<td>Mayowa Joel (Nigeria)</td>
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<td>15:30</td>
<td>Mobilising members of Parliament</td>
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<td>15:30</td>
<td>Evaline Kibuchi (Kenya)</td>
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<td>15:45</td>
<td>Partnering to implement the national TB programme</td>
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<td>15:45</td>
<td>Amelia Sarmiento (Philippines)</td>
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<td>16:00</td>
<td>Engaging civil society in the fight against TB</td>
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<td>16:00</td>
<td>Samarendra Misra (India)</td>
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<td>16:15</td>
<td>Strengthening collaboration between all partners and engaging with the</td>
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<td>16:15</td>
<td>country coordinating mechanism (CCM)</td>
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<td>16:30</td>
<td>Discussion</td>
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37. Tackling TB in cities: lessons and best practices in urban TB

Economic growth is leading to rapid urbanisation, which raises new challenges for TB programmes, including how to reach large numbers of urban poor who are often disconnected from formal health services. Urban and rural settings differ in several notable ways. Key differences include: the health and community actors and institutions that are most important; the pressures and incentives for patients and providers; and the possibilities for networking and reaching scale in a defined geographic area. This session examines these issues and the opportunities for further achievements in improving access, quality and funding for TB services in urban areas.

Chairperson: William Wells (United States of America)
Chairperson: Lucica Ditiu (Switzerland)

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>15:15</td>
<td>Welcome and Introduction</td>
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<tr>
<td>15:15</td>
<td>William Wells (United States of America)</td>
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<td>15:20</td>
<td>New strategies for reaching the urban poor with TB services in Dhaka,</td>
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<td>15:20</td>
<td>Bangladesh</td>
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<td>15:35</td>
<td>Improving urban TB control throughout the Americas</td>
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<td>15:35</td>
<td>Mirtha Del Granado (United States of America)</td>
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</table>
The Zero TB Cities Project and lessons from expansion of the urban private sector model in Pakistan
Aamir Khan (Pakistan)

Networking urban private providers in Patna and Kolkata
Prachi Shukla (India)

A multi-pronged strategy for tackling TB in Mumbai
Daksha Shah (India)

Discussion

Oral Abstract session (OA)
15:15 - 16:45
Session Room 12

19. Drugs for MDR-TB: challenges and successes
Chairperson: Francesca Conradie (South Africa)
Chairperson: I D Rusen (Canada)

OA-429-28 Timing of acquired resistance to fluoroquinolones and second-line injectable drugs during treatment of MDR-TB
Peter Cegielski (United States of America)

OA-430-28 Comparable 12-month incidence of renal insufficiency in MDR-TB patients treated with standard kanamycin-based regimens or concomitantly with tenofovir in Namibia
Evans Sagwa (Netherlands)

OA-431-28 Dose-ranging activity of clofazimine in combination with the first-line regimen in the mouse model of tuberculosis treatment
Nicole Ammerman (United States of America)

OA-432-28 Roll-out of new drugs to treat DR-TB: success and challenges with implementation
Nirupa Misra (South Africa)

OA-433-28 Treatment outcome in patients with multidrug-resistant tuberculosis as measured by sputum culture conversion rate in Rwanda
Mambo Claude Muvunyi (Rwanda)

OA-434-28 Predictors of unfavourable treatment outcome in adults with multidrug-resistant tuberculosis in India
Dina Nair (India)

OA-435-28 DR-TB treatment costs: trends towards more affordability under threat with new drugs
Christophe Perrin (France)

OA-436-28 High rates of ocular toxicity associated with ethambutol in the treatment of multidrug-resistant tuberculosis in South Africa
Kristin N Nelson (United States of America)
38. The effectiveness and obstacles for social support to TB patients

Tuberculosis (TB) patients face many psychological, social and economic problems that complicate treatment and care. Adherence to prescribed treatment regimens and clinical outcomes including loss-to-follow-up depend on well-designed and effectively implemented TB programmes where patients are in the center of care.

By the end of this session the audience will:
1) Define elements which need to be in place to improve TB service delivery
2) Reflect on factors associated with stigma and discrimination
3) Self-assess working environment and look for interdisciplinary collaboration
4) Understand needs for institutional change to ensure effective prevention, diagnosis and treatment

Chairperson: Ernesto Jaramillo (Switzerland)
Chairperson: Susan van den Hof (Netherlands)

15:15 - 15:30  Social support guidelines
Ernesto Jaramillo (Switzerland)

15:30 - 15:45  Effectiveness of social support on TB treatment adherence and treatment outcomes
Susan van den Hof (Netherlands)

15:45 - 16:00  Obstacles for social support provision within health service delivery
Zinaida Abdulloeva (Tajikistan)

16:00 - 16:15  Effectiveness of interventions to reduce TB stigma
Nina Sommerland (Belgium)

16:15 - 16:30  A patient's tale
Ingrid Oxley (South Africa)

16:30 - 16:45  Discussion
## Scientific Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 15:45 - 16:00 | **Chemotherapy of Mycobacterium bovis: pharmacokinetic pharmacodynamic perspectives**  
Jotam Pasipanodya (United States of America) |
| 16:00 - 16:15 | **Mycobacterium bovis and other zoonosis control in veterinary services in the US**  
Kathrine Fogelberg (United States of America) |
| 16:15 - 16:30 | **Impact of zoonotic diseases in pastoral communities in developing countries**  
Thomas Graham (Uganda) |
| 16:30 - 16:45 | **Discussion** |
| 15:45 - 17:15 | **Community Common Session: Panel Discussion**  
Unite to end stigma associated with TB |

### Unite to end stigma associated with TB

While we can reassure people that tuberculosis can be cured with the right treatment, the impact of a diagnosis of tuberculosis has implications that go way beyond the physical condition. Failure to recognise this can have devastating effects on a person’s ability to access the care they so desperately need and result in them dropping out at some point in the journey between diagnosis and the end of treatment.

The anxiety before the diagnosis is confirmed; the feelings of guilt and isolation that accompany the disease; the reactions of even those closest to you and professionals who should know better. All these things (and more) are common effects that people with TB have to deal with before, during and after treatment in addition to the physical endurance required to tolerate the medication. These issues can become even more complicated when that person is a health care provider. This panel discussion will include a nurse who has recovered from TB, nurse managers responsible for providing care for people affected by both drug-sensitive and drug-resistant TB and those involved with training a variety of healthcare providers. The panel will consider innovative ways to ensure policies, training and practice reflect the wider challenges facing people affected by all forms of TB.

Stigmatization is a complex process involving institutions, communities, and interpersonal attitudes. It is one of the many factors thought to be hindering the end of TB by negatively affecting access to health care and treatment outcomes. While acknowledging it as a social determinant of health the difficulties in identifying, characterizing and measuring TB related stigma has made it challenging to justify resourcing to the problem. In 2016, KNCV, with the support of USAID and in collaboration with academic institutions, TB and stigma experts, affected communities, WHO and the Stop TB Partnership, led a process of developing guidance on measuring and responding to TB stigma. To each the missing millions we have to address stigma and now!

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<th>Time</th>
<th>Session</th>
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| 15:45 - 15:55 | **Presentation**  
Caoimhe Smyth (Switzerland) |
The Union's scientific sections and sub-sections give members the opportunity to affiliate with others who share the same interests and collaborate on research, publications and projects. One of their principal activities is to propose sessions and contribute to the planning of The Union World Conference on Lung Health, the largest annual conference focusing on lung health issues as they affect low- and middle-income populations. They also participate in the governance of The Union through the General Assembly. Non-members are welcome to attend the section meetings to find out more.

**Recent developments**
Elif Dagli (Turkey)  
17:00 - 17:10

**TB Section Meeting**

The Union's scientific sections and sub-sections give members the opportunity to affiliate with others who share the same interests and collaborate on research, publications and projects. One of their principal activities is to propose sessions and contribute to the planning of The Union World Conference on Lung Health, the largest annual conference focusing on lung health issues as they affect low- and middle-income populations. They also participate in the governance of The Union through the General Assembly. Non-members are welcome to attend the section meetings to find out more.

**WG: TB and migration**
Deliana Garcia (United States of America)  
17:00 - 17:10

**Myanmar Challenges and the Strategy to address the TB Crisis**
Community Common Session: Panel Discussion
17:20 - 18:20

**Increasing uptake of latent TB testing and treatment among new entrants to low incidence countries**

Tackling LTBI among people migrating from high to low incidence countries is an increasingly important part of national TB programmes. In England, it is a central pillar of the country’s Collaborative TB Strategy. TB Alert has worked with NHS England and Public Health England to develop a toolkit and range of resources to provide practical guidance and to support local implementers of testing and treatment programmes. This is helping statutory stakeholders plan patient-centred services and use social marketing techniques to maximise the uptake of testing.

The session will present the toolkit and resources. There will then be a discussion involving the panel and members of the audience on how these issues are addressed in other low incidence countries and what knowledge can be most usefully shared between them.

The panel will include Mike Mandelbaum from TB Alert; Dominik Zenner, Head of TB Screening at Public Health England; and a representative (Gerard de Vries or Niesje Jansen) from KNCV to bring the experience of the Netherlands.

Coordinator: Mike Mandelbaum (United Kingdom)

**Presentation I**
Niesje Hansen (Netherlands)

**Presentation II**
Dominik Zenner (United Kingdom)

**Presentation III**
Mike Mandelbaum (United Kingdom)

Satellite session (SS)
17:30 - 19:00

**09. The Lucky Specials: a feature-length film demystifying tuberculosis (TB), explaining how it spreads and how it can be treated**

The Lucky Specials are a small-time cover band in a dusty mining town in southern Africa. Mandla (Oros Mampofu) works as a miner by day, but is passionate about playing guitar and dreams of making it big in the music industry. When tragedy strikes and he contracts tuberculosis, Mandla, his friend (Sivenathi Mabuya) and the band must find the strength to make their dreams reality.

Produced by Discovery Learning Alliance and Quizzical Pictures in association with Tangled Bank Studios, “The Lucky Specials” combines fiction and non-fiction storytelling to replace misconceptions about TB with facts. By making the film personal, practical and memorable, audiences will retain critical health information in a context that reflects southern African life and values.

The film was made possible thanks to the support of Howard Hughes Medical Institute (HHMI), the Wellcome Trust, and USAID and PEPFAR through the Leadership, Management & Governance Project, led by Management Sciences for Health (MSH).

Please join us in this special pre-release screening of the film. Q&A session with members of “The Lucky Specials” cast and crew and others following the film.

Speakers will include representatives from MSH, PEPFAR and “The Lucky Specials” cast/crew.
10. Lilly MDR-TB partnership: impact and lessons from people-focused work

Since 2003, the Lilly MDR-TB Partnership has worked to increase access to quality MDR-TB care around the world. Consisting of more than 40 partners, this collaboration addresses key health system barriers to care. Work is focused in communities in China, India, Russia and South Africa and employs the Research-Report-Advocate approach. This moderated session will highlight the evidence-based work conducted in our focus countries and share the impact on TB it has contributed to. In the second part, the session will also put this work into broader global health themes of relevance to MDR-TB policy-makers and practitioners in other countries.

Chairperson: Amy Israel (Switzerland)

**Part One: driving impact in countries with heavy MDR-TB burdens**

- **TB Aid, the mobile app for better disease management of patients with TB**
  - Lui Yuhong (China)

- **Supporting policy of TB decentralisation in South Africa**
  - Marian Loveday (South Africa)

- **Reducing TB incidence among at risk populations in Russia**
  - Viktoria Livchits (Russian Federation)

- **Engaging the diverse private health sector in TB care in India**
  - Ramya Ananthakrishnan (India)

**Part Two: moderated panel discussion - Global progress on MDR-TB**

- Lucica Ditliu (Switzerland)
- Lasha Goguadze (Switzerland)
- Carrie Tudor (Switzerland)
- Diana Weil (Switzerland)

11. Testing tots for TB: new data on the performance of the T-SPOT.TB test in paediatric patients

This session will examine the use and performance of the T-SPOT.TB test in paediatric patients in a low TB burden setting. New data will be presented, along with the presenters’ clinical experience in underserved populations. Clinical cases highlighting the challenges of coordinating care will be a particular focus of the program.

Chairperson: Andrea Cruz (United States of America)
Chairperson: Anna Mandalakas (United States of America)

- **T-SPOT.TB performance in routine paediatric practice in a Low TB burden setting**
  - Anna Mandalakas (United States of America)

- **Connecting the DOTs: the Louisiana experience**
  - Juzar Ali (United States of America)

**Discussion**

18:30 - 19:00
12. A one-health dialogue on the 2035/2038 zoonotic and bovine tuberculosis eradication strategies

The World Health Organization launched its 2035 end TB strategy, which inherently every TB case including zoonotic TB are critical if the targets are to be met. WHO’s STAG recently endorsed ten policy recommendations on the global eradication of zoonotic TB. This coincides with the launch of the United Kingdom’s 2038 bovine tuberculosis eradication strategy, in addition to many other country-based ongoing bovine tuberculosis eradication strategies. The success of these biologically, socially, and economically linked strategies is highly dependent on collaboration. This session is aimed at building bridges between these eradication strategies on areas of commonality.

Chairperson: Adrian Muwonge (United Kingdom)

- **Overview of TB and zoonotic eradication and policy**
  - Mario Raviglione (Switzerland) 17:30 - 17:45

- **Food safety, policy and social implications of zoonotic and Bovine TB**
  - Ahmed Eldrissi (Italy) 17:45 - 18:00

- **OIE tools to manage bovine tuberculosis in animals**
  - Glyn Hewinson (United Kingdom) 18:00 - 18:15

- **How Ethiopia is approaching the problem**
  - James Wood (United Kingdom) 18:15 - 18:30

- **The diagnostic bottleneck in TB eradication**
  - Mark Bronsvoort (United Kingdom) 18:30 - 18:45

Discussion 18:45 - 19:00

14. Quality access to medicines in the age of AMR - what we know from our experience with tuberculosis

The O’Niel Review on AMR warned that DR TB will claim 75 million lives by 2050 at an economic cost of $16.7 trillion. The new WHO TB guidelines offers hope to put more patients on treatment by potentially shortening treatment time and costs, while improving diagnosis. But will the End TB Strategy be jeopardized by the availability of TB drugs over-the-counter, while other patients cannot access life-saving medicines? The session gives an overview of the problem, highlights several examples of action to mitigate at country level, and generates new ideas on ensuring quality access to and stewardship of TB medicines.

Chairperson: Nargiza Parpieva (Uzbekistan)
Chairperson: Ivor Langley (United Kingdom)

- **The use and misuse of antibiotics : why quality access is a necessity**
  - Elizabeth Pisani (United Kingdom) 17:30 - 17:45

- **Regulatory approach to limiting availability of TB medicines on the free market: experiences from Belarus**
  - Representative of ministry of health (Belarus) 17:45 - 18:00

- **The scale of the problem : how India is taking action**
  - Petros Isaakidis (India) 18:00 - 18:15
## Scientific Programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>18:15 - 18:30</td>
<td><strong>Ensuring quality access of new TB medicines: why a concerted effort is needed</strong>&lt;br&gt;Sharonann Lynch (United States of America)</td>
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<td>18:30 - 18:45</td>
<td><strong>The patient perspective on quality access: example from Uzbekistan</strong>&lt;br&gt;Beverely Stringer (United Kingdom)</td>
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<td>18:45 - 19:00</td>
<td><strong>Discussion</strong></td>
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### Community Common Session: Testimonials

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<th>Time</th>
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| 18:25 - 18:55 | **Community Common Silent Theatre**<br>**High-resource countries: why is TB even an issue?**

The rates of TB in the North West of England are decreasing so why focus on this disease? There are less cases overall but more complex cases, what else do the teams who care for these people need to help them beat TB and the health inequalities that can be associated with it?

Coordinator: Jennifer Walker (United Kingdom)

**High-resource countries: why is TB even an issue?**

Jennifer Walker (United Kingdom)

### Member Meetings (Regional, Section, Sub-section, Working Group)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>18:30 - 19:30</td>
<td><strong>Session Room 12</strong>&lt;br&gt;<strong>General Assembly</strong></td>
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</table>
Scientific Programme

Saturday, 29 October 2016

Community Common Session: Panel Discussion
07:30 - 09:00

Post-replenishment - what does Global Fund advocacy look like now?

With the Global Fund replenishment in September, advocates, activists and policy makers are looking forward to the next three years to get the most out of what is in the pot. But what does Global Fund advocacy look like post-replenishment? This session will explore the important decisions and advocacy opportunities for civil society in the years until the next replenishment. We will aim to have representatives from the Global Fund Advocates Network, communities and civil society delegations as well as country board representation.

Coordinator: Rachael Crockett (United Kingdom)

Presentation I
Rachael Crockett (United Kingdom)

Community Common Cultural Activity: Art Display
08:00 - 16:15

IMPACT Film Festival on Lung Health

The IMPACT Film Festival on Lung Health will show short and feature-length films curated by Emmy Award-winning documentary filmmaker, Lisa Russell. Lisa has a Masters in Public Health and 10+ years producing films and creative projects for UN/NGO agencies. The IMPACT Film Festival on Lung Health engages artists, filmmakers, media outlets, and audiences in advocacy opportunities, and relays the message that the arts has an important contribution to make in raising awareness about lung health. Lisa has been at the forefront of bringing arts events and film screenings to international audiences at the United Nations and has curated over 150 films for the 2010, 2013 and 2016 Women Deliver Cinema Corners.

8:00 - 8:25 | Improving TB Case Detection and Care | The Mother |
8:30 - 8:55 | At Street Level |
10:15 - 10:40 | Aging Gratefully | Subliminal |
10:45 - 11:10 | TB Wars: Why We Need a Tuberculosis Vaccine | Derrek | The Urgent Need |
11:15 - 11:40 | TB Unmasked |
11:45 - 12:10 | Thembi Jaiwe: Strength of a Woman | Catch | Colour My Dreams |
1:15 - 1:40 | Improving TB Case Detection and Care | The Mother |
1:45 - 2:10 | At Street Level |
2:15 - 2:40 | Aging Gratefully | Subliminal |
2:45 - 3:10 | TB Wars: Why We Need a Tuberculosis Vaccine | Derrek | The Urgent Need |
3:15 - 3:40 | TB Unmasked |
3:45 - 4:10 | Thembi Jaiwe: Strength of a Woman | Catch | Colour My Dreams |
Plenary session (PL) (inc Opening and Closing)  
09:00 - 10:00  
Plenary Hall

**Plenary Session Day 3: Ending TB in the SDG era: is there still resistance to the social protection agenda?**

Session content and objectives. In his Nobel Prize Lecture in 1905 Robert Koch called for the creation of “welfare centres” to fight tuberculosis (TB) through which vulnerable households could be provided with education, better housing and cash and other in-kind forms of support. More than one hundred years later, social protection is a core element of both the Sustainable Development Goals and WHO’s End TB Strategy. Evidence has consistently demonstrated that successful TB control happens when biomedical innovation is complemented with bold social strategies. We stand at a particularly crucial time to reinvigorate the quest to end TB globally by building innovation upon the lessons from the past and combining effective modern biomedical and social protection strategies.

With this session we aim to:

- Demonstrate how TB is a pre-eminent example of the disease-poverty trap
- Highlight the impact of TB on livelihood capabilities through the personal testimony of a TB survivor
- Discuss consequences of erosion of social protection and persisting barriers to a more holistic approach to global public health challenges
- Present the potential of social protection and Universal Health Care for TB care and prevention using a concrete case study from Brazil
- Highlight links between the End TB Strategy and the SDG agenda and discuss opportunities to optimise synergies between the development and public health agenda

Chairperson: Delia Boccia (United Kingdom)  
Chairperson: Knut Lonnroth (Switzerland)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker/Title</th>
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| 09:00 - 09:05 | A brief perspective on TB and poverty  
S Bertel Squire (United Kingdom) |
| 09:05 - 09:15 | The devastating impact of TB on livelihood capabilities, even in the context of universal health care in the UK  
Amy McConville |
| 09:15 - 09:25 | Social protection for a comprehensive approach to health inequalities: barriers and consequences of inaction  
Margaret Whitehead |
| 09:25 - 09:35 | Conditional cash transfers to enhance TB prevention, care and control: lessons from Bolsa Familia  
Fabio Veras Soares (Belgium) |
| 09:35 - 09:45 | Ending TB in the SDGs era: an overlapping agenda, a win-win opportunity  
Diana Weil (Switzerland) |
| 09:45 - 10:00 | Panel discussion                                                                |
Community Common Cultural Activity: Participatory Activity

10:20 - 11:20

Community Common Silent Theatre

Where do I fit in? Cough to cure pathway board

This will feature the Large format of the Cough to Cure Pathway and require participants to identify where they can do more work in their respective countries. The ideal copy of the pathway which shows the barriers to individual, the community and system as well as the solutions will be provided for each delegate at the Board.

Coordinator: Martin-Mary Falana (Nigeria)
Coordinator: Mayowa Joel (Nigeria)

Presentation
Ibrahim Umoru (Nigeria)
Martin-Mary Falana (Nigeria)
Mayowa Joel (Nigeria)

Oral Abstract session (OA)
10:30 - 12:00

21. The Union/CDC late-breaker session on TB

Chairperson: Kevin Schwartzman (Canada)
Chairperson: Emily Bloss (United States of America)
Chairperson: Brian J Baker (United States of America)

OA-3163 Short-course MDR-TB treatment compared with standard of care in Uzbekistan: culture conversion rates after 2 months
Jay Achar (United Kingdom)

OA-3117 Interim results of nix-TB clinical study of pretomanid, bedaquiline and linezolid for treatment of XDR and treatment intolerant/failed MDR TB
Francesca Conradie (South Africa)

OA-3161 Mutations in pncA are associated with poor treatment outcomes in MDR-TB patients in the preserving effective TB treating study (PETTS)
Melisa Willby (United States of America)

OA-3097 Performance of the GeneXpert MTB/RIF in previously treated patients for the diagnosis of tuberculosis in a highly endemic setting
Alexandra Sánchez (Brazil)

OA-3032 Effective TB case-finding with routine systematic cough screening in general outpatient, inpatient, HIV clinical services in Haiti, 2012 - 2015
Macarthur Charles (Haiti)

OA-3114 Tuberculosis stigma in a high-risk indigenous population in Brazil
Ida Viktoria Kolte (Brazil)
### 41. It's time to scale-up treatment of TB infection in high TB burden countries

Despite World Health Organization recommendations and endorsement by Ministries of Health in many TB high-burden countries, roll-out of treatment for tuberculosis infection has been slow in high TB burden countries. And when initiated, completion rates have been variable and universally suboptimal. Rifamycin-based regimens, which are shorter and less toxic, are associated with greater treatment completion and may be more feasible to scale-up in high burden countries. This symposium will explore the challenges and successes in developing sustainable programmes to treat TB infection including the use of short, rifamycin-based options in middle- and high-burden countries.

**Chairperson:** Lisa V. Adams (United States of America)

**Chairperson:** Gavin Churchyard (South Africa)

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<th>Time</th>
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<tr>
<td>10:30 - 10:45</td>
<td>Efficacy of rifamycin-based TB preventive therapy and experience of using 3HP in low-burden countries  Timothe Sterling (United States of America)</td>
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<tr>
<td>10:45 - 11:00</td>
<td>Preventive therapy in children: policies, practice, performance and perceptions  Anna Mandalakas (United States of America) Donald Skinner (South Africa)</td>
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<tr>
<td>11:00 - 11:15</td>
<td>Novel rifamycin based TB preventive therapy regimens and strategies for high burden settings  Neil Martinson (South Africa)</td>
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<td>11:15 - 11:30</td>
<td>Post Exposure Treatment for Drug Resistant TB contacts - An Experience from Pakistan  Hamidah Hussain (Pakistan)</td>
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<td>11:30 - 11:45</td>
<td>Pharmacokinetic aspects of 3HP regimen in special populations  Jyoti Mathad (United States of America)</td>
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<tr>
<td>11:45 - 11:55</td>
<td>Discussion</td>
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### 40. TB elimination initiative in countries of the Latin American Region

There is heterogeneity in the distribution of tuberculosis (TB) incidence rates among countries of the Americas, from over 200 cases to less than 10 cases per 100,000 population. A group of low-incidence countries in the Latin America (LA) Region was constituted in 2000, including Chile, Costa Rica, Cuba, Uruguay, and Venezuela as observer. In 2010, the United States, Canada and Puerto Rico were invited to join. The group aims to adapt TB control measures to these contexts, exchange North-South and South-South experiences, and develop a TB elimination plan aligned with WHO’s framework for TB elimination in low-incidence countries.

**Chairperson:** Pedro Guillermo Suarez (United States of America)

**Chairperson:** Rafael Lopez Olarte (United States of America)

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<tr>
<td>10:30 - 10:50</td>
<td>Moving forward from TB control to TB elimination in Latin America Region  Mirtha Del Granado (United States of America)</td>
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<td>10:50 - 11:10</td>
<td>Tuberculosis in Chile: building the road to elimination</td>
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<tr>
<td>11:10 - 11:30</td>
<td>Strategies to advance the elimination of tuberculosis in Costa Rica</td>
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The Union 2016 - 47th Union World Conference on Lung Health,
26 - 29 October, 2016,
Liverpool, United Kingdom

Scientific Programme

Addressing the TB elimination issue in Cuba
Edilberto R González Ochoa (Cuba)

Discussion

Oral Abstract session (OA)
10:30 - 12:00

Session Room 3A

22. Priorities in finding the missing cases

Chairperson: Katherine Horton (United Kingdom)
Chairperson: James Mpunga (Malawi)

OA-445-29 Delay in diagnosis of pulmonary tuberculosis in low- and middle-income settings: systematic review and meta-analysis
Fentabil Getnet (Ethiopia)

OA-446-29 Prolonged delays to diagnosis despite availability of free health services: a study of 76 486 tuberculosis patients in Yunnan, China
Mishal Sameer Khan (Singapore)

OA-447-29 Improved TB screening via a novel mHealth app in both the community and health facility settings in South Africa
Rachel Forse (South Africa)

OA-448-29 Engaging private health care providers in Pakistan to increase case notification
Farah Naureen (Pakistan)

OA-449-29 Study of impact of contact tracing of smear-positive TB cases on annualized TB notification rates in Maharashtra, India
Sandeep Bharaswadkar (India)

OA-450-29 Differences in yield of active versus passive contact screening in urban DOTS-supported cities, Afghanistan
Mohammad Khaled Seddiq (Afghanistan)

OA-451-29 Active TB case finding using contact investigation is a more efficient approach compared to targeted community TB screening outreach
Kenneth Mutesasira (Uganda)

OA-452-29 TB prevalence among individuals undergoing contact tracing and its determinants in Mandalay City, Myanmar
Kyaw Ko Ko Htet (Myanmar)

OA-453-29 Tuberculosis among immigrant workers from highly endemic countries following pre-entry screening in Taiwan
Mei-Mei Kuan
### 23. Interplay of tobacco control and broader health agenda

Chairperson: Ehsan Latif (United Kingdom)
Chairperson: Jonathan Golub (United States of America)

- **Integrating tobacco control within primary care interventions for multiple addictions in Mexico**
  - Arturo Sabines (Mexico)
  - 10:30 - 10:40

- **Pilot experiences that integrate smoking cessation within primary health care, both in public and private family medicine practice.**
  - Enrique Soto (Uruguay)
  - 10:40 - 10:50

- **Tobacco control policies in a context of internal migration and displacement in Colombia**
  - Lorena Calderon (Colombia)
  - 10:50 - 11:00

- **Long-term integration of tobacco control and NCD policies in Brazil**
  - Tania Cavalcante (Brazil)
  - 11:00 - 11:10

- **20 years of pioneering tobacco control integration within public health programs in Argentina**
  - Marta Angueira (Argentina)
  - 11:10 - 11:20

- **With a little help from BAT: prices, bans and smoking onset in Chile**
  - Guillermo Paraje (Chile)
  - 11:20 - 11:30

- **An analysis of major policy level intervention and tobacco epidemic trend in Madhya Pradesh, India**
  - Bakul Sharma (India)
  - 11:30 - 11:40

- **Innovative health financing for tobacco control: the implementation and effectiveness of India’s ‘movie rules’**
  - Nandita Murukutla (United States of America)
  - 11:40 - 11:50

### 44. Biosafety and tuberculosis infection control: sharing knowledge, challenges and solutions in TB laboratories

Biosafety in TB laboratories varies widely. Significant investment has been made in infrastructure upgrades, particularly at reference laboratory levels. Many countries have unsafe working environments (microscopy/Xpert to culture to DST). Even where upgraded, adequate operation and maintenance of biosafety equipment (BSCs, centrifuges, HVAC systems), and provision of PPE (respirators, gloves, etc.) is lacking. This session will highlight effective approaches to solving issues that laboratories face and demonstrate synergy of biosafety with infection control. Target audience: Clinicians, laboratorians, national TB programme staff, and Ministry of Health officials, maintenance experts, biosafety professionals, or service and lab managers

Chairperson: Alaine Umubyeyi Nyaruhirira (South Africa)
Chairperson: Paul Jensen (United States of America)

- **Overview of the risk assessment approach: story of implementation**
  - Christopher Gilpin (Switzerland)
  - 10:30 - 10:45
Scientific Programme

Biosafety and infection control in TB laboratories: challenges and solutions 10:45 - 11:00
Paul Jensen (United States of America)

Challenges and solutions to constructions and maintenance of safe TB culture labs in Africa: end user perspective from Uganda 11:00 - 11:15
Moses Joloba (Uganda)

Primary containment devices: their application, operation and maintenance 11:15 - 11:30
Jeff Serle (United States of America)

Evolution of the TB laboratory in Vladimir Oblast, Russia 11:30 - 11:45
Grigory Volchenkov (Russian Federation)

Symposium (SP)
Session Room 11B
10:30 - 12:00

43. Novel quantitative approaches in paediatric tuberculosis

The development and application of new quantitative methods to deal with the challenges of interpreting notification data for childhood TB has helped increase attention in this area, and spur further work on evidence review, mortality estimates and the impact of interventions. At the same time, modelling can play a role earlier on the intervention development pipeline, helping optimise treatments and suggest new approaches to diagnosis. We aim to provide an overview of the use of modelling and other novel quantitative methods in the area of paediatric TB and raise awareness of their potential.

Chairperson: James Seddon (United Kingdom)
Chairperson: Courtney Yuen (United States of America)

Childhood TB case-fatality and implications for mortality estimates 10:30 - 10:45
Helen E. Jenkins (United States of America)

Modelling to determine optimal dosing in treating paediatric TB meningitis 10:45 - 11:00
Rada Savic (United States of America)

Modelling the cost-effectiveness of household contact screening for children 11:00 - 11:15
Anna Mandalakas (United States of America)

Host bio-signatures for TB diagnosis: analytical challenges and future directions 11:15 - 11:30
Myrsini Kaforou (United Kingdom)

The potential impact of BCG vaccine shortfalls on childhood mortality 11:30 - 11:45
Rebecca C Harris (United Kingdom)

Discussion 11:45 - 12:00
The special socio-cultural contexts in Latin America where people share unique social structures and cultural norms, lead to special challenges to TB control, especially in the area of treatment. Stigma plays an important role at societal, programmatic and even governmental levels. In addition, family dynamics, social support, and socio-economic status directly influence access and adherence. Understanding these issues and designing specific interventions to address them is key to tackling drug resistance by improving access and adherence. Lessons learned will be shared, including successes and failures. Recommendations that are adaptable to other situations will be offered as takeaways for symposium attendees.

Chairperson: Latha Rajan (United States of America)
Chairperson: Sidney Mejia (United States of America)

**Peru: understanding social support mechanisms to influence health-seeking behavior, resistance to treatment and overall patient well-being in TB patients**
Carlton Evans (United Kingdom)

**Brazil: Socio-economic interventions for tuberculosis**
Daniele Maria Pelissari (Brazil)

**Colombia: Addressing non-adherence to treatment**
Sandra Patricia Escandon Moncaleano (Colombia)

**End TB? Realities from the field - a civil society perspective**
Alberto Colorado (United States of America)

**Discussion**

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**42. Reaching underserved groups to eliminate tuberculosis in England: patient perspectives, technological advances, and the role of the multi-disciplinary team**

A key priority of England’s National Collaborative TB strategy 2015-2020 is tackling TB in under-served communities (including migrants, the formerly/currently incarcerated, those with drug/alcohol dependence, or those without a home).

These vulnerable groups remain hard-to-reach through current TB care models. To eliminate TB in England and similar settings, novel multi-disciplinary approaches in collaboration with patient-groups and civil-society are needed.

This symposium, delivered by a TB multi-disciplinary team, explores future TB care models for under-served communities in England, including: characterising high-risk groups; identifying outbreaks using novel molecular and genomic testing; utilising the multi-disciplinary team effectively; and addressing patients’ barriers to healthcare-access.

Chairperson: Mark Woodhead (United Kingdom)
Chairperson: James Mpunga (Malawi)

**The epidemiology of TB in North-West England and its relationship with poverty**
Peter Macpherson (United Kingdom)
Scientific Programme

The role of the multi-disciplinary team and TB cohort review in reaching underserved groups
Jennifer Walker (United Kingdom)

Patients' perceptions of barriers to accessing TB care and involvement of civil society in TB strategy
Mango Hoto (United Kingdom)

Symposium (SP)
10:30 - 12:00
Session Room 13

46. M. tuberculosis low-level resistance: a challenge for the laboratory, an opportunity for MDR- and XDR-TB treatment

Recent genotypic and phenotypic studies have demonstrated that M. tuberculosis drug-resistance can't be simplified to a susceptible/resistant dichotomy. Indeed, for many antibiotics, including new drugs such as bedaquiline, some resistant strains display a low level of resistance (LLR) allowing their use for TB treatment. Such strains are challenging to diagnose by the current drug susceptibility testing methods. Moreover, it appears that these drug can still have some in vivo activity and, thus, a clinical benefit. The laboratory detection of M. tuberculosis LLR will be reviewed, as well as the therapeutic opportunities which can be used to treat such strains.

Chairperson: Alexandra Aubry (France)

Fluoroquinolone low-level resistance: an opportunity for improving XDR-TB treatment
Alexandra Aubry (France)

Detecting rifampicin low-level resistance: a challenge for the laboratory
Armand Van Deun (Belgium)

Bedaquiline low level resistance: risk factors and clinical impact
Koen Andries (Belgium)

Discussion

10:55 - 11:20
11:20 - 11:45
10:50 - 11:10
11:10 - 11:30
11:30 - 11:50
11:50 - 12:00
Empowered community volunteers improve case finding in access-poor areas

Interventions: Trained through USAID technical assistance, the IPHO in turn oriented barangay officials on TB; and trained 25 volunteers per purok on conducting TB education, identifying presumptive TB cases and referring them to the nearest DOTS facility, and encouraging patients to adhere to TB treatment. The volunteers also posted TB leaflets on the houses’ doors and other strategic places. The community volunteers called themselves Katawhan sa Opol Maghugpong Batok TB (KOMBAT), which means people of Opol rally against TB. The Municipal Heath Office’s advocacy led barangay officials to provide transportation fare for patients who needed to go to a DOTS center for assessment and diagnosis. The IPHO meanwhile arranged with a tertiary hospital for free X-ay services for sputum-negative patients with symptoms strongly suggestive of TB.

Results and lessons learnt: From June-December 2015, KOMBAT volunteers helped increase community awareness of TB. This was evident in referrals who brought with them during consultation TB leaflets posted on their doors. KOMBAT volunteers helped identify and treat 46/86 (53%) cases in the third quarter and 9/42 (21%) cases in the fourth quarter of 2015. As a result, CDR rose to 128% in 2015.

Conclusion: Training community volunteers on TB and empowering them to educate, find, and refer presumptive cases is a viable strategy for TB case finding in geographically challenged, access-poor areas.

Coordinator: Emily Grace Banal (Philippines)
Coordinator: Teodoro Jr Yu (Philippines)

Presentation I
Emily Grace Banal (Philippines)

Presentation II
Teodoro Jr Yu (Philippines)

10. Eyes, ears and kidneys: MDR drug toxicity

Chairperson: Silvia Kelbert (Brazil)

EP-186-29 Ascertaining the proportion of sensory neural hearing loss among MDR-TB patients placed on kanamycin using pure tone audiometry
Onuka Okorie (Nigeria)

EP-188-29 Incorporating mobile automated audiometry into MDR-TB patient treatment plans
Renée Lefrançois (Canada)

EP-189-29 Improving the monitoring of ototoxicity among DR-TB patients receiving aminoglycosides in South Africa
Norbert Ndjeke (South Africa)

EP-190-29 Symptom and laboratory screening for early detection of ototoxicity among registered DR-TB patients in Delhi, India
Ashwani Khanna (India)

EP-191-29 Evaluating the impact of adverse drug reactions and application of second-line anti-tuberculosis drugs
Wei-Fang Liang (Taiwan)
Scientific Programme

EP-192-29  Avoiding nephrotoxicity during treatment of multidrug-resistant tuberculosis by stepwise extension of aminoglycoside dosing intervals
Chih-Hsin Lee (Taiwan)

EP-193-29  Adverse events associated with short-course treatment of multidrug-resistant tuberculosis in Niger: 5 years of experience
Mahamadou Bassirou Souleymane (Niger)

EP-194-29  Adverse events among patients treated for multidrug-resistant tuberculosis in the Philippines
Ekaterina Kurbatova (United States of America)

E-poster session (EP)
12:15 - 13:15  Session Room 5

11. "How do you do it" using e-health to improve TB programme outcomes
Chairperson: Chawangwa Modongo (Botswana)

EP-196-29  South Africa’s implementation of an integrated monitoring system to manage data for TB and HIV: lessons from the pilot
Catherine White (South Africa)

EP-197-29  Brazil’s ten year experience in scaling up an electronic system to confront MDR-TB: lessons learned and strategies for quality improvement
Luiz Fernando Avelino Reciolino (Switzerland)

EP-198-29  Hospitalizations and rehospitalizations due to tuberculosis and their economic burden for the health system in an endemic city in Brazil
Ricardo Alexandre Arcêncio (Brazil)

EP-199-29  Using the Management Organizational Sustainability Tool (MOST) to strengthen management systems at the National TB and Leprosy Programme in Uganda
Enock Kizito (Uganda)

EP-200-29  Harnessing digital application to improve recording and reporting for TB control in Bangladesh: roll-out experience and opportunities
Kelly Sawyer (United States of America)

EP-201-29  Investigation of tuberculosis deaths in the area of influence of COMPERJ (Petrochemical Complex of the State of Rio de Janeiro)
Cláudia Márcia Bodart Noronha (Brazil)

EP-202-29  E-Office as an effective tool for E-Governance in the TB control programme, Delhi, India
Meera Dhuria (India)

EP-203-29  Health network patient navigation and bridge case management: migration need never be an impediment to effective TB treatment
Deliana Garcia (United States of America)
Scientific Programme

E-poster session (EP)
12:15 - 13:15  Session Room 6

12. Got the bug? Basic science
Chairperson: Alex Pym (South Africa)

EP-204-29  Induction of TB protection and lung-resident memory in mice by a Sendai virus-based vaccine
Douglas Bruce Lowrie (China)

EP-205-29  Long-term survival studies of a novel, live-attenuated tuberculosis vaccine in the guinea pig model
Frederick Quinn (United States of America)

EP-206-29  Opsonic monoclonal antibodies directed against Mycobacterium tuberculosis enhance blood clearance in a quantitative qPCR mouse model
Clara J Sei (United States of America)

EP-207-29  HIV but not active tuberculosis increases CD4 expression in monocytes in peripheral blood from Senegalese patients
Tandakha Ndiaye Dièye (Senegal)

EP-208-29  The potential for dextrans to modulate the immune response of mycobacteria-infected macrophages
Denis Krasnov (Russian Federation)

EP-210-29  A translational modelling and simulations approach to exploit pre-clinical tuberculosis data
Sebastian G. Wicha (Sweden)

EP-211-29  BCG vaccination in sub-Saharan Africa: coverage, geographical variations and the hotspots
Olatunji Adetokunboh (Nigeria)

EP-212-29  Adverse events monitoring for two types of BCG vaccination in Russia
Valentina Aksenova (Russian Federation)

Najim Hussian (Iraq)

E-poster session (EP)
12:15 - 13:15  Session Room 8

13. Smoke-free environment
Chairperson: Rana Jugdeep Singh (India)

EP-214-29  Evidence from an integrated mass media campaigns to support Beijing’s 100% smoke-free law
Dane Svenson (United States of America)

EP-215-29  Environmental tobacco smoke as a risk factor for increasing childhood respiratory infection and pneumonia in South-West Region, Nigeria
Seye Omiyefa (Nigeria)

EP-217-29  Government, NGO and army defeat all obstacles through innovations in achieving high compliance with smoke-free provisions in East Siang, a difficult hilly area
Govind Kumar Tripathi (India)
Scienc__ Programme

EP-218-29 Smoke-free homes: a step further in prevention of second-hand smoke and delaying initiation
Opinder Preet Kaur Arora (India)

EP-219-29 Students' perceived effectiveness of a tobacco-free campus policy
Melinda Ickes (United States of America)

EP-220-29 Substantial decrease in exposure to second-hand smoke with strict implementation of smoke free laws: the case of Punjab, India
Sonu Goel (India)

EP-221-29 Compliance with local smoke-free legislation in Bali Province after 4 years implementation: a serial survey
I Wayan Gede Artawan Eka Putra (Indonesia)

EP-222-29 Advancement of (tobacco) smoke-free environment in Karnataka: a comparative analysis
P. Mahamad (India)

EP-223-29 Millennium youths joining hands for a tobacco-free generation
Nsamwa Chitindi (Zambia)

E-poster session (EP)
12:15 - 13:15 Session Room 9

14. Latent TB infection: something for everyone
Chairperson: Ronald Thulani Ncube (Zimbabwe)

EP-224-29 Does the tuberculin skin test result vary by gender?
Frauke Rudolf (Guinea-Bissau)

EP-225-29 Optimizing screening for latent tuberculosis infection among foreign-born persons in the United States using latent class analysis
Jason Stout (United States of America)

EP-226-29 Evaluation of screening for latent tuberculosis infection among HIV-infected persons born in the United States using latent class analysis
April Pettit (United States of America)

EP-227-29 Controversies in the diagnosis and treatment of tuberculosis infection among pediatric infectious disease specialists in North America
Andrea Cruz (United States of America)

EP-228-29 LTBI screening in NW England: evaluating experience from almost two decades
Dominik Zenner (United Kingdom)

EP-229-29 High prevalence of latent TB infection among non-household contacts in urban Uganda
Allan Nkwata (United States of America)

EP-230-29 The incidence of active tuberculosis correlates geographically with the prevalence of latent tuberculosis infection in a high-incidence urban setting
Matthew Burman (United Kingdom)

EP-231-29 Toward safe and reachable preventive therapy for LTBI: a multicenter randomized controlled study in Taiwan
Jann-Yuan Wang (Taiwan)
**Scientific Programme**

**EP-232-29** Improved tuberculosis contact investigation and isoniazid preventive therapy among under-5 children in two regions of Ethiopia  
Dereje Habte (Ethiopia)

**EP-233-29** LTBI treatment completion and risk factors for non-completion in an urban city of western Canada: a population-based study  
Nancy Yu (Canada)

**EP-234-29** Dynamics of progression to active tuberculosis: which model structure to best replicate them?  
Romain Ragonnet (Australia)

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**Poster discussion session (PD)**
12:15 - 13:15

**39. The "rocky road" of screening and treatment outcomes**
Row 4
Chairperson: Nesri Padayatchi (South Africa)

**PD-994-29** Prevalence of TB in HIV-infected injectable drug users with CD4 count <LT; 500 cells/µl admitted to a detoxification centre in Islamabad  
Sabira Tahseen (Pakistan)

**PD-995-29** Enhancing TB detection and diagnosis amongst people living with HIV/AIDS utilizing peripheral TB laboratory service-delivery networks: experiences from Northern Nigeria  
Ginika Egesimba (Nigeria)

**PD-996-29** Intensive screening for tuberculosis among people newly diagnosed with HIV in rural Cameroon  
Eyongetah Mbu (Cameroon)

**PD-997-29** Utility of urine as a clinical specimen for the diagnosis of pulmonary tuberculosis in people living with HIV  
Alemu Chemeda (Ethiopia)

**PD-998-29** ‘Build it and they will come’: additional diagnostic facilities increases the proportion of TB cases tested for HIV in Rajasthan, India  
Sanjay K Sinha (India)

**PD-999-29** Barriers affecting utilization of Xpert® MTB/RIF testing for tuberculosis in Cambodia  
Khun Kim Eam (Cambodia)

**PD-1000-29** The prevalence of HIV and tuberculosis and risk of mortality in adults with tuberculosis symptoms: a systematic literature review  
Marriott Nliwasa (Malawi)

**PD-1001-29** Characteristics and treatment outcomes of extra-pulmonary tuberculosis patients in Kenya  
Faith Ngari (Kenya)

**PD-1002-29** Effectiveness of treatment of patients with pulmonary tuberculosis combined with HIV infection  
Tatiana Morozova (Russian Federation)
High mortality in tuberculosis patients despite HIV interventions in Swaziland
Gugu Mchunu (Swaziland)

Increasing diagnosis of childhood tuberculosis in Swaziland: clinical utility of sample collection and diagnostic methods among children
Samson Malwa Haumba (Swaziland)

Yield of tuberculosis among children with presumptive TB using the Xpert® MTB/RIF assay in two regions of Ethiopia
Jemal Seid (Ethiopia)

Effective testing for pulmonary TB in children using stool specimens using the Xpert® MTB/RIF assay in Pakistan
Zahra Hasan (Pakistan)

Improving detection of tuberculosis through active case finding among children attending informal schools in urban informal settlements in Nairobi
Elizabeth Mueni (Kenya)

Evaluation of the Xpert® MTB/RIF assay in children with presumed pulmonary tuberculosis in Papua New Guinea
Sharon Kasa Tom (Papua New Guinea)

Increasing childhood TB notification through systematic screening in public-sector hospitals in rural Pakistan: an update
Amyn Malik (Pakistan)

Reaching missing paediatric TB cases through contact tracing: xperience from sixty districts in India
Shekhar Waikar (India)

Targeting missed opportunities for childhood TB management integration in Nigeria using comprehensive OVC programs: PEPFAR/USAID/FHI360 experience
Tosin Idahbou (Nigeria)

Tolerability of the string test for tuberculosis diagnosis in children aged 4-14 years
Karla T Tafur (Peru)
The Union 2016 - 47th Union World Conference on Lung Health,  
26 - 29 October, 2016,  
Liverpool, United Kingdom

Scientific Programme

Poster discussion session (PD)  
12:15 - 13:15

**41. Latent TB infection testing: who and how**

Row 12

Chairperson: Robert Makombe (South Africa)

**PD-1014-2**  
Risk factors for active tuberculosis in human immunodeficiency virus co-infected tuberculosis contacts, Taiwan  
Pin Hui Lee (Taiwan)

**PD-1015-2**  
Diagnostic specificity of immunological methods in diagnosis of the tuberculosis and latent tuberculosis infection among children  
Anna Starshinova (Russian Federation)

**PD-1016-2**  
T-SPOT performance in routine pediatric practice in a low TB burden setting  
Heather Highsmith (United States of America)

**PD-1017-2**  
Pregnancy-associated decreased TST vs. QFT positivity and lower QFT mitogen and Mycobacterium tuberculosis antigen responses compared to postpartum in HIV-infected women  
Sylvia LaCourse (United States of America)

**PD-1018-2**  
Latent TB in patients with chronic renal failure: results from a national survey  
Kiranmai Bhatt (United Kingdom)

**PD-1019-2**  
Micronutrient supplementation augments anti-mycobacterial immune responses in TST-reactive household contacts  
Matthew J Saunders (United Kingdom)

**PD-1020-2**  
Using country of origin to prioritize testing for latent tuberculosis infection in the United States  
Brian J Baker (United States of America)

**PD-1021-2**  
Knowledge and attitudes about active and latent tuberculosis among index cases and contacts in three high TB burden Brazilian capitals  
Anete Trajman (Brazil)

**PD-1022-2**  
Programmatic implementation of the interferon-gamma release assay in Norway, 2009-2014  
Brita Askeland Winje (Norway)

**PD-1023-2**  
Strong standard operating procedure: a key to effective implementation of isoniazid preventive therapy  
Atuganile Musyani (Tanzania, United Rep.)

Poster discussion session (PD)  
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**42. Infection control: knowledge and interventions**

Row 16

Chairperson: Max Meis (Netherlands)
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<td>Prevalence of tuberculosis infection among health care workers and infection control in Nepal</td>
<td>Anita Shrestha (Australia)</td>
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<td>PD-1025-2</td>
<td>Infection control in tuberculosis hospitals in Almaty, Kazakhstan: knowledge, practices and infrastructure assessment, 2015</td>
<td>Dilyara Nabirova (Kazakhstan)</td>
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<td>Tuberculosis infection control knowledge, attitudes and practices of health care workers in primary health care facilities in Mangaung Metropolitan, South Africa</td>
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<td>Improved ventilation for the cessation of tuberculosis transmission: an outbreak on a college campus, 2010-2013, Taipei, Taiwan</td>
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<td>Tuberculose en milieu de soins au Sénégal</td>
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<td>Enhanced infection control program among health staff in tuberculosis services during the Ebola epidemic in Conakry, Guinea</td>
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<td>Involvement of community volunteers in Chisokone Market congregate setting (hot spot), Copperbelt Province, Zambia</td>
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<td>Clinical characteristics and delay among patients diagnosed with pulmonary tuberculosis after hospitalization</td>
<td>Yoshikazu Mutoh (Japan)</td>
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<td>Contribution of health facility patient triaging to the case detection trend in 15 provinces of Afghanistan</td>
<td>Amanullah Momand (Afghanistan)</td>
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<td>Impact of TB infection control on patient waiting time and early diagnosis at health facilities in 15 provinces of Afghanistan</td>
<td>Amanullah Momand (Afghanistan)</td>
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<td>Effectiveness of tuberculosis infection control committees on implementation of TB infection control measures at health facilities in Afghanistan</td>
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**Poster discussion session (PD)**  
**12:15 - 13:15 Poster Area**

### 43. Media engagement in TB interventions

**Row 17**

Chairperson: Michelle Imison (Australia)

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<td>Measuring community contributions to the TB Programme using simple RR forms and methods in 12 districts, Indonesia, 2015</td>
<td>Mariani Reksoprodjo (Indonesia)</td>
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<td>Andrea von Delft (South Africa)</td>
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<td>Does mobile technology improve referrals and reduce delay in diagnosis and treatment initiation of TB patients? Impact analysis from India</td>
<td>Archana Trivedi (India)</td>
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<td>How do the media see tuberculosis in India?</td>
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<td>Trends in media coverage of TB: a retrospective analysis</td>
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<td>School children as 'TB soldiers': astounding results of pilot intervention in schools in two districts in Rajasthan, India</td>
<td>Rajesh R Singh (India)</td>
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<td>Schoolchildren raise tuberculosis awareness among their peers</td>
<td>Teodoro Jr Yu (Philippines)</td>
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<td>PD-1043-2</td>
<td>Engaging parliamentarians in TB control efforts: lessons from India</td>
<td>Shiva Shrestha (India)</td>
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<td>PD-1044-2</td>
<td>Community to clinic: community health workers successfully conduct home-based TB screening and facilitate linkage to care in rural South Africa</td>
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**44. Extrapulmonary TB**

**Row 20**

**Chairperson:** Simon Tiberi (United Kingdom)

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<td>Azizullah Hamim (Afghanistan)</td>
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<td>The role of macrophages P2X7 1513 A-C and IL-10R1 S138G polymorphisms in susceptibility to extra-pulmonary tuberculosis in Indonesia</td>
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<td>Detection of mycobacteraemia in individuals with presume extra-pulmonary tuberculosis</td>
<td>Mani Sankar (India)</td>
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<td>Comparison of characteristics of extra-pulmonary and pulmonary tuberculosis cases in Kenya, 2011-2015: retrospective study</td>
<td>Eunice Omesa (Kenya)</td>
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**PD-1052-2**  
Testicular tuberculosis: the experience of a tertiary centre in a high-incidence urban setting in the United Kingdom  
Vishnu Naidu (United Kingdom)

Poster discussion session (PD)  
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Poster Area

45. "Do you want to know a secret?" The rising incidence of non-tuberculosis mycobacteria

Row 22

Chairperson: Adrian Muwonge (United Kingdom)

**PD-1053-2**  
Clinical significance of non-tuberculous mycobacteria isolated in a mycobacteriology laboratory in Delhi, India  
Mandira Varma-Basil (India)

**PD-1054-2**  
Nationwide laboratory survey of uncommon mycobacteria isolated in Japan  
Akiko Takaki (Japan)

**PD-1055-2**  
Pulmonary non-tuberculous mycobacterial infection: 372 cases  
Aylin Babalik (Turkey)

**PD-1056-2**  
Prevalence of non-tuberculous mycobacteria among presumptive TB cases in Namibia  
Nunurai Ruswa (Namibia)

**PD-1057-2**  
Identification and drug susceptibility profiling of non-tuberculous mycobacteria species from sputum smear-positive pulmonary cases in Ghana  
Dorothy Yeboah-Manu (Ghana)

**PD-1058-2**  
Diagnosing NTM in immunocompetent chronic lymphadenitis cases: an emerging entity  
Ajoy Kumar Verma (India)

**PD-1060-2**  
Spectrum and susceptibility pattern of non-tuberculous mycobacterial infections in Pakistan: 2012-2015  
Imran Ahmed (Pakistan)

**PD-1061-2**  
Distribution of pulmonary NTM cases in the Information System for Special Tuberculosis Treatment (SITE-TB), Brazil, 2010-2015  
Artemir Coelho Brito (Brazil)

Poster discussion session (PD)  
12:15 - 13:15  
Poster Area

46. Optimising drugs for resistant TB

Row 24

Chairperson: Barnabas Nomampondo (South Africa)

**PD-1062-2**  
Safety and efficacy of tioureidoiminomethylpyridinium perchlorate in treatment of pulmonary MDR-TB  
Anna Starshinova (Russian Federation)
Scientific Programme

PD-1063-2 Adverse events in linezolid treatment of pulmonary TB caused by extensively drug-resistant Mycobacterium tuberculosis
Anna Starshinova (Russian Federation)

PD-1064-2 When is the right time to add new and repurposed medication for treatment of pre-XDR and XDR-TB?
Linda Barkane (Latvia)

PD-1065-2 Determination of plasma levels of levofloxacin by high performance liquid chromatography for use at a multidrug-resistant tuberculosis hospital in Tanzania
Scott Heysell (United States of America)

PD-1066-2 Additive effects of cotrimoxazole in the treatment of XDR-TB in a mouse model of experimental tuberculosis
Sergey Popov (Russian Federation)

PD-1067-2 The prolongation of bedaquiline-containing regimens for MDR/XDR-TB: effectiveness and safety
Sergey Borisov (Russian Federation)

PD-1068-2 Third anti-tuberculosis drug in the continuation phase for TB patients: is it the need of the hour for India?
Jonathan Golub (United States of America)

PD-1069-2 A model of bedaquiline's exposure-response relationship and predicted effects of drug-drug interactions
Elin M Svensson (Sweden)

PD-1070-2 Analysis of the treatment effect of regimens containing different fluoroquinolones in MDR-TB patients
Qi Li (China)

Poster discussion session (PD)
12:15 - 13:15

47. MDR- and isoniazid-resistant TB: outcomes
Row 30

Chairperson: Carole Mitnick (United States of America)

PD-1071-2 Treatment outcomes for multidrug-resistant tuberculosis patients under DOTS-Plus in developing counties: systematic review and meta-analysis
Yonatan Moges Mesfin (Ethiopia)

PD-1072-2 High treatment success in patients started on multidrug-resistant tuberculosis treatment in Kenya
Helena Huerga (France)

PD-1073-2 Treatment outcomes among multidrug-resistant tuberculosis cases at a referral hospital for infectious diseases in Italy
Gina Gualano (Italy)

PD-1075-2 Outcome of new cases of drug-resistant tuberculosis in Brazil
Stefano Barbosa Codenotti (Brazil)
Scientific Programme

PD-1076-2 Factors associated with treatment outcomes in a Brazilian isoniazid-monoresistant tuberculosis cohort
Anete Trajman (Brazil)

PD-1077-2 Treatment success rate of Programmatic Management of Drug-Resistant Tuberculosis in Himachal Pradesh, India: a retrospective study
Ravinder Kumar (India)

PD-1078-2 Outcomes of retreatment cases of drug-resistant tuberculosis at the Indus Hospital, Karachi
Rabab Batool (Pakistan)

PD-1079-2 XDR-TB treatment outcomes in European regions of the Russian Federation
Vadim Testov (Russian Federation)

PD-1080-2 Description of attributes of multidrug resistant tuberculosis cases in Afghanistan: a cross-sectional explanatory assessment
Mohammad Khaled Seddiq (Afghanistan)

PD-1081-2 Outcome in MDR-TB patients treated under the Revised National Tuberculosis Control Programme of India
Ashok Janmeja (India)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

48. MDR treatment outcomes

Row 26
Chairperson: Paul Nunn (United Kingdom)

PD-1082-2 Impact of fluoroquinolone resistance on multidrug-resistant tuberculosis treatment outcomes: retrospective cohort study in Pakistan
Abdul Ghafoor (Pakistan)

PD-1083-2 Modelling the effect of reduced regimen duration for multidrug-resistant TB in Karakalpakstan, Uzbekistan
Jay Achar (United Kingdom)

PD-1084-2 Treatment outcomes of pulmonary MDR-TB in the Tokyo metropolitan area, Japan
Nobuyuki Kobayashi (Japan)

PD-1085-2 Evaluation of the effectiveness and tolerability of two short-course treatments for multidrug-resistant tuberculosis in Niger
Mahamadou Bassirou Souleymane (Niger)

PD-1086-2 Cause of death among MDR-TB patients enrolled in a national MDR-TB treatment program in Ethiopia
Daniel Meressa (Ethiopia)

PD-1087-2 Novel treatment regimens for rifampin-resistant tuberculosis: linking specific regimen characteristics to expected population-level impact
Emily Kendall (United States of America)
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#### Poster discussion session (PD)
12:15 - 13:15

**49. Mental health, diabetes and other co-morbidities in TB**

Row 28

**Chairperson:** Ajay Kumar (India)

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<th>Authors</th>
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<td>Impact of concurrent mental health illness on TB treatment outcomes: a case of Butabika Hospital in Uganda</td>
<td>Derrick Kimuli (Uganda)</td>
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<td>PD-1093-2</td>
<td>Burden of comorbidities and social determinants of health among tuberculosis patients in Carabayllo, Peru</td>
<td>Carmen Contreras (Peru)</td>
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<td>Risk factors for tuberculosis going beyond HIV: a case control study in Western Kenya</td>
<td>George Kasera (Kenya)</td>
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<td>Impact of diabetes mellitus on treatment outcome of multidrug-resistant pulmonary tuberculosis</td>
<td>Tariq Mahmood (India)</td>
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<td>PD-1097-2</td>
<td>Effect of type 2 diabetes mellitus on the clinical and paraclinical presentations of pulmonary tuberculosis in Northeastern Iran</td>
<td>Soheil Rafiee (Iran, Islamic Rep. Of)</td>
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<td>PD-1098-2</td>
<td>Indicators of acute phase reaction in patients with pulmonary tuberculosis combined with diabetes mellitus</td>
<td>Rizvan Abdullaev (Russian Federation)</td>
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<td>Mental disorders among new cases of tuberculosis in Brazil</td>
<td>Nanci Saita (Brazil)</td>
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<td>PD-1100-2</td>
<td>Xpert® MTB/RIF assay for pulmonary tuberculosis diagnosis in patients with pre-diabetes mellitus and diabetes mellitus</td>
<td>Jonathan Golub (United States of America)</td>
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50. Media communication: for or against tobacco use strategies

Row 33

Chairperson: Pranay Lal (India)

PD-1101-2  Study on how media influence (impact) on tobacco promotion could be reversed or corrected
          H. Sampath Damika De Seram (Sri Lanka)

PD-1102-2  Ban on tobacco advertising: an absolute public health gain in Jakarta
          Dollaris Riauaty Suhadi (Indonesia)

PD-1103-2  Beyond the school gate: bombarded by cigarette advertising
          Hasna Pradityas (Indonesia)

PD-1104-2  An analysis of online marketing of bidi smoking tobacco in international markets
          Bakul Sharma (India)

PD-1106-2  Advancing towards tobacco-free Chattisgarh using communication as a tool to deter people from chewable forms of tobacco
          Pooja Tripathi (India)

PD-1107-2  Letter to editor as an innovative tool of media advocacy for tobacco control
          Bakul Sharma (India)

PD-1108-2  Effectiveness of complementing paid social media with organic social media
          Pallavi Puri (United States of America)

PD-1109-2  Trend analysis of pan masala advertisements in print media
          Bakul Sharma (India)

PD-1110-2  Can social media change behaviour as part of a synergised tobacco control communication strategy? Message pre-test findings from Bangladesh
          Tahir Turk (United States of America)

51. Drug resistance assessment: methods, feasibility and results

Row 40

Chairperson: Tefera Agizew (Botswana)

PD-1111-2  Feasibility analysis of rapid diagnostic tools for drug-resistant tuberculosis in Bangladesh
          Shahriar Ahmed (Bangladesh)

PD-1112-2  Accuracy of line probe assays for resistance to rifampicin and isoniazid and detection of Mycobacterium tuberculosis: a systematic review and meta-analysis
          Ruvandhi R. Nathavitharana (United States of America)

PD-1113-2  The TB eXiSt assay for improvement the accuracy of diagnosis of cases with drug resistance
          Nelly Ciobanu (Moldova)
The role of TB-LAMP and Xpert® MTB/RIF assay for the diagnosis of smear-negative pulmonary TB
Muluwork Getahun (Ethiopia)

Resistance to first-line anti-tuberculosis drugs in Southern Mozambique: results from a population-based drug resistance survey
Salomé Valencia (Spain)

National Anti-Tuberculosis Drug Resistance Survey in the Kingdom of Lesotho, 2013-2014
Llang Bridget M. Maama-Maime (Lesotho)

Study on pyrazinamide resistance of M. tuberculosis in Viet Nam: making comparisons between two national surveys
Nguyen Van Hung (Viet Nam)

Reduction in treatment delay of MDR-TB cases as a result of Xpert® MTB/RIF implementation in Moldova
Dumitru Chesov (Moldova)

Implementation of a molecular diagnostics program to improve TB case detection in Malawi
Rodrick Nalikungwi (Malawi)

Identifying challenges in TB treatment adherence and cross-border referral among migrant workers in the mining sector in Southern Africa
Sandy Pillay (South Africa)

Finding the missing cases: active TB case finding in communities in two mining districts in Zimbabwe
Charles Sandy (Zimbabwe)

Will repeat household visits for active case finding in key affected populations yield results?
Shekhar Waikar (India)

Poverty predisposes patients to intermittent adherence to TB treatment
Marco Tovar (Peru)

Institutionalizing systematic screening for early TB case finding among PLHIV: progress and challenges in Nepal’s Tuberculosis Program
Nabin Maharjan (Nepal)

Hospitalizations due to tuberculosis and social inequality: a spatial analysis in an endemic city in São Paulo, Brazil, 2006-2012
Ricardo Alexandre Arcêncio (Brazil)

TB and poverty: do we really care?
Karuna Devi Sagili (India)
Scientific Programme

PD-1129-2  Systematic facility- and community-based screening for TB in Phnom Penh, Cambodia
Sopheak Thai (Cambodia)

PD-1130-2  Innovative contact-tracing strategy within a 50 m radius of index tuberculosis cases using Xpert® MTB/RIF in Pakistan: did it increase case detection?
Aashifa Yaqoob (Pakistan)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

53. Cost: socioeconomic impact on TB

Row 45

Chairperson: Nathan Nhlane

PD-1131-2  High return in TB diagnosis and treatment with low investment in tribal and extremist areas of Jharkhand, India
S Nayak (India)

PD-1132-2  Towards zero TB-affected households facing catastrophic costs: the role of governmental cash transfer programmes
William Rudgard (United Kingdom)

PD-1133-2  Impact of the new financing and payment model on TB patients’ financial burden in China
Weixi Jiang (China)

PD-1134-2  Financial incentives for patients to reduce household catastrophic payments for tuberculosis care in rural Nigeria: implications for the End TB strategy
Kingsley Nnanna Ukwaja (Nigeria)

PD-1135-2  Do households face catastrophic expenditure because of tuberculosis disease in India?
Banuru Prasad (India)

PD-1136-2  Factors associated with borrowing money or selling assets among new tuberculosis patients during their treatment
Abdallah Mkopi (Tanzania, United Rep.)

PD-1137-2  Feedback from TB-affected households receiving a socio-economic intervention in Peruvian shantytowns: an acceptability assessment from the CRESIPT pilot study
Tom Wingfield (United Kingdom)

PD-1138-2  Not by choice but due to compromised financial situation. Compelling factors for choosing tuberculosis treatment in the public sector
Om Bera (India)

PD-1139-2  Preventing catastrophic costs: opportunities and barriers for reducing household TB-related costs
Sian Nooi Williams (Peru)

PD-1140-2  Cost-effectiveness of the community-based DOTS (CB-DOT) approach for treatment of tuberculosis in Afghanistan
Basir Ahmad (Afghanistan)
Scientific Programme

Poster discussion session (PD)
12:15 - 13:15

54. TB programme implementation and effectiveness

Row 39

Chairperson: Jody Boffa (South Africa)

PD-1141-2  Tuberculosis patients in an Indian mega-city: where are they coming from and where are they diagnosed?
Senthil Sellappan (India)

PD-1142-2  Using geographical information systems for evidence-based programming and performance monitoring
Etwom Alfred (Uganda)

PD-1143-2  Tuberculosis prevention, diagnosis, and care in Manitoba, 2008-2010: a performance analysis
Christopher Andrew Basham (Canada)

PD-1144-2  Assessing the quality of TB diagnosis, treatment and support services in private sector in India: a field-based case study
Ravinder Kumar (India)

PD-1145-2  Comparing tuberculosis management under public and private health care providers: Victoria, Australia, 2002-2014
Justin Denholm (Australia)

PD-1146-2  Perspectives to end tuberculosis as a public health problem in Brazil
Daniele Maria Pelissari (Brazil)

PD-1147-2  Factors influencing smear non-conversion in patients with new smear-positive pulmonary tuberculosis, Antananarivo, Madagascar
Onimanitra Farambahiny (Madagascar)

PD-1148-2  Geographic variation of tuberculosis case notification in two regions of Ethiopia and its implication on TB program management
Dereje Habte (Ethiopia)

PD-1150-2  Social determinants of non-adherence to tuberculosis treatment in selected municipalities of Buenos Aires, Argentina
Jose Ueleres Braga (Brazil)

PD-1151-2  Can the number of patients with presumptive tuberculosis lost in the general health services in Pakistan be reduced?
Razia Kaniz Fatima Fatima (Pakistan)

PD-1152-2  What is the time from symptom onset to the initiation of treatment for tuberculosis patients in Afghanistan?
Ghulam Qader (Afghanistan)
55. TB contact tracing and latent TB infection

Row 52

Chairperson: Luis Eduardo Cuevas (United Kingdom)

- **PD-1153-2**: Prevalence of latent tuberculosis infection in the community by meeting venue
  - Maria Castellanos (United States of America)

- **PD-1154-2**: Risk of tuberculosis in Germany
  - Christian Herzmann (Germany)

- **PD-1155-2**: Yield of contact investigation under programmatic conditions in rural Namibia
  - Nunurai Ruswa (Namibia)

- **PD-1156-2**: Yield of facility-based verbal screening amongst household contacts of patients with multidrug-resistant tuberculosis in Pakistan
  - Razia Kaniz Fatima Fatima (Pakistan)

- **PD-1157-2**: Innovative geographic information systems (GIS) based screening for tuberculosis contacts in household and community contacts in Pakistan: how effective is it?
  - Mahboob Ul Haq (Pakistan)

- **PD-1158-2**: Correlation of childhood TB case notification with bacteriologically confirmed pulmonary TB case notification: results from two regions of Ethiopia
  - Nebiyu Hiruy (Ethiopia)

- **PD-1159-2**: The yield of tuberculosis contact screening in Ethiopia: comparing contacts of bacteriologically confirmed and clinically diagnosed index TB cases
  - Muluken Melese (Ethiopia)

- **PD-1160-2**: Body mass index and TB incidence: a consistent dose-response relationship among adult household contacts
  - Matthew J Saunders (United Kingdom)

56. As a team everybody achieves more: innovations to strengthen TB case-finding

Row 50

Chairperson: Charles Sandy (Zimbabwe)

- **PD-1161-2**: Intensifying TB case finding in hospital
  - Ngak Song (Cambodia)

- **PD-1162-2**: Active TB case finding in the private sector in the Eastern Development Region of Nepal
  - Bishwa Rai (Nepal)

- **PD-1163-2**: Improved TB case notifications by engaging the private sector through Private Provider Interface Agency in Mumbai, India: 2013-2015
  - Amit Karad (India)
The Union 2016 - 47th Union World Conference on Lung Health, 26 - 29 October, 2016, Liverpool, United Kingdom

Scientific Programme

PD-1165-2 Community-based active case finding: a strategy to increase TB case detection in Mandalay, Myanmar, 2012-2015
Aye Mon Phyo (Myanmar)

PD-1166-2 Can repeated visits and examinations of contacts of pulmonary TB cases yield additional TB cases within households? Southern Ethiopia
Mubarek Yassin (Ethiopia)

PD-1167-2 Provider behavior change in the private sector: model to improve TB diagnosis
Nita Jha (India)

PD-1168-2 Contributions of faith-based organizations in improving TB-HIV testing in Indonesia
Agus Rahmat Hidayat (Indonesia)

PD-1169-2 Factors influencing sputum smear conversion after two months of tuberculosis treatment in Addis Ababa, Ethiopia
Zerihun Admassu (Ethiopia)

PD-1170-2 Dose anti-tuberculosis treatment increase the risk of biliary events?
Lih-Yu Chang (Taiwan)

Poster discussion session (PD)
12:15 - 13:15
Poster Area

57. Tobacco dependence and cessation
Row 56
Chairperson: Sarwat Shah (United Kingdom)

PD-1171-2 Tobacco and marijuana use in young men presenting for medical circumcision in South Africa
Minja Milovanovic (South Africa)

PD-1172-2 Exploring the role of black cumin seeds (Nigella sativa) in overcoming nicotine dependence
Tauheed Ahmad (India)

PD-1173-2 Heaviness of smoking index, cigarettes per day, and time to first smoke in settings of multiple tobacco products use
Sagarika Das (India)

PD-1174-2 Preparedness among health professionals for tobacco cessation and control in South India: an exploratory study
Praveen Jodalli (India)

PD-1175-2 Estimation of salivary thiocyanate levels among tobacco users, passive smokers and tobacco non-users: implications in tobacco cessation
Audrey D'Cruz (India)

PD-1176-2 Smoking cessation advice from midwives during the perinatal period in Greece
Paraskevi Katsaounou (Greece)

PD-1177-2 National Tobacco Cessation Programme, Sri Lanka
Upul Kariyawasam (Sri Lanka)
Scientific Programme

PD-1178-2 9 Effects of mass media tobacco control campaigns in Indonesia
Nalin Singh Negi (United States of America)

PD-1179-2 9 Smoking cessation process
Ika Pesic (Serbia)

PD-1180-2 9 Readiness to quit addiction: a study among patients attending a tertiary care hospital in Western India
Kedar Mehta (India)

Oral Abstract session (OA)
13:30 - 15:00

24. The Union Student late-breaker on lung health
Chairperson: E Jane Carter (United States of America)
Chairperson: Stacie Stender (South Africa)
Chairperson: Rajita Bhavaraju (United States of America)

OA-3036 13:30 - 13:40 Effectiveness of TB treatment regimens containing bedaquiline with repurposed drugs for drug resistant tuberculosis in the Chechen Republic, Russian Federation
Animesh Sinha (India)

OA-3024 13:40 - 13:50 MDR TB patients´ support at outpatient stage of treatment in Ukraine
Evgenia Geliukh (Ukraine)

OA-3138 13:50 - 14:00 Short course regimen for MDR TB in high HIV prevalence setting: model of care in Swaziland
Maria Verdecchia (Swaziland)

OA-3143 14:00 - 14:10 Operational research: delays of treatment initiation in first time diagnosed TB patients in Ukraine from healthcare system prospective
Anna Tyshkevych (Ukraine)

OA-3141 14:10 - 14:20 Effectiveness of isoniazid preventive therapy to prevent tuberculosis among people living with HIV in KwaZulu-Natal, South Africa: a cohort study
Jody Boffa (South Africa)

OA-3116 14:20 - 14:30 Establishment of interpretive criteria for phenotypic bedaquiline resistance determination and association with clofazamine resistance
Shaheed Vally Omar (South Africa)

OA-2666 14:30 - 14:40 Prevalence and molecular epidemiology of pulmonary tuberculosis at Hawassa prison center, Southern Region of Ethiopia
Yared Merid Asfaw (Ethiopia)

OA-3075 14:40 - 14:50 Lansoprazole use and tuberculosis disease, a primary care based cohort study
Thomas Yates (United Kingdom)

OA-3125 14:50 - 15:00 Application of the shorter MDR-TB regimen in high M/XDR-TB burden prison system of Azerbaijan
Elmira Gurbanova (Azerbaijan)
Scientific Programme

Symposium (SP)
13:30 - 15:00
Hall (Session room) 1C

49. TB screening and isoniazid preventive therapy for pregnant and breastfeeding women in resource-limited settings

TB is a leading cause of morbidity and mortality among women of childbearing age, especially in areas with a high HIV burden. However, routine TB services are not widely available in maternal health settings. This symposium will highlight findings, including TB disease estimates, from TB screening programmes and studies among pregnant and breastfeeding women, including women living with HIV through prevention of mother-to-child HIV transmission (PMTCT) programmes. Additionally, this symposium will highlight ongoing studies to identify the optimal timing of isoniazid preventive therapy for mothers and showcase promising operational approaches to implement TB services in maternal health settings.

Chairperson: Surbhi Modi (United States of America)
Chairperson: Lisa Cranmer (United States of America)

13:30 - 13:45
Maximising access to TB screening and isoniazid preventive therapy for pregnant and breastfeeding women
Annabel Baddeley (Switzerland)

13:45 - 14:00
Assessing the safety and effectiveness of isoniazid preventive therapy and antiretroviral treatment in HIV-infected pregnant women in high TB burden settings: IMPAACT P1078
Jyoti Mathad (United States of America)

14:00 - 14:15
Developing strategies for TB screening among HIV-infected and HIV-uninfected pregnant and postpartum women in Swaziland
Samson Malwa Haumba (Swaziland)

14:15 - 14:30
Evaluating the utility of the World Health Organization symptom screening algorithm for TB diagnosis among pregnant women in India
Akanksha Vaidya (India)

14:30 - 14:45
Performance of TST and QFT for LTBI screening during pregnancy and postpartum in HIV-infected Kenyan women
Sylvia LaCourse (United States of America)

14:45 - 15:00
Discussion

Symposium (SP)
13:30 - 15:00
Session Room 3A

47. Modelling to overcome resistance to TB drugs and the End TB Strategy

Now that the WHO End TB Strategy and the Stop TB Global Plan to End TB are in place, there is an urgent need to overcome resistance to TB drugs and to the End TB Strategy and the Global Plan. Mathematical modelling is a critical tool for exploring the health impacts, cost-effectiveness and resource implications of future TB control options. In this session we present results on five key initiatives helping to overcome resistance to TB drugs and overcome resistance to achieving the End TB Strategy and Global Plan goals.

Chairperson: Diana Weil (Switzerland)
Chairperson: E Jane Carter (United States of America)

Cost-effectiveness of triage testing for facility-based systematic screening of tuberculosis in Uganda
Achilles Katamba (Uganda)
Scientific Programme

Tradeoffs in new anti-tuberculosis drug introduction policies: a model based analysis
Amber Kunkel (United States of America)

Capturing in situ fitness costs to drug resistant Mycobacterium tuberculosis in Peru
Gwen Knight (United Kingdom)

Understanding the contribution of social protection to accelerate TB elimination
Delia Boccia (United Kingdom)

Illness-related impoverishment averted by TB control: findings for India and South Africa
Stephane Verguet (United States of America)

Discussion

Symposium (SP)
13:30 - 15:00
Session Room 3B

48. Shortened regimens for the treatment of multidrug-resistant tuberculosis

According to the 2015 WHO Global Tuberculosis Report, the proportion of multidrug-resistant tuberculosis (MDR-TB) patients who successfully completed treatment was only 50 percent. A nine-month MDR-TB regimen piloted in Bangladesh reported 435 (84 percent) successful treatments out of 515 consecutive MDR-TB patients. This regimen has been introduced in several countries with slight modifications. This symposium aims to provide updated information on the results and feasibility of the implementation of shortened regimens for MDR-TB treatment.

Objectives:
1) To present updated knowledge on how the nine-month MDR-TB regimen works and its results in different settings
2) To share experience in the implementation of this regimen

Chairperson: Kenneth Castro (United States of America)
Chairperson: Christopher Kuaban (Cameroon)

The nine-month MDR-TB regimen: how does it work?
Armand Van Deun (Belgium)

Results of the nine-month MDR-TB regimen in Bangladesh
K J M Aung (Bangladesh)

Results of The Union’s observational study of the nine-month MDR-TB regimen in Africa
Arnaud Trébucq (France)

Shorter and better? Results and challenges from of a simplified short regimen for multidrug-resistant tuberculosis in Karakalpakstan, Uzbekistan
Philipp du Cros (United Kingdom)

Scaling-up implementation of shortened MDR-TB regimens: what are the challenges
Alberto Piubello (Niger)

Discussion
05. Improving diagnostics implementation: challenges and new solutions

Chairperson: Catherine Mundy (United States of America)
Chairperson: Stella Van Beers (Netherlands)

SOA-539-2  Barriers to point-of-care testing in India and South Africa
Nora Engel (Netherlands)

SOA-540-2  Task shifting in TB laboratory service delivery: the experience of non-laboratory technicians in two regions of Ethiopia
Nebiyu Hiruy (Ethiopia)

SOA-541-2  Field testing of TB sputum specimen optimizer (OMNI-gene) in Malawi, 2016
Steven Neri (Namibia)

SOA-542-2  Cost-effective technology improves distribution and management of logistics commodity for drug-resistant tuberculosis testing in Nigeria
Kehinde Jimoh Agbaiyero (Nigeria)

SOA-543-2  Electronic laboratory specimen (eSpecimen) referral system in Ethiopia: a feasible approach
Muluken Melese (Ethiopia)

SOA-544-2  Increasing TB laboratory capacity: can we reduce the incubation time of MGIT?
Michael E Murphy (United Kingdom)

SOA-546-2  Introduction of second-line drug-susceptibility testing services at the National TB Reference Laboratory of Swaziland
Gugu Petunia Maphalala (Swaziland)

SOA-547-2  A qualitative evaluation of factors influencing adherence to the algorithm for TB diagnosis in primary health clinics in South Africa
Katherine Fielding (United Kingdom)

SOA-548-2  Connected diagnostics for tuberculosis programme support: from concept to reality
Chris Isaacs (Switzerland)

25. Childhood TB, MDR and pharmacokinetics

Chairperson: Khurshid E Khuda Talukder (Bangladesh)
Chairperson: Hendrik Simon Schaaf (South Africa)

OA-462-29  Long-term safety, tolerability, and pharmacokinetics of delamanid in children aged 7-11 with MDR-TB
Jeffrey Hafkin (United States of America)

OA-463-29  Effect of co-administration of lignocaine on pain and pharmacokinetics of intramuscular amikacin in children with multidrug-resistant tuberculosis
Anthony Garcia-Prats (South Africa)
**Scientific Programme**

**OA-464-29** Population pharmacokinetics of levofloxacin in HIV-infected and -uninfected children with multidrug-resistant tuberculosis  
Anthony Garcia-Prats (South Africa)

**OA-465-29** Baseline predictors of multidrug-resistant tuberculosis treatment outcomes in children: a retrospective cohort study  
Silvia Chiang (United States of America)

**OA-466-29** The impact of household environmental tobacco smoke exposure on risk of TB infection in children with household TB exposure  
Karen Du Preez (South Africa)

**OA-467-29** Characteristics and outcomes of early versus late ART initiation in HIV-infected, ART-naive children diagnosed with TB disease in Mbeya, Tanzania  
Jason Bacha (Tanzania, United Rep.)

**OA-468-29** Risk factors for complications and poor treatment outcomes in children with tuberculosis in Spain  
Antoni Soriano-Arandes (Spain)

**OA-469-29** Contribution of global tuberculosis to the burden of pediatric TB in the United States, 2007-2014  
Tori Cowger (United States of America)

**Symposium (SP)**  
13:30 - 15:00  
Session Room 11C

### 51. TB and mental disorders: putting the science into practice

Individuals with TB have a greater risk for mental disorders due to a combination of psychosocial and biological factors. Comorbid TB and mental illness is associated with higher morbidity, mortality, drug-resistance and community transmission. Yet, it is seldom addressed in national TB programmes. This symposium will highlight the burden of comorbid TB and mental disorders, the need for more research, and the importance of integrating mental health services in TB care.

Chairperson: Adam Karpati (United States of America)  
Chairperson: Knut Lönnroth (Switzerland)

- Mental health in MDR-TB management: an issue for patients, caregivers and healthcare workers  
  Ernesto Jaramillo (Switzerland)

- TB and mental health: a survey of national TB programme directors  
  Annika Sweetland (United States of America)

- Biomarkers for TB and depression  
  Afranio Kritski (Brazil)

- TB and mental disorders in Bangladesh  
  Akramul Islam (Bangladesh)

- Co-managing psychiatric issues in patients undergoing treatment for MDR-TB in Peru  
  Jerome Galea (Peru)

- Discussion  
  14:45 - 15:00
Scientific Programme

Symposium (SP)
13:30 - 15:00  
Session Room 12

50. Trials of mice and men: recent advances and the future of TB drug development science

This session will present evolving knowledge from several sources (preclinical, modelling, pharmacokinetic/pharmacodynamic investigation, trial design science, and recent phase 2 results) relevant to the clinical trials effort to improve treatment of drug-sensitive (DS) TB.

Chairperson: Rob Aarnoutse (Netherlands)
Chairperson: Deron Burton (United States of America)

- How critical is Isoniazid?  
  Andreas Diacon (South Africa)  
  13:30 - 13:45

- Optimised rifamycin and PZA doses derived from trials and models  
  Kelly Dooley (United States of America)  
  Rada Savic (United States of America)  
  13:45 - 14:00

- Mouse tales and their predictions, building on the example of Clofazimine  
  Eric Nuermberger (United States of America)  
  14:00 - 14:15

- Drug penetration into TB lesions - how does this add to rational drug development?  
  Veronique Dartois (United States of America)  
  14:15 - 14:30

- Examples, learnings, better trials and regimens  
  Norbert Heinrich (Germany)  
  14:30 - 14:45

- Discussion  
  14:45 - 15:00

Symposium (SP)
13:30 - 15:00  
Session Room 13

TB education and training materials discussion session

Join us for this discussion session.

- Find out about the development and availability of TB education and training materials from a variety of programmes and organisations
- Meet with materials developers
- Share your own TB education and training ideas

To display materials or if you have any questions about these activities, please contact Linette McElroy <a href="mailto:thelearningrx@shaw.ca">thelearningrx@shaw.ca</a>.

- Ethics Assessment Tool and Ethics Training Curriculum  
  Nisha Ahamed (United States of America)  
  13:30 - 13:40

- TB Education and Training Resources  
  Linette McElroy (Canada)  
  13:40 - 13:50
Heartland National TB Center
Linette McElroy (Canada)

13:50 - 14:00

Community Common Cultural Activity: Performance
13:30 - 14:30

A theatrical play performance by Project Axshya

Scene 1: A trial room at Heaven: Where God (Peter/Chitragupta) is hearing the case of Mr Kishanlal, a farmer who died at the age of 35 due to MDR TB. His wife, a local politician, his friend, a private doctor from his village, a government officer etc. are present. The jury asks questions about the death of Kishanlal and examining the factors led to his death.

Scene 2: on Earth: Kishanlal is living happily with his family in a village in India. After a few weeks of cough, he went to see a private doctor, who gave him some medicine and then the cough stops. Cough comes back and he goes to another doctor and then another. Finally, due to the high cost of medicines and other costs, he has to mortgage his land to a local politician. However, as per his friend’s advice, Kishanlal then goes to a government doctor, who gets him tested, and finds him to be suffering from MDR TB and is put on treatment. On learning that, his family members start avoiding him, separated his utensils and restricted him to one room. He stops his treatment; his condition worsens and he finally dies.

The play progresses with humour. Though the context would be Indian, it will try to connect the audience of different cultural background and orientation. It tries to reveal the systemic issues inter-playing behind contracting the same disease (TB) again and again. The story unravels the mysteries and incidents led to the death of Kishanlal. The thread of the story is satirical. At the end, of the play, it raises some uncomfortable questions, pointing fingers to the prevailing social justice system. Who is the culprit? Is it a state sponsored death? And what would be the verdict of God in this case?

Coordinator: V G Ranjith Babu (India)
Coordinator: Ajith G Maniyan (India)

Presentation
Ranjith Babu (India)
Karuna Devi Sagili (India)
Sarabjit Chadha (India)
Community Common Session: Panel Discussion
14:55 - 15:25

Healthy Liverpool Programme: inspiring a generation to be more active

The value of daily physical activity to health improvement has emerged strongly in the prevention, treatment and management of chronic illness, particularly for lung cancer and COPD patients. The rise in physical inactivity amongst the Liverpool population, directly contributes to over 2600 preventable health events per year amongst the city’s residents costing the local NHS £10.8m per year.

A significant step change to mainstream a new approach to engage the Liverpool population in living a more active lifestyle is required. The Liverpool Active City Strategy sets out an ambitious vision to be the most active city in England by 2021. It aims to create a whole system response to engaging the local population, develop a sustainable infrastructure to support individuals and communities in being more active, with pathways to participation designed to meet personal need based on national evidence and local behavioural change insight.

The delivery of the strategy is driven by the City Council, NHS Liverpool Clinical Commissioning Group and a wide range of stakeholders from all sectors both locally and nationally, building upon the effective partnerships, successful and innovative approaches already evident within Liverpool, recognised internationally by the International Olympic Committee.

The programme aims to increase physical activity levels through the delivery of a wide range of innovative programmes that engage the inactive and under-active populations in Liverpool of all ages across the life course. These include the creation of a social movement, embedding mass participation approaches within communities, activating networks of expertise and improving access to quality indoor and outdoor environments to maximise the potential for physical activity.

In July 2016, Liverpool will launch the new Physical Activity and Sport Programme and social marketing campaign ‘Fit for Me’, and a range of mass participation schemes e.g. Beat the Streets, to get the people of Liverpool moving more.

Coordinator: Gina Perigo (United Kingdom)
Coordinator: Nicky Yates (United Kingdom)

Presentation I
Maurice Smith (United Kingdom)

Plenary session (PL) (inc Opening and Closing)
15:30 - 16:30

Rapporteur Session
Chairperson: Stacie Stender (South Africa)

Rapporteur's report
15:30 - 15:40
Andrew Steenhoff (United States of America)
Evaline Kibuchi (Kenya)
Zolani Barnes (South Africa)
Keren Middekoop (South Africa)
Omara Dogar (United Kingdom)
Kevin Schwartzman (Canada)
Stella Van Beers (Netherlands)
Linette McElroy (Canada)
Alejandro Perera
The conference will conclude with highlights of the scientific outcomes in the Rapporteur Session, immediately followed by the Closing Ceremony. Liverpool Riverside MP Louise Ellman will thank all delegates for coming to Liverpool and will introduce British MP and long-time TB champion, Nick Herbert, who will provide the closing keynote address before H.E. Diego Gómez Pickering, the Ambassador of Mexico in the United Kingdom, our local partners for the 2017 World Conference, introduces us to the sights and sounds of the conference next year.

**Award presentation: the Young Innovator in TB Research Award**

The Young Innovator in TB Research Award was established by Otsuka SA and The Union. It recognises young scientists who have demonstrated a commitment to advancing innovative thinking in TB research. Eligible for the award are clinicians and researchers who have completed post-graduate training (MPH, PhD, MD or post-doc) no longer than five years ago and have completed an innovative demonstration project in TB control, management and care, including operational and clinical research. Honorees are sponsored to attend an international training programme on TB control and The Union World Conference, where they will have an opportunity to present their research.

Chairperson: Jose Luis Castro (France)
Chairperson: E Jane Carter (United States of America)

<table>
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<th>Time</th>
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| 16:30 - 16:35 | **Introduction**  
E Jane Carter (United States of America) |
| 16:35 - 16:40 | **Global Caucus Highlights**  
The Rt Hon Nick Herbert CBE MP (United Kingdom) |
| 16:40 - 16:50 | **Remarks from The Union**  
Jose Luis Castro (France) |
| 16:50 - 17:00 | **Young Innovator in TB Research Award**  
E Jane Carter (United States of America) |
| 17:00 - 17:10 | **Reflections from Liverpool**  
Louise Ellman MP (United Kingdom) |
| 17:10 - 17:25 | **Closing Remarks**  
E Jane Carter (United States of America)  
Jose Luis Castro (France) |
| 17:25 - 17:30 | **Welcome to Guadalajara**  
Jesus Felipe Gonzalez Roldan (Mexico) |